

Experimental Design and Evaluation Methodology

We have proven design capabilities for a wide range of experimental and evaluation studies. We have planned and executed—or played a significant role in—17 randomized experiments encompassing 138 school districts and in five non-randomized or “quasi”-experiments in five school districts. Research designs include group randomized trials and longitudinal experiments tracking both teachers and students over periods as long as five years. In several cases, our designs accommodate control groups that receive the treatment intervention prior to the end of the study period. In quasi-experimental designs, we use a variety of matching-based approaches, including propensity score analyses and differences-in-differences estimation, as well as simpler methods involving multilevel regression. Where appropriate, we also perform interrupted time series analyses. We also use data-mining techniques, including value-added analyses, to examine data patterns and build hypotheses when comparison groups are not available. Beyond the designs based on quantitative comparisons, we conduct formative research on programs in the early stages of development. In some cases, our reviews may use meta-analytic methods. The research proposals we prepare contain details on the design so that expectations are clear from the start. At the beginning of each project, we review the existing literature pertinent to the program being studied to identify the mechanisms or indicators that may be observable, the size of the impact we can expect, and other factors that can serve as mediators and moderators. Understanding implementation challenges in prior studies is essential to undertaking a new study. Our repertoire of experience and skill allows us to help you select and carry out the study that fits your customer’s needs and that can be carried out successfully in their setting.