

OVERVIEW

Educate! aims to tie secondary education directly to life outcomes. We do this by partnering with schools and governments to reform what schools teach and how they teach it, so that students in Africa have the skills to attain further education, overcome gender barriers, start businesses, get jobs, and improve their livelihoods.

Educate! partnered with researchers from the University of California-Berkeley, the World Bank, and Innovations for Poverty Action to conduct a follow-up to our Randomized Controlled Trial (RCT) which measured our impact on students four years after participating in the Educate! model. We saw strong impacts on soft skills (improved grit, creativity, self-efficacy), gender-related outcomes (what the researchers call “social spillovers” – less domestic violence, fewer sexual partners, fewer children, more egalitarian views), and educational attainment (increased secondary school completion, increased tertiary enrollment for women, greater likelihood of selecting higher-earning majors). After Educate!, girls were essentially as likely to graduate from secondary school as boys.¹

As a result of high tertiary enrollment across the study sample over the research period, made worse by the fact that Educate! seems to shift some youth into tertiary education and away from early employment, it is too early to definitively assess the long-term impacts of the intervention on income or employment.² Moreover, the researchers noted that we see a selection effect, whereby the more high achieving/higher earning potential Educate! graduates are more likely to be the youth in the sample who are being pushed out of the labor market and into school and therefore delaying entry into the workforce. Until both cohorts completely enter the full-time job market, it is not possible to provide a definitive assessment as to whether the Educate! training provides an advantage, or how large it may be. *Please refer to Appendix III on pg 8 for more explanation of the selection effect.*

Overall, the strong impacts on skills, gender equity-related outcomes, and educational attainment demonstrate that participating in the Educate! Experience allows students to develop the competencies that put them on a better trajectory in areas correlated with improved long-term life outcomes. To learn more, researchers have already secured some funding for a follow-up to explore how these impacts evolve with more time.

“*These results command attention, as successful interventions of this type do not abound.*”

Luis Benveniste, Practice Director for Education Global Practice, World Bank

EVALUATION CONTEXT

There is very little evidence about the long-term impacts of youth interventions. In Africa, there are only a few other studies on any youth interventions more than one year out for our age group (Gertler et al, forthcoming; [Bandiera et al, 2018](#); [Baird et al, 2015](#)) and only one study of a secondary school intervention (in Ghana, specifically) tying education to life outcomes 4 years out ([Duflo, Dupas and Kremer, 2017](#)). This lack of evidence made it difficult to set expectations around what impacts are realistic to achieve within this time frame. We were very grateful to have the Ghana study to use as a benchmark for what is possible for an education intervention 3-4 years post high school.

Educate! is committed to monitoring and evaluation, to tying education to life outcomes and to constantly improving our model. Motivated by these values, we embarked on a rigorous, long-term evaluation that is one of the first of its kind. The research tracked the effects of the in-school model, the Educate! Experience 4 years post intervention, which is about 3.5 years after youth completed secondary school. The study was conducted as a medium-term follow up to a randomized control trial. The researchers designed a clustered RCT and conducted the baseline in early 2012 among 48 schools in 6 districts in Uganda. In each school, they used a standard process for selecting 40 students in their penultimate year of secondary school. Researchers then randomly assigned schools to either a treatment group, where the 40 students received the Educate! Experience, or a comparison group, which did not receive the model. Of 1,942 students who participated in the study, 966 were in schools randomly assigned to receive the model and 976 did not receive the model.

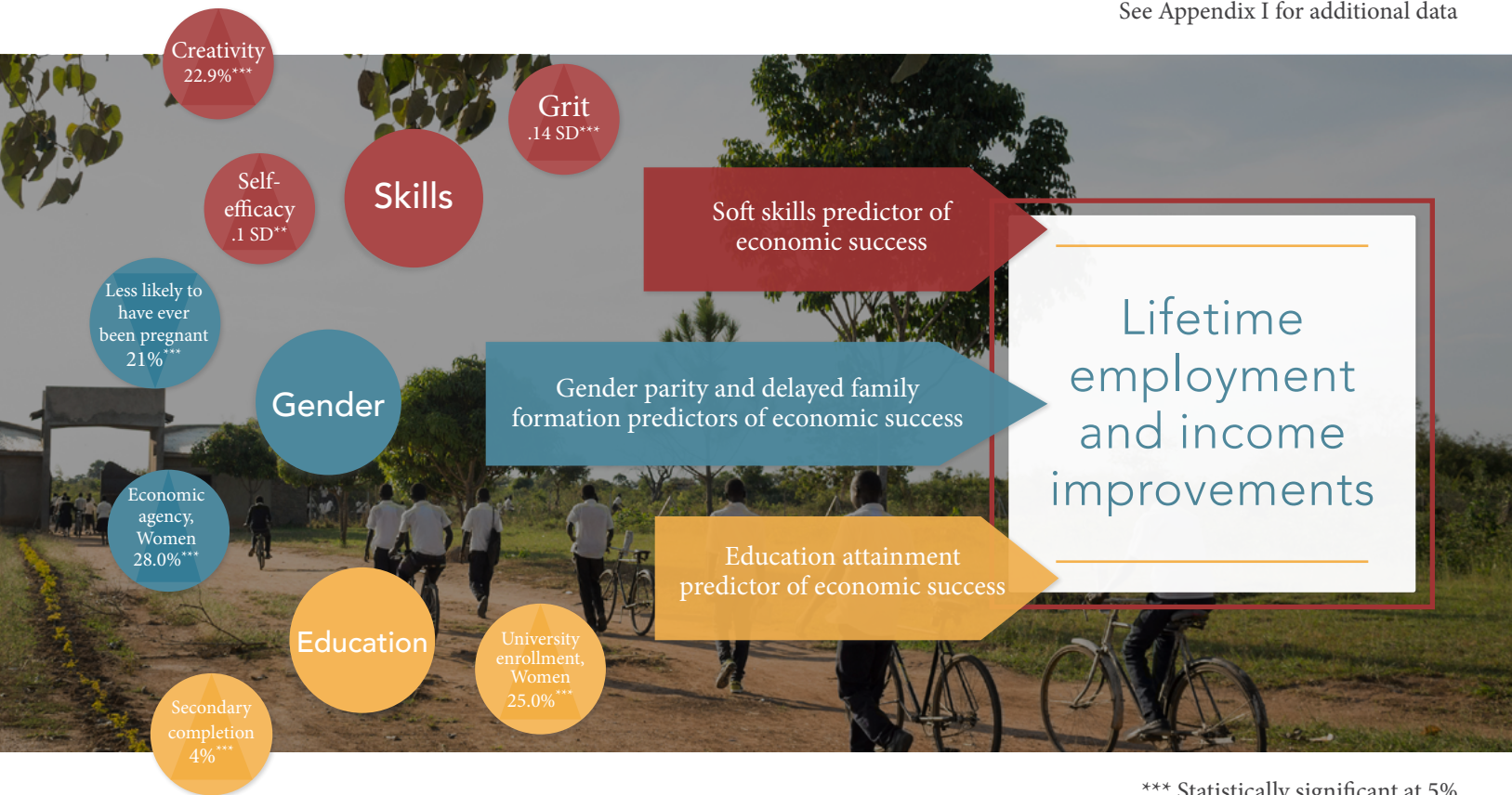
48 schools **6** districts in Uganda **966** students received the Educate! Experience **976** students did not

¹ 89.9 percent of girls in the treatment group graduated from secondary school, as compared to 90.4% of boys in the comparison group and 83.3% of girls in the comparison group.

² These results are in line with other recent research that finds that 4 years after secondary school is too early to assess labor market outcomes, as students have yet to fully realize employment or income gains when they are on the traditional, academic secondary school track in Africa (like our students). A study in Ghana by leading researchers found that due to their focus on education, students may even have decreased income compared to controls at this time. (Duflo, Dupas and Kremer, 2017).

Research completed in partnership with IPA and researchers at University of California Berkeley

Lead Researchers: Laura Chioda, World Bank Paul Gertler, UC Berkley



*** Statistically significant at 5%
 ** Statistically significant at 10%

EVALUATION RESULTS

Aligned with our theory of change, the below results show that the Educate! Experience improves the skills of youth and supports them in overcoming gender barriers, and that these skills, in turn, encourage investments in education which over time should lead to livelihood and employment outcomes. *Please see Appendix I for the data behind the below descriptions.*

Skills³

Soft Skills

The RCT found that Educate! has large, lasting, and statistically significant impacts on a variety of transferable or soft skills, including creativity, grit, pro-social attitudes, and self-efficacy.

Hard Skills

Educate! graduates and the control group scored similarly on overall “hard” skills when the skills such as youth business knowledge, management skills, or negotiation skills were combined into a single index. However, Educate! graduates outperformed the control group on business skills that require a mix of hard and soft skills. This includes the ability to identify business opportunities, participating in deliberate dialogue, and identifying win-win situations. This suggests that the treatment group may be better able to leverage the business skills they do acquire through their improved soft skills.

“The intervention did a **phenomenal** job of improving skills, both intra- and inter-personal.

Paul Gertler, *Principal Investigator,*
 Professor of Economics in the Haas School of Business, UC, Berkeley,
 Globally recognized expert in impact evaluation

3 Carney, Dana, et al. “Educate! Evaluation: Four-year Follow-up Report: Data Collection and Preliminary Results from the Quantitative Survey” Working Paper, March 2019, 43.

Gender-Related Life Outcomes⁴

Female Educate! graduates are more likely to:

- Have lower tolerance for domestic violence; and report fewer incidences of violence
- Embrace and support views of their roles as equals
- Claim a role in making household decisions and deciding whether to participate in the labor market

Male Educate! graduates are more likely to:

- Recognize women's value and roles in society
- Recognize women's right to safe and consensual sex
- Report engaging in less risky behavior

Educate! graduates are **21%** more likely to delay family formation

Both male and female Educate! graduates are more likely to:

- Delay family formation and have fewer children than their peers
- Have improved attitudes towards acceptability of intimate partner violence
- Express more egalitarian views

Secondary Education Completion

The Educate! Experience had a statistically significant impact on secondary completion. The increase in the likelihood of women completing secondary school was **enough to virtually close the gender gap** (graduation rates were 89.9% for women in the treatment group and 90.4% for men in the comparison group⁵).

Tertiary Education

Women in the treatment group were more likely to have ever enrolled in tertiary education (universities and vocational schools) and the Educate! model has a marginally (~15%) significant impact⁶ on all participants' likelihood of graduating tertiary school.

The Educate! model also seemed to influence what students study and how well they do. Educate! graduates are more likely to pursue technical degrees, like business and STEM majors, in university. These effects are even more pronounced among women. Female Educate! participants were more likely to attend university, have higher GPAs,⁷ and there was a practically significant increase in tertiary completion for both men and women.

“*The Educate! program improves a student's ability to set goals, as well as their ability to organize themselves and others to achieve these goals.*”
Paul Gertler, *Principal Investigator*

Business Ownership, Employment and Income⁸

With more than 1/3 of the study sample currently enrolled in tertiary education (and even more having attended or completed), the impact of Educate! on labor market outcomes cannot be fully assessed at this time. However, existing evidence, taken together with the skills, gender, and education impacts from this study, offer optimism about future employment and income of our graduates. Overall, these findings demonstrate that participating in the Educate! Experience allows students to develop the competencies that put them on a better trajectory in areas correlated with improved long-term life outcomes. *Please refer to Appendix III on pg 8 for more explanation of the selection effect.*

4 Carney, Dana, et al. "Educate! Evaluation," 55.

5 Ibid., Table 5.5.1

6 Ibid., Table 5.5.1 While not significant at conventionally accepted academic levels (10%), the impact on this outcome was significant at the 15% level. We feel this is on the margins of statistical significance, and that it is worth discussing.

7 Ibid., 49. These estimates are only suggestive and should be interpreted with caution, since they do not account for the fact that Educate! alters both the decision to enroll and performance in tertiary education. Preliminary evidence suggests that, conditional on enrolling in tertiary education, Educate! graduates appear to perform better and record higher cumulative grade-point averages relative to their counterparts in the control group at 0.12 sd higher.

8 Ibid., 49.

Interpretation

To help us interpret these results, we shared them with education experts. We learned that, in the context of education interventions, particularly when looking at skill gains and learning, it's rare to see models that achieve more than this, especially after a few years. We also learned that evaluating secondary school programs is more complex and long term than we initially understood when we launched the RCT 7 years ago. A key realization for the researchers was that evaluating the income impact of a secondary school skills model like Educate! will require a time horizon longer than 4 years post-intervention. This is largely due to high-potential youth enrolling in tertiary education and delaying full time work. It was disappointing to the researchers, and to us, that, as a result, the timing of the data collection was unable to shed more light on the model's direct impact on the income potential of its graduates. While these results are more complex than we anticipated, we, and the researchers, also find them more exciting. The study shows that our graduates leave the model having improved transferable skills, increased educational attainment, enrolled in higher-earning majors, and improved gender-related outcomes. As detailed in the report, these outcomes strongly correlate with enduring, long-term labor market and life outcomes.

Evidence from Ghana

Educate!'s results are consistent with [a recent long-term evaluation in Ghana on the effect of secondary school scholarships](#) by Duflo, Dupas, and Kremer mentioned earlier. This study found that 4-year post-secondary school was too early to assess labor market outcomes for cohorts on a traditional academic track. In fact, due to their educational status, Duflo et al found that academic track youth may even have decreased income compared to controls.

Projecting Future Income

Evidence suggests that the improved skills, gender, and education results of the treatment group should result in income impacts in time. Well-regarded research from a variety of contexts has established positive correlations between educational attainment and lifetime earnings. Recent rigorous research from [the World Bank estimated the specific income returns to increased education](#). We applied this research to the impacts on educational attainment measured through Educate!'s RCT to estimate the return on investment (ROI) to gains in education from the Educate! model over the lifetime of students. We found that Educate! graduates should see higher lifetime income yielding an ROI for Educate!'s model of 19X. While the returns to education alone are 19x, we expect the income returns to the Educate! model to be even greater given the improvements in skills and gender related outcomes found in the study. See our ROI Methodology document for more info.

Research from the World Bank found that:

Those who graduate from secondary earn **16.7%** more than their peers who complete primary alone. Those who complete tertiary earn an average **23.4%** more than those who complete secondary. Young women experience a **24.1%** return for tertiary completion.⁹

NEXT STEPS

Educate! is committed to continual learning and intends to use what we've learned to fuel our education solutions.

Follow-up

From what we've seen, this is the first long-term evaluation in Africa to causally link soft skills to improvements in life outcomes related to education and gender equity, and we are eager to continue generating evidence around this relationship. As a part of this evaluation, researchers have already secured some funding for a 7+ year follow-up to explore how these impacts evolve with more time.

Improve our in-school model

In the 7 years since we initially launched the RCT, we've made continual improvements to our in-school model in response to internal and external evaluations. This includes partnering with BRAC to run a quasi-experimental evaluation of the Educate! Experience at scale in 2015/2016, as well as partnering with IDInsight on a qualitative evaluation. With this in mind, we plan to incorporate key learnings from this RCT into our model, including adding negotiation skills, focusing more on business planning and career planning, exploring more touch points during high school graduation and after, and expanding engagement with participants during their last year of secondary. We also plan to integrate aspects of another entrepreneurship model, called SEED, into our model, including batching sessions for greater intensity. SEED is a 3 week intensive program similar to Educate!, in fact it used Educate!'s soft skills curriculum. A recent 3-year follow-up to SEED found that the model had impact on economic outcomes.

Experiment with model for out-of-school youth

Evidence from SEED and Duflo, Dupas, and Kremer's study in Ghana suggest we can have an impact in the shorter term with youth who are not on a traditional academic track. We've recently launched a new disruptive innovation unit which will be developing a model for out-of-school youth to be implemented in parallel to our existing models, building off the impact and model used in SEED.

⁹ Montenegro, Claudio E. and Patrinos, Harry A., "Comparable Estimates of Returns to Schooling Around the World," Policy Research Working Paper 7020, World Bank, 2014.

CONCLUSION

The primary purpose of this evaluation was to understand whether the Educate! Experience led to skill upgrading and if so, if that translates into improved education, gender, and labor market outcomes, and ultimately an improved life trajectory. This RCT found that our in-school model in Uganda has meaningful impacts in areas that will lead to better lives for our graduates – and that those impacts are even stronger for our female graduates. As we learned through conversations with experts in the space, the strong skills, gender equity, and education outcomes – increased grit, creativity, secondary and tertiary completion, higher GPAs, and higher-earning degree choices – are characteristics that correlate with better long-term life outcomes. Applying rigorous research showing the positive correlation between educational attainment and earnings suggests that Educate! graduates are making choices that research has shown will lead to improved labor market and income outcomes. These skill and education impacts are even more meaningful when taken in combination with the gender-related outcomes found in the RCT. Those with knowledge of the research in this space shared that the gender-related impacts – on secondary and tertiary completion, STEM degree choices, delayed childbearing, and acceptance of more equitable gender norms – are very impressive and not seen in many other programs. These large and durable shifts in skills, coupled with significant improvements in educational outcomes and gender equity-related social spillovers, suggest that participating in the Educate! Experience sets youth on a higher trajectory. We remain eager to further explore how youth continue to translate these impacts into improved life outcomes.

For ease of understanding, the percentages below are relative, calculated by taking the absolute increase and dividing by the comparison group mean. However, please note that in the researchers' report and other documents we more frequently report impacts as absolute percentage point increases.

Appendix I.

Evaluation Results

Skill Outcomes	Educate!'s Impact	Gender Outcomes	Educate!'s Impact	Education Outcomes	Educate!'s Impact
Grit, Overall	0.14 SD*** increase	Likelihood of having ever been pregnant, Overall	21%*** decrease	Secondary completion, Overall	4%*** increase
Creativity, Overall	22.9%*** increase	Number of children, Women	0.14 SD** decrease	Secondary completion, Women	7.9%*** increase
Self-efficacy, Overall	0.10 SD** increase	Likelihood of being threatened or a victim of inter-partner violence, Women	18%** reduction	Tertiary enrollment, Women	11%*** increase
"Hard skills" or business knowledge index, Overall	n.s.s.	Social acceptability of violence, Overall	12%*** decrease	Tertiary completion, Overall	9.3%* increase
Identifying opportunities for business, Overall	0.08 SD** higher	Social acceptability of violence, Women	17.9%*** decrease	Tertiary completion, Women	10.8%* increase
Identifying win-win strategies, Overall	0.11 SD*** higher	Feel as though a husband who makes joint decisions with his wife is respected, Women	5%** increase	University enrollment, Women	25.0%*** increase
Engaging in deliberative dialogue, Overall	0.08 SD** higher	Feel as though they can determine whether they work outside of home, Women	28.0%*** increase	Likelihood of selecting a business/STEM degree, Overall	14%** increase
Pro-social attitudes, Overall	0.17 SD*** higher	Express optimism about society valuing men and women equally, Overall	3.5%*** increase	Likelihood of selecting a business/STEM degree, Women	22%*** increase
		Express optimism about society valuing men and women equally, Men	5.5%*** increase	Tertiary GPA, Overall	0.12 SD** higher
		Number of sexual partners, Men	0.14 SD*** fewer	Tertiary GPA, Women	0.21 SD** higher
		Likelihood to agree that a wife can ask a husband to use a condom, Men	7.5%** increase		
		Likelihood to agree that a wife can refuse sex, Overall	2.6%** increase		

*** Statistically significant at 5%
 ** Statistically significant at 10%
 * Marginally significant at 15%
 n.s.s. Not statistically significant

Appendix II.

Related Learning: Out-of-School Youth

The same research team, led by Paul Gertler, conducted another randomized evaluation in 2013 of a similar model in Uganda. This program, called Skills for Effective Entrepreneurship Development (SEED), offered a condensed, 3-week entrepreneurship course targeted at recent secondary school graduates. While the program was run independently from Educate!, it was essentially a “bootcamp” version of Educate!’s model, with the majority of the soft-skills curriculum drawn from Educate!’s curriculum. Further, its trainers were recruited and trained by Educate!, and the model designer working on the program at the time, has worked for Educate! since designing SEED.

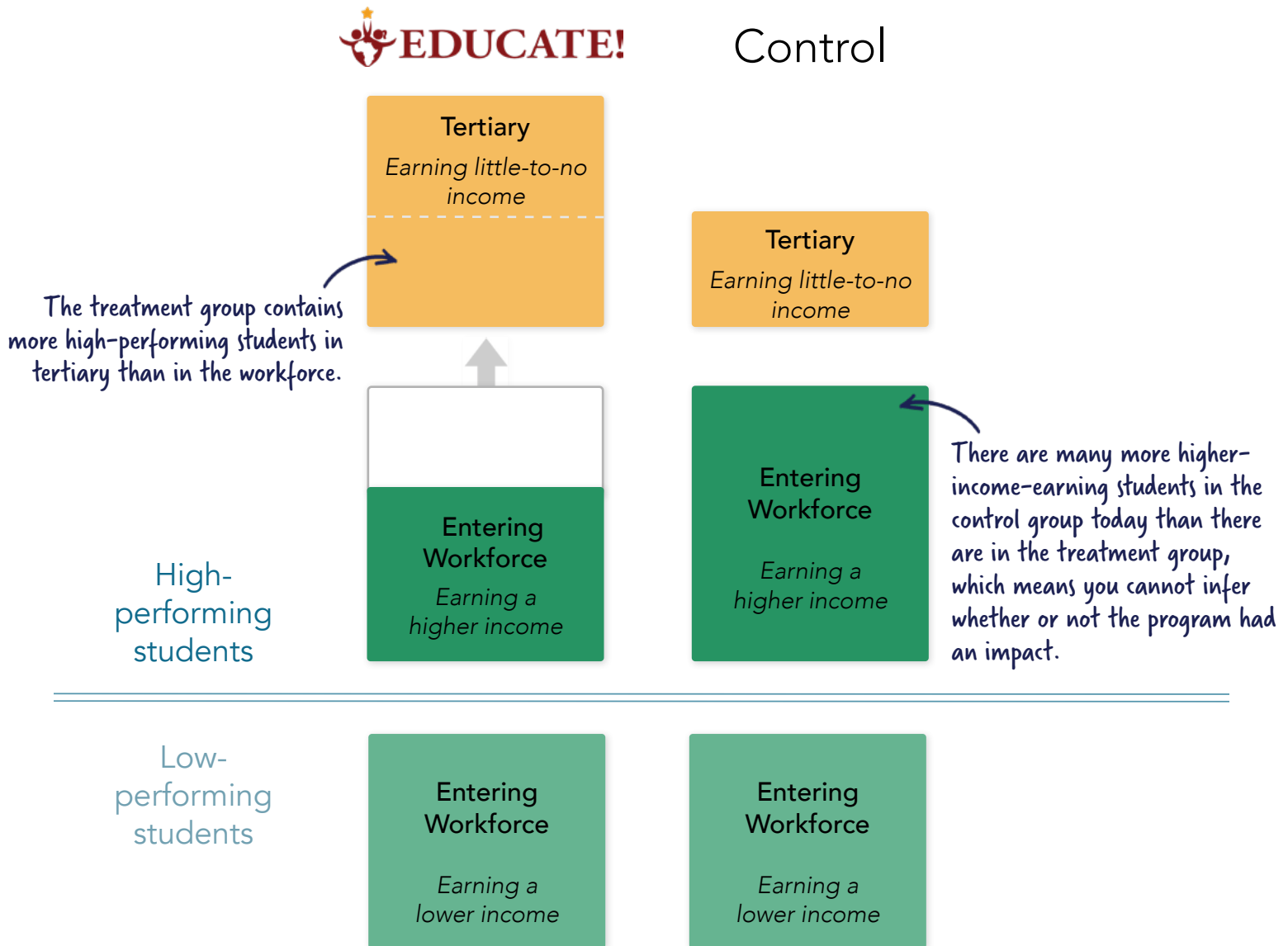
The primary differences were that the SEED program was 1) condensed to three weeks rather than spread over 1.5 academic years, 2) for students who had already graduated secondary school and knew about their immediate labor market and tertiary education prospects, and 3) run at a higher cost than Educate!’s model. SEED is expected to cost roughly \$125 per student (assuming same scale as Educate!), whereas Educate!’s model today costs \$60 per student at a country level.

SEED, in a three-year follow-on, saw shifts in several economic outcomes, including increased profits which translate to an income increase of \$360 relative to the control group, or a 19% overall increase. Interestingly, the SEED results also are closely aligned to the vocational track study cohort in Duflo, Dupas, and Kramer’s Ghana study. Like SEED participants, Ghanaian students on the “vocational track” didn’t exhibit tertiary enrollment differences but did see gains in economic outcomes of the same magnitude of SEED (19%). These results suggest that those for whom tertiary education is not a possibility, or who are already on the vocational track, turn their attention to focus on earning income immediately after leaving secondary school. These income gains are seen in the short to medium term, unlike students in Educate!’s model who sacrifice more immediate income improvements in favor of improving their education (and maximizing their long-term earnings). SEED is more likely to attract students who are looking to work, and whose tertiary education prospects are lower – a new group of interest to Educate!.

Appendix III.

Difficulty in Assessing Income & Employment

This is a complex evaluation. It took us some time to fully understand the selection effect and sort out why we cannot properly compare those not enrolled in tertiary. The simplified visuals below help articulate our understanding.



Please note that in addition to high-performing students shifting out of the labor market and into tertiary (demonstrated through greater enrollment for girls and greater completion for all), we also see youth who are in tertiary focus more than they would otherwise have on their studies. This is demonstrated through increased GPA and different, higher-earning majors, which suggests those who are in tertiary are focusing on school more (and thus spending less time on earning income on the side).

Difficulty in Assessing Income & Employment:

Bob and Barbara's Journey



Bob

Going to tertiary
with or without
Educate!



Barbara

Would not go to tertiary without
a push from Educate!



John



Jane

Not going to tertiary
with or without
Educate!

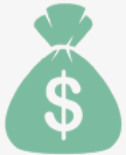


Bob



Barbara

studying at university
*working part time while pursuing a
business, and an engineering degree*



Post-
Secondary
Graduation

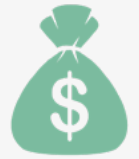
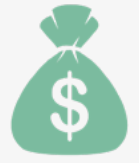


John



Jane

entering workforce
*as a construction worker
and in childcare*



Bob



Barbara

established in workforce
*as a business leader
and an engineer*

Several
Years
Later

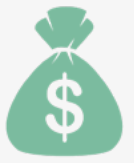


John



Jane

continued employment
*as a construction worker
and a waitress*



Difficulty in Assessing Income & Employment:

Bob and Barbara's Journey

Barbara and Bob were classmates. Barbara was on the cusp – she wasn't sure if her grades would be high enough, or if she believed in herself enough, to attend university. Bob had always been successful in school and had high aspirations for his future. Participating in Educate! gave them both improved skills and encouraged their ability to set goals for the future and take action steps toward those goals.

For Barbara, these skill impacts were significant enough to make a difference in her ability to attend university. Both she and Bob were accepted to university where they are now studying engineering and finance and working to become leaders in their communities. While Bob probably would have gone to university regardless, Barbara would not have. Barbara and Bob are high-potential youth who are deferring entry into the labor market. They are trading lower income now for the promise of higher income in the future. While their futures look bright, Barbara and Bob's income now is artificially low because they are spending time on education. However, this education has positive implications for future earning.

John & Jane are not high-performing students. They did not score as highly as Barbara and Bob on exams nor did they opt to study at university. Instead, soon after graduating, they were able to find jobs as a car mechanic and a construction worker and were immediately able to earn income. While their income may be higher than Barbara and Bob right now, in the years immediately following graduation, over the long term, Barbara and Bob, with their engineering and finance degrees, are likely to earn more than Jane and John.

The scenario described above, what we're referring to as the selection effect, was noted by researchers for the Educate! RCT. They pointed to this selection effect, whereby higher-ability (and higher-earning potential) Educate! graduates are the ones spending less energy on income earning activities because they are investing in further education. While this was true for both treatment and control students, the selection effect was intensified by Educate! pushing some students, like Barbara out of the labor market and into tertiary. That means the youth who are lower ability/have lower earning potential make up a relatively larger percentage of the sample of wage-earning youth we have in the treatment group. The effect described here is one of the reasons it is too early to definitively assess the impact of the Educate! program on labor market outcomes.

Complexity in Assessing Income & Employment



Control

