

Replication of Enos (2016)

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1 Abstract

Enos (2016) measures the shift in voter turnout for white voters living in Chicago near demolished public housing, occupied predominantly by African Americans, as compared to white voters living farther away; observing that white voters living in close proximity to demolished public housing had a 10 percentage point drop in voter turnout between 2000 and 2004, Enos concludes that this change in behavior was the result of the decline in race threat from the change in size and proximity of the outgroup population. The results of my replication effort were largely successful, although there were some challenges. For my extension, I expanded the parallel trends robustness check that Enos presents in his appendix; my results were consistent with his findings. These results are significant in two important ways: first, they illustrate the strength of the robustness checks that Enos conducted and, second, they suggest that his conclusions about the effect of racial threat on voting are even more robust than his paper suggests.

2 Introduction

Building on past research, Enos seeks to empirically test how much the context in which a person lives affects their political behavior. In 1949, V. O. Key published research suggesting increased political motivation by Southern whites threatened by the presence of African Americans; a relationship that is now known as “racial threat.” Enos studies this phenomenon by looking at public housing demolition in Chicago that caused mass displacement of approximately 25,000 African Americans. Enos examines the effect on white voting turnout in Chicago of removing African American neighbors. He tests this effect using a difference-in-differences model (which I will elaborate on more later). The effect of the treatment is the difference in average voter turnout at times $t-1$ (pre demolition turnout) and t (post demolition turnout) for white voters in close

proximity to the demolished projects compared to the average voter turnout over the same period for white voters living farther away. The results suggest that racial threat is highly context specific and that the strength of the effect is inversely correlated with distance from the project and directly correlated with the size of the outgroup.

I was largely successful in my attempt to replicate this paper. I'd like to thank Professor Enos for providing easily accessible replication data through the Harvard Dataverse. I ran the replication using R (R Core Team 2020). All of my code for this replication as well as my extension are in my repository located at¹

My extension expanded on the initial parallel trends test run by Enos as a robustness check to validate the assumptions of the difference-in-differences model. For the difference-in-differences model he performed, Enos examined the change in voting turnout between 2000 and 2004 by African American and white treatment groups living near public housing projects that were demolished as compared against African American and white control groups that lived farther away. In order to illustrate the robustness of his results, he performed a parallel trends assumption test that included voting information for several different election cycles, and allows the trends for difference to be seen over time – thus highlighting the effect of public housing demolition. If prior changes in voting turnout between 1996 - 2000 were similar for African American and white voters in both treatment and control, then the change in voting turnout behavior between 2000 - 2004 was unlikely to have been caused by an unmeasured change occurring prior to the demolition of the projects. I was inspired to do this extension for two reasons. First, this was an essential part of confirming the difference-in-differences model. Second, this was actually a potential replication that Enos himself suggested in the comments of his code as a worthwhile future project.

To conduct this extension, I ran the parallel trends test code. Then I wrote new code to create graphics (displayed later) using Tidyverse (Wickham et al. 2019). Enos originally ran his test with distance set to 200 meters from demolished projects. To extend this, I ran a series of tests at 100, 200 (as a replication), and 300 meters. There are two important takeaways: First, by and large my figures confirmed Enos' conclusions that the prior changes in voting were similar for white and black voters in both treatment and control. Second, it is essential to point out how the small sample size amongst the group of interest (white treatment) could be potentially skewing the results found here (and could potentially cast doubt on the difference-in-differences model.)

¹https://github.com/nschrage/schrage_replication

3 Literature Review

$$A = \pi * r^2$$

4 Replication

FIGURE 1 Treatment Effects

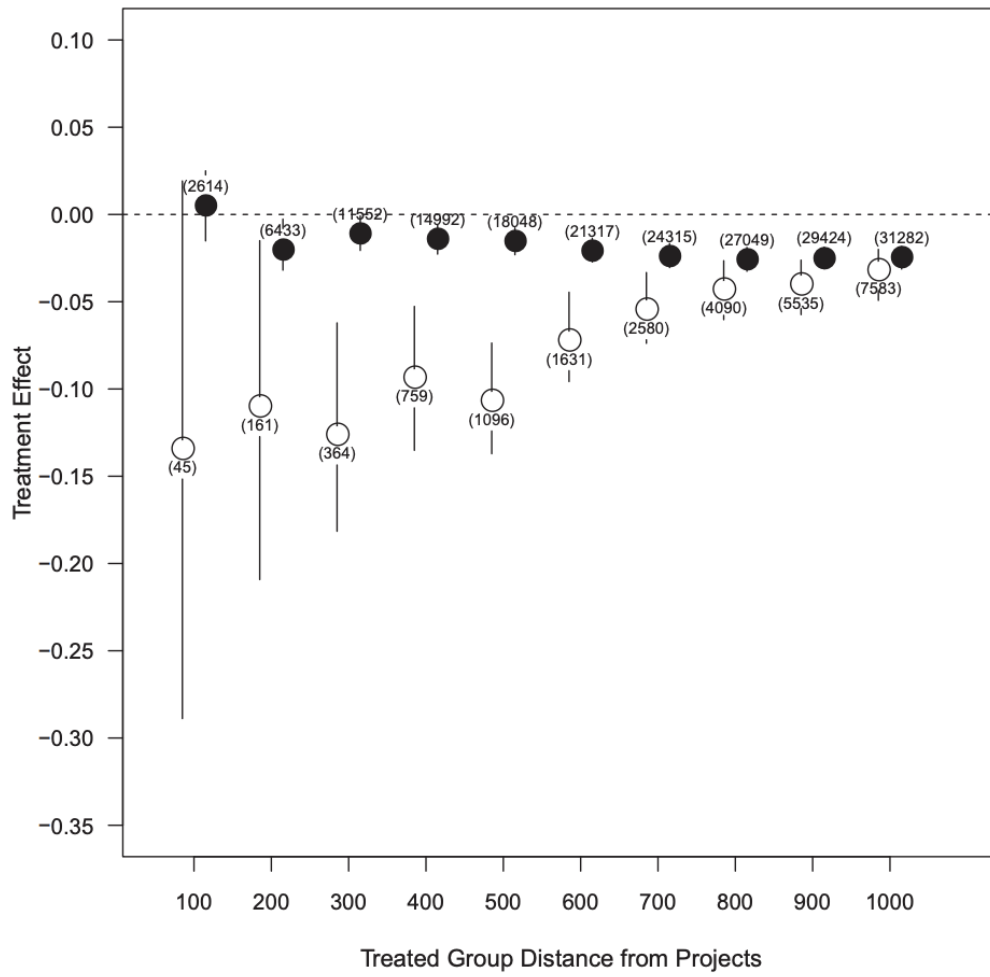


Figure 1: ADD CAPTION

Figure A.2: Parallel Trends Test

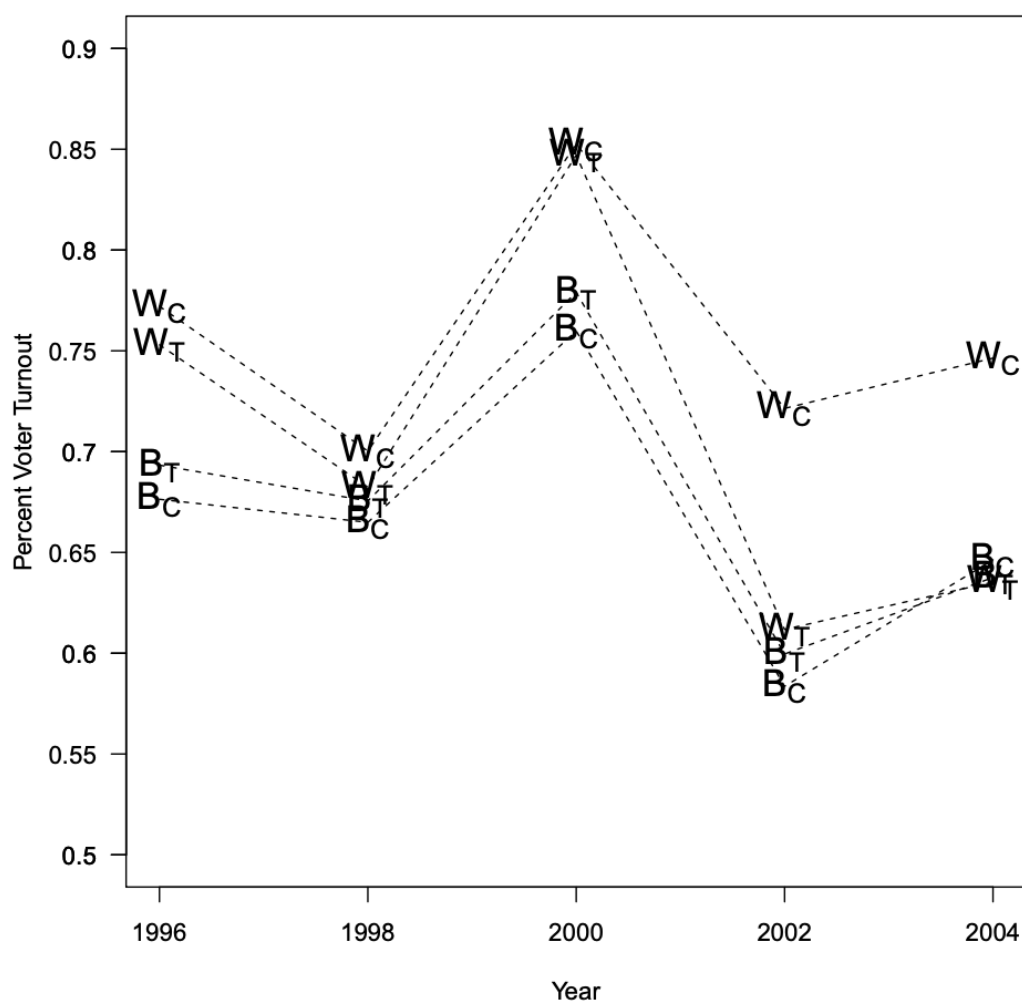


Figure 2: ADD CAPTION

5 Extension

6 Appendix

7 Conclusion

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