Backlash in Policy Attitudes After the Election of Extreme Political Parties
Magnus Carlsson, Gordon B. Dahl, and Dan-Olof Rooth
NBER Working Paper No. 21062
April 2015, Revised in September 2020
JEL No. D72,D8,L82

ABSTRACT

Far-right and far-left parties by definition occupy the fringes of politics, with policy proposals outside the mainstream. This paper asks how public attitudes about such policies respond once an extreme party increases their political representation at the local level. We study attitudes towards the signature policies of two parties in Sweden, one from the far right and one from the far left, using panel data from 290 municipal election districts. To identify causal effects, we compare otherwise similar elections where a party either barely wins or loses an additional seat. We estimate that a one seat increase for the far-right, anti-immigration party decreases negative attitudes towards immigration by 1.8 or 4.1 percentage points (depending on which national survey we use). Likewise, when a far-left, anti-capitalist party politician gets elected, opposition to a six hour workday rises by 2.5 percentage points. These changes are contrary to the two parties' policy positions. Exploring possible mechanisms, we find evidence for higher politician turnover and a rise in negative newspaper coverage for the anti-immigration party. These findings demonstrate that political representation can cause an attitudinal backlash as fringe parties and their ideas are placed under closer scrutiny.

Magnus Carlsson
Centre for Labour Market
& Discrimination Studies
Linnaeus University
SE-391 82 Kalmar
Sweden
magnus.carlsson@lnu.se

Dan-Olof Rooth
Swedish Institute for Social Research (SOFI)
Stockholm University
10691 Stockholm
Sweden
dan-olof.rooth@sofi.su.se

Gordon B. Dahl
Department of Economics
University of California, San Diego
9500 Gilman Drive #0508
La Jolla, CA 92093-0508
and NBER
gdahl@ucsd.edu

Backlash in Policy Attitudes After the Election of Extreme Political Parties*

Magnus Carlsson† Gordon B. Dahl‡ Dan-Olof Rooth§

September 1, 2020

Abstract: Far-right and far-left parties by definition occupy the fringes of politics, with policy proposals outside the mainstream. This paper asks how public attitudes about such policies respond once an extreme party increases their political representation at the local level. We study attitudes towards the signature policies of two parties in Sweden, one from the far right and one from the far left, using panel data from 290 municipal election districts. To identify causal effects, we compare otherwise similar elections where a party either barely wins or loses an additional seat. We estimate that a one seat increase for the far-right, anti-immigration party *decreases* negative attitudes towards immigration by 1.8 or 4.1 percentage points (depending on which national survey we use). Likewise, when a far-left, anti-capitalist party politician gets elected, opposition to a six hour workday *rises* by 2.5 percentage points. These changes are contrary to the two parties' policy positions. Exploring possible mechanisms, we find evidence for higher politician turnover and a rise in negative newspaper coverage for the anti-immigration party. These findings demonstrate that political representation can cause an attitudinal backlash as fringe parties and their ideas are placed under closer scrutiny.

Keywords: Far-Right and Far-Left Parties, Policy Attitudes, Political Backlash
JEL codes: P16, D72

*This paper is a major revision of an earlier paper titled "Do Politicians Change Public Attitudes?"

†Linnaeus University Centre for Labour Market and Discrimination Studies, Linnaeus University; email: magnus.carlsson@lnu.se

‡Department of Economics, UC San Diego; Norwegian School of Economics; NBER; CESifo; IZA; email: gdahl@ucsd.edu

§Swedish Institute for Social Research, Stockholm University; IZA; email: dan-olof.rooth@sofi.su.se

1 Introduction

The last two decades have seen a surge in the prominence of right-wing politics in Europe. Examples include the National Front in France, the Party for Freedom in the Netherlands, the Alternative for Germany, the Freedom Party in Austria and the Sweden Democrats.[1] These parties have tapped into populist worries about globalization, a loss of national identity and a general distrust of political elites. While each party is somewhat unique, one commonality is a nativist set of policy proposals, including stringent limits on immigration. On the other end of the spectrum are far-left parties, such as the Socialistic Party in the Netherlands, the Left Party in Germany, the Podemos Party in Spain and the Left Party in Sweden.[2] These more established parties trace their origins to communist movements, but have generally moderated over time to have anti-capitalist, pro-worker platforms mixed in with an acceptance of liberal democracy.

Far-right and far-left parties by definition occupy the fringes of politics, with policy proposals outside the mainstream. It is one thing to espouse sensationalist or extreme policies as outsiders, and another to argue for them as elected representatives. Political representation could provide a platform for these populist/radical parties to convince the public of the merits of their proposals, but there could also be political backlash as the parties and their ideas are placed under closer scrutiny. The media, in particular, could play an important role in critiquing a fringe party and its policies after elections.

Whether ascension to political power by extreme parties results in the persuasion or alienation of voters remains an open question, with prior analyses being limited to correlations and cross country comparisons.[3] The challenge with existing studies is that they are based on observational data which is unlikely to identify a causal effect. For example, countries with more negative views on immigrants may elect more far-right politicians, or similarly, shocks to the economy may change both attitudes and which parties are in power. More generally, if attitudes depend on which parties are in power, and which political parties are in power depends on attitudes, there is an issue of reverse causality. While the possibility that politicians can influence voter preferences has been recognized theoretically, existing empirical work is scant.[4]

[1] See Rydgren (2018) for an overview of far-right parties. See also "Europe's Rising Far Right: A Guide to the Most Prominent Parties," *New York Times*, December 4, 2016.

[2] See March (2008) for an overview of far-left parties.

[3] An overview article by Mudde (2013) on far-right populist parties concludes there is no consensus on how they change attitudes once elected. For example, Semyonov et al. (2006) finds that anti-foreigner sentiment is more pronounced in places with greater support for right-wing extreme parties, based on an analysis of 12 countries and 4 waves of survey data. Subsequent work using more countries and alternative surveys by Dunn and Singh (2011) and Bohman and Hjerm (2016) finds no effect.

[4] In his seminal work, Downs mentions the possibility that voter preferences could be endogenous: "though parties will move ideologically to adjust to the distribution [of voter preferences] under some circumstances, they will also attempt to move voters towards their own location, thus altering it" (1957, p. 140). See also Dunleavy and Ward (1981), Gerber and Jackson (1993), Matsubayashi (2013) and Stubager (2003).

We study how political representation affects attitudes towards the signature policies of two extreme parties in Sweden, one from the right and one from the left. Our first party, the Sweden Democrats, started in 1988 with roots in the racist "Keep Sweden Swedish" and the Sweden Party movements which emphasized the preservation of traditional culture. This far-right party advocates for dramatically limiting immigration. On the other extreme is the Left Party, previously named the Left Party-Communists until 1990, which is rooted in Marxist ideology and is critical of capitalism. This party has campaigned for the rights of workers since its inception, and in particular for a shorter, six hour workday.

To arrive at causal estimates, our analysis takes advantage of large nonlinearities in the way seats are assigned in Swedish municipal elections, comparing otherwise similar elections where a party either barely wins or loses an additional seat. The average municipal council has 45 elected seats, with 8 main parties competing. As described in detail later, the assignment of seats is a discontinuous function not only in a party's own vote total, but also in the mix of votes received by the other parties. Using a variety of regression discontinuity (RD) estimators which allow for multiple parties in an election, we analyze whether gaining an additional seat on the municipal council changes local attitudes after the election. The unique policy positions and small size of the two fringe parties, combined with the large number of municipalities in Sweden, provide an ideal setting for this identification approach.

We find clear evidence that public attitudes are affected by the election of an extreme party championing an issue. But the change is opposite the party's policy position, indicating a backlash in voter attitudes. When a Sweden Democrat politician gets elected, they *decrease* negative attitudes towards immigration in their municipality. One more seat lowers negative attitudes towards immigration by 1.8 or 4.1 percentage points, depending on which national survey we use. Despite the two surveys asking somewhat different questions, both estimates translate to an 8% effect relative to their respective means. Likewise, the election of an additional Left Party politician *increases* opposition to a six hour workday by 2.5 percentage points, or 10% relative to the mean. These effects are present across a variety of demographic groups. Consistent with these attitudinal changes, we find little evidence for an incumbency advantage in the next election.

Using quasi-random variation arising from the election rules matters empirically. OLS estimates lead to the mistaken conclusion that the Sweden Democrats and the Left Party have no effect on attitudes. The RD estimates are robust to a variety of alternative specifications, including the use of multivariate RD control functions of varying flexibility to isolate the jumps in elected seats, as well as univariate RD approaches which reduce the multiple running variables to a single dimension.

We explore several possible mechanisms for our results. First, we rule out coalition formation as a main driver in our setting, finding no evidence that winning an extra seat increases the chances of being part of a governing coalition. We then investigate whether

marginally elected party seats are able to be filled with minimal turnover until the next election. Excessive turnover could be due to less committed politicians being assigned to a seat as well as resignations related to internal party conflicts or pressure from the public. We find the Sweden Democrats have trouble keeping their marginal seats filled, which could diminish the party's ability to effectively communicate and gain support for their preferred policies. There are small, and generally insignificant, effects for the more established Left Party. We next explore the influence of the media. Using a panel of 139 local newspapers, we find the election of a Sweden Democrat or Left Party politician increases their party's mention in local newspapers by 13% and 4%, respectively, although only the first estimate is statistically significant. Moreover, much of the post-election coverage of the Sweden Democrats is derogatory, with mentions of the words "racism" and "xenophobia." The fact that we find a considerably smaller newspaper effect for the Left Party is likely due to Häger's (2012) observation that many newspapers consciously chose to oppose the Sweden Democrats and their anti-immigration stance, but did not aggressively oppose other parties and their policies. Other channels, such as increased television or internet exposure, joint union-party activism or the ability to implement policies which are unpopular at the local level are also possible, but not explored in this paper.[5]

We conclude that political backlash occurs when either of the two extreme parties wins an election in Sweden. The far-right and far-left parties do not sway voters to favor their preferred policies, but rather cause voters on net to shift towards the opposite view. This result speaks to the claim that proportional election systems with low thresholds for representation are potentially dangerous. The argument, discussed by Myerson (2004) in the context of the Weimar disaster, is that such systems provide opportunities for charismatic politicians to express and spread their radical, and potentially harmful, views. Indeed, this is often cited as a rationale for requiring high electoral thresholds in proportional representation systems. Our paper is the first to provide a formal test of this claim, with the conclusion that public policy attitudes are not easily swayed, but in fact recoil, when extreme parties gain a small foothold in government. This backlash is consistent with the parties' policies being placed under closer scrutiny as representation increases.

More generally, our results demonstrate that voter preferences on public policies are not fixed, but rather endogenous to political representation. This has important implications for both how voter preferences should enter into political economy models and the estimation of those models. Forward-looking politicians should take this into account when calculating how to trade off preferred policies and the probability of both election and re-election.

[5]Our results are compatible with Folke's (2014) finding that the election of a politician from an anti-immigrant party (New Democracy, the precursor to the Sweden Democrats) affects policy by reducing the number of refugee immigrant placements. If this policy change was unpopular or led to negative press coverage, it could explain the backlash we observe.

Our paper is related to studies investigating the link between immigration/economic conditions and (i) related policy attitudes and (ii) support for extreme parties.[6] Our paper is also related to work which explores (i) how prominent individuals shape attitudes in other settings, (ii) incumbency effects in both majoritarian and proportional election systems, (iii) political representation and changes in public policy and (iv) the influence of the media in politics.[7] Finally, our study adds to a recent set of methodological papers on how to adapt RD designs to proportional, multiparty elections. These papers propose ways to collapse the vote shares of the different parties down to a single dimension, so that univariate RD methods can be used. We provide a complementary approach which allows for a multivariate RD under the assumption of a global control function of all the running variables.[8] We find similar point estimates with the univariate and multivariate approaches, but with standard errors being over 40% larger for the univariate estimates.

The remainder of the paper proceeds as follows. In Section 2, we describe our setting and data. Section 3 discusses our model and the various RD estimators. Section 4 presents our main results and a series of robustness checks. Sections 5 and 6 report incumbency effects and explore possible mechanisms for our findings, respectively. The final section concludes.

2 Setting and Data

2.1 Municipal Councils

Our setting is local municipality elections in Sweden. Municipalities are smaller than counties, but can encompass more than one city. There are currently 290 municipal councils across all of Sweden, with an average of approximately 45 seats to be filled in each council. The median number of citizens in a municipality is around 15,000, around 70% of the population is old enough to vote, and elections happen every 4 years. Voter participation is high in these elections, with around 80% turnout.[9]

In the time periods we study, there are eight main political parties in any given election, along with several extremely small parties which do not have national representation. Ap-

[6]For examples of (i), see Dahlberg et al. (2012), Dustmann and Preston (2001), Giuliano and Spilimbergo (2014), Mayda (2006), Milkman and Luce (2017) and Poutvaara and Steinhardt (2018). For (ii), see Anelli et al. (2019), Barone et al. (2016), Becker and Fetzer (2016), Dustmann et al. (2019), Edo et al. (2019), Giuliano and Spilimbergo (2014), Halla et al. (2017), Harmon (2018), Mayda et al. (2017), Mayda et al. (forthcoming), Otto and Steinhardt (2014) and Steinmayr (forthcoming).

[7]For examples of (i), see Bassi and Rasul (2017), Broockman and Butler (2015) and Gabel and Scheve (2007). For (ii), see Dahlgaard (2016), Fiva and Røhr (2018), Lee (2008) and Liang (2013). For examples of (iii), see Ferreira and Gyourko (2009), Folke (2014), Lee et al. (2004) and Snowberg et al. (2007). For (iv), see Adena et al. (2015), Chiang and Knight (2011), DellaVigna and Kaplan (2007), Drago et al. (2014), Durante et al. (2019), Enikolopov et al. (2011) and Gentzkow et al. (2011).

[8]For univariate approaches, see Folke (2014), Freier and Odendahl (2015) and Kotakorpi et al. (2017). Our multivariate approach is a natural extension and formalization of Liang (2013).

[9]By law, there must be an odd number of council seats and a minimum number depending on the size of the local electorate. The population of Stockholm municipality is roughly 900,000 while the smallest municipalities have as few as 2,500 residents.

pendix Figure A1 shows the average municipal vote shares for each of the main parties over time. The two largest parties are the Social Democrats and Moderates. Smaller parties include the Center Party, Liberal Party, Left Party, Christian Democrats, Green Party, Sweden Democrats and New Democracy. Each of these smaller parties received at least a 4% vote share at some point during our time period, the minimum needed to receive representation in the national parliament. Our study focuses on the far-right Sweden Democrats who advocated for reduced immigration and the far-left Left Party which pushed for a six hour workday.

Swedish municipal councils have large autonomy. They levy local taxes of around 30% of earnings, with the largest expenditures being for education, elderly care and childcare. A natural question is what role our two small, fringe parties play in a municipality. At the local level, the Sweden Democrats could influence policies on refugee placement and immigrant integration plans, which municipalities negotiate with the central government (Folke 2014). Likewise, the Left Party could push for six hour workday contracts for municipal workers, as they successfully did in Kiruna between 1989-2005 and Gothenburg in 2015. But local policy formulation is not the only objective for municipal representatives. Being elected could also provide a platform to disseminate the party's policy positions, which could then increase support for the party in national elections. Moreover, serving in a municipal government is a springboard for politicians with ambitions to enter the national parliament.

2.2 Extreme Parties in Sweden

Our first extreme party is the Sweden Democrats. Our analysis examines the link between the Sweden Democrats and attitudes towards immigration from 2002 to 2012, a period chosen based on when the party gained a non-trivial following and for which we have data for the same time period in two national surveys. The Sweden Democrat party was officially formed in 1988 with roots in the racist "Keep Sweden Swedish" and the Sweden Party movements. Given the party's overt neo-Nazi stance, it gained less than .4% of the votes in the 1988, 1991, 1994 and 1998 elections. Starting in the mid 1990s the party began a moderation campaign, and in the 2000s expelled the most extreme factions from the party. This moderation has coincided with a steady increase in votes, with the party receiving a 1.4% vote share in 2002, 2.9% in 2006 and 5.7% in 2010 in the national elections.

The main policy issue for the Sweden Democrats has always been to reduce immigration.[10] The party believes that excessive immigration has eroded Sweden's sense of national identity and cultural cohesion. The Sweden Democrats' platform calls for "responsible immigration policy" by which they mean strong restrictions on immigration, and even a redirection of funds used for immigrant integration to subsidies for immigrants to voluntarily return back

[10]Since the end of World War II, Sweden has been a net immigration country. In 2010, 15% of the Swedish population was foreign born, with roughly one-third of the foreign born coming from other EU countries and two-thirds coming from outside the EU. The most common foreign born inhabitants are from Finland, Iraq, Yugoslavia, Poland and Iran.

to their home countries (Sweden Democrat Party Platform, 2010). The party also advocates for increased law and order, and an exit from the EU, two issues which they feel are tied to immigration policy.

Our second extreme party is the Left Party, and the years 1994 to 2013. The Left Party had its origins near the end of World War I, although its name has changed several times since then. From 1921 to 1966 it was known as the Communist Party, from 1967 to 1989 as the Left Party-Communists, and from 1990 to the present as the Left Party. The party is rooted in Marxist ideology and is critical of capitalism. In recent years, it has become a feminist party as well.

The Left Party has consistently advocated for the rights of workers, with a recurring stance of "Work for Everyone." The party has championed the idea of limiting the workday to six hours, as well as the number of days worked per week. As an example, their 1998 party platform reads in part: "Shorter working hours: Now is the time to reduce working hours... The goal is that the standard for full-time work is cut from eight hours per day, without a reduction in pay. Shortening the workday will create more jobs." Their arguments for this policy are that employment, productivity and worker well-being will increase, while wage inequality will fall. The issue was particularly salient throughout our sample period, as Kiruna municipality ended a 16 year period (1989-2005) of six hour workdays for some workers after a contentious debate about costs versus benefits (*Dagens Nyheter*, October 16, 2005). The issue remains salient to this day. For example, in 2015 the Left Party in Gothenburg successfully pushed for a one-year trial of a six hour workday at a municipality-controlled retirement home (*New York Times*, May 20, 2016).

One advantage of focusing on extreme parties and their signature issues is that it is clear which attitudes might be affected after the party wins an additional seat. Exit poll surveys confirm that immigration policy is the top issue associated with the Sweden Democrats, and that a six hour workday is exclusively associated with the Left Party in 4 out of 5 survey waves (calculations based on the SNES surveys, available at www.snd.gu.se). Party platforms corroborate the importance of reduced immigration and a shorter workday for these two parties. While it would be interesting to study other policy issues, either the available attitude questions do not exist over time or are not clearly identified with a single party as a top issue.[11] The fact that the extreme parties are relatively small is also useful for identification. These parties usually have between zero and five seats on a local municipal council, so the relative increase in representation is large when an additional seat is won; a marginal seat is

[11]For example, it would be interesting to study attitudes towards a 4 day workweek, but no corresponding panel survey question exists. Other policy issues, such as EU membership, are associated with several parties. One policy with an available attitude question which is relatively unique is the elimination of nuclear power, a policy associated with both the Green Party and the Center Party, neither of which are considered an extreme party. In an earlier version of this paper, we found some evidence for a change in attitudes for the Green Party which lined up with their preferred policy, but no effect for the Center Party.

less likely to be influential for larger parties.

2.3 Data

We use a variety of data sources which can be linked at the municipality level across election cycles. Election data for 290 municipalities as well as information on municipality characteristics come from Statistics Sweden.[12] We limit our analysis to municipalities which were in existence throughout the relevant sample period.

For attitudes on immigration policy, we use two data sources. The first is survey data collected between 2002 and 2012 by FSI (Forskningsgruppen för Samhälls och Informationsstudier). This survey was begun by the Swedish Gallup Institute between 1955-1970, then taken over by FSI in 1971, and was based at the Department of Sociology at Stockholm University from 2003.[13] We link these data to the periods after the 2002, 2006 and 2010 elections. The attitude question on immigration which was consistently asked is: "*Should Sweden continue accepting (refugee) immigrants to the same extent as now?"*[14] The possible responses are contained in the top panel of Figure 1. We classify respondents as having a negative attitude toward immigration if they answer "*To a lesser extent*" and a positive attitude as "*To a greater extent*". Fifty-four percent of respondents have a negative immigration attitude and 7% have a positive attitude.

Our second data source for immigration attitudes comes from annual survey data collected by the SOM (Samhälle Opinion Media) Institute, a research organization begun in 1986 and based at the University of Gothenburg. We link these data to the periods after the the 2002, 2006 and 2010 elections, as we do for the FSI data, using the same sample period for comparison. The preface to the question is: *"Below are a number of proposals which have occurred in the political debate. In each case, what is you opinion?"* followed by *"Allow fewer refugees to Sweden".* The possible responses are listed in the bottom panel of Figure 1. We classify a negative attitude towards immigrants as a response of "*A very bad proposal*" and a positive attitude as "*A very good proposal*". Twenty-three percent of respondents have a negative attitude, while 11% have a positive attitude.

The FSI and SOM survey complement each other well, as the questions are somewhat different. The FSI survey data uses the word immigrant in the question, while the SOM survey only uses the word refugee. Moreover, the FSI survey asks about whether to accept more or fewer immigrants, while the SOM survey asks about allowing fewer refugees (but not more). Hence, a positive attitude in the FSI survey means support for more immigration,

[12]For larger municipalities, there can be up to six election units within a municipality which allocate seats based on votes. We aggregate these units up to the municipality level, because councils operate at the municipal level and because this is the finest geographical level for our policy attitude measures. There are slightly fewer municipalities in earlier years.

[13]The survey stopped being collected in 2012, and in 2014 the database was taken over by Kairos Future.

[14]In some years the wording was "refugee immigrants" while in others it was just "immigrants."

while a positive attitude in the SOM survey means opposition to reducing the number of refugees.

One way to assess the sensitivity and usefulness of the two questions is to see how attitudes changed in response to the 9/11 terrorist attacks in 2001. We compare attitudes the year before and after, similar to the analysis of Åslund and Rooth (2005). For the FSI survey, negative attitudes increase by 10.1 percentage points (46.9% to 57.0%), while for the SOM survey, negative attitudes increase by 3.6 percentage points (20.3% to 23.9%). We conclude that both measures capture policy attitudes towards immigrants, even if they measure somewhat different margins. We also use the 9/11 shock to help us chose the definition of a negative attitude for the SOM survey. We find that most of the 9/11 response is due to changes in the most extreme answer (response A in Figure 1) rather than a combination of the two negative immigration answers (responses of A or B).

Turning to the six hour workday issue, we use a question which has been asked yearly by the SOM Institute from 1996 to 2013, linking responses to elections from 1994-2010. The preface to the question is: *"Below are a number of proposals which have occurred in the political debate. In each case, what is your opinion?"* followed by *"Adopt a six hour workday"*. The possible responses are found in Figure 2. We classify an answer of either *"very good proposal"* or *"good proposal"* as having a positive attitude toward a six hour workday and a negative attitude as an answer of *"very bad proposal"* or *"bad proposal"*.

Appendix Figure A2 documents the distribution of negative attitudes for both policy issues at the municipality level. The variance in attitudes across municipalities is large. For the immigration issue and the FSI data, the 10th and 90th percentiles for the share of negative attitudes are .44 and .71, respectively. The corresponding numbers for negative attitudes towards refugees using the SOM data are .15 and .37. For negative attitudes towards the six hour workday, these same percentiles are .14 and .32. While not shown in the figure, the distribution of positive attitudes also varies across municipalities.

The opinion surveys also include basic demographics and geographic information. Summary statistics for the demographic variables and municipality characteristics can be found in Appendix Table A1. Appendix Table A2 documents how attitudes are influenced by our demographic variables, in regression models with municipality fixed effects. The estimates reveal that males, the least educated, older individuals and non-immigrants are more likely to have a negative attitude towards immigration using either the FSI or SOM data. Women, the least educated and the young are more likely to favor a six hour workday.

We use several supplemental datasets for our study of possible mechanisms. For our analysis of party instability in terms of keeping seats filled, we collected data from the website "Valmyndigheten" (www.val.se), which since 2006 has tracked the names of the individual politicians filling elected party seats. For our analysis of media coverage, we make use of a database owned by Retriever Sweden Inc., which contains the text of newspaper articles

in Sweden. The database has extensive coverage of local newspapers starting in 2006. We exclude the three national newspapers from the sample, leaving us with a set of 139 local newspapers, some of which cover more than one municipality. Eleven municipalities which are small and sparsely populated do not have a local newspaper.

3 Model and Identification

3.1 Seat Assignment Function

To understand our model and estimation approach, the first step is to understand how municipality seats are assigned. Sweden uses a variant of the Sainte-Laguë method, which is a "highest quotient" approach to allocating seats in a party-list proportional representation voting system.[15] The method works as follows in Sweden. After the votes, v^p, for each party p have been tallied, successive quotients, q^p, are calculated for each party:

$$q^p = \begin{cases} \frac{v^p}{1.4} & if\ a^p = 0 \\ \frac{v^p}{2a^p+1} & if\ a^p \geq 1 \end{cases} \tag{1}$$

where a^p is the number of seats a party has been allocated so far. In each allocation round, the party with the highest quotient gets the next seat, and their quotient is updated to reflect their new value for a^p. The quotients for the other parties do not change, as their seat total has not changed. The process is repeated until there are no more seats to allocate. If a party has not received any seats yet, their quotient is calculated by dividing their votes by 1.4. After receiving one seat, their vote total is divided by 3, and after receiving two seats, their vote total is divided by 5, with this process continuing with the odd number divisors of 7, 9, 11, 13, 15, etc. A divisor of 1.4 (instead of 1) for the first seat implies that it takes more votes to get the first seat compared to subsequent seats.

The first panel in Table 1 provides a simple example of how this process plays out. In this example, there are three parties vying for seats and five seats to allocate. As indicated in the table, the first seat goes to Party A, since they have the highest quotient of 4,142.9. The second seat goes to Party B since their quotient of 2,071.4 is higher than Party A's new quotient of 1,933.3 and Party C's quotient of 928.6. This process of comparing updated quotients continues until all five seats have been allocated. The third and fourth seats go to Party A, and the fifth to Party B. In this baseline example, Party C does not receive a seat.

The second panel in Table 1 illustrates one way Party C could gain a seat. Suppose 54 additional people (who didn't vote at all in the first panel) decide to vote for Party C. In this case, Party C is now awarded the fifth seat instead of Party B. The third panel illustrates another way Party C could get a seat, this time without changing the number of votes for Party C or the total number of voters in the election. In this panel, 115 voters switch from

[15]The general method has also been used in New Zealand, Norway, Denmark, Germany, Bosnia and Herzegovina, Latvia, Kosovo, Bolivia, Poland, Palestine and Nepal.

voting for Party B to voting for Party A, and Party C is awarded the final seat. The final panel illustrates yet another way for Party C to get a seat. In this example, 37 voters switch from Party B to C, while the number of votes for Party A remain unchanged.

The key insight is that in all four panels, the vote shares for the various parties, and the total number of voters are similar, but small shifts in votes result in discrete changes in whether Party C gets a seat. It is this type of threshold variation among otherwise similar elections that we exploit for identification.

In reality, there are 8 or more parties competing for an average of 45 seats. For a smaller party seeking a seat, the number of votes needed can be quite small. In our data, the median number of votes cast is 9,320; the median number of votes needed to get a seat is 172 for a party which already has at least one seat, and 241 for a party which is getting their first seat. Moreover, with so many seats and so many parties, there are many ways for seats to shift among the parties at the margin. This means it will be hard to predict how many votes are needed to win an additional seat, making it difficult for the parties to perfectly manipulate vote shares to guarantee they get a marginal seat.

3.2 Model

We are interested in the causal relationship between public attitudes and political representation of extreme parties. Policy attitudes are measured after the seats have been allocated, and are allowed to depend on the number of seats held by each of the parties:

$$y_{ijt} = \alpha_j + \delta_t + \beta x_{ijt} + \pi^1 \tilde{s}^1_{j,t-1} + \pi^2 \tilde{s}^2_{j,t-1} + ... + \pi^{P-1} \tilde{s}^{P-1}_{j,t-1} + u_{ijt} \tag{2}$$

where the subscripts i, j and t index individual, municipality and time period, respectively, and the superscript labels political party. The outcome variable y measures attitudes, x contains a set of demographic controls and u is an error term. The $\tilde{s}^p$ variables are the number of seats held by each of the P parties, and are determined by the seat assignment rule described in equation (1).

The model written above makes two assumptions for tractability and identification. First, it assumes additive separability for the effect of seats held by the various parties, which rules out interactive effects between the number of seats held by different parties. Second, the model assumes a constant treatment effect for each of the seat variables. This means the effect of gaining and losing a seat is symmetric and that the effect of a given party getting an extra seat does not depend on which party they take the seat away from. If there are heterogeneous effects, then the estimated coefficient will capture a weighted average of these effects.[16] These two assumptions rule out systematic coalition formation as a determinant of attitudinal changes. While multi-party coalitions may be consequential along other dimensions, as we

[16]With more data, these assumptions could be relaxed somewhat. For example, one could estimate the effect of party 1 taking a seat from party 2, conditional on a given distribution of seats for the other parties.

document later empirically, governing coalitions are not a statistically significant factor for our setting and research design.

For ease of interpretation, we absorb the seats for all the parties except the party of interest into the error term for our baseline model. In this case, the coefficient for the party of interest is interpreted as the effect relative to a weighted average of the effects for the other parties who would have gotten the marginal seat instead.[17] Another modification which turns out to be useful for empirical implementation is to model policy attitudes as a function of seat shares, instead of seats. This makes it easier to compare municipalities which have differing numbers of council seats. Letting s^1 denote the seat share (rather than seats) for the party of interest, the model becomes

$$y_{ijt} = \alpha_j + \delta_t + \beta x_{ijt} + \theta^1 s^1_{j,t-1} + u_{ijt}. \tag{3}$$

An obvious concern for OLS estimation of equation (3) is that seat shares likely depend on voter attitudes. Since attitudes are correlated over time, this will create an omitted variable bias. A related concern is that politicians might change their policy positions based on public attitudes to increase their chances of getting elected, which would also create a bias.

3.3 RD Estimation

To identify a causal effect, we take advantage of nonlinear threshold variation in seat assignments. To better understand our setting, consider first the simpler case where there are just two parties competing in a majoritarian election. In this simplified setting, θ^1 in equation (3) captures the effect of party 1 winning the election compared to party 2. A standard regression discontinuity (RD) estimator would use the vote share for party 1 as the running variable, and augment equation (3) with a flexible control function of this running variable. The control function can be either a global polynomial or separate polynomials to the left and right of the cutoff of 50%, with the advantage of separate polynomials being that the estimate is nonparametrically identified.

Our setting differs, because there is not a single running variable which determines whether a party gets an extra seat. Instead, there are multiple running variables which interact to determine the cutoff, as described in Section 3.1. We employ two complementary approaches to deal with the high dimensional nature of the running variables: a multivariate RD design with a global control function of all the variables which determine the cutoff, and a univariate RD design which collapses the multiple running variables down to a single dimension. The advantage of the global multivariate approach is that it uses more of the variation in the election data and is therefore more efficient, while the benefit of the collapsed univariate

[17] It is easy to show that θ^1 in equation (3) equals π^1 minus a weighted average of the other π's in equation (2), where the weights are functions of the probabilities each party gets elected. As a specification check, we present results which include the seat share variables for all of the other parties, with the party of interest as the excluded category.

approach is nonparametric identification.

3.3.1 Multivariate RD estimators. We propose a multivariate RD estimator which augments the outcome equation in (3) with a global control function of all of the running variables which determine the cutoff. Namely, we add in a control function which includes the vote shares for each of the parties, the total number of votes and the total number of seats in the last municipal election:

$$y_{ijt} = \alpha_j + \delta_t + \beta x_{ijt} + \theta^1 s^1_{j,t-1} + f(v^1_{j,t-1}, v^2_{j,t-1}, ..., v^P_{j,t-1}, tv_{j,t-1}, ts_{j,t-1}) + e_{ijt} \qquad (4)$$

where v^p measures the vote share for party p, and tv and ts indicate the total number of votes and the total number of seats in a municipality and election period.[18]

To implement our proposed approach, we use a global polynomial of all the running variables, including interaction terms, as the control function. It is not possible to have separate polynomials to the "left" and "right" of a cutoff, as is often done with univariate RD designs, as the concepts of "left" and "right" cannot be defined in a setting with many running variables and multiple seats. Because of this, the seat allocation rule described in equation (1) and the control function $f(\cdot)$ are both functions of the same set of underlying variables, just as they would be in a univariate RD with a global polynomial in the running variable. Hence, θ^1 will only be identified if $f(\cdot)$ and the seat allocation rule have different relationships to the inputs $v^1, v^2, ..., v^P, tv$ and ts. The discontinuous nature of seat assignments is therefore the primary driver of identification.

In practice, the control function needs to be estimated flexibly, without sacrificing too much precision. To avoid bias, the function $f(\cdot)$ needs to be flexible enough to capture the true expected relationship between attitudes and the vote share variables, total votes and total seats. But if the function is too flexible, we will not be able to separately identify the jumps in the seat shares from the control function. Empirically, we find that a second order expansion for the control function is sufficiently flexible, and that adding more terms does not appreciably change the estimates. As a specification check, we also use control functions where the terms are chosen parsimoniously using a covariate selection method.

Our estimator is a natural extension and formalization of Liang (2013). To estimate party-specific incumbency effects in a proportional election system, he includes a polynomial in the votes for the party of interest but not in the votes for the other parties or the number of seats. Not including these extra terms turns out to matter empirically for several of our results below.

3.3.2 Univariate RD estimators. We also report estimates using univariate RD designs which collapse the multiple running variables down to a single running variable. We use

[18] One could equivalently include a control function in the votes for each party and the total number of seats (rather than vote shares, total votes and total seats), since equation (1) can be written as a function of either set of variables; equation (4) is more natural when municipalities differ in the number of voters.

Folke's (2014) method of collapsing, which counts the minimum number of aggregate votes that would need to change for the party of interest to either lose or gain a seat, normalized by the total number of votes for all parties in the election. Returning to the example in Table 1, the minimum vote change is found in panel B, where 54 new votes are added to party C.[19]

The advantage of a univariate RD estimator is nonparametric identification with different slopes to the left and right of a cutoff. The disadvantage is a loss in precision, as the univariate closeness measure does not differentiate between vote switches which are more or less likely. For example, it may be relatively easy for the Left Party to take 30 votes away from a liberal party like the Social Democrats, but more difficult for them to take 30 votes away from a more conservative party. Yet both would count as being equally close to the threshold. Additionally, using Folke's definition, switching a single vote from one party to another is equivalent to two new votes for a party, which could similarly result in a noisy measure of closeness if the two events are not comparable.

With a single running variable in hand, the effect of an increased seat share on attitudes can be modeled in a univariate, sharp RD framework as

$$y_{ijt} = \alpha_j + \delta_t + \beta x_{ijt} + (1[r_{j,t-1} < 0]/ts_{jt})g_l(r_{j,t-1}) + (1[r_{j,t-1} \geq 0]/ts_{jt})(g_r(r_{j,t-1}) + \theta^1) + v_{ijt} \quad (5)$$

where the notation is similar to equation (3), with the addition of the univariate running variable $r_{j,t-1}$ and the functions g_l and g_r of the running variable to the left and the right of the cutoff. The indicators for being above or below the threshold of zero are divided by the total number of seats so as to scale the winning of an additional seat into a seat share.

Folke's version of equation 5 specifies constants for the g_l and g_r functions, along with an inner window around the cutoff beyond which the g_l and g_r functions are 0. In other words, Folke compares outcome means to the left and right of the cutoff within an inner window, but also allows observations with running variables outside the inner window to contribute to identification of the other coefficients in the model. These other variables and observations outside the inner window are not needed to identify the treatment effect, but should increase the precision of the estimator. We estimate both Folke's specification as well as a standard RD design with separate linear trends (and triangular weights) in the running variable on each side of the cutoff for the g_l and g_r functions.

4 Policy Attitude Results

To estimate whether the election of extreme politicians affects citizens' policy attitudes, we regress individual level attitudes in surveys after elections on the seat share of the fringe

[19] According to Folke's measure, a new vote for a party counts as one vote change while switching a vote from one party to another counts as two vote changes. We make two minor corrections to Folke's coding algorithm. First, we take into account that a party cannot take/give a seat from/to itself. This is relevant when a party gets a seat in two consecutive seat allocation rounds. Second, we allow for the possibility that it may be more efficient to take away votes from two or more parties (versus just one party). These two corrections make a difference in around 5% of elections.

parties. We present naive OLS estimates based on equation (3), multivariate RD estimates based on equation (4), followed by univariate RD estimates based on equation (5). The main regressions include municipality fixed effects, survey year fixed effects and controls for the individual characteristics appearing in Appendix Table A2. We combine the vote shares of the parties which never receive enough votes to be in the national parliament into one group.

4.1 Immigration and the Sweden Democrats

Table 2 reports results for how post-election attitudes towards immigration change when the Sweden Democrats increase their seat share. Estimates are shown using both the FSI and SOM survey datasets, and using both negative and positive attitude dummies as the outcome variables. The first column uses naive OLS, and finds small and insignificant effects for both negative and positive attitudes towards immigration, regardless of whether we use the FSI (panels A and C) or SOM (panels B and D) survey questions and data.

The remaining columns in the table report estimates using a variety of RD estimators; we first explain each of these estimators before discussing the empirical results. Column (ii) uses our baseline multivariate RD estimator, which includes a second order expansion of the 10 input variables which enter into the seat allocation rule (e.g. the vote share for each party, total seats and total votes). This second order expansion includes all of the inputs as well as their squares and interactions, for a total of 65 terms. Column (iii) of Table 2 uses a variable selection procedure proposed by Imbens (2015) to choose a more parsimonious set from all possible second and third order terms.[20] Column (iv) reports our baseline univariate RD using Folke's specification with an inner window of .004, i.e., where the minimal distance in the number of vote changes expressed as a share of total votes to gain or lose an additional seat is less than .4 percentage points.[21] This amounts to 37 vote changes for the median municipality; 30% of observations are within this inner window. The final specification uses the same closeness measure to create a scalar running variable, but employs a standard univariate RD design with separate linear trends on each side of the cutoff and triangular weights.

Consider first the RD results for the negative attitude outcome (panels A and B). Using

[20] As in Imbens (2015), we choose among a set of possible polynomial terms in a stepwise fashion. We begin by including all first order terms. We then set a threshold p-value of .30 for adding second order terms based on forward stepwise regressions. The forward stepwise algorithm adds each possible second order term as one additional covariate to a separate regression, finds the term which is most significant among all the regressions, and adds that term to the model if it is below the threshold. The process repeats, continuing to add additional terms until there are no new terms below the threshold. For the next step, we limit the possible set of third order terms to those which can be linked to the set of second order terms chosen for inclusion. We set a threshold p-value of .20 for the addition of third order terms. There are no formal results about the optimal values for the thresholds. See Imbens (2015) for further details.

[21] The window choice is a judgment call, and as Folke points out, optimal bandwidth tests cannot be used in this setting. We include the 65 second order expansion terms as additional controls, which serves to increase precision. Folke's paper includes a slightly different set of expansion terms, namely, a fourth order polynomial of the inputs without interaction terms. Both sets of additional regressors yield similar results.

either the FSI data or the SOM data, the various RD estimates appearing in columns (ii) - (v) reveal a sizable backlash in immigration attitudes opposite the Sweden Democrats' policy platform. The estimate using the FSI data and the baseline multivariate specification in column (ii), panel A implies that when the Sweden Democrats' seat share increases by 1 percentage point, negative attitudes in the corresponding municipality decrease by 1.8 percentage points. Stated somewhat differently, since one seat equates on average to a seat share of approximately 2.3, an additional seat decreases negative attitudes towards immigrants by 4.1 percentage points. Relative to the average number of citizens who express anti-immigration views (54%), this is a sizable 8% decrease. Using the SOM data instead, there is a .8 percentage point reduction for each 1 percentage point increase in the seat share, which translates into a 1.8 percentage point decrease in negative attitudes for each additional seat the Sweden Democrats gain. Relative to the mean (23%), this is also an 8% decrease. The multivariate RD estimates using covariate selection yield similar results.

Turning to the univariate RD estimates, Folke's implementation yields results virtually identical to the baseline multivariate specification, while the estimates using separate linear trends are somewhat larger. Compared to the multivariate estimators, the standard errors for the univariate RD estimators are over 40% larger, as expected based on the discussion in Section 3.3.2. Appendix Figure A3 provides a visual representation corresponding to the univariate RD specification with separate linear trends.

In contrast to the negative attitude results, when looking at positive attitudes there is little evidence of an effect (see panels C and D). Using the FSI data, the estimates are all close to zero. Using the SOM data, the estimates show a modest increase in positive attitudes (which is opposite the Sweden Democrats' policy platform), but only one of the four RD estimates is statistically significant.

4.2 Six Hour Workday and the Left Party

Results for how the Left Party affects attitudes towards a six hour workday are found in Table 3. The naive OLS estimates find no effect of political representation on either negative or positive attitudes.

In contrast to OLS, the RD estimates reveal an increase in negative attitudes towards a six hour workday, and some evidence for a decrease in positive attitudes. Start with negative attitudes and the baseline multivariate estimate in column (ii), panel A. When the Left Party increases their seat share by 1 percentage point, negative attitudes towards a six hour workday increase by 1.1 percentage points.[22] This translates to a 2.5 percentage point increase in negative attitudes towards a shortened workday for one additional seat. Twenty-five percent of individuals in our sample oppose a six hour workday, so relative to

[22]Since the Left Party spans a longer time horizon, the control functions include one additional party and therefore 76 control function terms.

the mean, this represents a 10% increase in negative attitudes. The covariate selection model and the two univariate RD models yield qualitatively similar estimates.[23] As in Table 2, the standard errors on the univariate estimates are substantially larger, indicating a non-trivial loss in precision from collapsing to a single running variable.

Panel C reports results for positive attitudes towards a six hour workday. Column (ii) indicates that a 1 percentage point increase in the Left Party's seat share results in a .8 percentage point drop in positive attitudes, for an implied 1.8 percentage point decrease associated with one additional seat. Relative to the mean (52%), this is a 3% decrease. The other RD estimators yield similar point estimates, but are not statistically significant. For the univariate RD estimators, this is primarily due to larger standard errors.

Panels B and D repeat the analyses, but restricting the sample to municipal elections where the Left Party had five or fewer seats in the prior election. The logic is that in these municipalities, losing or gaining one seat is more consequential. This restriction does not affect internal validity, as it is based on a pre-determined variable.[24] For positive attitudes, the results are broadly similar, with the univariate RD estimates becoming larger. For negative attitudes, the estimates increase in magnitude and are statistically significant for all RD specifications.

For both the Sweden Democrats and the Left Party, the RD estimates stand in sharp contrast to naive OLS. Taken at face value, the OLS estimates would lead one to mistakenly conclude that an increase in representation for the two extreme parties does not significantly change attitudes. These would not be a surprising result, since the low seat shares of these parties might simply mean they have little influence or voice at the local level. But the RD estimates reveal there is in fact a sizable backlash in public opinion. Our estimates for positive and negative attitudes do not indicate an increase in polarization, but rather a shift in attitudes away from the extreme party's policy position. We explore two possible reasons for this backlash later, in Section 6.

For the rest of the paper, we focus on negative attitudes and the multivariate and univariate RD specifications appearing in columns (ii) and (iv) of Tables 2 and 3. We note the specifications in columns (iii) and (v) yield similar results for the analyses which follow, and are available on request.

4.3 Exogeneity, Robustness and Heterogeneity

4.3.1 Exogeneity tests. The nature of the seat assignment rule creates many hard to predict ways for seats to shift among the parties at the margin, so a priori, there is little chance

[23] For Folke's univariate RD specification, 43% of observations are within the inner window compared to 30% for the Sweden Democrats. This difference is because the Sweden Democrats are more often competing for their first seat (which requires more votes given the seat assignment algorithm).

[24] For the Sweden Democrats, fewer than 3% of municipal elections had more than 5 seats in the prior election, so this type of exercise results in almost no change to the estimates.

for manipulation which would invalidate our design. To empirically test for exogeneity, in Appendix Table A3 we analyze whether a party's seat share is significantly associated with lagged, and hence pre-determined, municipality characteristics using our baseline multivariate and univariate RD specifications. There is little evidence the seat shares of either party are related to these characteristics. Only 1 out of 28 estimates is statistically significant. We next test exogeneity by regressing pre-election attitudes on a party's seat share. Since these seats have not been allocated yet, they should not affect pre-election attitudes. We find that 1 out of 6 estimates is statistically significant for negative attitudes and 0 out of 6 estimates are statistically significant for positive attitudes (see Appendix Table A4). Our conclusion is that manipulation is unlikely to be a problem, as the number of significant estimates is roughly what would be expected due to chance.

4.3.2 Robustness checks. Our main estimates combine all of the parties except the party of interest into the omitted category for ease of interpretation. This enables the seat share coefficient to be interpreted as the effect relative to a weighted average of the effects for the other parties which would have gotten the marginal seat instead. In Table 4 we repeat the baseline multivariate specification, except that we include the seat share variables for all of the other parties, and use the party of interest as the omitted category. This allows us to examine whether the estimated effects are driven by some parties and not others.

For both policy issues and both surveys, we find that it does not matter much which party gets a marginal seat instead of the fringe party. In column (i), which uses the FSI survey, the other party seat share coefficients are positive and all but one are statistically significant. In other words, relative to the Sweden Democrats gaining another seat, when any of the other parties gain a seat instead, negative attitudes towards immigrants increase. In column (ii), which uses the SOM data, all of the coefficients are likewise positive, but only two are statistically significant. A similar pattern holds for attitudes on a six hour workday, with all of the estimates having the same sign and most of them being statistically different from zero. We conclude that while the individual coefficients differ somewhat across parties, not much information is lost by using the simpler model with a single seat share variable.

Appendix Table A5 contains a series of further robustness checks. The first specification repeats our baseline multivariate and univariate RD estimates for comparison. The second specification includes additional expansion terms in the multivariate control function, adding cubes of each input as well as three-way interaction terms involving the Sweden Democrats or the Left Party. This results in 130 terms for the Sweden Democrats and 152 terms for the Left Party.[25] The estimates are similar to baseline. Panel C uses separate quadratic polynomials for the univariate estimators, and finds similar results. Panel D cuts the inner

[25]Less flexible specifications for the control function, such as including only first order terms (10 or 11 terms, respectively, for the Sweden Democrats and Left Party), yield estimates in between OLS and the multivariate RD results.

window in half; while the estimates change somewhat, the standard errors are relatively large. As the next specification shows, when we use the number of seats instead of seat shares as the independent variable, the results are the same order of magnitude. To see this, divide the seat coefficients by 2.3, the average seat share corresponding to one seat.[26] In panel F, we estimate regressions which do not include municipality fixed effects. The estimated coefficients remain statistically significant in all but columns (ii) and (iv). Finally, when we omit the individual characteristics as control variables or omit the three largest cities of Stockholm, Gothenburg and Malmo (approximately 16% of the data), we find little change in the estimated coefficients.

In Appendix Table A6, we probe alternative codings for the definitions of negative and positive attitudes. As a reminder, for immigration attitudes and the SOM survey, our choice to code a negative attitude as the most extreme response of a "very good proposal" was driven by the empirical observation that this categorization was most responsive to the 9/11 terrorist attacks (see Section 2.3). When we instead categorize a negative attitude as either a "very good proposal" or a "good proposal", there is no effect. This suggests the most extreme attitudes against immigration we moderated down one notch, rather than a general downward shift in the entire distribution. For the FSI survey, there is only one possible way to code positive and negative immigration attitudes, so no alternative coding appears in the table. Turning to alternative codings for the six hour workday question, we conclude that most of the reduction in positive attitudes is driven by a reduction in the most extreme response, but that the increase in negative attitudes is driven by a combination of the two possible negative responses.

4.3.3 Heterogeneous Effects. In Appendix Table A7 we explore heterogeneity across individual demographic characteristics. As a reminder, gender, education level, age and immigrant status all strongly impact attitudes in OLS regressions (see Appendix Table A2). For both the immigration and six hour workday questions, we find little evidence of heterogeneity on these margins, with only four of the 20 p-values testing for differential effects being statistically significant.

5 Incumbency Effects

The results so far document that political representation causes a backlash in policy attitudes which are opposite each fringe party's intended direction. A related question is whether these stated preferences on opinion surveys translate to observed changes in voting. Indeed, one worry of constitutional design scholars regarding proportional election systems is that once an extreme party gains a small foothold, their gains will multiply in subsequent elections.

[26]We also explored the margins of going from 0 to 1 seat, 1 to 2 seats, 2 to 3 seats, etc. and found no statistical evidence for a nonlinear effect, although the individual estimates were imprecise.

To examine this, Table 5 regresses the log number of votes for a party in the next election on the party's seat share in the last election, with controls for election year. The naive OLS estimates point to a strong incumbency effect for both fringe parties, with a 1 percentage point increase in the seat share variable resulting in 22% and 12% more votes for the Sweden Democrats and the Left Party, respectively. Since an additional seat equals a 2.3 seat share on average, this translates into 51% and 28% more votes after the respective parties get one more council seat.

To arrive at causal estimates, we use the baseline multivariate and univariate RD specifications. For the Sweden Democrats there is no evidence for an incumbency effect, with the estimates being negative and close to zero. For the Left Party, there is some evidence for an incumbency effect, with the multivariate RD coefficient being positive and statistically significant when using the sample of all municipalities. When the sample is limited to municipalities where the Left Party held 5 or fewer seats in the prior election, however, this estimate shrinks towards zero and is not statistically significant. This corresponds to generally larger effects for the ≤ 5 sample in Table 3; one interpretation is that the incumbency effect is dampened for the ≤ 5 sample because that is where the backlash in positive attitudes (as well as negative attitudes to a smaller extent) are largest. The finding of little to no incumbency effects for these two fringe parties is perhaps not surprising given related research in the Scandinavian context, which mostly finds little evidence for incumbency effects at the party level, even though the individual advantage is sizable (Dahlgaard 2016, Fiva and Røhr 2018, Liang 2013). When we estimate incumbency effects for the other small parties in Sweden (Green Party, Christian Democrats, Liberal Party and Center Party), we find positive and statistically significant effects for two of these four parties. Thinking about the attitude and incumbency results in tandem, the Sweden Democrats and the Left Party caused a swing in attitudes against their preferred policy positions, which may have negated any incumbency advantage they otherwise would have experienced.

6 Possible Mechanisms

While there are likely to be many factors at play, in this section we explore two possible reasons for political backlash in attitudes: politician turnover and the influence of local newspapers. The data used to construct each of these measures first becomes available for the 2006 and 2010 elections, so our analysis is limited to those two post-election periods. We use the same identifying variation as before, namely, the quasi-random variation in seat shares due to the election rules to study these two mechanisms.

Before exploring these two mechanisms, however, we first rule out coalition formation as a main driver of attitudinal changes in our setting. The lack of heterogeneous effects based on which party loses a seat, as documented in Table 4, argues against systematic coalition formation mattering for public attitudes. The reason is that if the extreme parties

had consistent coalition partners which helped them advance their policies, there should be a heterogeneous effect for those specific partners. But it does not seem to matter which party an extreme party takes a marginal seat from. To explore coalition formation further, in Appendix Table A8 we estimate whether gaining an additional seat leads to a larger likelihood of being part of a governing coalition. The first thing to note is that the Sweden Democrats were never part of a governing coalition, as no parties were willing to partner with them. The Left Party was in a governing coalition 30 percent of the time. The multivariate and univariate RD specifications estimate effects which are small and statistically insignificant.[27]

6.1 Politician Turnover

The first mechanism we examine is whether marginally elected seats are able to be filled with minimal turnover until the next election. High politician turnover could hurt a party's effectiveness in getting its message across to voters, causing a backlash in attitudes. Excessive turnover could be due to less committed politicians being assigned to a seat as well as forced and voluntary resignations related to internal party conflicts or pressure from the public. Indeed, some researchers have argued that radical right parties can have influence as outsiders, but do not have the necessary infrastructure or discipline to succeed as part of the government (see Mudde 2013). There are several anecdotes of this type of unprofessionalism at the local level for the Sweden Democrats.[28]

We define seat instability as a dummy variable which equals one if either the party cannot fill a seat or if a seat is filled with at least three different appointed politicians between elections. Our definition is based on the observation that among small parties, occasional turnover in politicians is normal, but that repeat turnover for the same seat is likely to be indicative of more serious problems.[29] On average, 23% of Sweden Democrat seats were unstable after the 2006 and 2010 elections. This stands in stark contrast to 6% seat instability for the Left Party, an average which is also similar for other small parties. Apparently, the Sweden Democrats had a much harder time filling, and keeping filled, the seats they won in local elections compared to every other party.

To see whether seat instability is causally linked to a marginally won seat, we perform a similar analysis as we did for the attitude regressions. The first column in Table 6 regresses seat instability on the seat share for the Sweden Democrats and Left Party, controlling for

[27] In some cases, the governing coalition does not have a majority. In these cases it is possible that a party could be pivotal by joining forces with other parties and creating a majority for votes on specific issues. We explored this and found no evidence, for either extreme party, that the addition of an extra seat would help to create a majority.

[28] To cite two examples, one Sweden Democrat politician was expelled since he broke local election laws and failed to attend local council meetings (*Arbetarbladet*, October 28, 2014), while another was expelled after repeatedly posting racist statements on social media (*Eskilstunakuriren*, April 14, 2011).

[29] As an alternative, we also tried defining seat instability as equal to one if the party cannot fill a seat or if the seat is filled with at least two different politicians between elections. This yields similar results.

year and municipality fixed effects. The OLS estimates for both fringe parties are small and statistically insignificant. However, when using our RD estimators, the picture changes dramatically for the Sweden Democrats. For the baseline multivariate RD specification, the point estimate indicates that when the seat share for the Sweden Democrats goes up by 1 percentage point, seat instability goes up by 12 percentage points. The univariate RD specification finds a similar result. Since a seat share of 2.3 equals approximately one seat, this translates into an additional seat increasing instability by 28 percentage points. In contrast, there is at most a hint that marginal seats for the Left Party are less stable. Null results are found for the other four small parties.

We infer the Sweden Democrats had a relatively hard time attracting capable politicians to serve at the local level, particularly on the margin, whereas the same is not true for the more established Left Party. This sign of local disorganization and inexperience may have turned off voters to the Sweden Democrats and their policies.

6.2 Power of the Media

As a second possible mechanism, we explore the power of the local media to frame political parties and influence policy debates. Our setting is well-suited to study the effect of local media coverage, as Sweden has a large number of local newspapers. This is in part due to subsidies provided by the central government to encourage diversity in local newspaper markets. We were able to compile information from 139 local and regional newspapers (we exclude the three national newspapers), which represents roughly 95% of newspapers in print. We match municipalities to newspapers which operate in their geographical area. Almost half of newspapers cover just one municipality and over two-thirds of newspapers cover three or fewer municipalities.

6.2.1 Newspaper coverage. We first explore whether local newspaper coverage increases after a party wins a seat in Table 7. To construct the dependent variable, we add up the number of articles which mention a fringe party after an election, but before the next election takes place, and take the natural log. We regress this on the seat share of the party of interest (in the municipalities covered by a newspaper), and include newspaper and election year fixed effects in the regression. For this analysis, we have fewer groups than in our prior analyses. This is because we have fewer newspapers than municipalities (139 versus 290), and only two election cycles. This has the practical implication that the control functions for multivariate RD will need to include fewer terms.[30] For the baseline multivariate RD regression, we use a control function that includes all first order terms, their squares and second order interactions involving the party of interest (30 terms for the Sweden Democrats and 33 for the Left Party).

[30]Since the number of groups is smaller, we also explored using the studentized block bootstrap, which has faster convergence properties compared to clustered standard errors. While the confidence intervals increased somewhat, this did not materially affect any of our conclusions.

We also use covariate selection models, but which are limited to choosing among first and second order terms.[31]

For the Sweden Democrats, the OLS estimate is small and statistically insignificant. In contrast, the multivariate RD estimates are large, positive and statistically significant. Consider the multivariate estimate in column (ii). When their seat share goes up by 1 percentage point, mentions of the words "Sweden Democrat" rise by 24% in local newspaper articles. This translates into a roughly 13% increase in media coverage after the Sweden Democrats win one more seat, since one seat equates on average to a little more than half of a seat share in municipalities covered by a newspaper. To put this in perspective, it implies that after the Sweden Democrats win an extra seat, another 57 articles per newspaper per election period are written mentioning the words "Sweden Democrat" compared to the overall average of 430 articles mentioning the party. The univariate RD estimates tell a similar story, with even larger point estimates, but also larger standard errors.

For the Left Party, the OLS estimate is likewise small and statistically insignificant. Three of the four RD estimates find that when the seat share rises by one percentage point, mentions of the Left Party rise by 8%, which translates into a 4% increase in articles after the Left Party wins one more seat (i.e., another 23 articles per newspaper per election period). While this is a modestly-sized effect, the estimates are not statistically significant. It would be interesting to explore whether there is an election-induced increase in tv, radio or internet coverage, but unfortunately, the requisite data do not exist. We speculate that for the Left Party, various forms of propagandizing, such as union-party activism in the workplace or pamphleteering, could also play important roles at the local level.

6.2.2 Newspaper content. A natural follow up question is whether this increased coverage of the Sweden Democrats is positive or negative. If negative, newspapers could be turning off citizens to the party and its anti-immigration stance. To answer this question, we carry out a content analysis of the types of words that appear in local newspapers. The analysis is the same as in Table 7, but with different search terms fed into the newspaper database. We also take the inverse hyperbolic sine of the dependent variable, as some newspapers have zero articles for these more specialized searches.

We first search for variants of the terms "racism" or "xenophobia" in newspaper articles which also include the phrase "Sweden Democrat". These terms carry negative connotations in Sweden, and are clearly used as reproachful and stigmatized labels. Using either the multivariate or univariate RD baseline specifications, the results are striking. Column (ii) in Table 8 reveals that a 1 percentage point increase in the seat share results in a statistically

[31] We set a threshold p-value of .30 for adding first order terms based on forward stepwise regressions. For the second step, we limit the possible set of second order terms to those which can be linked to the set of first order terms chosen for inclusion. We set a threshold p-value of .20 for the addition of second order terms. See footnote 20.

significant 34% increase in negative articles written about the Sweden Democrats. Translating this result, when the Sweden Democrats win an extra seat, there is an 19% increase in the number of articles that mention racism or xenophobia in combination with the party's name. The baseline univariate RD finds an even larger effect, but with a correspondingly larger standard error. We also search for articles which mention racism or xenophobia, but not the Sweden Democrats. We find no statistical evidence that the Sweden Democrats trigger a discussion of racism without a mention of their party.

We next search for variants of the words "immigrant" and "integration" (both have to appear) in articles which also include the phrase "Swedish Democrat". These search terms were chosen to assess whether the election of a Sweden Democrat prompts a substantive policy debate in local newspapers.[32] The multivariate RD estimate indicates a 22% increase in these types of newspaper mentions for each percentage point increase in the Sweden Democrats' seat share. This translates to roughly 12% more of these types of articles for each extra seat. The univariate RD estimate tells a similar story. There is no statistical evidence of increased discussion about immigrants and integration in articles which do not mention the Sweden Democrats, although the estimates are positive.[33]

These empirical findings are consistent with interviews of newspaper editors and journalists by Häger (2012) who found that newspapers consciously chose to oppose the Sweden Democrats and their anti-immigration stance, but did not aggressively attack other parties or their policies. As an example, on election day in 2010, the front page of the national newspaper *Expressen* was covered with a large "NO!" In the background was a crumpled ballot for the Sweden Democrats and a sentence which read "Today we vote for Sweden and against xenophobia." The media seem to have behaved differently towards the Left Party, as illustrated by the following contrasting example. In 2005 the national newspaper *Dagens Nyheter* discussed the end of the six hour workday after 16 years in Kiruna municipality's home care service. The article emphasized the tradeoffs between worker well-being and the high costs of the policy, but did not oppose or attack the Left Party.

This difference in how the Sweden Democrats and the Left Party appear to have been treated by the media leads us to the following interpretation. As Rydgren (2008) found, people tend to vote for far-right parties because they are anxious about immigration and not primarily because they are racist or xenophobic. When newspapers label the Sweden Democrats and their policies as racist, individuals averse to these labels may try to distance

[32]The way searches can be done in the database does not allow us to use textual analysis to assess whether these articles are favorable or unfavorable to the Swedish Democrats. Searches based on the word "immigrants" without also requiring the word "integration" are too broad, as such searches identify many articles related to historical immigration and other non-policy related issues.

[33]We performed a similar content analysis searching for "Left Party" and the phrase "six hour workday". As expected, since there is no statistical evidence for a change in newspaper coverage after a Left Party politician is elected, there is no statistical evidence for increased mentions of the Left Party and the six hour workday either (although the estimates are positive).

themselves from the Sweden Democrats and their anti-immigration policies. In contrast, when debates start detailing the high costs of a six hour workday, people may come to the conclusion that the policy is not fiscally sound, rather than feeling ashamed for supporting a platform of the Left Party.

7 Conclusion

Political representation could provide a platform for extreme parties to convince the public of the merits of their proposals, but there could also be political backlash as the parties and their ideas are placed under closer scrutiny. Existing work has been limited to correlational evidence and generally finds no effect on attitudes or changes which move in the same direction as a party's position. We overcome the issues of reverse causality and omitted variable bias by taking advantage of large nonlinearities in the function which assigns municipal council seats in Sweden. Using this threshold variation, we estimate post-election attitudes for the signature policies of the far-right, anti-immigration Sweden Democrats and the far-left, worker-rights Left Party.

We find robust evidence that political backlash occurs when either of the two extreme parties wins an election in Sweden, with a decrease in negative views on immigration and a shift towards less favorable views of a shorter workday. In terms of mechanisms, we find evidence for politician turnover and a rise in negative newspaper coverage for the Sweden Democrats, but less so for the Left Party. We hypothesize this difference is because the Left Party is a long-established party with more seasoned politicians whose proposals, while out of the mainstream, are not aggressively opposed as repugnant by local newspapers.

Our paper focuses on two small fringe parties with unique policy priorities in Sweden. This setting allows for convincing causal identification. It would be interesting to explore if and why backlash occurs in other countries with proportional election systems and small extreme parties. Further, while other statistical methods would probably need to be used, it would also be interesting to investigate how politicians influence attitudes in other settings, such as when the Tea Party gained influence in regions in the U.S. or when larger populist parties such as the National Front in France rose to power. Our period is also one of relative stability; future research could explore attitudes in more turbulent times such as during the Syrian refugee crisis or Brexit.

References

Adena, M., R. Enikolopov, M. Petrova, V. Santarosa, and E. Zhuravskaya (2015): "Radio and the Rise of the Nazis in Prewar Germany," *Quarterly Journal of Economics*, 130, 1885–1939.

Anelli, M., I. Colantone, and P. Stanig (2019): "We Were the Robots: Automation and Voting Behavior in Western Europe," *IZA Discussion Paper*.

Åslund, O. and D.-O. Rooth (2005): "Shifts in Attitudes and Labor Market Discrimination: Swedish Experiences after 9-11," *Journal of Population Economics*, 18, 603–629.

Barone, G., A. D'Ignazio, G. de Blasio, and P. Naticchioni (2016): "Mr. Rossi, Mr. Hu and Politics: The Role of Immigration in Shaping Natives' Voting Behavior," *Journal of Public Economics*, 136, 1–13.

Bassi, V. and I. Rasul (2017): "Persuasion: A Case Study of Papal Influences on Fertility-Related Beliefs and Behavior," *American Economic Journal: Applied Economics*, 9, 250–302.

Becker, S. O. and T. Fetzer (2016): "Does Migration Cause Extreme Voting?" *Center for Competitive Advantage in the Global Economy, University of Warwick, Discussion Paper*, No. 306.

Bohman, A. and M. Hjerm (2016): "In the Wake of Radical Right Electoral Success: A Cross-Country Comparative Study of Anti-Immigration Attitudes over Time," *Journal of Ethnic and Migration Studies*, 42, 1729–1747.

Broockman, D. E. and D. M. Butler (2017): "The Causal Effects of Elite Position-Taking on Voter Attitudes: Field Experiments with Elite Communication," *American Journal of Political Science*, 61, 208–221.

Chiang, C. F. and B. Knight (2011): "Media Bias and Influence: Evidence from Newspaper Endorsements," *Review of Economic Studies*, 78, 795–820.

Dahlberg, M., K. Edmark, and H. Lundqvist (2012): "Ethnic Diversity and Preferences for Redistribution," *Journal of Political Economy*, 120, 41–76.

Dahlgaard, J. O. (2016): "You Just Made It: Individual Incumbency Advantage under Proportional Representation," *Electoral Studies*, 44, 319–328.

DellaVigna, S. and E. Kaplan (2007): "The Fox News Effect: Media Bias and Voting," *Quarterly Journal of Economics*, 122, 1187–1234.

Downs, A. (1957): *An Economic Theory of Democracy*, New York: Harper.

Drago, F., T. Nannicini, and F. Sobbrio (2014): "Meet the Press: How Voters and Politicians Respond to Newspaper Entry and Exit," *American Economic Journal: Applied Economics*, 6, 159–188.

Dunleavy, P. and H. Ward (1981): "Exogenous Voter Preferences and Parties with State Power: Some Internal Problems of Economic Theories of Party Competition," *British Journal of Political Science*, 11, 351–380.

Dunn, K. P. and S. P. Singh (2011): "The Surprising Non-Impact of Radical Right-Wing Populist Party Representation on Public Tolerance of Minorities," *Journal of Elections, Public Opinion & Parties*, 21, 313–331.

Durante, R., P. Pinotti, and A. Tesei (2019): "The Political Legacy of Entertainment TV," *American Economic Review*, 109, 2497–2530.

Dustmann, C. and I. Preston (2001): "Attitudes to Ethnic Minorities, Ethnic Context and Location Decisions," *The Economic Journal*, 111, 353–373.

Dustmann, C., K. Vasiljeva, and A. P. Damm (2019): "Refugee Migration and Electoral

Outcomes," *Review of Economic Studies*, 86, 2035–2091.

Edo, A., Y. Giesing, J. Öztunc, and P. Poutvaara (2019): "Immigration and Electoral Support for the Far-Left and the Far-Right," *European Economic Review*, 115, 99–143.

Enikolopov, R., M. Petrova, and E. Zhuravskaya (2011): "Media and Political Pursuasion: Evidence from Russia," *American Economic Review*, 101, 3253–3285.

Ferreira, F. and J. Gyourko (2009): "Do Political Parties Matter? Evidence from US Cities," *Quarterly Journal of Economics*, 124, 399–422.

Fiva, J. H. and H. L. Røhr (2018): "Climbing the Ranks: Incumbency Effects in Party-List Systems," *European Economic Review*, 101, 142–156.

Folke, O. (2014): "Shades of Brown and Green: Party Effects in Proportional Election Systems," *Journal of the European Economic Association*, 12, 1361–1395.

Freier, R. and C. Odendahl (2015): "Do Parties Matter? Estimating the Effect of Political Power in Multi-Party Systems," *European Economic Review*, 80, 310–328.

Gabel, M. and K. Scheve (2007): "Estimating the Effect of Elite Communications on Public Opinion Using Instrumental Variables," *American Journal of Political Science*, 51, 1013–1028.

Gentzkow, M., J. M. Shapiro, and M. Sinkinson (2011): "The Effect of Newspaper Entry and Exit on Electoral Politics," *American Economic Review*, 101, 2980–3018.

Gerber, E. R. and J. E. Jackson (1993): "Endogenous Preferences and the Study of Institutions," *American Political Science Review*, 87, 639–656.

Guiliano, P. and A. Spilimbergo (2014): "Growing Up in a Recession," *Review of Economic Studies*, 81, 787–817.

Häger, B. (2012): *Problempartiet: Mediernas Villrådighet Kring SD Valet 2010*, Mediestudier.

Halla, M., A. F. Wagner, and J. Zweimüller (2017): "Immigration and Voting for the Far Right," *Journal of the European Economic Association*, 15, 1341–1385.

Harmon, N. A. (2018): "Immigration, Ethnic Diversity, and Political Outcomes: Evidence from Denmark," *The Scandinavian Journal of Economics*, 120, 1043–1074.

Imbens, G. (2015): "Matching Methods in Practice: Three Examples," *Journal of Human Resources*, 50, 373–419.

Kotakorpi, K., P. Poutvaara, and M. Terviö (2017): "Returns to Office in National and Local Politics: A Bootstrap Method and Evidence from Finland," *The Journal of Law, Economics, and Organization*, 33, 413–442.

Lee, D. S. (2008): "Randomized Experiments from Non-Random Selection in US House Elections," *Journal of Econometrics*, 142, 675–697.

Lee, D. S., E. Moretti, and M. J. Butler (2004): "Do Voters Affect or Elect Policies? Evidence from the US House," *The Quarterly Journal of Economics*, 119, 807–859.

Liang, C. Y. (2013): "Is there an Incumbency Advantage or Cost of Ruling in Proportional Election Systems?" *Public Choice*, 154, 259–284.

March, L. (2008): *Contemporary Far Left Parties in Europe: From Marxism to the Mainstream?*, Friedrich-Ebert-Stiftung.

Matsubayashi, T. (2013): "Do Politicians Shape Mass Opinion?" *British Journal of Political Science*, 42, 451–478.

Mayda, A. M. (2006): "Who is Against Immigration? A Cross-Country Investigation of Individual Attitudes Towards Immigrants," *Review of Economics and Statistics*, 88, 510–530.

Mayda, A. M., G. Peri, and W. Steingress (2017): "Immigration to the U.S.: A Problem for the Republicans or the Democrats?" *NBER Working Paper*, No. 21941.

——— (forthcoming): "The Political Impact of Immigration: Evidence from the United States," *American Economic Journal: Applied Economics*.

Milkman, R. and S. Luce (2017): "Labor Unions and the Great Recession," *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 3, 145–165.

Mudde, C. (2013): "Three Decades of Populist Radical Right Parties in Western Europe: So What?" *European Journal of Political Research*, 52, 1–19.

Myerson, R. (2004): "Political Economics and the Weimar Disaster," *Journal of Institutional and Theoretical Economics*, 160, 187–209.

Otto, A. H. and M. F. Steinhardt (2014): "Immigration and Election Outcomes: Evidence from City Districts in Hamburg," *Regional Science and Urban Economics*, 45, 67–79.

Poutvaara, P. and M. F. Steinhardt (2018): "Bitterness in Life and Attitudes towards Immigration," *European Journal of Political Economy*, 55, 471–490.

Rydgren, J. (2008): "Immigration Sceptics, Xenophobes or Racists? Radical Right-Wing Voting in Six West European Countries," *European Journal of Political Research*, 47, 737–765.

——— (2018): *The Oxford Handbook of the Radical Right*, Oxford University Press.

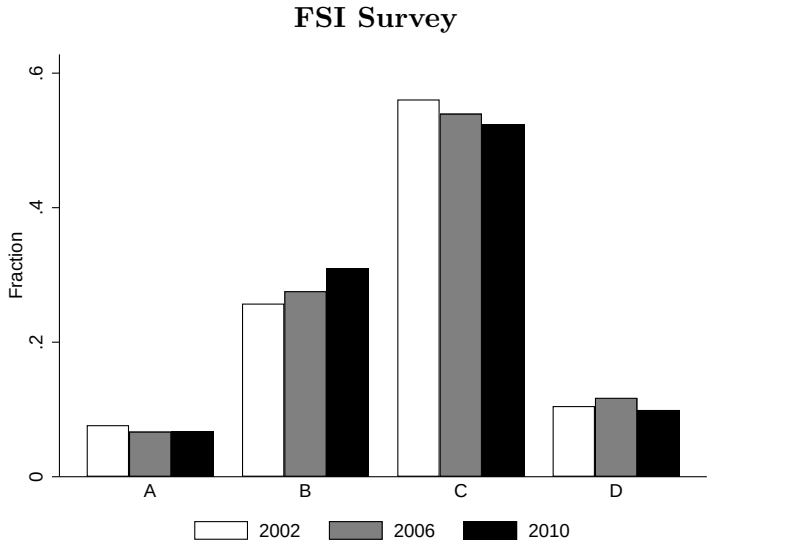
Semyonov, M., R. Raijman, and A. Gorodzeisky (2006): "The Rise of Anti-Foreigner Sentiment in European Societies, 1988-2000," *American Sociological Review*, 71, 426–449.

Snowberg, E., J. Wolfers, and E. Zitzewitz (2007): "Party Influence in Congress and the Economy," *Quarterly Journal of Political Science*, 2, 277–286.

Steinmayr, A. (forthcoming): "Contact versus Exposure: Refugee Presence and Voting for the Far-Right," *Review of Economics and Statistics*.

Stubager, R. (2003): "Preference-Shaping: An Empirical Test," *Political Studies*, 51, 241–261.

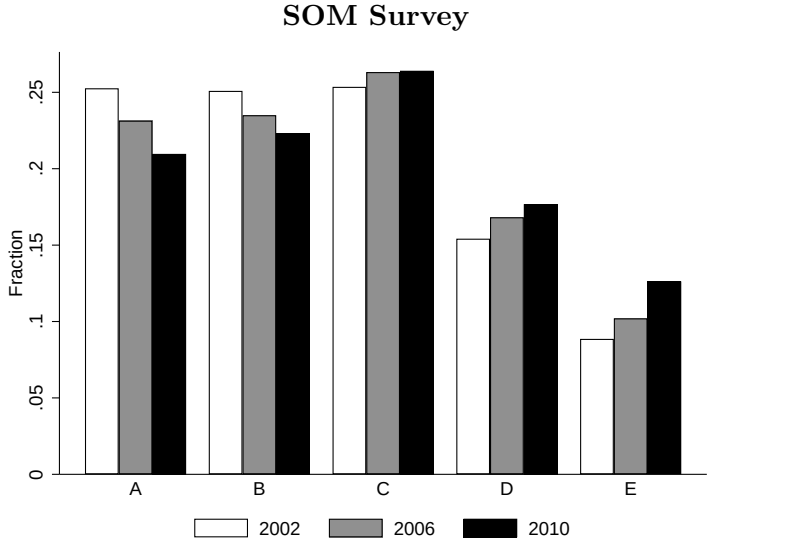
Figure 1. Attitudes Towards Immigration



Should Sweden continue accepting (refugee) immigrants to the same extent as now?

A) To a greater extent
B) To the same extent
C) To a lesser extent
D) Do not know

Notes: Surveys of randomly sampled adults in Sweden conducted by FSI in the years after the 2002, 2006 and 2010 elections. 21,947 *respondents across all survey years. In some years, the word refugee was included in the question. Negative and positive attitudes towards immigration are defined as answers of C and A, respectively.*

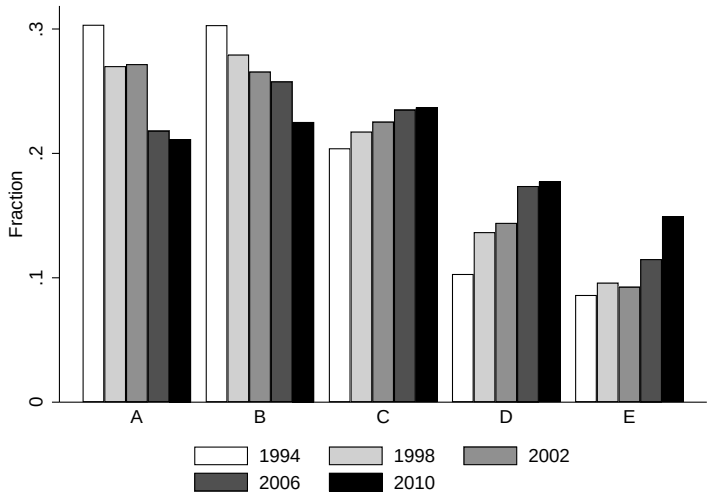


Below are a number of proposals which have occurred in the political debate. In each case, what is your opinion? Allow fewer refugees to Sweden.

A) Very good proposal
B) Good proposal
C) Neither good or bad proposal
D) Bad proposal
E) Very bad proposal

Notes: Surveys of randomly sampled adults in Sweden conducted by the SOM Institute in the years after the 2002, 2006, and 2010 elections. 40,760 *respondents across all survey years. Negative and positive attitudes towards immigration are defined as answers of A and E, respectively.*

Figure 2. Attitudes Towards a Six Hour Workday



Below are a number of proposals which have occurred in the political debate. In each case, what is your opinion? Adopt six hour workday.

A) Very good proposal
B) Good proposal
C) Neither good or bad proposal
D) Bad proposal
E) Very bad proposal

Notes: Surveys of randomly sampled adults in Sweden conducted by the SOM Institute in the years after the 1994, 1998, 2002, 2006, and 2010 elections. 42,663 *respondents across all survey years. Negative and positive attitudes towards a six hour workday is defined as an answer of D or E and A or B, respectively.*

Table 1. Examples of the Seat Allocation Formula with Five Seats and Three Parties

		Quotient			
Party	Votes	Votes/1.4	Votes/3	Votes/5	Votes/7
		A. Baseline example			
Party A	5,800	*4,142.9 (1)*	*1,933.3 (3)*	*1,160.0 (4)*	828.6
Party B	2,900	*2,071.4 (2)*	*966.7 (5)*	580.0	414.3
Party C	1,300	928.6	433.3	260.0	185.7
		B. An additional 54 people who did not vote in the baseline now vote for Party C			
Party A	5,800	*4,142.9 (1)*	*1,933.3 (3)*	*1,160.0 (4)*	828.6
Party B	2,900	*2,071.4 (2)*	966.7	580.0	414.3
Party C	1,354	*967.1 (5)*	451.3	270.8	193.4
		C. Party C votes unchanged from the baseline, but 115 voters switch from Party B to A			
Party A	5,915	*4,225.0 (1)*	*1,971.7 (3)*	*1,183.0 (4)*	845.0
Party B	2,785	*1,989.3 (2)*	928.3	557.0	397.9
Party C	1,300	*928.6 (5)*	433.3	260.0	185.7
		D. Party A votes unchanged from the baseline, but 37 voters switch from Party B to C			
Party A	5,800	*4,142.9 (1)*	*1,933.3 (3)*	*1,160.0 (4)*	828.6
Party B	2,863	*2,045.0 (2)*	954.3	572.6	409.0
Party C	1,337	*955.0 (5)*	445.7	267.4	191.0

Note: Numbers in parentheses denote which party is allocated the first, second, third, fourth and fifth seat, as determined by the seat assignment function described in Section 3.1.

Table 2. Sweden Democrat Representation and Policy Attitudes on Immigration

	OLS (i)	Multivariate RD 2nd order poly. (ii)	Multivariate RD cov. selection (iii)	Univariate RD Folke method (iv)	Univariate RD linear trends (v)	N	Dep. mean
			Dependent variable: Negative attitude towards immigration/refugees				
A. Sweden Dem. seat share×100	-.0024	-.0176**	-.0176**	-.0164**	-.0225**	21,947	.54
FSI survey	(.0023)	(.0054)	(.0047)	(.0078)	(.0079)		
B. Sweden Dem. seat share×100	-.0015	-.0078**	-.0056*	-.0077*	-.0159**	40,760	.23
SOM survey	(.0017)	(.0034)	(.0034)	(.0047)	(.0048)		
			Dependent variable: Positive attitude towards immigration/refugees				
C. Sweden Dem. seat share×100	.0009	.0002	-.0002	-.0006	-.0006	21,947	.07
FSI survey	(.0011)	(.0024)	(.0023)	(.0035)	(.0035)		
D. Sweden Dem. seat share×100	-.0003	.0024	.0034	.0070**	.0050	40,760	.11
SOM survey	(.0010)	(.0024)	(.0022)	(.0030)	(.0030)		

*Notes: All specifications include municipality fixed effects, survey year fixed effects and controls for the individual characteristics used in Appendix Table A2. Panel A has 290 municipalities for the election years of 2002, 2006 and 2010 and uses attitude data from 2002 to 2012. Column (ii) includes 65 interaction terms in the control function for each regression; column (iii) includes 61, 28, 36, and 39 terms for specifications A, B, C and D, respectively. See text for details on the multivariate and univariate RD specifications. Standard errors clustered by municipality in parentheses. **significant at the 5% level; *significant at the 10% level*

Table 3. Left Party Representation and Policy Attitudes on 6 Hour Work Day

	OLS (i)	Multivariate RD 2nd order poly. (ii)	Multivariate RD cov. selection (iii)	Univariate RD Folke method (iv)	Univariate RD linear trends (v)	N	Dep. mean
			Dependent variable: Negative attitude towards 6 hour workday				
A. Left Party seat share×100	.0011	.0108**	.0130**	.0098*	.0083*	42,663	.25
SOM survey	(.0014)	(.0035)	(.0034)	(.0051)	(.0046)		
B. Left Party seat share×100	.0030	.0099**	.0118**	.0130**	.0123**	27,854	.25
SOM survey, ≤5 seats	(.0019)	(.0042)	(.0044)	(.0059)	(.0052)		
			Dependent variable: Positive attitude towards 6 hour workday				
C. Left Party seat share×100	-.0012	-.0077**	-.0056	-.0068	-.0083	42,663	.52
SOM survey	(.0016)	(.0038)	(.0036)	(.0057)	(.0052)		
D. Left Party seat share×100	-.0026	-.0119**	-.0113**	-.0137**	-.0146**	27,854	.52
SOM survey, ≤5 seats	(.0023)	(.0042)	(.0042)	(.0062)	(.0056)		

Notes: All specifications include municipality fixed effects, survey year fixed effects and controls for the individual characteristics used in Appendix Table A2. Panels A and C have 287 municipalities, and Panels B and D have 281 municipalities. All panels cover the election years of 1994, 1998, 2002, 2006 and 2010 and use attitude data from 1996 to 2013. Column (ii) includes 76 interaction terms in the control function for each regression; column (iii) includes 82, 61, 56, and 67 terms for specifications A, B, C and D, respectively. See text for details on the multivariate and univariate RD specifications. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 4. Including the Seat Share Variables for All of the Other Parties

	Dependent variable:		
	Negative attitude immigration		**Negative attitude 6 hour workday**
	FSI Survey	*SOM Survey*	*SOM Survey*
	(i)	(ii)	(iii)
Moderates seat share×100	.0231**	.0059	-.0186**
	(.0071)	(.0050)	(.0043)
Center Party seat share×100	.0226**	.0060	-.0129**
	(.0076)	(.0047)	(.0044)
Liberal Party seat share×100	.0182**	.0131**	-.0030
	(.0066)	(.0047)	(.0042)
Christian Democrats seat share×100	.0087	.0058	-.0119**
	(.0072)	(.0048)	(.0043)
Social Democrats seat share×100	.0154**	.0082**	-.0078*
	(.0068)	(.0040)	(.0040)
Green Party seat share×100	.0193**	.0071	-.0142**
	(.0088)	(.0055)	(.0050)
New Democracy seat share×100	-	-	-.0323
			(.0200)
Other parties seat share×100	.0203**	.0070	-.0120**
	(.0074)	(.0045)	(.0047)
Left Party seat share×100	.0321**	.0023	-
	(.0087)	(.0053)	
Sweden Democrats seat share×100	-	-	-.0133**
			(.0054)
N	21,947	40,760	42,663
Dep. mean	.54	.23	.25

Notes: Regressions mirror the baseline multivariate RD specification of column (ii) of Tables 2 and 3, except that the party of interest is left out and all other parties are included. New Democracy did not exist during the sample period of columns (i) and (ii). Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 5. Party Representation and Votes in the Next Election

	OLS (i)	Multivariate RD 2nd order poly. (ii)	Univariate RD Folke method (iii)	N
	Dependent variable: Log votes for party in the next election			
A. Sweden Dem. seat share×100	.2192**	-.0090	-.0262	579
	(.0244)	(.0301)	(.0357)	
B. Left Party seat share×100	.0924**	.0331**	.0260	1,148
	(.0145)	(.0148)	(.0178)	
C. Left Party seat share×100	.1215**	.0104	.0009	967
≤5 seats	(.0141)	(.0155)	(.0188)	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Tables 2 and 3. All specifications include election year fixed effects. There are 290 municipalities for the election years 2002 and 2006 in panel A, and 276 municipalities for the election years 1994, 1998, 2002 and 2006 in panel B. One observation in panel A is dropped since it has 0 votes for the party in the next election. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 6. Party Representation and Seat Instability

	OLS (i)	Multivariate RD 2nd order poly. (ii)	Univariate RD Folke method (iii)	N	Dep. mean
	Dependent variable: Unable to fill elected seat without excessive turnover				
A. Sweden Dem. seat share×100	.0255	.1176**	.1443**	580	.23
	(.0162)	(.0305)	(.0379)		
B. Left Party seat share×100	-.0024	.0453*	.0246	574	.08
	(.0083)	(.0262)	(.0343)		
C. Left Party seat share×100	.0024	.0164	-.0059	502	.06
≤5 seats	(.0124)	(.0252)	(.0331)		

Notes: The dependent variable is an indicator which equals one if the party cannot fill an elected seat or if an elected seat is filled with at least three different appointed politicians between elections. Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Tables 2 and 3. All specifications include election year fixed effects. In panels A and B, respectively, there are 290 and 276 municipalities for the election years of 2006 and 2010. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 7. Party Representation and Newspaper Coverage

	Dependent variable: ln(articles per election period)						
	OLS	Multivariate RD 2nd order poly.	Multivariate RD cov. selection	Univariate RD Folke method	Univariate RD linear trends	N	Ave. # articles
	(i)	(ii)	(iii)	(iv)	(v)		
				Search terms: "Sweden Democrat"			
A. Sweden Dem. seat share×100	.0270	.2350**	.1835**	.3013**	.3860**	278	430
	(.0220)	(.0566)	(.0534)	(.1023)	(.0886)		
				Search terms: "Left Party"			
B. Left Party seat share×100	-.0189	.0804	.0800	-.0516	.0754	256	544
	(.0615)	(.0663)	(.0509)	(.1487)	(.1191)		

Notes: The dependent variable is the natural log of the number of articles per post-election period appearing in a newspaper which include the specified search term. All specifications include election period and newspaper fixed effects. For the Sweden Democrats, there are 139 newspapers for the election years 2006 and 2010. The data for the Sweden Democrats was collected in 2013, while the data for the the Left Party was collected in 2016. Due to copyright issues, 11 newspapers were removed from the database in the intervening period, leaving 128 newspapers. Column (ii) includes 30 and 33 interaction terms in the control function for specifications A and B, respectively; column (ii) includes 12 and 16 terms, respectively. See text for details on the multivariate and univariate RD specifications. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 8. Sweden Democrat Representation and Newspaper Content

	Dependent variable: arcsinh(articles per election period)				
	OLS	Multivariate RD 2nd order poly.	Univariate RD Folke method		Ave. #
	(i)	(ii)	(iii)	N	articles
		Search terms: "Sweden Democrats" AND ("Racism" OR "Xenophobia")			
A. SD seat share×100	.0390	.3434**	.6887**	278	81
	(.0326)	(.0780)	(.1573)		
		Search terms: NOT ("Sweden Democrats") AND ("Racism" OR "Xenophobia")			
B. SD seat share×100	-.0057	.0661	.0789	278	268
	(.0237)	(.0753)	(.1292)		
		Search terms: "Sweden Democrats" AND ("Immigrant" AND "Integration")			
C. SD seat share×100	.0254	.2217**	.3020**	278	19
	(.0250)	(.0707)	(.1211)		
		Search terms: NOT ("Sweden Democrats") AND ("Immigrant" AND "Integration")			
D. SD seat share×100	-.0804*	.0771	.1527	278	69
	(.0384)	(.0751)	(.1586)		

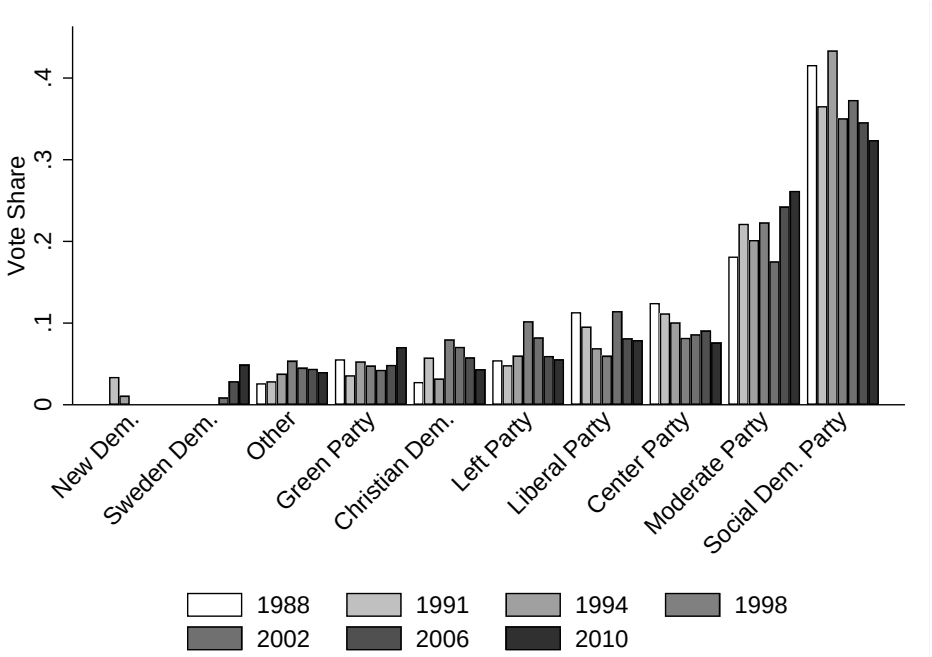
Notes: The dependent variable is the inverse hyperbolic sine of the number of articles per post-election period appearing in a newspaper which include the specified search terms. All specifications include election period and newspaper fixed effects. Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 7. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Figures and Tables

"Backlash in Policy Attitudes After the Election of Extreme Political Parties"

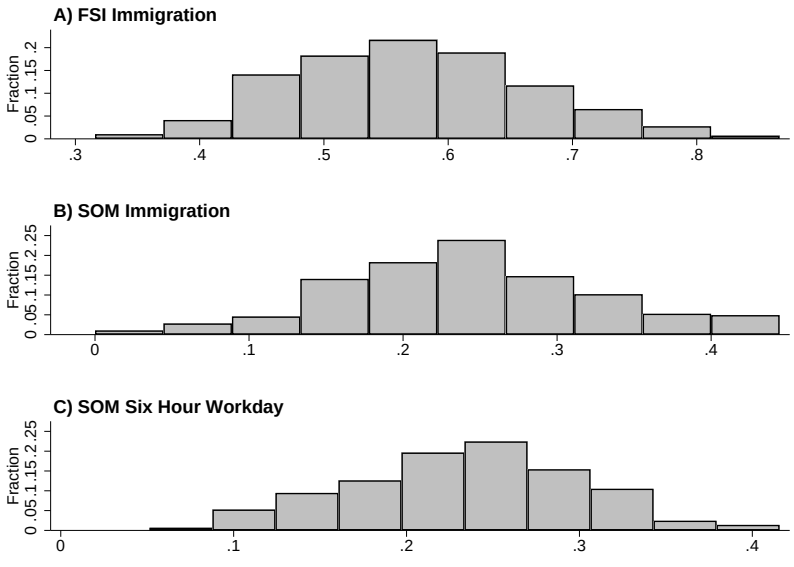
Magnus Carlsson, Gordon B. Dahl and Dan-Olof Rooth

Appendix Figure A1. Party Vote Shares in Municipal Elections



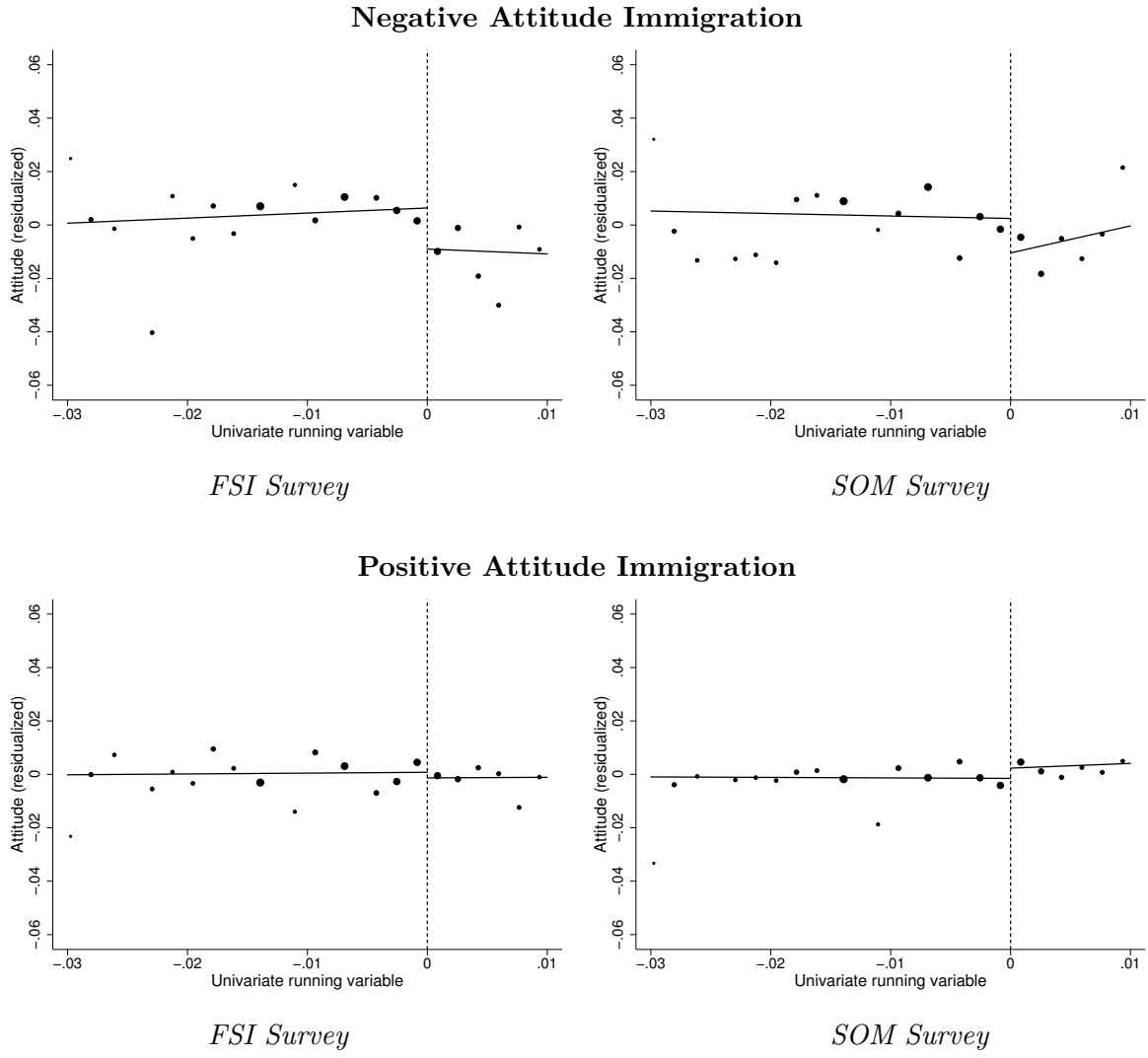
Notes: Average party vote shares across municipalities. Election data come from Statistics Sweden.

Appendix Figure A2. Distribution of Negative Attitudes Across Municipalities



Notes: Negative attitudes are defined in the notes to Figures 1, 2 and 3. Distribution across 290 municipalities in panels A and B, and 280 municipalities in panel C. For visual clarity, 1 municipality in the right tail of the histogram is omitted from the graph in Panel C.

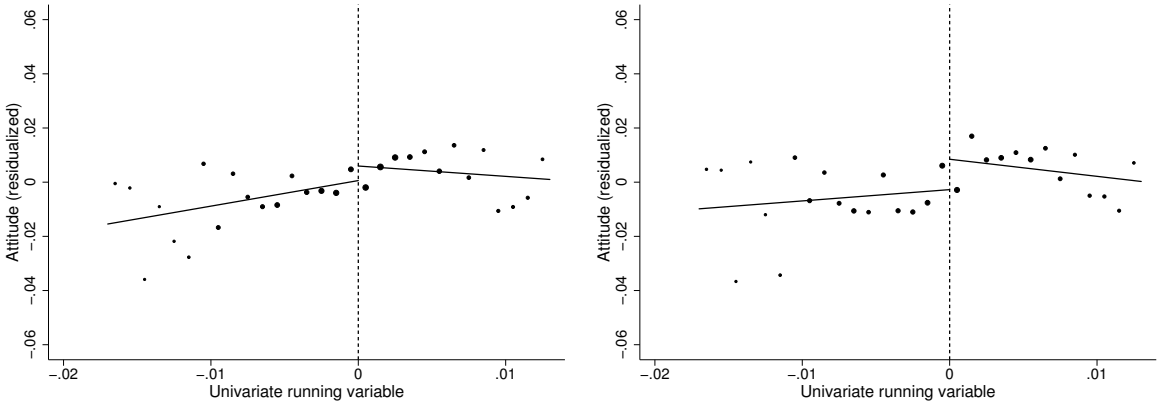
Appendix Figure A3. Univariate RD Graphs for Immigration Attitudes



Notes: Each circle is the average value of residualized attitudes (regressing out municipality fixed effects, survey year fixed effects and individual characteristics) within equally spaced bins, where the size of the circle is proportional to the number of observations in the bin. For visual clarity, 2.5% of the data in bins more extreme than those shown are excluded from the left and right panels. The solid lines are linear trends.

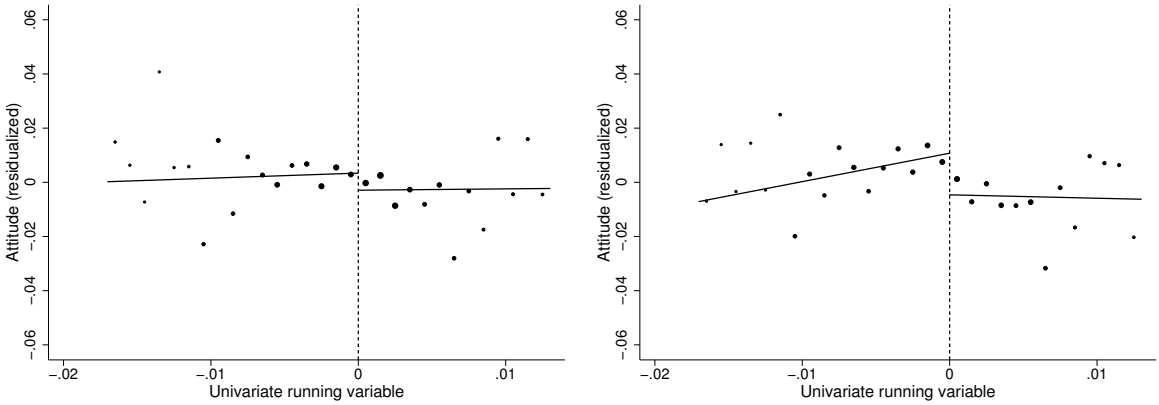
Appendix Figure A4. Univariate RD Graphs for Six Hour Work Day Attitudes

Negative Attitude 6 Hour Work Day



SOM Survey *SOM Survey ≤5 seats*

Positive Attitude 6 Hour Work Day



SOM Survey *SOM Survey ≤5 seats*

Notes: Each circle is the average value of residualized attitudes (regressing out municipality fixed effects, survey year fixed effects and individual characteristics) within equally spaced bins, where the size of the circle is proportional to the number of observations in the bin. For visual clarity, 1.9 and 2.1% of the data in bins more extreme than those shown are excluded from the left and right panels, respectively. The solid lines are linear trends.

Appendix Table A1. Summary Statistics

	Immigration sample (FSI survey) (i)	Immigration sample (SOM survey) (ii)	6 hour workday sample (SOM survey) (iii)
A. Survey respondents			
Compulsory education	.35	.22	.26
Secondary education	.27	.43	.44
Some college or more	.28	.33	.27
Education missing	.10	.02	.02
Female	.52	.52	.51
Age	50	49	48
Immigrant	.10	-	-
Immigrant status missing	.10	-	-
N	21,947	40,760	42,663
B. Municipalities			
Fraction voting	.82	.82	.83
Fraction net migration	.13	.13	.06
Tax rate	.21	.21	.21
Fraction immigrant	.04	.04	.04
Fraction college graduate	.16	.16	.14
Fraction older than 45	.47	.47	.45
Unemployment rate	.08	.08	.09
N	870	870	1,231

Notes: The top panel reports average demographic characteristics of respondents for our baseline samples using the FSI and SOM surveys (immigration issue) and the SOM surveys (six hour workday issue). Data on municipality characteristics by election year in the bottom panel come from Statistics Sweden.

Appendix Table A2. OLS Regressions for Personal Characteristics and Attitudes

	Dependent variable:		
	Negative attitude immigration		**Negative attitude 6 hour workday**
	FSI Survey	*SOM Survey*	*SOM Survey*
	(i)	(ii)	(iii)
Female	-.0670**	-.0416**	.1933**
	(.0071)	(.0043)	(.0059)
Education			
Compulsory (omitted)	-	-	-
Secondary	-.0163*	-.0586**	-.0574**
	(.0091)	(.0065)	(.0077)
Some college or more	-.2115**	-.1837**	-.1048**
	(.0103)	(.0069)	(.0090)
Age	.0036**	.0014**	.0184**
	(.0015)	(.0006)	(.0009)
Age squared×100	-.0020*	-.0016**	-.0230**
	(.0015)	(.0005)	(.0009)
Immigrant	-.0596**	-	-
	(.0094)		
Within R-squared	.049	.035	.086
Dependent mean	.54	.23	.25
N	21,947	40,760	42,663

Notes: All specifications include survey year fixed effects, municipality fixed effects and indicators for missing values for the education, age and immigrant variables. See notes in Tables 2 and 3 for details on the samples. Standard errors clustered by municipality in parentheses; within R-squared is the within municipality R-squared.

***significant at the 5% level; *significant at the 10% level*

Appendix Table A3. Effect of Political Representation on Predetermined Municipality Characteristics

	% voting (i)	% net migration (ii)	Tax rate (iii)	% immigrant (iv)	% college (v)	% older than 45 (vi)	Unempl. rate (vii)	N
A. Sweden Dem. Seat share×100								
Multivariate RD (2nd order poly.)	-.0331	.0168	.0042	.0007	-.0261	-.0224	.0746	870
	(.0355)	(.0279)	(.0144)	(.0291)	(.0246)	(.0357)	(.0535)	
Univariate RD (Folke method)	.0013	-.0251	.0081	.0327	-.0445	-.0189	.0498	870
	(.0498)	(.0357)	(.0205)	(.0360)	(.0290)	(.0439)	(.0780)	
B. Left Party Seat share×100								
Multivariate RD (2nd order poly.)	-.0028	.0021	-.0308*	.0352	.0373	-.0593	-.0389	1,433
	(.0357)	(.0227)	(.0174)	(.0326)	(.0231)	(.0388)	(.0465)	
Univariate RD (Folke method)	.0237	.0196	-.0033	.0333	.0249	-.0717	.0262	1,433
	(.0527)	(.0295)	(.0209)	(.0397)	(.0318)	(.0557)	(.0584)	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Tables 2 and 3. All regressions include election year and municipality fixed effects. Panel A includes the election years of 2002, 2006 and 2010 and panel B includes 1994, 1998, 2002, 2006 and 2010. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A4. Effect of Political Representation on Lagged Attitudes

	Multivariate RD 2nd order poly. (i)	Univariate RD Folke method (ii)	N
	Dependent variable: Lagged negative attitude immigration		
A. Sweden Democrat seat share×100	.0041	-.0079	14,585
FSI Survey	(.0066)	(.0091)	
B. Sweden Democrat seat share×100	.0055	.0163**	25,733
SOM Survey	(.0056)	(.0075)	
	Dependent variable: Lagged positive attitude immigration		
C. Sweden Democrat seat share×100	-.0048	.0017	14,585
FSI Survey	(.0030)	(.0044)	
D. Sweden Democrat seat share×100	.0021	-.0007	25,733
SOM Survey	(.0028)	(.0041)	
	Dependent variable: Lagged negative attitude 6 hour work day		
E. Left Party seat share×100	-.0028	-.0056	35,157
SOM Survey	(.0045)	(.0058)	
	Dependent variable: Lagged positive attitude 6 hour work day		
F. Left Party seat share×100	.0013	.0001	35,157
SOM Survey	(.0046)	(.0062)	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Tables 2 and 3, but use lagged instead of future attitudes as the dependent variable. All specifications include election year and municipality fixed effects.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A5. Robustness Checks

	Dependent variable:					
	Negative attitude immigration				**Negative attitude 6 hour workday**	
	Multivariate RD 2nd order poly. *FSI Survey* (i)	Univariate RD Folke method *FSI Survey* (ii)	Multivariate RD 2nd order poly. *SOM Survey* (iii)	Univariate RD Folke method *SOM Survey* (iv)	Multivariate RD 2nd order poly. *SOM Survey* (v)	Univariate RD Folke method *SOM Survey* (vi)
A. Baseline	-.0176**	0.0226**	-.0078**	-.0077*	.0108**	.0098*
	(.0054)	(.0059)	(.0034)	(.0047)	(.0035)	(.0051)
B. 2nd + partial 3rd order polynomials	-.0179**	-	-.0055	-	.0161**	-
	(.0060)		(.0036)		(.0045)	
C. Separate quadratic polynomials	-	-.0167**	-	-.0150**	-	.0072*
		(.0081)		(.0051)		(.0042)
D. Smaller inner window	-	-.0065	-	-.0102*	-	.0033
		(.0096)		(.0060)		(.0063)
E. Using seats instead of seat shares	-.0244**	-.0311**	-.0114*	-.0146	.0189**	.0185*
	(.0092)	(.0149)	(.0059)	(.0089	(.0063)	(.0097)
F. Omit municipality fixed effects	-.0116**	-.0144**	-.0029	-.0050	.0080**	.0076*
	(.0049)	(.0072)	(.0033)	(.0046)	(.0029)	(.0042)
G. Omit individual characteristics	-.0164**	-.0169**	-.0078**	-.0082*	.0129**	.0128**
	(.0057)	(.0080)	(.0036)	(.0049)	(.0037)	(.0053)
H. Omit 3 largest cities	-.0187**	-.0169**	-.0066	-.0065	.0100**	.0095*
	(.0054)	(.0080)	(.0034)	(.0046)	(.0035)	(.0052)

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Tables 2 and 3. All specifications include election year and municipality fixed effects. See text for details on each specification.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A6. Alternative Codings of Attitudes

	OLS (i)	Multivariate RD 2nd order poly. (ii)	Multivariate RD cov. selection (iii)	Univariate RD Folke method (iv)	Univariate RD linear trends (v)	N	Dep. mean
Dependent variable: Negative attitude towards immigration/refugees							
A. Sweden Dem. seat share×100							
SOM survey (answer of A or B)	-.0022	.0005	.0001	-.0037	-.0051	40,760	.47
	(.0017)	(.0043)	(.0042)	(.0059)	(.0063)		
Dependent variable: Positive attitude towards immigration/refugees							
B. Sweden Dem. seat share×100							
SOM survey (response of D or E)	.0002	.0051	.0053*	.0082*	.0061	40,760	.27
	(.0014)	(.0034)	(.0031)	(.0048)	(.0047)		
Dependent variable: Negative attitude towards 6 hour workday							
C. Left Party seat share×100							
SOM survey (response of E)	.0003	.0034	.0038*	.0040	.0022	42,663	.11
	(.0008)	(.0025)	(.0022)	(.0037)	(.0031)		
D. Left Party seat share×100							
SOM survey, ≤5 seats (response of E)	.0004	.0026	.0015	.0060	.0054	27,854	.10
	(.0012)	(.0032)	(.0028)	(.0044)	(.0040)		
Dependent variable: Positive attitude towards 6 hour workday							
E. Left Party seat share×100							
SOM survey (response of A)	-.0002	-.0052	-.0034	-.0073	-.0069	42,663	.26
	(.0016)	(.0034)	(.0031)	(.0054)	.0047		
F. Left Party seat share×100							
SOM survey, ≤5 seats (response of A)	-.0016	-.0125**	-.0090**	-.0160**	-.0172**	27,854	.26
	(.0021)	(.0038)	(.0036)	.0057	(.0054)		

Notes: Specifications mirror those of Tables 2 and 3, but use different codings for positive and negative attitudes (see Figures 1 and 2 for the labeling of the possible survey responses). Column (iii) includes 54, 59, 62, 48, 46 and 37 terms for specifications A-F, respectively. All specifications include election year and municipality fixed effects. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A7. Heterogeneous Effects Across Individual Characteristics

	Dependent variable:					
	Negative attitude immigration				Negative attitude 6 hour workday	
	Multivariate RD 2nd order poly. *FSI Survey* (i)	Univariate RD Folke method *FSI Survey* (ii)	Multivariate RD 2nd order poly. *SOM Survey* (iii)	Univariate RD Folke method *SOM Survey* (iv)	Multivariate RD 2nd order poly. *SOM Survey* (v)	Univariate RD Folke method *SOM Survey* (vi)
A. Education interactions						
Compulsory × seat share	-.0183**	-.0240**	-.0064*	-.0082	.0114**	.0023
	(.0056)	(.0109)	(.0037)	(.0081)	(.0036)	(.0075)
Secondary × seat share	-.0181**	-.0208**	-.0068*	-.0035	.0112**	.0155**
	(.0058)	(.0099)	(.0035)	(.0055)	(.0035)	(.0071)
College × seat share	-.0180**	-.0150	-.0105**	-.0166**	.0098**	.0090
	(.0057)	(.0095)	(.0036)	(.0056)	(.0037)	(.0077)
p-value (test of equal coeffs.)	[.992]	[.673]	[.009]	[.036]	[.417]	[.309]
B. Gender interactions						
Female × seat share	-.0190**	-.0171*	-.0079**	-.0116**	.0117**	.0099*
	(.0055)	(.0088)	(.0035)	(.0052)	(.0035)	(.0052)
Male × seat share	-.0164**	-.0167*	-.0076**	-.0040	.0098**	.0096
	(.0055)	(.0087)	(.0035)	(.0056)	(.0036)	(.0078)
p-value (test of equal coeffs.)	[.202]	[.960]	[.823]	[.158]	[.079]	[.971]
C. Age interactions						
age≤45 × seat share	-.0169**	-.0116	-.0068*	-.0037	.0108**	.0110*
	(.0056)	(.0096)	(.0038)	(.0065)	(.0037)	(.0062)
age>45 × seat share	-.0178**	-.0223**	-.0081**	-.0096*	.0115**	.0109*
	(.0056)	(.0098)	(.0035)	(.0054)	(.0036)	(.0063)
p-value (test of equal coeffs.)	[.719]	[.3627]	[.534]	[.412]	[.441]	[.996]
D. Immigrant interactions						
Native × seat shares	-.0175**	-.0202**	-	-	-	-
	(.0055)	(.0079)				
Immigrant × seat share	-.0256**	-.0261*	-	-	-	-
	(.0063)	(.0148)				
p-value (test of equal coeffs.)	[.024]	[.662]				

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Tables 2 and 3, with the addition of interaction terms involving the seat share variable. All specifications include election year and municipality fixed effects. Standard errors clustered by municipality in parentheses.

***significant at the 5% level; *significant at the 10% level*

Appendix Table A8. Party Representation and Coalition Formation

	OLS (i)	Multivariate RD 2nd order poly. (ii)	Univariate RD Folke method (iii)	N	Dep. Mean
	Dependent variable: Party is in governing coalition				
A. Sweden Dem. seat share×100	*never part of a governing coalition*				0
B. Left Party seat share×100	.0328**	.0194	.0147	1,435	.31
	(.0045)	(.0158)	(.0208)		
C. Left Party seat share×100	.0332**	.0250	.0244	1,231	.30
≤5 seats	(.0052)	(.0197)	(.0252)		

Notes: Data from the Swedish Association of Local Authorities and Regions (www.skl.se). Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Tables 2 and 3. All specifications include election year and municipality fixed effects. The dependent variable is defined as the party being part of a governing coalition in the municipality. Panel B has 280 municipalities for the election years of 1994, 1998, 2002, 2006 and 2010. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*