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IZA DP No. 13724

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ABSTRACT

The Effect of Community Size on Electoral Preferences: Evidence From Post-WWII Southern Germany*

Populous communities often prefer more government involvement than less populous communities, but does community size per se affect citizens' preferences for government? Endogeneity commonly prevents testing for causal effects because (i) people can select into communities while (ii) government structures can affect community size (e.g., by en- or discouraging migration and fertility decisions). This paper studies a plausibly exogenous setting from post-WWII Baden-Württemberg (located in Southern Germany), in which the French occupation zone prevented the entry of Ger- man expellees after 1945, whereas the U.S. occupied zone did not. Consequently, municipalities on the U.S. side, just across the border from the French zone, experienced large and relatively homogenous population shocks. Studying voting patterns in the 1949 national- and 1952 state-level elections for 828 municipalities, we find more populous municipalities systematically preferred the SPD (Sozialdemokratische Partei Deutschlands), the party advocating for greater government involvement in virtually all areas of policymaking, over the CDU (Christlich Demokratische Union), the major conservative party that emphasized free markets. Our results hold when accounting for a host of potential confounding factors, county-fixed effects, pre-WWII vote shares, employing fractional response models and alternative instrumental variable specifications. Our benchmark estimates imply that a one standard deviation increase in population size (equivalent to ≈4,000 citizens) raised the SPD vote share by more than 11 percentage points.

JEL Classification: D61, D72, H11, N44

Keywords: community size, government size, voting preferences, public good provision

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1 Introduction

Within the U.S. and other Western democracies, a distinct cleavage in voting patterns has emerged between more and less populous communities – a phenomenon sometimes labeled the *urban-rural political divide* (e.g., see Niskanen Center, 2019, and Rodden, 2019). The average voter based in more populated communities often votes for candidates who advocate for a more pronounced role of government in a range of relevant areas, from social security and redistribution, public transport and infrastructure to health care and education.

Why would community size *per se* affect individuals' preferences for the role of government? At the national level, Alesina and Wacziarg (1998) introduce a basic theoretical framework suggesting populous countries can afford smaller governments in per capita terms. Consistent with an economies-of-scale argument, some public services may require relatively large setup costs (also see Alesina, 2003), which leaves smaller countries with larger per-capita bills. Larger societies may also incur larger 'administrative and congestion costs' (Oakland, 1972; Alesina, 2003, p.304) however. Everything else equal, larger populations are associated with more heterogeneous sets of preferences across citizens – characteristics that may complicate the coordination of everyday life between individuals and interest groups (e.g., by increasing the need for regulation, more refined social programs and crime prevention) and the prevention of conflict (see Krieger and Meierrieks, 2019, for a contemporary summary of these arguments). Lassen and Serritzlew (2011) for example, provide evidence from a municipal reform in Denmark that shows more populous communities exhibit less political efficacy. In addition, population increases may exacerbate competition for scarce resources, resulting in larger shares of GDP being dedicated to public expenditures. In sum, theoretical considerations between community size and preferences for government ultimately fail to produce a clear hypothesis, such that resolving the issue as things currently stand remains an empirical matter.

Establishing a causal relationship between the size of a voter's community and their voting preferences remains challenging however, due to endogeneity concerns related to omitted variables and reverse causality. In particular, citizens are usually mobile and therefore able to select into communities to live and work. Potentially unobservable individual-level characteristics that motivate someone to move to,

say, a big city may therefore be correlated with their voting preferences. Similarly, since institutions may determine initial community size, by for example, setting the conditions to migrate and through public incentives pertaining to fertility decisions (e.g., child care facilities and school quality, local parental leave policies and regulations, as well as child care support systems).

Understanding whether community size *per se* influences individuals' preferences concerning the extent of per-capita public expenditure is an issue of broad concern. First, the extent of government involvement in a society carries fundamental implications for economic growth (Barro, 2001; Bergh and Henrekson, 2011) and macroeconomic stability (Galí, 1994), among other economic and political characteristics. Second, as the world becomes evermore urbanized, it proves all the more important to anticipate the needs and demands of growing communities. This is likely especially true for semi- and non-democratic structures in which the conversion from people's preferences to leaders' decisions is often imperfect, delayed or disrupted altogether.

We present an empirical study that aims in the context of Germany to overcome endogeneity in testing for causal effects of community size on voting preferences. While our choice of Germany is governed by the historical circumstances of our natural experiment, it is nevertheless instructive to consider some salient facts regarding community size and preferences in Germany. In 2020, 8 of the 10 largest and 14 of the 20 largest German cities are governed by social-democrat or green mayors (who generally advocate for more government involvement), even though the ruling CDU still holds comfortable majorities in virtually all surveys over the past years (see wahlrecht.de, 2020).[1] This pattern has recently become the subject of popular discussion. Studying 30,000 survey respondents reveals that voters for the SPD and the Greens are particularly located in larger cities, whereas the CDU is drawing support from rural areas (Der Spiegel, 2017; DIW Berlin, 2017). Notably, we observe similar patterns in US presidential elections, where Republicans, who generally advocate for less government intervention, receive support from rural areas but not cities (e.g., see Bloomberg.com, 2012).

We specifically study post-WWII Baden-Württemberg however, a region of southwest Germany (see

[1]The 20 biggest cities are, in descending order of population size: Berlin (governed by the SPD), Hamburg (SPD), Munich (SPD), Cologne (mayor not affiliated with any party), Frankfurt (SPD), Stuttgart (Greens), Düsseldorf (SPD), Dortmund (SPD), Essen (CDU), Leipzig (SPD), Bremen (SPD), Dresden (FDP), Hannover (Greens), Nürnberg (CSU), Duisburg (SPD), Bochum (SPD), Wuppertal (SPD), Bielefeld (SPD), Bonn (CDU) and Münster (CDU).

Schumann, 2014). Our identification strategy exploits the fact that, from 1945 to 1949, German expellees returning from Eastern Europe who wanted to enter the French occupation zone (usually because family and friends were located there) could only settle on the U.S. side of the border, as entry into the French zone was prohibited. Consequently, those municipalities on the U.S. side that were located close to the French occupied-zone border experienced a large influx of expellees, whereas those on the French side, just a few kilometers away, did not.[2] Another feature that makes this episode unique is the observation that "[e]xpellees were not selected on the basis of skills or labor market prospects and, as ethnic Germans, were close substitutes to native West Germans" (Braun and Mahmoud, 2014, pg. 69). Thus, unlike virtually every other migration wave in history, these expellees were not markedly different from locals in terms of culture, ethnicity, language or religion.

We deem this natural experiment as a plausibly exogenous determinant of community size of those 828 municipalities located in the French-U.S. border area. We subsequently estimate the impact of community size on each municipality's revealed preferences for government by examining voting data from the 1949 national- and the 1952 state-level elections. First, we focus on the vote share for the *Sozialdemokratische Partei Deutschlands (SPD)*, the social democratic party of Germany, which traditionally stands for more government involvement in virtually all areas of policy (see Section 2.2). Data availability allows us to control for a host of potential confounding factors, most notably the gender and religious distribution of the community, the share of people working in commerce, municipality area and apartments per capita. Our estimates suggest that larger communities systematically resulted in larger SPD vote shares.

Our results are consistent when accounting for county-fixed effects (as some counties consisted of municipalities across both occupation zones), pre-WWII vote shares and when exploring population density or population growth as alternative measures of community size. In quantitative terms, our benchmark specification suggests a one standard deviation increase in community size (equivalent to

[2]The countrywide migration of German expellees in post-WWII Germany from the eastern territories has been studied in the context of economic integration (Bauer et al., 2013), development (Peters, 2017), labor markets (Braun and Mahmoud, 2014), structural changes in the economy (Braun and Kvasnicka, 2014) and educational investment decisions (Becker et al., 2020). The corresponding studies explore various geographical locations and levels in Germany, outcome variables, more aggregated regional identifiers (i.e., states or counties, as opposed to municipalities) and identification strategies. Only Schumann (2014) studies municipality-level data in Southern Germany, focusing on the long-run persistence of population shocks. Section 2.1 details our identification strategy that directly draws on Schumann's (2014) work.

4,049 citizens) raises the SPD vote share by 11.36 percentage points – a magnitude equivalent to 90 percent of a standard deviation.

Second, we study the vote shares of the *Christlich Demokratische Union* (CDU), the SPD's main political rival, which campaigned advocating individual freedoms while promoting economic growth, all the while warning against the 'socialization' that would result from an SPD victory. We document a large negative effect of community size on vote shares for the CDU, which is consistent with the hypothesis that some CDU voters switched allegiances to its main political opponent, the SPD, as their community grew. Finally, we identify significantly larger voter turnout in more populous communities.

Our paper most obviously speaks to the literatures pertaining to: (i) preferences for government size (see Shelton, 2007, for an overview) and (ii) the formation of voting preferences. Our contribution emphasizes the role played by community size in informing citizens' preferences for government involvement. A raft of factors have been suggested to influence voting preferences including: social networks (Ryan, 2011; Pietryka and DeBats, 2017), income and education (Zucco Jr, 2013; Akee et al., 2020), compulsory voting laws (Bechtel et al., 2016) and terrorism (Montalvo, 2011; Getmansky and Zeitzoff, 2014). Empirically, some studies have documented a negative correlation between population size and government size (e.g., see Alesina and Wacziarg, 1998, Shelton, 2007, Benarroch and Pandey, 2008), while others produce a positive association (e.g., see Ram, 2009, Krieger and Meierrieks, 2019). Empirical evidence regarding *subnational* relationships between community size and preferences for government size remain scarce. Jetter and Parmeter (2018) find that *World Values Survey* respondents from more populated towns systematically prefer more government involvement in redistribution, while being more likely to see the responsibility for one's life with the government. These results are consistent with recent anecdotal and popular observations pertaining to differences in government preferences between urban and rural citizens (e.g., see Cracked.com, 2017).

Ostensibly, the current manuscript nestles at the intersection of a number of closely related literatures. First is the branch of research that studies the consequences of forced migration episodes (see Becker and Ferrara, 2019, for a recent review). Second is the literature on migration and voting, where recent evidence links migration to increased votes for extremist, anti-immigration parties in Austria (Halla et al., 2017), France (Edo et al., 2019), Italy (Barone et al., 2016) and the U.S. (Mayda et al., 2020).

Third is the literature on refugees and voting. For example, Dustmann et al. (2018) documents a negative (positive) causal effect of refugees on the rural (urban) Danish electorate's decision to vote for right-leaning parties. Conversely, Steinmayr (2018) documents the negative impact of hosting refugees in Austria on support for far-right anti-immigrant parties. More specifically still, Alesina et al. (2019) examine natives' preferences for redistributive policies across regions in 16 Western European nations, finding that immigration spurs natives to respond by favoring less redistributive policies.

Prima facie, our paper appears closely related to the careful study of Chevalier et al. (2019) that examines the broader implications of *all* German expellees on the German welfare state. Our paper is rather far closer to Schumann (2014), in the sense that our empirical focus lies solely on those municipalities in post-WWII Baden-Württemberg between the U.S. and French occupied territories. In contrast to Chevalier et al. (2019), whose key threat to identification is the endogenous location of German expellees, our identification strategy rather exploits the fact that German expellees *were* able to relocate to any part of Germany, with the exception of the French-occupied zone. As a result, those German expellees who had a preference for relocating to the French-occupied zone ultimately settled on the border of the French-occupied zone.

As highlighted by Chevalier et al. (2019), Baden-Württemberg could not have constituted a particularly attractive destination for many other expellees given the low numbers that ultimately made the journey there. Those expellees that did make the long journey to that area of South-West Germany likely did so due to their pre-existing connections. In other words, the sudden population increases documented by Schumann (2014) that are the focus of this paper, were arguably homogenous, relative to the contemporary incumbent population. Crucially, in contrast to most of the previously cited literature and as opposed to exploring the impact of one group's actions on another, we rather hone our analysis in on a specific region that received ethnically identical individuals to those who already resided there, in order to establish a causal relationship between community size and electoral preferences. Importantly, even if expellees were seen as remarkably different by locals, existing literature would suggest *reduced* preferences for substantial government involvement (e.g., see Alesina et al., 2019, for recent evidence). Our results however, suggest that the opposite holds.

2 Historical Background

2.1 Post-WWII Baden-Württemberg

Following the cessation of WWII, the German state of Baden-Württemberg experienced a large influx of German expellees who were forced to leave Eastern Europe. Millions of Germans migrated westward to settle in what became one of the four occupied zones of post-WWII Germany. This population movement constitutes one of the largest forced migrations in human history as approximately 2.6 million expellees travelled to the U.S.-occupied zone alone by the end of 1946, equivalent to a population increase of 18 percent (Schumann, 2014, pp. 192/193). In the three years that followed, 500,000 additional expellees arrived to the U.S. zone.

The crucial element of our identification strategy, as in Schumann (2014), exploits the fact that expellees were prohibited from entering the French-occupied zone "...until spring 1949 when the Federal Republic of Germany was created out of the three Western occupation zones" (Schumann, 2014, p. 192).[3] As a consequence, a large number of expellees who specifically wanted to enter the French zone (usually because of family or friends who lived there) settled in close proximity to the French-U.S. border, leading to a stark population increase in those respective communities.

Figure 1 illustrates population growth between 1939 and 1950 in the 828 municipalities of our database, mimicking Schumann's (2014) Figure 3. The key feature of the respective French-U.S. border is that it can be treated as exogenous to surrounding cultural, economic, geographical and institutional conditions. Importantly for our setting, "...[t]he occupation zone border in Germany runs through territory that is topographically and climatically fairly homogenous" (Schumann, 2014, p. 191). Further, "[t]here are no reasons to suspect any preexisting discontinuities along the border. It had never been a political border nor does it coincide with geographical features such as a river or a mountain range, which could have caused a natural discontinuity" (Schumann, 2014, p. 194). We refer readers to Schumann (2014, Section II) for further details.

[3] France "refused to admit any expellees in its occupation zone but allowed all refugees that had arrived prior to July 1945 to stay. From 1945 to 1949, the only sizable number of people arriving in the French zone was 51,000 refugees and expellees who fled to Denmark before the end of the war. France agreed to accept them in return for Danish food aid over a three-year period (Mix 2005)." (Schumann, 2014, p. 193). As was also noted in Braun and Mahmoud (2014, p. 70), "[a]ttempts to rebalance the regional distribution of expellees were frustrated by deficient administrative structures and the French refusal to admit any expellees into their occupation zone."

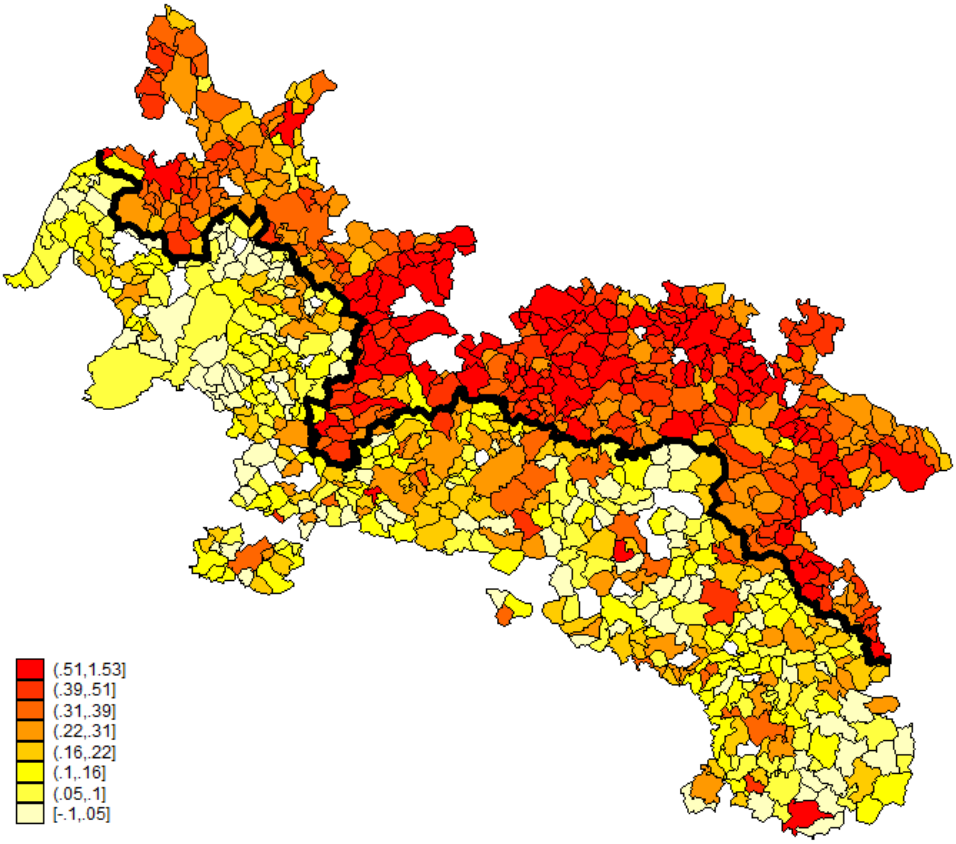


Figure 1: Population growth from 1933 to 1950 $\left(\frac{population_{1950}}{population_{1933}}\right)$, where the black line constitutes the border between the U.S. (northeast) and the French occupation zone (southwest).

Another noteworthy aspect of this setting is the relatively homogeneous nature of the population influx. Braun and Mahmoud (2014, p. 71) document that "[e]xpellees were not selected on the basis of skills or labor market prospects and, as ethnic Germans, were close substitutes to native West Germans." Moreover, further aiding our identifying assumptions is the fact that "[o]nce they had arrived in the West, their geographic mobility was severely restricted by law" (p. 71, Braun and Mahmoud, 2014).

2.2 Political Landscape

What we are ultimately interested in is a tangible expression of each municipality's preferences for the government's provision of public goods. We access voting data from the first two post-WWII elections in Germany: the national elections held on August 14, 1949 and the state-level elections held on March 9, 1952. Women and men aged 21 and over were eligible to vote and the 1949 national elections experienced a turnout of 78.5 percent (Konrad Adenauer Stiftung, 2019). The two main parties that have dominated post-WWII German politics until today are the main focus of our analysis: the SPD (*Sozialdemokratische Partei Deutschlands*, translated as the *Social Democratic Party of Germany*) and the CDU (*Christlich Demokratische Union* = the *Christian Democratic Union*). In 1949, the parties received 29.2 percent (SPD) and 31 percent (CDU), while the FDP (*Freie Demokratische Partei* = the *Free Democratic Party*) that advocated for free-market policies received 11.9 percent of all votes. With these results, a coalition between the CDU and the FDP emerged that eventually ruled German politics until the mid-1960s (with minor coalition partners in between).

To get a sense of the ideological differences between these three parties, it is useful to consider their respective campaigns, pictured in Appendix A. The Konrad Adenauer Stiftung (2019), a German think tank, frames the 1949 electoral choice as "[s]ocial market economy and genuine competition [CDU] or socialization and planned economy [SPD]."[4] The main SPD campaign slogans included (see Konrad Adenauer Stiftung, 2019, and Bundeszentrale für politische Bildung, 2014)

- *Now certainly: Socialization! SPD*;

[4]The original in German reads "[s]oziale Marktwirtschaft und echter Leistungswettbewerb oder Sozialisierung und Planwirtschaft lautete die zentrale wirtschaftspolitische Alternative."

- *All millionaires vote for CDU-FDP. All other millions of Germans [vote for] the SPD.*[5]

In turn, the CDU's campaign posters read

- *Freedom – Justice – Peace*;
- *1947 – Hunger! Distress! Misery! 1949 – Forward! Upwards! The success of the CDU!*[6]

Finally, the FDP campaigned with

- *Germany cannot become socialist*; and
- *Only the free economy breaks misery! Vote FDP.*[7]

In sum, the SPD represented a clear choice for a voter who generally desired more government involvement in society, whereas those favoring free-market policies would be more likely to side with the CDU or the FDP. Our main analysis will focus on SPD vote shares at the municipality level as a measure for government preferences, but we then also consider CDU and FDP vote shares. If more populous communities indeed preferred larger governments, they should exhibit stronger (weaker) voting outcomes for the SPD (CDU). We now discuss the respective data and empirical strategy.

3 Data and Empirical Strategy

3.1 Data

Nearly all of our data for the 828 municipalities in 21 counties (*Landkreise*) were scraped from the Land BW (2017) webpage. These data on municipality population levels along with vote shares across the three major parties and a range of control variables were then coupled with Schumann's (2014) geographic distance variables. All municipalities are, at least partly, located within 5km of the French-U.S. border (Schumann, 2014, p.193). The corresponding counties are, with the respective number of

[5] In the original German, these were *Nun erst recht: Sozialisierung! SPD* and *Alle Millionäre wählen CDU-FDP. Alle übrigen Millionen Deutsche die SPD*.

[6] In the original German, these were *Freiheit – Gerechtigkeit – Frieden* and *1947 – Hunger! Not! Elend! 1949 – Vorwärts! Aufwärts! Der Erfolg der CDU!*

[7] In the original German, these were *Deutschland darf nicht sozialistisch werden* and *Nur freie Wirtschaft bricht Not! Wählt FDP*.

U.S. and French municipalities in parentheses: Alb-Donau Kreis (67, 58), Biberach (0, 88), Calw (0, 85), Reutlingen (1, 83), Esslingen (78, 0), Göppingen (60, 0), Karlsruhe (59, 1), Tübingen (0, 58), Böblingen (49, 2), Enzkreis (31, 13), Rastatt (0, 38), Freudenstadt (0, 17), Rottweil (0, 16), Ulm (9, 0), Ludwigsburg (7, 0), Pforzheim (5, 0), Baden-Baden (0, 2), Konstanz (1, 0), Neckar-Odenwald-Kreis (0, 1), Ravensburg (0, 1), and Sigmaringen (0, 1). Thus, five counties feature municipalities on both sides of the border, which will allow us to account for county-fixed effects in empirical specifications.

Table 1 reports summary statistics for all variables employed in our main analysis related to the national elections in 1949. Note that our information for population sizes are taken *after* these elections, which could introduce selection issues – people may have moved from those municipalities that voted largely against the SPD to municipalities where voters preferred a stronger SPD. We have two responses to this valid concern. First, Schumann (2014) shows that, in the decades to come, few people moved again after being settled. Further, Braun and Mahmoud (2014) document that "the geographic distribution of expellee[s] changed little before 1950" and "the correlation coefficient between the state-level expellee shares in 1946 and 1950 is 0.991." This was largely because migration was prohibited at first and even in the late 1940s it was only possible with a special permit (see Braun and Mahmoud, 2014). Second, our results are consistent when analyzing state-level elections from 1952, i.e., voting preferences taken *after* population size was measured in 1950.

Table 1 shows that, in general, the CDU was substantially more popular in southwest Germany than at the national level. Although the CDU received an average of 31 percent throughout Germany, the average municipality in our database gave the CDU 53.8 percent of their votes. These results are consistent with the observation that Baden-Württemberg provided a stronghold of the CDU and the FDP for decades to come. In turn, the SPD averaged 18.43 percent in our 828 municipalities, compared to 29.2 percent at the national level. Table 1 also documents the change in the SPD vote share from the 1932 national elections, revealing substantial gains of over 9 percentage points, on average. It is important to recall that the Nazi Party (the NSDAP or *Nationalsozialistische Deutsche Arbeiterpartei*), which won 37.3 percent of all votes in July 1932, was obviously absent in the 1949 elections, leading to substantial gains for the remaining parties.

Table 1 further informs us about the FDP's vote share, which on average is well below the SPD's.

Table 1: Summary statistics of main variables.

Variable	Mean	(Std. Dev.)	Min.	(Max.)	N	Source	Description
Panel A: Dependent variables							
% SPD	18.43	(12.68)	0.30	(69.80)	828	Land BW (2017)	SPD vote share (1949)
% CDU	53.80	(24.58)	6.90	(99.20)	828	Land BW (2017)	CDU vote share (1949)
Δ SPD	9.29	(8.89)	-16.30	(52.4)	747	Land BW (2017)	SPD vote share (1949) - SPD vote share (1932)
% FDP[a]	12.94	(11.20)	0.20	(72.00)	809	Land BW (2017)	FDP vote share (1949)
% turnout	65.89	(16.68)	16.60	(114.70)	828	Land BW (2017)	Turnout in % (1949)
Difference to best other party	-38.46	(32.43)	-98.40	(54.7)	828	Land BW (2017)	Percentage point distance to best other party (1949)
Panel B: Variables of interest							
Pop	1,722	(4,049)	102	(70,633)	828	Land BW (2017)	Population size (1950)
Pop density	1.61	(1.74)	0.16	(19.94)	828	Land BW (2017)	Population density (1950)
Pop growth	0.26	(0.21)	-0.10	(1.53)	828	Land BW (2017)	$\frac{Population(1950)-Population(1939)}{Population(1939)}$
Panel C: Instrumental variables							
U.S.	0.44	(0.50)	0	(1)	828	Schumann (2014)	U.S. side of border
Distance	-1.59	(13.20)	-37.77	(32.28)	828	Schumann (2014)	Distance to U.S.-France border
Panel D: Control variables							
% females	53.55	(1.98)	45.49	(74.46)	828	Land BW (2017)	Share of females (1950)
% Catholic	43.12	(43.80)	0.10	(691)	828	Land BW (2017)	Share of Catholics (1950)
% Protestant	56.91	(37.35)	0.60	(99.70)	828	Land BW (2017)	Share of Protestants (1950)
% employed	86.61	(4.52)	42.07	(95.85)	828	Land BW (2017)	Share of employed people in the total population
Apartments per capita	0.23	(0.03)	0.09	(0.31)	828	Land BW (2017)	Number of apartments divided by population size
Municipality area	997	(775)	29	(10,366)	828	Land BW (2017)	Land size in hectare (1950)

Notes: [a]The FDP was not present in all municipalities, leading to a smaller sample of 809 municipalities.

Last, voter turnout across the 828 municipalities was appreciable, especially given the historical circumstances, at almost 66%, although substantial variation existed across municipalities.

Panel B of Table 1 presents our independent variables of interest: population size, population density and population growth from 1939. For our benchmark model, we consider the natural logarithm of population size. The average (median) municipality registers only 1,722 (832) inhabitants, highlighting the fact that our database mostly includes villages and small towns. The largest municipality (Esslingen am Neckar on the U.S. side) featured 70,633 inhabitants.

Panel C of Table 1 summarizes our key instrumental variables (IVs), namely the binary indicator for municipalities on the American side of the border (44 percent or 366 of the 828 municipalities) and the average distance to the border. Consistent with Schumann (2014), we code communities on the U.S. side with a positive value for distance and communities on the French side with a negative value for distance.[8] Section 3.2 discusses the exact IV implementation.

Finally, the Land BW (2017) database documents several demographic and economic characteristics, which could potentially carry independent effects on voting outcomes. These variables include the shares of women, Catholics and Protestants, as well as employment rates, apartments per capita and the municipality's land area. Employment rates are measured as the share of people employed in agriculture and forestry, manufacturing, trade and transport, as well as other economic areas.[9] Intuitively, all of these characteristics have, sometimes in slightly modified form, been suggested by the existing literature to affect voting preferences. Women and men for example, have been shown to exhibit differential voting preferences, on average (e.g., see Abendschön and Steinmetz, 2014) and the relationship between religious affiliation and political preferences has been highlighted before (e.g., see Stegmueller, 2013, or Spenkuch and Tillmann, 2018, in the context of voting for the Nazis). We proxy for local economic development by accounting for the share of people working in commerce and attempt to capture more rural communities through the inclusion of a variable that captures municipality area.

[8] Schumann (2014, p.194) assumes "the location of each municipality to be the centroid of the polygon defined by the municipality borders."

[9] In the original database (Land BW, 2017), these are listed as *Erwerbstätige* (i) *in der Land- und Forstwirtschaft* (agriculture and forestry), (ii) *im Produzierenden Gewerbe* (manufacturing), (iii) *in Handel und Verkehr* (trade and transport) and (iv) *sonstigen Wirtschaftsbereiche* (other economic areas).

3.2 Empirical Strategy

We begin with a level-log regression model to predict the SPD vote share in municipality i of county k:

$$(\%\, SPD)_{ik} = \beta_0 + \beta_1 \ln(pop)_{ik} + \beta_2 \boldsymbol{X}_{ik} + \alpha_k + \varepsilon_{ik}, \tag{1}$$

where $(\%\, SPD)_{ik}$ constitutes municipality i's vote share dedicated to the SPD in the 1949 national elections. In extensions, we also consider the 1952 state-level election outcomes. $\ln(pop)_{ik}$ represents the natural logarithm of the municipality's populace, measured in 1950. The vector $\boldsymbol{X}_{ik}$ includes the covariates listed above that may independently affect people's voting preferences. α_k introduces fixed effects at the county level. Thus, any model which includes α_k exploits within-county variation only, i.e., only information from those five of the 21 counties that feature municipalities on both the French and the U.S. side. This constitutes our strictest specification, removing any unobservable differences across counties.

Nevertheless, it is possible that endogeneity impacts the estimation of β_1 in equation (1). For example, people may move to municipality i because of the community's (perhaps expected) emphasis on social policy and larger government involvement. Similarly, unobservable characteristics beyond $\boldsymbol{X}_{ik}$ may affect both population size and SPD vote shares, such as historical events, cultural particularities or geography (e.g., proximity to natural resources or rivers).

To alleviate such concerns, we instrument $\ln(pop)_{ik}$ with several variables that capture municipality i's location with respect to the border between the French and U.S. zones. In our benchmark regression, we follow Schumann (2014) by including a binary indicator for the U.S. side, the distance to the border (linear and squared), as well as interaction terms between the binary U.S. variable and the distance (linear and squared). Formally, our first stage becomes:

$$\begin{aligned}\ln(pop)_{ik} =& \alpha_0 + \alpha_1 US_{ik} + \alpha_2 (Distance)_{ik} + \alpha_3 (Distance)^2_{ik} + \alpha_4 Distance_{ik} \times US_{ik} + \\ & \alpha_5 (Distance)^2_{ik} \times US_{ik} + \alpha_6 \boldsymbol{X}_{ik} + \alpha_k + v_{ik}.\end{aligned} \tag{2}$$

We estimate equation (1) using two stage least-squares (2SLS). In a robustness check, we deploy a first stage regression model that only incorporates the binary indicator for the U.S. side, the linear dis-

tance variable and the corresponding interaction term. The corresponding results prove to be consistent with our benchmark findings. Finally, Section 4.2 presents results from several alternative estimations in which we consider related voting results, as well as changes in the SPD vote shares to pre-WWII levels. Our analysis of *changes* in SPD vote shares further addresses concerns about unobservable, time-invariant characteristics at the municipality level influencing our coefficients.

4 Empirical Findings

4.1 National Elections of 1949

Figure 2 plots population size (on the x-axis) against vote shares for the SPD, the CDU and the FDP, as well as voter turnout in the 1949 elections.[10] More populated municipalities were more likely to favor the SPD, whereas smaller communities gravitated toward the CDU. Population size shows little correlation with FDP vote shares and turnout in these basic comparisons.

Panel A of Table 2 displays our main findings to predict SPD vote shares, where columns (1)-(3) present results from OLS estimations and columns (4)-(6) re-estimate the same models instrumenting for $\ln(pop)_{ik}$ with the strategy detailed in equation (2). We begin with a univariate model before subsequently adding control variables and county-fixed effects. The first insight from Table 2 is that the estimated relationship between population size and SPD vote shares is positive and statistically significant at conventional levels in all specifications, consistent with the visual depiction of Figure 2.

Consistent with the theoretical underpinnings of 2SLS, estimates of β_1 are estimated less precisely than with OLS, although the associated confidence intervals suggest important quantitative effects of population size on SPD vote shares. In our 2SLS results, the estimated effect of population size remains positive and statistically significant (p-values of 0.000 in all three columns), with magnitudes that are higher than the corresponding OLS estimates.[11] In the level-log model, the coefficient has the approxi-

[10] Three municipalities are listed with what seems to be reporting errors in turnout rates above 100 percent. These are Bad Ditzenbach, Bad Niedernau and Untermarchtal (two of which are located on the French side of the border and one on the U.S. side). Our results are virtually identical when excluding these municipalities altogether, although there is no reason to suspect reporting errors in the other variables for these three municipalities.

[11] Given the well-known fact that the 2SLS estimator is biased in finite samples, the larger coefficient estimates still suggest that there do exist population size effects on voter preferences.

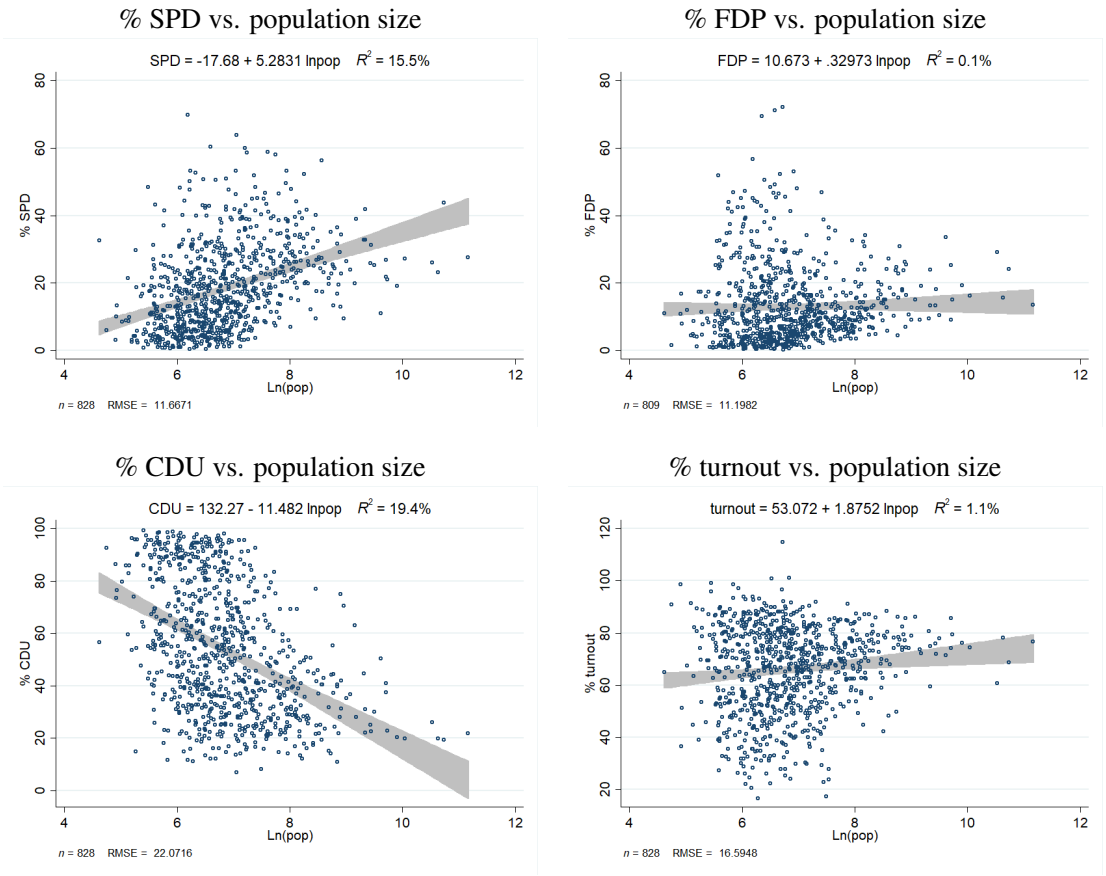


Figure 2: Correlation between population size (x-axis) and vote shares of various parties, as well as voter turnout.

Table 2: Main results from OLS and IV regressions, predicting SPD vote share in the national elections held in August 1949.

Estimation method:	OLS			IV		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Predicting % SPD						
Ln(pop)	5.283***	5.895***	5.382***	10.060***	7.936***	10.352***
	(0.395)	(0.678)	(0.850)	(1.209)	(0.750)	(1.705)
% females		-0.234	-0.180		-0.265*	-0.273
		(0.153)	(0.158)		(0.159)	(0.176)
% Catholic		-0.005***	-0.012***		-0.000	-0.001
		(0.002)	(0.004)		(0.002)	(0.005)
% Protestant		0.128***	0.132***		0.127***	0.139***
		(0.008)	(0.010)		(0.008)	(0.010)
% employed		-0.217***	-0.184**		-0.160**	-0.078
		(0.064)	(0.073)		(0.064)	(0.078)
Apartments per capita		113.703***	102.936***		103.747***	73.339***
		(13.049)	(16.154)		(13.206)	(17.648)
Municipality area		-0.004***	-0.003***		-0.005***	-0.007***
		(0.001)	(0.001)		(0.001)	(0.002)
County-fixed effects			✓			✓
Panel B: 1^{st} stage results predicting $\ln(pop)$						
U.S.				0.072	0.215**	-0.028
				(0.127)	(0.094)	(0.127)
Distance				0.013	0.026**	0.028**
				(0.016)	(0.011)	(0.011)
(Distance)^2				-0.000	0.000	-0.000
				(0.001)	(0.001)	(0.000)
Distance × U.S.				0.064**	0.042**	0.037**
				(0.025)	(0.017)	(0.018)
(Distance)^2 × U.S.				-0.0027***	-0.0027***	-0.0022***
				(0.0009)	(0.0006)	(0.0006)
Control variables[a]					✓	✓
County-fixed effects						✓
Panel C: Econometric statistics						
Endogeneity test (p-value)				0.000***	0.013**	0.001***
F-test 1^{st} stage				21.33***	70.94***	17.82***
Effective F-statistic[b]				23.52**	75.055**	19.51*
Weak IV test (Wald, p-value)[c]				0.000***	0.000***	0.000***
N	828	828	828	828	828	828

Notes: Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Includes the same variables displayed in Panel A. [b]First-stage effective F-statistics are computed using a robust F-test procedure for weak instruments proposed by Olea and Pflueger (2013) and Pflueger and Wang (2015). [c]Following Magnusson (2010) and Finlay et al. (2013), we apply the *weakiv* command in Stata to test for weak instruments.

mate interpretation of being a $\beta_1/100$ effect for a 1 percent change in population. So, for our full 2SLS approach, the magnitude becomes 10.352/100=0.104, just over a tenth of a percentage point change for a small change in population in the vote share. Given the average size of a municipality (1,722 people), this corresponds to roughly an increase of 17 individuals. More generally, an increase of the average municipality of 160 people would lead to an approximately one percentage point increase in the SPD vote share, on average.

The estimates for the effects of the remaining covariates (listed in Panel A) suggest three meaningful correlates of SPD voting patterns: the share of Protestants in the community (positive association), as well as apartments per capita (positive) and municipality area (negative). The first of these results confirms the long-standing affiliation between the largely Protestant labor force and the SPD, a party that has historically been known to advocate for workers' rights. This link had been established well before WWII (e.g., see Scholz, 2015).[12] Further, apartments per capita proxy for urbanization, where smaller values presumably capture rural areas in which families live in houses, whereas larger values indicate urban areas. The resulting positive correlation with voting preferences favoring the SPD is consistent with those suggested by Jetter and Parmeter (2018) who find urbanization to be a powerful correlate of larger governments. In turn, large municipality area proxies for rural environments, likely populated by few land owners who are then less likely to vote for a party that advocated for more government involvement at the time.

Panel B displays the first-stage coefficients for columns (4)-(6), whereas Panel C reports results for endogeneity tests and the F-statistics of the corresponding first stages. In all three estimations, endogeneity remains an issue, confirming concerns regarding the identification of causal effects in a generic regression framework. Concerning statistical power of our identification strategy, all three first stage models comfortably pass the rule-of-thumb F-test threshold level of ten (Staiger and Stock, 1997), with the derived coefficients being closely in line with Schumann's (2014). Similarly, applying the more recent tests for weak instruments developed by Olea and Pflueger (2013) and Magnusson (2010) generate

[12] Referring to pre-WWII voting patters, Scholz (2015) writes that "[t]he SPD in particular was helped by the Protestant workers to consistently high election results. There was a clearly positive correlation between the Protestant denomination and the choice of the SPD." The German original reads "[d]er SPD verhalf insbesondere die protestantische Arbeiter- und Arbeitnehmerschaft zu konstant hohen Wahlergebnissen. Zwischen evangelischer Konfession und der Wahl der SPD bestand eine deutlich positive Korrelation."

confidence in the strength of our identification strategy.

To better interpret and compare magnitudes, Figure 3 plots the corresponding coefficients, multiplied by their respective standard deviations. To facilitate quantitative interpretation, we employ population size sans logarithm in this case. The first point presents the OLS estimate associated with population size, whereas the remaining coefficients all come from the full IV estimation. Comparing the OLS and IV coefficients for population size suggests that, if anything, a basic OLS estimation might underestimate the relationship to the SPD vote share. Of course, that interpretation remains conditional on the usual local average treatment effect (LATE) conditions, i.e., our identification strategy emphasizes the statistical variation in population size induced by our instruments.

Figure 3 establishes the extraordinary role of population size in explaining the 1949 national election votes. The OLS estimate implies a one standard deviation increase in population size (equivalent to 4,049 citizens) raises the SPD vote share by 1.6 percentage points (equivalent to 12 percent of a standard deviation). The IV estimate implies however, a magnitude of 11.36 percentage points – an effect that would be equivalent to 90 percent of a standard deviation in SPD vote share. The corresponding results for the remaining covariates remain much smaller, as only a standard deviation increase in the share of Protestants would lift the SPD's result by more sizeable 4.9 percentage points. With these results in mind, we now turn to discussing several robustness checks and extensions.

4.2 Robustness Checks

Table 3 documents results from several robustness checks. Panel A displays IV results, whereas Panel B is dedicated to the first-stage F-statistic, and Panel C documents outcomes from the corresponding OLS regressions. In column (1), we cluster standard errors at the county level to allow for unobserved heterogeneity between counties. In column (2), we account for agricultural land area and the SPD vote share from 1932. Both of these variables are not considered in our benchmark model because they are only available for 734 of the 828 municipalities. In column (3), we simplify our IV strategy by just considering the linear IVs with the binary indicator for the U.S. side, distance to the border, and the interaction term between both. In columns (4) and (5), we consider population density and population growth (from 1933 to 1950) as our main variables of interest. Finally, column (6) reports results from

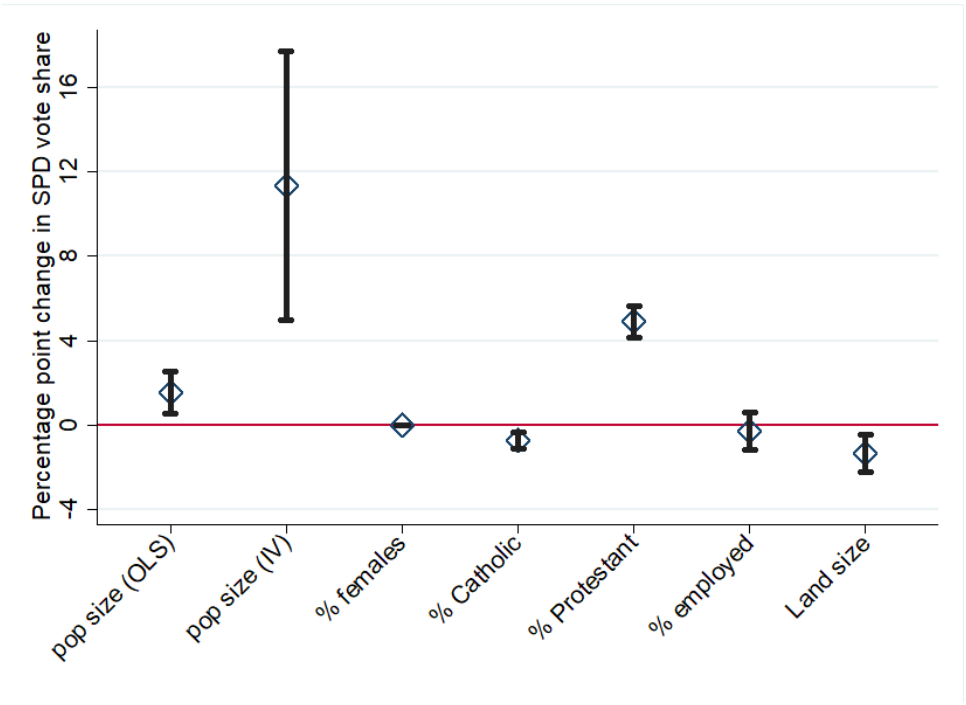


Figure 3: Visualizing coefficients from OLS regression coefficients (left) and IV regression results (all remaining coefficients), multiplying each coefficient with the standard deviation of the respective variable. All estimations include the full set of control variables. 95 percent confidence intervals are displayed.

excluding the two biggest counties (Alb-Donau-Kreis and Enzkreis) to ensure these are not driving our results.

The corresponding estimations produce consistent findings in that the second-stage coefficient related to population size always emerges as a positive predictor of the SPD vote share. Across all of these models, the estimates are quantitatively meaningful and statistically significant (with p-values below 0.003). It is particularly interesting to see that taking into account pre-WWII voting patterns in column (5) produces consistent findings; thus, we are not picking up local political preferences that existed before the war.

Next, we consider fractional response regressions using the approach advocated by Papke and Wooldridge (1996, 2008) and Ramalho and Ramalho (2017). Fractional response models (both for cross-sectional and panel data) have gained attention in empirical settings for their ability to model a bounded response with a heterogeneous and diminishing effect as covariates vary. Linear models are not well suited to fractional responses because it is difficult to impose a positive yet bounded effect for each of the covariates. This is a similar argument that is levied against the linear probability model when implemented in place of logit or probit specifications.

The estimated average partial effects appear in Table 4. In columns (1)-(4), we consider four scenarios for completeness: (i) no county-fixed effects and not accounting for endogeneity, (ii) including county-fixed effects but not accounting for endogeneity, (iii) no county-fixed effects and accounting for endogeneity and (iv) county-fixed effects while accounting for endogeneity.[13] The main finding from Table 4 is that the average marginal effect of community size on the SPD vote share remains positive and statistically significant. It is difficult to make direct comparisons with the estimates from our linear model without setting specific values of the coefficients. This is due to the fact that the marginal effects reported here depend on the values of the other covariates given the nonlinearity of the fractional response framework. What we can say however, is that the overall qualitative implications are in line with our more traditional linear regression specifications that serve as our benchmark. In particular, we observe two common features. First, including county-fixed effects lowers the average fixed effect (which

[13] All results are tabulated using smearing to calculate the partial effects and specifying a logit link function (e.g., see Jones and Walsh, 2018, for a recent application of fractional logit models to electoral data from the US). Results are virtually identical when using a probit link function (available upon request).

Table 3: Robustness checks, predicting SPD vote share in 1949.

	(1)	(2)	(3) Only linear instruments[c]	(4)	(5)	(6) Remove 2 biggest counties
Panel A: 2^{nd} stage from IV regressions predicting SPD vote share						
Ln(pop)	10.352*** (3.417)	7.980*** (1.839)	11.494*** (1.918)			8.245*** (1.739)
Pop density				5.058*** (1.155)		
Pop growth (from 1933)					23.507*** (4.720)	
Control variables[a] & county-fixed effects	✓	✓	✓	✓	✓	✓
Additional covariates[b]		✓				
Panel B: Econometric statistics						
F-test 1^{st} stage	8.25***	11.28***	21.28***	14.24***	39.26***	17.91***
Panel C: OLS results						
Ln(pop)	5.382*** (1.390)	2.338*** (0.609)	5.382*** (0.850)			4.908*** (0.881)
Population density				1.567*** (0.402)		
Pop growth (from 1933)					18.215*** (2.242)	
Control variables[a] & county-fixed effects	✓	✓	✓	✓	✓	✓
Additional covariates[b]		✓				
N	828	734	828	828	828	659

Notes: Standard errors displayed in parentheses are clustered at the county level in column (1), whereas robust standard errors are displayed in all other columns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Control variables include % females, % Catholic, % Protestant, % employed, the number of apartments per capita, and municipality area. Municipality area is excluded in column (4) as population size is measured as population density ($\frac{population}{land\ area}$). [b]Includes the share of the municipality area used to grow forage crops and the SPD vote share from 1932. [c]Only the binary U.S. indicator, border distance, and the interaction term between these variables are included as instrumental variables.

Table 4: Partial effects from fractional response regressions, predicting SPD vote share in the national elections held in August 1949.

	(1)	(2)	(3)	(4)
Ln(pop)	0.061***	0.053***	0.103***	0.094***
	(0.006)	(0.009)	(0.011)	(0.020)
Control variables[a]	✓	✓	✓	✓
County-fixed effects		✓		✓
Endogeneity			✓	✓

Notes: Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Control variables include % females, % Catholic, % Protestant, % employed, the number of apartments per capita, and municipality area.

is intuitive) and, second, accounting for potential endogeneity using distance to the U.S. border results in a larger average partial effect (consistent with our initial findings).

4.3 Alternative Voting Measures and Other Parties

Table 5 turns to relevant alternative outcome variables beyond SPD vote shares. First, we predict the change in the municipality's SPD vote share, building on the specification from column (2) of Table 3, where we simply controlled for SPD votes from 1932. Second, we predict the difference to the SPD's strongest opponent in the respective municipality. The remaining columns predict the electoral success of the CDU and the FDP, as well as voter turnout. Intuitively, we may expect to see, if anything, negative relationships between community size and the parties that advocate for free market policies and less government intervention. Finally, if larger communities indeed preferred more pronounced government structures, we may also expect larger turnouts (see Cancela and Geys, 2016), for evidence on the relationship between population size and voter turnout), perhaps as a sign that the electorate cares more about the government's role in society.

Results from the first two columns confirm our benchmark findings in that the SPD scores systematically stronger in more populous municipalities – whether we predict absolute vote share in the initial specifications, the change in voting from 1932 or the difference to the main competitor. When we predict the CDU's vote share in column (3), we find that the major conservative party which advertised

Table 5: Extensions, predicting various alternative outcome variables in the national elections of 1949.

Dependent variable:	(1) Δ SPD from 1932	(2) Difference to best other party	(3) % CDU	(4) % FDP	(5) % turnout
Panel A: 2^{nd} stage from IV regressions predicting SPD vote share					
Ln(pop)	4.322***	32.499***	-20.942***	-1.873	4.590**
	(1.474)	(4.039)	(2.711)	(1.357)	(1.788)
Control variables[a] & county-fixed effects	✓	✓	✓	✓	✓
Panel B: Econometric statistics					
F-test 1^{st} stage	16.02***	17.82***	17.82***	17.89***	17.82***
Panel C: OLS results					
Ln(pop)	0.894*	12.865***	-7.854***	0.001	2.370***
	(0.470)	(1.619)	(0.905)	(0.475)	(0.540)
Control variables[a] & county-fixed effects	✓	✓	✓	✓	✓
N	747	828	828	809	828

Notes: Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Control variables include % females, % Catholic, % Protestant, % employed, the number of apartments per capita, and municipality area.

with slogans associated with economic freedom, opposing the SPD's 'socialization' mantra, received significantly fewer votes in more populated municipalities. Interestingly, we see little-to-no link between community size and voting for the FDP, the junior party built on free market principles. Since the FDP only drew 11.9 percent of all votes throughout Germany, this is perhaps not too surprising – the results from column (3) suggest that, everything else equal, voters in larger communities chose the SPD over the CDU, moving between the two largest parties.

Finally, column (5) considers voter turnout. If constituents cared about the central provision of public goods, we may expect them to be more likely to turn out to vote. Indeed, our IV and OLS results suggest voter turnout to be significantly larger in more populated municipalities.

All of our estimates suggest electoral impacts from changes in population. Given that we include population here in logarithmic form, a one percentage point increase in population size is associated with (i) a 0.04 percentage point change in the vote share for the SPD party from 1932; (ii) a 0.3 percentage point change in relation to the other best party in the municipality (column 2); (iii) a 0.21 percentage point decrease for the CDU (column 3); and (iv) a 0.05 percentage point increase in voter turnout (column 5). Given the small size of the municipalities, these estimates suggest that relatively small absolute changes in population could lead to meaningful political outcomes.

4.4 State-Level Elections of 1952

As a final analysis, Table 6 turns to the state-level elections of 1952. If one were concerned about the fact that population size is measured in 1950, while the national elections were conducted in 1949, the focus here is on voting in state elections considering past values of municipality population size. In column (1), we predict the SPD vote share, whereas column (2) predicts the change in the SPD vote share from the elections of 1932 to 1952. Column (3) considers the distance to the strongest competitor in the respective community. In columns (4) and (5), we predict vote shares for the CDU and the FDP. Finally, column (6) considers turnout. As before, Panel B displays the first-stage F statistics and Panel C documents the corresponding OLS results.

Most importantly, we again find a positive effect of community size on the SPD vote share. In terms of magnitude, the results are comparable with those from the corresponding IV regressions for the

Table 6: Predicting vote shares in the state-level elections of 1952.

Dependent variable:	SPD vote share (1)	Δ SPD (2)	Difference to best other party (3)	CDU vote share (4)	FDP vote share (5)	Turnout (6)
Panel A: 2^{nd} stage results from IV regressions						
Ln(pop)	9.106***	2.847*	23.447***	-12.622***	-3.060*	2.398
	(1.799)	(1.673)	(3.648)	(2.098)	(1.593)	(1.718)
Control variables[a] & county-fixed effects	✓	✓	✓	✓	✓	✓
Panel B: Econometric statistics						
F-test 1^{st} stage	17.51***	15.66***	17.51***	17.82***	18.35***	17.82***
Panel C: OLS results						
Ln(pop)	6.389***	1.161**	14.998***	-8.489***	1.425***	-1.097**
	(0.878)	(0.537)	(1.811)	(0.997)	(0.494)	(0.515)
Control variables[a] & county-fixed effects	✓	✓	✓	✓	✓	✓
N	825	745	825	828	781	828

Notes: Robust standard errors are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. [a]Control variables include % females, % Catholic, % Protestant, % employed, the number of apartments per capita, municipality area, the share of the municipality area used to grow forage crops, and the SPD vote share from 1932. The SPD vote share from 1932 is excluded in column (2) when predicting the change in SPD vote shares from 1932 to 1952.

national elections held in 1949 (coefficient of 9.106 compared to 10.352 in column 6 of Table 2). Further, we again document negative coefficients associated with community size in predicting CDU vote shares. Overall, these results are in line with those from predicting national vote shares in 1949. Interestingly, we also find some evidence for a negative link between population size and FDP vote shares in the IV estimations but a positive relationship in the OLS format. These results suggest that, conditional on our identifying assumptions being valid, the basic correlation between population size and FDP vote shares is biased upwards, i.e., endogeneity affects the sign of the corresponding relationship. Finally, we find less evidence for turnout to be affected by population size in our IV estimations.

5 Conclusion

This paper aims to provide causal evidence of community sizes affecting preferences for government. We study election outcomes in post-WWII Germany, focusing on municipalities surrounding the border between the French and the U.S. occupation zones. We take advantage of the fact that expellees were prohibited from entering the French zone. Consequently, many expellees with family or other links to municipalities in the French zone moved as closely as possible to the French zone, leading to a substantial increase in population for those municipalities located on the U.S.-side of the French-U.S. border (see Schumann, 2014). Thus, we observe a quasi-random increase in population size that is unlikely explainable by existing voting patterns or cultural, economic, geographical and institutional factors.

The corresponding results are remarkably consistent across an array of specifications: more populous municipalities systematically exhibit larger SPD vote shares – the party that unambiguously favored more government involvement. Our results are consistent when accounting for a number of potentially confounding factors, pre-WWII vote shares, county-fixed effects and when studying the 1952 state-level elections.

Of course, our study is not free of limitations, and we want to briefly discuss what we believe are the most salient ones. First, our setting is specific in terms of geography, community sizes and time frame (relatively small villages in post-WWII Southern Germany), so we heed caution in generalizing our empirical insights. Second, although expellees were likely closely comparable along ethnic, cultural,

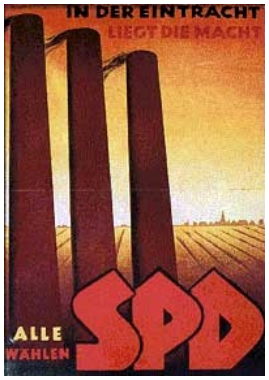
language and religious dimensions (e.g., see Braun and Mahmoud, 2014), it is still possible that they were seen as 'intruders,' at least by some locals. If that was the case, however, we should probably expect to see *less* desire for government involvement and redistribution in the locals' voting preferences (e.g., see Alesina et al.'s, 2019, recent evidence from subnational data in 16 Western European countries). The SPD strongly emphasized a social-democratic governing philosophy. Third, the French and U.S. administrative zones and their philosophies about government may have influenced German voters differently. However, if anything, this may mean that the U.S. influence should generate *less* support for government involvement, given the U.S. Americans' political philosophy in post-WWII Germany is often described as favoring free-market capitalism and individual liberty.

Overall, what are the practical implications of our results beyond improving our understanding of historical developments related to population size and government preferences? If the suggested positive, causal relationship were indeed confirmed in other settings, this could provide powerful lessons for policymakers. For example, anticipating changes in preferences might help polities plan and transform government programs. We hope this paper highlights the salience of community size as a potential driver of such preferences, encouraging further research in that direction.

A Appendix

A.1 Campaign Posters from 1949

SPD



SPD

CDU

FDP

Figure A1: Campaign posters from 1949 (retrieved from Bundeszentrale für politische Bildung, 2014). The first SPD poster reads: "There is power in unity." The CDU poster reads: "Landmarks in the way of our economic policy." The FDP poster reads "SPD voters! The SPD wants: nationalization-socialization [government]. What's coming out? The East zone provides the answer. We are against it! That's why you should choose the Free Democrats!" The final SPD poster reads "All millionaires vote for CDU-FDP. All other millions of Germans [vote for] the SPD."

A.2 Summary Statistics

Table A1: Summary statistics of additional variables.

Variable	Mean	(Std. Dev.)	Min.	(Max.)	N	Source	Description
Additional control variables							
Share of agricultural land	0.09	(0.06)	0	(0.46)	817	Schumann (2014)	Share of municipality area used to grow forage crops
Industry workers	442	(1,107)	4	(19,358)	820	Schumann (2014)	Number of people working in industry
State-level elections 1952							
% SPD	23.46	(15.26)	0.80	(79.70)	828	Land BW (2017)	SPD vote share (1952)
Distance 2^{nd}	-26.28	(36.41)	-94.70	(68.90)	828	Land BW (2017)	Percentage point distance to $2nd$ party (1952)
% CDU	46.65	(24.88)	2.80	(97.00)	828	Land BW (2017)	CDU vote share (1952)
% FDP	13.96	(13.00)	0.40	(80.10)	784	Land BW (2017)	FDP vote share (1952)
% turnout	63.59	(14.92)	16.00	(98.80)	828	Land BW (2017)	Turnout in % (1952)

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