

# Does Public Policy Make Citizens? Causal Estimates of the Impact of Welfare State Participation on Democratic Citizenship<sup>\*</sup>

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Redistribution is a cornerstone of most modern democratic polities. While scholars generally argue for and document a positive correlation between participation in the welfare state and democratic citizenship, making causal claims about the effect of redistributionary policies on political engagement is difficult since recipients and non-recipients differ across a number of observable and unobservable dimensions. To identify the causal effect of redistribution on political participation, I leverage a discontinuity generated by the eligibility rules for Medicare—one of the most ubiquitous social welfare programs in the United States. Using a fuzzy regression discontinuity design, I find that participation in Medicare actually reduces or has no effect on political engagement measured along a variety of dimensions including attending political meetings, working on or donating to campaigns, and voter turnout. These results indicate that public policies that are a product of democratic politics may actually undermine democratic citizenship.

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## INTRODUCTION

Public policy shapes and is shaped by mass politics in democracies. This idea has been at the core of a large body of research in American and Comparative Politics starting with Schattschneider (1935) regarding the notion of policy feedback. Now, the idea of policy feedbacks is no longer an assertion to be justified, but a common starting point for many working in the relationship between mass politics and the welfare state. To date, however, there are very few studies that are able to credibly estimate the causal impact of participation in the welfare state on mass politics (Clinton and Sances 2016; Lerman and McCabe 2017). In this note, I offer an empirical test of this literature by using a regression discontinuity design (RDD) generated by a quasi-experiment in the United States.

Existing research in American Politics seems to demonstrate that the beneficiaries of the welfare state and redistribution tend to become more politically engaged (Skocpol 1993; Campbell 2003a, 2003b; Mettler and Stonecash 2008; Swartz et al. 2009). Scholars working in this policy feedback literature tend to emphasize a variety of different mechanisms. For example, Campbell (2003a) argues and provides evidence that differences in political participation between seniors and non-seniors is largely a function of the ways in which government programs lead the seniors to respond to threats to these programs.<sup>1</sup> Looking at the case of veterans benefits, Mettler (2002) and Mettler and Welch (2004) find that the G.I. Bill, by providing generous educational and vocational benefits to veterans, increased political participation among veterans in the United States.

Conversely, scholars such as Soss (1999, 2002) find that redistributionary programs that are means-tested might actually depress political participation by shaping their beliefs around the efficacy of political participation. Schneider and Ingram (1993) suggest that policies themselves can brand beneficiaries of means-tested programs as being undeserving, which could also translate into depressed

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<sup>1</sup>Pierson (1994) makes a similar argument in his comparative analysis of the welfare state in the United States and Great Britain. The welfare state itself creates interest groups that have increased stakes in the political process.

political participation. Perhaps more troubling is the growing body of theoretical and empirical work traces how the rise of the carceral state reduces political participation especially among minorities and the poor (Weaver and Lerman 2010; White 2016). The upshot of this overall discussion is that scholars seem to have come to the consensus that policies that attach large benefits to “deserving” individuals increases their participation in the political process while policies that are associated with “undeservingness” and punishment tend to demobilize their relevant publics.

One of the key inferential challenges with this line of research is to disentangle the effect of the welfare program itself from other observed and unobserved characteristics that distinguish recipients of redistribution from non-recipients (Campbell 2012). To overcome this empirical hurdle, I leverage a “natural experiment” created by the eligibility rules for Medicare—one of the largest social welfare programs in the United States— to identify the causal effect of redistribution on political engagement.<sup>2</sup> Using a fuzzy RDD strategy and data from the Cooperative Congressional Election Study (CCES), I find that participation in this government health insurance program actually leads to a *reduction* in political participation as measured by propensity to attend political meetings, work on campaigns, donate money to campaigns, and interest in news. Moreover, I find *no effect* of Medicare participation on voter registration. While I do find some evidence of Medicare eligibility inducing retirement from the labor market, this channel is insufficient to explain the observed results.

These results problematize the conventional wisdom regarding the mass politics of redistribution in the United States. Participation in the welfare state itself, at least in the case of Medicare, does not increase voter turnout and can actually *decrease* political participation among a number of other dimensions. The findings from this note do not discount the role that threats to existing programs can mobilize existing interest groups and welfare state beneficiaries; rather, they suggest that scholars should re-examine existing theories about the direct effects of being a welfare state beneficiary on democratic citizenship. For example, it might

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<sup>2</sup>Lerman and McCabe (2017) use a similar identification strategy to test the effects of receiving Medicare on political attitudes.

be the case that programs that are intergenerational in their form of redistribution are create political processes that are fundamentally differently than ones that redistribute across economic class. While the purpose of this note is to provide a well-identified test of existing theories around policy feedback, the results encourage greater theorizing about the nature and conditions under which we should expect redistribution to mobilize the mass public.

The rest of this note proceeds as follows. First, I describe the data used for this study. Next, I outline the identification assumptions needed to get credible estimates of the causal impact of welfare state participation on political participation. I then move onto discuss the results. Finally, I conclude by offering the implications of this study for future research.

## RESEARCH DESIGN

### *Data*

To assess the causal effect of receiving government benefits on political participation, I use a fuzzy RDD strategy that follows from the age eligibility rules for Medicare in the United States combined with multiple rounds of the Cooperative Congressional Election Survey (CCES).<sup>3</sup> I measure and operationalize participation using several different measures from the survey. These include separate indicators for whether the respondent marked that he or she attended political meetings, put up a political sign outside of of his or her home, worked on a political campaign, donated money to a campaign, and whether the respondent is registered to vote in the General Election.<sup>4</sup> A broader definition of political participation could also include simple acts such as information-seeking (Prior 2005). As such, I also

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<sup>3</sup>I pool together survey rounds from 2008, 2010, and 2012. These are the years for which I have data on the relevant outcomes.

<sup>4</sup>The indicator for whether the respondent is registered to vote in the General Election represents *actual* turnout since the CCES validates this variable against the Catalyst voter registration database.

code a variable for whether the respondent marked him or herself as being highly interested in news.

The main independent variable of interest is whether the respondent indicates that he or she receives health insurance from Medicare. Importantly, one of the main eligibility criteria for receiving health insurance from the Medicare program is that an individual is at or above the age of 65. This eligibility criteria creates a discontinuous jump in the probability that a respondent indicates that he or she receives health insurance from the government. Since the CCES pools together both Medicare and Medicaid into one question, the jump in the probability of receiving government health insurance is less than one. As such, I rely on a fuzzy RDD to estimate the causal effect of government redistribution on political participation.

### *Identification and Estimation*

As noted above, identification of the causal effect of receiving government transfers comes from the discontinuity generated from the age eligibility criteria. For a simple “intent-to-treat” (ITT) analysis—the causal effect of the age eligibility discontinuity itself, the key identifying assumption is that the expected potential outcomes for the participation variable are continuous around the eligibility threshold (65). In essence, this allows the researcher to use the group of individuals who are just below 65 to serve as the counter-factual control group for those who are above 65 and assigned to treatment.<sup>5</sup> Importantly, this type of research design identifies the Local Average Treatment Effect (LATE) of being eligible for Medicare for those individuals who are exactly 65 years old.<sup>6</sup>

While the ITT analysis is informative about the effect of *eligibility* for Medicare, it does not specifically get at the effect of actually receiving government health in-

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<sup>5</sup>It should be noted that simply controlling for age is insufficient to recover causal effects in this setup since we do not have common support across the discontinuity; instead, the RDD trades off this common support assumption for extrapolating the individuals just below the cutoff to serve as the counter-factual control group for treated units.

<sup>6</sup>Though these estimated effects are local to individuals who are exactly 65, a review of the RDD literature by Cook and Wong (2008) shows that RDD estimates are able to recover experimental estimates with a relatively high frequency.

insurance. To identify this causal effect of interest, I use a “fuzzy” RDD, which relies on continuity of potential outcomes around the threshold as well as the monotonicity, relevance, and exclusion assumptions used in an instrumental variables design in which eligibility for Medicare serves as an instrument for receiving government insurance. The monotonicity assumption is satisfied since being eligible for Medicare is unlikely to push individuals to decide not to receive government insurance. Moreover, estimates from the first-stage relationship depicted in Figures 1 between eligibility for Medicare and actually receiving government health insurance is large, positive, and statistically significant. Finally, this design also satisfies the exclusion restriction since there is no evidence that there are other discontinuities that respondents might face at the age of 65.<sup>7</sup>

Keeping in mind these assumptions for the “fuzzy” RDD, I proceed to estimate the following system of equations using local linear regression:

$$HasInsurance_i = \lambda Eligible + \tau f(Forcing_i) + \eta_i \quad (1)$$

$$Participation_i = \beta \widehat{HasInsurance}_i + \tau f(Forcing_i) + \epsilon_i \quad (2)$$

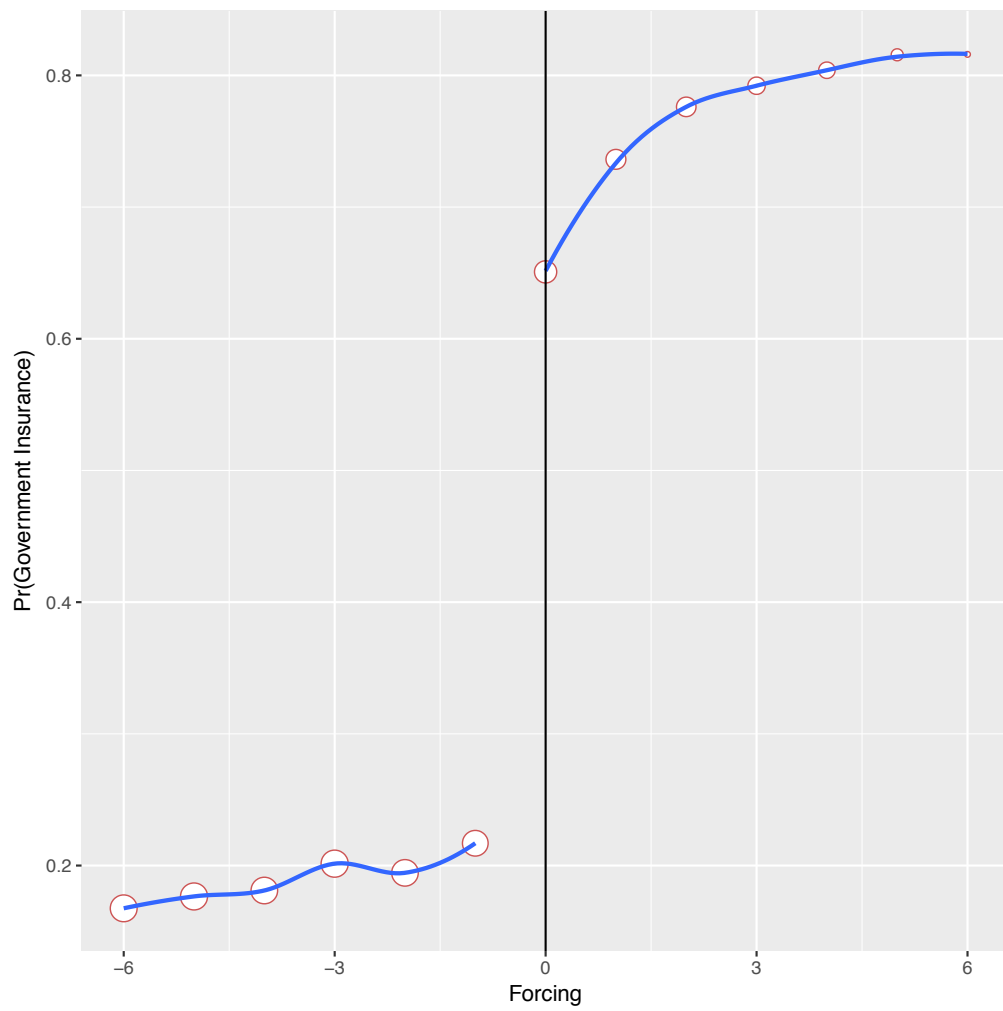
The coefficient  $\beta$  represents the causal effect of interest. The coefficient  $\lambda$  represents the first-stage effect of being eligible for Medicare on the probability that an respondents indicates that he or she has health insurance through the government. The function  $f(\cdot)$  represents a smooth function that is allowed to vary in shape on either side of the cutoff. Finally  $\eta_i$  and  $\epsilon_i$  represent uncorrelated Normal disturbances.

One of the main issues with the RDD is that there are many ways to estimate functional forms of the forcing variable and different bandwidth sizes to use. As

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<sup>7</sup>One issue is that the Social Security benefits age is at 66. Since the treatment of interest is the broader impact of participating in the welfare state, potential exclusion restriction violations from this age criterion do not undermine the overall interpretation of the treatment of interest. Moreover, Lerman and McCabe (2017) who use a similar identification strategy on the 2012 CCES round do not find evidence of Social Security benefits in explaining away the effect of Medicare on political attitudes.

Figure 1: Binned Estimates of Medicare Eligibility Discontinuity on Receiving Medicare



suggested by Calonico, Cattaneo, and Titiunik (2014), I use local linear regression to estimate the conditional expectation function on either side of the eligibility cutoff. Moreover, I follow Calonico, Cattaneo, and Titiunik (2014) and use robust bias-corrected confidence intervals for inference.<sup>8</sup> Finally, I use the Imbens-Kalyanam optimal bandwidth with a triangular kernel to compute the estimation bandwidth for each outcome. Following Lee and Lemieux (2010), I also estimate the discontinuities using different parametric functional forms and vary the bandwidth size and find that the main results are robust to these changes in modeling choices.

### *Results*

I first begin by showing the raw discontinuities in the data by using binned estimates across all possible values of the forcing variable (distance to 65). Figure 1 shows that, as expected, there is a large positive jump in the probability that an individual reports receiving Medicare. Figure 2 goes on to show the raw discontinuities in the main outcomes of interest. We can see that there are sizable negative discontinuities in the probability that an individual attends at political meeting, puts up a political sign, works on a campaign, donates money, and is interested in the news. Perhaps most fundamentally, there seems to be a precise null effect of eligibility for Medicare to shift voter turnout. These initial graphical tests of the ITT effect of Medicare eligibility show either a negative effect or null effect on political participation.

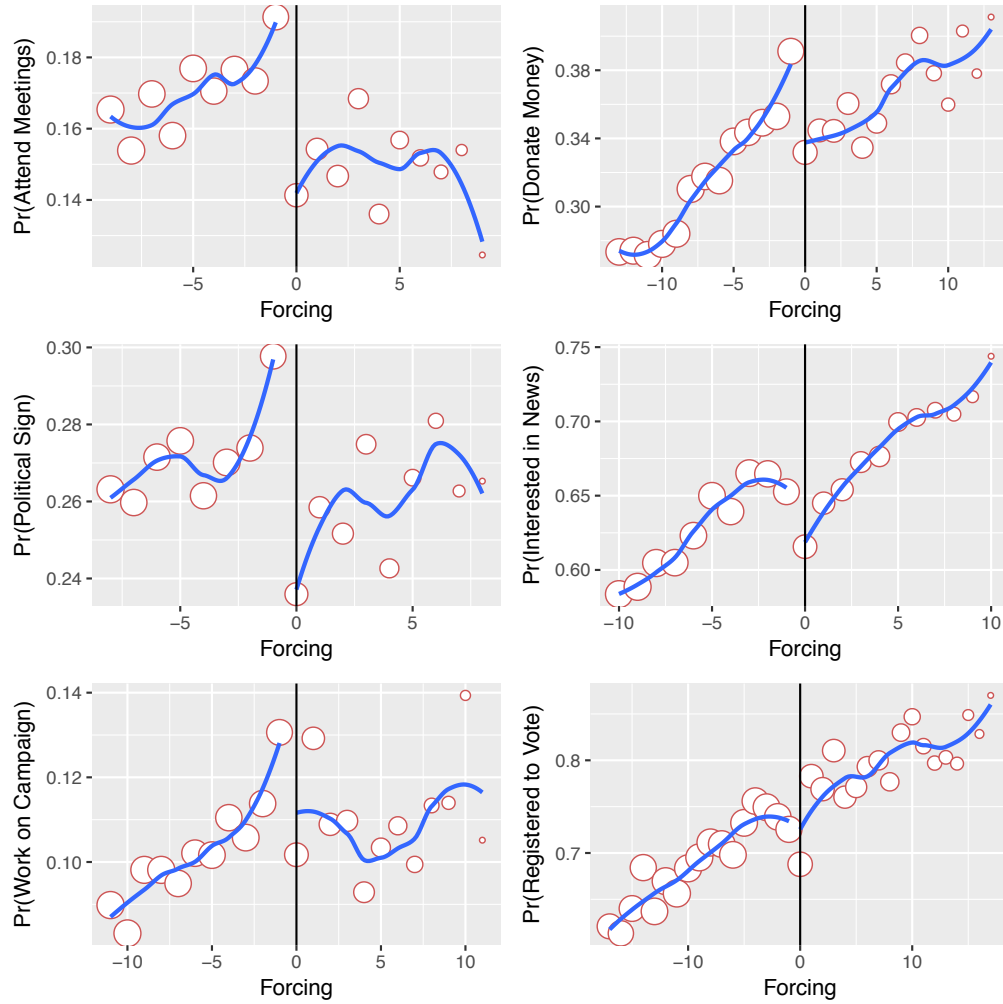
I now move onto a more formal statistical test with the fuzzy RDD setup that scales these ITT effects by the effect of the eligibility rule on Medicare participation using local linear regression. Figure 3 plots the coefficient  $\hat{\beta}$  on each outcome discussed above. These results show that participation in Medicare *reduces* political participation as measured by meeting attendance, donations, news interest, and putting up a political sign from anywhere between six to eleven percent depend-

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<sup>8</sup>Local linear regressions are conducted using the `rdrobust` package in the R computing environment.



Figure 2: Binned Estimates of Medicare Eligibility Discontinuity on Political Participation.



Binned estimates weighted to be nationally representative. Size of the dots correspond to the number of respondents in each bin and the lines indicate a loess smoother.

ing on the outcome. These results are all statistically significant at the  $p < 0.01$  level. Moreover, I find some evidence that Medicare reduces the probability that an individual works on a political campaign though this finding is not statistically significant at conventional levels. Finally, I find that there is a near zero point estimate on Medicare participation when using validated General Election registration as the outcome. These general results get stronger when weighting the sample to be nationally representative.<sup>9</sup> Contrary to predictions from the existing literature, I find little evidence that participation in the welfare state vis-a-vis Medicare in the United States increases political participation; rather, these quasi-experimental estimates either show no effect or even a dampening effect.

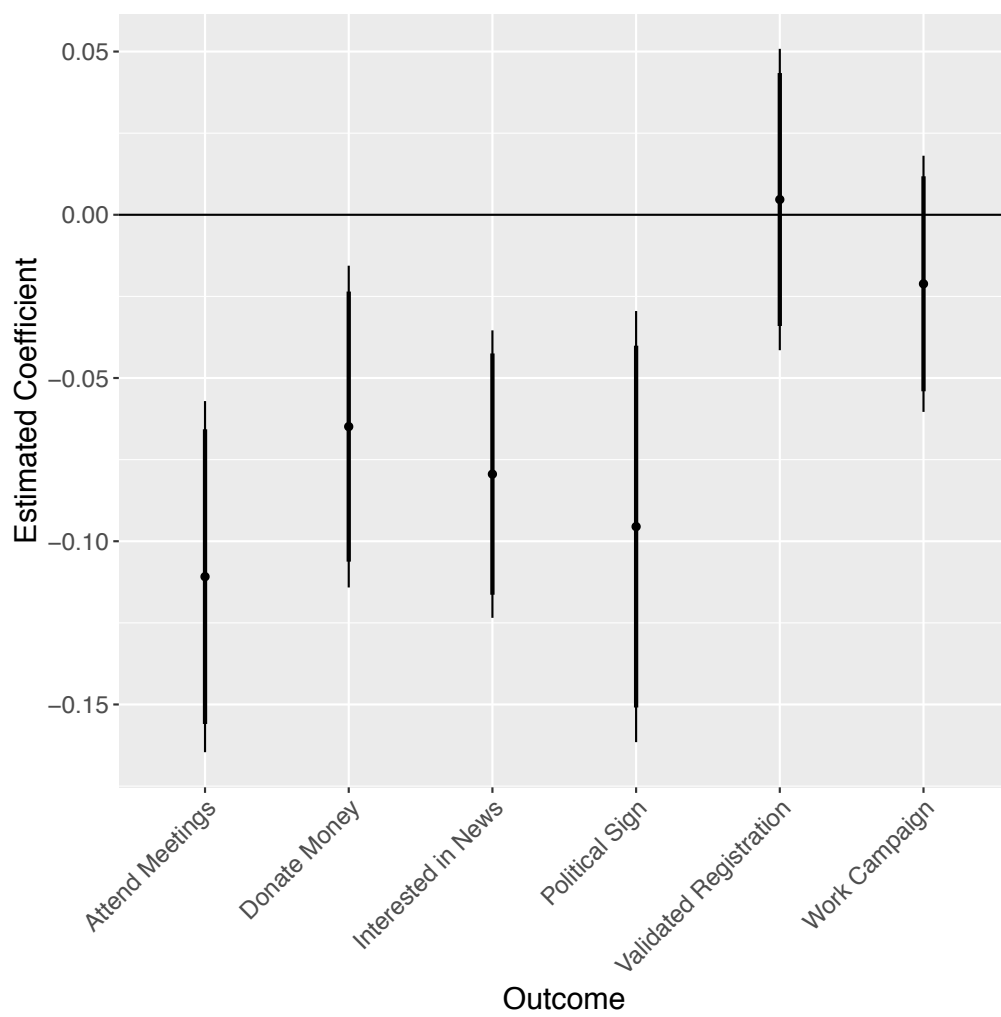
These results, when viewed against the prevailing wisdom that these types of programs increase political participation, are indeed surprising. Perhaps they might be explained by if individuals are induced to retire as a result of being eligible for Medicare and if retirement reduces political participation. While I do find evidence of Medicare participation increasing the probability of retirement, it does not seem that this is the main channel that can explain these results. Table 1 in the Online Appendix runs the same fuzzy RDD strategy in a two-stage least squares framework controlling for retirement. What this exercise allows us to do is to estimate the effect of *net of* the effect of the discontinuity through the retirement channel. The point estimates are all very similar to the local linear estimates presented in Figure 3 indicating little evidence that Medicare-induced retirement can explain these results. This suggests the importance of future research in unpacking this puzzling finding.

Finally, one potential criticism of this empirical approach is that the CCES sample might be peculiar in some way even after re-weighting to be nationally representative. To somewhat assuage this concern, I also replicate the results of Lerman and McCabe (2017) who use a very similar setup to look at the causal effect of receiving Medicare on political attitudes. The results, presented in Figures 4 and 5 of the Online Appendix, successfully replicate Lerman and McCabe (2017)'s

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<sup>9</sup>Results shown in the Online Appendix using weighted two-stage least squares.

Figure 3: Local Linear Coefficient Estimates of Medicare Benefits on Political Participation, Fuzzy Discontinuity



findings indicating that the political participation results are unlikely to stem from peculiarities of the CCES. These same individuals who are affected by Medicare participation also are less likely to support cutting domestic spending, more likely to identify as a Democrat, less likely to identify as a Republican, and more likely to support the Affordable Care Act. When viewed together with Lerman and McCabe (2017), my results suggest that Medicare might also increase political inequalities by reducing the voice of those who have become more accepting toward redistribution as a result of Medicare.

## CONCLUSION

Does the welfare state make democratic citizens? In this note, I move beyond existing correlational research and provide a quasi-experimental test of policy feedback using the case of Medicare in the United States. Contrary to the existing literature, I find evidence that participation in Medicare reduces political participation and that it has zero effect on voter turnout. While this exercise cannot speak to the ways in which *threats* to Medicare, Social Security, and the welfare state more broadly speaking can mobilize interest groups, they do open up new questions as to why and under what conditions do redistributionary programs enhance, diminish, or have no effect on political participation. On a broader note, my findings also suggest that Medicare can exacerbate political inequalities if it tends to demobilize beneficiaries while simultaneously making them more supportive of the welfare state.

This study joins Campbell (2012) in highlighting the importance of strong research designs in testing theories of policy feedback and the relationship between the welfare state and its beneficiaries. For example, Lerman and McCabe (2017) uses a similar identification strategy to show that the welfare state can reshape attitudes especially among those partisans who might be most skeptical of the welfare state. Furthermore, recent work by Clinton and Sances (2016) uses a geographic RDD paired with a difference-in-differences design to show how the expansion

of Medicaid actually increased voter turnout among those areas with the most individuals who would benefit from it—a finding that stands in contrast to Soss (1999). These results along with the findings presented in this study encourage future work to re-examine existing theories and apply the existing arsenal of quasi-experimental designs to revisit old questions and test new ones.

More generally, the nature of the welfare state itself provides many opportunities to apply modern causal identification techniques to the study of policy feedback. For example, a large literature in economics uses policy benefit “kinks” to identify the causal effect of unemployment benefits on a variety of economic outcomes (Card et al. 2015; Landais 2015). Similarly, Ludwig and Miller (2007) use discontinuities in poverty thresholds to identify the causal impact of Head Start on child mortality and education. Given that many state welfare programs follow policy thresholds and kinks, this presents an exciting opportunity for scholars to use rigorous quasi-experimental strategies to speak to the rich literature on policy feedback and redistribution.

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## ONLINE APPENDIX

Table 1: Fuzzy RDD Estimates, 2SLS: Political Participation

	Outcomes					
	Meetings	Sign	Campaign	Donate	News	Turnout
Has Medicare	−0.125*** (0.022)	−0.142*** (0.030)	−0.090*** (0.017)	−0.207*** (0.035)	−0.117*** (0.020)	−0.100 (0.083)
Forcing	0.009*** (0.003)	0.017*** (0.003)	0.013*** (0.001)	0.026*** (0.006)	−0.004*** (0.001)	−0.011 (0.008)
Above*Forcing	0.005 (0.004)	−0.004 (0.006)	−0.007* (0.004)	−0.008 (0.005)	0.032*** (0.005)	0.072*** (0.018)
Retired	−0.027*** (0.008)	−0.018*** (0.006)	−0.001 (0.005)	0.002 (0.016)	−0.009 (0.017)	0.003 (0.017)
Constant	0.246*** (0.012)	0.339*** (0.010)	0.163*** (0.005)	0.458*** (0.021)	0.699*** (0.011)	0.739*** (0.031)
N	17,049	17,049	17,049	17,049	23,572	8,649

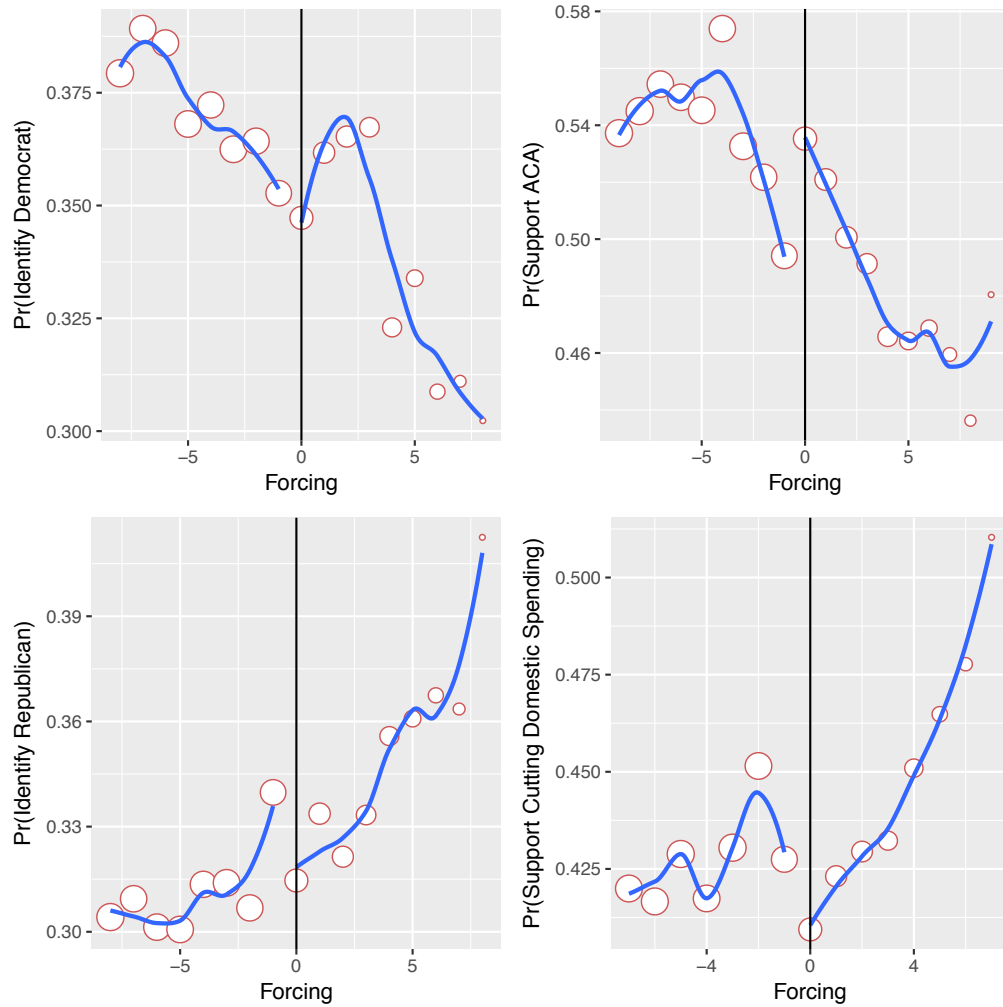
\*p < .1; \*\*p < .05; \*\*\*p < .01

Standard errors clustered by age in parentheses.

Weighted by survey weights to be nationally representative.

Bandwidth size is three with varying linear slopes on either side of cutoff.

Figure 4: Binned Estimates of Medicare Eligibility Discontinuity on Political Attitudes



Binned estimates weighted to be nationally representative. Size of the dots correspond to the number of respondents in each bin and the lines indicate a loess smoother.

Figure 5: Local Linear Coefficient Estimates of Medicare Benefits on Political Attitudes, Fuzzy Discontinuity

