

Unintended Consequences of Youth Entrepreneurship Programs: Experimental Evidence from Rwanda

Moussa P. Blimpo (University of Toronto)

Todd Pugatch (Oregon State University and IZA)

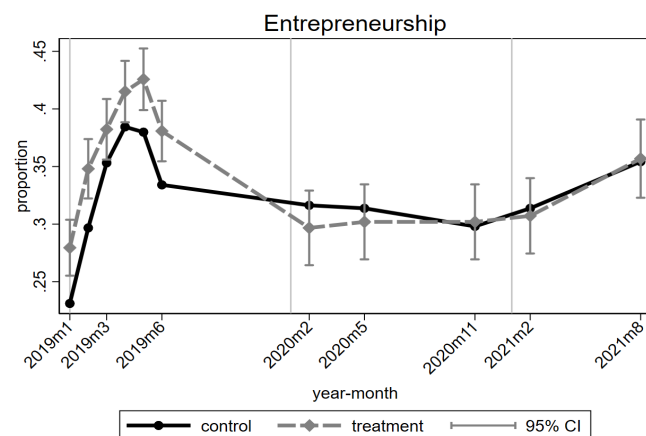


Training Entrepreneurship Teachers in Rwanda Improves Pedagogy, Increases University Enrollment, but Does Not Generate Economic Returns in Medium-Term.

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Topic at a Glance

Secondary school enrollment in Africa is expected to double by 2030, yet high youth unemployment rates suggest that the existing education system is not preparing students to improve their livelihoods through work. We examined the impact of a program that trained teachers and supported them in implementing Rwanda's revised secondary school entrepreneurship curriculum on student academic, economic, and labor market outcomes. Two years after the program began, we found positive impacts on teacher pedagogy, and increased student engagement in business activities, but also declines in employment. In the follow-up, gains in entrepreneurship faded and employment was lower for students in the treatment arm. University enrollment increased. There were no robust differences in income or profits between students in the two study arms. Incomes and profits fell among students who were initially less likely to be entrepreneurs (based on a model of entrepreneurship fit to control group characteristics). Results suggest that more work is needed to understand how to reform entrepreneurship education to generate positive medium-term impacts.



Caption: Initial gains in entrepreneurship faded after 3 years

New Insights

In 2019, one year after the conclusion of the program, students in schools who received the Educate! program were 19 percent more likely to be involved in business, their income and profits remained level, and they were 3 percentage points more likely to be enrolled in university than peers in the comparison group. In 2021, students' economic outcomes did not improve on average, their wage employment decreased by six percentage points, and income among students who were less likely to be entrepreneurs before the intervention was lower. Increases in university enrollment persisted but were less precise.

- Teachers participating in the Educate! Exchange program devoted time to participate in trainings and exchange visits. On average, schools that received the training and support program sent teachers to more than five out of the six scheduled trainings and four out of every five exchange visits.

- Teachers modified their pedagogical practices according to the reformed curriculum. Schools in the program were 52 percentage points more likely to have scheduled Skills Labs, a more than six-fold increase over eight percent in the comparison group. The program increased active instructional time by 10 percentage points during the second half of the class period, in line with the "Skills Lab" Build-Practice-Present methodology. It also increased active instructional techniques such as group discussion, research, case studies, debates, and role playing by six percentage points, or 19 percent relative to the comparison group. Teachers in the program also scored eight percentage points higher on a test of the content of the entrepreneurship curriculum.

- Impacts on entrepreneurship: In 2019, 6 months after youth completed secondary school, students in schools who had received the Educate! program were six percentage points (or 19 percent) more likely to be involved in business ventures relative to the comparison group mean of 31 percent. They were more likely to be involved in businesses started in school and outside agriculture. By 2021, Educate! students were no more likely to be involved in business. In addition, comparison group students were 6.5 percentage points

more likely to be employed. We find suggestive evidence of average income declines, with declines concentrated among students ex ante less likely to be entrepreneurs.

- **Impacts on education:** Students whose schools received the Educate! program scored lower on their high school exit exams by 0.09 standard deviations in 2019. This result suggests that schools in the program shifted their focus to entrepreneurship, and students did not focus as much on exam preparation. Despite decreased exam scores, Educate! students had 3.1 percentage points higher (double) university enrollment than for comparison group students (mean 4 percent) in 2019. These gains persisted through 2021 but were less precisely estimated.
- **Impacts on income and profits:** In 2019, there were no differences in income and profits between students whose schools received the Educate! program and comparison group students. By 2021, economic welfare for students whose schools received the Educate! program did not improve relative to the comparison group. Average profits for those involved in business decreased by USD \$70.80 (comparison group mean = USD \$196.40) and average profits overall decreased by USD \$22.60. These results are sensitive to how profits are measured, however. Average wages decreased by USD \$9.40 (comparison group mean = USD \$26.60). Total income overall decreased by USD \$5.60 (comparison group mean = USD \$46.90), significant at the 10%. University enrollment may partially explain decreases in income, but that the program did not improve income in the medium term is worth further exploration. Decreases in income and profits were concentrated among students who were less likely to become entrepreneurs before the intervention. This suggests that the program induced these students to start an enterprise and thus earn a lower income than they may have earned in a different career.

Policy Recommendations

Our study provides a new data point in the debate between supply side (e.g., skills training) and demand side (e.g., promoting structural transformation) approaches to youth economic activity. Our results suggest some youth may be harmed by entrepreneurship promotion efforts, by diverting them from economic activities in which they would otherwise have comparative advantage. Our results suggest caution when considering scaling entrepreneurship programs to youth populations without previously demonstrated interest in running their own businesses.

Limitations

In our data, attrition was relatively low in the 2018 endline and 2019 follow-up, with 93 percent and 84 percent of baseline respondents completing each survey, respectively. However, attrition rose sharply in the 2021 follow-up, with 50 percent survey completion. We attribute this high attrition to the dual challenges of tracking a highly mobile population and the pandemic.

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