

Paper #1 of 3

EVALUATING DEMOCRACY PREP: AN APPLICATION OF THE BASIE FRAMEWORK

Background

Democracy Prep, launched in 2006 as a charter middle school in New York City, is now educating more than 5,000 students across multiple campuses and grades kindergarten through 12. Democracy Prep’s mission as a charter school network is “to educate responsible citizen scholars for success in the college of their choice and a life of active citizenship.” The clearest indicators of Democracy Prep’s success in promoting civic engagement are the registration and voting rates of its students after they become adults.

Evaluation design and analytic sample

We estimated the impact of Democracy Prep on voter registration and participation in elections. We used Democracy Prep’s randomized admissions lotteries to conduct a gold standard experimental analysis that distinguishes Democracy Prep’s effect from the effects of families, students, and other outside factors. This is the first study to rigorously measure the causal impact of charter schools on civic participation.

Because Democracy Prep used lotteries to determine entry to middle and high school grades for the past decade, many students who were offered admission, particularly in the early years, were old enough to register and vote in time for the 2016 election. The sample for this study includes the 1,060 students who entered the lottery to attend any Democracy Prep school in New York City from 2007–2008 through 2015–2016 and who were at least 18 years old by the 2016 election. We matched lottery and enrollment records to outcome data provided by Catalist, which maintains a national database with comprehensive information on voting-age individuals.

Why BASIE?

Although our randomized design guards against selection bias, sampling variability is still a concern. Our traditional impact estimates were statistically significant and dramatically larger than the impact estimates found in previous literature on the effects of education on registration and voting, raising the question of whether random variation could have led to an overestimate of the size of the impacts. As the American Statistical Association statement on the widespread misinterpretation of p-values made clear, we cannot necessarily rely on the statistical significance of the estimates as strong evidence that the true effect of Democracy Prep is as large as these estimates.

Because the traditional estimates are both imprecise and surprisingly large, we conducted a complementary impact analysis using the BASIE framework that grounded our traditional impact estimates in the findings of previous research. Specifically, incorporating findings from

the literature enabled us to estimate the likely size of Democracy Prep’s true effects, given the noisy traditional impact estimate and given the findings from the literature. Crucially, our literature-informed analysis also enabled us to answer the fundamental question, “*What is the probability that Democracy Prep produced positive effects on registration and voting?*” – a question that the traditional null-hypothesis significance testing framework cannot answer.

Why is outside literature needed to assess this probability? Because estimating the probability that an intervention has a truly positive effect requires an externally informed understanding of the difficulty of the task. If similar interventions have rarely made large impacts on similar outcomes, then we would infer that it is hard to move the needle on registration and voting—this would in turn make a very large impact of Democracy Prep seem less plausible. By contrast, the more common large effects have been in the past, the more probable it is that the unusually large traditional impact estimate was the result of a true effect rather than random chance

Findings

Previous published studies of the effects of educational interventions on civic engagement found average impacts of about 8 percentage points on registration and 6 percentage points on voting. Combining this literature with our surprisingly large traditional impact estimates of about 24 percentage points for both registration and voting, we find a 98 percent probability that enrolling in Democracy Prep produced a positive impact on registration, and a 98 percent probability that enrolling produced a positive impact on voting in the 2016 election.

However, we conclude that the true magnitude of Democracy Prep’s effect is most likely much smaller than the traditional point estimate. Instead of an impact of 24 percentage points on both outcomes, it is more likely that Democracy Prep increased the voter registration rates of its students by about 16 percentage points and increased the voting rates of its students by about 12 percentage points. Given the low registration and voting rates of young adults nationally, these are nevertheless substantial impacts. Furthermore, even a conservative BASIE analysis (which accounts for the fact that positive impacts are more likely to be published) suggests that enrolling in Democracy Prep has large positive effects on students’ democratic participation in adulthood. These findings are robust to the selection of prior evidence.

Conclusions

Democracy Prep provides a test case of whether charter schools can successfully serve the foundational purpose of public education—preparation for citizenship—even while operating outside the direct control of elected officials. With respect to the critical civic participation measures of registration and voting, the answer is yes. However, we can achieve a more accurate understanding of the likely magnitude of this effect by placing these findings in the context of prior evidence regarding the effects of other interventions on similar outcomes.

Given its explicit mission, Democracy Prep is probably not typical of all charter schools. Nonetheless, its success in raising the registration and voting rates of the low-income, minority students it serves provides a proof point for charter schools and conventional public schools alike: An education focused on preparing students for citizenship can in fact increase students’

civic participation when they reach adulthood. Renewed attention to the foundational purpose of public schools might broadly increase civic participation across the country.