Backlash in Policy Attitudes After the Election of Extreme Political Parties

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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 radical populist parties in Sweden, one from the right and one from the left, using panel data from 290 municipal election districts. To identify causal effects, we take advantage of large nonlinearities in the function which assigns council seats, comparing 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 5.1 percentage points, in opposition to the party's policy position. Likewise, when a far-left, anti-capitalist party politician gets elected, support for a six hour workday *falls* by 2.7 percentage points. Mirroring these attitudinal changes, the far-right and far-left parties experience no incumbency advantage in the next election. Exploring possible mechanisms, we find evidence that when the anti-immigrant party wins a marginal seat, they experience higher levels of politician turnover before the next election and receive negative coverage in local newspapers. These findings demonstrate that political representation can cause an attitudinal backlash as fringe parties and their ideas are placed under closer scrutiny.

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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, far-left parties also exist in Europe, such as the Socialistic Party in the Netherlands, the Left Party in Germany, the Podemos Party in Spain and the Left Party in Sweden. These more established far-left 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.[2]

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 radical populist 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. An overview article on far-right populist parties by Mudde (2013) 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) find that the proportion of far-right controlled seats in parliament is not associated with more intolerant attitudes towards immigrants and minorities.

The challenge with existing studies is that they are based on observational data which is unlikely to identify a causal effect. Countries with more negative views on immigrants

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[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]In the U.S., there has been a surge in right and left wing politics, although it has manifested itself more as a struggle taking place within the two mainstream parties (e.g., the Tea Party movement and Donald Trump within the Republican Party, and the progressive wing and Bernie Sanders within the Democratic party).

may be more likely to elect more far-right politicians. Even with panel data, shocks to the economy or refugee crises 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 in other settings, existing empirical work is scant.[3]

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 estimate 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 5.1 percentage points, or 9% relative to the mean. Likewise, the election of an additional Left Party politician *reduces* support for a six hour workday by 2.7 percentage points, or 5% relative to the mean. These effects are present both in small and large municipalities, and in different time periods. Consistent with these changes in attitudes, we find no incumbency advantage in the next election for either party.

Using quasi-random variation arising from the election rules matters empirically. OLS

[3]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" (1957a, p. 140). See also Dunleavy and Ward (1991), Gerber and Jackson (1993), Matsubayashi (2013) and Stubager (2003).

estimates lead to the mistaken conclusion that the Sweden Democrats only modestly change attitudes and that the Left Party has no effect on attitudes. OLS also yields unreasonably large incumbency effects. The estimated RD effects 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. Our results are also not explained by an increase in polarization. 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.[4] 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. The same is not true for the more established Left Party. Finally, we explore the influence of the media. Using a panel of 139 local newspapers, we find the election of a Sweden Democrat increases their party's mention in local newspapers by 13%, but find no significant effect for the Left Party. Moreover, much of the post-election coverage of the Sweden Democrats is negative, with the words "racism" and "xenophobia" being mentioned in conjunction with the words "Sweden Democrat." This is consistent with Häger's (2012) observation that many newspapers consciously chose to oppose the Sweden Democrats and their anti-immigration stance.[5] Other channels, such as the ability to implement policies which are unpopular at the local level are also possible, but not explored in this paper.[6]

We conclude that political backlash occurs when either of the two radical populist 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

[4]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).

[5]For example, on election day in 2010, the front page of the 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."

[6]Indeed, 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 was unpopular or led to negative press coverage, it could explain the backlash we observe.

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. In future research, it would be interesting to explore whether this result holds as extreme parties become larger, and whether similar effects exist in higher levels of government and in majoritarian systems.

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.

Our paper is related to studies investigating the link between (i) immigration and attitudes and (ii) immigration and voting for extreme parties.[7] 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.[8] Finally, our study adds to a recent set of methodological papers on how to adapt RD designs to proportional, multiparty elections.[9] 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 multivariate approach which makes the stronger assumption of a global control function of all the running variables to increase precision.[10] We find similar point estimates with the univariate and multivariate approaches, with standard errors being roughly 50% larger for the univariate estimates.

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

[7]For examples of (i), see Dahlberg et al. (2012), Dustmann and Preston (2001) and Mayda (2006). For (ii), see Barone et al. (2016), Becker and Fetzer (2016), Dustmann et al. (2016), Halla et al. (2017), Harmon (2017), Mayda et al. (2016), Mayda et al. (2018), Mueller et al. (2017), Otto and Steinhardt (2014) and Steinmayr (2016).

[8]For examples of (i), see Bassi and Rasul (2017), Broockman and Butler (2015) and Gabel and Scheve (2007). For (ii), see Hirano and Snyder (2009), Lee (2008) and Liang (2013). For (iii), see Ferreira and Gyourko (2009), Folke (2014), Lee et al. (2004), Pettersson-Lidbom (2008) 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. (2017), Enikolopov et al. (2011) and Gentzkow et al. (2011).

[9]See Folke (2014), Freier and Odendahl (2015) and Kotakorpi et al. (2017).

[10]Our multivariate approach is a natural extension and formalization of Liang (2013).

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 (mean $\approx$ 30,000), and around 70% of the population is old enough to vote. Elections happen every 3 years up to 1994 and every 4 years thereafter. Voter participation is high in these elections, with around 80% turnout.[11]

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. Appendix 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 time 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 on a trial basis in Gothenburg in 2015 (*New York Times*, May 20, 2016). 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 Radical Populist 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. 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

[11] 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.

gained less than 0.4% 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.[12] 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 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. Our analysis covers 1996 to 2012, the period for which we have available policy attitude data. 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 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.

One advantage of focusing on radical populist 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).

[12]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.

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.[13] 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 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.[14] We limit our main analysis to municipalities which were in existence throughout the relevant sample period. For the Left Party, we also restrict the sample to municipal elections where the Left Party had five or fewer seats in the prior election (86% of municipal elections) so that losing or gaining one seat is more consequential, with all municipalities included as a robustness check. This restriction does not affect internal validity, as it is based on a pre-determined variable. No similar restriction is imposed for the Sweden Democrats, as fewer than 3% of municipal elections had more than 5 seats in the prior election.

For attitudes on immigration policy, we use annual survey data collected between 2003 and 2011 by FSI, a Swedish research institute. We link these data to the periods after the 2002, 2006 and 2010 elections.[15] The attitude question on immigration which was consistently asked is: "*Should Sweden continue accepting (refugee) immigrants to the same extent as now?*"[16] The possible responses are contained in Figure 1. We classify respondents as having a negative attitude toward immigration if they answer "*To a lesser extent*". This corresponds to the Sweden Democrat's preferred policy of reducing immigration. Fifty-five percent of respondents have a negative immigration attitude. The time period we study is one of mildly decreasing opposition to immigration.

For the six hour workday issue, we use a question which has been asked yearly by the

[13]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. In an earlier version of this paper, we found some evidence for an effect on attitudes for the Green Party, but not for the Center Party.

[14]There are slightly fewer municipalities in existence in earlier years. 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.

[15]We cannot use data in 2002, since some of the data was collected before and some after the election. The data stopped being collected in 2012.

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

SOM Institute from 1994 to 2013, linking responses in the period between elections to the prior election. 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 five 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. The time period is one of decreasing support for a six hour workday overall, with positive attitudes falling from almost 60% after the 1994 election to roughly 45% after the 2010 election.

Appendix Figure A2 documents the distribution of attitudes for the two policy issues at the municipality level. The variance in attitudes across municipalities is large. For the immigration issue, the 10th and 90th percentiles for the share of negative attitudes are .45 and .70, respectively. For the six hour workday, these same percentiles are .44 and .64.

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 a regression model 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. 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.[17] The method works as follows in Sweden. After the votes, v^p, for each party

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

have been tallied, successive quotients, q^p, are calculated for each party:

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

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 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. This feature is useful for causal identification.

3.2 Model

We are interested in the causal relationship between public attitudes and extreme party political representation. 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 party 1 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.[18] 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 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.[19] 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 a differing number of council seats. Letting s^1 denote the seat share (rather than seats) for the party of interest, the model becomes

[18] 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.

[19] 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 will present results which include the seat share variables for all of the other parties, with the party of interest as the excluded category.

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

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 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:

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

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.[20]

[20]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

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 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.[21]

The advantage of a univariate RD estimator is nonparametric identification. 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

either set of variables; equation (4) is more natural when municipalities differ in the number of voters.

[21] 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 improvements 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 improvements make a difference in around 5% of elections.

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 will 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 taken in the time periods after elections on the seat share of the fringe 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

We begin by reporting estimates for how post-election attitudes towards immigration change when the Sweden Democrats increase their seat share. These results appear in panel A of Table 2, where the dependent variable is a dummy for having a negative attitude towards immigration. The first column uses naive OLS, and finds a modest negative effect when the

Sweden Democrats increase their seat share.

The next column reports our baseline multivariate RD estimate, which includes a second order expansion of the 10 input variables in the seat allocation rule. This second order expansion includes all of the inputs as well as their squares and interactions, for a total of 65 terms. Robustness for the multivariate RD estimate is probed by including different terms in the global control function. Specification 2 of Appendix Table A3 supplements the baseline set with cubes of each input as well as three-way interaction terms involving the Sweden Democrats, resulting in 130 terms in all.[22] Column (iii) of Table 2 uses a variable selection procedure proposed by Imbens (2015) to choose a parsimonious set from all possible second and third order terms.[23] It identifies 44 terms to include in the control function.

All of the multivariate RD estimates are similar in magnitude and imply a backlash in immigration attitudes opposite the Sweden Party's policy platform. Our preferred baseline estimate in column (ii) implies that when the Sweden Democrats' seat share increases by 1 percentage point, negative attitudes in the corresponding municipality decrease by 2.2 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 5.1 percentage points. Relative to the average number of citizens who express anti-immigration views (54%), this is a sizable 9% decrease.

The next two specifications of Table 2 presents RD estimates which collapse the multiple running variables down to a single dimension. Column (iv) reports our baseline univariate RD using Folke's specification with an inner window of 0.004, 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 0.4 percentage points.[24] This amounts to 37 vote changes for the median municipality; 30% of observations are within this inner window. The final specification in the table uses Folke's closeness measure to create a scalar running variable, but employs a standard RD design with separate linear trends on each side of the cutoff and triangular weights. Appendix Figure A3 provides a visual representation corresponding to this RD

[22]Less flexible specifications for the control function, such as including only first order terms (10 terms), yield estimates in between OLS and the multivariate RD results presented in the table.

[23]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.

[24]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.

specification with separate linear trends. Both univariate RD approaches yield estimates which are remarkably similar to the multivariate RD results, although the standard errors are roughly 50% larger for the univariate specifications.

Appendix Table A3 provides further specification checks for the univariate RD estimators. Specification 3 cuts the inner window in half, and specification 4 uses separate quadratic polynomials. In both cases, the standard errors nearly double compared to the multivariate specifications, further highlighting the efficiency gain of using a global, multivariate control function. The point estimate remains statistically significant for specification 4, but not for specification 3.

4.2 Six Hour Workday and the Left Party

Results for how the Left Party affects attitudes towards a six hour workday are also found in Table 2. The naive OLS estimates find no effect of political representation on attitudes.

In contrast to OLS, the RD estimates reveal a negative effect on attitudes. Starting with the baseline multivariate estimate in column (ii), when the Left Party increases their seat share by 1 percentage point, positive attitudes towards a six hour workday fall by 1.2 percentage points.[25] The covariate selection model yields a similar estimate, as does the partial third order expansion model of Appendix Table A3. The baseline multivariate estimate translates to a 2.7 percentage point drop in positive attitudes towards a shortened workday for one additional seat. Fifty-two percent of individuals in our sample favor a six hour workday, so relative to the mean, this represents a 5% drop in positive attitudes. As with the Sweden Democrats, while the estimates imply a change in attitudes, the change is opposite the party's policy position.

The corresponding univariate RD estimates appearing in columns (iv) and (v) reach the same conclusion.[26] As expected, the standard errors on the univariate estimates in Table 2 are again larger compared to the multivariate approach, indicating a non-trivial loss in precision from collapsing. The standard errors for the smaller inner window and separate quadratic polynomial specifications in Appendix Table A3 are nearly double compared to the multivariate specifications, so while the point estimates remain similar, they are no longer statistically significant.

For the Left Party, as well as the Sweden Democrats, 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 Left Party does not significantly change attitudes, and that the Sweden Democrats have only a modestly negative effect. These would

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

[26]For Folke's univariate specification, 43% of observations are within the inner window; this is higher than for the Sweden Democrats since the Sweden Democrats are more often competing for their first seat (which requires more votes given the seat assignment algorithm).

not be surprising results, 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. We explore two possible reasons for this backlash later, in Section 6.

For the remainder of the paper, we focus on the multivariate and univariate specifications appearing in columns (ii) and (iv) of Table 2, respectively. We note the specifications in columns (iii) and (v) yield similar results for the analyses which follow, and are available on request from the authors.

4.3 Exogeneity and Specification Checks

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 for manipulation which would invalidate our design. To empirically test for exogeneity, in Appendix Table A4 we analyze whether a party's seat share is significantly associated with lagged attitudes or municipality characteristics. The regressions for lagged attitudes mirror the baseline multivariate and univariate RD specifications, but instead of regressing post-election attitudes on a party's seat share, they regress pre-election attitudes on a party's seat share. Since these seats have not been allocated yet, they should not effect pre-election attitudes. As expected, there is no statistical evidence that future seat shares affect lagged attitudes.

As a second set of tests, we regress a variety of municipality characteristics on the seat share variables, again using our baseline RD specifications. There is no evidence the seat shares of either party are related to any of these variables, with none of the coefficients in Appendix Table A4 being statistically significant.

4.3.2 Heterogeneity based on which party loses a seat. 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 for the party of interest 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 3 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, we find that it does not matter much which party gets a marginal seat instead of the fringe party. In column (i), the other party seat share coefficients are positive and all 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. A similar pattern holds for attitudes on a six hour workday,

with all of the estimates having the expected sign and many 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 baseline model with a single seat share variable for either the Sweden Democrats or the Left Party.

4.3.3 Coalition formation. The lack of heterogeneous effects based on which party loses a seat, as documented in Table 3, 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 further explore whether coalitions could matter for attitudes, in Appendix Table A5 we examine 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. Apparently, no parties were willing to partner with the anti-immigrant party during our time period. Turning to the Left Party, they were part of a governing coalition 30 percent of the time. OLS estimates a small, statistically significant increase in coalition formation when the seat share rises, but both the multivariate and univariate RD specifications find no significant effect.[27] We conclude that while coalitions could matter in other settings, this does not seem to be the main driver of attitudinal changes for our two fringe parties.

4.3.4 Heterogeneity by time period and municipality size. We next explore whether the effects we observe differ across time periods or municipalities. We first consider heterogeneity across time in the top panel of Appendix Table A6, with the aim of seeing whether the financial crisis which hit Sweden in 2008 affects our findings. We create a dummy variable for whether attitudes are measured before versus after the 2008-09 recession, and interact this variable with the extreme party's seat share. For the Sweden Democrats, the estimated interaction terms are almost identical across the two time periods using the baseline multivariate RD specification, while for the univariate specification, the effect is somewhat smaller in the post-recession period (but not significantly so). For the Left Party, the estimates are similar across time periods for both the multivariate and univariate specifications.

In the lower panel of Appendix Table A6, we perform a similar exercise based on the size of the municipality. We define large municipalities as those with populations above the 90th percentile in 2002; smaller cities are defined as the remainder. There is little evidence

[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 potentially being pivotal in a minority governing coalition matters.

for heterogeneity by size, either for the Sweden Democrats or the Left Party. These results suggest that backlash is not unique to rural or to urbanized locations. A similar lack of heterogeneity is found if we instead split municipalities with above versus below median population sizes.

4.3.5 Further robustness checks. We have already explored several different specifications for both the multivariate and univariate RD estimators. Appendix Table A3 contains a series of further robustness checks. The first specification repeats our baseline multivariate and univariate RD estimates for comparison. So far, we have regressed attitudes on seat shares. As specification 5 shows, when we use the number of seats instead, 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. As another robustness check, in specification 6, we remove the restriction that the number of seats be less than or equal to 5 in the prior election for the Left Party. As expected, the estimates are smaller, as one would predict if an additional seat matters less once a party already has many seats. While the multivariate RD estimate remains significant at the 10 percent level, the univariate RD estimate is insignificant. This restriction was never imposed for the Sweden Democrats, as it is rarely binding and ends up not mattering empirically.[28]

In specification 7, we estimate regressions which do not include municipality fixed effects. The estimated coefficients remain negative and are statistically significant for 3 of the 4 RD estimates. We next omit the individual characteristics, and find little change in the estimated coefficients. Finally, we exclude municipalities which never experience a change in the number of seats for the party of interest. Since we include municipality fixed effects in the regression, municipalities with a constant number of seats across elections help to estimate the effect of other variables, including the control function, but not directly the seat share coefficient. These estimates are similar to baseline.

Finally, we explore an alternative survey question fielded by the SOM Institute which asks individuals their opinion on the policy proposal "Accept fewer refugees to Sweden." We categorize an answer of "very good proposal" or "good proposal" as a negative attitude towards immigration. The estimated coefficient using our baseline multivariate regression is -.0055 (s.e. = .0039). This magnitude is not directly comparable to our baseline result, in part because the mean for this outcome is 22% (versus 54%), but in percent terms the estimates are not too far apart.

[28]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.

4.4 Awareness and Polarization

Whose attitudes are changing when a party gains an extra seat? Political representation might bring a party's policy issues to the forefront of public debate, and cause fewer people to be undecided (see Dunn and Singh 2011). It could also polarize individuals to adopt more extreme views on both sides of the debate (Bohman and Hjerm 2016). Alternatively, political representation could simply shift the distribution of attitudes towards or away from a party's preferred policy.

We test for these possibilities in Table 4. We first run regressions similar to those in Table 2 for the Sweden Democrats, but replace the left hand side variable with an indicator for whether the respondent answered "do not know" to the question on immigration policy. Eleven percent of respondents had no opinion.[29] There is no significant evidence the election of a Sweden Democrat causes fewer people to be undecided about immigration flows. A similar analysis cannot be done for the Left Party, as "do not know" was not an option for survey respondents.

To test for polarization on the opposite side of the immigration debate, we define a positive attitude as being in favor of more immigration compared to the current level. The regressions in panel B reveal that the election of a Sweden Democrat politician does not increase support for more immigration, with estimates close to zero. Turning to the Left Party, we create a dummy variable for a negative attitude towards a six hour workday, based on a response of "bad proposal" or "very bad proposal". We find a large and statistically significant increase in the number of respondents with a negative attitude towards a six hour workday based on our RD estimates. Polarization would have predicted the opposite to occur. Instead, it appears the election of a Left Party candidate both decreases positive attitudes (Table 2) and increases negative attitudes (Table 4) towards a shorter workday, consistent with a general backlash against the policy.

Another way to explore polarization is to see if those individuals in favor of or against a policy become more extreme in their views after a fringe party gains an extra seat. While we do not have individual panel level data, we do have several demographic characteristics which predict opposition to immigration and support for a six hour workday (see Appendix Table A2). In Appendix Table A7, we explore which types of individuals, based on observables, are most likely to change their policy opinions. The table mirrors the baseline attitude regressions of Table 2, but with interactions between the seat share variable and observable demographic characteristics. We find little evidence of heterogeneity by education, gender, age or immigrant status.

[29] It is possible a survey answer of "no opinion" means a respondent is hesitant to express their views. If this is true, the estimates remain causal, but their interpretation changes.

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 behavior. 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.

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 estimate the baseline multivariate and univariate RD specifications. For both the Sweden Democrats and the Left Party, there is no evidence for an incumbency effect. The point estimates are all close to zero and statistically insignificant. The finding of no incumbency effect for these two fringe parties is all the more interesting when one considers that most studies report modestly sized incumbency effects in both majoritarian and multiparty elections (e.g., Lee 2008, Ferraz and Finan 2008, Hirano and Snyder 2009, Liang 2013).[30] When we estimate RD regressions for incumbency 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 position, 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 power of the local media. 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.

[30]When we run Liang's specification on our sample we can replicate his finding of a positive incumbency effect for the Left Party (he does not run a regression for the Sweden Democrats), but this result disappears once we use the more general control function of our baseline multivariate RD estimator.

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 lessen 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 (see footnote 4).

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.[31] 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 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 for the Sweden Democrats. For the baseline multivariate RD specification in column (ii), 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 no evidence that marginal seats for the Left Party are less stable. Similar null results are found for the other 4 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 other parties. This sign of local disorganization and inexperience may have turned off voters to the Sweden Democrats and their policies.

[31] 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 results which are qualitatively similar.

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. A growing literature documents the impact of the media on voting behavior and the powerful role media slant plays in shaping attitudes (see footnote 8). If the media increases its coverage of a party after they win a seat, and this coverage is negative, this could provide another explanation for the backlash in attitudes. In this section, we explore changes in local newspaper coverage after the Sweden Democrats or Left Party win a seat, where as before, we take advantage of the sharp nonlinearities in the way seats are assigned for identification.

6.2.1 Setting and statistical inference. 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. Datawise, nearly comprehensive coverage of local newspapers begins in 2006, when content becomes available in digital form from the media marketing company Retriever. 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.

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 two practical implications. First, by necessity, the control functions for multivariate RD will need to include fewer terms. Second, instead of using clustered standard errors as in prior tables, we will report 95% confidence intervals based on the studentized block bootstrap. This procedure has faster convergence properties compared to clustering or the standard block bootstrap; it converges at the optimal parametric rate while the other methods converge at the nonparametric rate.[32] For our newspaper regressions, we find the studentized block bootstrap results in larger p-values and wider confidence intervals compared to using either clustered standard errors or the block bootstrap. Because of this, we use the more conservative, and more accurately-sized, studentized block bootstrap to conduct statistical inference for our newspaper analysis.[33]

[32]This procedure is sometimes also referred to as the percentile-t block bootstrap. The idea is to use block bootstrapping to construct the distribution of the t-statistic, and use it to calculate p-values and confidence intervals. The asymptotic refinement works because the t-statistic is a pivotal test statistic, and therefore uses a higher order approximation for the asymptotic distribution compared to the standard bootstrap. See Horowitz (2001).

[33]We also explored whether studentized block bootstrapping mattered empirically for our other analyses, where we have more groups and years, and found it made little difference in the calculated p-values.

6.2.2 Results. We first explore whether local newspaper coverage increases after a party wins a seat in Table 7. To construct the dependent variable, we did a search on Retriever's database of every article in every newspaper for the names of our two fringe parties. 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 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). We also use covariate selection models, but which are limited to choosing among first and second order terms.[34]

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 corresponding confidence intervals. For the Left Party, despite the fact that they are mentioned often in newspapers (660 articles on average), there is no evidence of an election-induced increase in coverage using any of the RD specifications. This could be because their policy proposals are less sensational.

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 Retriever database. We also take the inverse hyperbolic sine (a function similar to the natural log but which includes zero) 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

[34]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 23.

in Sweden, and are clearly used as reproachful and stigmatized labels. Using either the multivariate or univariate RD baseline specification, the results are striking. Column (ii) in Table 8 reveals that a 1 percentage point increase in the seat share results in a statistically 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 wider confidence interval. We also search for articles which mention racism or xenophobia, but not the Sweden Democrats. We find no statistical evidence the Sweden Democrats trigger a broader 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.[35] The way searches can be done in the Retriever database does not allow us to use textual analysis to assess whether these articles are favorable or unfavorable to the Swedish Democrats. But our interpretation is that the combination of the words immigrant and integration are likely to signal a reasoned discussion about immigrant assimilation into society, rather than a judgmental labeling. Using these search terms, we find evidence the election of a Sweden Democrat causes their party to be mentioned in conjunction with these types of policy debates. 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 is even larger, but not statistically significant as the confidence interval is twice as wide. 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.

Our interpretation of the newspaper results is that the election of an additional Swedish Democrat prompted a strong response by the local media, both in terms of negative attacks on the Sweden Democrats and in increased discussion of immigrant assimilation.[36] 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. They are also consistent with Rydgren's (2008) observation that people tend to vote for far-right parties because they are anxious about immigration and not primarily because they are racist or xenophobic. If newspapers start labeling the

[35]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.

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

Sweden Democrats and their policies as racist, individuals averse to these labels may try to distance themselves from the Sweden Democrats and their anti-immigration policies. More generally, our results point to the power the media has to frame political parties and the accompanying policy debate.

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 the party's position. But these observational studies are unlikely to estimate a causal effect. 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, anti-capitalist Left Party.

We find robust evidence that political backlash occurs when either of the two extreme parties wins an election in Sweden. There is no evidence for an increase in polarization, but rather a decrease in negative views on immigration and a shift towards less favorable views of a shorter workday. We find that politician turnover and a party's treatment by the local media play a role in the direction of these attitudinal changes for the Sweden Democrats, but not 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 less sensational.

Our paper focuses on two small fringe parties with unique policy priorities. This setting allows for convincing causal identification of political backlash in policy attitudes. While other statistical methods would probably need to be used, it would be interesting to investigate how politicians influence attitudes for other policy issues and 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.

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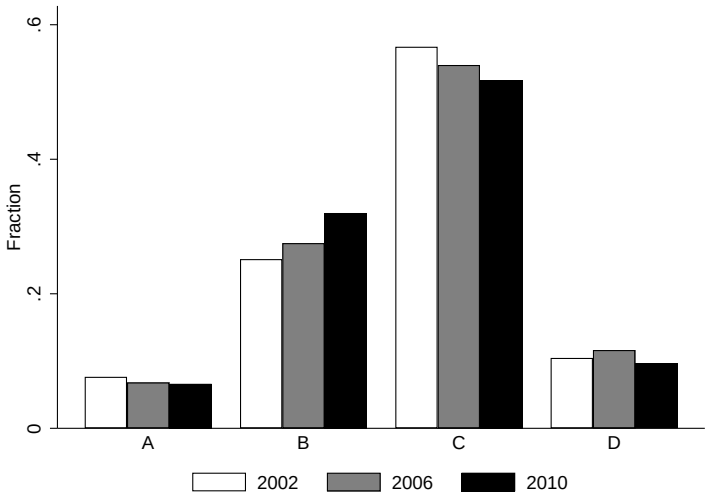
Figure 1. Attitudes Towards Immigration

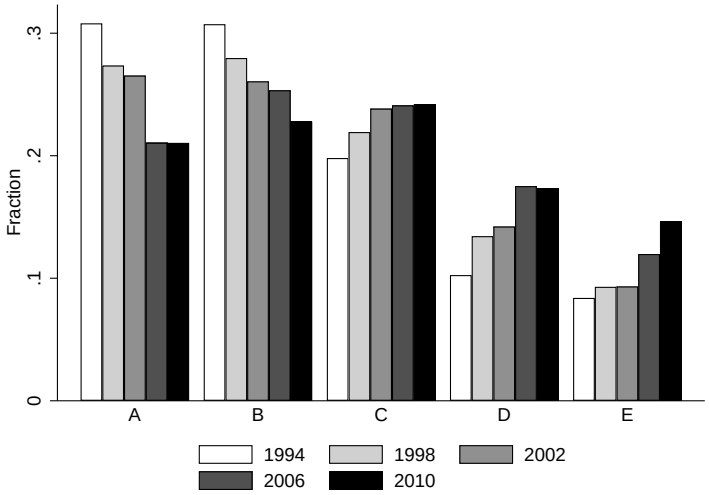


Should Sweden continue accepting (refugee) immigrants to the same extent as now?

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. 19,106 respondents across all survey years. In some years, the word refugee was included in the question. A negative attitude towards immigration is defined as an answer of C.

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 you 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. 28,625 respondents across all survey years. A positive attitude towards a six hour workday is defined as an answer of A or B.

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. Political Representation and Public Attitudes

	Dependent variable: A. Negative attitude towards immigration B. Positive attitude towards 6 hour workday						
	(i)	(ii)	(iii)	(iv)	(v)	N	Dep. mean
A. Sweden Dem. seat share×100	-.0069**	-.0224**	-.0241**	-.0227**	-.0229**	19,106	.54
	(.0027)	(.0062)	(.0063)	(.0092)	(.0090)		
B. Left Party seat share×100	-.0024	-.0121**	-.0123**	-.0138**	-.0160**	28,625	.52
	(.0023)	(.0043)	(.0042)	(.0064)	(.0057)		
Specification	OLS	Multivariate RD	Multivariate RD	Univariate RD	Univariate RD		
(k is # terms for A, B)		2nd order poly.	cov. selection	Folke method	separate		
(λ is inner window)		k=65, 76	k=44, 48	λ=.004	linear trends		

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 2003 to 2011. Panel B has 280 municipalities for the election years of 1994, 1998, 2002, 2006 and 2010 and uses attitude data from 1994 to 2013. 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. Including the Seat Share Variables for All of the Other Parties and Using the Party of Interest as the Omitted Category

	Dependent variable:	
	A. Negative attitude towards immigration B. Positive attitude towards 6 hour workday	
	A. Sweden Dem.	B. Left Party
	(i)	(ii)
Moderates seat share×100	.0290**	.0097*
	(.0087)	(.0056)
Center Party seat share×100	.0330**	.0173**
	(.0078)	(.0055)
Liberal Party seat share×100	.0190**	.0082
	(.0078)	(.0060)
Christian Democrats seat share×100	.0141*	.0084
	(.0077)	(.0060)
Social Democrats seat share×100	.0205**	.0119**
	(.0077)	(.0050)
Green Party seat share×100	.0224**	.0186**
	(.0098)	(.0067)
New Democracy seat share×100	-	.0188
		(.0210)
Other parties seat share×100	.0206**	.0045
	(.0079)	(.0062)
Left Party seat share×100	.0387**	-
	(.0091)	
Sweden Democrats seat share×100	-	.0144*
		(.0075)
Specification	Mulivariate RD	Multivariate RD
N	19,106	28,625
Dep. mean	.54	.52

Notes: Regressions mirror the baseline multivariate RD specification of column (ii) of Table 2, 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 column (i). Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 4. Awareness and Polarization: No Opinion and Opposite Attitude Regressions

	(i)	(ii)	(iii)	N	Dep. mean
		Dependent variable: "Do not know"			
A. Sweden Dem. seat share×100	.0024	.0031	.0065	19,106	.11
	(.0015)	(.0038)	(.0053)		
Specification	OLS	Multivariate RD	Univariate RD		
		Dependent variable: A. Positive attitude towards immigration B. Negative attitude towards 6 hour workday			
A. Sweden Dem. seat share×100	.0023*	.0021	-.0019	19,106	.07
	(.0014)	(.0027)	(.0039)		
B. Left Party seat share×100	.0026	.0091**	.0116**	28,625	.25
	(.0019)	(.0042)	(.0059)		
Specification	OLS	Multivariate RD	Univariate RD		

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 2, respectively. An answer of "no opinion" or "do not know" was not an option for the six hour workday question. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 5. Incumbency Advantage: Party Representation and Votes in the Next Election

	Dependent variable: Log votes for party in the next election			
	(i)	(ii)	(iii)	N
A. Sweden Dem. seat share×100	.2192**	-.0090	-.0262	579
	(.0244)	(.0301)	(.0357)	
B. Left Party seat share×100	.1215**	.0104	.0009	967
	(.0141)	(.0155)	(.0188)	
Specification	OLS	Multivariate RD	Univariate RD	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 2, respectively. 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. Politician Turnover: Party Representation and Seat Instability

	Dependent variable: Unable to fill elected seat without excessive turnover				
	(i)	(ii)	(iii)	N	Dep. mean
A. Sweden Dem. seat share×100	.0255	.1176**	.1443**	580	.23
	(.0162)	(.0305)	(.0379)		
B. Left Party seat share×100	.0024	.0164	-.0059	502	.06
	(.0124)	(.0252)	(.0331)		
Specification	OLS	Multivariate RD	Univariate RD		

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 Table 2, respectively. 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. Power of the Media: Party Representation and Newspaper Coverage

	Dependent variable: ln(articles per election period) A. Search term: **"Sweden Democrat"** B. Search term: **"Left Party"**						
	(i)	(ii)	(iii)	(iv)	(v)	N	Ave. # articles
A. Sweden Dem. seat share×100	.0270	.2350**	.1835**	.3013**	.4059**		
[95% c.i.]	[-.0182, .0722]	[.0794, .3906]	[.0728, .2943]	[.0068, .5957]	[.1241, .6878]	278	430
B. Left Party seat share×100	.0216	.0553	.0340	-.1613	.1291	196	660
[95% c.i.]	[-.1010, .1442]	[-.2224, .3330]	[-.1448, .2128]	[-2.392, 2.070]	[-.2972, .5553]		
Specification	OLS	Multivariate RD	Multivariate RD	Univariate RD	Univariate RD		
(k is # terms for A, B)		2nd order poly.	cov. selection	Folke method	separate		
(λ is inner window)		k=30, 33	k=12, 16	λ=.004	linear trends		

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 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. Combined with the five seat or fewer sample restriction, this explains the lower number of observations for the Left Party. Reported 95% confidence intervals are based on 5,000 iterations of the studentized block bootstrap.

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

Table 8. Power of the Media: Sweden Democrat Representation and Newspaper Content

	Dependent variable: arcsinh(articles per election period) Search terms in **bold**				
	(i)	(ii)	(iii)	N	Ave. # articles
			"Sweden Democrats" AND ("Racism" OR "Xenophobia")		
SD seat share×100	.0390	.3434**	.6887**	278	81
[95% c.i.]	[-.0271, .1052]	[.1263, .5606]	[.1462, 1.231]		
			NOT ("Sweden Democrats") AND ("Racism" OR "Xenophobia")		
SD seat share×100	-.0057	.0661	.0789	278	268
[95% c.i.]	[-.0554, .0439]	[-.1696, .3017]	[-.3553, .5130]		
			"Sweden Democrats" AND ("Immigrant" AND "Integration")		
SD seat share×100	.0254	.2217**	.3020	278	19
[95% c.i.]	[-.0273, .0782]	[.0071, .4362]	[-.1494, .7534]		
			NOT ("Sweden Democrats") AND ("Immigrant" AND "Integration")		
SD seat share×100	-.0804*	.0771	.1527	278	69
[95% c.i.]	[-.1650, .0041]	[-.1394, .2937]	[-.1818, .4873]		
Specification	OLS	Multivariate RD	Univariate RD		

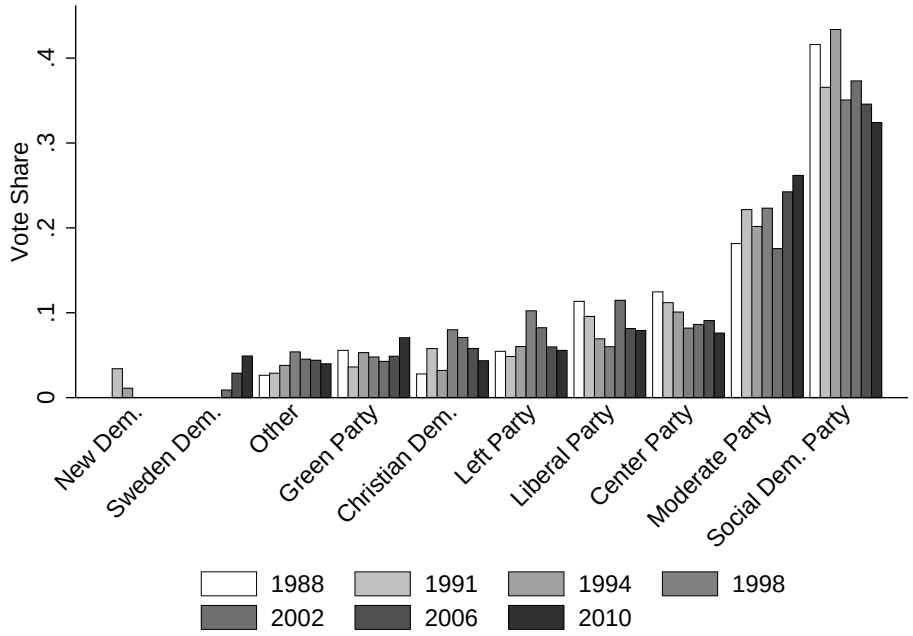
Notes: The dependent variable is the inverse hyperbolic sine of the number of articles per post-election period appearing in a newspaper which include the specified search terms. Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 7, respectively. Reported 95% confidence intervals are based on 5,000 iterations of the studentized block bootstrap.
***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"

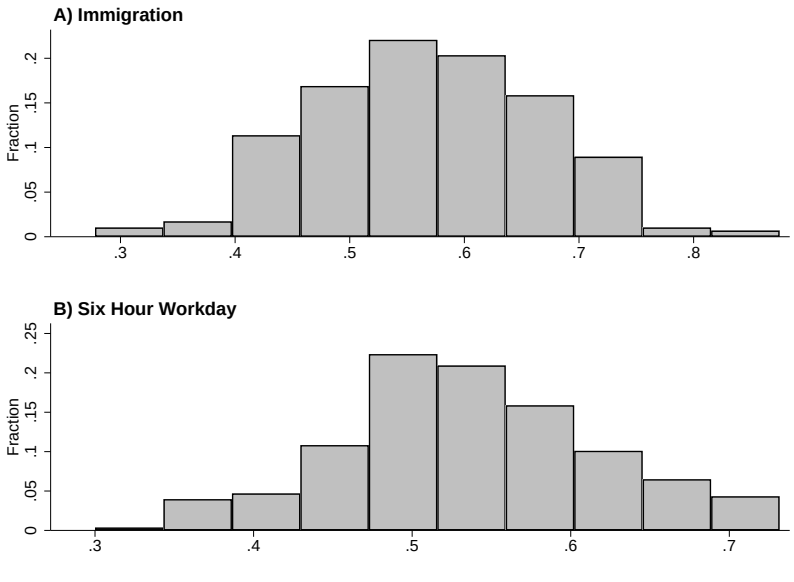
Magnus Carlsson, Gordon B. Dahl and Dan-Olof Rooth

Appendix Figure A1. Party Vote Shares in Municipal Elections



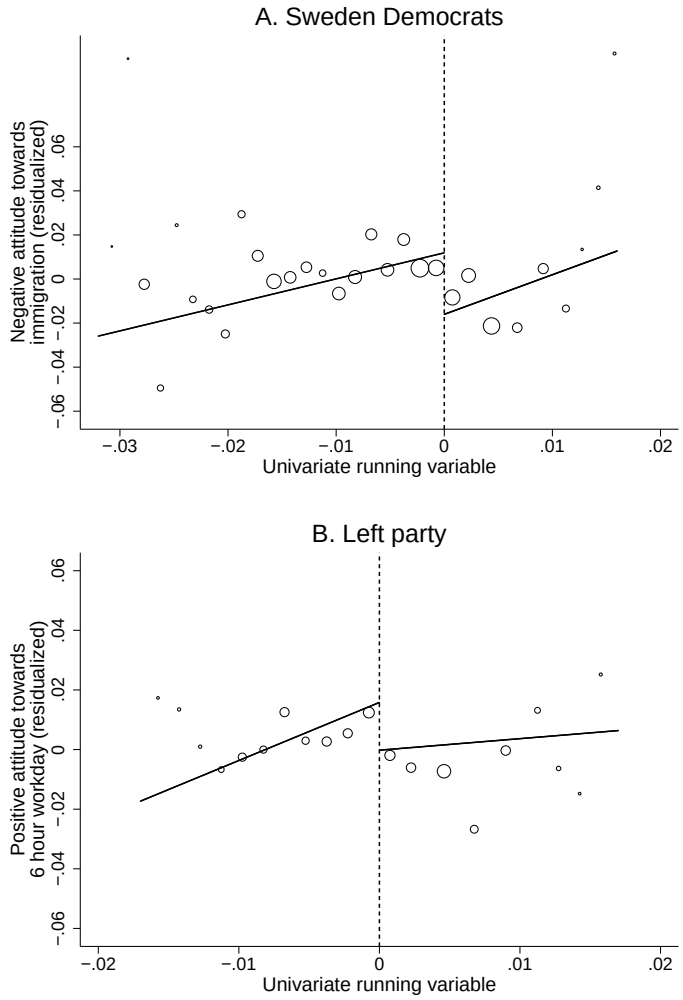
Notes: Average party vote shares across municipalities. Election data come from Statistics Sweden.

Appendix Figure A2. Distribution of Attitudes Across Municipalities



Notes: Attitudes are defined in the notes to Figures 1 and 2. Distribution across 290 municipalities in panel A, and 280 municipalities in panel B. For visual clarity, four municipalities in the tails of the histogram are omitted from the graph in Panel B.

Appendix Figure A3. Univariate RD Graphs for Political Representation and Public 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, 0.6% of the data in bins more extreme than those shown are excluded from panel B. The solid lines are the linear trends estimated using specification (v) in Table 2, vertically shifted so as to be centered around 0 at the average value of the running variable (which means the lines will not necessarily be centered between the circles).

Appendix Table A1. Summary Statistics

	A. Immigration sample period (ii)	B. 6 hour workday sample period (iii)
1) Survey respondents		
Compulsory education	.28	.26
Secondary education	.29	.44
Some college or more	.33	.27
Education missing	.10	.02
Female	.53	.51
Age	49	48
Immigrant	.19	-
Immigrant status missing	.09	-
N	19,106	28,625
2) Municipalities		
Fraction voting	.82	.83
Fraction net migration	.13	.06
Tax rate	.21	.21
Fraction immigrant	.04	.04
Fraction college graduate	.16	.14
Fraction older than 45	.47	.45
Unemployment rate	.08	.09
N	870	1,231

Notes: The top panel reports average demographic characteristics of respondents for our baseline samples from the FSI surveys (immigration issue, 2003-2011) and the SOM surveys (six hour workday issue, 1994-2013). Data on municipality characteristics by election year in the bottom panel come from Statistics Sweden.

Appendix Table A2. Personal Characteristics and Attitudes: OLS Regressions

	Dependent variable:	
	A. Negative attitude towards immigration B. Positive attitude towards 6 hour workday	
	A. Sweden Dem. Sample Period	B. Left Party Sample Period
	(i)	(ii)
Female	-.0670**	.1933**
	(.0071)	(.0059)
Education		
Compulsory (omitted)	-	-
Secondary	-.0163*	-.0574**
	(.0091)	(.0077)
Some college or more	-.2115**	-.1048**
	(.0103)	(.0090)
Age	.0036**	.0184**
	(.0015)	(.0009)
Age squared×100	-.0020*	-.0230**
	(.0015)	(.0009)
Immigrant	-.0596**	-
	(.0094)	
Municipality f.e.'s	X	X
Within R-squared	.049	.086
Dependent mean	.54	.52
N	19,106	28,625

Notes: All specifications include survey year fixed effects and indicators for missing values for the education, age and immigrant variables. See the notes to Table 2 for details on the sample. 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. Additional Robustness Checks

	Dependent variable:			
	A. Negative attitude towards immigration B. Positive attitude towards 6 hour workday			
	A. Sweden Dem.		B. Left Party	
	(i)	(ii)	(iii)	(iv)
1) Baseline				
Party seat share×100	-.0224**	-.0227**	-.0121**	-.0138**
	(.0062)	(.0092)	(.0043)	(.0064)
2) Multivariate 2nd + partial 3rd order polynomial				
Party seat share×100	-.0190**	-	-.0167**	-
	(.0067)		(.0049)	
3) Univariate Folke smaller window (λ=.002)				
Party seat share×100	-	-.0137	-	-.0120
		(.0119)		(.0077)
4) Univariate separate quadratic polynomials				
Party seat share×100	-	-.0233**	-	-.0100
		(.0121)		(.0083)
5) Baseline, using seats instead of seat shares				
Party seats	-.0344**	-.0432**	-.0198**	-.0271**
	(.0105)	(.0176)	(.0078)	(.0125)
6) Baseline, no restriction on # seats				
Party seat share×100	-	-	-.0075*	-.0065
			(.0038)	(.0057)
7) Baseline, omitting muni f.e.'s				
Party seat share×100	-.0125**	-.0179**	-.0086**	-.0079
	(.0055)	(.0078)	(.0038)	(.0056)
8) Baseline, omitting individual characteristics				
Party seat share×100	-.0215**	-.0223**	-.0142**	-.0172**
	(.0065)	(.0094)	(.0045)	(.0068)
9) Baseline, excluding muni's w/o seat change				
Party seat share×100	-.0191**	-.0269**	-.0138**	-.0165**
	(.0068)	(.0090)	(.0049)	(.0065)
Specification	Multivariate	Univariate	Multivariate	Univariate

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 2, respectively.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A4. Exogeneity Tests: The Effect of Political Representation on Lagged Attitudes and Predetermined Municipality Characteristics

	Dependent variables:									
	Individuals		Municipalities							
	Lagged attitudes		% voting	% net migration	Tax rate	% immigrant	% college	% older than 45	Unempl. rate	
	(i)	N	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	N
A. Sweden Dem. Seat share×100										
Multivariate RD	.0055	27,141	-.0331	.0168	.0042	.0007	-.0261	-.0224	.0746	870
	(.0048)		(.0355)	(.0279)	(.0144)	(.0291)	(.0246)	(.0357)	(.0535)	
Univariate RD	.0112	27,141	.0013	-.0251	.0081	.0327	-.0445	-.0189	.0498	870
	(.0130)		(.0498)	(.0357)	(.0205)	(.0360)	(.0290)	(.0439)	(.0780)	
B. Left Party Seat share×100										
Multivariate RD	.0059	21,470	.0137	-.0116	-.0287	.0404	.0348	-.0428	-.0505	1,231
	(.0054)		(.0398)	(.0259)	(.0191)	(.0385)	(.0281)	(.0468)	(.0533)	
Univariate RD	.0054	21,470	.0246	-.0043	.0026	.0274	.0058	-.0198	.0253	1,231
	(.0080)		(.0549)	(.0330)	(.0234)	(.0474)	(.0374)	(.0639)	(.0663)	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 2, respectively. Column (i) uses lagged instead of future attitudes as the dependent variable. Columns (ii) through (viii) 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 A5. Party Representation and Coalition Formation

	Dependent variable: Party is part of a governing coalition				
	(i)	(ii)	(iv)	N	Dep. Mean
A. Sweden Dem. seat share×100	*never part of a governing coalition*				0
B. Left Party seat share×100	.0332**	.0250	.0244	1,231	.30
	(.0052)	(.0197)	(.0252)		
Specification	OLS	Multivariate RD	Univariate RD		

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 Table 2, respectively. 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*

Appendix Table A6. Heterogeneous Effects of Party Representation on Attitudes Across Time and Municipalities

	Dependent variable:			
	A. Negative attitude towards immigration			
	B. Positive attitude towards 6 hour workday			
	A. Sweden Dem.		B. Left Party	
	(i)	(ii)	(iii)	(iv)
1) Time interactions				
$>$ 2008 $\times$ seat share	-.0218**	-.0152	-.0126**	-.0134
	(.0066)	(.0108)	(.0053)	(.0112)
$<=$ 2008 $\times$ seat share	-.0213**	-.0309**	-.0119**	-.0139**
	(.0067)	(.0106)	(.0044)	(.0069)
p-value (test of equal coeffs.)	[.886]	[.148]	[.860]	[.966]
2) Municipality interactions				
Large muni $\times$ seat share	-.0196**	-.0145	-.0131**	-.0186
	(.0072)	(.0101)	(.0053)	(.0128)
Smaller muni $\times$ seat share	-.0230**	-.0279**	-.0116**	-.0126
	(.0071)	(.0134)	(.0047)	(.0077)
p-value (test of equal coeffs.)	[.574]	[.415]	[.761]	[.703]
Specification	Multivariate RD	Univariate RD	Multivariate RD	Univariate RD

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 2, respectively, with the addition of interaction terms involving the seat share variable. Large municipalities are those with populations above the 90th percentile in 2002; smaller municipalities are defined as the remainder. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A7. Heterogeneous Effects of Party Representation on Attitudes Across Individual Characteristics

	Dependent variable:			
	A. Negative attitude towards immigration B. Positive attitude towards 6 hour workday			
	A. Sweden Dem.		B. Left Party	
	(i)	(ii)	(iii)	(iv)
1) Education interactions				
Compulsory × seat share	-.0254**	-.0184	-.0133**	-.0601
	(.0065)	(.0122)	(.0045)	(.0450)
Secondary × seat share	-.0210**	-.0306**	-.0120**	-.0052
	(.0064)	(.0108)	(.0044)	(.0095)
College × seat share	-.0220**	-.0242**	-.0108**	-.0196**
	(.0065)	(.0105)	(.0045)	(.0077)
p-value (test of equal coeffs.)	[.265]	[.567]	[.089]	[.354]
2) Gender interactions				
Female × seat share	-.0225**	-.0206**	-.0126**	-.0161**
	(.0063)	(.0098)	(.0044)	(.0073)
Male × seat share	-.0225**	-.0251**	-.0115**	-.0114
	(.0062)	(.010)	(.0044)	(.0081)
p-value (test of equal coeffs.)	[.978]	[.537]	[.468]	[.584]
3) Age interactions				
age≤45 × seat share	-.0217**	-.0162	-.0104**	-.0159**
	(.0063)	(.0104)	(.0046)	(.0079)
age>45 × seat share	-.0229**	-.0290**	-.0141**	-.0142*
	(.0063)	(.0109)	(.0045)	(.0085)
p-value (test of equal coeffs.)	[.613]	[.232]	[.027]	[.853]
4) Immigrant interactions				
Native × seat shares	-.0219**	-.0278*	-	-
	(.0063)	(.0164)		
Immigrant × seat share	-.0264**	-.0188*	-	-
	(.0064)	(.0096)		
p-value (test of equal coeffs.)	[.073]	[.624]		
Specification	Multivariate RD	Univariate RD	Multivariate RD	Univariate RD

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (ii) and (iv) in Table 2, respectively, with the addition of interaction terms involving the seat share variable. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*