USAID
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LITERATURE REVIEW

BLENDED FINANCE IN THE NON-STATE EDUCATION SECTOR

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Suzanne Roddis
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This literature review, undertaken by USAID CATALYZE, analyzes the role of blended finance in the non-state education sector, drawing from existing research in LICs and other countries around the world. The review provides key findings, best practices, and lessons learned, as well as areas of consensus and dissent. It identifies knowledge gaps and areas for further research, and opportunities to expand blended financing in the non-state education sector.

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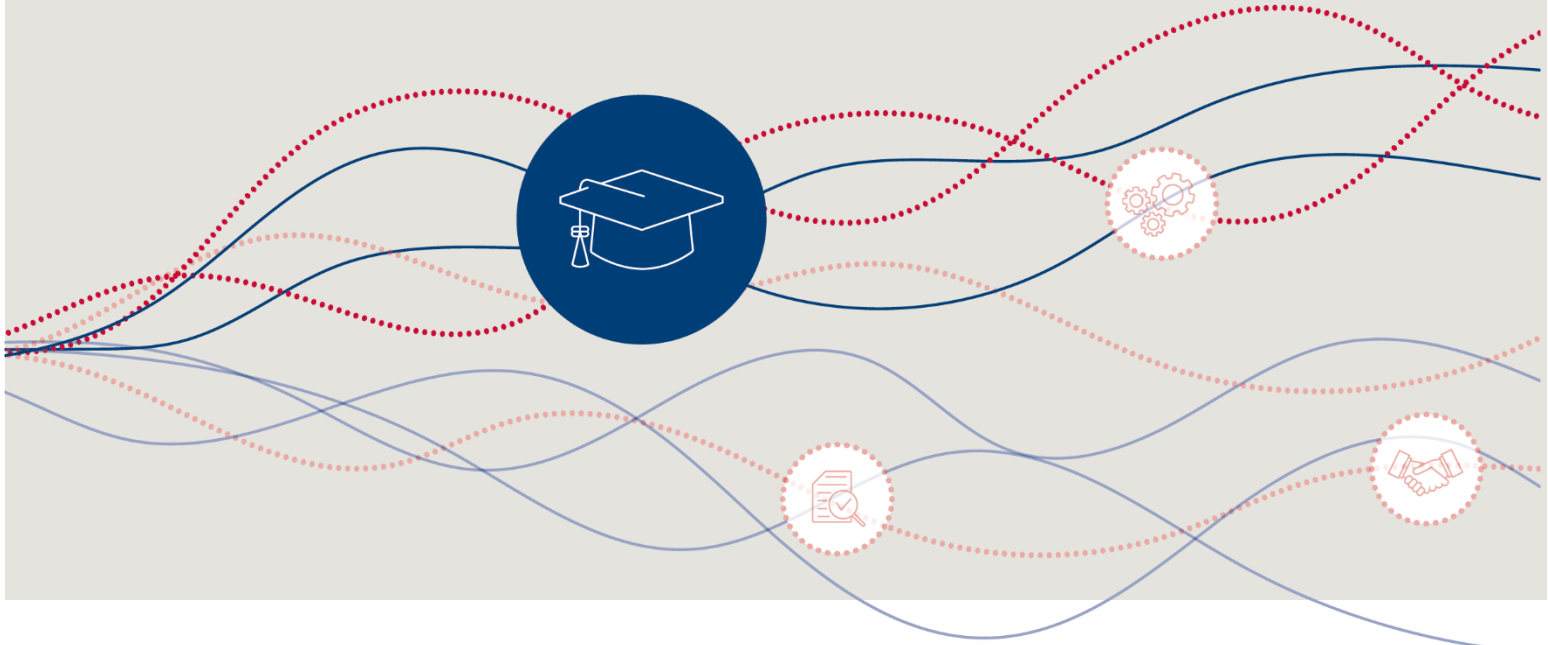

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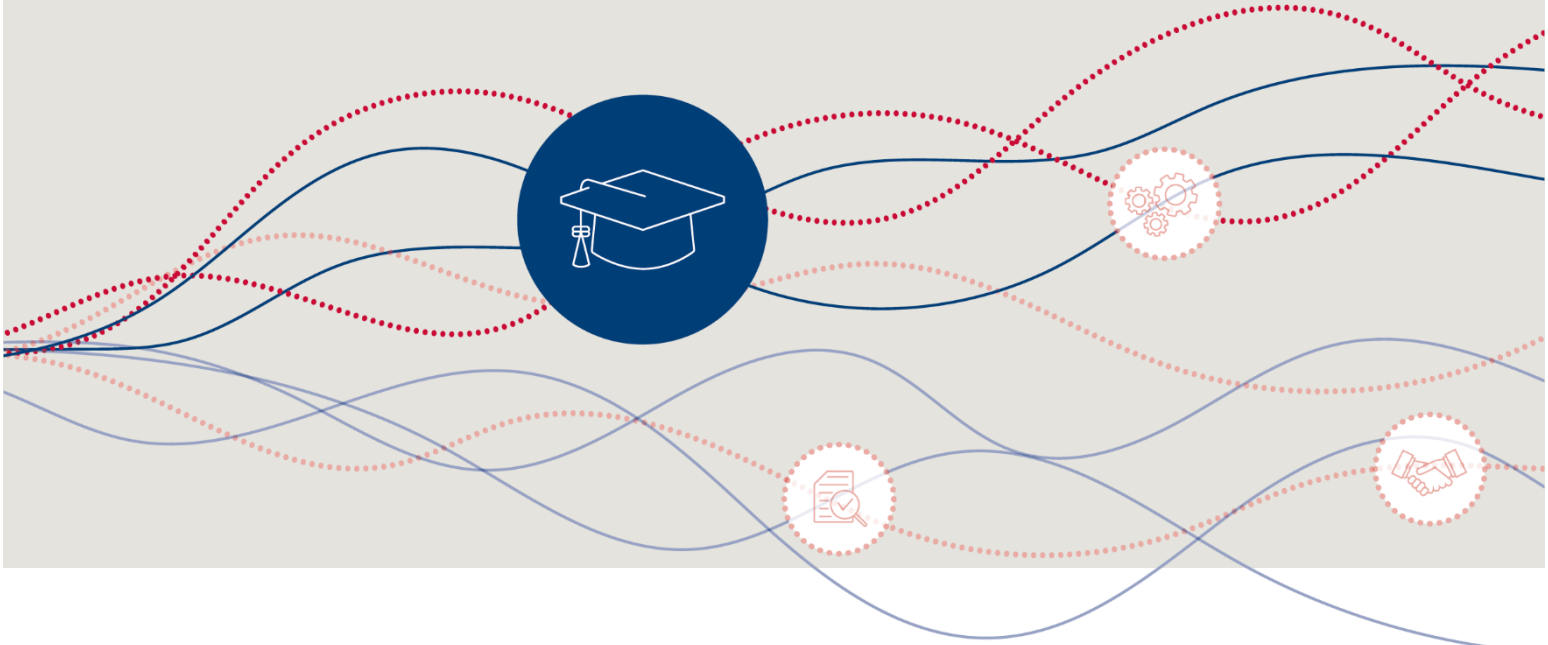

A WELL-EDUCATED POPULATION IS ESSENTIAL FOR COUNTRIES TO PROGRESS ALONG THEIR JOURNEY TO SELF-RELIANCE.

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LIST OF ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
AIIB	Asia Infrastructure Investment Bank
ASER	Annual Status of Education Report
ASK	African Schools Kenya
BMGF	Bill & Melinda Gates Foundation
BoP	Base of pyramid
CIFF	Children's Investment Fund Foundation
CBTT	Cluster-Based Training of Teachers
CEDB	Council of Europe Development Bank
CfBT	Center for British Teachers
CEB	Council of Europe Development Bank
CfBT	Centre for British Teachers
CIFF	Children's Investment Fund Foundation
CLS	Chicago Longitudinal Study
CoP	Community of Practice
CPC	Child Parent Center
CPS	Chicago Public Schools
DAC	Development Assistance Committee
DEEPEN	Developing Effective Private Education Nigeria
DFI	Development Finance Institute
DFID	Department for International Development
DGGF	Dutch Good Growth Fund
DIB	Development impact bond
EAP	East Asia Pacific
EBRD	European Bank for Reconstruction and Development
ECE	Eastern and Central Europe

ECD	Early childhood development
EFA	Education for All
EDFI	European Development Finance Institutions
EDT	Education Development Trust
EFA	Education for All
EIB	European Investment Bank
ENABLE	Ensure Access to Better Learning Experiences
EPRC	Economic Policy Research Center
ESC	Education Service Contracting
ESF	European Social Fund
EU	European Union
EVS	Education Voucher Scheme
FAS	Foundation-Assisted Schools
FCW	Foundation for Community Work
FDI	Foreign direct investment
FI	Financial institution
FMO	Dutch Development Finance Company
FYA	Fe y Alegría
GDP	Gross domestic product
GEM	Global Education Monitoring
GFF	Global Financing Facility in Support of Every Woman, Every Child
GIIN	Global Impact Investing Network
GNI	Gross national income
GPRBA	Global Partnership for Results-Based Approaches
GPE	Global Partnership for Education
GPRBA	Global Partnership for Results-Based Approaches
GPSSP	Ghana Private Schools Support Program
GER	Gross enrollment ratio
HEI	Higher education institution
HESLB	Higher Education Students' Loan Board
HIC	High income country
IBIF	Impact Bond Innovation Fund
IDA	International Development Association
IADB	Inter-American Development Bank

IBIF	Impact Bond Innovation Fund
ICD	Islamic Corporation for the Development of the Private Sector
IDA	International Development Association
IDB	Inter-American Development Bank
IDBG	Inter-American Development Bank Group
IFC	International Finance Corporation
IFF	Innovative Finance Foundation
IIEP	International Institute for Educational Planning
IP	Implementing Partner
IRIS	Impact Reporting and Investment Standards
ISER	Initiative for Social and Economic Rights
JESSICA	Joint European Support for Sustainable Investment in City Areas
KEF	Kaivalya Education Foundation
KIPP	Knowledge is Power Program
LAC	Latin America and Caribbean
LDC	Least developed country
LEAP	Liberian Education Advancement Program
LIC	Low-income country
LMIC	Low and middle-income countries
M&E	Monitoring and evaluation
MDB	Multilateral Development Bank
MELE	Measure of Early Learning Environments
MIC	Middle-income country
MoE	Ministry of Education
MoES	Ministry of Education and Sports
MSDF	Michael and Susan Dell Foundation
MIF	Multilateral Investment Fund
MENA	Middle East and North Africa
NGO	Non-governmental organization
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
PACES	Gross enrolment ratio
PARCC	Higher education institution

PACES	Program for the Expansion of Secondary Education Coverage
PARCC	Partnership for Assessment of Readiness for College and Careers
PEF	Punjab Education Foundation
PFS	Pay for Success
PIACC	Program for the International Assessment of Adult Competencies
PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Assessment
PPP	Public-Private Partnership
Proparco	International Institute for Educational Planning
PSI	Portugal Social Innovation
PSSP	Public School Support Program
PPRS	Promoting Low-Cost Private Schooling in Rural Sindh
QAT	Quality Assurance Test
R4D	Results for Development
RBF	Results-Based Financing
RCT	Randomized control trial
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SARD	Society for All Round Development
SAS	South Asia
SDG	Sustainable Development Goal
SECO	State Secretariat for Economic Affairs
SEF	Sindh Education Foundation
SHS VP	Senior High School Voucher Program
SIB	Social impact bond
SME	Small and medium enterprises
SPV	Special purpose vehicle
SSA	Sub-Saharan Africa
TIMSS	Trends in International Mathematics and Science Study
TPE	Third-party evaluation
TSP	Trust Schools Program
TTB	The Trust Bank
TVET	Technical and vocational education and training
PACES	Gross enrolment ratio
PARCC	Higher education institution

UIC	Upper income country
UMIC	Upper middle-income country
UNCDF	United Nations Capital Development Fund
UNEB	Uganda National Examination Board
UNESCO	United Nations Education, Scientific and Cultural Organization
UNICEF	United Nations International Children's Fund
UNRWA	United Nations Relief and Works Agency
USE	Universal Secondary Education
W-GDP	Women's Global Development and Prosperity
WHO	World Health Organization

SIMPLIFIED DEFINITIONS OF FINANCIAL INSTRUMENTS

Bond: A bond represents a loan made by an investor to a borrower. Bonds are used by companies, municipalities, states, and sovereign governments to finance projects and operations. Bond details include the end date when the principal of the loan is due and usually the terms for variable or fixed interest payments made by the borrower.

Company: An investment company is a business entity, privately or publicly owned, that manages, sells, and markets funds to the public.

Direct Investment: More commonly referred to as foreign direct investment (FDI), this refers to an investment to acquire a controlling interest in a foreign business enterprise. The direct investment provides capital funding in exchange for an equity interest without purchasing regular shares of the company's stock.

Facility: A facility is an agreement between a corporation and a public or private lender that allows the corporation to borrow a particular amount of money for various purposes for a short period. The loan is for a set amount and does not require collateral. The borrower makes monthly or quarterly payments, with interest, until the debt is paid in full.

Fund: A fund is a pool of money allocated for a specific purpose, such as retirement funds and mutual funds. Governments also create funds that are allocated for various reasons. For example, capital project funds are used to finance the capital projects of a country, such as purchasing, building, or renovating equipment, structures, and other assets.

Guarantee: A guarantee is a legal promise made by a third party (guarantor) to cover a borrower's debt or other types of liability in case of the borrower's default. The guarantee can be limited or unlimited.

Note: Structurally and practically, a bond and note are identical. Generally, the term of the debt is the best way to determine whether a debt is more likely to be a note or a bond. Shorter-term debts (with a maturity of less than 1 year) are most likely to be considered notes. Debts with longer terms are more likely to be bonds.

Project: Project finance is the financing of long-term infrastructure, industrial projects, and public services using a non-recourse (meaning the debtor cannot be pursued for any additional payment beyond the seizure of the asset) or limited recourse financial structure. The debt and equity used to finance the project are paid back from the cash flow generated by the project. In developing countries, project finance techniques are used mainly in the mining and oil and gas sectors.

Special Purpose Vehicle (SPV): An SPV is created by a parent company to isolate or securitize assets in a separate company that is often kept off the balance sheet. It may be created to undertake a risky project while protecting the parent company from the most severe risks of its failure.

EXECUTIVE SUMMARY

A well-educated population is essential for countries to progress along their journey to self-reliance. Investment in human capital provides economic returns to the individual in terms of higher earnings, but also to society as a whole, leading to improved health outcomes, sustained democratic governance, and more peaceful and resilient societies (USAID, 2018). In 2015, the global community recognized that the provision of equitable and inclusive quality education for all is key to poverty reduction.

A new approach to financing education is needed to fill the funding gap, which stands at $40 billion annually for primary and secondary education alone.[1] Development agencies and philanthropic organizations do not have the resources to fill the gap on their own. Closing the gap thus requires mobilizing the world's largest financing pools—private capital. Yet many areas where private investment could have significant impact are considered too risky by private investors. Blended finance has emerged as one of the tools for addressing risk and encouraging the private investments that can transform people's lives. Blended finance tools ultimately enable international development–focused organizations to make progress toward their objectives, far beyond what they could achieve with their own limited budgets (USAID, 2020).

USAID, in partnership with Palladium, commissioned this literature review to add to its institutional knowledge base and inform best practices and important lessons learned, specifically instructional learnings related to blended finance in non-state education provision. This review examines blended finance in non-state education from early childhood education through vocational, tertiary, and ancillary services. The review focuses on low- and middle-income countries (LMIC) and draws on lessons learned and best practices from developed countries. (LMICs), and also draws lessons learned and best practices from developed countries.

USAID recognizes the important role non-state actors play in addressing the education needs of the marginalized and vulnerable, not just the emerging middle class (USAID, 2018). Indeed, non-state provision of education has been increasing over the past decade, and public-private partnerships (PPP) have become a way for governments and non-state providers to collaborate to expand education and ancillary services to reach low-income communities (LIC) and provide high-quality services. More recently, innovative blended financing structures such as impact bonds have emerged as a way to catalyze private capital for social results.

While PPPs have been operating around the world for many years, few rigorous evaluations have been undertaken to determine their effectiveness. Innovative blended financing structures are relatively new, and again few evaluations have been undertaken. No matter which financing structure is used, accountability, monitoring, and evaluation are critical to improving access and learning outcomes.

[1] Brown, G. 2019.

PPPs can effectively target vulnerable groups and provide high-quality education. However, in some cases, a program cannot be scaled up, or the additional cost makes it unsustainable. In addition, change in government policy can lead to PPPs being substantially altered or phased out. Where governments encourage non-state participation, such as in Pakistan, innovative PPPs have flourished.

Innovative blended financing has attracted attention in recent years, and indeed has had significant growth in some sectors, such as energy. The education sector has received little attention. Globally, 26 impact bonds exist in the education sector, with one pilot impact bond in India exceeding expectations. However, most impact bonds in the education sector are small investments and have not yet been completed and evaluated.

The non-state education market is fragmented, with only about 15 for-profit companies globally with over $100 million in revenue. Schools are local catchment-driven entities, and very few have significant scale. Fees are highly variable by geography and dependent on local incomes. Non-state schools are not always registered, meaning many are not counted, making it difficult to have a clear sense of the non-state market.

The blended finance market is also difficult to grasp. There are various definitions of blended finance; a limited evidence base; and no single, consistent, and comparable estimate of the blended finance market that covers the entirety of flows. Studies highlight that the potential of blended finance in LICs is hindered by poor investment climates, investable opportunities, tailored approaches, and the low risk appetites of multilateral development banks and finance institutes. One initiative by the International Finance Corporation (IFC) to use a partial guarantee to provide small loans to school operators in Africa proved unsustainable, and a 2017 partnership to promote blended finance transactions in health and education has not yet yielded any transactions in the education sector.

In the context of few blended finance successes in education, USAID CATALYZE EduFinance identifies, tests, and refines new and different approaches to mobilizing blended capital. Recognizing that this literature review relies on limited publicly available data, CATALYZE EduFinance is increasing the needed evidence through evaluations on what works and does not work in applying blended finance models to advance education outcomes in low-income countries.

More research and evaluation are needed to better understand whether blended finance initiatives have improved access and education outcomes, both for PPPs and innovative blending financing structures. Sustainability and the potential for scaling up are also important considerations. As part of its evidence-building activities, CATALYZE EduFinance proposes to mobilize blended capital through risk mitigation tools, such as market assessments, technical assistance, guarantees, first loss position as well as using a pay-for-results approach.

CATALYZE OVERVIEW

The CATALYZE Blended Finance Mechanism is an 8-year, $250 million contract that uses a facilitated partnership model to craft solutions to crowd in $2 billion in blended finance (i.e., blended concessional and commercial finance) to USAID partner countries. CATALYZE's buy-in mechanism enables USAID Bureaus and Missions to efficiently deploy investment facilitation solutions that respond to the needs of specific sectors, issues, and geographies. Initial buy-ins focused on education finance to implement sustainable education business models serving LICs and achievement of the Women's Global Development and Prosperity (W-GDP) objectives.

To mobilize private capital to accomplish those goals, the CATALYZE Education Finance (EduFinance) initiative operates at the nexus of demand-driven investment and innovative solutions development, collaborating with a global community of experts. EduFinance leverages specialized expertise to design and implement complex multi-year programs that can include dynamic tools, such as first-loss capital, to mitigate country- or education sector–specific risks.

The EduFinance program develops private sector partnerships to facilitate innovations in financing and service delivery that increase access to low-cost, high-quality education. EduFinance mobilizes blended finance—the strategic use of public funds to increase private sector investment—to crowd-in private capital into non-state schools and education enterprises in USAID partner countries.

Private capital leveraged with funding from USAID will address the substantial funding gap to respond to the global need for greater access to high-quality education.

The initiative is currently active in three principle areas:

The **Investment Platform** links investable opportunities to sources of funding, structures those funds, and closes transactions.

The literature review provides an overview of the existing blended finance market in non-state education and identifies best practices, barriers, and opportunities for future investment.

The **Innovation Incubator** identifies, tests, refines, and scales a pipeline of education investments in target countries, including Democratic Republic of Congo, Rwanda, South Africa, Tanzania, Zambia, and Latin America.

This literature review provides examples of these programs, as well as evaluations and possibilities for scaling up and sustainability.

The global **Community of Practice (CoP)** compiles and shares evidence and best practices to address an education finance learning agenda and the incentives to catalyze private investment in the sector.

This literature review identifies relevant rigorous evaluations of blended finance initiatives, identifies key findings and lessons learned, and identifies knowledge gaps. Areas for potential growth and actions moving forward are also identified. The CoP will benefit from this review as it contributes to its evidence base.

Launched in October 2019, CATALYZE EduFinance is a 5-year activity with the flexibility to allow for longer timeframes needed to mobilize capital, particularly within frontier economies and development sectors. As the lead implementing partner (IP) for CATALYZE EduFinance, Palladium utilizes pay-for-performance and other milestone-based awards to incentivize subcontractors and grantees.

INTRODUCTION

USAID recognizes education as a foundational driver of development and self-reliance. Equal access to high-quality education can create pathways for greater economic growth, improved health outcomes, sustained democratic governance, and more peaceful and resilient societies (USAID, 2018). More than 170 million people could be lifted out of extreme poverty if all children left school with basic reading skills. Education increases earnings by roughly 10 percent per each additional year of schooling and reduces income inequality between the rich and poor (UNESCO Global Education Monitoring [GEM] Report, 2016). Further, education can provide people with the capability to act independently, advocate for improved government policies, adapt to changing conditions, and make the most of their assets and opportunities (USAID, 2018).

Global efforts to increase education enrollment have been largely successful, with enrollment rates increasing significantly in the past decade. However, a study by UNESCO (2018) shows this progress has stagnated in recent years: The total number of out-of-school children, adolescents, and youth has remained nearly the same, around 258 million. Some 23 percent of this number are children of primary school age, 24 percent are adolescents of lower secondary school age, and 53 percent are youth of upper secondary school age.

The foundation for learning is determined in the first years of a child's life. Parents and caregivers play a crucial role in providing early stimulation and learning opportunities for children. When children miss the opportunity to develop the foundation for basic reading, math, social, and emotional skills in pre-primary school, differences in learning outcomes compound over time, and these students are unlikely to catch up with their peers later in life (USAID, 2018).

The United Nations Children's Fund's (UNICEF) first-ever global report on pre-primary education (from 3 years old to start of primary school) confirms that children enrolled in at least 1 year of pre-primary education are more likely to develop the skills they need to succeed in school, less likely to repeat grades or drop out of school, and therefore more able to contribute to peaceful and prosperous societies when they reach adulthood (UNICEF, 2019).

As a result of those and other factors, both the supply and demand for pre-primary education have increased in the last decade. From 1999 to 2012, the pre-primary gross enrollment ratio (GER) in LICs increased from 11 percent to 19 percent. But many young children, including 78 percent in the Arab States and over 80 percent in Sub-Saharan Africa (SSA), still have no access to these programs. This contrasts with 72 percent enrollment in upper income countries (UIC) (UNESCO, 2015).

Higher education institutions (HEI) have the capacity to be central actors in development by conducting and applying research, delivering high-quality education, and engaging with communities (USAID, 2018). It is encouraging to see that tertiary-level enrollment (all post-secondary education, universities, colleges, technical training institutes, and vocational schools) has increased to 200 million in 2015 from 89 million in 1998 (World Bank, 2017). In Latin America and the Caribbean (LAC), for example, the number of students in higher education programs has nearly doubled in the past decade.

As the youth population continues to swell and graduation rates in primary and secondary education increase, there is growing demand for tertiary education. And while tertiary enrollments have increased globally, clear disparities in access continue.

In Mexico, the enrollment rate of the wealthiest children is 18 times that of the poorest. In Francophone SSA, the richest quintile accounts for 80 percent of tertiary enrollment, while the poorest 40 percent represent only 2 percent (Evans and Popova, 2015).

Tertiary education graduates receive the highest economic return on their education—an estimated 17 percent increase in earnings, as compared to 10 percent for primary and 7 percent for secondary education (Evans and Popova, 2015). This high rate of return indicates that tertiary education is key for economic growth and self-reliance.

As innovations such as automation and artificial intelligence threaten to eliminate jobs, and jobs in labor-intensive basic industry might no longer be available, the need for higher education and skills to secure employment increases (USAID, 2019).

ACCESS

Regional and gender differences in enrollment persist

SSA remains the region with the highest out-of-school rates for all age groups (UNESCO Institute for Statistics, 2016). And while female and male enrollment for the lower secondary– and upper secondary–age populations are now nearly identical, regional disparities continue. For example, in Northern Africa and Western Asia, 12 percent of adolescent boys and 18 percent of adolescent girls are out of school (UNESCO, 2017). Gender parity has been achieved in terms of completion rates at the primary through upper school levels; however, lower completion rates for girls at the lower secondary education level continue in SSA (UNESCO, 2017).

In addition to regional and gender differences in enrollment, other barriers to schooling persist. Children in rural areas are twice as likely as those in urban areas to never go to school; the poorest children are five times less likely to complete primary school than the richest, and 36 percent of out-of-school children live in conflict-affected zones (Brookings Institution, 2015). Children with disabilities face exclusion, and many children are taught by undertrained teachers and do not have appropriate learning materials (Rueckert, 2019).

LEARNING OUTCOMES

Children are in school but not learning

A key priority of USAID education policy is that children and youth gain literacy, numeracy, and social-emotional skills that are foundational to future learning and success (USAID, 2018). However, evidence suggests that quality remains an issue: While enrollment has steadily increased, learning is not always taking place. In Western Asia

and Northern Africa, 80 percent of children in classrooms are not able to achieve minimum proficiency levels of learning. (UNESCO, 2017).

Recent results of the Program for International Student Assessment (PISA) suggest learning outcomes vary greatly among LICs. Globally, the share of 15-year-old students in grade 7 and above who reached a minimum level of proficiency in reading ranged from close to 90 percent in Beijing, Jiangsu, Macao, Shanghai, and Zhejiang (China); Estonia; and Singapore, to less than 10 percent in Cambodia, Senegal, and Zambia. The share of 15-year-old students who attained minimum levels of proficiency in mathematics varied even more—between 98 percent in Beijing, Jiangsu, Shanghai, and Zhejiang, and 2 percent in Zambia, according to the Organization for Economic Cooperation and Development (OECD, 2019).

Results from the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) data analysis published in 2010 illustrates uneven progress among its 15 member countries. Only six countries showed high levels of proficiency for both reading and mathematics in 2000 and 2007. Three countries showed much lower levels, and six had "mixed" performance levels (IIEP UNESCO, 2010).

At the same time that governments seek to increase the quality of education, many studies seek to determine which education interventions are the most effective. These interventions range from providing information about the quality of schools to parents, to training teachers in scripted literacy instruction, to introducing laptops[2]. In 2015, the World Bank sought to determine which interventions were most effective based on past evaluations. It concluded that both student learning interventions and teacher training interventions will be most effective when tailored to the student or teacher involved. Teacher training may be most effective when it is repeated and linked to a specific pedagogical method or tool. Increasing accountability can also improve student learning (World Bank, 2020).

ACCOUNTABILITY

All stakeholders are responsible for ensuring high-quality education provision

Governments, school leaders, teachers, and parents are all responsible for ensuring children receive high-quality education; however, these stakeholders do not always fulfill this role. Governments are primarily responsible for education provision, but a lack of data on learning gaps, and ineffective policy and regulatory systems, may contribute to a lack of accountability. Insufficient funding and corruption in some LICs may also undercut accountability (L.E.K. Consulting, 2020).

Supporting teachers and school leaders to be accountable is critical. Motivation can suffer due to poor working conditions, overcrowding, and increased administrative tasks. Burundi is an example of a country that improved learning outcomes through increased teacher accountability. With a surge in enrollment, the government recruited and trained large numbers of teachers, and offers ongoing support through coaching, radio programs, and distance-learning interventions. Burundi currently outperforms other SSA countries on education assessments despite

[2] World Bank. 2015. What Really Works to Improve Learning in Developing Countries?

being among the poorest countries in the region, with high population growth and periods of violent conflict (L.E.K. Consulting, 2020). Transforming teacher policies and professional development systems to increase the availability of qualified teachers and improve instruction is a key priority of USAID education policy (USAID, 2018).

Parental involvement can encourage a child's attendance and learning. At the school level, opportunities for parental engagement are often limited to parent-teacher meetings, with no way to influence issues such as teacher absenteeism and low quality. However, there are examples of increased parental involvement leading to increased learning outcomes. In the West Bank and Gaza, the United Nations Relief and Works Agency (UNRWA) encourages parental involvement in school activities and helps build close partnerships between schools, households, and refugee communities. This has resulted in collaborative mechanisms for monitoring and support, leading to UNRWA schools outperforming public schools. This has delivered the equivalent of 1 year of additional learning despite the lower socioeconomic status of the students and lower per-student spending (L.E.K. Consulting, 2020).

EDUCATION FINANCING

High-quality education is impossible to achieve without adequate resources

Globally, governments account for 79 percent of total spending, households for 20 percent, and donors for 0.3 percent (12 percent in LICs). Of all money spent on education, just 0.5 percent is spent in LICs (UNESCO, 2018). In many developing countries, teacher salaries make up a large share of total public education spending—as much as 95 percent in some countries (Vegas, 2007). Among OECD countries, an average of 63 percent of total education spending is devoted to teacher salaries (OECD, 2014).

In developing countries, domestic public spending on education has been rising during the past decade, largely driven by tax revenue increases, from 14 percent to 16 percent of gross domestic product (GDP). Building on this larger tax base, most countries have allocated a greater share of their GDP to education (on average, 4.6 percent of GDP for total education and 1.7 percent for primary education in 2012). This increasing spending is heartening. Less encouraging, however, has been the decline in the share of revenues going to education. Comparing current spending with recent costing estimates to achieve the SDGs, fewer than 15 percent of LICs and 40 percent of LMICs spend more than the required 5.5 percent of GDP needed to meet the basic education SDGs by 2030 (Brookings Institution, 2015).

Availability of financial resources does not guarantee a high-quality education, but that education is impossible to achieve without adequate resources. Some uses of education expenditures can make a marked difference in learning, particularly in the case of inputs that directly benefit students or resources that compensate for challenges arising from low-income settings. The same money can be wasted if it is allocated to inputs that only marginally affect learning or if policymakers fail to consider the conditions that must be met for factors to translate into learning gains (World Bank, 2017).

There are substantial inequalities in domestic public spending

Disproportionate funding allocations across levels of education tend to favor children from the wealthiest households since they usually represent a higher share of the more educated children (Brookings Institution, 2015). In LICs, on average, 46 percent of public resources are allocated to the 10 percent of students who are the most educated. In LMICs, this percentage falls to 26 percent. The challenge of balancing resources to support less-educated populations is particularly acute in LICs such as Malawi, where the per-student non-salary costs of tertiary schooling are more than 500 times that of the primary level. Given the strong correlation between education and wealth, more financing to higher education levels tends to result in disproportionate support to students of higher socioeconomic status (Schäferhoff and Burnett, 2016).

HOUSEHOLD SPENDING

Often overlooked is the money spent by households on children's education. Household spending on education includes, but is not limited to, tuition fees, textbooks, and uniforms. These costs can prove prohibitive to low-income families and lead to the exclusion of the poorest children and youth from school. Out-of-pocket expenses for parents are high at the primary level and only increase at the secondary and tertiary levels. In Ghana, households spend annually about $87 per child in primary education, while this increases to $151 in Côte d'Ivoire and $680 in El Salvador. Household expenses often increase sharply when students reach secondary education, reaching $228 per year in Ghana and $637 in Côte d'Ivoire (UNESCO, 2017). In terms of GDP, household spending on education in 2010–2013 accounted for 2.6 percent of GDP in LICs but only 0.7 percent in HICs. Households in Africa and Latin America contribute the most to education as a share of GDP. In 2010–2013, households in Africa spent the equivalent of 2.1 percent of GDP on education (World Bank, 2019).

REMITTANCES

Remittances are another source of education funding and make a difference in the ability of children in LICs to begin and remain in school (Giriyan, S. 2019). Remittances to LMICs reached a record $554 billion in 2019, exceeding FDI (World Bank, 2020). Among major remittance recipients, India retains top spot, with remittances expected to total $80 billion in 2018. Remittances increased education spending by up to $35 in 18 countries in SSA and Central, Southern, and Southeast Asia (UNESCO, 2018).

Due to the economic crisis caused by the COVID-19 pandemic, global remittances are projected to decline sharply, by about 20 percent, in 2020. This would be the sharpest decline in recent history and is largely due to a fall in the wages and employment of migrant workers. Remittances are predicted to recover in 2021 and increase by 5.6 percent to $470 billion (World Bank, 2020).

FOUNDATIONS AND CORPORATIONS

According to a review for the 2012 Education for All (EFA) Global Monitoring Report, foundations and corporations in OECD countries spent about $683 million per year on education in developing countries. About 75 percent of the foundations and 70 percent of the corporations surveyed reported supporting primary education. Nearly half contributed to youth and adult skills (UNESCO, 2013).

DONOR FINANCING

Although aid for education has increased substantially during the past decade, from $6.5 billion to $13.5 billion, it has shown signs of decline in recent years, and between 2010 and 2013, aid to education fell by 9 percent (Brookings Institution, 2015).

The distribution of official development assistance (ODA) across education levels has remained largely stable in recent years. Donors remain focused on post-secondary and primary education, with insufficient attention paid to secondary education and pre-primary education. Post-secondary education continues to receive the largest share of education ODA; however, there are signs this may be slowly shifting (Schäferhoff and Burnett, 2016). USAID funding for basic education has increased since 2005. In 2018, USAID allocated $1.3 billion to basic education (an increase of $53 million from 2017), making the United States by far the largest donor to this area (donortracker.org).

MULTILATERAL DONORS

Multilateral donors have shifted their support to focus on higher levels of education and system strengthening to combat youth unemployment and the lack of skills in developing countries. multilaterals are shifting their attention towards. The share of multilateral donors in primary education declined from 40 percent of total primary education aid in 2002 to only 27 percent in 2013. And with bilateral donors allocating an increasing amount of their total aid to multilaterals through earmarked financing channels (e.g., through trust funds and global funds), allocations earmarked for education overall have been declining (Brookings Institution, 2015).

PRIVATE DEVELOPMENT ASSISTANCE

Average corporate giving for education was estimated at $1.0 billion per year in developing countries. In addition, U.S. foundations are estimated to give $0.4 billion of their international grants to education. This amounts to about $1.4 billion in annual private flows to education in developing countries, not including giving from non-U.S. foundations and non-Fortune Global 500 companies. Although there are other signs that private flows for education are rising, this support is often not focused on areas of need, with only 1 percent supporting basic education. Corporate giving is often aligned to business interests through targeted support that benefit the company's supply chain (Schäferhoff and Burnett, 2016).

Summary & Key Points

Governments provide the greatest share of education financing around the world, at 79 percent of total spending on education. Yet fewer than 15 percent of LICs and 40 percent of LMICs spend more than the 5.5 percent of GDP needed to meet the basic education SDGs by 2030.

Household spending on education is significant in LICs, and families' inability to cover those costs can cause children to drop out of school. Global remittances have become an increasingly important source of education finance for LMICs, surpassing FDI, and despite an anticipated downturn in 2020, remittances are projected to increase in the future.

Donor financing has declined recently and remains focused on post-secondary and primary education. Multilateral donors have shifted focus to post-secondary education and reduced aid to primary

education. Private development assistance provides little support to basic education. There is little donor focus on secondary education. This could negatively impact girls.

According to the USAID Resilience Evidence Forum Report (2018), uncertain donor funding streams for girls' secondary education hinders strengthening of resilience capacities needed to withstand adversity and change.

BLENDED FINANCE

At the global level, the share of total aid dedicated to education has fallen steadily from its 2007 peak of 11 percent, even though education is one of the most effective ways to achieve the SDGs. With a $40 billion annual funding gap for primary and secondary education alone, it is clear that a new approach to financing education is needed (Brown, G. 2019).

Private finance can play a vital role in achieving the level of investment needed to bridge the funding gap and reach the SDGs. Yet many of the areas where private investment could have significant impact are considered too risky by private investors.

Blended finance has emerged as one of the tools for addressing risk and encouraging the private investment that can transform people's lives and contribute toward the SDGs (Hatashima and Demberel, 2020).

BLENDED FINANCE AS A TOOL TO ENCOURAGE PRIVATE INVESTMENT

In 2015, the U.N. member countries recognized the importance of blended finance at the Third International Conference on Financing for Development. Blended finance has become a concept recognized by public, private, and philanthropic sectors (Convergence, 2019).

However, there is no standard definition of "blended finance." USAID uses the following definition: Blended finance is the strategic use of development funds, such as those from government aid and philanthropic sources, to mobilize private capital for social and environment results, such as improving infrastructure, education, agriculture, healthcare, and more (www.usaid.gov).

There are two main sources of data and analysis on the global blended finance market:

Convergence: The organization was established in 2015 and generates blended finance data, intelligence, and deal flow to increase private sector investment in developing countries. Its annual report looks at more than 3,700 financial commitments to over 500 blended finance transactions, with aggregate financing around $140 billion. Convergence collects information from other credible public sources, as well as through data-sharing agreements and validation exercises with its members.

OECD: The OECD has several recent publications on blended finance, including a 2019 joint publication with the United Nations Capital Development Fund (UNCDF), *Blended Finance in the Least Developed Countries*. It also has a

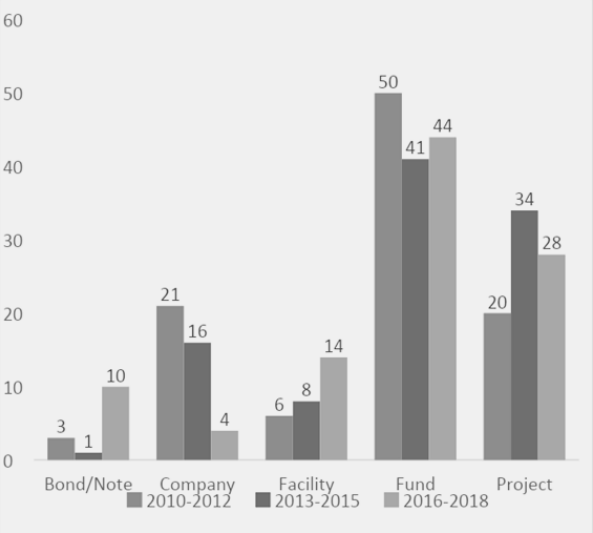
database of blended finance transactions that draws from an annual reporting exercise undertaken by the Development Assistance Committee (DAC).

BLENDED FINANCE MARKET

Deal Size and Type

According to Convergence, the five most common transaction types are (1) bonds/notes, (2) companies, (3) facilities, (4) funds, and (5) projects. Funds account for the largest share of blended finance transactions, followed by projects (see **Figure 2**). There has been a modest increase in the proportion of publicly traded blended finance transactions, such as bonds and notes.

Figure 2: Blended Finance Transactions by Transaction Type (%)



SOURCE: CONVERGENCE, 2019

Regions

Overall, Convergence estimates that, since 2005, up to $15.5 billion in capital has been earmarked for least developed countries (LDC)[3] through blended finance, with the market almost doubling from 2017 to 2018. However, blended finance transactions targeting one or more LICs, either exclusively or in part, have accounted for only 12 percent of the aggregate volume to date, in part because these transactions have been smaller, on average, than all blended finance deals. SSA continues to be the region most frequently targeted by blended finance transactions. However, the proportion has declined from 44 percent of transactions in 2010–2012 to 37 percent in 2016–2018 as blended finance is increasingly used in other regions as well. The median blended finance transaction targeting SSA has consistently been small, around $55 million (2010–2018). LAC has also received a declining proportion of transactions, as the number of transactions in Asia continues to grow (Convergence, 2019).

On average, blended finance deals in LICs mobilize less private finance than those in other developing countries. Over 2012–2017, the average amount of private finance mobilized in LICs was $6.1 million per deal, compared to $27 million in LMICs and over $60 million in upper middle-income countries (UMIC) (OECD and UNCDF, 2019).

Sectors

Energy and financial services continue to be the focus sectors for blended finance, with a slight increase in the proportion of transactions focused

[3] The United Nations defines LDCs as LICs that are highly vulnerable to economic and environmental shocks and have low levels of human assets, with a GNI per capita inclusion threshold of $1,025 or less. LICs are defined as having a GNI per capita inclusion threshold of $1,025 or less (2018).

on the energy sector, from 35 percent in 2010–2012 to 44 percent in 2016–2018. Renewable energy accounts for most of these transactions (see **Figure 3**).

The number of blended finance transactions in the education sector has been declining, from 5 percent of blended finance transactions in 2010–2012 to a low of 1 percent in 2016–2018.

Additional information as to the possible cause of the decline is not available.

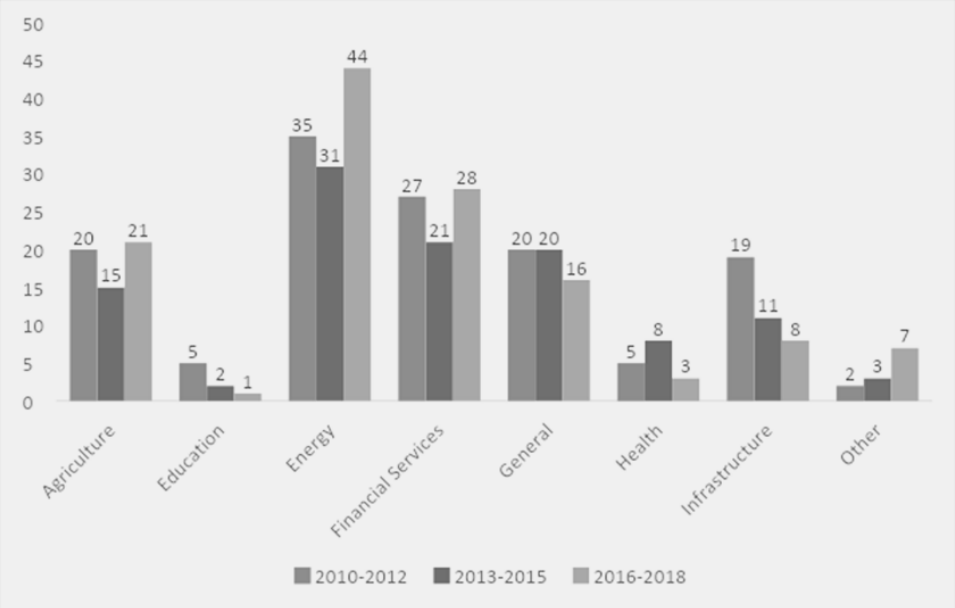
Investors

Commercial investors are key to unlocking the potential of blended finance. However, they face real obstacles to investing in developing countries, including high risk, unattractive risk-return profiles, and liquidity requirements. Commercial banks are showing the most interest in blended finance, with the proportion of private sector commitments to blended finance transactions from commercial banks increasing from 26 percent in 2010–2012 to 46 percent in 2016–2018 (Convergence, 2019).

Impact investors bridge the gap between fully concessional and commercial capital. Impact investing is a philosophy where investors are guided by the desire to make a positive impact. Over the last 5 years, impact investors have played a relatively smaller role in blended finance. This might be due to the increased participation of commercial investors. In 2010, impact investors accounted for 51 percent of the financial commitments to blended finance transactions from the private sector. This decreased to only 26 percent in 2019 (Convergence, 2019).

Donor governments play an important role in blended finance, providing capital to transactions both directly and indirectly, through contributions to multilateral organizations, funds, and programs. Donor governments use development agencies to make direct commitments to blended finance transactions. The United States is the largest player, mobilizing $1.6 billion, followed by France, with $1 billion. The United States focused mostly on Guinea, Zambia, Cambodia, and Senegal. Donor governments allocate only a small fraction of ODA to blended finance annually, less than 3 [illegible]019).

Figure 3: Blended Finance Transactions by Sector



SOURCE: CONVERGENCE, 2019

Development agencies and multi-donor funds have participated in more than half of all blended finance transactions since 2014, providing grants and, to a lesser extent, concessional debt or equity. Agencies and funds have steadily increased the average size of commitments to blended finance transactions over the past 5 years, with a median investment size of $6 million in 2010 and $25 million in 2018 (Convergence, 2019).

Foundations and NGOs, including both private and corporate foundations, have been important players in blended finance, deploying more and more catalytic capital. Foundations most commonly provide small amounts (less than $4.5 million) of catalytic capital in the form of first-loss capital or design-stage grants to mobilize larger volumes of additional capital. Non-governmental organizations (NGO) are increasingly considering their potential roles in blended finance, including as blended finance sponsors, such as Global Partnerships. Foundations and NGOs have most frequently provided grants to blended finance transactions (36 percent of financial commitments), as well as debt (33 percent) and equity (26 percent). The philanthropic sector (i.e., foundations and NGOs) represents less than 15 percent of active organizations in blended finance transactions (Convergence, 2019).

Multilateral Development Banks (MDB) and Development Finance Institutions (DFI) have been the most active organizations to date, and have become more active over time, responsible for 39 percent of all commitments made to blended finance transactions in 2016–2018. They typically invested in larger blended finance transactions, with a median transaction size of $90 million. There has been an increase in the frequency with which MDBs and DFIs offer debt, and a decline in the use of equity. To a much lesser degree, MDBs and DFIs have also placed guarantees, as well as grants using donor-funded concessional resources such as the Climate Investment Funds. MDBs and DFIs provided $1.2 billion in concessional resources (e.g., debt, guarantees, grants, equity) to mobilize $3.9 billion in "regular pricing investments" from MDBs and DFIs, and $3.3 billion from the private sector (Convergence, 2019).

Over the past 5 years, the most active MDBs and DFIs have been the International Finance Corporation (IFC), Dutch Development Finance Company (FMO), Proparco, the European Investment Bank (EIB), and IDB [Inter-American Development Bank] Invest. The IFC is partnering with Convergence to develop a blended finance platform for investment in health and education businesses in developing countries (see **Box 1**).[4]

BOX 1: CONVERGENCE AND IFC BLENDED FINANCE PLATFORM

Convergence and IFC partnered in 2017 to develop a new blended finance platform for investment in health and education businesses in developing countries serving the base of the pyramid. Together, Convergence and IFC will fund the platform design, including product offering, with potential for raising as much as $500 million for investment and advisory support. The platform will complement IFC's existing mainstream products and enable it to invest in riskier businesses with the potential for expanding access to high-quality, affordable health and education services for all income groups, especially underserved people living in the poorest countries.

SOURCE: CONVERGENCE, ONLINE

[4] No blended deals in the education sector have been finalized.

Summary and Key Points

Overall, capital has been earmarked for LDCs through blended finance, with the market almost doubling from 2017 to 2018. SSA continues to be the region most often targeted by blended finance transactions; however, the proportion has declined from 44 percent of transactions in 2010–2012 to 37 percent in 2016–2018 as blended finance is increasingly used in other regions.

Energy and financial services are the focus sectors for blended finance, with only a small (and declining) percentage of transactions in the education sector. The lack of interest in that sector could be due to the small size of transactions there, combined with long-term investment horizons and a lack of standard interventions that guarantee results, unlike the energy sector (Innovative Financing for Global Education, 2013).

Commercial banks are showing the most interest in blended finance, accounting for 46 percent of private sector investments in 2016–2018. Development agencies and multi-donor funds have been involved in more than half of all blended finance transactions since 2014, providing grants as well as concessional debt and equity.

Foundations and NGOs have been important players in blended finance, deploying increasing amounts of catalytic capital. In the education sector, foundations such as the Michael and Susan Dell Foundation (MSDF) are active in blended finance in the education sector, specifically in the Quality Education India development impact bond (see Case Study 2). While this is encouraging, the education sector does not receive the same amount of foundation support as the health sector. Providing "champions" of the education sector with more and better evidence of successful education investments, which have resulted in increased access and/or improved learning outcomes, could increase interest in foundation activity in the sector (Schäferhoff and Burnett, 2016.)

The IFC has been very active in blended finance, and recently published lessons learned from 14 blended finance projects, mostly in MICs and the climate change sector. Of the 14 projects, only 4 achieved their development objectives and met performance benchmarks. Overall, these predominantly risk-sharing facility projects had weak business and economic effects. Low use of facilities was frequent, and projects' intended objectives were often not realized. In addition, "de-risking" activities are costly. They often have high administrative costs due to the small size, slow disbursement, and complexity of transactions. As a result, IFC's financial returns were below expectations in all cases (World Bank Group, 2020). In 2017, the IFC and Convergence announced a partnership to develop a blended finance platform for investment in health and education businesses in developing countries (Convergence, 2017). As of yet, no education investments have been finalized.

ROLE OF NON-STATE PROVISION OF EDUCATION

The fastest growing segment of non-state schools is small low-cost schools.

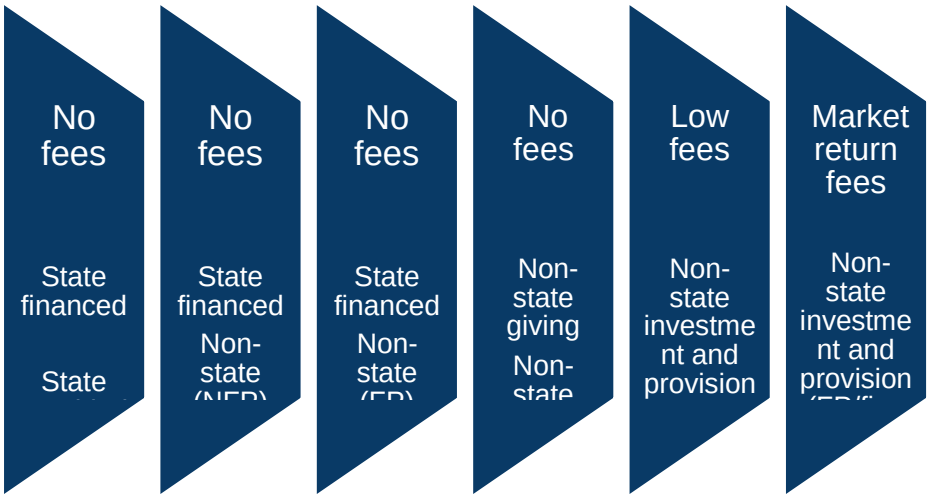
This section will provide an overview of non-state provision of education, enrollment trends, and a summary of non-state education financing.

Developing countries are faced with constantly increasing demand for education and limited state capacity to meet that demand. This demand boom can be attributed in part to the low quality of state education, increased affluence, and demand for English-based schools (L.E.K. Consulting, 2020).

As non-state provision of education has increased, there has been an accompanying increase in the types of non-state providers, and financing models for these providers has become more diverse. Some non-state providers are publicly funded, and others are not. Some schools charge fees while others do not. In some cases, non-state provision could also be called state provision. Some school types, such as faith-based and community schools, receive both state and non-state financing. Some schools rely heavily on non-state financing (e.g., NGO schools) and may also receive funding from official donors. In addition, some non-state schools are for profit and some are not-for-profit (Steer et al., 2015).

With such complexity surrounding the role of state and non-state actors, Steer et al. (2015) have created a framework based on a continuum of provision and financing (see **Figure 4**). The framework identifies the types of schools based on the varying relationships with the state and the financial incentive of the provider (for-profit/not-for-profit). There are eight categories of schools based on a combination of the following criteria: (1) fee-paying/non-fee paying, (2) state/non-state financed, and (3) state/non-state provided. State provision is defined by the level of management and oversight by the state, from schools that are fully state-run (government schools) to those that are partially administered by the state (community schools). School financing varies according to the type of arrangement with the state, and can range from fully funded schools (e.g., governments offer vouchers for students to attend non-state schools) to partially supported schools (in the form of subsidized teacher salaries, infrastructure or land).

Figure 4: Steer's Typology of State and Non-State Actors on a Continuum

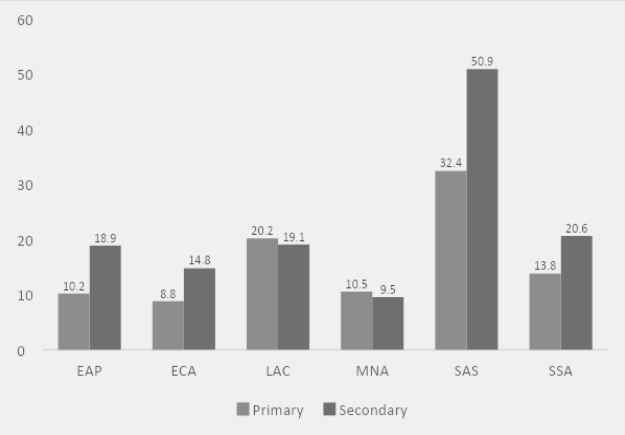


SOURCE: BROOKINGS INSTITUTION, 2015
NOTE: FP = FOR-PROFIT; NFP = NOT-FOR-PROFIT

Although it is often assumed that non-state providers serve only the wealthy, this has changed over the past 20 years. Many children and youth would be denied access to education if not for non-state schools and providers, including private, for-profit, non-profit, community, faith-based, and other NGOs (USAID, 2018). In fact, the fastest growing segment of non-state schools is small low-cost schools run by entrepreneurs in poor areas, catering to those living on less than $2 per day. Since such schools are often unregistered, this is likely an underestimate (The Economist, 2015).

Enrollment in non-state schools (primary and secondary) has been increasing in LICs and LMICs over the past two decades. Regions with significant increases in non-state enrollment include East Asia Pacific (EAP), South Asia (SAS), Eastern and Central Europe (ECA), and SSA. There has been a slight decrease in non-state enrollment in LAC and the Middle East and North Africa (MENA) (see **Figure 5**).

Figure 5: Non-State Enrollment by Region, 2018 (%)



SOURCE: WORLD BANK EDSTATS, 2018

Enrollment data at the pre-primary level is lacking. Most LICs have announced their intention to provide pre-primary education, but limited resources are a constraint. Partnerships with non-state providers can help expand access. For example, the Bangladesh Early Childhood Development Network created a forum for cooperation between the government and NGOs, which now serve about 25 percent of children in pre-primary education (see **Box 2**). Sri Lanka has the potential to partner with non-state providers to expand access. There, the pre-primary GER is now over 90 percent, with over 70 percent of ECD centers managed by non-state providers (UNICEF, 2019). The World Health Organization (WHO) defines ECD as encompassing physical, socio-emotional, cognitive, and motor development from birth through 8 years old (WHO, online).

BOX 2: BANGLADESH OPERATIONAL FRAMEWORK FOR PRE-PRIMARY EDUCATION

The 2008 Operational Framework for Pre-Primary Education was prepared by the Bangladeshi government, NGOs, and development partners, and provides national standards for pre-primary education for 3- to 6-year-olds. The National Education Policy adopted in 2010 established guidelines and laid out the respective roles for government and civil society actors in scaling up a 1-year pre-primary program, with a vision to expand to more years as the education sector improves its capacity in this subsector. This policy encourages strong engagement by local community and civil society actors. By 2013, enrollment had nearly tripled, and civil society, the non-state sector, and the Ministry of Education (MoE) each support about one quarter of the pre-primary provision in the country, with engagement from other providers such as madrasas.

SOURCE: UNICEF, 2019

At the tertiary level, 1 in 3 students globally is enrolled in non-state HEIs, with a concentration in developing regions. Non-state universities' share of enrollment is highest in Latin America, with 49 percent, and Asia, with 42 percent (Bothwell, 2018). **Table 1** illustrates that in some countries, such as the Republic of Korea, Japan, Brazil, Indonesia, and India, non-state HEIs enroll more than half the student population.

NON-STATE FINANCING

Despite its considerable scale, the global non-state basic education sector is highly fragmented, with many "mom and pop" providers, and only about 15 for-profit companies globally with over $100 million in revenue. Schools are local catchment-driven entities, and very few have significant scale. Fees are highly variable by geography and dependent on local incomes (L.E.K. Consulting, 2020).

At the tertiary level, the same characteristics apply in Asia, with non-state HEIs typically enrolling 500–700 students. The HEIs are usually family-owned and non-selective in their admission criteria (Asian Development Bank, 2012). In Latin America, there has been significant investor interest in non-state tertiary education. For example, Laureate Education, backed by Sterling Partners, has bought over 30 universities in Latin America. The Whitney International University System now includes schools in Argentina, Brazil, Chile, Colombia, Costa Rica, Panama, and Paraguay that offer technical and associate degrees, and doctoral and master's programs. The Apollo Group has acquired Chile's University of Arts, Sciences and Communication, and has a majority stake in Mexico's Universidad Latinoamericana (Zinny, 2013). There is little information about non-state HEIs in Africa, making it difficult to have a clear understanding of the market.

Table 1: Ten Largest Tertiary Systems' Individual and Aggregate Private Shares

Country	Private %	Private Enrollment	Total Enrollment	Rank by Total Enrollment	Rank by Private Enrollment
China	19.6	4,664,531,	23,856,345	1	4
India	58.3	12,443,748	21,350,427	2	1
United States	27.5	5,617,069,	20,427,709	3	2
Russian Federation	14.7	1,323,348	8,984,977	4	10
Brazil	72.7	4,764,498	6,552,707	5	3
Indonesia	58.2	2,908,383	5,001,048	6	6
Japan	78.6	3,016,964	3,836,314	7	5
Iran	44.9	1,702,572	3,790,859	8	8
Turkey	5.2	181,829	3,529,334	9	35
Republic of Korea	80.7	2,636,972	3,269,509	10	7
Total – Top 10	39.0	39,259,914	100,599,229		
Total – Global	32.9	56,722,374	172,545,175		
Top 10 Share of Global		69.2%	58.3%		

SOURCE: PROGRAM FOR RESEARCH ON PRIVATE HIGHER EDUCATION, 2017

Non-state provision in this sub-sector has been growing rapidly, with the number of non-state HEIs exploding from 24 to about 470 between 1990 and 2007. Across the continent, for-profit institutions are growing in number; however, religious institutions continue to dominate in some countries, including Kenya, Tanzania, Nigeria, and Zimbabwe. In Mozambique, most HEIs are owned by business organizations. Non-state institutions in Egypt, South Africa, and Ethiopia are predominantly for- profit. For-profit institutions in most of Africa are owned by individual proprietors, corporate and foreign organizations, and agencies that collaborate with local institutions (Tamrat, 2017).

Summary and Key Points

As non-state provision of education in developing countries has increased to meet demand for high-quality, low-cost schooling, a variety of non-state providers and financing models for these providers have emerged. Some schools receive both state and non-state financing; some are for-profit and some are not.

Demand for non-state provision of education is growing most rapidly in terms of small low-cost schools, run by entrepreneurs in poor areas, catering to those living on less than $2 per day. The regions with the most significant increases in non-state enrollment are EAP, SAS, ECA, and SSA.

Enrollment in non-state schools (primary and secondary) has been increasing in LICs and LMICs over the past two decades. At the pre-primary level, enrollment data is lacking. Most LICs have announced their intention to provide pre-primary education, but limited resources are a constraint. Partnerships with non-state providers can help expand access, as illustrated in the case of Bangladesh.

At the post-secondary level, 1 in 3 students globally is enrolled in non-state HEIs, with a concentration in developing regions. In Asia, non-state HEIs are small family-owned businesses, whereas in Latin America there has been significant investor interest in non-state tertiary education. Africa has witnessed a surge in non-state HEIs, with a range of for-profit and religious providers. Increased demand has led to an increase in non-state provision, with the number of HEIs exploding from 24 to about 470 between 1990 and 2007. According to a 2019 OECD survey, 19 percent of private finance mobilized in the education sector in LDCs went to technical and vocational education and training (TVET).

This section provides examples of blended finance in the education sector. It includes innovative blended financing, such as impact bonds, as well as traditional blended financing, such as PPPs and guarantees.

IMPACT BONDS

Impact bonds are a type of pay-for-results structure, where an outcome funder (e.g., donor agency, private foundation, local government) only pays if an implementer achieves specific outcomes tied to social or development impact.

An impact bond is typically applicable when (1) a service provider needs upfront capital to provide more flexibility to implement a program based on agreed-upon outcomes; (2) a third-party investor

(often from the private sector) is willing to provide the capital and take on the performance risk of the service provider; and (3) measurable, verifiable outcomes are a reasonable basis for success payments.

In return for taking on such risk, the investor stands to gain a return on its investment, while the outcome funder takes on little or no financial risk (USAID, 2018).

Other key players include evaluators, who verify whether the outcomes have been achieved, and intermediaries, who work with the outcome funders to structure and design the bonds, raise capital, and arrange negotiations. Depending on the capacity of the service provider, it may also manage the programs. There may be other actors providing technical assistance (TA).

In a social impact bond (SIB), the outcome funder is the government in an HIC. In a development impact bond (DIB), the outcome funder is a third party, such as a donor or foundation.

The main benefits attributed to impact bonds are presented in **Box 3**.

The education sector has not attracted much impact bond activity, with only 26 impact bonds globally, of which only 2 are education DIBs (ECD impact bonds are not included), according to the University of Oxford database.[5]

The world's first DIB in education, the Educate Girls DIB, was launched in 2015 in Rajasthan, India, and concluded in July 2018 (see **Case Study 1**).

[5] https://golab.bsg.ox.ac.uk/knowledge-bank/project-database/

BOX 3: MAIN BENEFITS ATTRIBUTED TO IMPACT BONDS

- Shift of focus to achievement of outcomes, financing of preventive services with future benefits, and potential cost savings
- Circumvention of rigidities in government budgets and politics
- Reduction in risk for government and service providers
- Encouragement of innovation in service provision and data collection
- Responsiveness and adaptability in implementation of interventions
- Alignment of interests across multiple parties
- Help achieving scale through potential reallocation of (government) resources toward social service delivery once results and potential savings are demonstrated

By that time, the project was surpassing both of the impact bonds' educational outcome targets. See **Annex 1** for project highlights.

Case Study 1: Educate Girls DIB, India

Source: World Bank, 2017 and IDsight, 2018

The world's first DIB in education, the Educate Girls DIB, was launched in Rajasthan, India, in 2015 and concluded in 2018, having surpassed both of the bond's educational outcome targets. Educate Girls is an Indian NGO with the goal of overcoming gender inequality in education and providing equal opportunities to girls living in marginalized regions in India. To achieve this, Educate Girls encourages families to send their children to school and improves the quality of the instruction they receive once enrolled. It trains community volunteers to make door-to-door household visits and deliver a child-friendly supplementary curriculum in classrooms to improve basic reading and math skills. Working closely with teachers, the group tracks each student's progress and implements individual learning plans to improve delivery of activity-based remedial curricula.

The UBS Optimus Foundation, acting as the investor, financed Educate Girls' project implementation cost of $270,000, while the Children's Investment Fund Foundation (CIFF) agreed to pay UBS Optimus Foundation this amount, plus a 15 percent internal rate of return if two outcome targets were met. Learning outcomes, which accounted for 80 percent of the final DIB payments, were measured in a randomized controlled trial. The evaluation included a sample of 12,000 students in grades 3–5 across 332 schools in 282 villages. Half the villages were randomly assigned to receive Educate Girls' program, while the other half formed the comparison group. Students (boys and girls) were assessed on basic literacy and math skills using the Annual Status of Education Report (ASER) testing tool. The impact was calculated as the sum of learning gains of children in treatment villages minus the sum of learning gains of children. The remaining 20 percent of DIB payments was linked to increased enrollment of girls.

Educate Girls exceeded the 3-year DIB targets in both learning and enrollment. It achieved 160 percent of the final learning target, with learning levels increasing 79 percent for students in program schools in the final year, equivalent to almost an entire year of instruction. It also achieved 116 percent of the final enrollment target, with 768 eligible out-of-school girls identified in the program area enrolling in school, exceeding the target of 662.

While Educate Girls was consistently on track to meet the enrollment target throughout the DIB, progress against the learning target lagged. Two years into the 3-year DIB, Educate Girls had reached just half the target due to chronically absent children not benefitting from the program. In the third year, the group added home visits and remedial classes to better reach these students, and subsequently their gains were comparable to students who attended school regularly. The massive increase in the effectiveness of the program in the final year suggests that the combination of implementer flexibility and rigorous evaluation can foster rapid learning and improvements.

A second education DIB was launched in 2018. The Quality Education India DIB (see **Case Study 2**) funds local service providers to improve grade-appropriate learning outcomes for more than 200,000 primary school children.

The DIB will run April 2018 – July 2022 in three districts of India: New Delhi, Surat, and Ahmedabad. The total value of the DIB is $11.2 million. See **Annex 1** for project highlights.

Case Study 2: Quality Education India DIB

Source: Erskine, 2018 and Gustafsson-Wright and Boggild-Jones, 2019

The Quality Education India DIB will operate April 2018 – July 2022 in three districts of India: New Delhi, Ahmedabad, and Surat. The goal is to improve literacy and numeracy for 200,000 primary school children. The total value of the DIB contract is $11.2 million, of which outcomes funding is $9.2 million, funded collectively by organizations in India and the United Kingdom. The project was designed and developed through a partnership between MSDF, the UBS Optimus Foundation, and British Asian Trust (BAT). MSDF was the first outcome funder to commit to the project, providing $4 million. Then BAT, acting as the outcome convener, raised funds from Comic Relief, British Telecom, the Mittal Foundation, and Ellison Foundation. TATA Trusts contributed as knowledge partners, and the Department for International Development (DFID) contributed a TA grant of $1.5 million. The internal rate of return is 8 percent.

An evaluation of the design and set-up phase (July–October 2018) concluded that Quality Educate India successfully brought together multiple sector-leading experts to collaborate in shared areas of interest in education and impact. The DIB successfully leveraged learning from the Educate Girls DIB, including involving an outcome evaluator earlier in the project and allowing flexibility in the contracting process. However, there were additional costs and time in project management due to the size and scope of the project, including the logistics of engaging multiple outcome funders and four service providers, as well as the restrictive regulations on financial flows to and from India. In addition, the learning assessment the project will use is complex and may be difficult to explain to potential outcome funders and service providers. In contrast to Educate Girls, which used ASER, a tool that assesses learning at a comparably basic level, Quality Educate India will use a robust, standardized test of grade-level skills in numeracy and literacy. This requires the DIB to conduct baseline and endline assessments in both the intervention and comparison schools. The monitoring framework will look at enrollment and attendance and include feedback from the project beneficiaries.

The evaluation concluded that involving all actors upfront, with defined roles and responsibilities was critical, as were workshops to support clarity and consistent messaging across the different stakeholder groups. Flexible budget lines supported design adjustments as the project got underway. Considerable time and resources were needed to engage the outcome funders. After MSDF confirmed its contribution of $4 million, BAT needed to engage contacts in its network to raise the remaining $6 million. For BAT this process was resource intensive. For others, including UBS Optimus, it delayed the development process.

The main achievement in this DIB is the convergence of sector-leading organizations to focus on a prominent issue in India. The end result is a model that is impressive in scale, implementing multiple interventions, but also includes a high level of integrity in its design and assessment. In particular, the inclusion of a robust assessment tool means the evidence from the project has the potential to provide important learning about the effectiveness of different types of education models, as well as the suitability of the DIB model in different contexts.

There are two SIBs at the ECD level. The South Africa Early Childhood SIB, known as the Impact Bond Innovation Fund (IBIF), was launched in 2017. Very-low-income families with non-enrolled children in Western Cape province receive home visits from community workers (see **Case Study 3**). See **Annex 1** for project highlights.

Case Study 3: South Africa Early Childhood SIB / IBIF

Source: Boggild-Jones and Gustafsson-Wright, Oxford Outcomes Lab, South Africa Impact Bond

The IBIF seeks to improve ECD outcomes in the Western Cape. It targets 3–5-year-old children living in low-income areas of Atlantis and Delft in Cape Town. The SIB seeks to demonstrate that community-based programs can provide high-quality ECD services. Currently, around 40 percent of 3–5-year-old children in Atlantis and Delft do not attend registered ECD centers. The IBIF is projected to reach 2,000 children through home visits over 3 years.

Launched in 2018, the bond's duration is 3 years, with a maximum outcome payment of $1,467,000 and an internal rate of return of 16 percent. Outcome funders are the Department of Social Development and the ApexHi Charitable Trust. The three investors are the Standard Bank Tutuwa Community Foundation, Futuregrowth Asset Management, and LGT Venture Philanthropy. The service provider is the Western Cape Foundation for Community Work (FCW). TA is provided by the University of Cape Town Bertha Centre and Social Finance UK. Repayment will depend on recruitment, retention, and attendance, as well as the Early Learning Outcomes Measure, an assessment tool.

The IBIF supports the Family in Focus Program operated by FCW. The program offers home visitation during which community caregivers work with parents or caregivers and children to deliver ECD programming. Through the IBIF, FCW has had the opportunity, funding, and support to make several important changes to improve its ECD interventions, replacing a paper-based collection system with an electronic system, resulting in real-time monitoring and more reliable data collection. The training program for home visitors has been revised to offer them a formal career path in ECD and to improve their ability to engage with caregivers and children, strengthen safety nets around children, and refer families for professional support.

From the outset, there was an appetite for collaboration between the different parties involved in the IBIF. The government was interested in augmenting shrinking budgets, but also acknowledged that most NGOs do not receive the support they require to improve management and program quality, which prevents scaling up programs. Investors in South Africa have both a moral and regulatory mandate to invest in social programs, but the flow of high-quality deals is not enough to meet the demand.

Flexibility and compromise were needed to launch the IBIF. For example, the outcome funders advanced some capital outside of the contract to enable an extended ramp-up period, and outcome targets were altered to reflect a delay in the launch. Despite the early engagement of an outcome funder, the IBIF took another 2 years to close. The main hurdles in this process stemmed from the fact the deal differed from standard government contracting and delays due to a parallel health impact bond that did not move past the design phase.

In Uzbekistan, the World Bank recently approved the Promoting Early Childhood Development Project, which contains an SIB component (see **Case Study 4**). Once underway, the SIB will result in 140 non-state preschools delivering educational services in poor urban areas. Children with disabilities must compose a minimum of 25 percent of total enrollment. The total cost of the SIB is $10 million (World Bank, 2019). See **Annex 1** for project highlights.

Case Study 4: Promoting Early Childhood Development Project SIB, Uzbekistan

Source: World Bank, 2019

In 2019, the World Bank approved the Promoting Early Childhood Development Project in Uzbekistan. Within this project is a proposed SIB for ECD. The government of Uzbekistan has made it a priority to attract private investment to the infrastructure and social sectors, while also increasing efficiency in use of public funds. Recent reforms include a resolution on PPPs in preschool education that supports establishment and operation of stand-alone non-state preschools, networks of private preschools, firm-sponsored preschools, and international and domestic private providers.

The SIB seeks to provide high-quality ECD through 140 non-state preschools in underprivileged urban areas of Uzbekistan and will target children ages 3–7. The project design will ensure inclusion of low-income families and children with disabilities. The SIB would be co-financed by a $5.15 million credit from the International Development Association (IDA), and a $4.85 million grant from the Global Partnership for Results-Based Approaches (GPRBA). IDA and GPRBA funds would be available for the government to reimburse when/if outcome targets are met. Investors have not been confirmed. Interest from prospective non-state providers has been high, with over 1,000 applications submitted to the government, of which 900 already meet the criteria for selection and are being considered for operation. The SIB will contribute to development of a data culture in Uzbekistan's preschool education system—a major government goal—through its embedded monitoring and evaluation (M&E) feature and capacity-building activities.

The proposed SIB has four targets: (1) SIB preschool total occupation rate; (2) proportion of disadvantaged children attending SIB preschools; (3) proportion of disadvantaged children attending SIB preschools; and (4) quality of SIB preschools' learning environments as measured by the Measure of Early Learning Environments (MELE) instrument, which gauges the quality of the learning environment through several domains, such as play materials and opportunities, pedagogy, teacher-child interactions, environment, and physical setting. The MODEL instrument, which measures child development in areas such as socio-emotional development and pre-academic skills, will also be used.

The SIB will be considered sustainable if it (1) proves successful and more investors, including domestic ones, invest in preschool education or other sectors using the SIB model; (2) the creditworthiness of non-state preschools improves and they can borrow domestically at sustainable interest rates; and (3) the government adopts results-base financing approaches in education or other sectors without upfront capital from investors.

At the tertiary level, there are many SIBs in skills training and youth employment. Colombia recently concluded a successful SIB in skills training and support (see **Case Study 5**). This program, which targeted vulnerable young adults, helped participants find employment in the formal sector. Based on the success of this initial program, the government plans to launch similar SIBs in other urban centers. The program ran from March 2017 to December 2018.

The two outcome funders invested a total of about $1.5 million (IDB, 2020). See **Annex 1** for project highlights. The United Kingdom, South Africa, and Palestine all have SIBs in this subsector.

This innovative SIB features the governments of Colombia and Switzerland as outcome funders.

Case Study 5: Workforce Development SIB, Colombia

Source: Gustafsson-Wright and Boggild-Jones, 2017, University of Oxford impact database online

The first SIB in a developing country was the Colombia Workforce which operated from March 2017 to December 2018. The objective was to obtain formal jobs for populations vulnerable to unemployment. The SIB targeted skills training and employment support to young people who are vulnerable, unemployed, or displaced due to armed conflict in Bogotá, Cali, and Pereira.

The SIB has several unique features. It is the first fully contracted impact bond in a developing country for which there is a government outcome funder—the Colombian government's Department of Social Prosperity (Prosperidad Social). It also marks the first time a donor government, in this case the Swiss government, provided outcome funding for an impact bond.

The investors were Fundacion Mario Santo Domingo, Fundacion Corona, and Fundacion Bolivar Davivienda.] The upfront capital was $0.29 million. The maximum outcome payment was set at just over $1 million. The maximum return was 8 percent.

According to the structure, if the beneficiaries each got a job Prosperidad Social and the IDB (with funds from the Swiss Economic Cooperation) paid 50 percent of the agreed price. The remaining 50 percent would be paid if the beneficiaries retained the job for at least 3 months. An additional premium of 10 percent of the total price is also awarded if they retain it for at least 6 months.

This SIB used administrative data from the Ministry of Health, which was not engaged in provision of services or outcome payment, solving the issue of data availability in developing countries. The SIB is also notable for its record design time: The design process started in July 2017 and contracts were signed in March 2018. Several years of building stakeholder awareness and exploring the model were critical to achieving this relatively short timeframe.

The project was initially tested on a small scale**.** Of the 1,855 people who received the labor intermediation, 899 (46 percent) managed to register in a formal job. Of the people who got a job, 677 (79 percent) managed to retain it for at least 3 months and 309 (34 percent) for 6 months or more. This compares favorably with other most successful employment interventions for the vulnerable around the world, which have formal job placement rates of 20–32 percent. Based on the success of this pilot, an employment SIB in Cali was launched

Reviewing the University of Oxford impact bonds database, some observations can be drawn. Of the 26 SIBs and DIBs globally, 8 were established in 2018, and most are under $1 million. Eight are located in Portugal, and all are for service delivery; for example, Khan Academy online education services. Six SIBs are located in the United Kingdom and target small numbers of disabled or disadvantaged children and young adults.

The United Kingdom has been at the forefront of SIBs, launching the first one in 2010. The recent launch of SIBs in Portugal is linked to creation of the Portugal Social Innovation (PSI) initiative in 2014. Portugal was a pioneer in using the European Commission's European Social Fund (ESF), which includes the Social Impact Bond Program (European Commission and EIB, 2018). The Greek 24 Schools infrastructure PPP (see **Case Study 8**) also benefitted from the ESF.

PUBLIC-PRIVATE PARTNERSHIPS IN EDUCATION

While governments remain the main financiers of primary and secondary education, in many countries the non-state sector plays a significant role in delivering education and services, joining with the public sector to complement each other's strengths to meet SDG 4.

The primary form of PPPs in the education sector is the private management of public schools, whereby education authorities directly contract non-state actors to operate the schools or certain aspects of them. While these schools are privately managed, they remain publicly owned and funded. Some countries have voucher programs whereby governments transfer funds to families and enable their children to enter public or private schools of their choice. Some governments contract with the non-state sector to provide teacher training and curriculum design. In Pakistan, the Punjab Education Foundation (PEF) has taken the initiative for teacher training with a Cluster-Based Training of Teachers (CBTT) program for non-state schools under a PPP (see **Box 4**). Gyan Shala, one of the largest non-state school education programs for poor children in India, has had several contracts under the Ahmedabad Municipal Government to train government schoolteachers and provided curriculum design inputs (CfBT, 2013). PPPs are also being used to build school infrastructure and can be a useful way to increase the funding available for constructing or upgrading buildings and often yield better value for money than traditional public sector investments (Patrinos et al., 2009).

Global experience with PPPs has shown the importance of (1) strengthening the capacity of public education agencies to regulate, monitor, and contract with non-state schools; (2) building the capacity of non-state providers to deliver high-quality education by giving them more access to capital and TA to improve their educational and management practices; and (3) creating institutions to implement PPPs and guarantee access to information about educational outcomes of schools (Patrinos et al., 2009) (see **Box 5**).

BOX 4: CLUSTER-BASED TRAINING OF TEACHERS THROUGH PPP

In Punjab, the PEF operates a CBTT program under a PPP. The program provides professional development for non-state schoolteachers, with a focus on primary education. Training focuses on development of teachers' knowledge of content rather than on pedagogical approaches. The training is provided to clusters of schools. Generally, each cluster is made up of 7–10 schools and 30–35 teachers. Teachers are paid an allowance to attend the training to cover transportation and other costs. Unit costs are around Rs1,250, although these can vary depending on the provider that is contracted to deliver the training or whether it is carried out by the PEF's own staff.

SOURCE: LAROCQUE, 2008

BOX 5: MAIN BENEFITS ATTRIBUTED TO PPPS

- Increased choice and diversity of schooling provision, which could lead to competition that raises quality throughout the education system
- Better accountability measures, which could lead to greater system-wide accountability
- Increased autonomy, which could lead to innovation in school management and stimulate the way schools are managed, schools learning from one another, and creation of local solutions to improve educational quality
- Cost efficiency

SOURCE: PATRINOS ET AL., 2009

PRIVATE MANAGEMENT OF PUBLIC SCHOOLS

In Bogotá, Colombia, the Concession Schools Program began in 1991, with the goal of expanding access and quality of basic education (see **Case Study 6**). Concession schools are publicly funded but independently run. The initiative allowed non-state institutions to take over public education provision in certain primary and secondary schools. Located in disadvantaged areas, Concession Schools have succeeded in lowering dropout rates, and their students attain test scores equal to or higher than regular public-school students (Barrera-Osorio, 2007).

Another example of non-state operation of public schools is the Fe y Alegría (FYA) network of schools for the poor, serving about 1 million children in 20 countries, primarily in Latin America (see literature review for evaluation). Operated by the Roman Catholic organization, the Jesuits, FYA schools receive a government subsidy: The Jesuits build the schools and the state agrees to pay the salaries of the teachers. The Jesuits reserve the right to appoint teachers and directors. Teachers are on the state payroll and the curriculum taught in the schools is the same as in all public schools (World Bank, 2014).

SCHOOL VOUCHERS

School vouchers transfer funds from the government to families and enable their children to enter public or non-state schools of their choice. The payments can be made directly to parents or indirectly to the selected schools. The objective of a voucher program is to extend the financial support from the government to non-state education providers and thus give all parents, regardless of income, the opportunity to choose the school that is right for them. Essentially, there are two types of voucher programs: targeted or universal (Patrinos, 2012).

In Andhra Pradesh, India, the Andhra Pradesh School Choice Program targets disadvantaged children in rural areas. The program was successful in terms of cost and learning outcomes. After 2 and 4 years of the program, the authors found no difference between test scores of lottery winners and losers on Telugu (native language), math, English, or science/social studies. However, non-state schools also teach Hindi, which is not taught by the public schools, and lottery winners

Case Study 6: Concession Schools, Colombia

Source: Barrera-Osorio, 2007

In 1991, the Concession Schools Program was launched in Bogotá, with the goal of expanding access and quality of basic education. The initiative is a partnership between the public and non-state education sectors, with non-state schools providing public education in 25 schools for 15 years. The state provides the infrastructure, selects the students, and pays a pre-agreed sum per full-time student per year—about $520, or $90 more per year than public schools receive.

Concession Schools have flexibility to contract administrative and teaching staff and can implement their own pedagogic models. The schools must meet performance standards set by the Secretary of Education. They enroll more than 25,000 students, about 3 percent of the total public enrollment in Bogotá. There were two main criteria regarding the location of the Concession Schools. First, they were located in extremely poor areas of the city. Second, they were built in areas where the demand for primary and secondary education was higher than the number of places supplied by city public schools.

There is strong evidence of a direct impact of Concession Schools in reducing dropout rates, and some evidence that being near Concession Schools reduces the dropout rates in public schools. Furthermore, there is evidence of a positive impact on test scores of students in Concession Schools compared to students in other public schools.

These results can be explained through several channels. Concession Schools were handed over to the non-state schools with several advantages, including the highest standardized test scores and infrastructure superior to that of public schools. They are well established and financially stable. The option to select teaching and administrative staff may lead to a better quality of education than in public schools, where the teachers' union makes it difficult to implement staff changes. Finally, Concession Schools work actively with the students' parents and the community.

have much higher test scores in Hindi. The mean cost per student in the non-state schools was less than one-third the cost in public schools. And while the non-state schools hired teachers with less training and experience, they were less likely to be absent, more focused on the task at hand, and more likely to be in control of the classroom. Non-state schools have a longer school day, lower student/teacher ratios, and better infrastructure. These factors contribute to the success of the program (Muralidharan and Sundararaman, 2015).

In Colombia, another targeted voucher system, the Program for the Expansion of Secondary Education Coverage, focused on providing the poorest one-third of its population access to secondary education. It was also successful in terms of cost and learning outcomes (Patrinos, 2012). The Netherlands is another country that illustrates the effectiveness of vouchers (see **Case Study 7**). There, 70 percent of enrollments are in government-financed non-state schools. The students tend to be from families who belong to a lower social class than students attending public school, and yet the test scores achieved are higher.

This highly decentralized system features a high level of accountability made up of different supervisory institutions. Schools are inspected regularly and students are assessed yearly, with the results easily accessible to the public. This system translates into the Netherlands ranking at the top of PISA testing (World Bank, 2012).

Case Study 7: Universal Voucher Program, the Netherlands

Source: World Bank, 2012

The Netherlands has a high-performing school system where 70 percent of enrollment is in government-financed private schools. School choice is guaranteed in the Constitution, which allows any person to set up a school; organize teaching; and determine the educational, religious, or ideological principles on which teaching is based. Public and private schools receive the same amount of public funding in the form of a lump-sum allocation based on their number of students. Additional subsidies are assigned for disadvantaged students.

In this highly decentralized system, School Boards are responsible for operations and performance for non-state and state schools. School Boards are the legal manager or owner of the schools, not a public body, and include parents and community members. All School Boards report to a Board of Governors, and in turn the Board of Governors reports to the government. A rigorous inspection and assessment system, which demands accountability, is a hallmark of this decentralized education system. The Education Inspectorate assesses teachers and schools. Classroom visits and a review of compliance with education policies at the school level are the two main mechanisms for ensuring education quality. Schools that show problems are inspected more often.

The Dutch school system, with its universal school choice approach, is an example of high educational performance in a diverse environment. The system relies on M&E through school inspections and student assessments. Results are made public to all stakeholders: parents, students, the government, and community.

INFRASTRUCTURE PPPS

From 2012 to 2017, most of the $58.79 million in private finance mobilized in the education sector went to building education facilities and training (52 percent), followed by TVET (19 percent) and education policy and administrative management (13 percent) (OECD and UNCDF, 2019).

In England, PPPs were used extensively during the 2000s for building schools under the Building Schools for the Future program. However, the program proved disappointing and was ended in 2010. While 200 secondary schools were to have been rebuilt by the end of 2008, only 35 were completed, with a further 13 refurbished.

The program was marred by massive overspends, delays, poor-quality construction, and bureaucracy (BBC news online, 2011).

In 2014, Greece launched the 24 Schools PPP project in the greater Athens area (see **Case Study 8**). The project aimed to address the existing quantity and quality need for schools, covering 6,500 students from diverse socio-economic backgrounds.

The project was named Education Deal of the Year 2014 by World Finance magazine based on its innovative blended finance funding structure (Mantzoufas, 2017).

Case Study 8: Infrastructure PPP

Source: Mantzoufas,2017

In 2014, Greece launched the 24 Schools PPP project in the greater Athens area. The project aimed to address the existing quantity and quality need for schools, covering 6,500 students from diverse socio-economic backgrounds.

Two PPP contracts, one for 14 schools and the other for 10, were tendered to promote competition. The total budget for the project came to €110 million. The contractual framework and risk allocation followed international best practices, reflecting the experience gained in the United Kingdom from the Building Schools for the Future PPP program.

24 Schools is the first-ever PPP project to use the innovative Joint European Support for Sustainable Investment in City Areas (JESSICA) tool, an initiative developed by the European Commission, EIB, and Council of Europe Development Bank (CEDB). The National Bank of Greece provided grants for free ICT Labs to all 24 schools. Benefits included timely and enhanced delivery of schools to improve educational outcomes, high service standards, and significant savings in energy cost.

The 24 Schools project was named Education Deal of the Year 2014 by World Finance magazine based on its innovative blended finance funding structure.

GUARANTEES: RISK-SHARING INITIATIVES

Many non-state school operators are small and medium enterprises (SME) and many lack access to credit, which can prevent them from expanding. Up to 9 out of 10 jobs in some LICs are in small enterprises, with few able to transition into medium-size enterprises. In LDCs, low productivity and competitiveness are partly due to low rates of small firms with bank accounts and the low proportion of SME investment financed by banks.

Supporting “missing middle” projects in LDCs can be costly. Low amounts of credit needed by SMEs ($50,000 to $1 million) are too risky or expensive for local banks to support (OECD and UNCDF, 2019).

In 2007, IFC and the African Development Bank (AfDB) launched a $50 million risk-sharing initiative to address this need and help provide small non-state school operators with credit.

Under the Ghana Private Schools Support Program (GPSSP), IFC provided risk participation of $3.4 million, as well as TA, through a risk-sharing facility with a local partner, The Trust Bank (TTB). Eligible middle-cost schools could get loans for infrastructure expansion or maintenance and get training in financial management and related skills. The risk-sharing facility partially guarantees TTB’s portfolio of loans to eligible schools and enables TTB to extend loans to schools on better terms and for longer tenures than existed on the market. TTB was required to do its own due diligence to book and monitor schools in the portfolio.

As a result of the program, IFC helped 17 schools develop business plans, resulting in TTB disbursing $1,724,000 to 11 schools (IFC, 2007). The facility utilized 75 percent of the $4.58 million risk-sharing loan as of 2010. The program did expand into Kenya; however, there were

compliance issues with the local partner bank and the program was halted (IFC, 2012). The program also launched in Rwanda. Plans to expand to South Africa and Uganda were cancelled. As of 2010, the aggregate of the investments in the three countries was 20 percent of the original $50 million approved. Given the small amounts of loans disbursed, and the considerable amount of TA, the initiative was considered unsustainable (IFC, 2020).

Most schools that participated in the program were middle market. An IFC Advisory Services report (2010) concluded the risk-sharing initiative was able to serve middle-market schools with some success.

However, if the program were to expand to serve low-fee schools, it would face significant challenges, including (1) marginal profitability; (2) no security/collateral for accessing loans, as these schools are often on rented premises and in temporary structures; and (3) low-fee schools need advisory services but cannot afford a contribution in time and cash, as they continuously struggle to remain afloat (IFC, 2010).

While there is no impact evaluation for the experience in Ghana and Rwanda, a project evaluation was undertaken for Kenya in 2012, which includes lessons learned
(see **Case Study 9**).

Case Study 9: IFC Risk-Sharing Initiative – African Schools Kenya

Source: IFC, 2007 and 2012

In 2007, IFC launched the African Schools Kenya (ASK) program in partnership with Kenya's K-Rep Bank. A total of 718 non-state schools benefitted from the program, of which 61 received loan financing from K-Rep and other banks amounting to $2.9 million.

Although a strategy for impact evaluation for ASK was designed and a comprehensive baseline conducted, the assessment was later dropped from the program and tracking and monitoring of treatment and control samples was not carried out. Qualitative findings based on questionnaires found that school staff were working together better as a team (82 percent), there was better teaching and learning in the classroom (82 percent) and teachers were more involved in school management (81 percent). However, 78 percent of administrators indicated they would need more support to access finance. The low amount of secured loans could also be partly due to staff turnover within the local partner bank, as staff trained in understanding the private education sector departed and this specialized knowledge was lost.

The program evaluation offers the following lessons learned: (1) diversify the access-to-finance options within the program by working with a range of banks that offer different products to different types of clients; (2) explore options for innovative, three-way partnerships between donors, IFC and banks, or PPPs to provide more conducive lending conditions for lower income schools; and (3) build the capacity of non-state school associations or other similar stakeholders to help link non-state schools to approved local service providers (e.g., auditing firms, training consultants, accountants) with information for schools on standards for advisory service packages and prices.

OECD BLENDED FINANCE SURVEY

In 2016, the OECD undertook a survey to better understand blended financing, gathering data from 35 important actors, such as the IFC. The OECD provides a breakdown of survey results by sector and financing instrument in LDCs (see **Figure 5**). Most of the $58.79 million in private finance mobilized in the education sector went to building facilities and training (52 percent), followed by TVET (19 percent) and education policy and administration (13 percent), Unlike other sectors, education does not use guarantees as a prominent leveraging mechanism (OECD and UNCDF, 2019).

The results of this survey confirm that investments in the education sector are small compared to other sectors. It also reveals that the instruments used are companies, special purpose vehicle (SPV), and co-financing (which includes PPPs), with very little use of guarantees. Convergence (2019) also found the education sector attracted little blended finance investment.

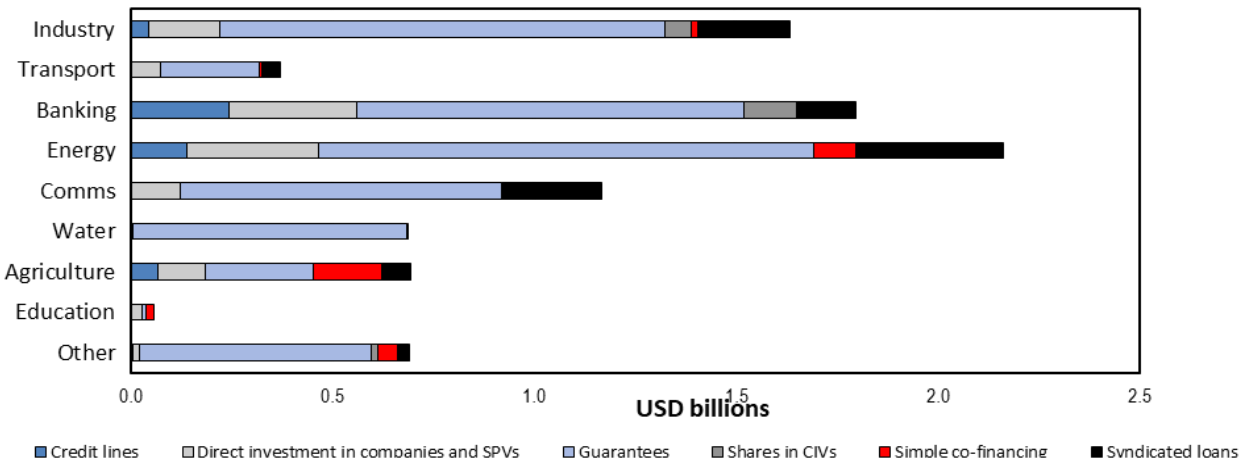
Summary and Key Points

Non-state provision in the education sector has continued to increase over the past decade, and non-state providers continue to gravitate to countries where regulatory frameworks demand accountability but also allow flexibility (e.g., in setting fees and hiring practices).

As noted earlier, the non-state market in education is fragmented and comprised largely of individual proprietors, making scaling up difficult. One way of promoting small non-state providers is by supporting the scaling up of SMEs through increased access to credit. However, this is challenging.

There are several different types of PPPs in the education sector, including private management of public schools and voucher programs. Some governments contract with the non-state sector to provide teacher training and curriculum design. PPPs are also being used to build school infrastructure.

Figure 5: Private Finance Mobilized by Sector in LDCs (2012–2017)



SOURCE: OECD, 2019. STATISTICS ON AMOUNTS MOBILIZED FROM THE PRIVATE SECTOR BY OFFICIAL DEVELOPMENT FINANCE INTERVENTIONS AS OF APRIL 1, 2019. NOTE: CO-FINANCING INCLUDES PPPS

Indeed, the 2019 OECD and UNCD survey results found that most of the $58.79 million in private finance mobilized in the education sector went to building facilities and training (52 percent), either through companies and SPVs or co-financing, which includes PPPs.

Impact bonds in the education sector have been increasing in number but are overwhelmingly located in developed countries, with only two DIBs in education. Barriers to the expansion of SIBs in developing countries include weak regulatory frameworks, lack of data, and legal challenges.

Further, Attridge and Engen (2019) estimate that **96.3 percent of private finance mobilized through blended finance flows to countries with a credit rating, which most LICs do not have**. In addition, unlike the health sector, where investments are relatively short term; scalable; with clear, measurable, and sustainable results (e.g., vaccines), improvements in education outcomes require long-term horizons (Innovative Financing for Global Education, 2013).

However, the success of the Educate Girls pilot in India, where the government has supported non-state provision, followed by the more ambitious Quality Education India, indicates investors are willing to participate in impact bonds when there is a demonstration of measurable success. While there are few examples of education SIBs reaching scale, they can target small populations that would not be reached otherwise (Brookings Institution, 2015). It is worth noting that the sudden interest in education SIBs in Portugal is a direct result of the Social Impact Bond Program launched by the European Commission and EIB in 2018, indicating that creation of public funds can lead to private interest in SIBs.

LITERATURE REVIEW

SCOPE OF LITERATURE REVIEW

The following literature review will focus on the role of blended finance in provision of non-state basic education and will be structured by the following themes:

- Research findings regarding blended finance for LIC students
- Research findings on blended finance in LMICs and HICs that is relevant and/or possible to replicate in developing countries

METHODOLOGY

Explicit inclusion/exclusion criteria will be used to conduct searches of bibliographical databases and will focus on research and findings by leading think tanks, associations, and organizational websites. The literature search will focus on works from the last 7 years.

Selection Criteria

To conduct the searches, a set of search terms and keywords (and synonyms) was developed and refined. Searches were conducted first using topical search terms in the search title, abstract, and subject heading fields of electronic databases. The same search terms were used for organizational websites and expanded to journal searches. Next, buckets of specific keywords

(education, non-state education, outcomes, financing, innovation, blended) were used to form search strings to enable focused results in database searches.

These documents were read, reviewed, and core information detailed in an annotated bibliography. This includes the title, author, year, reference type, publisher, and summary of key facts/findings. In addition, case studies of seminal initiatives are highlighted in the literature review.

Search Terms and Keywords

Below is the list of search terms that were used. A list of keywords used can be found in **Annex 2**.

Search Terms
blended finance(ing)/education
innovative finance
finance(ing) of education/developing countries/low income countries
finance(ing) of education/case studies/innovation
education outcomes/improving/low income countries
education outcomes/improving/financing

Sources of Information

Numerous donors have experience with blended finance. Searches of the websites and databases of these development institutions will provide important knowledge, best practices, key challenges, and lessons learned that can be applied across a variety of geographies, sectors, financial instruments, and development goals. In addition, websites/databases of key think tanks, investment firms, and research institutions active in blended financing research and investing were reviewed.

Associations, Stakeholders, and Implementers

Research by relevant associations, stakeholders, and implementers is reviewed. In addition, key researchers were contacted, and any sources of information suggested by them as relevant were reviewed. A complete list of key researchers contacted for the literature review can be found in **Appendix 1**.

BACKGROUND

The existing literature on the blended finance market (using instruments such as bonds, facilities, companies, funds, and projects) focuses on the sectors and regions where there is the most activity, namely the energy and finance sectors. There is overwhelming consensus that there is a lack of data regarding several key aspects of blended finance and there are specific barriers to analysis. The OECD (2018, 2019) has produced many reports pointing to a limited evidence base and no single, consistent, and comparable estimate of the blended finance market that covers the entirety of flows. Impeding market analysis is a lack of clarity and consistency of definitions surrounding blended finance, impact investing, and results-based financing. According to M. Heinrich-Fernandes in her report for the Donor Committee for Enterprise Development (2018), there is also a lack of evidence regarding the effectiveness of blended finance.

That lack of evidence on effectiveness could be due to shortcomings in M&E systems, which are particularly challenging because they must satisfy the needs of distinct and diverse stakeholders (OECD, 2018). Another challenge is measuring the additionality of blended finance. Pereira (2017)

notes there are no harmonized definitions, approaches, or methodologies to measure additionality, making it difficult to compare projects implemented by different institutions and draw lessons. While the Brookings Institution (2015) suggests that impact bonds may achieve additionality by reducing government costs of social services, there is no evidence of this to date.

A review of 14 blended finance projects supported by the IFC notes limited success. The projects were predominantly in MICs and in the climate change sector. Of the 14 evaluated projects, 4 achieved their development objectives and met performance benchmarks. Overall, these mostly risk-sharing facility projects had weak business and economic effects. Low use of facilities was frequent, and projects' intended goals were often not met. In addition, IFC found de-risking activities to be costly. They often have high administrative costs due to the small size, slow disbursement, and complexity of transactions. As a result, IFC's financial returns were below expectations in all cases (World Bank Group, 2020).

In their 2019 report, Attridge and Engen highlight that the potential of blended finance in LICs is hindered by poor investment climates, investable opportunities, tailored approaches, and low risk appetites of MDBs and DFIs. They estimate that 96.3 percent of private finance mobilized through blended finance flows to countries with a credit rating, which most LICs do not have. Another concern is low leverage ratios: The authors estimate that MDBs and DFIs have on average picked up 57 percent of the cost of blended finance investments to date, and as much as 73 percent of the cost in LICs.

The OECD and UNCDF (2019) make the case for greater focus on use of blended finance in the missing-middle segment of the corporate sector, meaning SMEs that are too big to access microfinance and too small or seen as being too risky to access commercial loans offered by mainstream financial institutions (FI). Seven out of 10 formal jobs are created by SMEs, increasing to 9 out of 10 jobs in some LICs. Yet small firms find it hard to make the transition to medium-size enterprises.

In LDCs, low productivity and competitiveness are partly due to low rates of small firms with bank accounts and the low proportion of SME investment financed by banks. Supporting missing-middle projects in LDCs can be costly. Low amounts of credit needed by SMEs ($50,000 to $1 million) are too risky or expensive for local banks to support. And DFIs do not routinely directly support smaller projects, leaving a wide gap in the financing-for-development architecture of projects that can transform local communities but need much more TA and project preparation support as well as financing to get off the ground. An example of this is the IFC risk-sharing initiative in Ghana, which did support 17 local schools but could not scale up or become sustainable (IFC 2007 and 2012).

When the education sector is mentioned in the literature, a lack of investment is acknowledged but there is little analysis as to the cause. The Innovative Finance Foundation (IFF) draws attention to the unique characteristics of the education sector, suggesting the average transaction size is too large it. Unlike the health sector, where various standard interventions exist that guarantee results (e.g., vaccines), there is no evidence of a "one-size-fits all" approach to reform in the education sector.

Impact Bonds

Multiple databases monitor impact bond activity around the globe, with varying numbers of impact bonds, and gaps in data. According to the University of Oxford impact bonds database, there are 26 impact bonds (SIBs and DIBs) in education globally, including service provision. However, most were launched in 2018, meaning few evaluations have been undertaken to date. In their rigorous evaluation of Educate Girls, the first DIB in the education sector, IDinsight concluded this small, successful pilot paved the way for the larger and more ambitious Quality Education India DIB, demonstrating the importance of innovation and scalability.

In a preliminary review of Quality Education India, DFID concluded it has successfully leveraged learning from the Educate Girls DIB to improve the design and set-up approach. This more ambitious project, with multiple outcome funders and service providers, has had challenges. These include foreign exchange risk, consensus on learning assessments, and drawn-out negotiations among the actors (DFID, 2019).

In its 2015 review of 38 SIB transactions in the social sector, supplemented with interviews and surveys of key actors, the Brookings Institution evaluates whether impact bonds contribute to crowding-in funding, reduce risk for government, drive performance management, and increase innovation. The study concludes that impact bonds can help crowd-in private funding, and points to Goldman Sachs and its investments in four SIBs in the United States.

In terms of reducing risk for government, not all risk can be removed. For example, investors might terminate a contract prematurely, leaving services unfunded and populations unserved. Brookings asserts that in some cases, SIBs have allowed flexibility in service provision to meet outcomes by allowing for course adjustment along the way. This is refuted by the Education Development Trust (EDT) in its 2019 report, although there is evidence that the Educate Girls DIB did indeed adjust its outreach program based on data provided early in the implementation of the DIB, as described by IDinsight (2018) in its 2018 Final Evaluation Report.

The Brookings Institution (2015) concludes that very few examples exist of SIBs truly reaching scale with social programs in developing country contexts. However, many SIBs target small populations that would not have been reached otherwise. EDT (2019) concurs with this assessment. Both Brookings and EDT found SIBs have not supported many highly innovative interventions. This could be due to a lack of willingness to take risk on the part of investors.

The Brookings Institution (2015) finds that performance management varies, and service providers with strong data management systems allow for flexibility, learning, and adaptation in implementation. In other cases, there appeared to be very little learning by doing and adaptation in service delivery. In the EDT (2019) review, no evidence was found of increased performance capability. EDT (2019) also found no evidence that impact bonds encourage collaboration between the public and private sectors, although according to the actors surveyed by Brookings (2015), 25 percent of outcome funders stated that collaboration was their primary motivation for involvement in a SIB.

D. Capital Partners (2013) produced a report focusing solely on the potential of impact investing in the education sector. The report suggests the

perceived risk of investing in the BoP has resulted in investors targeting only middle- to upper-income beneficiaries and proven business models. This translates into few impact investors focusing solely on education or not having clearly defined strategies on deal sourcing and execution. The report identifies potential areas of investment outside of school infrastructure, including education software development and distance learning programs.

Contradicting this report is a survey by J.P. Morgan (2010) of leading impact investors, which indicated that entrants to the impact investment market believe they need not sacrifice financial return in exchange for social impact, and see great potential for opportunities targeting the BoP, including in the education sector.

Public-Private Partnerships

There is an extensive body of literature evaluating PPPs in education. However, as noted by Aslam et al. (2017) in their review of 22 PPP evaluations, there are few rigorous evaluations.

Barrera-Osorio (2007, 2016, 2017) has undertaken several rigorous evaluations using randomized control trials (RCT) and propensity score matching. He concludes that the Colombia Concession Schools PPP voucher program improved learning outcomes. In Uganda, an RCT used to evaluate the Universal Secondary School PPP confirms that the students' learning outcomes in participating non-state schools were significantly better than in nonparticipating non-state schools. And in Pakistan, the Promoting Low-Cost Private Schooling in Rural Sindh (PPRS) PPP increased access in rural areas and improved learning outcomes. These programs all targeted vulnerable children.

PPPs also function at the tertiary level. Samson and Poncian (2018) conclude that the PPP for university student loans in Tanzania increased access by 6 percent over 7 years. While this percentage is low, the rate of return on tertiary education is high, particularly in SSA. Therefore, even a small increase can have a significant impact on economic growth. The IDB and GEM report (2014) suggests the LAC region could benefit from SIBs in the TVET sector. Currently, the region's many TVET programs offer mixed-quality services that often do not meet employer demand. They cite a 2012 survey of companies in 41 countries. Of the LAC countries included in the survey, employers in Brazil (71 percent) are having the hardest time finding qualified staff.

There are limits to some PPPs in terms of cost and sustainability. For example, in his evaluation of Concession Schools in Colombia, Barrera-Osorio (2007) notes that while the schools improve learning outcomes, they do so at a higher cost per student compared to public schools. He also cautions that, in addition to having a higher cost per student, the potential scale of any such program may be limited, given that the program relies on high-quality non-state schools to manage public schools, and there is a limited number of these schools, not all of which are interested in participating in the program.

A strong regulatory framework, combined with accountability and oversight, is essential for an effective PPP program. In addition, non-state operators should have some flexibility to meet the agreement outcomes and be subject to sanctions if they do not. Saguin (2019) concludes that the Philippines' Education Service Contracting (ESC) program, the largest PPP in the education sector, struggles with effectiveness due to poor policy design. The author suggests that ESC has not

reached its own goal of decongesting the public secondary education system, failed to properly target low-income students, and had completion rates below the national average.

In its 2014 review of the Malaysian Trust School (MST) model, the Center for British Teachers (CfBT) concludes it represents a very weak form of PPP and its funding mechanism is not sustainable. CfBT characterizes MST as private sector–supported rather than private sector–led, meaning the private sector partner advises school leaders and teachers but has no direct authority or line management responsibility for school staff. In Malaysia, as with other countries that have adopted this approach, this has slowed the rate of school transformation.

One area where there have been numerous RCT evaluations is charter school programs in the United States. Angrist et al. (2012) used an RCT to evaluate a middle school in Lynn, Massachusetts, operated by the nation's largest charter management organization, the Knowledge is Power Program (KIPP).

KIPP schools use a highly standardized and widely replicated charter model that features a long school day, extended school year, selective teacher hiring, strict behavior norms, and emphasizes traditional reading and math skills. With a focus on measurable results, the school closely tracks students' academic performance. Standardized testing is used regularly, and the results are used to plan interventions for individual students.

The authors conclude that this replicable schooling model produces substantial achievement gains overall, and especially large gains for weak students and those with special needs.

Abdulkadiroğlu et al. (2011) also used an RCT to assess the effects of charter school attendance. As with the KIPP evaluation, students in Boston charter schools show impressive score gains in middle and high school. The study also found that charter schools with good records that parents find attractive are likely to be among the most effective.

In their meta-analysis, Betts and Tang (2014) found that charter schools on average produce results that are at least on par with, and in many cases better than, district-run public schools.

REVIEW OF THE EVIDENCE

For this literature review, selection of the evaluations to be included was based on the 22 PPP studies reviewed by Aslam, M. et al. in Public-Private Partnerships in Education in Developing Countries: A Rigorous Review of the Evidence, commissioned by the Ark Education Partnerships Group in 2017. More recent evaluations were added.

Of the 22 PPP evaluations ranked by Aslam et al., this literature review focused on those that met the following criteria:

1. Timeframe: evaluations dated on or after 2013
2. Geographic location: PPPs were located in LIC or LMICs
3. Rigor of the evaluation: RCT, propensity and matching, and difference-in-difference evaluations were considered rigorous

All evaluations are of schools at the primary or secondary level. The RCT evaluation on the

Educate Girls SIB was also added. No other rigorous evaluations of SIBs or DIBs were found.

Of the studies listed below, five were contracting out PPPs and were evaluated by RCT and propensity and matching methods.

Colombia and Venezuela: Fe y Alegría (FYA)

FYA is a Catholic education network founded in 1955, serving almost 1 million students in 20 countries, primarily in Latin America. Founded by the Jesuits, the network serves underprivileged students at the secondary level. The Jesuits build the schools and the state pays teacher salaries. The Jesuits reserve the right to appoint teachers and the directors. Teachers are on the state payroll and the curriculum taught in the schools is the same as in all public or state schools.

Parra Osorio and Wodon (2014) evaluate 5 years of data, 1998–2000 and 2002–2003, for secondary school students. Compared to students in other schools, FYA students were found to achieve either similar results or small gains in math and science. FYA students tend to do less well in physics, chemistry, and biology, although the difference is very small.

Allcott and Ortega (2014) evaluated FYA secondary school students in Venezuela. They concluded that those students scored significantly higher on the Venezuelan college entrance exam than did students graduating from public schools.

Parra Osorio and Wodon (2014) suggest reasons for FYA's strong performance. FYA schools do not spend more money per student, but it does evidently have different management and cultural characteristics. Specifically, FYA's management structure is much more decentralized, with principals having budgetary authority and the ability to hire and fire teachers. In addition, the authors suggest the schools instill a "family feeling" in teachers, staff, and students, which they believe contributes to the treatment effect.

India: Andhra Pradesh Voucher Program

Muralidharan and Sundararaman (2015) use an RCT to study the impact of an Andhra Pradesh program that provided primary students with a voucher to finance attending a private school of their choice. Students were selected to the voucher program through a lottery. After 2 and 4 years of the program, the authors found no difference between test scores of lottery winners and losers on Telugu (native language), math, English, or science/social studies.

However, non-state schools also teach Hindi, which is not taught by the public schools, and lottery winners have much higher test scores on that. The mean cost per student in the private schools was less than one-third of the cost in public schools.

The main operating difference between private and public schools in this study is that private schools pay substantially lower teacher salaries and hire teachers who are younger and much less likely to have professional teaching credentials. However, private schools hire more teachers, have smaller class sizes, and have a much lower rate of multi-grade teaching than public schools.

Private schools were found to have a longer school day, a longer school year, lower teacher absence, higher teaching activity, and better school hygiene. Households that received vouchers did not increase expenditures on education, nor did the children who received vouchers spend additional

time doing homework, suggesting that any changes in test scores were due to changes at school, not changes at home.

India: Ensure Access to Better Learning Experiences (ENABLE)

Dixon et al. (2019) use an RCT (intent to treat) to evaluate the ENABLE voucher program in Delhi, which targeted underprivileged children ages 5–7 living in very poor households. A total of 1,618 children applied for the program, with 835 randomly selected by lottery to receive the vouchers.

Each lottery winner received four yearly vouchers, one covering tuition ($72) and the others for books ($13), uniforms ($9), and meals ($15). The total cost of the combined vouchers was $109 per student, which were to be provided on a yearly basis for 5 years. Parents could not add to the voucher amount nor could schools charge more than the amount.

Test scores for the voucher students were either higher than or statistically similar to those of the control group, depending on subgroup and tested subject, with the highest gains in English. Girls' learning outcomes improved the most.

India: Educate Girls DIB

IDinsight used an RCT to conduct an impact evaluation of the Educate Girls DIB. The tool measured the two outcomes that were used to determine the final outcome payments in the program: learning gains of boys and girls in grades 3–5 and enrollment of out-of-school girls. Educate Girls exceeded the 3-year DIB targets in both learning and enrollment.

Liberia: Liberian Education Advancement Program (LEAP)

Romero et al., (2020) used an RCT (intent to treat) to evaluate LEAP. In 2016, the Liberian government delegated management of 93 randomly selected public primary schools to non-state providers. The providers received $50 per pupil, in addition to the $50-per-pupil annual expenditure in public schools. They also received more government teachers. The schools remained free and non-selective.

After 1 year, students in PPP schools scored higher in English and mathematics. The authors conclude that these gains in test scores reflect a combination of additional inputs and improved management. The authors also note that some providers took undesirable actions.

While the contract did not allow cream-skimming, it did not prohibit providers from capping enrollment in oversubscribed schools or shifting underperforming teachers to other schools. While most providers kept students in oversubscribed schools and retained existing teachers, one provider did not.

The authors acknowledged the high cost of LEAP, varied learning outcomes by provider, as well as accusations that some operators failed to prevent, or actively concealed, sexual abuse in schools they managed.

In addition, the largest provider opted not to take part in the competitive bidding process and made a separate bilateral agreement with the government.

This allowed pushing excess students and underperforming teachers into other government schools. This underlines the importance of uniform contracting rules and competitive bidding in a PPP.

Pakistan: Adopt a School

In this study, Hafeez et al. (2015) use a quasi-experiment to examine ASER test score results, comparing students in a PPP primary school in Karachi and a public school in the same neighborhood.

The PPP school, SMB Fatima, is managed by the Zindagi Trust. The trust was registered in 2002 and adopted the school under the Sindh government's Adopt a School Policy. The trust made improvements to infrastructure, administrative procedures, innovation, planning, teaching staff, and student affairs.

The evaluation determined that, compared to the local public school, students at SMB Fatima scored higher in English and math at various grade levels.

Pakistan: Public School Support Program (PSSP)

In December 2015, the Punjab government announced that around 4,276 failing government schools would be transferred to non-state operators as part of PSSP. In PSSP, both organizations and individuals were able to bid on failing public schools. Organizations with school management experience were prioritized.

Organizations receive 700 Pakistani rupees per child per month, and individual operators 550 rupees. This amounts to less than half of government spending per child per month at public schools. PSSP schools remained free of charge.
Using difference-in-difference evaluation, the author estimates that enrollment in PSSP schools increased by over 60 percent. However, it is not certain whether this increase is due to non-state management, or simply a function of a system of school financing where schools are reimbursed on a per-student basis. Converted schools see a slight decline in overall average test scores, but the cause for this is unclear.

Schools with the same number or fewer students as in the previous year saw no change in average test scores. Learning outcomes at PSSP schools increased slightly.

Pakistan: Promoting Low-Cost Private Schooling in Rural Sindh (PPRS)

This study uses an RCT to evaluate the short-term impacts of public per-student subsidies to partnering local entrepreneurs to establish and operate tuition-free, coeducational, private primary schools in educationally underserved villages in the rural Sindh province of Pakistan.

The PPRS program was launched in 2007. Funded by the provincial government, the PPP program was designed and administered by the Sindh Education Foundation (SEF).

Its principal objectives were to (1) increase access to schooling in marginalized areas; (2) reduce the gender disparity in school enrollment, (3) increase the quality of education for socioeconomically disadvantaged children, and (4) increase student learning in a cost-effective manner.

PPRS targets children in primary and secondary education. Publicly subsidized non-state schools were randomly assigned to 200 educationally underserved villages, with local private entrepreneurs given responsibility for creating and managing the schools and compensated according to enrollment on a per-child basis. In addition, the entrepreneurs received a subsidy premium for enrolling girls. They were required to admit all children free of charge.

PPRS was highly effective. It increased school enrollment for children ages 5–9 by 31 percent, and for children 11–17 by 12 percent. The program also raised total test scores. The overall treatment effect was the same for boys and girls. The gender-differentiated subsidy treatment had similar impacts on girls' enrollment and test scores as the gender-uniform one.

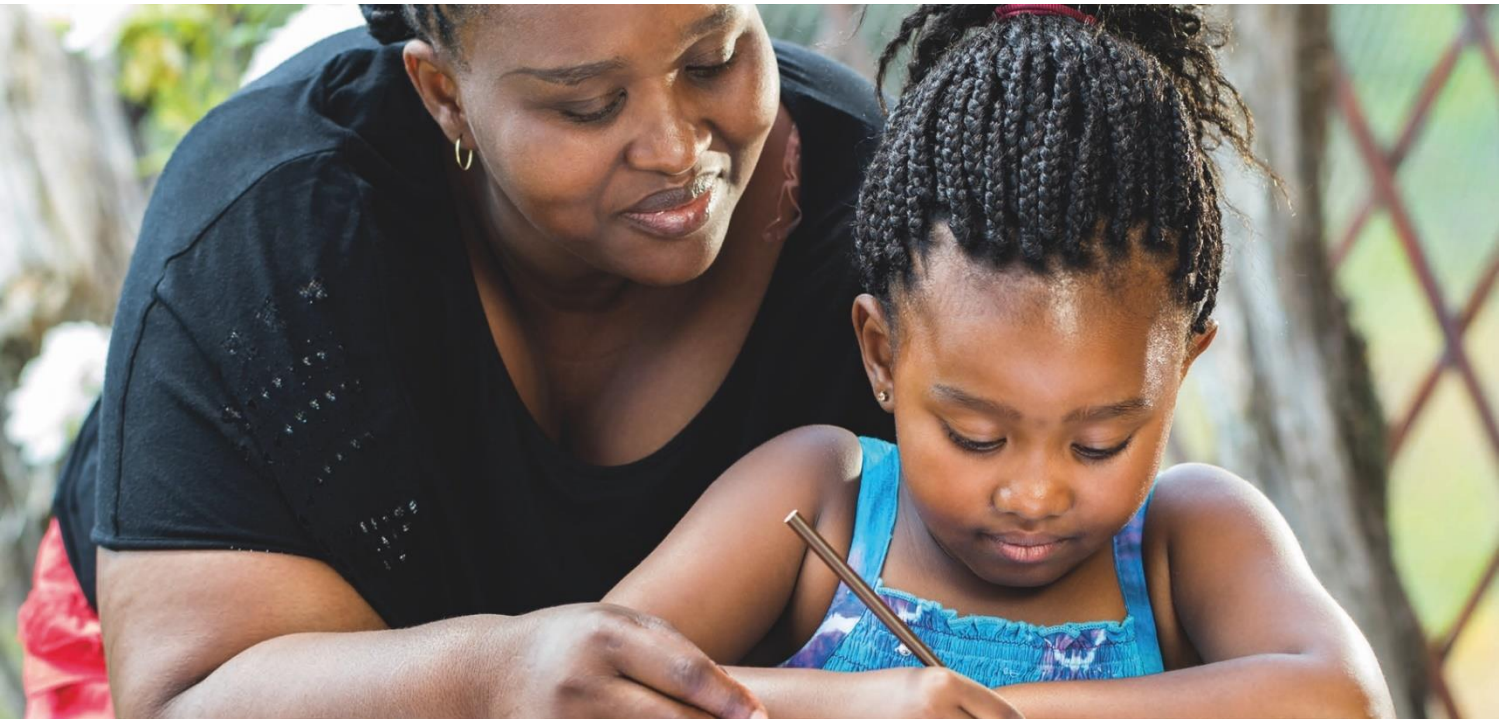
Since its inception, PPRS and the related SEF Assisted Schools have expanded to cover more than 550,000 students at over 2,000 schools.

Uganda: Universal Secondary Education

Barrera-Osorio et al. (2016) use an RCT to estimate the short-term impacts of a PPP for low-cost non-state secondary schools in Uganda. Under this program, the government offers a per-student subsidy to participating non-state schools. The study finds that the PPP program helped absorb large numbers of eligible students in secondary schools: total enrollment increases by just over 100 students per non-state school after 1 year of PPP program participation.

Student performance in participating non-state schools was significantly better than in nonparticipating non-state schools, particularly in math. The study finds that improved student performance is potentially linked to students in PPP schools being more likely to come from households with better education, more resources, and more involved parents.

Overall, the results indicate the PPP program successfully utilizes excess capacity in non-state schools and enables these schools to operate at a scale that more efficiently utilizes teacher and other instructional inputs.



Evidence Map of Blended Finance Instruments and Outcomes					
Country	**Type**	**Initiative**	**Author**	**Evaluation Method**	**Result**
Colombia	Contract Out	Fe y Alegría (FYA)	Parra Osorio and Wodon (2014)	Propensity and Matching	Improved learning outcomes
India	Voucher	Andhra Pradesh Voucher	Muralidharan and Sundararaman (2014)	RCT	Improved learning outcomes
India	DIB	Educate Girls DIB	IDinsight (2018)	RCT	Increased access, improved learning outcomes
India	Voucher	Ensure Access to Better Learning Experiences (ENABLE)	Dixon et al. (2019)	RCT (intention to treat)	Improved learning outcomes
Liberia	Contract Out	Liberian Education Advancement Program (LEAP)	Romero et al. (2020)	RCT (intention to treat)	Improved learning outcomes
Pakistan	Contract Out	Adopt a School	Hafeez et al. (2015)	Propensity and Matching	Improved learning outcomes
Pakistan	Subsidy	Promoting Low-Cost Private Schooling in Rural Sindh (PRRS)	Barrera et al. (2017)	RCT	Increased access, improved test scores
Pakistan	Contract Out	Public School Support Program (PSSP)	Crawfurd (2018)	Difference-in-Difference	Increased access, improved learning outcomes
Uganda	Subsidy	Universal Secondary School Program	Barrera et al. (2016)	RCT	Increased access, improved test scores
Venezuela	Contract Out	Fe y Alegría (FYA)	Allcott and Ortega (2014)	Propensity	Improved learning outcomes

KEY FINDINGS AND LEARNING GAPS

Blended finance in the education sector has the potential to help close the education funding gap. The continuing growth of non-state provision combined with increased investor interest in the sector could lead to new investment opportunities. The following section will summarize key findings regarding both innovative blended finance (impact bonds) and traditional blended finance (PPPs and guarantees).

KEY FINDINGS: IMPACT BONDS

Impact bonds have been growing in number. They have been held up as an example of how to mobilize private finance, while at the same time reduce risk for government, spark innovation, and generate other benefits. In the education sector, there are lessons to be learned from the experiences of impact bonds that are both completed and underway.

Flexibility in Implementation

In year 2 of the Educate Girls DIB, data indicated that the absence of some girls in the program was impacting learning outcomes. Service providers had the flexibility to add more home visits and remedial instruction, leading to stronger outcomes in year 3.

In the South Africa Early Childhood Impact Bond, budget flexibility was needed by outcome funders in an extended ramp-up period prior to launch.

Importance of data collection: The rigorous collection of data in the Educate Girls DIB informed implementers of the absence of some girls in the program and led to increased home visits and additional remedial instruction.

Working with local stakeholders: Educate Girls uses community volunteers to identify girls who are not attending school. By meeting with the families to encourage attendance, program staff are building participation not only of the girls, but also their families. Educate Girls also works closely with teachers to include supplementary curricula in classrooms.

Importance of communication: Quality Education India DIB involves multiple outcome funders and service providers. Workshops and frequent engagement were vital to defining roles and responsibilities at the outset. Also, a clear understanding of assessment methods is needed to attract outcome funders.

Building on lessons learned: Use of templates from Educate Girls and Quality Education India DIB was able to build on existing experience. Staff from Educate Girls was consulted regarding best practices and lessons learned. As impact bonds are completed and evaluated, information sharing will lead to streamlining and possibly reduce implementation costs.

KEY FINDINGS: PPPS

Non-state provision of education has increased greatly over the past decade, particularly in regions

with significant growth in non-state enrollment, including EAP, SAS, ECE, and SSA. However, few rigorous evaluations exist.

Accountability and Autonomy

There are some rigorous evaluations of PPPs, which conclude that this traditional form of blended finance can indeed reach low-income and underserved students and provide high-quality education, as with vouchers in Andhra Pradesh. For non-state providers to accomplish this, there must be a balance of accountability and autonomy. This is clearly the case in the Netherlands, which has a universal voucher system that is highly monitored and evaluated, as well as decentralized. In Colombia, Concession Schools have flexibility to contract administrative and teaching staff and can implement their own pedagogic model. FYA schools in Latin America also have a strong history. FYA has a decentralized management structure, with principals having authority over budgets and hiring and firing teachers.

Regulatory Frameworks

A strong regulatory framework is critical to ensure provision of high-quality education. Governments must ensure standards are being met in existing schools, and that applications for new schools are properly evaluated. Regulatory frameworks can also encourage innovation, empower stakeholders, and increase diversity in the education marketplace (see **Box 6**). USAID Education Policy (2018) recognizes both the role of governments in providing stewardship and the need for innovative and entrepreneurial solutions to education delivery and finance.

BOX 6: CHARACTERISTICS OF ENABLING REGULATORY FRAMEWORK

Encourages innovation among providers. The government allows private schools to decide on teachers, curricula, and learning materials to meet the needs of the local community.

Holds schools accountable for results. In the interest of accountability, the government monitors schools through inspections and standardized tests, and intervenes as appropriate.

Empowers parents, students, and communities. The government provides information on school performance, perhaps in the form of school report cards, so parents can choose based on quality.

Promotes diversity of supply. The government ensures new, non-state schools are able to enter the market to support new models and reduce monopolies.

SOURCE: PATRINOS AND LEWIS, 2014

In some countries, governments have dedicated institutions to facilitate PPP management. For example, in Pakistan's Punjab, PSSP operates and the provincial government funds the independent PEF, whose mandate is to use PPP mechanisms to increase access and improve the quality of Punjab's low-cost private education sector.

The advantages of having this institution include less bureaucratic pressure on schools from traditional government institutions and the potential to introduce special management practices in contracting.

In other countries, the government resists accepting the non-state sector as its partner in the social sectors. Thus, while these governments might allow non-state schools to exist, they do not fully recognize their contribution to achieving important education, economic, and social goals. In addition, many governments limit the number of private schools that can be established and discourage private investment in the education sector (World Bank, 2009). Examples of restrictions to non-state provision are provided in **Box 7**.

BOX 7: CHARACTERISTICS OF DISCOURAGING REGULATORY FRAMEWORKS

- Unclear and subjective school registration, criteria, and standards
- Limits on non-state schools' ability to set tuition and other fees, or to operate as for-profit entities
- Foreign investment controls
- Limits on non-state schools' ability to offer alternative curricula and qualifications
- Land-use limits
- Limits on number of non-state schools that can be established

SOURCE: PATRINOS ET AL., 2009

KEY FINDINGS: GUARANTEES

There are few examples of guarantees in the education sector. The 2007 IFC risk-sharing initiative in Ghana was considered successful; however, expansion into Kenya and Rwanda was short-lived, and the aggregate of the investments in the three countries was only 20 percent of the original $50 million approved.

USAID launched the Development Credit Authority (DCA) in 1998 to mobilize local private capital by establishing risk-sharing relationships with private FIs. In Ghana, USAID partnered with EcoBank to provide guarantees to SMEs, including school infrastructure ventures.

Overall, EcoBank did increase its lending to some new industries; however, these increases were small (USAID, 2009).

Technical assistance: The IFC provided TA to grow the number of loans issued to participating schools. School administrators received TA with business planning, education management information systems (EMIS), and accounting, yet the number of loans disbursed was small.

Low disbursement: The low number of schools that benefitted from financing, as well as difficulties in Kenya with the partner bank and low capacity of administrators, posed significant challenges, and the risk facility was not considered sustainable.

LEARNING GAPS

INNOVATIVE BLENDED FINANCE

Innovative blended finance in education is nascent, and there is little information regarding activity in the sector. We can look to other sectors for lessons on the benefits and limits of innovative blended finance. Learning gaps are found in the following areas:

Lack of data and analysis: Overall, the literature points to limits in data and analysis. Barriers include lack of clarity in terminology and lack of information on the blended finance market. This is due to a combination of factors, including private sector investment confidentiality and poor M&E and reporting.

Reaching LICs: Whether innovative blended finance can reach LICs is unclear. Indeed, over 95 percent of private finance mobilized through blended finance flows to countries with a credit rating, which most LICs do not have. Studies show the potential of blended finance in LICs is hindered by investment climates, lack of investable opportunities and tailored approaches, and low risk appetites of MDBs and DFIs. An additional concern is the low leverage ratios. The IFC has had challenges with blended finance investments in MICs and finds de-risking these investments to be costly, with low investment returns.

Reaching scale: There are very few examples of truly reaching scale with social programs in developing country contexts. However, many SIBs target small populations that would not have been reached otherwise. The Quality Education India DIB targets 200,000 children; while that is not a huge number given India's population, it could prove to be a successful example of an education DIB and lead to more interest in impact bonds in the sector.

Drawing conclusions about the effectiveness of impact bonds in the education sector is difficult, as few have been completed and evaluated. However, the successful Educate Girls pilot confirms impact bonds can be effective. More important, Educate Girls was followed by the more ambitious Quality Education India DIB, which drew on its lessons learned and administrative templates. This indicates that important foundations, such as MSDF, are interested in supporting innovations in the education sector.

PPPS AND GUARANTEES

Non-state provision of education has grown considerably in the past decade, particularly in LICs and LMICs. Yet many countries do not have hard data on how many non-state or non-formal providers of education operate there or how many students they enroll.

Lack of evaluations and data: Some rigorous evaluations do exist; however, many rely on administrative data or qualitative analysis. Governments in many countries do not have hard data on how many non-state or non-formal education providers exist. Indeed, many providers are not registered and therefore no information can be gathered.

Reaching LICs: There is sound evidence that, when properly designed and monitored, PPPs can reach vulnerable populations, increase access for girls, and improve learning outcomes. Examples demonstrating this include charter schools in the United States and in LICs such as Uganda.

Reaching scale: While most non-state school operators are individual proprietors, there are examples of PPPs with wide reaches. For example, in Liberia, the LEAP initiative reached over 8.6 percent of all public-school students. FYA serves about 1 million children in 20 countries.

There is little information available to draw conclusions regarding guarantees. However, the IFC's experience indicates guarantees are not a sustainable or scalable blended finance structure for the education sector.

MOVING FORWARD

This literature review has gathered and analyzed the latest rigorous evidence regarding blended finance. By evaluating examples of blended financing initiatives and best practices, the review contributes to the global knowledge base, including the impact of blended finance programs on education outcomes.

Moving forward, there are actions that can strengthen the knowledge base in this field, including additional rigorous evaluations of both impact bonds and PPPs. Regulatory frameworks that support accountability and innovation should be encouraged, and champions of innovation in education financing can be sought out to encourage private sector involvement in the sector.

RESEARCH AND EVALUATION

Non-state actors continue to be an important provider of education in many LICs and LMICs. However,
many governments do not have hard data on how many non-state or non-formal providers operate in their countries, or how many students they enroll, and often do not have regulatory frameworks for non-state schools. Data collection, impact evaluation, and assessment and benchmarking tools would provide a clearer understanding of the non-state education market and help policymakers assess supply shortages and financing deficits, design appropriate expansion plans, and offer lessons that might improve public sector performance (World Bank, 2020).

USAID has been strengthening its evaluation practice, with promising results. For example, the USAID/Mozambique Helping Children to Read project used an impact evaluation to adapt education programming. Incorporating the evaluation into the program design enabled the IP to adjust its programming based on the results and recommendations, leading to successful implementation of the program and subsequent expansion (USAID, 2016).

Innovative blended structures, such as impact bonds, are relatively new, and few in the education sector have been fully implemented. Rigorous reviews of education impact bonds are lacking. Over half of impact bond evaluations use validated administrative data. There are calls for evaluation

methods other than RCTs to be used, depending on the individual impact bond and the questions the outcome funders hope to answer or what they are trying to achieve.

Certainly, RCTs are expensive and time consuming when data is lacking. For that reason, it may be optimal to consider impact bond expansion into regions with high data availability. Any evaluations undertaken should be rigorous and demonstrate causality.

IMPROVING EDUCATION POLICY AND REGULATORY FRAMEWORKS

Donor countries can collaborate with governments to encourage policy changes that can accelerate self-reliance. Governments can be encouraged to provide enabling policies and regulatory frameworks for non-state schools in LICs and LMICs. These could include allowing non-state schools to set their own fees, establishing clear and objective establishment criteria, streamlining processes for registering non-state schools, and ensuring PPP contracts are flexible for non-state providers once outputs and performance standards have been agreed (Patrinos et al., 2009).

Sound governance and transparency are also crucial for the quality of a PPP program and public support. In the Brazilian state of Minas Gerais, the agreed-upon results frameworks of PPP projects are made public, and progress toward their achievement is monitored by the state PPP agency. PPPs often meet opposition because they are confused with privatization. For the long-term success of a PPP program, communication between the authorities, private sector, and civil society is critical. In addition to transparency, PPPs should bid on a competitive basis with clear rules that are consistent and known to all bidders (IDB and GEM, 2014). The expansion of impact bonds would also benefit from supporting legislation that facilitates contracting (Brookings Institution, 2015).

The USAID Private Sector Engagement Policy emphasizes collaboration with government, the private sector, and other stakeholders to increase private sector engagement and self-reliance.

SUPPORTING CHAMPIONS

To foster interest in innovative financing, champions are required. Champions can come from the public and private sectors. In the health sector, most existing innovative financing mechanisms have been created by government donors and the Bill & Melinda Gates Foundation (BMGF). In 2014, almost half of all private funding for global health was provided by BMGF, at $2.9 billion. Education champions could be much more powerful if more and better evidence were made available (Schäferhoff and Burnett, 2016). Partnering with foundations and NGOs to encourage private sector growth is part of USAID's private sector engagement strategy.

Global education institutions need to provide these champions with robust data and statistics to help them gain momentum and further the impact of their advocacy.

AREAS OF POTENTIAL GROWTH

This study identifies two sub-sectors in the education sector that are conducive to non-state investment growth, as well as one region.

As the AfDB points out in its 2020 Africa Economic Outlook report, African governments allocated an average of just 2 percent of their education budgets to pre-primary education, and 4 percent to TVET. This allocation is similar to other developing regions, such as Asia and Latin America (AfDB, 2020). These sub-sectors are worth examining for potential investor opportunities.

Latin America is identified as a region with potential for attracting impact investors. As this study has shown, one SIB in employment training in Colombia has been implemented and expansion is underway. In its 2014 report, the IDB and GEM suggest there is potential for both ECD and TVET impact bonds in LAC, given that there is a significant funding gap in ECD provision and some governments already contract with non-state providers at the tertiary level (IDB and GEM, 2014).

Early Childhood Development

Universal primary education has created greater demand not only for secondary education, but for pre-primary or ECD. Evidence shows that although increased participation in pre-primary school programs results in greater system efficiencies through higher quality learning outcomes and primary school completion rates, ECD has yet to be included in most public policy agendas (IFF, 2013).

There is reason to believe that the non-state sector could play an important role in developing DIBs for ECD. First, there are many non-state organizations financing and providing ECD services, which could allow for experimentation. The preventive nature of ECD programs fits well with the key feature of impact bonds, which is that preventive investments will result in improved outcomes and potentially cost savings later on. Also, impact bonds have the potential to address the lack of financing and poor quality of ECD services (Gustafsson-Wright and Atinc, 2014).

Two SIBs in HICs support preschool services, both of them in the United States. The Utah High Quality Preschool Program began in 2013. It provides financing for a targeted and high-impact preschool curriculum that aims to improve school readiness and academic performance among preschool students.

The goal is to reduce the number of children requiring remedial education services later on. Critics have challenged the SIB's assessment tool and say the greatly reduced number of children requiring remedial education cannot be directly attributed to it (see **Box 8**).

In Chicago, the Child-Parent Center (CPC) Pay for Success (PFS) Initiative was started in October 2014 to improve educational outcomes through half-day pre-K classes and parent engagement programs. Teachers track children's progress on skills important for kindergarten readiness using Teaching Strategies GOLD®.

The assessment found that children who had full-day preschool consistently demonstrate higher rates of readiness versus those who attended half-day (see **Box 9**).

BOX 8: UTAH HIGH QUALITY PRESCHOOL PROGRAM

In 2013, Utah launched a SIB to provide high-quality preschool education for low-income children.

The Utah High Quality Preschool Program targets low-income communities in Salt Lake County and has served more than 3,500 children. The goal is to prevent at-risk children from entering expensive special education. Participating children are assessed with a picture and vocabulary test, and are identified as at risk of entering special education if they get a very low score, typically around 25 percent of the class. While the entire class receives the preschool support, the success of the project and resulting payouts are judged on the outcomes of this at-risk group.

The outcome payers include Salt Lake County and United Way of Salt Lake for the first year of the project and the State of Utah for subsequent years. Goldman Sachs is the senior investor at $4.6 million, and the J.B. and M.K. Pritzker Family Foundation is the subordinate investor at $2.4 million. For each child avoiding special education, the investors receive about 95 percent of the savings from kindergarten through sixth grade. For the rest of each child's time in school, the state keeps the expected savings. Provided 50 percent of the children avoid special education, investors will earn all their money back with 5 percent interest.

After the first year, an evaluation by Utah State University showed that of the 110 students identified as at-risk, only one used special education services in kindergarten, less than 1 percent. Payments amounted to $260,000 and will continue until June 2021, when the cohort in question completes sixth grade. Critics argue there is no definitive proof that the children who avoided special education would not have done so without preschool. Further, there was no comparison group of children to test the assumption. Experts interviewed by the New York Times stated that most programs yield a reduction of 10 or 20 percent. The unusual success of the SIB could be caused by the assumption that many of the children in the program would have needed special education without the preschool, despite there being little evidence. In addition, some critics suggest the picture and vocabulary test has been overestimating the number of vulnerable children, particularly non-English-speaking students.

Proponents maintain the program has highlighted the importance of investing in preschool. For example, in 2016, legislation was introduced to expand access to preschool for the most vulnerable 4-year-olds.

SOURCE: POPPER, 2015 ONLINE, AND GRUNEWALD, 2018, ONLINE

BOX 9: CHILD-PARENT CENTER PAY FOR SUCCESS

In 2014, Chicago Public Schools (CPS) and the City of Chicago launched the PFS PPP contract that allows the City to provide high-quality pre-K services to more than 2,600 children in high-need communities through the successful CPC preschool model. PFS provides high-quality half- and full-day preschool education to 3- and 4-year olds as well as comprehensive family services. It seeks to identify and rectify low-severity learning and behavioral challenges, enabling students to stay on track with their peers.

CPC programming offers unique wrap-around services to engage parents and families in a child's education, and demonstrates stronger attendance and kindergarten readiness rates than similar programs. The Chicago Longitudinal Study (CLS) found that CPC is cost-beneficial and associated with higher rates of high school completion; lower rates of juvenile arrest and arrest for violent offenses; and reductions in special education placement, rate of grade retention, and child maltreatment.

Outcome payers are CPS and the City of Chicago. Investors are the Goldman Sachs Social Impact Fund ($7.5 million), Northern Trust Company ($5.5 million), and J.B. and M.K. Pritzker Family Foundation ($3.9 million). Outcome targets are to (1) decrease enrollment in special education, (2) improve kindergarten readiness, and (3) achieve reading at grade level in third grade. Service delivery will continue for 4 years, with a 17-year repayment term and evaluation period.

PFS evaluates students at the end of their kindergarten year, and will use a comparison group of students from similar low-income neighborhoods who did not attend preschool in a CPS program or Head Start. Third-grade students will be evaluated using the Partnership for Assessment of Readiness for College and Careers (PARCC). Children must score at or above the 25th national percentile on the reading portion of the PARCC to be considered for repayment. If the need for special education services among program participants decreases, lenders will be repaid $9,100 per student per year, with a 1.0 percent compounded interest rate per student. If there is an increase in kindergarten readiness, lenders will receive $2,900 per student. If there is an increase in third-grade literacy, lenders will receive $750 for every student who tests above the national literacy average.

The first evaluation showed that 59 percent of the 374 students in the first group met or exceeded national averages for kindergarten readiness, a very positive result for low-income, vulnerable children.

SOURCE: SOURCES: URBAN INSTITUTE, ONLINE, BLUM ET AL., 2015 AND SANCHEZ, 2016

Technical and Vocational Education and Training

Demand for TVET is growing as the youth population continues to swell and graduation rates in primary and secondary education increase. And while tertiary enrollments have increased globally, clear disparities in access continue. In Mexico, the enrollment rate of the wealthiest students is 18 times that of the poorest

In Francophone SSA, the richest quintile accounts for 80 percent of tertiary enrollment, while the poorest 40 percent represent only 2 percent.

Tertiary education graduates experience the highest economic return on their education—an estimated 17 percent increase in earnings as compared with 10 percent for primary and 7 percent for secondary education (Evans and Popova, 2015). Clearly, tertiary education is a pathway to self-reliance and economic growth. There are several SIBs in skills and employment training underway in the United Kingdom, Latin America, South Africa, and Palestine.

In Latin America, many TVET programs do not meet employer demand, and 34 percent of employers are struggling to find qualified employees. Of the LAC countries included in the survey, employers in Brazil (71 percent) are having the hardest time finding staff.

To sustain LAC growth, countries and companies must fill the skills gap. A SIB could help address the gap by partnering with private sector employers to meet their workforce needs (IDB and GEM, 2014).

Latin America

In its overview of the potential of impact bonds in Latin America, the Brookings Institution finds that despite hurdles, the region is conducive to expansion for several reasons. Latin America has relatively strong data availability, and impact investing is strong and growing, particularly in Peru and Ecuador.

Brookings reports that in 2019 there were 10 impact bonds in design in Latin America, including 3 in Brazil for education, health, and ECD. Challenges remain, however, including macroeconomic instability, political uncertainty, unfavorable tax regulation, and legal constraints (Gustafsson-Wright, 2019).

The Brookings Institution suggests that Mexico may be attractive for impact bond investing, possibly in the education sector, where secondary school dropout currently impacts about 35 percent of the population.

There are many civil society organizations providing services to underserved sectors of the population, as well as independent organizations with experience conducting impact evaluations.

Several federal and state-level government agencies and some states are already exploring the feasibility of impact bonds.

At the same time, challenges in Mexico include a lack of high-quality data, politicization of impact bonds, and little understanding of the nature of impact bonds among the public and stakeholders (Brookings Institution and Ethos Public Policy Lab, 2017).

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Abdulkadiroğlu, A., et al. 2011. Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots. The Quarterly Journal of Economics, Volume 126, Issue 2.

The purpose of this article is to assess the causal effects of charter school attendance and a closely related alternative, called pilot schools, on student achievement. Pilot schools arose in Boston as a union-supported alternative to charter schools. Pilot schools have more flexibility and decision-making power over school budgets, academic programs, and educational policies than do traditional Boston public schools.

Student achievement in Boston charter schools shows impressive score gains for students in middle and high school. In contrast, lottery-based estimates for pilot school students are small and mostly insignificant, sometimes even negative. The authors cannot determine why charter and pilot school effects are so different, but several factors seem likely to be important. These include smaller student-teacher ratios in charter high schools while the school day and year are longer in both charter high schools and charter middle schools. The large gains reported in this article are generated by charter schools with over-subscribed and well-documented admissions lotteries. Charter schools with good records that parents find attractive are likely to be among the most effective.

African Development Bank. 2020. African Economic Outlook 2020: Developing Africa's Workforce for the Future. Abidjan.

Between 2010 and 017, African governments allocated an average of 16 percent of their budgets to education; despite this, per student spending is the lowest in the world. Pre-primary education and TVET receive just 2 percent and 4 percent of government education budgets respectively. This allocation is similar to other developing regions, such as Asia and Latin America.

This report encourages private financing as a complement to government funding in public education institutions. Currently, private organizations represent only a small portion of education spending in Africa. For example, they contributed only 1 percent of total financing for education in Uganda.

Opportunities include exploring PPPs in TVET, where the private sector may be more in tune with market demand for skills. Service contracts or charter schools at the basic education level should also be encouraged, as well as private sector collaboration with universities.

To make private investing more attractive, this report encourages African countries to establish strong regulatory frameworks and monitoring mechanisms, and reliable quality standards for public and private education and training institutions, with quality assurance mechanisms for performance monitoring.

Angrist, J., et al. 2012. Who Benefits from KIPP? Journal of Policy Analysis and Management, 31(4).

The largest charter management organization in the United States is the Knowledge is Power Program (KIPP). KIPP schools are emblematic of the No Excuses approach to public education, a highly standardized and widely replicated charter model that features a long school day and school year, selective teacher hiring,

strict behavior norms, and emphasizes traditional reading and math skills. This study focused on KIPP Academy Lynn, a middle school founded in 2004 in Lynn, Massachusetts.

Consistent with KIPP's focus on measurable results, the school closely tracks students' academic performance. KIPP Lynn students take the Stanford 10, a widely used standardized test, each summer before school starts. These tests are used to assess the curricular needs of a cohort and plan interventions for individual students. Student performance throughout the year is discussed in staff meetings. Students are also tested at the end of the year, again with the Stanford 10. The authors conclude this replicable schooling model produces substantial achievement gains overall, and especially large gains for relatively weak students and those with special needs.

Angrist, J., et al. 2002. Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment. The American Economic Review.

The authors use a quasi-experimental research design, similar to a randomized control, to evaluate the Colombia Voucher Program for the Expansion of Secondary Education Coverage (PACES). Launched in 1991, PACES provided over 125,000 pupils with vouchers covering slightly more than half the cost of private secondary school. Vouchers were renewable as long as students maintained satisfactory academic performance. The program was a voluntary partnership between the central and local governments. If the municipalities chose to participate, they must co-finance the cost of the vouchers. The central government pays 80 percent of the cost of the voucher program and participating municipalities pay the remaining 20 percent.

Lotteries were used to distribute the vouchers. Three years after the lotteries, winners were about 10 percent more likely to have finished 8th grade and scored 0.2 standard deviations higher on achievement tests. Some evidence suggests winners worked less than losers and were less likely to marry or cohabit as teenagers.

Asian Development Bank. 2010. Public-Private Partnerships in Education: Lessons Learned from the Punjab Education Foundation. Manila.

This report reviews PEF and its PPP initiatives, including the flagship Foundation-Assisted Schools (FAS) program, which provides financial assistance to non-state schools in Punjab. PEF receives funding from the Punjab government.

The FAS pilot program was launched in 2005 in 54 schools in five districts of Punjab. The program includes primary, middle, and secondary schools. By 2008, the PEF, through FAS, supported 1,337 schools with 529,210 students. Program schools must be located in districts with the lowest literacy rates and highest number of children not attending school. The overall proportion of girls in FAS must reach at least 50 percent. Principals have the option of accepting or rejecting prospective students. Program schools cannot charge tuition of more than PRs350 per month. Financial assistance on a per-enrolled-child basis through FAS is driven by considerations of equity, quality, and access to all. No additional fees may be charged to parents. The best-performing school in each district receives a cash reward, while five teachers in the best performing schools receive bonuses. Continued participation in the program is contingent on strong performance on the bi-annual Quality Assurance Test (QAT).

Overall, the mean QAT score at FAS partner schools rose from 63 percent to 79 percent over the 4-year period. In addition, the FAS dropout rate is zero and there is less absenteeism among teachers. The FAS program underwent a third-party evaluation (TPE) that concluded it had made significant progress in making high-quality education accessible to the poor, particularly from the slums across Punjab.

Asian Development Bank. 2010. Public-Private Partnerships in Education: Lessons Learned from the Punjab Education Foundation. Manila.

The PEF, working with the Teachers College, Columbia University, and the Open Society Institute, designed the Education Voucher Scheme (EVS) for the slums in Punjab.

A pilot project was started in 2006 in the urban slums of Lahore, where all households were living below the poverty line. Through the EVS, the foundation would deliver education vouchers to every household with children 5–13 years old. The vouchers would be redeemable against tuition payments at participating non-state schools.

The EVS has been successful and has expanded to provide free high-quality education to 31,053 students in 167 schools throughout Punjab. Just over half the student population is girls, in line with the EVS mandate for gender equity. QAT scores indicate that EVS students from low-income families with poor educational backgrounds tend to do as well or better than students from middle-income families with better educational backgrounds.

Aslam, M. and Rawal, S. 2018. Background Paper Public-Private Partnerships and Private Actors in Secondary Education in Sub-Saharan Africa. Mastercard Foundation. Toronto.

This background paper consists of a desk review of existing PPP evaluations at the secondary school level. It also reviews existing literature and identifies studies and reviews by government ministries and in journals.

The authors conclude that governments should recognize the important role that non-state providers can play in the delivery of education and establish a dialogue with non-state providers to encourage open communication and information sharing. Social responsibility on the part of governments and non-state providers should be encouraged to promote access for disadvantaged children. Also, the important role that donors can play in creating a strategy for PPPs should be acknowledged.

Aslam, M., et al., 2017. Public-Private Partnerships in Education in Developing Countries: A Rigorous Review of the Evidence. Ark Education Partnerships Group. London.

The Ark Education Partnerships Group commissioned this review to evaluate the size and strength of the evidence base on PPPs, and to identify any research gaps. It reviews a total of 22 existing studies on 3 of the most common types of PPP: contract schools, subsidies, and vouchers.

The review concludes that subsidies have consistently had positive results, but this has not yet been shown to hold true in all contexts, and the quality of the evaluations is weak. There is some evidence they can be cost-effective and increase access for disadvantaged students.

The review includes recommendations to increase PPP effectiveness, including strong regulatory frameworks and increased capacity building for both government and private sector providers.

Attridge, S. and Engen, L. 2019. Blended Finance in the Poorest Countries: The Need for a Better Approach. ODI. London.

The authors undertake a critical review of blended finance and its role in closing the SDG financing gap. The review examines constraints to blended finance expansion, investment portfolios of the biggest actors

in blended finance, and the most recent data. It concludes that leverage ratios are low, particularly in LICs, with the potential to drop further.

The potential of blended finance in LICs is hindered by factors such as poor investment climates, lack of investable opportunities and tailored approaches, and low risk appetites of MDBs and DFIs. Private commercial finance will not flow freely to countries where the investment climate is challenging, markets are not functioning, and the risk-adjusted rate of return is uncompetitive. The review finds that 96.3 percent of private finance mobilized through blended finance flows to countries with a credit rating, which most LICs do not have. The data also shows very little variation in the instruments used in different country income groups, suggesting the current blended finance approach in LICs is not tailored to the risk requirements of private investors, which may limit the potential of blended finance to mobilize private finance in LICs.

Barrera-Osorio, F. 2007. The Impact of Private Provision of Public Education: Empirical Evidence From Bogota's Concession Schools. Policy Research Working Paper No. WPS 4121; Impact Evaluation Series No. 10. Washington, DC: World Bank Group.

This impact evaluation assesses the impact of concession schools on the quality of education using propensity score and matching estimators. The author evaluates dropout rates as well as test scores.

In 1991, the Concession Schools Program was launched in Bogotá, Colombia, with the goal of expanding access and quality of basic education. The initiative allowed non-state institutions to take over public education provision in certain primary and secondary schools.

According to this impact evaluation, the program succeeded in lowering the dropout rate, not only in concession schools but also in public schools near them. In addition, concession school test scores are at least equal to or higher than test scores for regular public schools. The author cautions that, in addition to having a higher cost per student, the potential scale of any such program may be limited. The program relies on private, high-quality schools to manage public schools. Only a limited number of such schools exist, and, of those, even fewer may participate in the program.

Barrera-Osorio, F., et al. 2016. Impact of Public-Private Partnerships on Private School Performance: Evidence from a Randomized Controlled Trial in Uganda. World Bank. Policy Research Working Paper 7905. Washington, DC

This paper estimates the short-term impacts of a PPP for low-cost non-state secondary schools in Uganda. Under the program, the government offers a per-student subsidy to participating non-state schools. Using data from Uganda National Examinations results, students in PPP program schools achieve higher scores in all subjects compared to students in non-PPP non-state schools.

The study finds that the PPP helped absorb large numbers of eligible students (boys and girls) in secondary schools. Student performance in participating private schools was significantly better than in nonparticipating private schools.

Barrera-Osorio, F., et al. 2017. Delivering Education to the Underserved Through a Public-Private Partnership Program in Pakistan. World Bank. Policy Research Working Paper 8177. Washington, DC

This study uses an RCT to evaluate the short-term impacts of public per-student subsidies to partnering local entrepreneurs to establish and operate tuition-free, coeducational, private primary schools in educationally underserved villages in the Sindh province of Pakistan.

The PPRS program was launched in 2007. Funded by the provincial government, this PPP program was designed and administered by SEF. Its principal objectives were to (1) increase access to schooling in marginalized areas, (2) reduce the gender disparity in school enrollment, (3) increase the quality of education for socioeconomically disadvantaged children, and (4) increase student learning in a cost-effective manner. The program targets children in primary and secondary education. Publicly subsidized private schools were randomly assigned to 200 educationally underserved villages. Local private entrepreneurs given responsibility for creating and managing them, and were compensated according to enrollment on a per-child basis. In addition, entrepreneurs received a subsidy premium for enrolling girls. They were required to admit all children free of charge.

PPRS was highly effective. It increased school enrollment for children ages 5–9 by 31 percent, and for children 11–17 by 12 percent. The program also raised total test scores. The overall treatment effect was the same for boys and girls; and the gender-differentiated subsidy treatment had similar impacts on girls' enrollment and test scores as the gender-uniform one. Since its inception, PPRS, and the related SEF Assisted Schools have expanded to cover more than 550,000 students at over 2,000 schools.

Barungi, M. and Kasirye, I. 2015. Performance of Public-Private Partnerships in Delivering Social Services: The Case of Universal Secondary Education Policy Implementation in Uganda. Policy Briefs 206176, Economic Policy Research Center (EPRC). Washington, DC

This brief examines the performance of the Universal Secondary Education (USE) PPP using a combination of questionnaires, interviews, and Ministry of Education and Sports (MoES) data. It found that the overwhelming majority of headteachers reported strong accountability, and that the PPP is relevant, effective, has great impact, and allows stakeholders to participate in decision making. Other positive consequences include employment creation, reduced burden of fee collection, easier implementation of schoolwork plans, greater access to information, and easier registration with the Uganda National Examination Board (UNEB). At the same time, schools are often overcrowded, and only about one-third of headteachers thought the PPP was efficient and sustainable.

The brief suggests that resources should be increased and used more efficiently. The PPP should adjust certain aspects of the USE program and its implementation modalities to support better outcomes. In addition, consequences should be introduced for disregarding the recommendations from the school inspection report, and efforts should be made to increase awareness and sensitize stakeholders about their roles and responsibilities to increase compliance with program regulations.

Baum, D. and Cilliers, J. 2018. Private School Vouchers for Expanding Secondary School Access? The Case of Tanzania. International Journal of Educational Management. Volume 32, Issue 7.

This paper studies the feasibility of using a school voucher program to help expand the secondary school system, compared to the alternative expansion of public secondary education. For students unable to cover the full cost of secondary education, findings suggest that a targeted non-state school voucher would be an efficient and equitable policy mechanism for secondary school expansion. It would lessen the financial burden on government for constructing all new schools yet assure access for the most vulnerable. The paper models an approach that policymakers could refer to when assessing the educational circumstances of a particular location and determine the potential effectiveness of a non-state school voucher policy.

Betts, J. and Tang, Y. 2014. A Meta-Analysis of the Literature on the Effect of Charter Schools on Student Achievement. Center on Reinventing Public Education. Seattle, WA. University of Washington.

In this rigorous analysis of privately managed schools, the authors find that charter schools on average produce results that are at least on par with and, in many cases, better than district-run public schools. This is particularly so for middle schools, where on average a charter school student gains about 2 percentile points per year relative to students in public schools. That is, a student who outscored 50 out of 100 students in public school would outscore 52 out of 100 students after 1 year in a charter school. Although modest, the accumulation of these gains over several years could be significant.

Brookings Institution and Convergence. 2017. Impact Bonds in Developing Countries: Early Learnings from the Field. Washington, DC

This publication reviews the 28 impact bonds in developing countries either contracted or in design phases. Details of these bonds are found in the Deal Book contained in the document.

The review gives a summary of characteristics of impact bonds in developing countries, including average contract amount, length of contract, and most common investors. It also provides lessons learned on establishing impact bonds, from identifying service providers and outcome funders, to raising capital and measuring impact.

For impact bonds to reach greater scale, the review calls for supporting legislation that facilitates impact bond contracting, expanding the evidence base of impact bond returns to demonstrate to investors that good results are likely, building capacity of service providers, and educating potential outcome funders and impact investors. Finally, the review encourages establishment of outcome funds and global investment funds.

Center for Global Development and Social Finance. 2013. Investing in Social Outcomes: Development Impact Bonds. The Report of the Development Impact Bond Working Group. Washington, DC

This report outlines actions various actors can take to support development of DIBs. The authors recommend that donor agencies collaborate with recipient country governments, potential investors, intermediaries, and service providers to ensure DIB contracts are cost effective, attractive to investors, and create the right incentives for service providers. Donor agencies are encouraged to establish a DIB Outcomes Fund. The fund would pool risk for initial DIB projects and more easily share lessons learned. To follow up on lessons learned, donors are encouraged to create a DIB CoP consisting of donors, investors, DIB development intermediaries, government agencies from developing countries, and other stakeholders. The CoP should use lessons from SIBs in developed countries and other forms of payment-for-results contracts.

The authors suggest that trusts and foundations provide subsidies that would catalyze development of this market. In the longer term, trusts and foundations could consider investing more of their assets in DIBs to gain both financial and social returns from their transactions. For their part, investors should consider establishing DIB Investment Funds, through which investors could contribute to funds that would provide ready pools of capital to invest in DIBs.

CfBT Education Malaysia. 2014. The Malaysian Trust School Model: It's Good but is it Sustainable? Institute for Democracy and Economic Affairs. Policy Ideas No. 11. Kuala Lumpur.

This policy paper by the Center for British Teachers (CfBT) reviews the Trust Schools Program (TSP) and argues that despite having significant success, it represents a very weak form of PPP and its funding model is not sustainable.

CfBT characterizes the TSP as private sector–supported rather than private sector–led, meaning the private sector partner advises school leaders and teachers but has no direct authority or line management responsibility for school staff. In Malaysia, as with other countries that have adopted this approach, this has slowed down school transformation.

CfBT suggests modifying the selection process to focus resources on the neediest schools first. The current Trust School selection process targets schools accordingly: 40 percent low-performing, 40 percent mid-performing, and 20 percent high-performing schools. However, CfBT suggests that the weakest performing schools in the system should be prioritized for Trust School status to ensure the highest return on investment to the MoE and the greatest impact on students.

Convergence. 2019. The State of Blended Finance. Toronto.

Convergence is the global network for blended finance. It generates blended finance data, intelligence, and deal flow, with the goal of increasing private sector investment in developing countries.

In its 2019 report, Convergence notes several trends in blended finance. Steady growth has continued, with the median transaction size consistent at around $64 million. SSA continues to be the region most often targeted by blended finance transactions, but on a declining proportional basis and with deal sizes remaining small relative to other regions. Asia, on the other hand, has seen considerable growth.

Energy and financial services continue to be the two most common focus sectors. Interest in education is declining from 5 percent of blended finance transactions in 2010–2012, down to 2 percent in 2013–2015, to a low of 1 percent in 2016–2018. MDBs and DFIs continue to be leaders in the space, with an uptick in blended finance activities from institutions based outside of North America and Europe. Foundations and NGOs represent a declining share of financial commitments to blended finance.

Crawfurd, L. 2018. Contracting Out Schools at Scale: Evidence from Pakistan. Research on Improving Systems of Education (RISE). Working Paper 18. Oxford.

This paper estimates the effect of a school reform in Punjab, Pakistan, where over 4,000 poorly performing public primary schools were contracted out to private operators in a single school year.

In December 2015, the Punjab government announced that around 4,276 failing government schools would be transferred to private operators, as part of PSSP. Under PSSP, organizations and individuals were able to bid on failing public schools, with organizations, in particular those with school management experience, prioritized. Organizations receive 700 Pakistani rupees per child per month, and individual operators 550 5upees. This amounted to less than half of government spending per child per month at public schools. PSSP schools would remain free of charge.

The author estimates that enrollment in PSSP schools increased by over 60 percent. However, it is not certain whether this increase is due to private management, or simply a function of a system of school financing where schools are reimbursed on a per-student basis. Converted schools see a slight decline in overall average test scores, but the cause for this is unclear. Schools with the same number or fewer students as the previous year saw no change in average test scores.

D. Capital Partners. 2013. Impact Investing in Education: An Overview of the Current Landscape. New York.

Focusing exclusively on impact bonds in the education sector, this report summarizes the traditional areas of investment and suggests other areas where investors could find opportunities. Overall, deal sizes remain small, particularly for investments that target lower-income beneficiaries. Investors have focused on school infrastructure, where building and upgrading schools are easily measurable. Future investments could include education software development, distance learning programs, and integrated management. However, current deal flow is limited, and deals can be very small and high-risk.

Expansion into investments targeting the bottom of the pyramid (BoP) are encouraged. Models that reach the vulnerable populations at the BoP generally do not generate financial returns. The models that do generate financial returns are usually targeted toward middle and high-income populations. This tradeoff makes the education sector more difficult for impact investors to source deals that have near-term financial returns and the ability to reach more vulnerable populations, but there is still significant opportunity and need for providers of impact capital to innovate.

Erskine, C. 2018. Quality Education India Development Impact Bond: A Case Study Produced as Part of the Independent Evaluation of the Department for International Development's Development Impact Bond Pilot Program. Ecorys UK. Leeds.

This case study was prepared as part of the independent evaluation of the DIB's pilot program and was commissioned by DFID. It summarizes findings from consultations completed July–October 2018 with key stakeholders involved in the DIB, including outcome funders, investors, service providers, and intermediaries.

The DIB will fund local service providers to improve grade-appropriate learning outcomes for more than 300,000 primary school–age (5–11) children. The DIB will run April 2018 – July 2022 and is the world's largest education DIB. It is operating in three districts of India: New Delhi, Ahmedabad, and Surat.

The case study concludes that the DIB has been successful in bringing together leading international organizations to support a model that is impressive in scale, implementing multiple interventions with a robust evaluation assessment. Overall, the DIB has successfully leveraged learning from the Educate Girls DIB to improve the design and set-up approach. However, due to the size and scope of this project, including the logistics of engaging multiple outcome funders and service providers, there has been limited re-use of templates from the Education Girls DIB. Also, the learning assessment is complex, and elements are difficult to explain to others, including potential outcome funders and service providers. On the financing side, there were complications during the set-up phase related to the financial implications of a contract involving several organizations from multiple countries and the foreign exchange risk. If the value of the Indian rupee appreciates against the U.S. dollar, BAT has agreed to cover the funding gap.

The main disadvantage of this complex DIB was the transaction costs and additional time required to engage in project management and meetings: Negotiations on the DIB took 2 years.

DFI Working Group on Blended Concessional Finance for Private Sector Projects. 2019. Joint Report. October 2019 Update. London.

This report was prepared by a group of DFIs: the African Development Bank (AfDB), Asian Development Bank (ADB), Asia Infrastructure Investment Bank (AIIB), European Development Finance Institutions (EDFI), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank Group (IDBG), Islamic Corporation for the Development of the Private Sector (ICD), and the IFC and EIB.

The report assembles the latest blended concessional finance data to present the most complete set of DFI data to date. In 2018, DFIs financed projects with a total volume of more than $6 billion using some $1.1 billion in concessional funds and $2.4 billion in DFI own-account resources. Private sector finance mobilized for these projects was about $1.7 billion. The report analyzes 2018 private sector blended concessional finance data from DFIs, by geographic region, sector, instrument, and project value, among other data. In addition, the DFIs reported for the first time on the donors contributing concessional resources to support blended concessional finance activities.

Dixon, P., et al. 2019. Experimental Results from a Four-Year Targeted Education Voucher Program in the Slums of Delhi, India. Vol. 124. World Development.

Ensure Access to Better Learning Experiences (ENABLE) is a voucher program in Delhi that targeted underprivileged children ages 5–7 living in very poor households. A total of 1,618 children applied for the program, with 835 randomly selected by lottery to receive the vouchers. Lottery winners each received four vouchers every year covering tuition ($72), uniforms ($9), books ($13), and meals ($15). The total cost of the combined vouchers was $109 per student, which was to be provided every year for 5 years. Parents could not add to, and schools could not charge more than, the voucher amount.

Test scores for the voucher students were either higher than or statistically similar to those of the control group, depending on subgroup and tested subject, with the highest gains in English. Girls' learning outcomes improved the most.

Heinrich-Fernandes, M. 2019. Donor Engagement in Innovative Finance: Opportunities and Obstacles. Donor Committee for Enterprise Development.

This report identifies obstacles to understanding and expansion of blended finance. First, there is a lack of clarity and consistency of definitions surrounding blended finance, impact investing, and results-based financing. Evidence is also lacking as to the effectiveness of blended finance.

The author reviews several publications, including by OECD, and finds that the evidence on results is fragmented and scarce. Further, the rapid expansion of innovative finance has shifted responsibilities of both donors and DFIs, and there is a need for a more strategic understanding of the roles best played by donors. For example, some donors now use grants as risk mitigation instruments and are lending to, or investing in, businesses without involvement of their DFIs.

The report suggests that donor agencies tend to have limited expertise and experience in sharing and managing risk and may need to recruit/train to bolster knowledge in this area. It also finds a significant lack of data and evidence about blended finance projects, specifically a lack of data on poverty impacts.

Education Development Trust. 2019. An Overview of Evidence Regarding the Impact of Impact Bonds as Innovative Financing Mechanisms for Education in Development Contexts. Reading.

This report provides a summary of the evidence regarding the impact of impact bonds (both SIBs and DIBs) on education in development contexts. In gathering the evidence, the study undertook a broad review of recent surveys on innovative finance mechanisms, with special focus on education in LMICs.

Despite claims that impact bonds focus on outcomes, encourage flexibility, and have the capacity to improve performance management, the author finds no evidence in the current literature to support or refute them. Further, the author finds no evidence that impact bonds encourage collaboration across the public and private sectors, nor any benefit to choosing impact bonds over other funding models.

Regarding impact bonds in the education sector, the report also finds very little published evidence examining their impact on outcomes related to either educational quality, inclusion, enrollment and retention, or value-for-money. Evidence from LMIC contexts is particularly limited.

Gustafsson-Wright, E. 2019. It takes More Than 2 to Tango: Impact bonds in Latin America and the Caribbean. Brookings Institution. Washington, DC

In this overview of the potential of impact bonds in Latin America, the Brookings Institution finds that despite hurdles, the region is conducive to expansion for several reasons. First, contingent financing has already been used to deliver a variety of services across the region, including healthcare. In addition, Latin America has relatively strong data availability compared to the MENA, SAS, and SSA. Impact investing is strong and growing, particularly in Peru and Ecuador.

In addition, civil society and communities have a history of combating social challenges in Latin America and have led social innovation there. The overview suggests that despite promising conditions, challenges remain, including macroeconomic instability, political uncertainty, unfavorable tax regulation, and legal constraints.

Gustafsson-Wright, E. and Boggild-Jones, I. 2017. Colombia Leads the Developing World in Signing the First Social Impact Bond Contracts. Brookings Institution. Washington, DC

The authors provide an overview of this SIB as well as details on the financing of the program. The investors in the SIB are a coalition of foundations who are providing upfront capital to finance the intervention. One of these foundations, Fundación Corona, serves as the contract manager with several service providers. Prosperidad Social, an entity of the Colombian national government, will provide just under half the 2.2 billion pesos (about $765,200) in outcome funds. The government of Switzerland will fund the remainder through SECO. IDB's MIF is channeling the SECO outcome funds as well as supporting various aspects of the design work.

In the first year of the SIB, Prosperidad Social will repay the investors for job placement and retention of 3 months, up to 1 billion pesos, after which repayments will come from IDB/MIF. In the second year, all payments will come from IDB/MIF, up to a total of 1.2 billion pesos. A bonus payment of 10 percent of the overall price of the two metrics will be made for job retention at 6 months.

Gustafsson-Wright, E., et al. 2015. The Potential and Limitations of Impact Bonds: Lessons from the First Five Years of Experience Worldwide Global Economy and Development Program. Brookings Institution. Washington, DC

The research for this study consisted of a systematic review of the literature on impact bond effectiveness to date, more than 70 structured and informal interviews, and online surveys of 30 individuals. The interviews and surveys captured multiple representatives of the actors involved in every SIB contracted as of March 2015, as well as other key players in this area. The study analyzes stakeholder motivations, key facilitating factors, the biggest challenges faced in 38 impact bond transactions, and positive claims made about impact bonds.

Challenges faced in deal development including reaching consensus on the best metrics, financing, and payment structures. In addition, the availability of measurable and monetizable outcomes was a significant challenge for actors surveyed.

The authors conclude that there are examples of impact bonds bringing fresh capital to some social sectors, and while impact bonds reduce risk for government, they cannot eliminate it completely. Impact bonds do shift thinking among government agencies and service providers toward outcomes. The authors found that impact bonds do target specific small groups that would not otherwise be reached, and can serve as catalysts to achieve scale, in that they may encourage a government to take on the funding or service provision in the future. Few impact bonds have been innovative in their delivery. There is evidence that, with strong data management by the service provider, there is flexibility in performance management. Impact bonds stimulate collaboration by the nature of their design.

Impact bonds can sustain results by providing multiyear financing to service providers. In addition, they can have a sustained impact if they lead to a major shift in how governments view performance management, achievement of outcomes, and development of M&E systems.

Hafeez, F., et al. 2015. Impact of Public-Private Partnership Programs on Students' Learning Outcomes: Evidence from a Quasi-Experiment. Munich Personal RePEc Archive (MPRA) Paper No. 73070.

In this study, the authors conduct a quasi-experiment to determine whether a PPP school in Karachi run by the Zindagi Trust has better learning outcomes than a public school in the same neighborhood. The schools include students from primary through second grade.

The SMB Fatima School run by Zindagi aims to utilize government-allocated resources to improve learning outcomes. This was done by focusing on training public school teachers, administration, and extracurricular activities. The propensity-score results show that SMB Fatima performed better than a comparison group in attaining learning outcomes, thus showing positive effects by the PPP.

IDinsight. 2018. Educate Girls Development Impact Bond. Final Evaluation Report.

The world's first DIB in education, the Educate Girls DIB was launched in 2015 and concluded in July 2018, surpassing both educational outcome targets.

The Educate Girls DIB aims to improve outcomes for primary school students in rural Rajasthan by funding programming by the NGO Educate Girls. An Indian NGO, Educate Girls uses community volunteers to identify, enroll, and retain out-of-school girls, and to improve foundational skills in literacy and numeracy for all children. The UBS Optimus Foundation, acting as the investor, financed Educate Girls' project implementation, while CIFF agreed to pay for learning outcomes. These outcomes were evaluated by IDinsight.

IDinsight conducted an impact evaluation using an RCT. It measured two outcomes that were used to determine the final outcome payments for the project: learning gains of boys and girls in grades 3–5 and enrollment of out-of-school girls. Educate Girls exceeded the 3-year DIB targets in both learning and enrollment. UBS Optimus recouped its initial funding ($270,000) plus a 15 percent internal rate of return. And while the DIB was expensive relative to the cost of the program, there are opportunities to reduce costs in future DIBs by creating much larger DIBs that benefit from economies of scale to keep administrative costs low, or small DIBs engineered to rapidly refine a program that, if successful, can then be scaled up.

Initiative for Social and Economic Rights. 2016. A Threat or Opportunity? Public-Private Partnerships in Education in Uganda. Kampala.

This study assesses the PPP policy in education in Uganda and its compliance with human rights standards, and with the right to education for all children. In addition, the study examines issues of regulation and supervision of PPP schools, equitable geographical access to education, access by vulnerable groups, financing and cost effectiveness, and quality. The research used qualitative methods of data collection, including desk research, key informant interviews, focus groups, and observation.

The study findings suggest the PPP program may not be compliant with human rights standards applicable to the right to education. Data collected illustrates that despite the overall increases in enrollment, PPP schools also exist in sub-counties where there are already public schools, despite the fact many counties do not have secondary schools. Further, the study found the PPP schools had not succeeded in reducing obstacles to enrollment for vulnerable and/or marginal groups, and school quality may be compromised due to a low capitation grant.

The study recommends that low-quality, low-fee PPP schools be phased out and community schools be provided more support. In addition, the capitation grant should be increased, and a social impact assessment of PPP schools should be conducted to ensure they will benefit the communities where they are established. PPP schools should be more closely monitored to ensure they are operating within the terms of the partnership.

Innovative Financing for Global Education. 2013. ESP Working Series No. 58. Innovative Finance Foundation. Geneva.

This study reviews the success of the health sector in promoting innovative finance, and contrasts this with the education sector, which has unique barriers to creating investment opportunities and attracting investors. These opportunities have remained limited largely by the transaction size and challenges leveraging partnership opportunities between public and private funders.

The paper points out that in the health sector, investments are relatively short term; scalable; and with clear, measurable, and sustainable results. Improvements in education outcomes, on the other hand, require long-term horizons; the full impact of investments will only emerge after a long period. Another difference between the two sectors is that in the education sector, there is no evidence of a one-size-fits all approach to reform implementation. But in the health sector, various standard interventions guarantee results. The paper reviews several innovative financing mechanisms and assesses their utility for education financing, including global taxation/solidarity levies, debt contract securitization for bonds, DIBs, and blended instruments.

Inter-American Development Bank Group and GEMS Education Solutions. 2014. Social Impact Bonds and Education in Latin America. Discussion Document for New Mechanisms for Investing in Global Education, Global Education and Skills Forum. Washington, DC

This paper seeks to generate discussion on application of SIBS and their potential in LAC. It also investigates where there are opportunities and challenges in the region.

The report points out barriers to expansion of SIBs in LAC, including weak regulatory frameworks, lack of data, and legal challenges. However, it suggests there are opportunities in ECD and TVET. It further asserts that sound governance and transparency are crucial for PPP quality and public support.

Inter-American Development Bank. No date. Colombia's Innovative Strategy to Employ Its Youth. Washington, DC

The Colombia Workforce SIB is a pilot program that seeks to increase the participation of vulnerable populations in formal jobs. It aims to address the high number of young people in urban centers who are not working or studying by providing job training and other support that will lead to employment. Training programs that do exist often do not align with the skill requirements of the labor force.

This SIB program ran from March 2017 to December 2018. Out of a total of 1,855 people who received the labor intermediation, 899 (46 percent) managed to register in a formal job. Of those who got a job, 677 managed to retain it for at least 3 months (79 percent of employees) and 309 for 6 months or more (34 percent of employees). This compares favorably to the most successful employment interventions globally for vulnerable populations, which place 20 to 32 percent of participants in formal employment.

In addition to securing formal employment for almost half of participants, the SIB changed the way employment programs are structured. The programs are now tailoring their training to individual participants, making it more innovative and personalized. Based on the success of this pilot, the program has expanded to other cities in Colombia.

J.P. Morgan Global Research. 2010. Impact Investments: An Emerging Asset Class. New York.

In this report, the authors argue that impact investments are emerging as an alternative asset class. They conducted a survey of leading impact investors, which resulted in 24 respondents providing data on expected returns for over 1,100 individual investments to better understand the market, its potential, and any barriers.

The survey indicates that entrants to the impact investment market believe they need not sacrifice financial return in exchange for social impact, and see great potential for opportunities targeting the BoP, including in the education sector.

The report outlines how investors have sought to build an impact investment infrastructure to attract new investors. This led to creation of the Global Impact Investing Network (GIIN) in 2009 by J.P. Morgan, the Rockefeller Foundation, and USAID. The GIIN was tasked to develop the critical infrastructure, activities, education, and research that would increase the scale and effectiveness of impact investing.

The GIIN's work is rooted in the needs identified by early impact investors and consists of four main efforts: (1) the Investors Council, where leading impact investors provide leadership in the industry and facilitate shared learning and collaboration; (2) creation of Impact Reporting and Investment Standards (IRIS), a language and framework for measuring the social performance of impact investments; (3) the GIIN outreach initiative, which elevates impact investing by highlighting exemplary investments, industry progress, and best practices; (4) and establishment of ImpactBase, an online search tool where fund managers can create profiles for their funds that are visible to global, mission-aligned investors.

LeapEd. 2019. Trust Schools Program Impact Study. Kuala Lumpur.

LeapEd conducted an impact study of its Trust Schools Program (TSP), designed to develop holistic students with 21st century capabilities through enhanced teacher training. Since launching in 2011, TSP has impacted over 5,300 parents and 65,000 students in 83 schools across 12 states in Malaysia.

The study comprises several methodologies, including surveys, interviews, and observations from over 3,000 respondents—school staff, students, and parents. It revealed that 95 percent of secondary school teachers and 76 percent of primary school teachers improved their teaching abilities significantly. Some 91 percent of primary school students and 88 percent of secondary school students perceive the education quality at their trust schools as high.

Mayberry, K. 2015. Malaysian Trust Schools: A New Educational Approach. JCI Working Paper #1. Institute on Southeast Asia. Jeffery Cheah Institute on Southeast Asia. Selangor, Malaysia.

This paper offers an overview of TSP and focuses on the effectiveness of its teacher training approach. TSP was introduced in 2010 by the MoE to create a PPP in government school management for schools at the primary and secondary levels. Designed by state investment fund Khazanah Nasional, with support from its philanthropic foundation, Yayasan Amir, and its education services company, LeapEd Services, the program has been effective in raising standards with its more progressive approach to learning and classroom practices.

TSP aims to improve student outcomes within the existing system by offering teacher and leadership training. Khazanah Nasional initiated the pilot with RM100 million, which was used to establish LeapEd and develop the teaching programs for the initial 10 schools. Trust Schools are financed in the same way as any other government school: based on size, location, and performance.

TSP was inspired by educational reforms in the United States (charter schools), United Kingdom (academies), and Sweden (voucher system). Like the charter school and academies models, Khazanah Nasional also sought corporate sponsors, and used the funds to support LeapEd. Unlike charters and academies, however, Trust Schools are staffed by teachers employed by the MoE. Each Trust School can create its own performance targets, but targets related to academic success contribute only 20 percent of the overall student assessment—problem solving, creative thinking, and ethics are also included in the assessment. Unlike charter schools or academies, there is no threat of school closure due to poor performance. Initial results suggest LeapEd's approach has been effective in helping teachers rediscover their enthusiasm for teaching. Absenteeism has decreased for both students and teachers. Weaker schools have shown the most immediate improvement.

The MoE plans to extend the program to 500 of Malaysia's 10,000 government schools by 2025. However, Yayasan Amir has indicated it will not be involved in any more than 220 schools, and it is unclear which organizations will participate in the expansion. While most of the initial sponsors have been government-linked companies, the MoE is encouraging private companies, NGOs, and alumni groups to get involved.

Muralidharan, K. and Sundararaman, V. 2015. The Aggregate Effect of School Choice: Evidence from a Two-Stage Experiment in India. The Quarterly Journal of Economics. Vol. 130, Issue 3.

The authors used an RCT to study the impact of a school choice (voucher) program that Andhra Pradesh offered primary students to attend private schools of their choice. Students were selected for the program through a lottery. After 2 and 4 years of the program, the authors found no difference between test scores of lottery winners and losers on Telugu (native language), math, English, or science/social studies. However, private schools also teach Hindi, which is not taught by the public schools, and lottery winners had much higher test scores in Hindi. The mean cost per student in the private schools in the sample was less than one-third of the cost in public schools.

The main operating difference between private and public schools in this setting is that private schools pay substantially lower teacher salaries and hire teachers who are younger, less educated, and much less likely

to have professional teaching credentials. However, private schools hire more teachers, have smaller class sizes, and have much lower rates of multi-grade teaching than public schools. Private schools were found to have a longer school day and school year, less teacher absence, higher teaching activity, and better school hygiene. Households that received vouchers did not increase expenditures on education, nor did their children spend additional time doing homework, suggesting that any changes in test scores were due to changes at school, not at home.

O'Donoghue. J., et al., 2018. A Review of Uganda's Universal Secondary Education Public-Private Partnership Program. Education Partnerships Group. London.

With support from DFID, the Education Partnerships Group's (EPG) report provides an overview of the USE program, a summary of assessments to date, its own assessment, and conclusions. The PPP launched in 2007, with 363 private providers of low-cost secondary education in 314 sub-counties. Since then, the USE has grown to about 800 schools, with 460,000 students—32 percent of all secondary-school students in Uganda.

PPP schools are predominantly rural and were often started by local communities or entrepreneurs in response to the lack of government-operated schools in the area. PPP schools have substantial freedom to manage themselves, including recruiting and managing their own teachers. They accept only students with a minimum score of 28 on their primary leaving exam (PLE), which excludes nearly one-fifth of students eligible for secondary school.

EPG notes that the 2016 World Bank RCT assessment demonstrated that the PPP policy was effective in improving access to, and the quality of, private schools. Enrollment and test scores both increased. The rigorous assessment does not, however, compare the learning outcomes of PPP and government schools. Less rigorous assessments were undertaken by EPRC and ISER. Comparing the results of the three assessments, EPG concludes there are mixed views on equity, performance, and cost efficiency. However, all the assessments conclude that (1) the PPP capitation amount should increase so it can cover the costs of educating students who otherwise would not be able to afford it, and (2) greater government monitoring and oversight of the PPP is needed to ensure quality.

EPG further concludes the PPP program has played an important role in increasing secondary education access cost effectively. For example, research shows that about 30 percent of students enrolled in PPP schools, representing about 130,000 students in total, would not be enrolled if not for the government subsidy. PPP schools deliver a similar level of quality as government schools but at a lower cost, despite hiring less qualified teachers, who are paid less than government teachers.

OECD and UNCDF. 2019. Blended Finance in the Least Developed Countries. OECD Publishing. Paris.

This report pays particular attention to the use of blended finance in the missing-middle segment of the corporate sector. While there is no universally accepted definition or measure of the missing middle, it is generally meant to refer to SMEs that are too big to access microfinance and too small or seen as being too risky to access commercial loans offered by mainstream FIs. Most formal jobs in emerging markets are with SMEs—up to 9 out of 10 jobs in some low-income countries. In LDCs, there is a high concentration of very small firms with fewer than 10 employees.

In UNCDF's experience, SMEs in LDCs typically need credit ranging from $50,000 to $1 million. That is credit normally extended by local banks, yet local banks often find such projects too risky and too expensive to support—or have investment options offering better returns. Many DFIs do not routinely directly support

smaller projects, often because of the transaction costs, although they may use instruments such as guarantees to encourage increased lending to SMEs. The report suggests more TA and project preparation support, as well as financing, is needed to bolster SMEs. Better understanding of the role that blending can play in helping to fill this gap is called for.

OECD. 2018. Making Blended Finance Work for the Sustainable Development Goals. Paris.

This report presents a comprehensive assessment of the state of blended finance and priorities for action to improve implementation. It draws on surveys, case studies, interviews, and desk research. It argues that while blended finance has potential to scale up commercial finance to meet SDGs, its deployment by the development finance community should be based on a common framing and principles, as well as additional evidence and analysis. The report points out the limited evidence base, and efforts to map the landscape have not produced a single, consistent, and comparable estimate of the blended finance market that covers the entirety of flows. Significant shortcomings also exist in M&E systems, contributing to gaps in the evidence base that have implications for blended finance.

Going forward, blended finance should be more strategically targeted if it is to meet the challenges of supporting developing countries to meet a wider range of SDGs. It is prevalent in HICs and in a limited number of sectors. The report cautions that the M&E criteria may differ according to the needs of different stakeholders.

OECD. 2018. The Next Step in Blended Finance: Addressing the Evidence Gap in Development Performance and Results. Workshop Report. Paris.

The proceedings of this workshop conclude that while blended finance does not always lead to superior development results, this can be justified by the fact that concessional blending is used for higher risk projects where success is, by design, harder to achieve.

The participants suggest that more transparency is needed to strengthen public accountability, both on financial and development performance. In addition, there has been little discussion of when it is worthwhile to bring in private capital, what unexpected outcomes and market externalities it may generate, and what the preferable modalities are for blending in a given context. The authors suggest that confidentiality is an important obstacle to blended finance evaluation, as often data on the financial inputs (i.e., which public investors provided how much) is not accessible.

The authors suggest that contractual arrangements are instrumental to establishing a joint evaluation strategy between donor governments and their blending arms. In the United Kingdom, DFID and the CDC Group have committed to a joint evaluation and learning program, which combines quantitative impact evaluations on large programs for accountability to Parliament with qualitative project performance reviews for formative purposes. Other good practices include stakeholder involvement, providing management responses, and better timing to align with the decision-making process.

Parra Osorio, J.C. and Wodon, Q. (eds.). 2014. Faith-based schools in Latin America: case studies on Fe y Alegria. World Bank. Washington, DC

The authors provide a comparative assessment (economic analysis) of the performance of faith-based and public schools at the primary level using household survey data. According to the survey, about one- third of primary school students attend government schools, and more than half of the students are in faith-based, government-assisted (subsidized) schools. The rest of the students are mainly in private non-subsidized schools.

The authors conclude that faith-based schools tend to serve the poor more than government schools in both urban and rural areas. Further, faith-based schools perform slightly better than government schools. Given the fact that faith-based schools serve disadvantaged students, with a focus on poor rural areas, and have a larger share of female students than do government schools, the authors conclude that the government subsidy for faith-based schools is worthwhile.

Patrinos, H., et al. 2009. The Role and Impact of Public-Private Partnerships in Education. World Bank. Washington, DC

This publication seeks to provide an overview of existing non-state provision in the education sector, and where and why it has expanded. It outlines the various types of PPP provision and financing models. It provides examples of PPPs from around the world and offer best practices and lessons learned. There is a review of empirical evidence and a summary of knowledge gaps.

The report focuses on the importance of a strong regulatory framework to ensure quality and accountability. Examples are provided of how countries can encourage PPP growth and partner effectively with the non-state sector.

Experience with PPPs across the world has shown the importance of (1) strengthening the capacity of public education agencies to regulate, monitor, and contract with private schools; (2) helping private providers improve their education and management practices by giving them more access to capital and TA; and (3) creating institutions to implement PPPs and guarantee access to information about educational outcomes of schools.

Pereira, J. 2017. Blended Finance: What it is, How it Works and How it is Used. Oxfam. Nairobi.

This report focuses on three blended facilities: the Dutch Good Growth Fund (DGGF), European Commission's European Union (EU) Blending Facilities, and the World Bank's Global Financing Facility in Support of Every Woman, Every Child (GFF). The report focuses on additionality, which the author defines as the added value of a specific form of finance. In the report, additionality is broken down into two main components: financial additionality—blended finance is necessary to ensure the project gets finance and can be implemented; and developmental additionality—blended finance helps the project achieve better development results.

The author suggests that measuring additionality is difficult. First, there are no harmonized definitions, approaches, or methodologies to measure additionality, making it impossible to compare projects implemented by different institutions and draw lessons. Problems also exist in the measurement of developmental additionality. Existing approaches are not comprehensive and usually look at improvements in project design, and/or improvement in projects' social and environmental standards or operational aspects, such as use of specialized advice to make up for knowledge and skills gaps.

Romero, M., et al. 2020. Outsourcing Education: Experimental Evidence from Liberia. American Economic Review 2020. Vol. 110, No.2.

The authors assessed the impact of the LEAP primary education PPP and concluded that after one academic year, students in outsourced schools scored higher in English and math. LEAP improved management quality, as proxied by teacher time on task. Teacher attendance and time on task improved for incumbent teachers, which the authors see as further evidence of better management.

However, the PPP had other consequences as well. While the contract did not allow cream-skimming, it did not keep providers from capping enrollment in oversubscribed schools or shifting underperforming teachers to other schools. The authors found that one provider did in fact do this. In addition, there were media reports of sexual abuse involving two non-state providers. These actions underscore the challenge of ensuring private providers act in the public interest, and the importance of robust contracting and monitoring.

Saguin, K. 2019. Journal of Policy Design and Practice: Perspectives on Capacity and Effectiveness in Policy Design. Volume 2, Issue 2.

This article proposes that the Philippines' ESC program, the largest PPP in the education sector, will continue to struggle with effectiveness due to poor policy design. The ESC scheme was launched in 1982 as a pilot and expanded in 1989 with the purpose of using private provision to alleviate overcrowding in public secondary schools, and to improve their quality of education. In 1998, teacher training for private high school teachers was included, and in 2013, the Senior High School Voucher Program (SHS VP) was introduced.

The author suggests that ESC has not reached its own goal of decongesting the public secondary education system. This was hindered by the unwillingness of public schools to release enrollment data, as they would lose maintenance funding. Also, a government audit in 2018 indicates ESC did not properly target low-income students due to the lack of a funding mechanism. The lack of accountability related to student performance is further indication of poor policy and design. In addition, the 2015 completion rate of 78 percent for ESC students is below the national average of 83 percent, indicating poor performance.

Sandefur, J. and Romero., M. 2019. Beyond Short-term Learning Gains: The Impact of Outsourcing Schools in Liberia after Three Years. Center for Global Development. Working Paper 521. Washington, DC

In 2016, the Liberian government launched the LEAP PPP, which saw it hand over management of 93 public primary schools, representing 8.6 percent of all public-school students, to 8 private providers. These included a mix of charities and for-profit companies, two of which were Liberian and the rest international. In 2017, the program expanded to another 98 schools, mostly in the southeast region of the country, which is the poorest.

Under LEAP, providers must teach the national curriculum but have flexibility in using school resources. They are allowed to provide more inputs, such as extra teachers, books, or uniforms, as long as they pay for them. Providers are barred from screening prospective students based on ability. LEAP schools are staffed by Liberian public-school teachers and are paid directly by the government. They also benefit from infrastructure maintenance paid for by MoE. Philanthropic organizations provide additional funding. The combination of funding sources effectively doubles education spending per child.

The study concludes that some providers get positive results, while others present stark trade-offs between learning gains, access to education, child safety, and financial sustainability. Overall, learning outcomes plateau after the first year. The study also shows that the cost of LEAP has substantially declined over time and is now being delivered for $119 per child per year, close to the government's planned education budget of $100 per child. The study points out that LEAP continues to receive financial support from philanthropists.

Samson, J. and Poncian, J. 2018. Public-Private Partnership in Higher Education Provision in Tanzania: Implications for Access to and Quality of Education. Bandung: Journal of the Global South.

Using a secondary research approach to describe and analyze existing data, the authors assess the impact of PPPs on access to and quality of higher education in Tanzania, supported by a student loan program.

Growing demand for tertiary education was straining government resources. In response, the government began offering student loans to shift part of the financial burden to students. The Higher Education Students' Loans Board (HESLB) became operational in 2005. As a government-funded agency, its role is to issue loans to tertiary education students and oversee the collection process. Loans are issued to qualified low-income students so they can access higher education regardless of whether they are enrolled in public or private universities. The loans can be used to cover tuition and other expenses.

Enrollment in private tertiary education (universities and university colleges) has increased from 25 percent of total enrollment in 2007 to 31 percent in 2014. Despite this small increase, this study finds the student loan program boosted student enrollment in universities by 64.5 percent during that timeframe. The study measures the quality of education at private institutions by the academic qualifications of its staff and finds that only 26 percent of the total members of academic staff in private universities have the prerequisite qualifications.

The authors note that as a consequence of the student loan program, private institutions are expected to supplement government initiatives and demand for particular academic programs. For example, to meet the high demand for qualified secondary school teachers, many private HEIs offer bachelor's degree programs in education.

Toulouse School of Economics. 2019. The Economic Impact of Public-Private Partnerships (PPPs) in Infrastructure, Health and Education: A Review. Working Paper 986. Toulouse.

This paper provides an overview of whether PPPs in education have been found to increase learning outcomes and be cost-effective. The authors review existing studies on vouchers, concession schools, subsidies, school management contracts, and private finance initiatives (PFI) as used in school infrastructure projects.

The authors find that PPPs do have the potential to increase enrollment and respond to growing demand for education; however, studies to date do not address whether increased enrollment is due to an overall increase in enrollment or enrollment in PPP schools only. Second, the impact of PPPs on outcomes, focusing mostly on student test scores, appears to depend greatly on the institutional details and scales of the programs considered. These limitations make it difficult to draw conclusions on PPPs overall. Regarding cost efficiency, there is some evidence PPPs can be cost-effective.

Overall, the findings are mixed. While there is some evidence of efficiency gains stemming from the PPPs, they may not always be the best solution to the current learning crisis. The authors conclude that the success of PPPs depends largely on their design and scale.

University of Oxford Government Outcomes Lab. Impact bonds database. Oxford.

The government of South Africa offers a subsidy for ECD for low-income families. However, the subsidy applies toward registered ECD centers only, excluding families who registered centers as well as those children who do not attend ECD centers at all. This means many children enter primary school ill-prepared. This SIB targets home visitation services to more than 2,000 children ages 3–5 in two of the poorest communities in the Western Cape province over 3 years, beginning in 2017.

This case study concludes there is an interest in South Africa for collaboration to bridge the funding gap for education provision. Investors there are looking for opportunities to partner with the public sector and civil society organizations, who are interested in long-term funding. Flexibility is important for success. For example, the outcome investors advanced some capital outside of the contract to enable an extended ramp-up period, and outcome targets were altered to reflect a delay in the program's launch.

Urquiola, M. and Hsieh, C. 2006. The Effects of Generalized School Choice on Achievement and Stratification: Evidence from Chile's Voucher Program. Journal of Public Economics 90. 1477-1503.

In 1981, Chile introduced nationwide school choice by providing vouchers to any student wishing to attend private school. This led to a huge increase in the number of private schools entering the market, particularly in large, urban, affluent communities. Using differential impact measures to study education outcomes in about 150 communities, the authors found no evidence of improved education outcomes as measured by test scores, repetition rates, and years of schooling. They also compared Chilean students' performance on international tests in science and math in which Chile participated in 1970 and 1999. This comparison indicates that despite nearly two decades under unrestricted school choice, there was no improvement in scores.

The authors did determine, however, that the voucher program led to a significant increase in enrollment, surpassing the 50 percent mark in many urban areas. They also concluded that the significant flight of middle-class students into private schools did not translate into learning gains. Also, they concluded that schools respond to incentives. And, if the incentives are linked to improving outcomes and schools are allowed to select their students, then they will select better students.

World Bank Group. 2020. The International Finance Corporation's Blended Finance Operations: Findings from a Cluster of Project Performance Assessment Reports. Washington, DC

The purpose of this evaluation is to inform IFC's approach to deployment of the blended finance instrument with findings on the performance and outcomes of projects using it. The report reviews 14 projects, all in MICs and most focused on climate change. Of the 14, only 4 achieved their development objectives and met performance benchmarks. Overall, these early and predominantly risk-sharing facility projects had weak business and economic effects. Low use of facilities was frequent, and projects' intended objectives were often not realized.

Blended finance provides de-risking for financial risks, but non-financial risks remain. Risk reduction can be made through advisory services, which can reduce specific non-financial risks. Other interventions by the World Bank Group, such as helping governments strengthen market regulation and impose safety and quality standards, can also reduce regulatory risks.

De-risking activities are costly. They often have high administrative costs due to the small size, slow disbursement, and complexity of transactions. As a result, IFC's financial returns were below expectation in all cases. Rather than an obstacle to blended finance, these shortfalls can be viewed, and accounted for, as an additional subsidy to these projects. Advisory services include a strong subsidy element as well, resulting in partial, if any, cost recovery.

World Bank. 2019. Project Appraisal Document. Uzbekistan Early Childhood Development Project. Washington, DC

The World Bank recently launched the Uzbekistan Early Childhood Development Project. The SIB component of the project will result in 140 private preschools delivering educational services in urban areas.

Equality of access will be monitored by accountability mechanisms, which will target low-income families and children with disabilities. Children with disabilities must compose a minimum of 25 percent of total enrollment. Two assessments will be used: MELE, which measures the quality of early learning center-based services; and MODEL, which measures child development outcomes.

The SIB will be considered sustainable under three possible scenarios: (1) the SIB model proves successful and more investors, including domestic ones, invest in preschool education or other sectors using it; (2) the creditworthiness of private preschools improves; and/or (3) the Government of Uzbekistan adopts Results-Based Financing (RBF) approaches in education or other sectors without upfront capital from investors.

World Bank. 2011. The Philippines: Private Provision, Public Purpose. A Review of the Government's Education Service Contracting Program. Washington, DC

The Philippines has one of the largest PPP programs in education in the world, serving more than 567,500 students who represented almost 9 percent of the 6.5 million high school students in 2009. The ESC program aims to increase access to high-quality basic education at the secondary level by extending financial assistance from the public budget to low-income primary school graduates to attend non-state high schools that have contracted with the government. Almost 50 percent of the more than 4,000 non-state secondary schools in the country have enrolled ESC grantees.

The program provides significant cost savings for the government, as ESC schools receive only 58 percent ($107) of the amount government spends per student at secondary public schools. However, this means households pay $88 to cover the difference between the amount of the government grant and the actual cost of tuition. One shortcoming of the program is that ESC schools are not evenly distributed throughout the country. Another issue is related to equity: Since ESC grantees must pay out of pocket for any difference between the ESC subsidy and the fees charged by their private schools, the fact that most are able to do so suggests they do not come from poor households.

Even after controlling for student background and other differences, non-state schools produce better learning outcomes on Trends in International Mathematics and Science Study (TIMSS) assessments. This indicates that enrollment in non-state schools by students who would otherwise have to attend public schools is likely to improve their scores.

ANNEX 1: PROJECT HIGHLIGHTS

CASE STUDY 1: EDUCATION GIRLS DIB, INDIA

Outcome metrics	Student enrollment and learning outcomes (ASER)
Beneficiaries	Students in grades 3–5 in 166 treatment schools
Upfront capital committed	$270,000
Maximum outcome funds	$422,000
Investor returns	IRR of 15%
Timeline	2015–2018
Key milestones	One outcome payment disbursed in final year
Validation methodology	Pre/post-test using validated administrative data (enrollment), RCT (learning outcomes)
Service provider	Educate Girls
Outcome funder	CIFF
Investor	UBS Optimus Foundation
Intermediary	Instiglio
Evaluator	IDinsight

SOURCE: WORLD BANK, 2017 AND IDSIGHT, 2018

CASE STUDY 2: QUALITY EDUCATION INDIA DIB

Outcome metrics	Improvement in literacy and numeracy outcomes relative to comparison group
Beneficiaries	200,000 students in grades 1–8
Upfront capital committed	$3 million upfront; capital recycled each year if outcome metrics achieved
Maximum outcome funds	$9.2 million over 4 years
Investor returns	IRR of 8%
Timeline	Start of services: April–June 2018, Final results: July 2022
Key milestones	Annual performance review and payments
Evaluation methodology	Quasi-experimental design: learning improvements measured relative to comparison group
Service providers	Gyan Shala, SARD, KEF, Educational Initiatives (Mindspark)/Pratham Infotech Foundation
Outcome funders	MSDF, consortium of funders convened by British Asia Trust
Investor	UBS Optimus Foundation
Intermediary	Dalberg
Evaluator	Gray Matters India

SOURCES: ERSKINE, 2018 AND GUSTAFSSON-WRIGHT AND BOGGILD-JONES, 2019

CASE STUDY 3: SOUTH AFRICA EARLY CHILDHOOD IMPACT BOND

Beneficiaries	More than 2,000 children ages 3–5
Upfront capital	$0.65 million
Outcome fund	$1.76 million
Maximum returns	IRR of 16%
Timeline	2018–2021
Validation	Enrollment data and learning assessment
Outcome funder	Department of Social Development, ApexHi Charitable Trust
Investors	The Standard Bank, Tutuwa Community Foundation, Futuregrowth Asset Management, LGT Venture Philanthropy
Service provider	Western Cape Foundation for Community Work
Maximum output payment	$1,467,000 (source: oxford lab)
Intermediary	Volta Capital – financial intermediary; mothers2mothers – operational intermediary
Independent evaluator	Creative Consulting & Development Works

SOURCE: BOGGILD-JONES AND GUSTAFSSON-WRIGHT, 2018; OXFORD OUTCOMES LAB, SOUTH AFRICA IBIF ONLINE

CASE STUDY 4: PROMOTING EARLY CHILDHOOD DEVELOPMENT PROJECT, UZBEKISTAN, SIB

Beneficiaries	Children age 3–7 by 140 private preschools becoming SIB operators
Upfront capital	IDA $5.15 million; GPRBA $4.85 million
Outcome fund	$10 million
Maximum returns	Not established
Outcome funder	Government of Uzbekistan
Investors	Not secured
Service provider	TBD
Evaluation methodology	Two learning assessment measures: MELE and MODEL
Maximum output payments	TBD
Intermediary	TBD
Independent evaluator	TBD

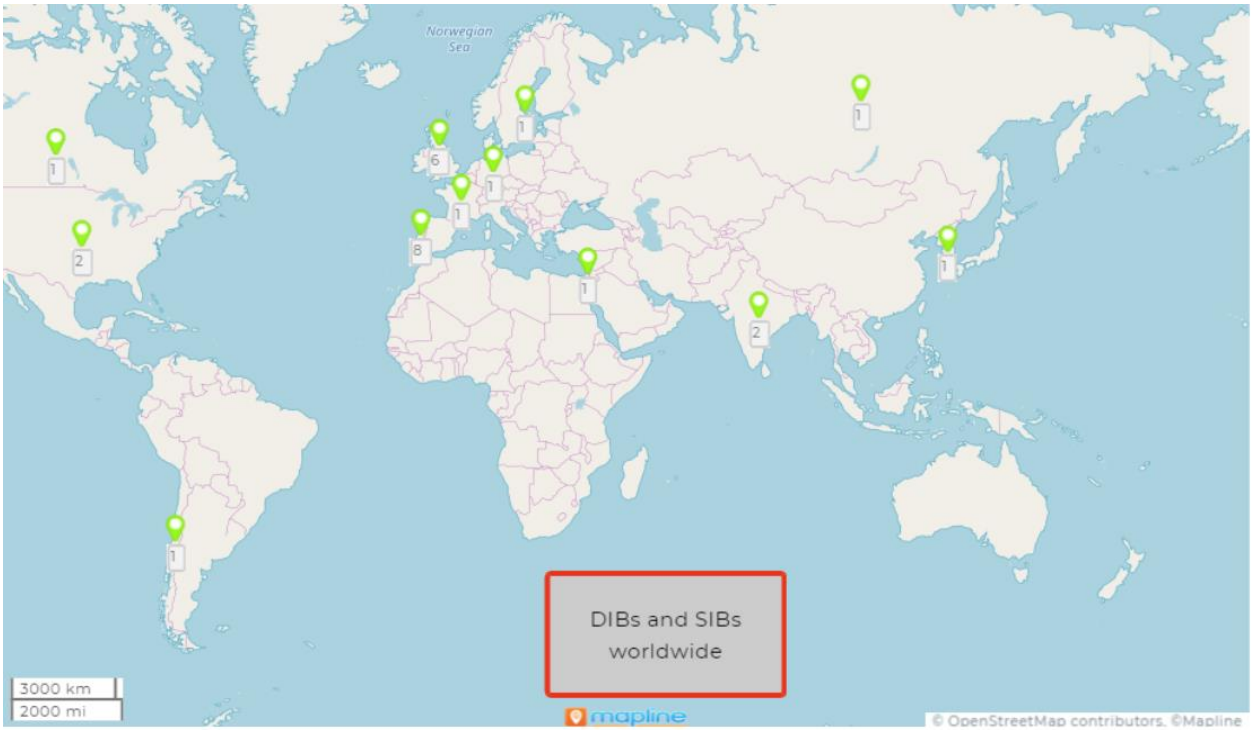
SOURCE: WORLD BANK, 2019

CASE STUDY 5: COLOMBIA WORKFORCE DEVELOPMENT, SIB

Outcome metrics	Job placement 3-month job retention 6-month job retention	
Evaluation methodology	Validated administrative data from MOH of full-time employees required to contribute to mandatory health insurance or pension program. If there is discrepancy between administrative data and what the intermediary reports, an alternative verification method will be applied, using copies of employment contracts or other official proof of employment.	
Payment schedule & amounts	2017	50% of outcome payment per capita: job placement (max 514 individuals) 50% of outcome payment per capita: 3-month job retention (max 514 individuals) 10% bonus payment: 6-month job retention *It is not possible to achieve ≤50% of payment with only job placement.
	2017	Scenario 1: Outcome targets achieved by end 2017 are ≤1 billion pesos. Government repays investors. Scenario 2: If outcome targets meet or exceed 1 billion pesos, IDB/MIF starts paying at end 2017. Government will pay only for results verified in 2017.
	2018	All payments to come from IDB/MIF using SECO contribution (up to 1.2 billion pesos).
Max return (nominal)	8%	

SOURCE: GUSTAFSSON-WRIGHT AND BOGGILD-JONES, 2017; UNIVERSITY OF OXFORD IMPACT BOND DATABASE AND IDB ONLINE

ANNEX 2: MAPPING OF SIBS AND DIBS GLOBALLY



SOURCE: UNIVERSITY OF OXFORD IMPACT BOND DATABASE ONLINE

ANNEX 3: KEYWORDS

Keywords		
Education	**Blended Finance**	**Outcomes**
education	concession(al) finance	access
school	innovative finance	learning
basic education	commercial finance	TIMSS
non-state education	impact investments/funds	PISA
public education	multilateral donors	PIRLS
vocational education	donors	PIAAC
technology	development finance	test (education)
testing	catalytic impact	
educational materials	PPPs	
teacher development	vouchers	
teacher training	debt buy-downs	
	guarantees	
	leasing	
	results-based funding	

APPENDIX: LIST OF KEY RESOURCES

The leading experts listed below were contacted and their suggested sources included in the literature review.

Felipe Barrera-Osorio
Associate Professor of Education and Economics, Harvard Graduate School of Education; Head, Impact Evaluation Network, Latin American and Caribbean Economic Association (LACEA).
Areas of expertise: PPPs, impact of PPPs on performance, concessional school program in Bogota.

Norman LaRocque
Principal Education Specialist at Asian Development Bank.
Areas of expertise: PPPs, regulatory frameworks, project design and implementation.

Nicholas Burnett
Senior Fellow at Results for Development (R4D), Special Professor of International Education at Nottingham University, chair of Board of UNESCO International Institute for Educational Planning.
Areas of expertise: education finance, education outcomes, non-state education.

Emily Gustafsson-Wright
Fellow, Brookings Institution Global Economy and Development, Center for Universal Education.
Area of expertise: impact bonds, innovative financing mechanisms.

Vineet Bewtra
Senior Advisor, Global Innovation Fund. Led Omidyar Network's education-related investments across Africa, and its involvement in European impact investing and venture philanthropy sectors.

Peter Hinton
CEO of Summit Development Group, Senior Advisor on Cambridge Education–managed Developing Effective Private Education Nigeria (DEEPEN) project on low-cost schools in Lagos. Co-lead of Affordable Education Finance with Capital Plus Exchange.
Area of expertise: Advising impact investors and FIs in sub-Saharan Africa.

Inga Afanasieva
Economist, World Bank. Former Chief of Staff, Moldovan Ministry of Education.
Area of expertise: results-based financing and impact bonds in education sector.

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