# Community Income Inequality and the Economic Gap in Participation

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Abstract: This paper reveals how community level income inequality affects political participation. We theorize that local experiences of inequality increase awareness of the unequal distribution of income in the US, provoking political activity, particularly among those with more resources enabling them to act. Using restricted geographic data from the 2012 and 2016 ANES, we show local income inequality increases political participation, especially among the affluent. Using an instrumental variables design, we demonstrate these findings are not the result of reverse causality. Our results demonstrate the importance of considering both individual and community level factors when evaluating political behavior. They also suggest that as income inequality in the US continues to rise, so too will the gap in political participation between the rich and the poor, potentially leading elected officials to be even less responsive to the preferences and needs of the less affluent.

**Keywords:** economic inequality; political inequality; political participation; social context

Policy outcomes in the United States generally align more with the preferences of the rich than the poor (Erikson 2015; Gilens 2012). One explanation for this bias in the American policymaking system is a persistent pattern of unequal participation between individuals on each end of the socioeconomic spectrum. It is well documented that the rich participate in politics at higher levels than the poor (Rosenstone and Hansen 2002; Schlozman et al. 2012; Ojeda 2018a). In fact, citizens in the top income percentile in the United States are about 2.5 times more likely to vote than those in the lowest income percentile (Erikson 2015) and wealthier Americans participate at higher rates in activities like donating to political causes and working for a campaign or political party (Schlozman et al. 2012). As the socioeconomic gap in participation increases, policymakers are less likely to implement policies intended to aid the poor (Hill and Leighley 1992, Franko 2013) and this contributes to rising levels of income inequality in the United States (Avery 2015).

In this paper, we propose that income inequality itself affects political participation and exacerbates the gap in participation between the rich and the poor. There is a great deal of variation in the economic characteristics of local communities in the United States (Chetty et al. 2018) and communities play an important role in shaping individuals' political behavior (Cote et al. 2015; Minkoff and Lyons 2019). Yet, while previous research has considered the relationship between economic inequality and political participation (e.g., Ritter and Solt 2019; Solt 2008; Solt 2010), this work has typically focused on income inequality cross-nationally (Solt 2008) or at the state level (Ritter and Solt 2019; Solt 2010). In this paper, we add to this body of research by determining how *community* income inequality affects political participation.

We theorize that local income inequality will cause an *increase* in a wide variety of political activities, from discussing politics to attending rallies to contacting elected officials. The

logic of our argument is as follows. First, income inequality at the community level will cause people in less equal communities to be more aware of the income gap and may affect their attitudes about their own economic position or the redistribution of wealth (Solt et al. 2017; Minkoff and Lyons 2019). As a result, when local inequality is high, individuals will be more likely to participate in politics in order to influence the government to enact policies in line with their concerns. However, we also expect that the effects of inequality on participation will differ for higher and lower income individuals. Because those with lower incomes may have lower levels of efficacy and social trust (Uslaner and Brown 2005) and be diverted from political participation by their need to address other basic necessities (Ojeda 2018b), we expect their participation levels to be less responsive to local income inequality than the participation levels of their higher income neighbors. This will result in an increase in the gap in participation between the rich and the poor in areas with more inequality. As a result, increases in economic inequality in the US have the potential to produce spirals of inequality, wherein greater economic inequality produces greater inequality in political participation, leading policymakers to respond to the interests of higher income constituents over lower income constituents, further exacerbating economic inequality.

We draw on data from the 2012 and 2016 American National Election Study (ANES) to test our theory, pairing the restricted ANES data file – which contains precise geographic identifiers for each respondent – with Gini coefficients from the U.S. Census Bureau, which measure zip code-level income inequality. In addition to testing the direct relationship between

<sup>&</sup>lt;sup>1</sup> Access to ANES Restricted Data can be obtained at: <a href="https://electionstudies.org/restricted-data-access">https://electionstudies.org/restricted-data-access</a>. We will post online all other materials needed to replicate the results in this paper.

local inequality and individual participation, we use instrumental variables analyses to address concerns of reverse causality. We reveal a clear relationship between local economic inequality and political participation – particularly among those in the top half of the income spectrum. As income inequality increases we find a clear increase in many forms of political participation among high income individuals, but little effect of income inequality on participation among low income individuals. Consequently, in communities with low levels of inequality, Americans across the income spectrum participate in politics at roughly equal rates, while in communities with higher inequality, the participation of affluent Americans is boosted, producing a substantial gap between high and middle or low income Americans in the expression of political voice.

# **Local Income Inequality and Political Participation**

Most previous research on the relationship between income inequality and participation focuses on inequality at either the national or state level. This body of work generally finds that income inequality is negatively associated with political participation. For example, turnout in gubernatorial elections (Solt 2010) and participation in campaign activities (Ritter and Solt 2019) are lower in *states* with high levels of income inequality. Citizens in unequal *countries* are also less likely to vote, discuss politics, or express interest in politics (Solt 2008). However, state-level and cross-national comparisons may mask substantial variation in income inequality at the local level; an individual's day-to-day exposure to income inequality in the United States may differ dramatically depending her community. Thus, while participation at the national or state level may be diminished by national or state income inequality, individuals in particular communities may respond differently to the inequality they observe.

Indeed, where one lives and who one interacts with – an individual's community context – influences a wide variety of political outcomes. A vast literature demonstrates that community

context shapes vote choice and political preferences (Burbank 1997; Carsey 1995; Huckfeldt 1984; Huckfeldt et al. 1993; Putnam 1966; Wright 1977), party identification (Lyons 2011, Johnson et al. 2002), and political participation (Burch 2013; Cho et al. 2006; Diaz 2012; Dyck and Gimpel 2005; Enos 2016; Estrada-Correa and Johnson 2012; Michener 2017).

Research also clearly demonstrates that economic conditions and experiences influence Americans' political attitudes and behavior (e.g., Ansolabehere et al. 2014; Giles and Dantico 1982; Huckfeldt 1979) and that state and local income inequality affect individuals' awareness of income disparities in the United States. For example, state-level economic factors – including the level of income inequality – influence individuals' perceptions that income inequality is on the rise (Franko 2017). Studies using local measures of community context (e.g., in zip codes and counties) similarly show that income inequality is an important determinant of citizens' beliefs about the income distribution. When wealthy Americans reside near lower income neighbors, they are more likely to realize that they are financially better off than most other people – they are less likely to identify as a "have not" (Solt et al. 2017). Other research finds that both low and high income individuals who live in more unequal communities perceive that inequality is high, identifying larger gaps between the rich and the poor than those who live in more equal communities (Minkoff and Lyons 2019).

It is clear that community context affects political behavior generally and that the experiences people have with income inequality in their communities affect their beliefs about inequality specifically. Consequently, we expect that community-level income inequality will affect individuals' political participation. In areas with higher income inequality, people will be more aware of both inequality and their own financial position in a broader context, both of which can affect their beliefs about government policies regarding economic inequality. This

will promote greater political participation, as citizens try to influence government policymaking on economic issues and redistribution.

The policy direction this activism will pursue is less clear. Living in an unequal community could push affluent residents to be less supportive of redistribution in order to protect their status and wealth. For example, Sands (2017) finds that when individuals in affluent areas are exposed to poor individuals, they are less supportive of redistribution. Researchers in Sweden determined that correcting individuals' misperceptions that their relative income is lower than it actually is (which exposure to community income inequality might accomplish) leads ideologically right-of-center respondents to increase their opposition to redistributive policies (Karadja, Mollerstrom, and Seim 2017). In the US, experiments exposing individuals to information about high income inequality led people to increase how large they told researchers income inequality ought to be (Trump 2018). Further, high income citizens who live in unequal communities are less generous with their money (Cote, House, and Willer 2015) and are more supportive of the idea that America is a meritocracy (Newman, Johnston, and Lown 2015).

On the other hand, some research suggests income inequality may actually lead people to be more supportive of redistribution. Living in an unequal context provides information about the distribution of wealth that could spur more affluent Americans to support that the government should enact policies to address income inequality (Minkoff and Lyons 2019). Local income inequality may also lead low income individuals to increase their support for policies that result in wealth being redistributed from the rich to the poor. Newman, Johnston, and Lown (2015) find that living in an unequal community activates class awareness for citizens at the low end of the income distribution (though see Solt et al. (2016) and Solt et al. (2017) for evidence

contrary to these findings), which could lead poorer individuals in these contexts to favor government action that provides them with economic benefits.

While there is a robust debate in the literature regarding whether income inequality increases or decreases support for government redistribution, either effect on political attitudes could produce increases in political participation. Take, for example, a high income individual, who lives in a community that is very unequal. Living in a high inequality context may encourage him to participate in politics to demand the government address the unequal distribution of wealth (Minkoff and Lyons 2019). On the other hand, if local income inequality leads high income individuals to hold more conservative views regarding the redistribution of wealth, they may be more motivated to participate in politics in order to protect their now well-understood high social status and prevent government redistribution. In either scenario, income inequality leads individuals to be more likely to participate in politics. This motivates the central hypothesis that we test in this paper:

H1: Income inequality at the community level will cause an increase in political participation.

There are several reasons why this increase in participation may not be consistent across all residents in economically unequal communities. First, some evidence suggests that individuals with lower incomes do not necessarily recognize economic inequality, its disadvantages, and a potential role for the government in addressing it. Specifically, crossnational research indicates that low and middle income voters actually support the party in power at *higher* rates when national income inequality increases – when the share of economic growth going to the top 5% is higher (Hicks et al. 2016). This is consistent with evidence from the US that voters evaluate the national economy disproportionately based on the economic situation of

affluent Americans (Bartels 2008). Further, Solt et al. (2017) find that as county-level income inequality increases, only middle and upper income Americans adjust their perceptions of their own economic status (becoming less likely to identify as a "have-not") while low income Americans do not. Low-income Americans living in areas of high inequality are also more likely than those living in more equal areas to believe in meritocracy – that hard work produces success (Solt et al. 2016). This suggests that Americans lower on the income spectrum may be less likely than those higher on the income spectrum to respond to income inequality by participating in order to advocate for the government to make policies to reduce inequality.<sup>2</sup>

Additionally, high levels of inequality could diminish political efficacy and thus participation (Campbell et al. 1960; Cohen et al. 2001; Verba et al. 1995; Solt 2010), particularly among those with lower status in their community. Researchers have found that the presence of conflict and lack of identification with the dominant group in a community can lead to exclusion or withdrawal from participation (Huckfeldt 1986; Lazarsfeld et al. 1968; Kelley 1952). As Gimpel and Lay (2005) posit in their study of the effects of being a partisan minority, "Being a part of a perpetual minority is demoralizing, and accompanying despair and feelings of

<sup>&</sup>lt;sup>2</sup> Yet, Hicks et al. (2016) also find that when inequality is particularly stark – when the share of national income held by the top 5% or 1% hits a threshold – low and middle income individuals change their behavior. Support for the party in power begins to *decline* among those with low and middle incomes as inequality crosses that threshold. Thus, if inequality becomes particularly noticeable or significant – which may occur due to high levels of community inequality or due to a social or political context focused on and emphasizing the presence of inequality – we would expect the political activity of Americans across the income spectrum to increase.

inferiority undermine the sense of efficacy that promotes participation" (225). In a community with high inequality, one's economic position relative to others is visible on a daily basis. Thus, a low status individual may become discouraged with the government and the possibility that redistributive policies can actually be effective, leading her to believe that participation in politics is futile. Such an individual has no reason to participate in politics. Therefore, socioeconomic inequality may increase participation less for those with lower socioeconomic status.<sup>3</sup> These explanations lead to our second hypothesis:

H2: Income inequality at the community level will increase political participation more among high income Americans than low and middle income Americans.

# **Expanding our Understanding of Inequality and Participation**

Our study contributes to the literature on inequality and political participation in several ways. First, we examine the effects of economic inequality at a time when inequality in the U.S. is higher than it has been in almost a century. Existing research on the connection between local inequality and participation draws on data from the 1960s (Huckfeldt 1979, 1986), 1970s (Giles and Dantico 1982), and 1990 (Oliver 1999).<sup>4</sup> In the decades since these studies, inequality has

<sup>&</sup>lt;sup>3</sup> This may also help explain why Solt (2008, 2010) identifies decreases in turnout due to state or national level inequality and why some other studies find that various forms of community level heterogeneity diminish political participation among some groups (Giles and Dantico 1982; Giles et al. 1981; Gimpel and Lay 2005; Huckfeldt 1979; Oliver 1999).

<sup>&</sup>lt;sup>4</sup> More recent research also investigates how county income inequality affects people's *attitudes* about inequality (Solt et al. 2016; Solt et al. 2017) – but not levels of political participation.

continued to grow (Kenworthy and Smeeding 2013; Atkinson and Morelli 2014), thus it is critical to evaluate the political effects of this unceasing and intensifying economic change.

Additionally, most studies evaluating contextual effects on political participation in the U.S. focus on few forms of participation. Voting is the most commonly studied activity (e.g., Solt 2008, 2010; Brady 2003; Oliver 1999), though studies occasionally add other forms of participation like political interest and discussion (Solt 2008), attending political meetings and non-political volunteering (Uslaner and Brown 2005), campaign participation (Ritter and Solt 2019), and involvement in local politics and community activity (Oliver 1999). While voting is important, it arguably conveys less information and imparts less pressure on elected officials than many other forms of political activity. By evaluating a broad spectrum of participatory actions, our study offers a clearer picture of the effects of inequality on political engagement – and thus helps us more clearly evaluate the consequences of economic inequality for the equal expression of political voice (Schlozman et al. 2012). Furthermore, by using more recent data, we can determine how inequality affects participation in new, internet-based forms of political engagement. Because the costs of online participation may be lower than many in-person forms of participation, it is important to investigate whether these forms of political action follow similar trends as other forms of participation among Americans across the income spectrum.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> For example, if online participation is relatively less costly than in-person participation, increases in participation among lower income Americans may be more concentrated in these new forms of political engagement because they require fewer resources (Ojeda 2018b). On the other hand, as with in-person participation, the costs of online participation are also unequal across income levels (e.g., because those with lower incomes are less likely to have home access

Third, existing research primarily evaluates the effects of inequality on participation in the aggregate. For example, while a couple of studies have considered inequality within census tracts in one city (Huckfeldt 1979) or at the city level (Oliver 1999) more recent research focuses on how aggregate participation is affected by state-level (Solt 2010; Uslaner and Brown 2005) or national-level (Solt 2008) economic conditions (though see Ritter and Solt 2019). Examining this relationship at the aggregate level makes it difficult to determine the mechanisms through which inequality is influencing participation (e.g., given day to day experiences, people are probably more likely to be aware of community-level income inequality than inequality at the state level), can lead to conflicting findings (Brady 2003), and may mask differences that exist at the community level. Aggregate research also makes it difficult to examine the influence of a variety of factors beyond inequality – like party identification, education, race, or gender – that may also influence an individual's participation and potentially correlate with living in an area with higher inequality. In our study we draw on the restricted 2012 and 2016 ANES data to evaluate how the participation of individuals is affected by inequality within their neighborhoods. Through this method, we are able to reveal how an individual's income level interacts with the context of their community to influence their participation, and to control for other individual and neighborhood characteristics that may also influence participation.

### **Data and Method**

We use pooled cross-sectional data from the 2012 and 2016 ANES to test our hypotheses.

Using the ANES data is desirable for two reasons. First, the restricted ANES data files provide

to high speed internet (Dunaway et al. 2018)). So, it is possible increases in *both* online and inperson participation will occur more frequently among those with higher than lower incomes.

specific geographic data about the local community of each survey respondent, which is essential for analyzing how social context affects political behavior. Second, the ANES asks questions about a wide variety of political activities, enabling us to more comprehensively examine how income inequality affects political participation. Although who votes is a potentially important determinant of policy outcomes (Kogan, Lavertu, and Peskowitz 2018), the effects of income inequality on public policy may be larger if inequality also affects other forms of participation, like contacting government officials (Anzia 2019). Also, while voting is often overreported on surveys due to social desirability bias (Silver et al. 1986), this may be less likely for other forms of participation which receive less popular and media attention.

We use each respondent's zip code to identify their social context when measuring the characteristics of the communities in which respondents are embedded. Although the use of any government-created geographical unit to measure context is merely an approximation of an individual's true social context, we propose that zip code is theoretically most appropriate for our study for several reasons. First, people's perceptions of their communities' characteristics are more accurately predicted by the composition of their zip code than other census based and personal conceptualizations of communities (Velez and Wong 2017). Second, economic conditions in broader geographic areas are less consequential for individuals' economic outcomes than more local economic conditions; variation in neighborhood characteristics – such as adult employment rates – is much more predictive of outcomes like economic mobility than is variation across counties or regions (Chetty et al. 2018). Finally, although other studies of contextual effects have used the census tract (e.g., Giles et al. 1981; Giles and Dantico 1982; Huckfeldt 1979) to operationalize community context, census tracts may be too small of a geographical unit to capture the reality of community inequality. Weinberg (2011) finds a fairly

high level of income homogeneity at the census-tract level especially among high-income people, meaning that many census tracts have a high concentration of wealth or poverty. Yet zip codes provide clearer exposure to a community's level of income inequality. For example, someone with low socioeconomic status may have to drive through a relatively high status census tract also in her zip code to get to the grocery store or her place of work and thus interacts, though perhaps not on a personal level, with people in adjoining census tracts and is made aware of the range of socioeconomic statuses around her.

### Dependent variables

Our dependent variables measure respondents' propensity to engage in all of the forms of political participation measured in the 2012 and 2016 ANES surveys. Our primary dependent variable is a *Participation Scale* that ranges from zero to eleven and identifies how many of the eleven forms of participation on the ANES respondents report they engaged in.<sup>6</sup> We also estimate models evaluating how inequality affects engagement in each form of political participation on our scale using dummy variables equal to one if the respondent reported engaging in a given political activity and zero otherwise. In all, we test the effects of inequality on the following forms of participation: *Use Button, Sticker, or Yard Sign; Contact Government* by contacting a member of Congress; *Discuss Politics* with friends or family; *Use Facebook or Twitter* to post about politics; *Donate Money* to a candidate, party, or PAC; *Attend Rally*; attempt to *Persuade Others* to vote for a particular candidate or party; *Vote*; *Work for Party/Candidate*; and a couple forms of participation distinct to the 2012 or 2016 ANES surveys. Specifically, we

<sup>&</sup>lt;sup>6</sup> The Cronbach's alpha scale of reliability coefficient for the items included in the participation scale is 0.716 for all activities in the 2012 ANES and 0.696 for all activities in the 2016 ANES.

measure two separate forms of petition participation using the 2012 data – *Sign Petition Online* and *Sign Petition in Person* – while in the 2016 data, these are collapsed to one measure, *Sign Petition*. From the 2016 data, we also include the new ANES measure *Attend Protest*.

# Independent variables

Our key independent variable measures *Community Income Inequality* by merging zip-code level Gini coefficients with 2012 and 2016 restricted ANES geographic identifiers for each ANES respondent. We draw our Gini coefficients from the U.S. Census American Community Survey 5 Year Estimates for 2012 and 2016. The Gini coefficient theoretically ranges from zero to one, with one representing communities where one individual has all of the income and zero representing communities where everyone has an equal share of income. Values between zero and one represent the proportion of income that would need to be redistributed in order for all individuals to have equal shares of the total income (Weinberg 2011).

The Gini coefficient is a commonly used way to operationalize inequality (e.g., Solt 2008), and correlates with other income inequality measures (Brady 2003; Kawachi and Kennedy 1997; Weinberg 2011). For example, Kawachi and Kennedy (1997) find that the

<sup>&</sup>lt;sup>7</sup> The U.S. Census provides data using ZCTAs, which are compiled from census tracts, rather than traditional USPS zip codes (Krieger et al. 2002). However, we were provided with USPS zip codes from the ANES. Thus, we implemented a 'crosswalk' procedure that matched each respondent's zip code to the appropriate ZCTA in the Census data, correcting the small number of ANES zip codes that did not initially accurately match their Census ZCTA.

<sup>&</sup>lt;sup>8</sup> For 2012, the measure is aggregated over five surveys taken from 2008 to 2012, while for 2016 the measure is aggregated over five surveys taken from 2012 to 2016.

correlation between the Gini coefficient and eight other measures of income inequality in U.S. states, including the decile ratio and the proportion of income earned by the bottom 50%, 60%, and 70% of households, is 0.95 or higher. In addition, other measures of inequality tend to lead researchers to draw similar substantive conclusions. Luttig (2013) uses an indicator of income inequality that compares mean income to median income to replicate the analysis of Kelly and Enns (2010), who use the Gini coefficient as their measure of income inequality, and both studies find that income inequality has a negative effect on liberal policy attitudes.

#### Control variables

We control for a number of zip code level demographic characteristics of communities that may affect both income inequality and political participation. First, we control for the *Mean Household Income* of zip codes. This addresses the possibility that our results are driven by mechanical increases in income inequality that are a consequence of increased income on the top end of the income distribution. Second, we control for *Percentage Hispanic* and *Percentage Black* individuals in each zip code, which accounts for the possibility that the racial composition of neighborhoods affects the social norms surrounding participation (Anoll 2018).

<sup>&</sup>lt;sup>9</sup> Specifically, this allows us to account for the fact that a community with a few very high income individuals, which would result in a higher mean income in the community, could cause both an increase in the Gini coefficient and changes in political participation that are not necessarily due to increased inequality. For example, communities with a high mean income will have a larger tax base, which may produce different levels of conflict surrounding local public finance than areas with a smaller tax base.

Unlike many studies of inequality and participation at higher levels of analysis, our data also enable us to control for individual level characteristics that are known to influence participation in politics and that may be related to community level inequality. We control for the *Income* and *Education* of respondents as these two variables are known to impact both political participation and zip code income inequality. Because *Married* individuals tend to mirror the participatory behaviors of their partner, we include an indicator variable equal to one if the respondent is married (Stoker and Jennings 1995). We control for gender (Female) and the number of *Children* that the respondent has as both are linked to political participation rates (Jennings 1979; Verba et al. 1997; Coffé and Bolzendahl 2010). Due to disparities in participation across age and racial groups we control for Age and include a series of indicator variables for race in our models, specifically *Hispanic*, *Black*, and *Other Race*, with *White* as the excluded reference group (Leighley and Vedlitz 1999). We also include measures of party identification, with indicator variables identifying those who are Republican or Independent (Democrat is the excluded reference group), and strength of party identification, as party commitment is a strong predictor of political participation (Bartels 2000). Strong Partisan ranges from one to three with higher values indicating stronger partisanship. Following Solt's (2008) study of the effects of inequality on participation, we control for three additional variables Employment Status is an indicator variable equal to one if the respondent is currently employed, retired, a homemaker, or a student and zero otherwise. *Union* equals one if the respondent or someone in their household is a member of a union and zero otherwise. Finally, *Church* Attendance ranges from zero to five, with higher values representing more frequent church attendance.

# Estimation Strategy

In order to test our hypotheses, we must take into account that we expect the impact of income inequality on participation to differ for individuals across the income distribution. In particular, we hypothesize that inequality will have a larger positive effect on participation for high income individuals than lower income individuals. Consequently, in our analyses we estimate separate models for each income group of respondents. Following Solt (2008), we split the data into five groups based on income quintiles and estimate separate models for each dependent variable. 10 We use this modeling strategy instead of interacting the Gini coefficient with individuals' incomes because using an interaction variable would place a restriction that the effects of income inequality on participation change at a constant rate across income levels (Hainmueller, Mummolo, and Xu 2018) – something our theory predicts may not be the case. Further, because we pool the data from the 2012 and 2016 ANES, all of our models include year fixed effects to account for year specific factors. 11 In the text of the paper, we present results from OLS models to identify the effects of inequality on individuals' overall participation (our broad Participation Scale), and from probit models to estimate the effects of inequality on each individual form of participation. We also discuss the results of a variety of robustness checks which are displayed in full in the Online Appendix.

<sup>&</sup>lt;sup>10</sup> We used American Community Survey 1-year estimates to determine the household income quintile upper limits in 2012 and 2016. We then split the ANES data into five groups based on the closest income category (on the ANES 28-category scale) to those upper limits. More details are available in the Online Appendix.

<sup>&</sup>lt;sup>11</sup> Analyses with data separated by year (2012 and 2016) are available in the Online Appendix.

### Results

We first examine the relationship between community income inequality and the Participation Scale. This dependent variable is a count of the total number of forms of political participation in which a respondent reports they engaged. Recall we expect that increases in the Gini coefficient will positively impact the number of political activities in which individuals engage (H1) and that this effect will be largest for high income individuals (H2).

Table 1 displays the results of models with the Participation Scale as the dependent variable, using the pooled 2012 and 2016 data. Each column of the table displays the results for a different income quintile. Across all of the income groups the coefficient on the Gini coefficient variable is positive, suggesting, consistent with our first hypothesis, that living in a community with higher inequality may promote political participation. For individuals in the bottom two income quintiles, however, this relationship is not statistically significant. On the other hand, the estimated effect of local income inequality on the Participation Scale is statistically significant for respondents in the highest (p < 0.01) and second highest (p < 0.05) income quintiles. For individuals in the middle income quintile, the coefficient for community inequality nears conventional levels of statistical significance (p < 0.1). In all, among those with higher and middle incomes, there is a clear, positive relationship between living in a more economically unequal community and participating in politics. This supports our second hypothesis that the effects of income inequality on participation will be largest for wealthier individuals.

To illustrate the substantive magnitude of these effects we use the results from Table 1 to calculate the predicted value of the participation scale – the number of activities in which a respondent is expected to participate – for each income quintile in high versus low inequality communities, holding all other variables in the model at their means. Specifically, we calculate

Table 1: The Effects of Income Inequality on Political Participation, Pooled 2012 and 2016 Data

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	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Community Income	.296	1.407	2.151 <sup>†</sup>	2.664*	4.608**
Inequality	(1.222)	(1.416)	(1.197)	(1.35)	(1.121)
Income	0.0613*	0.0211	0.00822	0.0487	$0.0638^{\dagger}$
	(0.0289)	(0.0347)	(0.0381)	(0.0552)	(0.0379)
Education	0.358**	0.434**	0.463**	0.374**	0.384**
	(0.0619)	(0.072)	(0.0551)	(0.0627)	(0.0561)
Age	-0.00616	-0.00188	-0.00519	-0.0039	0.00356
	(0.00571)	(0.00493)	-(.00472)	(0.00639)	(0.00661)
Female	-0.102	-0.297*	-0.126	-0.14	-0.14
	(0.129)	(0.125)	(0.119)	(0.132)	(0.120)
Black	-0.0258	0.00109	-0.193	-0.203	-0.153
	(0.211)	(0.291)	(0.233)	(0.274)	(0.385)
Hispanic	-0.282	-0.330 <sup>†</sup>	-0.275	-0.477 <sup>†</sup>	0.00141
	(0.208)	(0.193)	(0.216)	(0.283)	(0.214)
Asian	-1.585**	-0.578	-0.706	-1.336**	0.914**
	(0.363)	(0.363)	(0.497)	(0.408)	(0.316)
Other race	-0.0726	0.132	-0.24	-0.0145	0.466
	(0.27)	(0.297)	(0.239)	(0.379)	(0.325)
Married	0.0437	0.019	0.343**	-0.059	0.107
	(0.146)	(0.131)	(0.125)	(0.162)	(0.151)
Children	0.0451	-0.0214	-0.162**	-0.177*	0.182**
	(0.0641)	(0.0644)	(0.0582)	(0.0706)	(0.0547)
Union	0.648*	0.514*	0.0712	0.0718	0.236
	(0.292)	(0.201)	(0.141)	(0.154)	(0.162)
Employment status	-0.202	$-0.250^{\dagger}$	-0.137	-0.425**	0.687**
	(0.14)	(0.134)	(0.126)	(0.149)	(0.142)
Church attendance	0.0611	-0.0333	0.0479	-0.0061	$0.0578^\dagger$
	(0.0385)	(0.0372)	(0.0331)	(0.0379)	(0.035)
Strong Partisan	0.501**	0.204*	0.251**	0.430**	0.304**
	(0.0871)	(0.0877)	(0.0826)	(0.0827)	(0.0803)
Republican	.257	-0.187	0.0512	-0.118	0.543**
	(0.163)	(0.14)	(0.134)	(0.15)	(0.121)
Independent	$-0.337^{\dagger}$	-0.873**	-0.896**	-0.302	0.859**
	(0.178)	(0.181)	(0.183)	(0.237)	(0.254)
Community mean	0.000004*	0.000004	0.000003	0.000002	-0.000001
household income	(0.000002)	(0.000003)	(0.000002)	(0.000003)	(0.000002)
Community	-0.00155	0.000853	0.00915*	-0.002	-0.0012
percentage Hispanic	(0.00329)	(0.00319)	(0.00391)	(0.00425)	(0.00405)
Community	.00451	0.00857*	0.00131	0.00419	0.00672
percentage Black	(0.00381)	(0.00385)	(0.00402)	(0.00457)	(0.0062)
2016 Indicator	0.275	0.122	0.0646	-0.0676	-0.0477
	(0.294)	(0.248)	(0.236)	(0.299)	(0.306)
Constant	0.0367	0.648	0.0529	-0.187	-0.856
	(0.638)	(0.715)	(0.800)	(1.315)	(0.999)
N	2,052	1,893	1,851	1,569	1,693
3.1	010			· -	

Notes: Coefficients from OLS models with dependent variable measuring the number of 11 forms of participation in which a respondent reported engaging in the 2012 and 2016 ANES. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

predicted participation at the lowest (0.254) and highest (0.688) levels of the Gini coefficient that we observe in the ANES data. Although this represents the maximum and minimum of the Gini in the zip codes where ANES respondents resided, there are even more extreme levels of inequality in the United States during this time period; the actual range of zip code Gini coefficients in the US Census is wider. Therefore, our analyses may actually underestimate the substantive magnitude of the effects of inequality on participation.

Predicted participation levels for people in each income quintile at different levels of community inequality are displayed in Figure 1. Among those in the lowest income quintile, the predicted values of the participation scale are very similar in communities with low and high levels of income inequality; community inequality does not drive participation for low income Americans. A gap in participation, however, begins to form as we move up the income distribution. For people in the third and fourth income quintiles, switching from a low inequality community to a high inequality community yields about a one point increase on the participation scale. This same change in income inequality causes individuals in the highest income quintile to move from engaging in 2.88 to 4.88 forms of political participation, a two point increase on the participation scale. The results in Figure 1 suggest that in places that have low income inequality, the number of forms of political participation in which residents engage is roughly stable across the income distribution. However, in communities with high income inequality, individuals at the top end of the income distribution participate in politics much more than individuals at the low end of the income distribution. In unequal communities, there is a large income bias in political participation with higher income residents expressing their political voice in more ways than low income residents. Because class bias in political participation can produce policy that

favors the wealthy (Hill and Leighley 1992, Franko 2013), communities that have high levels of income inequality may implement policies that exacerbate the unequal distribution of wealth.

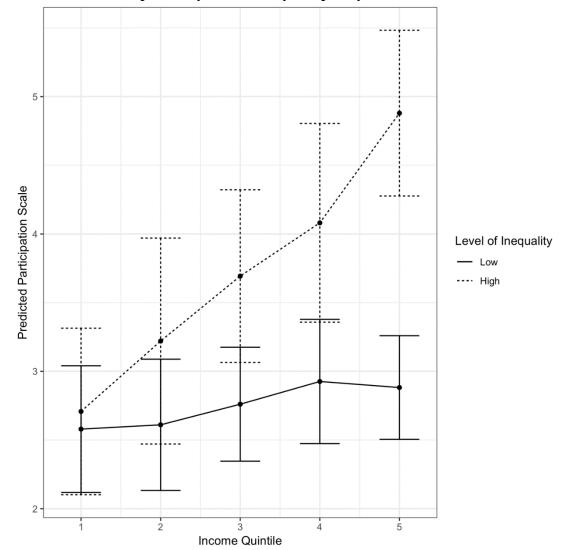


Figure 1. Predicted Participation by Community Inequality and Income Quintile

Notes: Figure displays the predicted value on the participation scale and 95% confidence intervals for each income quintile in low and high inequality communities holding all other variables in the models in Table 1 at their means.

The results in Table 1 and Figure 1 provide clear evidence that income inequality is positively associated with political participation, particularly for those in the top quintiles of the income distribution. However, one may be concerned that selection into communities and issues of reverse causality could be driving this finding. It is possible, for example, that an individuals'

propensity to participate in politics is correlated with their preferences for the level of income inequality in their community or any other feature of their community that happens to be related to income inequality. Further, if unequal participation across the socioeconomic spectrum results in policy outcomes that favor the wealthy, it could be the case that it is increased participation among high income citizens that causes increases in income inequality and not, as we theorize, the other way around.

We address these alternative explanations by implementing a series of robustness checks with an instrumental variables design that follows the procedure of Boustan et al. (2013). To generate the instrument, we fix the income distribution present in each zip code as it was in 2000 and simulate the zip-code level income distribution in 2012 and 2016 using only changes in the *national* income distribution between the years of interest. By construction, the instrument is not affected by the movement of individuals between zip-codes and, thus, is not correlated with individuals' unobserved preferences for more or less equal communities. In addition, the instrument is not affected by local policies supported by the wealthy that could cause changes in local income inequality after 2000. More details about the construction of the instrument are available in the Online Appendix.

The results of the instrumental variables models, displayed in Table A.4 in the Online Appendix, are substantively similar to the results of the OLS models displayed in Table 1. Most importantly, there is a statistically significant and positive impact of the Gini coefficient instrument on the participation scale for individuals in the top two income quintiles. That the results from our instrumental variables models reveal the same pattern of positive association between community income inequality and political participation as the OLS models in Table 1 provides further confidence that this relationship operates in the direction we theorize. That is,

income inequality produces political activity rather than increased participation among higher income Americans resulting in greater community-level inequality.

One might also question whether inequality increases political participation generally, or if our results are being driven by particular forms of participation that are activated by economic inequality. In Figure 2 we display the results of models testing how community inequality affects each individual form of political participation included in our participation scale. For each dependent variable – each form of participation – we display the point estimate for the community income inequality variable along with 90 and 95 percent confidence intervals from separate probit models for each income quintile. All of the models include the same control variables as the regressions predicting the Participation Scale that are displayed in Table 1.<sup>12</sup>

Figure 2 displays further support for our second hypothesis that inequality increases participation more among high than low income Americans across a number of individual forms of political participation. Specifically, the estimated effect of the local Gini coefficient is positive and at least marginally statistically significant for voters in the top two income quintiles for: use a button, sticker, or yard sign; use Facebook or Twitter; sign an online petition; contact government; and attend a protest. For individuals in the lowest income quintile, the only dependent variable for which there is a statistically significant positive effect of inequality on participation is the likelihood that a respondent attends a rally. And, for low income Americans,

<sup>&</sup>lt;sup>12</sup> Recall that the variables asking respondents if they attended a protest or signed a petition online or in person are limited to the 2016 data. Meanwhile, the 2012 ANES disaggregates the petition question into two separate prompts and does not ask respondents if they have attended a protest. Otherwise, each model draws on pooled data from 2012 and 2016.

local income inequality actually results in a decrease in the probability a respondent signs an online or paper petition. While we do not find that local inequality produces increases in every individual form of political participation at conventional levels of statistical significance, the general pattern displayed in Figure 2 reveals point estimates that are generally positive across

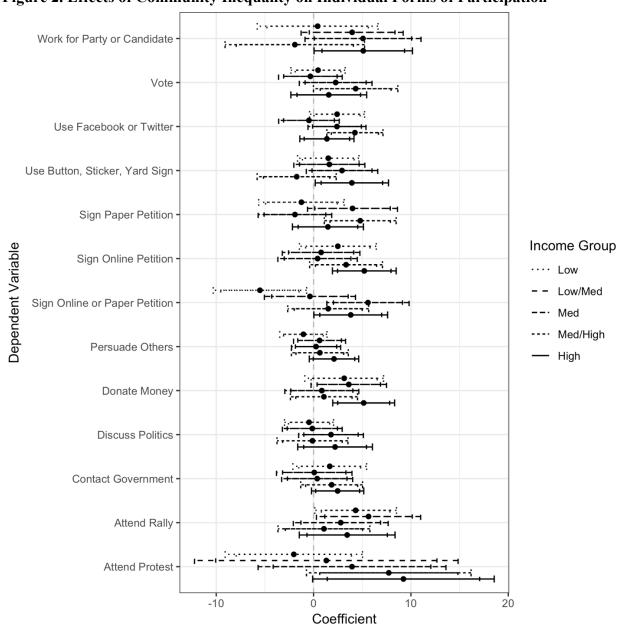


Figure 2. Effects of Community Inequality on Individual Forms of Participation

Note: Figure displays point estimates for the community income inequality variable along with 90 and 95 percent confidence intervals from separate probit models for each income quintile. All models include the same control variables displayed in Table 1.

most income quintiles (consistent with H1) and point estimates for higher income quintiles that are typically higher than those for low and medium income quintiles (consistent with H2). In short, the results in Figure 2 are generally in line with the findings in Table 1 and Figure 1.

ANES data separately. The 2016 presidential campaigns focused on economic inequality substantially more than the 2012 campaigns; in 2016 economic inequality was a part of both Republican and Democratic candidates' messaging and was the primary focus of Bernie Sanders' attempt to gain the Democratic nomination. Because media coverage of inequality affects Americans' awareness of and attitudes about inequality (Bell and Entman 2011; McCall 2005; McCall et al. 2017), our results could differ between 2012 and 2016. In the Online Appendix (Tables A.9 and A.10) we display the results of our analyses split by year. In 2012, as in our pooled data, the effects of inequality on the Participation Scale are positive and significant (only) for those in the top two income quintiles. In 2016, the coefficients for inequality are positive and statistically significant for those in the highest income quintile and expand also to the middle income quintile. There is not a statistically significant relationship between inequality and participation among those in the second highest income group in 2016. To better understand this result, we also examine models predicting each individual form of participation separately in

<sup>&</sup>lt;sup>13</sup> Income inequality was an issue of such pervasive discussion in 2016, candidates across the political spectrum (e.g., Hillary Clinton, Jeb Bush, Bernie Sanders, Marco Rubio, and Ted Cruz) regularly discussed that "the people who have been hammered for the last six years are working men and women" (Cruz), and it is important to address a "playing field [that] is no longer fair or level" (Bush PAC mission statement) (Chozick 2015; Gold 2015; Demaria 2016; Lauter 2015).

2012 and 2016 (Tables A.11 and A.12). <sup>14</sup> In these models, the results from 2012 are supportive of both of our hypotheses – increased community inequality produces greater participation in a wide variety of political activities, almost exclusively among those in one or both of the top two income quintiles. In 2016, the positive effects of inequality on participation expand – inequality is positively associated with a few forms of participation for those in the middle and second lowest income quintiles – while the participation of the wealthy is less consistently activated by community inequality in 2016 than in 2012. Specifically, there are statistically significant positive effects of inequality on fewer individual forms of participation among the most affluent in 2016 than in 2012, and negative effects on political discussion and contacting government among those in the second highest income group. Additionally, among those in the lowest income group, we find local income inequality results in a decrease in the probability a respondent contacts government or signs a petition. In all, these results remain consistent with our first hypothesis – that inequality should generally boost political participation, but the 2016 results are less supportive than the 2012 results of our second hypothesis that this increase will be concentrated among the more affluent.

We propose that the distinction in our findings between 2012 and 2016 was likely driven by the differing electoral contexts of 2012 and 2016. First, other scholars have found that both upper *and middle* income Americans (though not lower income Americans) adjust their views of their economic status when confronted by local income inequality (Solt et al. 2017), and that

<sup>&</sup>lt;sup>14</sup> Instrumental variables models estimated with the 2012 and 2016 data separately are displayed in Tables A.5, A.6, A.7, and A.8 in the Online Appendix and reveal results that are substantively similar to the results discussed here.

economic inequality can reach a threshold at which point even lower and middle income individuals behave in ways indicating their discontent with inequality (Hicks et al. 2016). The greater focus of the 2016 presidential campaigns on inequality may have made its existence more obvious and salient to a broader set of Americans, thus producing the positive relationship between local inequality and some forms of participation for Americans lower on the income spectrum in 2016 (compared to a lack of effect for this population in 2012). Second, research indicates that people need to believe that inequality can be changed in order to express a desire to change it and that information about inequality shapes behavior most when conditions help individuals connect their situations to a broader context (Trump 2019; Pellicer et al. 2018). In 2016, prominent arguments by presidential candidates both connected personal inequality to a broader "rigged" system and argued that inequality could and should be changed. This may have helped lower and middle income Americans overcome the lower efficacy and other demoralizing effects of their lower status in their communities such that experiences of local level income inequality activated participation not just among high income individuals but also those at more moderate income levels.

Additionally, the less sweeping effects of inequality we find across the variety of individual forms of participation in 2016 than 2012 may indicate that in 2016, experiencing income inequality in one's community was less necessary for an American to be aware of high income inequality in the US and to agitate for government action to shield those with high status or improve conditions for those with lower status. In this case, we might expect that community inequality would positively influence fewer forms of participation in 2016 than in 2012 – something consistent with our results.

### **Discussion**

In this paper, we examine the effects of local income inequality on political participation. We theorize that economic inequality at the community level will cause an increase in participation and that this increase will be driven by higher income individuals. Using restricted geographic data from the 2012 and 2016 ANES and Census data on the demographic characteristics of communities, we find support for these hypotheses. In particular, we find that while those in lower income quintiles participate at roughly equal rates whether they reside in communities with low or high inequality, those in higher income quintiles are much more active in politics when they live in communities with high levels of inequality than those with low inequality. In other words, inequality galvanizes participation among those with higher, but not lower incomes. To address concerns of reverse causality, we use an instrumental variables design in further tests of our hypotheses which confirm our results. The relationship between inequality and participation is particularly strong in 2012 among individuals in the top two income quintiles, while the effects of inequality on participation are more modest in 2016 and expand to those in other income quintiles, perhaps due to the heightened attention to income inequality during the 2016 campaigns.

Our findings indicate that persistent economic inequality in the US at the community level is likely to increase the gap in political participation between the rich and the poor, with negative consequences for equal representation in policymaking. Research demonstrates that participatory inequality yields policies that benefit those who participate at higher levels (Button 1989; Hill and Leighley 1992). For example, Franko (2013) finds that the degree to which the rich vote at higher rates than the poor in a state affects state policies on predatory lending, children's health insurance programs, and the minimum wage in the state. When lower status

residents participate substantially less than higher status residents, states are less likely to promote programs that assist lower-income residents with health care, housing, or wage equity and that could enable lower-income residents to increase their socioeconomic status. We find that income inequality, especially in 2012, exacerbated the well documented participatory gap between low and high socioeconomic status individuals (Downs 1957; Verba et al. 1995; Schlozman et al. 2012) by increasing participation among Americans with higher incomes to a greater extent than those with lower incomes, potentially leading to policy outcomes that favor the rich over the poor. Therefore, our research suggests the likely presence of spirals of inequality in which economic inequality promotes patterns of unequal participation that lead to further implementation of policies that favor higher status citizens over those with fewer resources, which thus perpetuate greater income inequality and then further participatory inequality. Our results from 2016 suggest it may be possible to somewhat disrupt this spiral and activate at least participation among Americans with moderate incomes, though future research is needed to determine whether greater campaign and media focus on inequality (as in the 2016 context) can produce this effect.

Our findings that local inequality increases participation, especially among affluent Americans, depart from some studies which demonstrate that inequality at the state or national levels diminishes participation, particularly among those with lower incomes (Solt 2008, 2010).<sup>15</sup>

<sup>&</sup>lt;sup>15</sup> The specific differences in our findings may derive from the outcomes we study – existing work has focused on a smaller number of forms of participation, including voting (Solt 2008, 2010) and political discussion and interest (Solt 2008), while we studied many more forms of political engagement, and found inequality increased forms of participation not included in prior

However, the theories underlying our results and those results are complementary, and the implications of our results and those from these other studies are similarly problematic for equality of representation. By measuring inequality at the local level, we aimed to capture how the experience and salience of inequality for an individual in their daily life influences their participation, and found that it bolsters participation, particularly among the more affluent. As contexts of inequality heighten people's awareness of conflict over resources and the need for government action, the more affluent should be better able to respond by participating due to the greater resources they possess and the higher efficacy they may have due to their status in their local, unequal community. These mechanisms also underlie studies finding that state or national level inequality diminishes participation for those with fewer resources, who Solt (2008, 2010) argues are demobilized because the wealth concentrated among those with high incomes and power has shaped politics toward issues relevant to the affluent and lowered the likelihood those with fewer resources will prevail when preferences are in conflict. Additionally, both Solt's (2008, 2010) findings of a decrease in participation among those with lower incomes, and our findings of an increase in participation among those with higher incomes in contexts of higher inequality imply that economic inequality produces inequality in political voice by economic

studies such as displaying a button or yard sign, contacting government, donating money, and attending a rally or protest. In fact, while our 2012 data shows attempting to persuade others (a form of political discussion) increased with inequality among high income respondents, we also find, consistent with Solt (2008), that it diminished among low income respondents as inequality increased. Less consistent with previous work, our 2016 data does reveal an increase in voting among lower and middle income respondents as community inequality rises.

class. Indeed, like Solt, we believe "there is reason to believe that the effects of income inequality on electoral participation are self-reinforcing" (Solt 2010, 298), a conclusion that is problematic for those concerned about equal representation across groups.

Given the democratic significance of this consequence, we hope future work will examine how the effects of contextual income inequality impact political participation in different election years and for other types of elections. Our findings regarding the somewhat different effects of inequality on participation in 2012 and 2016 suggest that different contexts – perhaps produced by variation in the tone of elite rhetoric and media coverage of income inequality – may shape this relationship. Future work could examine how inequality affects participation in different years to test this possibility. Additionally, while we have examined the effects of community income inequality on participation during federal election cycles, future work could examine the effects of inequality on participation in local politics. Many local elections are held off-cycle and different types of voters tend to participate in these elections (Kogan, Lavertu, and Peskowitz 2018). The effects of income inequality on participation in local politics, and the spirals of inequality that may result, may be even more pronounced for off-cycle local races as local governments often have an immediate and direct impact on policies that influence community economic inequality.

#### References

- Anoll, A. P. (2018). What makes a good neighbor? Race, place, and norms of political participation. *American Political Science Review*, 112(3), 494-508.
- Ansolabehere, S., Meredith, M., & Snowberg, E. (2014). Mecro-Economic Voting: Local Information and Micro-Perceptions of the Macro-Economy. *Economics & Politics*, 26(3), 380-410.
- Anzia, S. F. (2019). When does a group of citizens influence policy? Evidence from senior citizen participation in city politics. *The Journal of Politics*, 81(1), 1-14.
- Atkinson, A. B., & Morelli, S. (2014). The Chartbook of Economic Inequality.
- Avery, J. M. (2015). Does Who Votes Matter? Income Bias in Voter Turnout and Economic Inequality in the American States from 1980 to 2010. *Political Behavior*, *37*(4), 955-976.
- Bartels, L. M. (2000). Partisanship and voting behavior, 1952-1996. *American Journal of Political Science*, 35-50.
- Bartels, L. M. (2008). *Unequal democracy: The political economy of the new gilded age*: Princeton University Press.
- Bell, C. V., & Entman, R. M. (2011). The media's role in America's exceptional politics of inequality: Framing the Bush tax cuts of 2001 and 2003. *The International Journal of Press/Politics*, 16(4), 548-572.
- Boustan, L., Ferreira, F., Winkler, H., & Zolt, E. M. (2013). The effect of rising income inequality on taxation and public expenditures: Evidence from US municipalities and school districts, 1970–2000. *Review of Economics and Statistics*, 95(4), 1291-1302.
- Brady, H. E. (2003). An analytical perspective on participatory inequality and income inequality. *Social inequality*, 667-702
- Burbank, M. J. (1997). Explaining contextual effects on vote choice. *Political Behavior*, 19(2), 113-132.
- Burch, T. (2013). *Trading democracy for justice: Criminal convictions and the decline of neighborhood political participation*: University of Chicago Press.
- Button, J. W. (1989). Blacks and social change: Impact of the civil rights movement in southern communities. Princeton: Princeton University Press.
- Campbell, A., Converse, P. E., Miller, W., & Stokes, D. (1960). *The American Voter*: Wiley & Sons.
- Carsey, T. M. (1995). The contextual effects of race on white voter behavior: The 1989 New York City mayoral election. *The Journal of Politics*, 57(01), 221-228.
- Chetty, R., Friedman, J. N., Hendren, N., Jones, M. R., & Porter, S. R. (2018). *The opportunity atlas: Mapping the childhood roots of social mobility* (No. w25147). National Bureau of Economic Research.
- Cho, W. K. T., Gimpel, J. G., & Dyck, J. J. (2006). Residential concentration, political socialization, and voter turnout. *Journal of Politics*, 68(1), 156-167.

- Coffé, H., & Bolzendahl, C. (2010). Same game, different rules? Gender differences in political participation. *Sex Roles*, 62(5-6), 318-333.
- Côté, S., House, J., & Willer, R. (2015). High economic inequality leads higher-income individuals to be less generous. *Proceedings of the National Academy of Sciences*, 112(52), 15838-15843.
- Cohen, A., Vigoda, E., & Samorly, A. (2001). Analysis of the Mediating Effect of Personal-Psychological Variables on the Relationship Between Socioeconomic Status and Political Participation: A Structural Equations Framework. *Political Psychology*, 22(4), 727-757.
- Diaz, M.-E. D. (2012). Asian Embeddedness and Political Participation: Social Integration and Asian-American Voting Behavior in the 2000 Presidential Election. *Sociological Perspectives*, 55(1), 141-166, doi:10.1525/sop.2012.55.1.141.
- Downs, A. (1957). An Economic Theory of Democracy. New York: Harper.
- Dunaway, J., Searles, K., Sui, M., & Paul, N. (2018). The Move to Mobile: What's the Impact on Citizen News Attention?. In *New Directions in Media and Politics* (pgs. 143-157). Routledge.
- Dyck, J. J., & Gimpel, J. G. (2005). Distance, Turnout, and the Convenience of Voting. *Social Science Quarterly*, 86(3), 531-548.
- Enos, R. D. (2016). What the Demolition of Public Housing Teaches Us about the Impact of Racial Threat on Political Behavior. *American Journal of Political Science*, 60(1), 123-142, doi:10.1111/ajps.12156.
- Erikson, R. S. (2015). Income inequality and policy responsiveness. *Annual Review of Political Science*, 18, 11-29.
- Estrada-Correa, V., & Johnson, M. (2012). Foreclosure depresses voter turnout: neighborhood disruption and the 2008 presidential election in California. *Social Science Quarterly*, 93(3), 559-576.
- Franko, W. W. (2013). Political Inequality and State Policy Adoption: Predatory Lending, Children's Health Care, and Minimum Wage. *Poverty & Public Policy*, *5*(1), 88-114, doi:10.1002/pop4.17.
- Franko, W. W. (2017). Understanding public perceptions of growing economic inequality. *State Politics & Policy Quarterly*, 17(3), 319-348.
- Gilens, M. (2012). *Affluence and influence: Economic inequality and political power in America*. Princeton University Press.
- Giles, M., & Dantico, M. (1982). Political participation and neighborhood social context revisited. *American Journal of Political Science*, 144-150.
- Giles, M., Wright, G., & Dantico, M. (1981). Social status and political behavior: the impact of residential context. *Social Science Quarterly*, 453-460.
- Gimpel, J. G., & Lay, J. C. (2005). Party Identification, Local Partisan Contexts, and the Acquisition of Participatory Attitudes. In A. D. Zuckerman (Ed.), *The social logic of politics: Personal networks as contexts for political behavior* (pp. 209). Philadelphia: Temple University Press.

- Hainmueller, J., Mummolo, J., & Xu, Y. (2016). How much should we trust estimates from multiplicative interaction models? Simple tools to improve empirical practice. *Political Analysis*, 1-30.
- Hicks, T., Jacobs, A. M., & Matthews, J. S. (2016). Inequality and electoral accountability: Class-biased economic voting in comparative perspective. *The Journal of Politics*, 78(4), 1076-1093.
- Hill, K. Q., & Leighley, J. E. (1992). The policy consequences of class bias in state electorates. *American Journal of Political Science*, 351-365.
- Huckfeldt, R. (1979). Political participation and the neighborhood social context. *American Journal of Political Science*, 579-592.
- Huckfeldt, R. (1984). Political loyalties and social class ties: the mechanisms of contextual influence. *American Journal of Political Science*, 399-417.
- Huckfeldt, R. (1986). *Politics in Context: Assimilation and Conflict in Urban Neighborhoods*. New York: Agathon Press.
- Huckfeldt, R., Plutzer, E., & Sprague, J. (1993). Alternative contexts of political behavior: Churches, neighborhoods, and individuals. *The Journal of Politics*, 55(02), 365-381.
- Jennings, M. K. (1979). Another Look at the Life Cycle and Political Participation. *American Journal of Political Science*, 23(4), 755-771, doi:10.2307/2110805.
- Johnson, M., Shively, W. P., & Stein, R. M. (2002). Contextual data and the study of elections and voting behavior: connecting individuals to environments. *Electoral Studies*, 21(2), 219-233.
- Karadja, M., Mollerstrom, J., & Seim, D. (2017). Richer (and holier) than thou? The effect of relative income improvements on demand for redistribution. *Review of Economics and Statistics*, 99(2), 201-212.
- Kawachi, I., & Kennedy, B. P. (1997). The relationship of income inequality to mortality: does the choice of indicator matter?. Social science & medicine, 45(7), 1121-1127.
- Kelley, H. H. (1952). Two functions of reference groups. In G. Swanson, T. Newcomb, & E. Hartley (Eds.), *Readings in social psychology* (pp. 410-414). New York: Henry Holt.
- Kenworthy, L., & Smeeding, T. (2013). Country Report for the United States. *Growing Inequalities and their Impacts in the United States*,
- Kogan, V., Lavertu, S., & Peskowitz, Z. (2018). Election timing, electorate composition, and policy outcomes: Evidence from school districts. *American Journal of Political Science*, 62(3), 637-651.
- Krieger, N., Waterman, P., Chen, J. T., Soobader, M.-J., Subramanian, S. V., & Carson, R. (2002). Zip Code Caveat: Bias Due to Spatiotemporal Mismatches Between Zip Codes and US Census—Defined Geographic Areas—The Public Health Disparities Geocoding Project. *American Journal of Public Health*, 92(7), 1100-1102.
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1968). *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*: Columbia University Press.

- Leighley, J. E., & Vedlitz, A. (1999). Race, Ethnicity, and Political Participation: Competing Models and Contrasting Explanations. *The Journal of Politics*, 61(4), 1092-1114.
- Luttig, M. (2013). The Structure of Inequality and Americans' Attitudes Toward Redistribution. *Public Opinion Quarterly*, 77(3), 811-821.
- Lyons, J. (2011). Where You Live and Who You Know: Political Environments, Social Pressures, and Partisan Stability. *American Politics Research*, doi:10.1177/1532673x11408233.
- McCall, L. (2005). Do they know and do they care? Americans' awareness of rising inequality. Work. Pap., *Russell Sage Foundation*.
- McCall, L., Burk, D., Laperrière, M., & Richeson, J. A. (2017). Exposure to rising inequality shapes Americans' opportunity beliefs and policy support. *Proceedings of the National Academy of Sciences*, 114(36), 9593-9598.
- Michener, J. (2017) People, Places, Power: Medicaid Concentration and Local Political Participation. *Journal of Health Politics, Policy and Law*, 42(5), 865-900.
- Minkoff, S. L., & Lyons, J. (2019). Living with inequality: Neighborhood income diversity and perceptions of the income gap. *American Politics Research*, 47(2), 329-361.
- Newman, B. J., Johnston, C. D., & Lown, P. L. (2015). False consciousness or class awareness? Local income inequality, personal economic position, and belief in American meritocracy. *American Journal of Political Science*, 59(2), 326-340.
- Ojeda, C. (2018a) The Two Income-Participation Gaps. *American Journal of Political Science*, 62(4), 813–829.
- Ojeda, C. (2018b) Income, Political Participation and the Demands of Everyday Life. Sept. 13 draft. https://www.cjojeda.com/s/Ojeda-demands-paper.pdf, accessed Mar. 18, 2019.
- Oliver, E. (1999). The effects of metropolitan economic segregation on local civic participation. *American Journal of Political Science*, 186-212.
- Pellicer, M., Piraino, P., & Wegner, E. (2017) Perceptions of Inevitability and Demand for Redistribution: Evidence from a Survey Experiment. *Journal of Economic Behavior & Organization*, (January), 1–35.
- Putnam, R. D. (1966). Political attitudes and the local community. *American Political Science Review*, 60(03), 640-654.
- Ritter, M., & Solt, F. (2019). Economic Inequality and Campaign Participation. *Social Science Quarterly*.
- Rosenstone, S. J., & Hansen, J. M. (2002). *Mobilization, Participation, and Democracy in America*: Longman.
- Sands, M. L. (2017). Exposure to inequality affects support for redistribution. *Proceedings of the National Academy of Sciences*, 114(4), 663-668.
- Schlozman, K. L., Verba, S., & Brady, H. E. (2012). *The Unheavenly Chorus: Unequal political voice and the broken promise of American democracy*. Princeton: Princeton University Press.

- Silver, B. D., Anderson, B. A., & Abramson, P. R. (1986). Who overreports voting?. *American Political Science Review*, 80(2), 613-624.
- Solt, F. (2008). Economic inequality and democratic political engagement. *American Journal of Political Science*, 52(1), 48-60.
- Solt, F. (2010). Does economic inequality depress electoral participation? Testing the Schattschneider hypothesis. *Political Behavior*, 32(2), 285-301.
- Solt, F., Hu, Y., Hudson, K., Song, J., & Yu, D. E. (2016). Economic inequality and belief in meritocracy in the United States. *Research & Politics*, 3(4), 2053168016672101.
- Solt, F., Hu, Y., Hudson, K., Song, J., & Yu, D. E. (2017). Economic inequality and class consciousness. *The Journal of Politics*, 79(3), 1079-1083.
- Stoker, L., & Jennings, M. K. (1995). Life-Cycle Transitions and Political Participation: The Case of Marriage. *American Political Science Review*, 89(02), 421-433, doi:doi:10.2307/2082435.
- Trump, K. (2018) Income Inequality Influences Perceptions of Legitimate Income Differences. *British Journal of Political Science* 48, 929–952.
- Trump, K. (2019) Public Reactions to Increasing Income Inequality. Presented at the Anxieties of Democracy Workshop, Bamberg, Germany, March 7, 2019.
- Uslaner, E. M., & Brown, M. (2005). Inequality, Trust, and Civic Engagement. *American Politics Research*, 33(6), 868-894, doi:10.1177/1532673x04271903.
- Velez, Y. R., & Wong, G. (2017). Assessing contextual measurement strategies. *The Journal of Politics*, 79(3), 1084-1089.
- Verba, S., Burns, N., & Schlozman, K. L. (1997). Knowing and Caring about Politics: Gender and Political Engagement. *The Journal of Politics*, 59(4), 1051-1072.
- Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Cambridge, MA: Harvard University Press.
- Weinberg, D. H. (2011). US neighborhood income inequality in the 2005–2009 period. American Community Survey report
- Wright, G. C. (1977). Contextual models of electoral behavior: The southern Wallace vote. *American Political Science Review*, 71(02), 497-508.

# Online Appendix for "Community Income Inequality and the Economic Gap in Participation"

#### A. Instrument Details

The instrument, *Predicted Gini*, is generated by fixing the income distribution in zip codes in 2000 and then simulating the level of income inequality at the zip code level in 2012 and in 2016 using only changes in the national income distribution. <sup>16</sup> The logic of the instrument is that the local income distribution is locked into place in 2000 and changes in the income distribution in subsequent years are only based on national income growth. By construction, the instrument is not affected by the movement of individuals between zip-codes and, thus, is not correlated with individuals' tastes for more or less equal communities. This rules out the possibility that high or low income individuals move between communities with different levels of income inequality because of their propensity to participate in politics. In addition, the instrument is orthogonal to changes in local income inequality after 2000 that are the result of policies enacted that were favored by wealthy individuals. This precludes the possibility that the results of our analyses are driven by reverse causality.

The results of the first stage models are displayed in Tables A.1, A.2, and A.3. Each cell of the table displays the results of the first stage of the instrumental variable models for each income quintile with the pooled data (Table A.1), the 2012 data (Table A.2), and the 2016 data (Table A.3). Across all of the income groups in each year there is a very strong and positive

<sup>&</sup>lt;sup>16</sup> To generate the instrument, we first use the 2000 Decennial Census data at the zip code level to tally the number of households in each zip code in ten different income bins. The 2000 Decennial Census reports the number of individuals in the following income bins at the zip code level: income less than \$10,000; \$10,000-\$14,999; \$15,000-\$24,999; \$25,000-\$24,999; \$35,000-\$49,999; \$50,000-\$74,999; \$75,000-\$99,999; \$100,000-149,999; \$150,000-\$199,999; income greater than \$200,000. Second, we take the end point of each income bin and calculate its percentile rank in the national income distribution in 2000 using Census microdata. Third, we estimate the endpoints for the ten percentile ranges for each subsequent year in the data (2012, and 2016). For example, the first income bin includes households that earn \$10,000 per year or less. This is equal to the 10.13th percentile of the national income distribution in 2000. So, in 2012 and 2016 a household will fall into the bottom income bin if the household income is below the 10.13th percentile in that year. Next, we calculate the median income in each percentile range with the Census microdata for each year. Finally, we use the original number of households in each income bin from the 2000 census and the median incomes for each percentile range in 2012 and 2016 to calculate the predicted Gini coefficient for 2012 and 2016.

relationship between the actual zip code-level Gini coefficient and the predicted Gini coefficient. The coefficient on the predicted Gini variable ranges from 0.838 to 0.969 and is statistically significant (p<.01). This provides strong evidence in support of the assumption that there is a strong first stage, which is necessary for unbiased instrumental variables estimates.

Table A.1. The Effects of Income Inequality on Political Participation (2012 and 2016 Pooled IV First Stage)

	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Predicted Gini	0.948**	0.854**	0.838**	0.875**	0.896**
	(0.030)	(0.057)	(0.047)	(0.028)	(0.035)

Notes: Each cell is the coefficient from the first-stage of a separate IV regression. Robust standard errors clustered by zip code in parentheses. †p<.1; \*p<.05; \*\*p<.01

Table A.2. The Effects of Income Inequality on Political Participation (2012 IV Probit First Stage)

	Low	Low/Med	Med	Med/High	High		
	Income	Income	Income	Income	Income		
Predicted Gini	0.969**	0.889**	0.835**	0.889**	0.944**		
	(0.0373)	(0.0395)	(0.0758)	(0.0359)	(0.0397)		

Notes: Each cell is the coefficient from the first-stage of a separate IV Probit regression. Robust standard errors clustered by zip code in parentheses. †p<.1; \*p<.05; \*\*p<.01

Table A.3. The Effects of Income Inequality on Political Participation (2016 IV Probit First Stage)

	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Predicted Gini	0.914**	0.803**	0.868**	0.861**	0.863**
	(0.0337)	(0.117)	(0.0282)	(0.0422)	(0.0602)

Notes: Each cell is the coefficient from the first-stage of a separate IV Probit regression. Robust standard errors clustered by zip code in parentheses.  $^{\dagger}p<.1$ ; \*p<.05; \*\*p<.01

## **B.** Instrumental Variables Models

Toolea Data (TV Estili	iaicsj				
	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Instrumented Gini	-0.755	1.118	2.565	3.119 <sup>†</sup>	6.387**
(zipcode)	(1.679)	(1.790)	(1.617)	(1.744)	(1.433)
Income	0.0672*	0.0185	0.00416	0.0533	$0.0655^{\dagger}$
	(0.0290)	(0.0350)	(0.0384)	(0.0558)	(0.0387)
Education	0.360**	0.438**	0.450**	0.374**	0.373**
	(0.0626)	(0.0731)	(0.0563)	(0.0644)	(0.0576)
Age	-0.00648	-0.00288	-0.00726	-0.00285	-0.00427
•	(0.00582)	(0.00502)	(0.00483)	(0.00655)	(0.00680)
Female	-0.132	-0.314*	-0.118	-0.153	-0.112
	(0.129)	(0.126)	(0.121)	(0.135)	(0.119)
Black	-0.0107	0.0734	-0.228	-0.181	-0.0739
	(0.215)	(0.296)	(0.238)	(0.272)	(0.400)
Hispanic	-0.249	-0.301	-0.272	-0.419	0.0223
	(0.209)	(0.196)	(0.224)	(0.289)	(0.215)
Asian	-1.519**	-0.413	-0.691	-1.325**	-0.939**
	(0.345)	(0.384)	(0.511)	(0.405)	(0.318)
Other race	-0.0862	0.156	-0.279	0.00397	0.626*
	(0.272)	(0.297)	(0.243)	(0.381)	(0.318)
Married	0.0271	0.0177	0.354**	-0.0991	0.143
	(0.145)	(0.132)	(0.127)	(0.165)	(0.150)
Children	0.0421	-0.0219	-0.177**	-0.174*	-0.187**
	(0.0643)	(0.0663)	(0.0579)	(0.0715)	(0.0569)
Union	0.672*	0.504*	0.0328	0.0830	0.254
	(0.292)	(0.205)	(0.142)	(0.157)	(0.161)
Employment status	-0.223	-0.269*	-0.147	-0.414**	-0.680**
	(0.141)	(0.136)	(0.130)	(0.150)	(0.140)
Church attendance	0.0610	-0.0284	0.0464	0.00194	0.0499
	(0.0387)	(0.0378)	(0.0337)	(0.0378)	(0.0337)
Strong Partisan	0.507**	0.216*	0.254**	0.432**	0.296**
	(0.0881)	(0.0890)	(0.0851)	(0.0844)	(0.0798)
Republican	$0.281^{\dagger}$	-0.187	0.0851	-0.113	-0.502**
	(0.165)	(0.143)	(0.136)	(0.154)	(0.123)
Independent	-0.317†	-0.890**	-0.891**	-0.315	-0.824**
	(0.179)	(0.182)	(0.183)	(0.237)	(0.261)
Community mean	7.55e-06*	3.60e-06	$4.81e-06^{\dagger}$	2.03e-06	-2.04e-06
household income	(2.98e-06)	(2.96e-06)	(2.57e-06)	(2.69e-06)	(1.90e-06)
Community percentage	-0.00164	3.36e-05	0.00945*	-0.00253	-0.00158
Hispanic	(0.00335)	(0.00334)	(0.00409)	(0.00433)	(0.00410)
Community percentage	0.00535	0.00838*	0.00194	0.00366	-0.00480
Black	(0.00384)	(0.00394)	(0.00404)	(0.00458)	(0.00601)
2016 Dummy	0.316	0.157	0.157	-0.114	-0.0398
	(0.301)	(0.252)	(0.242)	(0.307)	(0.310)
Constant	0.441	0.826	-0.110	-0.445	-1.578
	(0.813)	(0.842)	(0.930)	(1.442)	(1.030)
N	1,876	1,750	1,676	1,426	1,531

Notes: Coefficients from two-stage least squares models with dependent variable measuring the number of 11 forms of participation in which a respondent reported engaging in the 2012 and 2016 ANES. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

Table A.5. The Effects of Income Inequality on Political Participation, 2012 (IV Estimates)

Table A.5. The Effects	of income the	quanty on Pon	ucai Participa	11011, 2012 (1 V .	Estimates)
	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Instrumented Gini	-0.0478	0.455	0.859	5.065*	8.522**
(zipcode)	(1.962)	(2.426)	(2.530)	(2.425)	(1.887)
Income	0.0841*	0.0314	0.0546	0.0778	0.0661
	(0.0428)	(0.0458)	(0.0641)	(0.0678)	(0.0487)
Education	0.510**	0.372**	0.465**	0.371**	0.506**
	(0.0869)	(0.101)	(0.0839)	(0.0870)	(0.0748)
Age	0.0364	0.0115	0.0809**	$0.0713^{\dagger}$	0.106**
	(0.0278)	(0.0367)	(0.0303)	(0.0407)	(0.0382)
Female	-0.212	-0.365*	-0.152	-0.231	0.0152
	(0.161)	(0.171)	(0.171)	(0.184)	(0.170)
Black	-0.0391	0.347	0.135	0.0155	0.470
	(0.292)	(0.404)	(0.329)	(0.333)	(0.606)
Hispanic	-0.409	-0.130	-0.235	-0.376	0.206
•	(0.272)	(0.259)	(0.301)	(0.404)	(0.313)
Asian	-2.030**	-0.568	-0.880	-1.129	-0.750
	(0.347)	(0.553)	(0.928)	(0.690)	(0.523)
Other race	0.452	0.197	-0.408	-0.0323	$0.607^{\dagger}$
	(0.362)	(0.397)	(0.359)	(0.655)	(0.338)
Married	-0.0573	0.00496	0.271	-0.0922	0.0382
	(0.206)	(0.181)	(0.180)	(0.207)	(0.214)
Children	0.192 <sup>†</sup>	-0.0695	-0.0758	-0.155	-0.130
	(0.105)	(0.107)	(0.0959)	(0.101)	(0.0882)
Union	0.845*	0.532*	0.0811	0.105	0.156
	(0.377)	(0.269)	(0.199)	(0.199)	(0.200)
Employment status	-0.260	-0.196	-0.00318	-0.493*	-0.556**
1 ,	(0.201)	(0.206)	(0.178)	(0.214)	(0.184)
Church attendance	0.130**	0.0123	0.00439	0.0228	0.00661
	(0.0500)	(0.0474)	(0.0448)	(0.0556)	(0.0474)
Strong Partisan	0.550**	0.151	$0.233^{\dagger}$	0.559**	0.445**
C	(0.120)	(0.117)	(0.125)	(0.109)	(0.117)
Republican	0.424 <sup>†</sup>	-0.112	0.303	0.0433	-0.275
1	(0.227)	(0.194)	(0.200)	(0.206)	(0.172)
Independent	-0.280	-0.921**	-0.877**	-0.0284	-0.333
1	(0.229)	(0.238)	(0.266)	(0.313)	(0.351)
Community mean	9.56e-06*	6.63e-06	2.24e-06	2.94e-06	-5.07e-06 <sup>†</sup>
household income	(3.92e-06)	(4.47e-06)	(4.18e-06)	(4.05e-06)	(2.65e-06)
Community percentage	0.000456	0.000887	$0.00958^{\dagger}$	-0.00394	-0.00986*
Hispanic	(0.00444)	(0.00408)	(0.00542)	(0.00600)	(0.00495)
Community percentage	0.00587	$0.00832^{\dagger}$	0.000665	0.00922†	-0.00331
Black	(0.00514)	(0.00492)	(0.00518)	(0.00554)	(0.0102)
Constant	-0.942	0.828	-0.729	-2.706	-3.914**
	(0.972)	(1.192)	(1.514)	(1.972)	(1.340)
N	1,212	1,106	955	839	896
= 1	- ,— <b>. =</b>	-,-00			-, -

Notes: Coefficients from two-stage least squares models with dependent variable measuring the number of 11 forms of participation in which a respondent reported engaging in the 2012 ANES. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

Table A.6. The Effects of Income Inequality on Political Participation, 2016 (IV Estimates)

Table A.6. The Effects	of income the	quality on Poll	ilicai Participa	tion, 2016 (1V .	Estimates)
	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Instrumented Gini	-1.255	2.078	$3.413^{\dagger}$	0.258	2.560
(zipcode)	(2.984)	(2.474)	(1.838)	(2.370)	(1.795)
Income	0.0470	-0.00343	-0.0453	-0.0216	0.0810
	(0.0378)	(0.0532)	(0.0412)	(0.0904)	(0.0567)
Education	0.165*	0.507**	0.448**	0.368**	0.160*
	(0.0831)	(0.0953)	(0.0705)	(0.0916)	(0.0817)
Age	-0.00564	-0.00203	-0.0103*	0.00287	-0.00313
	(0.00621)	(0.00530)	(0.00509)	(0.00732)	(0.00705)
Female	-0.0165	-0.293 <sup>†</sup>	-0.110	-0.0644	-0.0847
	(0.203)	(0.173)	(0.152)	(0.181)	(0.162)
Black	0.0123	-0.188	-0.733*	-0.836 <sup>†</sup>	-0.855*
	(0.318)	(0.359)	(0.310)	(0.458)	(0.337)
Hispanic	0.0502	-0.521 <sup>†</sup>	-0.108	-0.469	-0.234
•	(0.313)	(0.313)	(0.302)	(0.371)	(0.276)
Asian	-0.612 <sup>†</sup>	-0.146	-0.408	-1.273**	-0.849*
	(0.368)	(0.473)	(0.496)	(0.450)	(0.381)
Other race	-0.761*	0.289	0.0128	-0.0613	0.676
	(0.361)	(0.412)	(0.277)	(0.409)	(0.677)
Married	-0.155	0.0350	0.336*	-0.280	0.138
	(0.187)	(0.173)	(0.162)	(0.246)	(0.212)
Children	-0.0547	0.0904	-0.178*	-0.0581	-0.159*
	(0.0802)	(0.101)	(0.0775)	(0.112)	(0.0714)
Union	0.485	$0.558^{\dagger}$	0.00429	0.0410	$0.446^{\dagger}$
	(0.443)	(0.304)	(0.180)	(0.236)	(0.244)
Employment status	-0.125	-0.295	-0.144	-0.00828	-0.695**
	(0.198)	(0.199)	(0.178)	(0.223)	(0.228)
Church attendance	-0.0575	-0.121*	0.0784	-0.0480	0.0875*
	(0.0570)	(0.0555)	(0.0480)	(0.0488)	(0.0446)
Strong Partisan	0.437**	0.336*	0.286**	$0.227^{\dagger}$	0.150
	(0.120)	(0.136)	(0.0985)	(0.132)	(0.104)
Republican	0.128	-0.264	-0.236	-0.291	-0.783**
	(0.215)	(0.201)	(0.161)	(0.209)	(0.170)
Independent	-0.342	-0.826**	-0.893**	$-0.657^{\dagger}$	-1.517**
	(0.267)	(0.278)	(0.249)	(0.354)	(0.369)
Community mean	6.50e-06	-9.37e-07	7.09e-06*	2.25e-06	1.13e-06
household income	(4.20e-06)	(3.23e-06)	(2.87e-06)	(3.12e-06)	(2.42e-06)
Community percentage	-0.00397	-0.00523	0.00708	0.00246	0.0139*
Hispanic	(0.00467)	(0.00560)	(0.00524)	(0.00603)	(0.00625)
Community percentage	0.00573	0.00796	0.00583	0.000865	-0.00107
Black	(0.00579)	(0.00538)	(0.00655)	(0.00765)	(0.00556)
Constant	1.932	0.890	0.506	2.376	0.287
	(1.533)	(1.210)	(1.132)	(2.215)	(1.650)
N	664	644	721	587	635

Notes: Coefficients from two-stage least squares models with dependent variable measuring the number of 11 forms of participation in which a respondent reported engaging in the 2016 ANES. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

**Table A.7. The Effects of Income Inequality on Political Participation, 2012 (IV Probit Estimates)** 

	Τ	T/N / - 1	M - 1	N. ( - 1/TT: - 1.	TT: . 1.
	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Use Button, Sticker,	1.402	0.0498	0.843	-0.106	5.352**
Yard Sign	(1.306)	(1.737)	(1.748)	(1.791)	(1.546)
<b>Discuss Politics</b>	-1.559	-1.433	1.122	2.229	0.665
	(1.194)	(1.579)	(1.715)	(1.706)	(1.669)
Persuade Others	-2.149 <sup>†</sup>	1.739	0.569	0.573	3.050*
	(1.281)	(1.444)	(1.572)	(1.676)	(1.439)
Attend Rally	1.966	1.190	3.137	0.474	0.347
	(1.560)	(2.059)	(2.762)	(2.152)	(1.741)
Contact Government	0.994	-1.596	0.565	4.219**	2.131
	(1.803)	(1.739)	(1.758)	(1.452)	(1.379)
Use Facebook or	1.072	0.634	1.173	4.707**	2.019
Twitter	(1.653)	(1.805)	(1.824)	(1.673)	(1.510)
Donate Money	0.397	1.282	-1.084	2.499	5.813**
	(1.943)	(1.876)	(1.927)	(1.693)	(1.369)
Sign Paper Petition	-0.134	1.451	-2.407	3.396*	1.623
	(1.609)	(1.616)	(1.624)	(1.438)	(1.327)
Sign Online Petition	2.259	-1.665	0.512	1.069	4.286**
	(1.427)	(1.569)	(1.661)	(1.493)	(1.283)
Vote	-0.554	-1.056	-0.944	0.809	1.459
	(1.481)	(1.677)	(2.091)	(1.827)	(1.921)
Work for Party or	0.462	2.513	4.930 <sup>†</sup>	-2.571	4.473**
Candidate	(1.757)	(1.825)	(2.842)	(3.099)	(1.657)

Notes: Each cell is the coefficient from a separate instrumental variable probit regression of local level instrumented Gini on the listed form of political participation from the 2012 ANES data. IV probit regressions also include the control variables described in the text. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

**Table A.8. The Effects of Income Inequality on Political Participation, 2016 (IV Probit Estimates)** 

	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Use Button, Sticker,	0.613	1.798	$3.055^{\dagger}$	-0.251	0.824
Yard Sign	(1.906)	(1.933)	(1.754)	(2.157)	(1.660)
Discuss Politics	1.158	2.120	-0.574	-6.272**	0.500
	(1.774)	(1.999)	(1.785)	(1.987)	(1.919)
Persuade Others	-0.625	-2.017	0.0783	1.074	0.348
	(1.470)	(1.822)	(1.520)	(1.588)	(1.289)
Attend Protest	-2.488	-1.397	0.375	2.475	7.189**
	(2.402)	(3.338)	(2.534)	(2.890)	(2.681)
Attend Rally	2.208	2.911	0.971	2.315	3.482 <sup>†</sup>
	(2.096)	(1.856)	(2.081)	(2.115)	(1.885)
Contact Government	-5.958**	5.163*	2.839	-4.979*	0.206
	(2.157)	(2.045)	(1.997)	(1.991)	(1.633)
Use Facebook or	-0.877	0.163	0.0815	2.387	-0.771
Twitter	(1.596)	(2.041)	(1.569)	(1.549)	(1.311)
Donate Money	-1.320	2.813	2.217	-1.637	0.159
	(1.794)	(2.023)	(1.628)	(1.876)	(1.620)
Sign Petition	-5.135**	0.767	3.551*	1.667	1.720
	(1.666)	(2.398)	(1.613)	(1.658)	(1.427)
Vote	3.485*	-0.634	$3.160^{\dagger}$	1.459	2.581
	(1.622)	(2.239)	(1.766)	(2.228)	(1.866)
Work for Party or	-2.751	5.700*	2.320	2.389	2.500
Candidate	(2.461)	(2.882)	(1.949)	(2.674)	(1.756)

Notes: Each cell is the coefficient from a separate instrumental variable probit regression of local level instrumented Gini on the listed form of political participation from the 2016 ANES data. IV probit regressions also include the control variables described in the text. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

### C. Income Quintile Creation

The American Community Survey 1 year estimates for Household Income Quintile Upper Limits (<a href="https://factfinder.census.gov/bkmk/table/1.0/en/ACS/12\_1YR/B19080/0100000US|0100000US.">https://factfinder.census.gov/bkmk/table/1.0/en/ACS/12\_1YR/B19080/0100000US|0100000US.</a> 16000.003) for 2012 are as follows:

Lowest quintile \$20968 Second quintile \$40352 Third quintile \$64536 Fourth quintile \$103093

We used these quintiles to separate 2012 ANES respondents into five groups, using the 28 income categories provided in the ANES.

Lowest quintile Under \$5000 to \$17500-19999

Second quintile \$20000-22499 to \$35000-39999

Third quintile \$40000-44999 to \$60000-64999

Fourth quintile \$65000-69999 to \$90000-99999

Fifth quintile \$100000-109999 to \$250000 or more

The American Community Survey 1 year estimates for Household Income Quintile Upper Limits (<a href="https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16\_1YR/B19080/0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|010000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|0100000US|010000000US|0100000US|0100000US|0100000US|010000US|010000US|0100000US|0

Lowest quintile \$23638 Second quintile \$45325 Third quintile \$72384 Fourth quintile \$116614

We used these quintiles to separate 2016 ANES respondents into five groups, using the 28 income categories provided in the ANES.

Lowest quintile Under \$5000 to \$20000-22499

Second quintile \$22500-24999 to \$40000-44999

Third quintile \$45000-49999 to \$70000-74999

Fourth quintile \$75000-79999 to \$100000-109999

Fifth quintile \$110000-124999 to \$250000 or more

## D. Separate 2012 and 2016 Results

Table A.9. The Effects of Income Inequality on Political Participation, 2012

Table A.9. The Effects of	of Income Ineq	uality on Poli	tical Participa	tion, 2012	
	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Community Income	0.201	1.573	0.710	4.598*	4.971**
Inequality	(1.648)	(1.958)	(1.782)	(1.910)	(1.606)
Income	$0.0770^{\dagger}$	0.0372	0.0734	0.0682	0.0703
	(0.0432)	(0.0457)	(0.0641)	(0.0674)	(0.0483)
Education	0.522**	0.369**	0.473**	0.376**	0.517**
	(0.0868)	(0.101)	(0.0827)	(0.0863)	(0.0771)
Age	0.0279	0.0149	0.0866**	$0.0748^\dagger$	0.0968*
	(0.0281)	(0.0361)	(0.0304)	(0.0401)	(0.0413)
Female	-0.195	$-0.326^{\dagger}$	-0.154	-0.221	-0.0951
	(0.164)	(0.171)	(0.170)	(0.184)	(0.185)
Black	-0.0836	0.210	0.236	-0.00774	0.302
	(0.292)	(0.394)	(0.326)	(0.336)	(0.587)
Hispanic	$-0.474^{\dagger}$	-0.174	-0.191	-0.472	0.129
	(0.275)	(0.257)	(0.300)	(0.405)	(0.320)
Asian	-2.103**	-0.617	-0.859	-1.157	-0.728
	(0.335)	(0.520)	(0.935)	(0.709)	(0.540)
Other race	0.453	0.153	-0.304	-0.0451	0.424
	(0.360)	(0.400)	(0.355)	(0.650)	(0.377)
Married	-0.0192	-0.00397	0.245	-0.0632	-0.0451
	(0.207)	(0.178)	(0.179)	(0.209)	(0.218)
Children	$0.192^{\dagger}$	-0.0534	-0.0331	-0.148	-0.140
	(0.106)	(0.104)	(0.0967)	(0.0997)	(0.0857)
Union	0.768*	0.558*	0.106	0.0854	0.102
	(0.374)	(0.267)	(0.199)	(0.197)	(0.202)
Employment status	-0.250	-0.192	-0.0108	-0.510*	-0.635**
	(0.201)	(0.203)	(0.178)	(0.214)	(0.195)
Church attendance	0.132**	0.00749	0.00696	0.0122	0.0393
	(0.0502)	(0.0465)	(0.0451)	(0.0555)	(0.0549)
Strong Partisan	0.545**	0.130	$0.229^{\dagger}$	0.550**	0.437**
	(0.120)	(0.116)	(0.121)	(0.109)	(0.122)
Republican	$0.388^{\dagger}$	-0.132	0.273	0.0464	-0.376*
	(0.228)	(0.192)	(0.199)	(0.204)	(0.172)
Independent	-0.290	-0.932**	-0.868**	-0.0295	-0.386
	(0.230)	(0.236)	(0.266)	(0.316)	(0.348)
Community mean	0.0000098*	0.000007	0.0000007	0.000004	-0.000003
household income	(0.000004)	(0.000005)	(0.000004)	(0.000004)	(0.000003)
Community percentage	0.000941	0.00183	0.00880	-0.00295	-0.00867 <sup>†</sup>
Hispanic	(0.00442)	(0.00397)	(0.00540)	(0.00592)	(0.00503)
Community percentage	0.00565	$0.00860^{\dagger}$	-0.00106	$0.00960^{\dagger}$	-0.00607
Black	(0.00516)	(0.00493)	(0.00518)	(0.00556)	(0.0107)
Constant	-0.994	0.283	-0.898	-2.374	-2.424 <sup>†</sup>
	(0.853)	(1.012)	(1.270)	(1.789)	(1.339)
N	1,245	1,129	981	868	914
•	, -	, -	-		

Notes: Coefficients from OLS models with dependent variable measuring the number of 11 forms of participation in which a respondent reported engaging in the 2012 ANES. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

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Table A.10. The Effects of Income Inequality on Political Participation, 2016

Table A.10. The Effects of Income Inequality on Political Participation, 2016							
	Low	Low/Med	Med	Med/High	High		
	Income	Income	Income	Income	Income		
Community Income	0.867	1.197	3.669*	-0.0597	3.590*		
Inequality	(1.784)	(1.922)	(1.506)	(1.804)	(1.416)		
Income	0.0437	-0.00294	-0.0574	-0.0103	0.0712		
	(0.0384)	(0.0535)	(0.0411)	(0.0909)	(0.0566)		
Education	0.139 <sup>†</sup>	0.507**	0.473**	0.365**	0.164*		
	(0.0841)	(0.0943)	(0.0692)	(0.0905)	(0.0770)		
Age	-0.00498	-0.00125	$-0.00844^{\dagger}$	0.00201	-0.00205		
	(0.00612)	(0.00525)	(0.00492)	(0.00731)	(0.00703)		
Female	0.0359	-0.311 <sup>†</sup>	-0.137	-0.0506	-0.0669		
	(0.201)	(0.174)	(0.151)	(0.182)	(0.160)		
Black	0.00522	-0.207	-0.792**	-0.842†	-0.752*		
	(0.298)	(0.358)	(0.293)	(0.464)	(0.319)		
Hispanic	0.0376	$-0.526^{\dagger}$	-0.173	-0.455	-0.167		
	(0.311)	(0.315)	(0.298)	(0.367)	(0.273)		
Asian	-0.571	-0.456	-0.495	-1.252**	-0.826*		
	(0.370)	(0.507)	(0.487)	(0.455)	(0.357)		
Other race	-0.749*	0.253	-0.0225	-0.0591	0.623		
	(0.366)	(0.419)	(0.283)	(0.414)	(0.653)		
Married	-0.135	0.0510	0.335*	-0.228	0.102		
	(0.187)	(0.175)	(0.161)	(0.246)	(0.210)		
Children	-0.0601	0.0671	-0.186*	-0.0675	$-0.137^{\dagger}$		
	(0.0809)	(0.0986)	(0.0775)	(0.113)	(0.0705)		
Union	0.520	$0.542^{\dagger}$	0.0373	0.0241	$0.425^{\dagger}$		
	(0.459)	(0.311)	(0.183)	(0.239)	(0.242)		
Employment status	-0.105	-0.242	-0.0982	0.0207	-0.654**		
	(0.198)	(0.199)	(0.174)	(0.225)	(0.229)		
Church attendance	-0.0547	-0.125*	$0.0812^{\dagger}$	-0.0548	0.0672		
	(0.0565)	(0.0556)	(0.0471)	(0.0492)	(0.0429)		
Strong Partisan	0.424**	0.332*	0.273**	$0.236^{\dagger}$	0.168		
	(0.119)	(0.136)	(0.0988)	(0.131)	(0.103)		
Republican	0.0912	-0.237	$-0.268^{\dagger}$	-0.314	-0.752**		
	(0.213)	(0.200)	(0.160)	(0.209)	(0.167)		
Independent	-0.380	-0.750**	-0.914**	$-0.629^{\dagger}$	-1.542**		
	(0.269)	(0.285)	(0.247)	(0.354)	(0.353)		
Community mean	0.000006	-0.000001	0.000006*	0.000003	0.000001		
household income	(0.000004)	(0.000003)	(0.000003)	(0.000003)	(0.000002)		
Community percentage	-0.00447	-0.00402	0.00706	0.00222	$0.0120^{\dagger}$		
Hispanic	(0.00462)	(0.00549)	(0.00503)	(0.00604)	(0.00617)		
Community percentage	0.00414	0.00818	0.00665	0.000996	-0.00349		
Black	(0.00578)	(0.00543)	(0.00671)	(0.00779)	(0.00544)		
Constant	1.059	1.177	0.525	2.244	0.0215		
	(1.063)	(1.022)	(1.038)	(2.039)	(1.570)		
N	676	662	742	601	667		

Notes: Coefficients from OLS models with dependent variable measuring the number of 11 forms of participation in which a respondent reported engaging in the 2016 ANES. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

Table A.11. The Effects of Income Inequality on Political Participation, 2012

		- 1		- I	
	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Use Button, Sticker,	3.171	0.68	1.272	-0.54	5.307*
Yard Sign	(1.967)	(2.508)	(2.562)	(2.793)	(2.467)
Discuss Politics	-1.482	0.203	2.990	4.829*	0.855
	(2.589)	(2.112)	(2.365)	(2.359)	(2.314)
Persuade Others	-2.386	1.859	-0.0111	0.0745	2.569
	(1.725)	(1.771)	(1.828)	(2.245)	(1.887)
Attend Rally	3.43	4.651	1.438	-1.811	0.546
•	(2.688)	(4.086)	(4.184)	(4.032)	(3.092)
Contact Government	0.532	-2.065	-0.331	5.789**	2.652
	(2.218)	(2.503)	(2.339)	(2.083)	(1.786)
Use Facebook or	-0.434	-1.382	1.533	4.571*	0.715
Twitter	(2.139)	(2.630)	(2.275)	(2.221)	(2.233)
Donate Money	2.444	3.717	-1.713	4.625 <sup>†</sup>	6.584**
	(3.202)	(2.701)	(2.657)	(2.363)	(2.338)
Sign Paper Petition	-1.247	$4.000^{\dagger}$	-1.914	4.791*	1.475
	(2.239)	(2.358)	(1.927)	(1.883)	(1.860)
Sign Online Petition	2.493	0.774	0.411	$3.335^{\dagger}$	5.210**
	(2.013)	(2.034)	(2.080)	(1.908)	(1.670)
Vote	0.683	-0.777	1.633	6.114 <sup>†</sup>	1.417
	(2.130)	(2.325)	(2.465)	(3.165)	(2.933)
Work for Party or	0.236	3.261	5.292	-5.099	1.894
Candidate	(3.942)	(2.976)	(4.803)	(6.709)	(3.414)

Notes: Each cell is the coefficient from a separate probit regression of local level Gini on the listed form of political participation from the 2012 ANES data. Probit regressions also include the control variables described in the paper text. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1

Table A.12. The Effects of Income Inequality on Political Participation, 2016

	Low	Low/Med	Med	Med/High	High
	Income	Income	Income	Income	Income
Use Button, Sticker,	-1.062	2.548	3.756	-3.185	0.949
Yard Sign	(2.651)	(2.646)	(2.567)	(3.214)	(2.717)
Discuss Politics	1.317	-1.813	-2.212	-8.304**	3.652
	(2.230)	(2.160)	(2.411)	(2.696)	(3.717)
Persuade Others	0.374	-1.928	0.331	0.243	0.902
	(1.876)	(2.055)	(1.914)	(1.934)	(1.702)
Attend Protest	-2.028	1.309	3.950	$7.724^{\dagger}$	$9.231^{\dagger}$
	(3.600)	(6.906)	(4.923)	(4.313)	(4.759)
Attend Rally	4.943	7.582*	2.254	3.411	5.929 <sup>†</sup>
	(3.244)	(3.442)	(3.384)	(3.011)	(3.498)
Contact Government	-6.511 <sup>†</sup>	6.156*	2.778	-5.566 <sup>†</sup>	2.045
	(3.761)	(2.944)	(3.054)	(3.006)	(2.080)
Use Facebook or	2.693	-1.692	2.573	$3.419^{\dagger}$	1.52
Twitter	(1.998)	(2.162)	(2.115)	(1.899)	(1.728)
Donate Money	2.605	$4.602^{\dagger}$	5.620*	-2.756	2.703
	(2.576)	(2.787)	(2.517)	(2.762)	(2.050)
Sign Petition	-5.510*	-0.374	5.586**	1.504	3.818*
	(2.448)	(2.389)	(2.155)	(2.122)	(1.931)
Vote	2.415	2.698	5.548*	3.112	1.994
	(2.128)	(2.382)	(2.511)	(3.250)	(2.755)
Work for Party or	-0.224	5.964	6.134	3.683	8.615*
Candidate	(4.376)	(4.535)	(4.392)	(4.972)	(3.835)

Notes: Each cell is the coefficient from a separate probit regression of local level Gini on the listed form of political participation from the 2016 ANES data. Probit regressions also include the control variables described in the paper text. Robust standard errors clustered by zip code in parentheses. \*\* p<0.01, \* p<0.05, † p<0.1