

Can Outsourcing Improve Liberia's Schools?

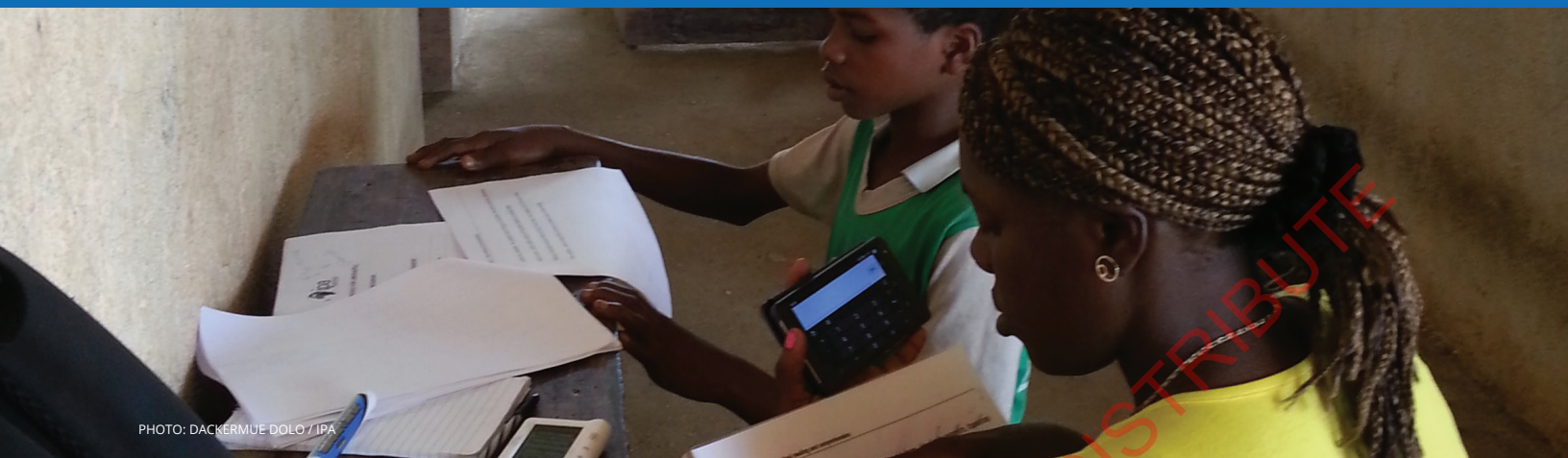


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After one year, public schools managed by private contractors raised student learning by an additional 60 percent, compared to standard public schools. But costs were high, performance varied across contractors, and contracting flaws authorized the largest contractor to push excess pupils and under-performing teachers onto other government schools.

“Partnership Schools” are free, public schools managed by private contractors

- **Liberia's education system lags behind most of the world in both access and quality.** Net primary enrollment was only 38 percent in 2015, and in 2013, among adult women who finished elementary school, only 25 percent could read a complete sentence.¹
- **Under the new Partnership Schools for Liberia (PSL) program, the Liberian government delegated management of 93 public schools to eight contractors.** Teachers in PSL schools remained on government payroll; schools remained free to students and the property of the government; and contractors were banned from screening students based on ability or other characteristics.
- **In addition to new management, PSL also brought extra resources.** While the government runs

ordinary public schools on a budget of approximately \$50 (USD) per pupil, PSL schools received an additional \$50, as the total of \$100 was deemed a realistic medium-term goal for public expenditure on primary education nationwide. While teachers are in short supply in Liberia's public schools, the Ministry of Education made special staffing arrangements for PSL.

- **The evaluation randomly assigned existing government schools to become PSL schools.** Liberia's Ministry of Education commissioned a rigorous, independent evaluation of PSL's effectiveness. Because assignment to the PSL and comparison groups was random, differences between the two groups can be attributed to the program. Schools were randomized *after* contractors agreed on a school list, and students in the sample were selected from the enrollment logs of the school year *before* contractors arrived. Therefore the results are not biased by contractors selecting schools or rejecting students.

¹ The World Bank. "School enrollment, primary (% net)," World Development Indicators, accessed August 28, <http://data.worldbank.org/indicator/SE.PRM.NENR?locations=LR>.

Liberia Institute of Statistics and Geo-Information Services. *Liberia demographic and health survey 2013*. Liberia Institute of Statistics and Geo-Information Services.

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Partner: The Ministry of Education of Liberia

Country: Liberia

Sample: 3,499 students in 185 schools

The results presented here are an early analysis of the PSL program's first-year data and represent our best effort given the limited timeframe in which policy decisions are being made. An academic advisory committee of experienced researchers has provided feedback, but these results are preliminary and have not yet been extensively peer-reviewed.

On average, partnership schools improved teaching and learning by an equivalent of about 0.6 years of school

- **Students in partnership schools scored 0.18 standard deviations higher in English and 0.18 standard deviations higher in mathematics** compared to students in regular public schools. This is the equivalent of 0.56 extra years of schooling for English and 0.66 extra years of schooling for math.
- **The program increased teachers' quality of instruction.** Teachers in PSL schools were 20 percentage points more likely to be in school during a random spot check (from a base of 40 percent in comparison schools) and 16 percentage points more likely to be engaged in instruction during class time (from a base of 32 percent in comparison schools).
- **Students in partnership schools spent roughly twice as long learning each week**, when taking into account reduced absenteeism, increased time-on-task, and longer school days in PSL schools.
- **Parents and students in PSL schools were happier with their schools.** Students in PSL schools were more likely to think that school is fun, and parents were more likely to be satisfied with the education that their children were receiving.

Costs were high, in terms of government staffing and private subsidies

- **Contractors' budgets in year 1 greatly exceeded program targets.** Rather than \$50 per student (on top of the government's existing \$50 per student budget), contractors' budgets ranged from a low of approximately \$57 for the Liberian Youth Network to a high of approximately \$1,052 for Bridge International Academies.² Learning gains varied widely across contractors, but higher costs do not necessarily correlate with higher learning gains.
- **The government assigned PSL schools 37 percent more teachers than non-PSL schools, including first pick of better-trained, new graduates.** In the short term, without a significant increase in the supply of trained teachers, the staffing advantages given to PSL appear unsustainable at a larger scale.
- **Even ignoring high start-up costs, the long-term cost of the program remains high compared to programs yielding comparable effects elsewhere.** Using the generous cost assumption of \$50 per operator, the first year of PSL was not as cost-effective as other programs in developing countries evaluated

² Several caveats apply to the cost data: at the time of writing we have access only to budgets for some contractors, rather than actual expenditures; financial data is also self-reported and not independently audited; and incentives to under- or over-report may differ by contractor.

FIGURE 1

Test score gains, for English and math, in standard deviations

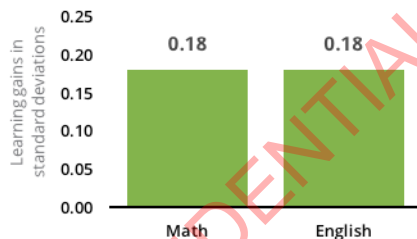


FIGURE 2

Standard deviation test score gains per \$100 among different programs

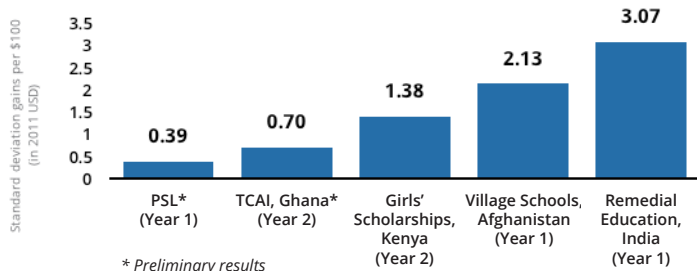
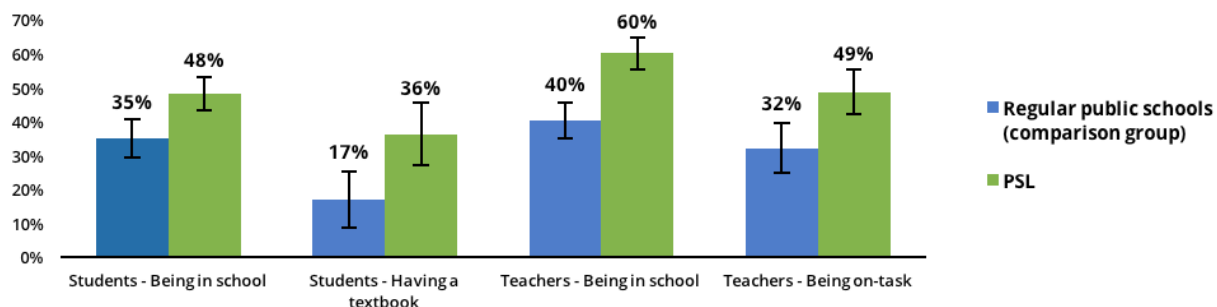


FIGURE 3

Likelihood of students and teachers...

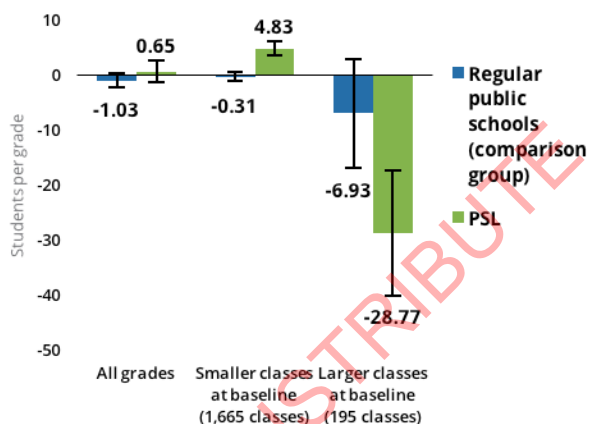


by randomized controlled trials (see figure 2, which highlights other interventions that raised test scores between 0.70 and 3.07 standard deviations per \$100 spent). Liberia is a challenging environment, and cost-effectiveness calculations from other contexts and programs are far from perfect comparisons for the Liberian context. More research needs to be done on this and other interventions in Liberia so that reliable cost-effectiveness comparisons can be made.

Contracting flaws authorized the largest contractor to push excess pupils and under-performing teachers onto other government schools.

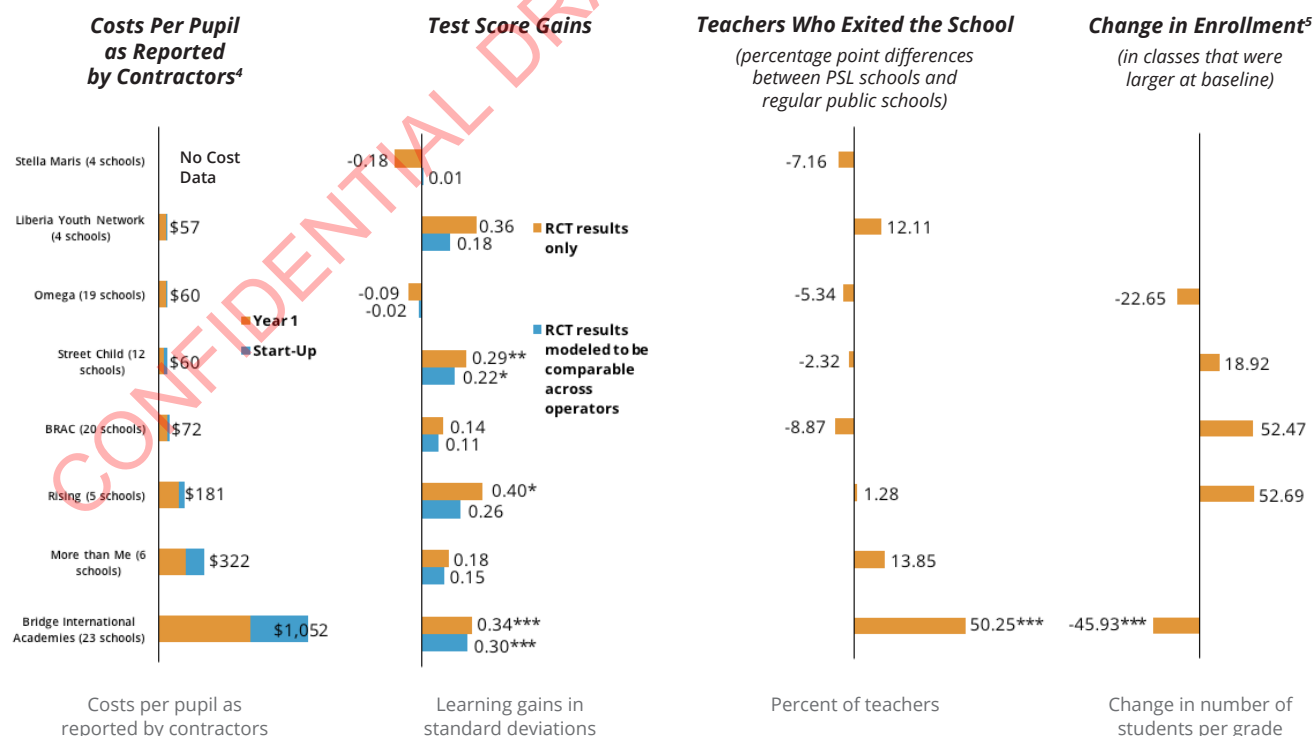
- **One contractor dismissed the majority of existing public school teachers.** This was concentrated in schools run by Bridge International Academies, where 74 percent of the original teachers exited. In theory, these teachers are still paid by the government, and may be working in other public schools or collecting pay without working. Although weeding out bad teachers is important, a simple reshuffling of teachers is unlikely to raise average performance in the system as a whole.
- **The same contractor capped class sizes, removing thousands of students from schools where class sizes were large.** For the six contractors with uniform contracts who were paid per pupil,

FIGURE 4
Changes in enrollment between 2015/2016 and 2016-2017



enrollment increased. But Bridge International Academies, which was not covered by the same contracts, enforced class-size caps and shut down second shifts. Most of these students were likely absorbed by nearby traditional public schools.

FIGURE 5
Impact of PSL Operators on Student Learning, Teacher Reassignment, and Enrollment³



³ * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$. Small p values indicate statistical significance: that the observed effect of PSL is not likely to have occurred by chance. Statisticians generally agree that p values less than 0.05 indicate a true effect size different from zero.

⁴ Contractors reported their ex-ante (pre-spending) per-pupil budgets. These costs reflect both costs that contractors say are startup costs and the contractors' year 1 costs.

⁵ Some operators had no schools with baseline class sizes above the class caps.



PHOTO: ERIK CLEVES KRISTENSEN / FLICKR

Conclusions

- **There is solid evidence of positive effects for Liberian children during the first year of PSL.** Students at PSL schools learned more, received more instruction, and were happier at school than students at traditional public schools. Teachers in PSL schools were more likely to be at school, on-task, and engaged in instruction.
- **But the program has yet to demonstrate it can work in average Liberian schools, with sustainable budgets and staffing levels, and without negative side-effects on other schools.** In the first year, the program was implemented (and evaluated) within a list of eligible schools agreed by contractors, which were better staffed, had better infrastructure, and were closer to roads than average Liberian schools. Among the better-performing contractors, the Liberian Youth Network, Rising Academies, and Street Child agreed to serve more remote areas. Bridge International Academies stipulated fifty schools out of over 2,500 in the country where it was willing to work (with road access, multiple classroom buildings, and 2G connectivity).
- **Clear, uniform procurement rules might better align contractors' incentives with the public interest.** The high teacher and student exiting levels in year 1 were associated with the two contractors who did not complete (Stella Maris) or participate (Bridge International Academies) in the competitive procurement process. Revised contracts (e.g., to limit student removal, or offloading of under-performing teachers on other schools) and competitive selection of contractors based on performance could lead to iterative improvements in the program.
- **Future research could explore whether the program can improve through further iteration before significant expansion of the program.** The remaining two years of the three-year pilot and evaluation could be used to test further refinements. This testing, and other future research, could aim to identify ways to increase learning gains, lower costs, and ensure that if the program is scaled, these learning gains come through improvements that do not have unintended negative effects on other schools.

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