

READ

Common Impact Evaluation Methods and Their Assumptions

Method	Description	Example Research Question	What Assumptions Have to Hold for the Comparison Group to be a Good Representation of the Counterfactual?
Randomized Evaluation / Randomized Controlled Trial	Measures the differences in outcomes between randomly assigned program participants and nonparticipants after the program took effect.	Do housing vouchers cause a reduction in moves?	The outcome variable is only affected by program participation itself, not by assignment to participate in the program or by participation in the randomized evaluation itself. Examples for such confounding effects could be information effects, spillovers, or experimenter effects. As with other methods, the sample size needs to be large enough so that the two groups are statistically comparable, the difference being that the sample size is chosen as part of the research design.
Pre-Post	Measures the differences in outcomes for program participants before the program and after the program took effect.	Do moves decrease one year after receiving a housing voucher compared to the year before they received one?	There are no other factors (including outside events, a drive to change by the participants themselves, altered economic conditions, etc.) that changed the measured outcome for participants over time besides the program. In most contexts, this is very unlikely to be the case. In stable, static environments and over short time horizons, the assumption might hold, but it is not possible to verify that.
Simple Difference	Measures the differences in outcomes between program participants after the program took effect and another group who did not participate in the program.	Are moves lower among people who receive a voucher compared to people who don't?	There are no differences in the outcomes of participants and nonparticipants except for program participation, and both groups were equally likely to enter the program before it started. This is a demanding assumption. Nonparticipants may not fulfill the eligibility criteria, live in a different location, or simply see less value in the program (self-selection). Any such factors may be associated with differences in outcomes independent of program participation.
Differences in Differences	Measures the differences in outcomes for program participants before and after the program relative to nonparticipants.	Do moves decrease among families one year after they receive a voucher more than among families who never received one in the same time period?	Any other factors that may have affected the measured outcome over time are the same for participants and nonparticipants, so they would have had the same time trajectory absent the program. Over short time horizons and with reasonably similar groups, this assumption may be plausible. A "placebo test" can also compare the time trends in the two groups before the program took place. However, as with "simple difference," many factors that are associated with program participation may also be associated with outcome changes over time. For example, a person who expects a large improvement in the near future may not join the program (self-selection).