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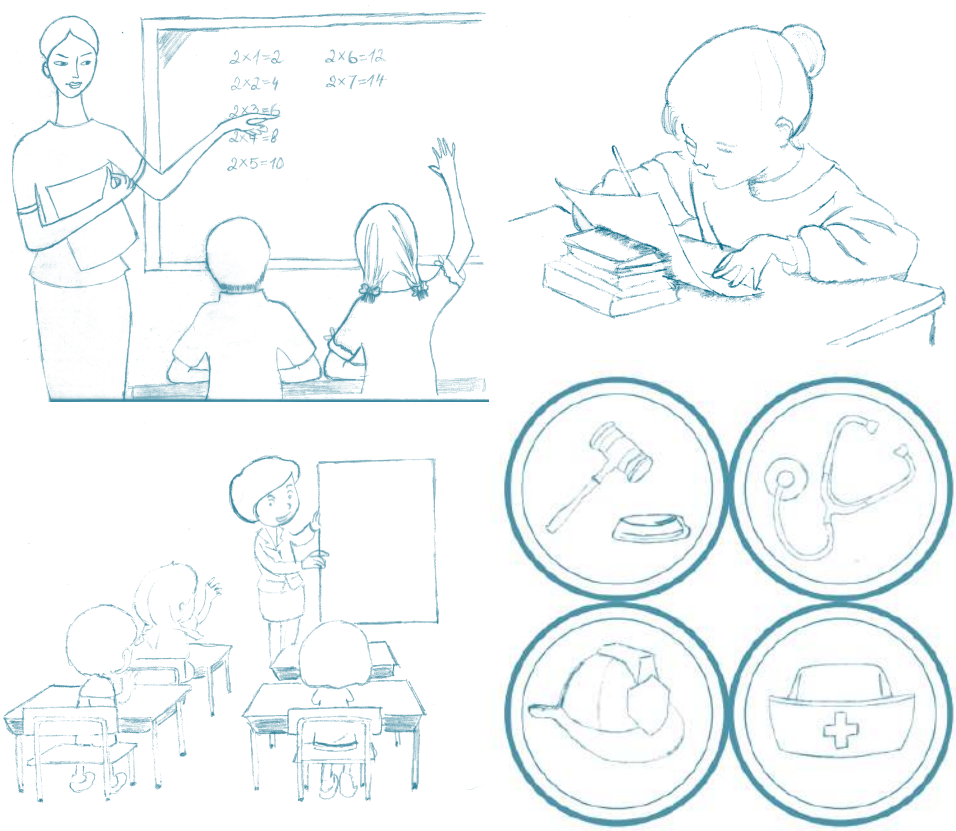
Benefit-Cost Analysis

Education Intervention in Haiti:

Sector Expert Review



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Haïti Priorise
Un plan de développement alternatif

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Cost-Benefit Analysis of Education Interventions

Haiti Priorise

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As part of the Haiti Priorise project to identify and promote effective solutions to Haiti's development challenges, four papers analyze the costs and benefits of eleven education interventions which have received much attention (and in some cases shown significant promise) in developing countries. The eleven analyzed interventions vary substantially – from expanding access to good quality early childhood education to providing secondary school scholarships to girls. However, all eleven are found to have benefit to cost ratios over 1.0 at reasonable discount rates, and could therefore be justified as promising interventions to pursue in Haiti. How should we interpret these results?

In this paper, I first provide a brief snapshot of the broader context of the Haitian educational system into which these interventions would be introduced, then synthesize the findings of the four papers and discuss how these findings compare with actual domestic and international investments in education. Finally, I argue that turning promise into outcomes relies heavily on the quality of implementation, and that these cost-benefit analyses should be combined with realistic assessments of implementation feasibility in order to prioritize investments.

Education context in Haiti, briefly

As is well-known, Haiti faces many challenges in achieving universal access to quality education at all levels. While about 90% of primary school-age children were enrolled at the last household survey in 2012, only about 50% of children actually complete primary school, and far fewer complete secondary or beyond. Moreover, since 2012, economic challenges and several key policy decisions have threatened the gains made during the 2000s, raising the possibility that enrollment and achievement rates may have actually declined in recent years.

Beyond the headline statistics mentioned above, there is important variation within Haiti as access to education depends greatly on urban/rural location, household wealth, gender, disability, and other factors. For example, regarding gender, while girls drop out at a faster rate than boys after age 14, this difference appears to be largely driven by the fact that girls progress through school more quickly than boys, as more 15-19 year old women than men have at least some secondary education (Cayemittes et al; World Bank 2014 and 2016).

In terms of education financing and provision, the public sector continues to play a minor role at all levels. Public schools only educate about 6% of pre-school students, 23% of primary school students, and 26% of secondary school students, while the rest attend a wide variety of religious, community-run, and for-profit schools. Relatedly, public resources are estimated to account for only about 30% of total spending on primary education, while households account for about 60%, and international donors the remainder (World Bank 2016). Vocational and technical education is also largely privately financed and provided; however, the Government does play a large role in providing university-level education.

Eleven promising interventions, in context

With this as the backdrop, we turn to considering the eleven interventions analyzed in the four papers by Damien Echevin, George Psacharopoulos, Antonu Rabbani, and Melissa Torchenaud. I leave aside a discussion on the justification for focusing on these interventions and not others, as well as the fact that the level of specification varies widely, from the very specific (e.g. "introduce a civics course in the lower secondary curriculum") to the very broad (e.g. "provide quality preschool education"). Instead, taking these interventions as described in their respective papers, the table below compares the estimated benefit-cost ratios at the 5% level.[1]

Based on these estimates, we could simply conclude that investments in early childhood education and in the quality of primary education are among the most promising for Haiti in terms of expected net benefits. Despite several shortcomings of the cost-benefit analysis in each paper, this conclusion in fact lines up well with a range of broader analyses, including Heckman's well-known investment curve and previous work done for the Copenhagen Consensus on the post-2015 development agenda (Glewwe and Kraft 2014).

How do these results compare to the actual distribution of education financing? This is not an easy question to answer given the limitations on existing data, but a 2014 analysis of international financing finds that roughly 80% is focused on primary education, with the remainder going to secondary (including vocational), pre-primary, and tertiary. Breaking down public spending by levels is even more difficult, and we are unable to say much beyond the fact that at least 30% (and likely much more) of the Ministry of Education's budget goes to primary, while very little (likely well under 10%) goes to pre-primary (World Bank 2016). In addition to being based on incomplete data, these estimates are also attempting to hit a moving target – international financing levels in particular fluctuate greatly over time, but domestic resources do as well, as priorities change across administrations. Despite these caveats, we can (guess-)estimate that the primary level receives the majority of public education financing, but that this financing continues to fall short of actual needs, while pre-primary receives very little public money relative to its potential returns.

However, moving from identifying broad priority areas to a plausible proposal for financing and implementing interventions is exactly where much development work breaks down. I provide two specific examples based on the analyzed interventions. First, early childhood education investments are widely considered to have the types of large returns assumed by Rabbani only if the service being provided is of reasonably good quality. In Haiti, the starting point is a system with widely varying but on average very low quality provision and almost no public financing or

[1] All of the papers consider a 3%, 5%, and 12% discount rate, and the conclusions are qualitatively similar across all three.

oversight.[2] While the average annual operating cost per student used by Rabbani of roughly 160 USD is reasonable based on known costs in Haiti, the start-up costs (both financial and political) of asserting public authority in the sector, developing both pedagogical and bureaucratic management capacity, and improving physical spaces for classes in order to reach a minimal level of quality are likely to be very high. Moreover, even with expected high returns, identifying a reliable and recurring public source of financing for early childhood investments is a difficult task in a context where primary and secondary education are underfunded.

Second, the discussion around interventions to improve the quality of primary education relies on the assumption that the majority of children are in school. While this was true in 2012 as mentioned above, because public financing for primary education has fallen in subsequent years, enrollment rates are also at risk. Therefore, the extent to which the government will finance primary education, and with what resources, should be resolved as a matter of priority over and above other interventions. Beyond this challenge, considering the two quality interventions with the highest estimated ratios – mother tongue instruction and teaching at the right level – several factors suggest that effective implementation in Haiti would be costlier and generally more resource-intensive than assumed. First, regarding mother tongue instruction, the Ministry of Education has already directed schools to begin teaching students to read and write in Haitian Creole, rather than French, but anecdotal evidence suggests that most schools do not comply. Many reasons lie behind this – including parents' preference for their children learning French and the lack of Ministerial authority over a largely private sector (Adelman et al 2015). These reasons imply that progress (which is being made) requires building consensus across stakeholders, developing new materials in Creole, and re-training teachers – all costly and time-consuming efforts that are not fully factored into the analysis. Beyond Haiti, most of the evidence from rigorous evaluations of interventions on education quality in developing countries (including on teaching to the right level) comes from interventions implemented by non-governmental actors, and efforts to scale up these interventions through government have met a range of difficult and sometimes unpredictable challenges, which entail substantial extra costs, effort, and time to overcome (Bold et al 2013; Kerwin and Thornton 2015; Banerjee et al 2016).

In addition to these examples, every other intervention analyzed across the four papers could (and should) be carefully considered for feasibility in light of the known challenges of the context. Regarding the conditional cash transfers analyzed by Rabbani and Torchenaud, a program would need to factor in the costs of not only setting up the basic systems effectively from scratch but also of achieving agreement on targeting, given that identity registration systems do not function and 70% of the population is either poor or vulnerable to falling into

[2] Very little reliable data exists on the ECE sector in Haiti, but field visits and anecdotal evidence point to classrooms of over 40 children with little to no materials as a common occurrence.

poverty (World Bank). Regarding vocational education, as rightly pointed out by Psacharopoulos, existing programs in Haiti and many other countries have run into the added costs of providing substantial remedial education because basic skills are so weak and of identifying labor demand because markets are largely informal and almost no labor market information exists (World Bank).

Table 1: Estimated Benefit-Cost Ratios across eleven education interventions

Education level targeted	Intervention	Author	Benefit-cost ratio at 5% discount rate
Pre-primary	Two-year early childhood interventions at the pre-primary phase	Rabbani	13.9
Primary	Teaching at the right level	Rabbani	8.8
	Mother tongue instruction	Echevin	7.4
	Training teachers	Echevin	4.4
	Private school subsidies	Echevin	3.3
	Free school uniforms	Echevin	2.0
Secondary	CCT for secondary school	Rabbani	5.0
	CCT for girls in secondary school	Torchenaud	6.9
Lower secondary	Adding a civics course to the secondary school curiculum	Psacharopoulos	4.9
Upper secondary	Providing 3-year vocational education program	Psacharopoulos	2.0
	Creating a gap year program of civics and vocational education	Psacharopoulos	2.5

Conclusions

Considering the findings of the four papers on potential education interventions in Haiti altogether, it is clear that in a context where attainment and learning are so low, almost any reasonable intervention could have substantial net benefits. More importantly, the results point to a focus on early childhood and primary education as most likely to provide the largest long-term benefits, consistent with the broader literature and other research on education in Haiti. However, what the papers do not address is how feasible it would be to implement any of the analyzed interventions, including a broader consideration of the costs and time required. This is where I very much hope the conversation will go, as Haiti's future will be shaped by the human capital it builds today.

References

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Haiti faces some of the most acute social and economic development challenges in the world. Despite an influx of aid in the aftermath of the 2010 earthquake, growth and progress continue to be minimal, at best. With so many actors and the wide breadth of challenges from food security and clean water access to health, education, environmental degradation, and infrastructure, what should the top priorities be for policy makers, international donors, NGOs and businesses? With limited resources and time, it is crucial that focus is informed by what will do the most good for each gourde spent. The Haïti Priorise project will work with stakeholders across the country to find, analyze, rank and disseminate the best solutions for the country. We engage Haitans from all parts of society, through readers of newspapers, along with NGOs, decision makers, sector experts and businesses to propose the best solutions. We have commissioned some of the best economists from Haiti and the world to calculate the social, environmental and economic costs and benefits of these proposals. This research will help set priorities for the country through a nationwide conversation about what the smart - and not-so-smart - solutions are for Haiti's future.

For more information visit www.HaitiPriorise.com

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