



Strategic Impact
Evaluation Fund



SIEF helps identify the impact of programs and policies

SIEF supports scientifically rigorous research that tests the impact of innovative programs and policies that try to improve education, health, access to quality water and sanitation, and early childhood development in low and middle income countries. Evidence about programs' impacts and cost-effectiveness allows governments and others to better focus future efforts and investments.

How we measure impact

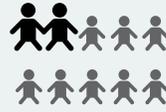
SIEF-funded evaluations use experimental methods like randomized control trials and quasi-experimental methods that estimate the impact and cost-effectiveness of government and NGO programs in the poorest countries. Workshops for government officials, researchers, and journalists provide training on the use and value of these methods. Dissemination methods go beyond the standard research paper and policy brief and include social media, documentaries, photo essays, and local media outreach.

Why it is important to experiment

Experimental methods like randomized control trials are used extensively in medicine, business, and the technology industry to identify which drug, innovation, or sales technique is most effective, as they can provide the most credible estimate of an intervention's impact. Experimental methods can provide the most credible estimate of a program's impact. Other methods could lead to biased estimates of impact that can mislead decision-makers into scaling up an ineffective program or cancelling an effective one.

It is difficult to estimate impact without an experiment

Before and after comparisons of beneficiaries



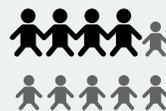
Researchers working in a country find that stunting in children is prevalent. This means the children are short for their age, usually due to malnutrition and other problems associated with poverty.



The government designs a two-year program for pregnant women and mothers with children under the age of two. Before the program starts, researchers collect data on the mothers who sign up and their children, such as height, weight, spending, and other attributes. This is the baseline measurement.



While the program is underway, various things might happen that could affect children's development. Income could improve, or a television program with nutrition messages could become popular. Conversely, there could be a drought, or local health clinics may shut down.

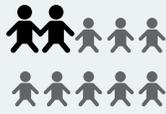


Two years later, when the women in the program and their children are measured again, the prevalence of stunting has declined.

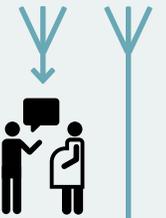


Was the program a success? We do not know. This before-after comparison does not allow us to isolate the effect of the program. Maybe it was the program. Maybe it was the television campaign. Maybe it was an increase in household income. We need a control group to know what portion of any observed change can be attributed to the program.

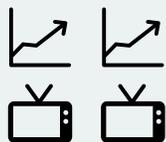
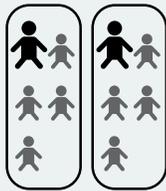
Comparing beneficiaries to non-beneficiaries



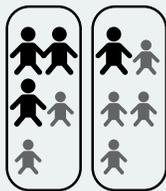
This time, when the program is launched, researchers take note of who signs up and who does not in the targeted area.



Everyone's health and weight, income, education, spending, and other attributes are measured at baseline before the program starts.



Once again, other things may happen during the program that on their own may affect child development. These changes may affect both groups equally or they may affect one group more than the other.

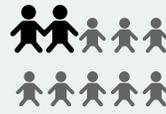


Two years later the prevalence of stunting declines the most among children of the women who participated in the program.

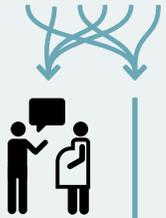


In this case, we still cannot tell if the program was a success. The families who signed up for the program and those that did not may have differed in many ways. Some differences, like motivation, are not easy to observe and may have had a direct impact on child development or may have influenced how people reacted to the program. To isolate the impact of the program, we need a better control group.

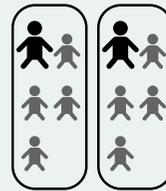
Randomized experiment



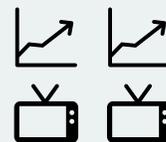
There is a way to create a better control group. Who gets to participate in the program can be determined through a randomization, like a lottery.



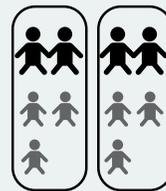
Eligible villages are randomly divided into two groups, and only one group receives the program.



The randomization ensures that prior to the program the two groups are, on average, similar in terms of education, motivation, and other factors that can affect child development.



Because the villages were assigned randomly to either receive or not receive the program, we can be confident that the other things happening at the same time should affect both groups equally.



Two years later, the prevalence of stunting in the group randomly selected to receive the program is indistinguishable from the prevalence of stunting in the group that was randomly selected to receive no program.



With a proper control group, we see that the program had no impact, in contrast to the positive impacts we could have estimated with a simple before-after comparison or a comparison of women who chose to participate with those who chose not to participate.

What can we learn from impact evaluations

Impact evaluations can often yield surprising results and upend prior expectations. These studies not only tell us whether or not a program adds value—in comparison to not having the program—but also they can be used to test variations of a program to determine which is the most effective.

In an experiment in Kenya, for example, people were still willing to purchase an antimalarial net even after the removal of a sizable subsidy. The subsidy was instrumental in getting people to purchase nets; once the subsidy was removed, people continued to buy the nets, showing that subsidies did not create a feeling of entitlement to a cheap product as many might have feared. An experiment in Cambodia showed that a \$45 scholarship was equally as effective in increasing school attendance as a \$60 scholarship and thus clearly much more cost-effective for the government. In Colombia, experimental evidence showed that a conditional cash transfer program could be more effective in improving school enrollment if the timing of the transfers was structured so that families received a large lump sum at the time of school enrolment.

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