

Paying to Improve Girls' Education: India's First Development Impact Bond

Introduction

On a cool morning in January 2015, Padma, a community worker in Rajasthan, India, began the day convincing parents of girls in her small, dusty village to send their daughters to school. This was Padma's second year with Educate Girls, a nonprofit working to enroll and keep girls in school. Working off a list of girls between the ages of 6 and 14, who had either dropped out of school or never enrolled, Padma identified the first family of the day. According to her notes, the family had a ten-year-old daughter, Munni, who had never enrolled in school. As Padma arrived at Munni's modest mud house, she was hopeful. If she skillfully navigated the conversation, in July, Munni would start at the neighborhood public school, learn to read and write, and create a world of opportunities for herself.¹

Meanwhile, hundreds of miles away, in Mumbai, Safeena Husain, founder of Educate Girls was having a decidedly tough day. Husain had just got off a difficult phone call with Avnish Gungadurdoss, co-founder of Instiglio, a startup specializing in financial instruments that paid development programs for successful outcomes. Gungadurdoss was trying to salvage a financing deal for Educate Girls, but the odds did not look good.

Two years earlier, Instiglio and Educate Girls set out to test a new payment for results model called the Development Impact Bond (DIB). Similar to its more famous counterpart, the Social Impact Bond (SIB), the DIB attracted private investment to fund social services. But unlike a typical SIB, where the government repaid private investors if a program was successful, under the DIB, private donors such as international aid agencies or foundations repaid investors. SIBs, which had so far only been implemented in rich countries, were difficult to replicate in developing countries with cash-strapped governments. DIBs enabled nonprofits like Educate Girls to appeal to private investors looking to fund effective development programs (see Exhibit A for more on impact bonds).

After months of strategizing, in late 2013, Instiglio and Husain approached the Swiss foundation, UBS Optimus with a proposal for the world's first education DIB. UBS Optimus agreed to act as an inves-

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tor for a three-year Educate Girls intervention in one district of Rajasthan. UBS Optimus then approached the London-based Children's Investment Fund Foundation (CIFF), which agreed to reimburse UBS Optimus' initial investment and pay returns if Educate Girls met or exceeded predetermined program goals. Instiglio, the organization with expertise in designing impact bonds, would broker the deal, and IDinsight, an organization dedicated to generating rigorous evidence to improve social impact in developing countries, would conduct the independent evaluation.

Initially, the proposed DIB looked like a match made in development heaven. Husain at Educate Girls wanted to infuse a results oriented culture in her rapidly growing nonprofit. UBS Optimus and CIFF both wanted to support development programs that impacted children. Instiglio was eager to bring a promising model of "pay for success" to the developing world, and IDinsight's rigorous evaluation services would be crucial to the entire partnership.

But by January 2015, the parties could not agree on an evaluation design. Discussions on exactly which program outcomes would be measured, and how, devolved into prolonged arguments. An evaluation was vital to the DIB because success payments hinged on its findings, but Educate Girls was concerned that the investors and evaluators were not considering the realities of program implementation when proposing complex evaluation methods. The investors and evaluators, on the other hand, were not interested in backing a DIB that rested on impact findings that could be open to question.

With so much riding on the evaluation design, and no agreement in sight, it fell to Gungadurdoss and the rest of the Instiglio team to break the impasse.^a Just weeks before the DIB was scheduled to begin, though, time was running out.

Instiglio and Avnish Gungadurdoss

Gungadurdoss grew up in Mauritius and studied economics at Dartmouth College. His first job out of college was with an evaluation agency in Rajasthan, India. There he came to realize that many development programs could make valuable impacts if they were more systematically oriented toward achieving the right outcomes. He returned to the US in 2010 to start his graduate program in international development at the Harvard Kennedy School. He met two other like-minded students, Michael Eddy and Michael Belinsky who were interested in Social Impact Bonds, which were growing increasingly popular in the United States. To Gungadurdoss and his classmates, SIBs and other results-based financing tools, had the potential to radically revamp the world of development. By leveraging private capital, increasing accountability through measurement, and attaching success to payments, such instruments created "a culture of performance in a sector that badly needs it," Gungadurdoss said.²

Soon after graduating, in 2012, Gungadurdoss, Eddy and Belinsky created Instiglio and set up offices in Bogota, Colombia with the vision of creating the first SIB in the developing world. A year later, in

^a The Instiglio team working on the Educate Girls Development Impact Bond consisted of Michael Belinsky, Avnish Gungadurdoss, Johannes Lohmann, and later, Michael Eddy.

2013, Instiglio was still negotiating a proposed SIB with the Colombian government when Safeena Husain, founder of Educate Girls, came calling.

Girls' Education in India and Safeena Husain

Husain, a native of India, started Educate Girls in 2007 after spending years in the US running an international health nonprofit. She returned home wanting to change a common mindset about girls' education. "Many people in India believe," explained Husain. "A goat is an asset, a girl a liability."³

In the late 2000s, the Indian government made concerted efforts to improve access to primary education, particularly for girls. In 2009 it passed the Right to Education Act, which guaranteed free and universal education for all children between the ages of 6 and 14. The government's flagship *Education for All* program aimed to increase enrollment in schools, improve the quality of school infrastructure and education, and reduce gender disparities. By 2014, though, there were an estimated 3 million girls out of school.⁴ Although girls enrolled at roughly the same rate as boys at the start of elementary school, the gap widened in the ensuing years as more girls dropped out of school for a host of reasons. This gap was more striking in rural India where for every 100 girls enrolled in school, only 40 finished grade 5, and just 1 entered grade 12.⁵

Several factors contributed to the low level of girls' education in India. In poor households, girls tended to stay home and care for younger siblings or do household chores. For the girls who did attend school, the lack of adequate infrastructure posed additional barriers. Only approximately half of all public schools in India had girls' toilets.⁶ A chronic shortage of teachers (less than half of whom were women) and high rates of teacher absenteeism only compounded the problem.⁷ Many girls in poor and rural areas also tended to be married off soon after reaching puberty. Across the country, an estimated 47 percent of girls between the age of 20 and 24 were married before the age of 18.⁸ "I am asked regularly by parents of girls," said Husain, "why should we send her to school? She only needs to marry and look after the home. What is the point of her learning?"

Such entrenched cultural barriers led to a national literacy rate for women of 65 percent compared to 82 percent for men.⁹ Some regions of the country experienced greater gender gaps than others. Nine of the 26 districts identified by the Indian government as having a "critical gender gap" in education were in Rajasthan, a rugged, largely rural northwestern state, and one of the poorest in the country (see Exhibit C for more).

The Educate Girls Program

Husain decided to launch Educate Girls in Rajasthan and to bring about change from the inside, by shifting gender norms in communities and improving learning outcomes in notoriously low-performing public schools.

Educate Girls began with the community—working with local volunteers like Padma—to change attitudes around girls' education among parents and village elders. The community workers went door-to-

door, talking to parents about the benefits of girls' education. At the same time, Educate Girls staff hosted community-wide meetings to increase awareness about the importance of sending girls to school. Once in school, the same volunteers boosted teachers' capacity to improve learning by serving as aides in the classroom, and administered a custom education kit that ensured all children received a quality education.

"For me, scale is really important," Husain said. "The size of the problem is so huge that you can't be satisfied with just one school or 10 schools or even 100 schools. I wanted to design for scale right from the word go." In Rajasthan there are more than 75,000 public schools,¹⁰ "so there's no way you can scale unless you work within the system. And it is the fastest way to reach the most marginalized and create long-term systemic impact." In 2008, Husain entered into an agreement with the Rajasthan government that allowed it to partner with public schools across the state.

In order to deliver its program, Educate Girls built trust and alignment with communities and the government. "When we enter a village, we are considered outsiders," explained Parvez Kotadia, Director of Finance at Educate Girls. "We do a lot of rapport building with parents and the village leadership and try to understand the challenges. Similarly, because of our agreement with the state of Rajasthan, we are able to build alignment with the teachers and headmasters at each school."¹¹

Payment for Results

By 2013, when Husain contacted Instiglio, Educate Girls had grown from one school in 2007 to 5,000 schools (see Exhibit D for Educate Girls districts in Rajasthan). Along the way, Husain pushed the growing organization to be more accountable, emphasizing robust monitoring and evaluation. "The for-profit world has a great efficiency indicator—profit," Husain explained. "If people don't like what you're selling, you go out of business. But in the non-profit sector, we have no efficiency indicator equal to that. If you're really good at fundraising and running an organization, you will survive forever, even though you may not have an impact on the final beneficiary." For this reason, the payment for results approach was particularly exciting to Husain. "You can imagine my joy," she said. "If I crack this method, I don't have to stay up worrying about the efficiency question. Because then I will know, even when I am serving the four millionth girl child, if I am adding value. If not, I should be out of business."

At first, Husain sought help from Instiglio to include a payment for results component into a larger proposal to the British aid agency, Department for International Development (DFID). "[Husain] is an extremely forward thinking person," Gungadurdoss said. "Someone who sees the world 10 years ahead. For her the world of fundraising doesn't make sense. She believes she should be doing good work and somebody needs to be paying her for that good work. In some ways, with payment for results, this is the door we were offering to open for her."

By the end of 2013, Educate Girls and Instiglio had worked on multiple rounds of the DFID proposal. Just when it looked like they were about to clinch a deal, DFID decided to stop funding programs in India altogether. Undeterred, Instiglio and Husain pivoted toward crafting the first education Development

Impact Bond. After unsuccessfully pitching the idea to several funders, in late 2013, they approached UBS Optimus.

UBS Optimus

UBS Optimus Foundation, the philanthropic arm of the Swiss bank, UBS, started in 1999. The foundation was charged with channeling its clients' wealth "to catalyze positive social change." Interestingly, Optimus did not operate as an endowed foundation. Instead, every year, it raised funds for grantmaking from the bank's clients. This was done in part to ensure that the foundation maintained its "business-minded approach." Optimus worked in developing countries to improve the lives of vulnerable children in the areas of health, education and protection. To qualify for grants, social organizations had to demonstrate measurable impacts. India was one of UBS Optimus' 15 priority countries and the foundation was already considering funding Educate Girls when Husain proposed the DIB.

"The way we traditionally work is that all our grants are linked to a certain level of performance," said Maya Ziswiler, Program Director for Education at UBS Optimus. "But this was the first formal 'payment for results' model we looked into."¹² "We believe private foundations like ours have an increasingly important role to play in the development space. There is a lot of pressure on governments and NGOs for sources of financing," added Ziswiler. "Bringing in private investment is crucial in this current economic environment. The fact that we are able to give money upfront gives NGOs the ability to innovate and think about new solutions to address old problems."

Working through a DIB was a big departure for UBS Optimus. As an investor UBS Optimus would have to assume the risk of investment and expect repayment, neither of which it had done before. And as an outcome payer it would have to provide returns on an investment only if certain targets were met, which also it had never tried before. After some consideration the UBS Optimus leadership agreed to participate in the DIB, and decided to be involved as an investor rather than an outcome payer in keeping with the foundation's mission of raising private investment to support development goals.

"We were on board. Educate Girls was on board, and Instiglio was on board," Ziswiler said. "Obviously the key piece of the puzzle missing was the outcome payer. We felt that another like-minded, relatively large foundation would be the best place to do that." In the past, Optimus had co-funded projects with the Children's Investment Fund Foundation. To Ziswiler and others at Optimus, CIFF seemed like "the best fit."

Children's Investment Fund Foundation

British hedge fund manager Chris Hohn and his wife Jamie Cooper started CIFF in 2004. A decade later CIFF was the largest philanthropic organization focused on children in the world, with an endowment of more than \$4 Billion Dollars drawn from a share of profits made by Hohn's hedge fund. Like UBS, CIFF placed a premium on bringing market-discipline to development programs and set a high bar for mandating data and evidence from its recipients. CIFF's grantmaking centered around "children thriving and surviving" in developing countries like India.

After some deliberation on the value of the DIB, CIFF accepted UBS Optimus' invitation. "I think what is great about this kind of financing structure is, from the beginning, it forces everyone to be crystal clear about the outcomes we want to achieve with the investment," said Grethe Petersen, Director of Policy and Advocacy at CIFF. "Once everybody agrees on what the outcomes are then you liberate the service provider to innovate on the ground and choose the best way deliver the program. That's why this is an exciting way of thinking about development."¹³

Crafting the Deal

By mid-2014, the members of the DIB had agreed on the broad contours of the deal. The program would be conducted in two blocks of Bhilwara district (Jahajpur and Mandalgarh), in 140 villages. The total number of schools and final beneficiaries would be decided during negotiations.

The specifics, however, would take months of negotiation and countless debates to finalize. As the intermediary, Instiglio would play a pivotal role in crafting the deal, but the organization would remain neutral at all times, allowing the service provider and investors to arrive at a consensus. "Our job at Instiglio was to present pros and cons," Gungadurdoss added. "We coordinated everything, but we didn't pronounce ourselves on any specific position. We made sure there was full clarity of the implications of each option and facilitated a conversation."

The Search for an Evaluator

The key element of the DIB would be the evaluation. Instiglio spearheaded the search for an independent evaluator. The DIB members put together a call for proposals, and after some discussion agreed on an Indian evaluation firm. But in December 2014, just before talks on the evaluation design were to begin, the local evaluator pulled out. Left in a lurch, Gungadurdoss turned to a friend from his days at the Harvard Kennedy School who had co-created IDinsight, an organization that conducted rigorous evaluations of social programs in developing countries in a timely and affordable manner.

IDinsight

IDinsight had offices in India, Africa and the US and agreed to be the evaluator for the Educate Girls DIB. Even for IDinsight, which was accustomed to working under time-sensitive conditions, the DIB demanded a breakneck pace.

One of the ways IDinsight kept evaluation costs down was by training local researchers to collect valid data and employ rigorous evaluation tools. But with just a few weeks to come up with an evaluation design, IDinsight "took a more hands on approach," said Jeff McManus, Director of the Technical Team. "In another situation we would have relied on our local project team in India, but we ended up doing the design ourselves rather than providing oversight."¹⁴

In addition to the time pressure, IDinsight was navigating uncharted territory with the DIB. "It took a little while to understand the complex environment of the DIB," said McManus. "Because there were

so many players involved. In a typical IDinsight engagement there's just us and the client, and sometimes a funder. But with the DIB we had the service provider (Educate Girls), the investor (UBS Optimus), the outcome payer (CIFF), and, of course, the intermediary (Instiglio)."

Evaluation Proposal

The goal of the evaluation was straightforward: determine whether the Educate Girls intervention exceeded specific benchmarks agreed to by all the stakeholders.

In their first presentation in early January 2015, IDinsight proposed a three-year evaluation (June 2015 – April 2018) that would take place in as many as 500 schools across the two administrative blocks in Bhilwara, Rajasthan. Based on the Educate Girls intervention, the proposal included three potential metrics against which measurement could be conducted.

- Enrollment of marginalized girls in grades 2-8,
- Attendance of girls in grades 2-8, and,
- Learning outcomes of girls and boys in grades 3-5.

IDinsight proposed a list of evaluation options that could be used to isolate the impact of Educate Girls' intervention on education outcomes. The organization also provided a range for the cost of evaluation: between 320,000 and 450,000 US Dollars depending on the evaluation method, the number of baseline, interim and endline surveys, etc., and if they would collect data internally rather than rely on existing administrative data.

Complex Decisions Ahead

Immediately after IDinsight's presentation, fissures between the DIB stakeholders began to appear. CIFF, which had agreed to pay for the evaluation, had budgeted 50,000 US Dollars for it. But based on IDinsight's proposal the foundation had to reassess what it was willing to pay for.

The broader question of which metrics to measure and how, emerged as a lightning rod in the discussions and Instiglio was caught in the crossfire. "Those weeks were very difficult," Gungadurdoss said. "Lots of tense phone calls between the [stakeholders] and lots of concerns about the evaluation design."

Metrics

After some consideration, CIFF determined that increasing funding for a rigorous evaluation, plus verification of the outcome data were worthwhile. The foundation however wanted to cap the evaluation and verification costs at roughly 300,000 Dollars.

CIFF also wanted the DIB to focus on just one single metric: learning. "What do we care about for these girls in Rajasthan?" asked Grethe Petersen at CIFF. "It is obviously learning outcomes. That was the big reason for us to want to invest in this DIB." For CIFF, evaluating other metrics such as enrollment and attendance would be measuring outputs rather than outcomes. "You can do a process analysis for

Educate Girls and measure various indicators like enrollment and attendance,” Petersen added. “You will get a lot of good information, but you won’t get clear evidence of whether the program improves learning outcomes or not.”

But Educate Girls couldn’t conceive of a DIB where enrollment and retention were not included. “We are a community mobilization organization at heart,” said Husain. “For us, out of school girls are the most vulnerable and at risk of child marriage, trafficking, child labor and other forms of exploitation. We could not leave behind the most marginalized. At first, when we enter these villages, entire neighborhoods refuse to send their girls to school. We get parents and community members to change their behavior. For us, impact is seeing a girl who was out of school, enrolled, retained and learning. And, yes, if she is not learning, then everything else is worthless, but obviously enrollment and retention are a big part of what we do.”

UBS Optimus was sympathetic to Educate Girls’ argument. “We wanted to make sure that the evaluation measured the program in line with Educate Girls’ theory of change,” said Maya Ziswiler at UBS Optimus. “Obviously improving learning is the ultimate objective, but in order to reach that, Educate Girls has to get the girls enrolled. Completely getting rid of enrollment was not something we were keen on.”

“At the end of the day if you paid Educate Girls just for learning,” said Gungadurdoss. “They would forget about their enrollment campaigns and just focus on the kids who are already in school. For a funder that’s really important to take into account.”

Data Validity

Even as they debated the choice of metrics, the DIB parties asked IDinsight to present various scenarios for how it would measure each of the metrics and for the accompanying cost implications. Here, concerns about the availability and validity of data presented an additional layer of challenges.

Years earlier, Educate Girls stopped relying on government data to indicate which girls were out of school. Instead, each time it entered a village, Educate Girls conducted a village-wide census to figure out exactly which girls were out of school. “We go door to door, to thousands of households, and find the girls who have never been enrolled or who have dropped out,” explained Parvez Kotadia at Educate Girls. “Then we get that census validated by the local leaders, so it becomes a government authenticated document that we can use to help girls access schooling.”

Educate Girls would conduct the census as part of its programming in the Bhilwara villages where it would implement the DIB. But it did not have the funds or the capacity to conduct the same census for villages where it would not be rolling out enrollment activities, leaving IDinsight responsible for conducting the census in the comparison villages. That would not only increase the price of the total evaluation but also raise concerns that Educate Girls would likely draw up the census differently from IDinsight. Under such circumstances, “if we found a difference in enrollment,” said McManus at IDinsight, “some

of that might be attributable to Educate Girls, but some of it might be differences in how we measure enrollment in the two sets of villages.”

Getting an accurate measure of attendance was going to be problematic as well. For one, Kotadia was mindful of certain practices around maintaining school registers. “The way school registers are maintained,” Kotadia said, “they cannot be 100 percent relied on.” Every government school in India received funding for a midday meal program. “To ensure that the school is well funded, sometimes the registers get ‘managed,’” added Kotadia. “Even if a child is not in school, the roster might say she is present. That cannot be the basis for credible evidence.”

To arrive at an objective measure of attendance, IDinsight could conduct random spot checks at schools during specific times of the year, but that would require an IDinsight research team based out of Bhilwara for the entire school year, which would increase evaluation costs, especially when compared to having a team in Bhilwara for just two months at the end of each evaluation year. In addition, Husain was concerned that questioning the validity of attendance rosters could antagonize government authorities. “I really worried about measuring attendance that way,” she said. “Politically the most explosive piece is attendance and I was worried that we would actually kill the entire project for that one indicator.”

When it came to measuring learning, one big question was how IDinsight could determine learning outcomes for students who were already enrolled and attending, versus those would enroll during the rollout of the DIB. For example, IDinsight could generate a baseline of learning for the already enrolled students, but for the newly enrolled students no such baseline would exist.

The DIB parties were equally concerned about how learning outcomes would be measured. As part of administering its custom curriculum in the classrooms, Educate Girls conducted its own testing to evaluate learning at the beginning of the intervention and at the end of each academic year. The DIB evaluation could use those test scores to measure learning outcomes. In fact, a Randomized Controlled Trial (RCT), conducted by an independent group of researchers of an Educate Girls program in another district in Rajasthan (Jalore) had used Educate Girls test scores and found that the program increased learning outcomes. But the DIB parties wanted to eliminate any possibility that the evaluation results could be open to question. Administering a well-recognized independent testing tool in India known as the ASER test would add credibility to the evaluation results. The ASER test measured things such as whether children in grades 3 to 5 could do a two-digit subtraction and read a simple paragraph in Hindi. Next came the question of exactly which learning outcomes would be important to measure as part of the DIB.

“It was a lot of really nitty-gritty discussions around the particulars of the evaluation design,” explained McManus. “Typically we have a lot of autonomy in how we go about measuring. But in this DIB, because the impact assessment was tied so exactly to how much the payment would be, all the stakeholders got very involved in the details.”

Choice of Evaluation Method

By February 2015, it had been weeks since IDinsight's initial proposal for the evaluation design, and the DIB parties were nowhere close to agreement. Then, debates on how the metrics would be evaluated threatened to undo the entire deal. The following table lists the evaluation options IDinsight presented to the DIB members.

Evaluation Method	Description
Pre and Post	Evaluator measures outcomes before and after the intervention to determine the impact of the intervention. For example, based on a list of out-of-school girls at the start of the evaluation, IDinsight would determine how many girls on the list were enrolled at the end of each year.
District-level Matching with Difference in Difference	Evaluator measures the effect of the Educate Girls intervention on an outcome by comparing the average change over time in the outcome for a treatment group, to the average change over time for the comparison group. In this instance, the treatment group would be a random sample of villages in Bhilwara district, and the comparison group would be a random sample of villages in a neighboring district in Rajasthan with similar characteristics.
Village-level Matching with Difference in Difference	Similar as above, but the treatment group would be the villages in the two Bhilwara blocks (Jahajpur and Mandalgarh) that receive the Educate Girls intervention and the comparison group would be neighboring villages in the other blocks in the district that don't receive the intervention. The evaluators would use statistical matching to ensure that villages in the comparison group have similar baseline characteristics than villages in the treatment group.
Village-level Randomized Controlled Trial (RCT)	An experimental design that would randomly assign villages in the two Bhilwara blocks to receive the Educate Girls intervention and use other villages in these blocks as the control group. Impact would be estimated by comparing average outcomes of treatment and control groups after the intervention took place.

Note: Educate Girls had not yet implemented a program in any part of Bhilwara district. According to the 2011 Indian census, the district was home to approximately 2.5 million people, and had 1,834 villages. The government further divided districts in India into administrative units known as blocks. Bhilwara district has 11 blocks. The DIB was to be

launched in two Bhilwara blocks, Jahajpur and Mandalgarh with 236 and 188 villages respectively (see Exhibit C for Rajasthan map).¹⁵

CIFF was adamant that the DIB be evaluated with a Randomized Controlled Trial (RCT). But Educate Girls raised a serious objection to an RCT. Husain felt the process of assigning schools to treatment and control groups would inadvertently pit Educate Girls against the government. “I pushed back a lot,” she said. “There are big risks to an RCT type evaluation. Educate Girls is successful because there's alignment with the government. The government gives us their worst areas, and we deliver. Every time we are successful, the government is successful. But in a treatment vs. control structure my alignment with the government breaks down.” Husain was worried that she would lose no matter the findings. “Say the evaluation shows that I do worse than government schools. Then the government says forget about the rest of the 10,000 schools Educate Girls is working in. Or, I'm successful and then the government says, ‘Educate Girls is making us look bad, let's get them out.’ This was the key risk I didn't want to take.”

Husain was not averse to the idea of an RCT in and of itself. She had allowed one in Jalore district a few years earlier with the intent of learning more. But the Jalore RCT was smaller in scale and its results were meant for program improvement and development. Kotadia at Educate Girls was equally concerned that conducting an RCT in Jalore would lead to contamination. “As part of our arrangement with the government we present a progress report. When we presented to the government of Jalore, we talked about that RCT. Soon after, the government instructed other schools to replicate what was happening in the Educate Girls schools.”

In the absence of an RCT, CIFF, in particular, was worried that the evaluation would lack rigor, calling into question the efficacy of a model the foundation was hoping to promote. “The whole purpose of this DIB was to help the development community learn more,” said Petersen at CIFF. “We wanted to make sure we could share the learning and hopefully start a pathway for more results-based financing for the development sector. But to have meaningful learning we needed to have a strong, rigorous evaluation that the global community could learn from. And an RCT is the best way to do that.”

Sample Size

Even relatively smaller issues around sample size turned into hot button issues. “We recognized there were big tradeoffs in terms of rigor and costs for each of these evaluation options,” explained McManus. “We had to design the evaluation with the total evaluation costs in mind.” If IDinsight generated a census in comparison villages to measure enrollment, for instance, it would have to reduce the sample for learning outcomes to keep the final evaluation cost the same.

Similarly, Educate Girls realized that it did not have the funds to conduct the program in more than 175 eligible schools. Neither could it deliver its learning program in classes that had more than 60 students or less than 10, thereby reducing the total sample further, and increasing the cost per outcome unit. To keep implementation manageable, the DIB members agreed to conduct the program in 140 villages in the two Bhilwara blocks for 166 schools reaching 15,000 students, 9,000 of which would be girls.

Scaling from a “Proof of Concept”

But Educate Girls remained concerned about the total cost of the evaluation. “I wanted this transaction to be scalable from day one,” said Husain. “An RCT makes it so expensive that you’ll have to reinvent the wheel on the evaluation in the next scaled up transaction anyway.”

As it stood, it would cost 277,915 US Dollars to implement the Educate Girls program, but the evaluation was likely to cost 300,000 US Dollars or more. Even UBS Optimus balked at the discrepancy. “The actual implementation costs and the size of this pilot are relatively small,” Ziswiler said. “We wanted to be mindful that the evaluation didn’t end up costing three times more than the program itself.”

Weights and Success Payments

By the end of February, the Instiglio team knew that unless they brought the warring parties to consensus, Educate Girls would lose precious time for program implementation. Typically, the community mobilization aspect of Educate Girls took nine months. Under the circumstances, if there was a deal by March and school started in July, Educate Girls would only have three months for enrollment activities, after which the focus would shift to learning. But crucial decisions on how much weight would be assigned to the outcomes had not been made either.

Using data from the Jalore RCT, Instiglio had already spent months benchmarking reasonable outcome targets for Educate Girls. “We analyzed Educate Girls performance on a range of metrics,” said Gungadurdoss. “We proposed different scenarios based on these targets, formulated prices for outcomes, and suggested different designs for the payment function to get people to agree.” After much discussion, the DIB parties narrowed down their payment options to the following. (See Exhibit E for related payment matrices.)

Option 1:

Outcomes	Weight for Success Payment
Enrollment	25%
Attendance	25%
Learning	50%

Option 2:

Outcomes	Weight for Success Payment
Enrollment	50%
Learning	50%

Option 3:

Outcomes	Weight for Success Payment
Enrollment	20%
Learning	80%

Performance Incentives

In addition, UBS Optimus had decided early on that an incentive mechanism would be built into the payment matrix. The foundation would pay a performance bonus to Educate Girls staff implementing the DIB if they exceeded outcome targets. The bonus would be a certain percentage of the returns Optimus received on top of its capital payment from CIFF. UBS Optimus would have to arrive at an amount that was meaningful to the Bhilwara staff while not distorting the existing compensation structure for other employees at Educate Girls. Although UBS Optimus had decided not to withhold payment from Educate Girls if the organization failed to achieve outcomes, the organization still faced non-financial risks such as loss of reputation.

The Last Push

In one final effort to reach agreement, all stakeholders planned to meet in London in March 2015 to decide on the outcomes, their weights, and the success payments that would be attached to each.

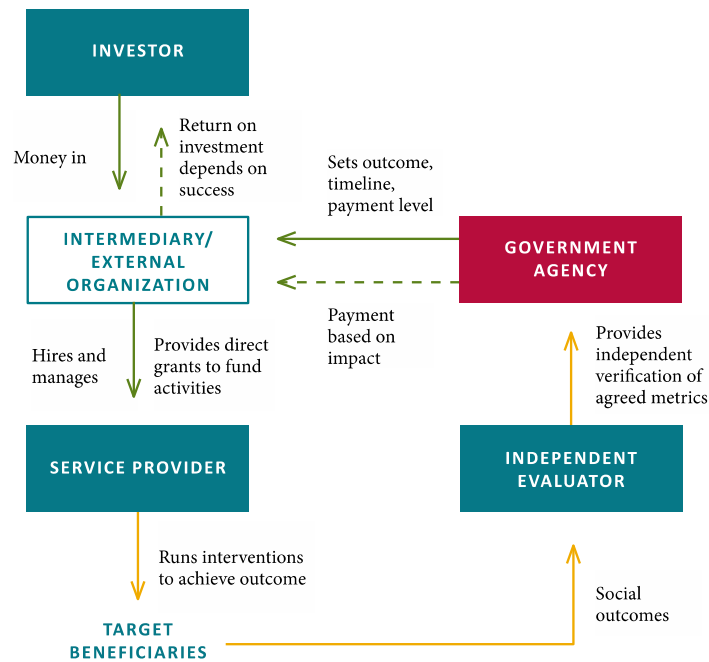
“There are clear differences of interests in this model,” Gungadurdoss said. “As it should be between what an outcome payer wants and what a service provider is looking to achieve. One organization is taking on the risk of delivering the service. They will obviously be eager to promise things they feel comfortable delivering. The outcome payer does have somewhat of a risk-free deal and their interest is to be more ambitious about the type of results they want to see. The better the quality of the goal, the harder it is to achieve, and the more performance risks you take.”

In the face of overwhelming evidence that schools in developing countries didn’t improve education outcomes, CIFF was clear that learning mattered most. But for Educate Girls, enrollment and attendance were equally difficult achievements in a place like Rajasthan and needed to be rewarded. “At a deeper and more philosophical level,” said Gungadurdoss. “It comes down to what different parties believe they are out here to do, and what they believe is important to achieve.”

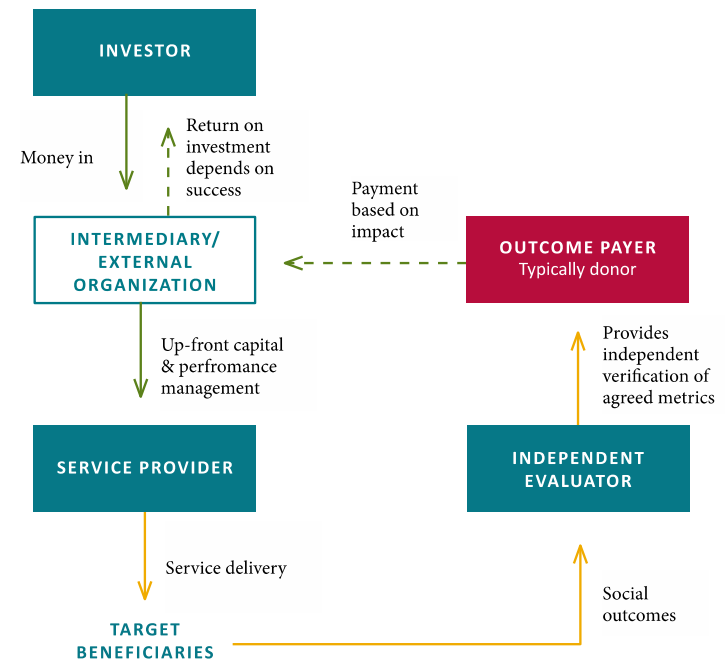
Exhibit A: What Is an Impact Bond?

Impact bonds are results-based financing tools. With an impact bond, a private investor (or investors) provides up-front financing to a service provider and receives a return from an outcome payer when results are achieved. The difference between a Social Impact Bond and Development Impact Bond is graphically represented below.

Social Impact Bond

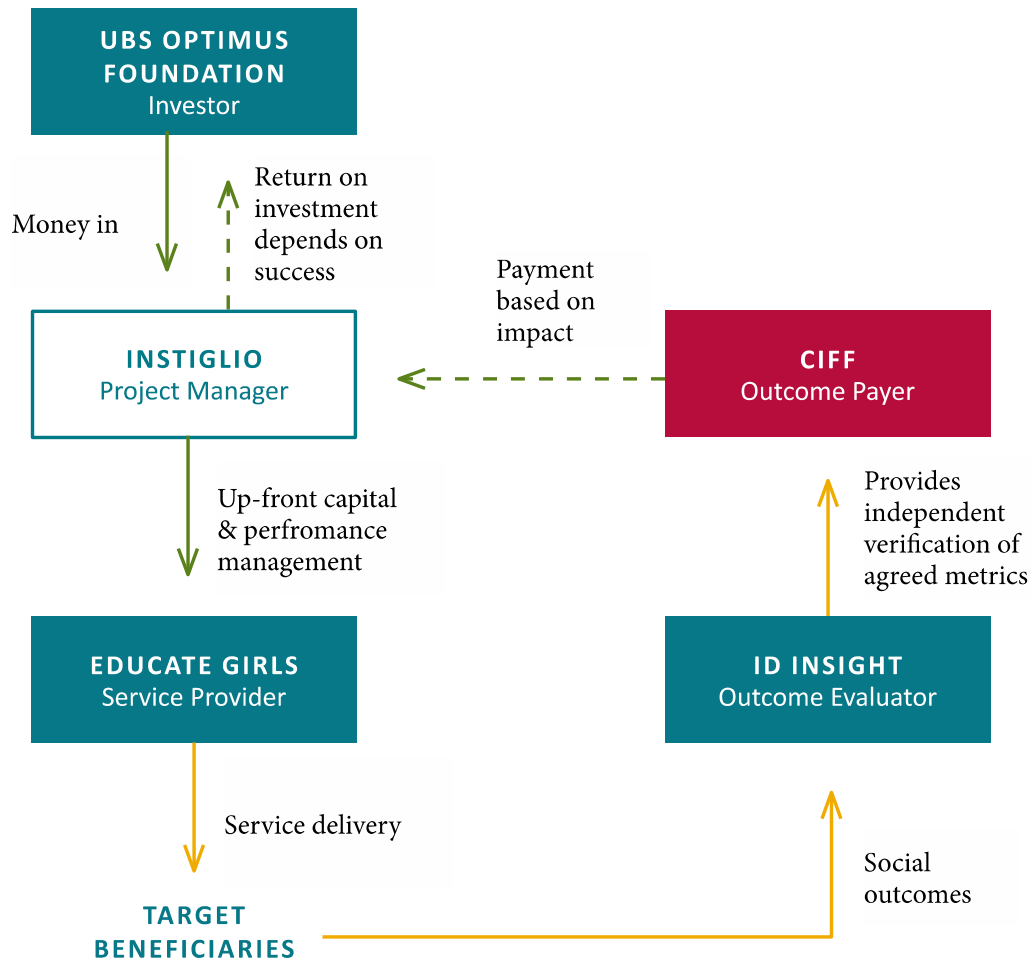


Development Impact Bond



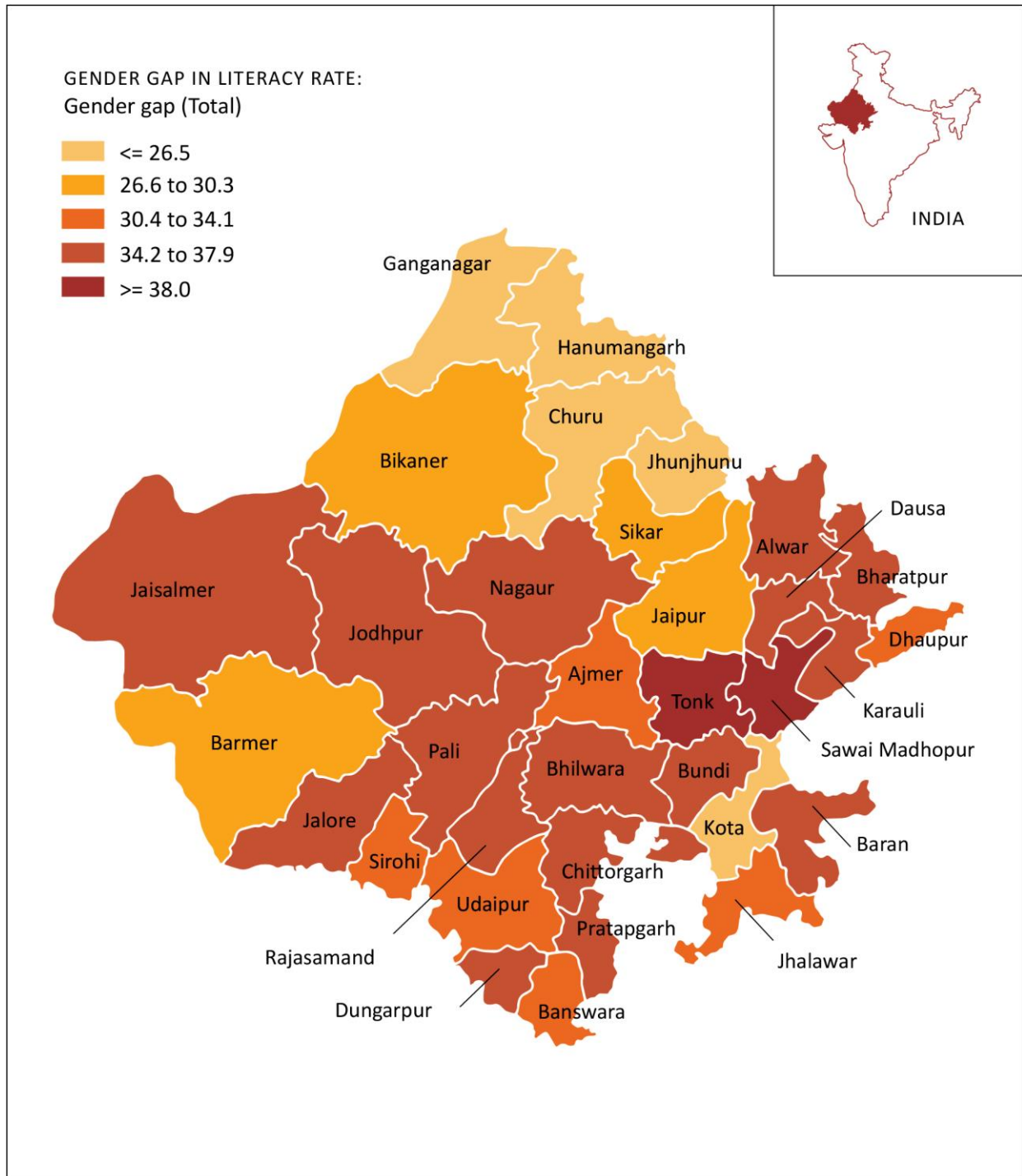
Source: Created by Elizabeth Moran.

Exhibit B: Educate Girls Development Impact Bond Structure



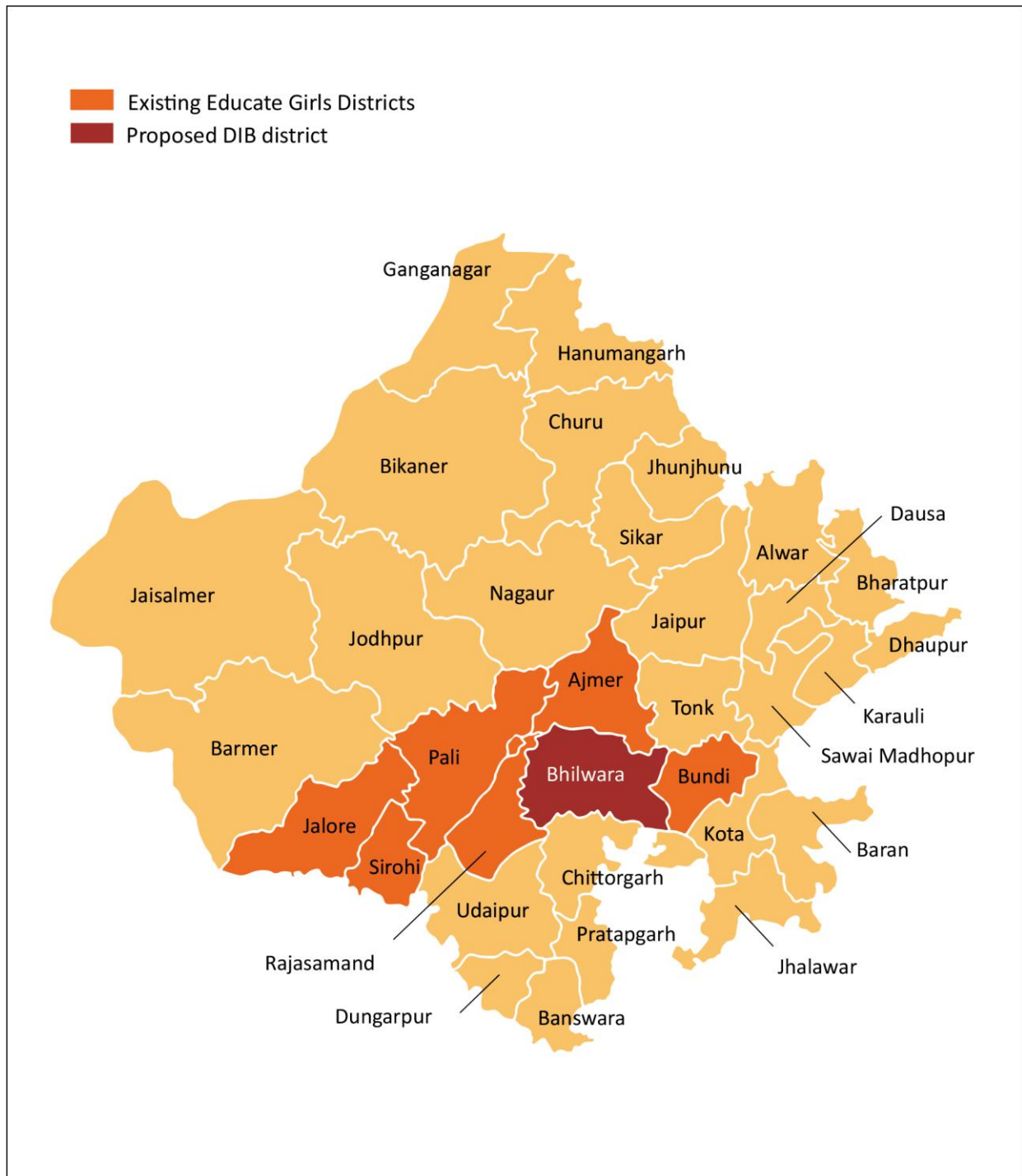
Source: Created by Elizabeth Moran.

Exhibit C: Rajasthan Literacy Gender Gap by District, 2011



Source: Indian Census 2011 available at: http://www.censusindia.gov.in/maps/Theme_based_maps/Map_links/map8.aspx (accessed October 2, 2016). Created by Elizabeth Moran.

Exhibit D: Educate Girls Districts in Rajasthan 2008-2014



Source: Based on data provided by Educate Girls. Created by Elizabeth Moran.

Exhibit D: Risk and Reward

<i>If DIB Fails</i>	Financial Risk	Reputational Risk
Instiglio	None	High
Educate Girls	None	High
UBS Optimus	High	None
CIFF	None	None
IDinsight	None	None

<i>If DIB Succeeds</i>	Financial Reward	Reputational Reward
Instiglio	High <i>(Potential to raise profile of startup)</i>	High
Educate Girls	High <i>(Potential to attract more funding)</i>	High
UBS Optimus	High	None
CIFF	None	None
IDinsight	None	None

Exhibit E: Payment Matrices**Option 1: 25% on Enrollment and Attendance each, 50% on Learning**

	% of expected performance	Outcome payments				UBS investment	Outcome payment net of investment	Net payment to UBS	Net payment to EG
		Enrolment	Attendance	Learning	Total				
Very good	143%	\$116,139	\$122,333	\$262,143	\$422,000	\$277,915	\$144,085	\$97,978	\$46,107
	129%	116,139	117,964	235,929	422,000	277,915	144,085	97,978	46,107
	114%	104,857	104,857	209,714	419,429	277,915	141,514	96,230	45,285
Expected	100%	91,750	91,750	183,500	367,000	277,915	89,085	60,578	28,507
Fair	86%	78,643	78,643	157,286	314,571	277,915	36,657	24,927	11,730
	71%	65,536	65,536	131,071	262,143	277,915	(15,772)	(15,772)	–
	57%	52,429	52,429	104,857	209,714	277,915	(68,200)	(68,200)	–
Poor	43%	39,321	39,321	78,643	157,286	277,915	(120,629)	(120,629)	–
	29%	26,214	26,214	52,429	104,857	277,915	(173,057)	(173,057)	–
	14%	13,107	13,107	26,214	52,429	277,915	(225,486)	(225,486)	–
No impact	–	–	–	–	–	277,915	(277,915)	(277,915)	–

Note: Amount in “UBS investment” column is minimum amount Educate Girls would receive regardless of performance.

Option 2: 50% on Enrollment and Learning each

	% of expected performance	Outcome payments				UBS investment	Outcome payment net of investment	Net payment to UBS	Net payment to EG
		Enrolment	Attendance	Learning	Total				
Very good	143%	\$232,278	–	\$262,143	\$422,000	\$277,915	\$144,085	\$97,978	\$46,107
	129%	232,278	–	235,929	422,000	277,915	144,085	97,978	46,107
	114%	209,714	–	209,714	419,429	277,915	141,514	96,230	45,285
Expected	100%	183,500	–	183,500	367,000	277,915	89,085	60,578	28,507
Fair	86%	157,286	–	157,286	314,571	277,915	36,657	24,927	11,730
	71%	131,071	–	131,071	262,143	277,915	(15,772)	(15,772)	–
	57%	104,857	–	104,857	209,714	277,915	(68,200)	(68,200)	–
Poor	43%	78,643	–	78,643	157,286	277,915	(120,629)	(120,629)	–
	29%	52,429	–	52,429	104,857	277,915	(173,057)	(173,057)	–
	14%	26,214	–	26,214	52,429	277,915	(225,486)	(225,486)	–
No impact	–	–	–	–	–	277,915	(277,915)	(277,915)	–

Note: Amount in “UBS investment” column is minimum amount Educate Girls would receive regardless of performance.

Option 3: 20% on Enrollment, 80% on Learning

	% of expected performance	Outcome payments				UBS investment	Outcome payment net of investment	Net payment to UBS	Net payment to EG
		Enrolment	Attendance	Learning	Total				
Very good	143%	\$92,911	–	\$419,429	\$422,000	\$277,915	\$144,085	\$97,978	\$46,107
	129%	92,911	–	377,486	422,000	277,915	144,085	97,978	46,107
	114%	83,886	–	335,543	419,429	277,915	141,514	96,230	45,285
Expected	100%	73,400	–	293,600	367,000	277,915	89,085	60,578	28,507
Fair	86%	62,914	–	251,657	314,571	277,915	36,657	24,927	11,730
	71%	52,429	–	209,714	262,143	277,915	(15,772)	(15,772)	–
	57%	41,943	–	167,771	209,714	277,915	(68,200)	(68,200)	–
Poor	43%	31,457	–	125,829	157,286	277,915	(120,629)	(120,629)	–
	29%	20,971	–	83,886	104,857	277,915	(173,057)	(173,057)	–
	14%	10,486	–	41,943	52,429	277,915	(225,486)	(225,486)	–
No impact	–	–	–	–	–	277,915	(277,915)	(277,915)	–

Note: Amount in “UBS investment” column is minimum amount Educate Girls would receive regardless of performance.

Source: Created by Johannes Lohmann.

Endnotes

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- ¹ Based on report from Padma at Educate Girls. Munni is a fictionalized name, available at: <http://educategirls.ngo/blog/index.php/triumph-in-the-face-of-adversity-padmas-story-2/> (accessed July 26, 2016).
- ² Unless otherwise stated, all quotations attributed to Avnish Gungadurdoss were drawn from interviews with the author on May 2, and September 6, 2016.
- ³ Unless otherwise stated, all quotations attributed to Safeena Husain were drawn from an interview with the author on May 6, 2016.
- ⁴ Government of India, Sarva Siksha Abhiyan. Statistics available at: <http://ssa.nic.in/pabminutes-documents/NS.pdf> (accessed June 24, 2016).
- ⁵ UNESCO Education for All, Resources available at: http://www.unesco.org/education/efa/.../children_out_of_school.pdf (accessed May 16, 2016).
- ⁶ UN Women Watch: Information and Resources on Gender Equality and Women's Empowerment available at: <http://www.un.org/womenwatch/feature/idrw> (accessed June 2, 2016).
- ⁷ Michael Kremer et al., "Teacher Absence in India: A Snapshot," *Journal of the European Economic Association*, Vol. 3, Issue 2-3, pp. 658–667, April-May 2005.
- ⁸ The State of the World's Children 2015, UNICEF, available at: http://www.unicef.org/publications/files/SOWC_2015_Summary_and_Tables.pdf (accessed June 2, 2016).
- ⁹ 2011 Census of India available at: <http://www.censusindia.gov.in/2011census/> (accessed October 10, 2016).
- ¹⁰ Elementary Education in India State Report Cards 2011-2012 available at: <http://www.educationinnovations.org/sites/default/files/India%20-%20State%20Education%20Report%20-%20Rajasthan.pdf> (accessed September 12, 2016).
- ¹¹ Unless otherwise stated, all quotations attributed to Parvez Kotadia were drawn from interviews with the author on May 17, and September 8, 2016.
- ¹² Unless otherwise stated, all quotations attributed to Maya Ziswiler were drawn from an interview with the author on May 31, 2016.
- ¹³ Unless otherwise stated, all quotations attributed to Grethe Petersen were drawn from an interview with the author on September 9, 2016.
- ¹⁴ Unless otherwise stated, all quotations attributed to Jeff McManus were drawn from an interview with the author on May 16, 2016.
- ¹⁵ 2011 Census of India, Rajasthan, Bhilwara Statistics, available at: http://www.censusindia.gov.in/2011census/dchb/0824_PART_B_DCHB%20BHILWARA.pdf (accessed October 10, 2016).