Backlash in Policy Attitudes After the Election of an Extreme Political Party*

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Abstract: This paper studies how public attitudes towards reduced immigration, the signature policy of the far-right Sweden Democrats, respond once the party increases their political representation at the local level. To identify causal effects, we use panel data from 290 municipal election districts and compare otherwise similar elections where the Sweden Democrats either barely win or lose an additional seat. We estimate that a one seat increase for this far-right, anti-immigration party *decreases* negative attitudes towards immigration by 1.8 or 4.1 percentage points (depending on which national survey we use), contrary to the party's policy position. Consistent with these attitudinal changes, we find suggestive evidence the Sweden Democrats lose the incumbency advantage experienced by other small parties in Sweden. Exploring possible mechanisms, we find evidence for higher politician turnover and a rise in negative newspaper coverage. These findings demonstrate that political representation can cause an attitudinal backlash as a fringe party 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.

These far-right parties by definition occupy the fringes of politics, with policy proposals outside the mainstream. It is one thing to espouse sensationalist or extreme policies as outsiders, and another to argue for them as elected representatives. Political representation could provide a platform for these populist 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 representation 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.[2] The challenge with existing studies is that they are based on observational data which is unlikely to identify a causal effect. For example, countries with more negative views on immigrants may elect more far-right politicians, or similarly, shocks to the economy may change both attitudes and which parties get elected. More generally, if attitudes depend on which parties are represented in a local council or legislature, and which political parties are represented depends on attitudes, there is an issue of reverse causality. While the possibility that politicians can influence voter preferences has been recognized theoretically, existing empirical work is scant.[3]

We study how political representation affects attitudes towards the signature policy of the far-right Sweden Democrats. This party advocates for dramatically limiting immigration. It began in 1988 with roots in the racist "Keep Sweden Swedish" and the Sweden Party movements which emphasized the preservation of traditional culture.

To arrive at causal estimates, our analysis takes advantage of large nonlinearities in the

[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] An overview article by Mudde (2013) on far-right populist parties concludes there is no consensus on how they change attitudes once elected. For example, Semyonov et al. (2006) finds anti-foreigner sentiment is more pronounced in places with greater support for right-wing parties, while subsequent work using more countries and alternative surveys by Dunn and Singh (2011) and Bohman and Hjerm (2016) finds no effect. Guriev and Papioannou (forthcoming) provide a broad overview of the political economy of populism, including papers pointing to a negative correlation between local exposure to immigration and the populist vote.

[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" (1957, p. 140). See also Dunleavy and Ward (1981), Gerber and Jackson (1993), Matsubayashi (2013) and Stubager (2003).

way seats are assigned in Swedish municipal elections, comparing otherwise similar elections where a party either barely wins or loses an additional seat. The average municipal council has 45 elected seats, with 8 main parties competing. As described in detail later, the assignment of seats is a discontinuous function not only in a party's own vote total, but also in the mix of votes received by the other parties. Using a variety of regression discontinuity (RD) estimators which allow for multiple parties in an election, we analyze whether gaining an additional seat on the municipal council changes local attitudes after the election. The unique policy position and small size of the Sweden Democrats, 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 a Sweden Democrat – but the change is opposite the party's policy position, indicating a backlash in voter attitudes. When a Sweden Democrat politician gets elected, they *decrease* negative attitudes towards immigration in their municipality. One more seat lowers negative attitudes towards immigration by 1.8 or 4.1 percentage points, depending on which national survey we use. Despite the two surveys asking somewhat different questions, both estimates translate to an 8% effect relative to their respective means. These effects are present across a variety of demographic groups.

Using quasi-random variation arising from the election rules matters empirically. OLS estimates without municipality fixed effects lead to the mistaken conclusion that the Sweden Democrats increase anti-immigration sentiment, while OLS estimates with municipality fixed effects lead to the mistaken conclusion they have no effect on attitudes. The RD estimates are robust to a variety of alternative specifications, including the use of multivariate RD control functions of varying flexibility to isolate the jumps in elected seats, as well as univariate RD approaches which reduce the multiple running variables to a single dimension.

Consistent with these attitudinal changes, we find no evidence for an incumbency advantage in the next election, despite the fact that other small parties in Sweden do experience an incumbency advantage. This suggests the Sweden Democrats alienate at least some potential voters, negating any potential benefit they otherwise would have experienced at the ballot box.

We explore several possible mechanisms for our results. First, we rule out coalition formation as a main driver in our setting, as the Sweden Democrats were never part of a governing coalition during our time period. We then investigate whether marginally elected party seats are able to be filled with minimal turnover until the next election. Excessive turnover could be due to less committed politicians being assigned to a seat as well as resignations related to internal party conflicts or pressure from the public. We find the Sweden Democrats have trouble keeping their marginal seats filled, which could diminish the party's ability to effectively communicate and gain support for their preferred policies. This amount of turmoil is not present for the other small parties.

We next explore the influence of the media. Using a panel of 139 local newspapers, we find the election of a Sweden Democrat politician increases their party's mention in local newspapers by 13%. Moreover, much of the post-election coverage is derogatory, with mentions of the words "racism" and "xenophobia." This is consistent with Häger's (2012) observation that many newspapers consciously chose to oppose the Sweden Democrats and their anti-immigration stance, but did not aggressively oppose other parties and their policies. Indeed, newspaper coverage of the other small parties does not noticeably increase after increased representation. 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.[4]

We conclude that backlash occurs when the far-right Sweden Democrats win an election in Sweden. Instead of swaying voters to favor their preferred policies, they cause voters on net to shift towards the opposite view. This result speaks to the claim that proportional election systems with low thresholds for representation are potentially dangerous. The argument, discussed by Myerson (2004) in the context of the Weimar disaster, is that such systems provide opportunities for charismatic politicians to express and spread their radical, and potentially harmful, views. Indeed, this is often cited as a rationale for requiring high electoral thresholds in proportional representation systems. Our paper is the first to provide a formal test of this claim, with the conclusion that public policy attitudes are not easily swayed, but in fact recoil, when an extreme party gains a small foothold in an elected council. This backlash suggests the party's policies are placed under closer scrutiny as representation increases, consistent with a "light as disinfectant" model of politics.

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 immigration/economic conditions and (i) related policy attitudes and (ii) support for extreme parties (including the Sweden Democrats).[5] Our paper is also related to work which explores (i) how prominent individuals shape attitudes in other settings, (ii) incumbency effects in both majoritarian

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

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

and proportional election systems, (iii) political representation and changes in public policy and (iv) the influence of the media in politics.[6] Finally, our study adds to a recent set of methodological papers on how to adapt RD designs to proportional, multiparty elections, starting with the work of Folke (2014). These papers propose ways to collapse the vote shares of the different parties down to a single dimension, so that univariate RD methods can be used. We provide a complementary approach which allows for a multivariate RD under the assumption of a global control function of all the running variables.[7] We find similar point estimates with the univariate and multivariate approaches, but with standard errors being over 40% larger for the univariate estimates.

The remainder of the paper proceeds as follows. In Section 2, we describe our setting and data. Section 3 discusses our model and the various RD estimators. Section 4 presents our main results followed by a series of robustness checks in Section 5. Sections 6 and 7 report incumbency effects and explore possible mechanisms for our findings, respectively. The final section concludes.

2 Setting and Data

2.1 Municipal Councils

Our setting is local municipality elections in Sweden. Municipalities are smaller than counties, but can encompass more than one city. There are currently 290 municipal councils across all of Sweden, with an average of approximately 45 seats to be filled in each council. The median number of citizens in a municipality is around 15,000, around 70% of the population is old enough to vote, and elections happen every 4 years. Voter participation is high in these elections, with around 80% turnout.[8]

In the time period 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, and Sweden Democrats. Each of these smaller parties received at least a 4% vote share at some point during our time period, the minimum needed to receive representation in the national

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

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

[8]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.

parliament. Our study focuses on the far-right Sweden Democrats who advocated aggressively for reduced immigration.

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 small fringe party plays 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). 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 council is a springboard for politicians with ambitions to enter the national parliament.

2.2 The Far-Right Sweden Democrats

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

The main policy issue for the Sweden Democrats has always been to reduce immigration.[9] 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.

One advantage of focusing on an extreme party and their signature issue 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 (see www.snd.gu.se). Party platforms corroborate the importance of reduced immigration for the

[9]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.

Sweden Democrats. While it would be interesting to study other policy issues as well, there are no available attitude questions clearly identified only with the Sweden Democrats.[10] The fact that the Sweden Democrats are relatively small is also useful for identification. They usually have between zero and three 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 the large 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.[11] For attitudes on immigration policy, we use two data sources. Both of these sources are nationally-based surveys, based on simple random sampling of all Swedish adults appearing in population register data. By construction, each survey is by construction also representative at the municipality level.

The first survey data was collected between 2002 and 2012 by FSI (Forskningsgruppen för Samhälls och Informationsstudier). This survey was begun by the Swedish Gallup Institute between 1955-1970, then taken over by FSI in 1971, and was based at the Department of Sociology at Stockholm University from 2003.[12] We link these data to the periods after the 2002, 2006 and 2010 elections. The attitude question on immigration which was consistently asked is: "*Should Sweden continue accepting (refugee) immigrants to the same extent as now?*"[13] The possible responses are contained in the top panel of Figure 1. We classify respondents as having a negative attitude toward immigration if they answer "*To a lesser extent*" and a positive attitude as "*To a greater extent*". Fifty-four percent of respondents have a negative immigration attitude and 7% have a positive attitude.

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

[10]Other policy issues, such as EU membership, are associated with several parties. In an earlier version of this paper we also explored attitudes towards a six hour work day and the Left Party, an established but extreme party on the other side of the political spectrum. We found some evidence for a backlash in attitudes there as well (Carlsson et al. 2020).

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

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

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

classify a negative attitude towards immigrants as a response of "*A very good proposal*" and a positive attitude as "*A very bad proposal*". Twenty-three percent of respondents have a negative attitude, while 11% have a positive attitude.

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

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

Appendix Figure A2 documents the distribution of negative attitudes at the municipality level for both of our surveys. The variance in attitudes across municipalities is large. Using the FSI data, the 10th and 90th percentiles for the share of negative attitudes are .44 and .71, respectively. The corresponding numbers for negative attitudes towards refugees using the SOM data are .15 and .37. While not shown in the figure, the distribution of positive attitudes also varies across municipalities.

The opinion surveys also include basic demographics and geographic information. Summary statistics for the demographic variables and municipality characteristics can be found in Appendix Table A1. Appendix Table A2 documents how attitudes are influenced by our demographic variables, in OLS regressions with and without municipality fixed effects. The estimates reveal that males, the least educated, older individuals and non-immigrants are more likely to have a negative attitude towards immigration using either the FSI or SOM data.

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.[14] The method works as follows in Sweden. After the votes, v^p, for each party p have been tallied, successive quotients, q^p, are calculated for each party:

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

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

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

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

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

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

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

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

3.2 Model

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

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

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

The model written above makes two assumptions for tractability and identification. First, it assumes additive separability for the effect of seats held by the various parties, which rules out interactive effects between the number of seats held by different parties. Second, the model assumes a constant treatment effect for each of the seat variables. This means the effect of gaining and losing a seat is symmetric and that the effect of a given party getting an extra seat does not depend on which party they take the seat away from. If there are heterogeneous effects, then the estimated coefficient will capture a weighted average of these effects.[15] These two assumptions rule out systematic coalition formation as a determinant of attitudinal changes. While multi-party coalitions may be consequential along other dimensions, during

[15]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.

our time period none of the other parties were willing to partner with the Sweden Democrats, so governing coalitions are not a relevant factor in our setting.

For ease of interpretation, we absorb the seats for all the parties except the Sweden Democrats into the error term for our baseline model. In this case, the coefficient for the Sweden Democrats 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.[16] Another modification which turns out to be useful for empirical implementation is to model policy attitudes as a function of seat shares, instead of seats. This makes it easier to compare municipalities which have differing numbers of council seats. Letting s^1 denote the seat share (rather than seats) for the Sweden Democrats, the model becomes

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

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

3.3 RD Estimation

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

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

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

approach is nonparametric identification.

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

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

where v^p measures the vote share for party p, and tv and ts indicate the total number of votes and the total number of seats in a municipality and election period.[17]

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 (not shown).

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

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

Folke's (2014) method of collapsing, which counts the minimum number of aggregate votes that would need to change for the party of interest to either lose or gain a seat, normalized by the total number of votes for all parties in the election. Returning to the example in Table 1, the minimum vote change is found in panel B, where 54 new votes are added to party C.[18]

The advantage of a univariate RD estimator is nonparametric identification with different slopes to the left and right of a cutoff. The disadvantage is a loss in precision, as the univariate closeness measure does not differentiate between vote switches which are more or less likely. For example, it may be relatively easy for the Swedish Democrats to take 30 votes away from a conservative party, but more difficult for them to take 30 votes away from a more liberal 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 use Folke's approach as our main univariate RD specification, but also include a more standard univariate RD design (except that it uses the seat share instead of a dummy for gaining an extra seat as the key independent variable) with separate linear trends in the running variable on each side of the cutoff for the g_l and g_r functions.

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

4 Policy Attitude Results

To estimate whether the election of a Sweden Democrat politician affects citizens' policy attitudes, we regress individual level attitudes in surveys after elections on the seat share of the Sweden Democrats. We present naive OLS estimates followed by multivariate RD estimates based on equation (4) and 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.

Table 2 reports results for how post-election attitudes towards immigration change when the Sweden Democrats increase their seat share. Estimates are shown using both the FSI and SOM survey datasets, and using both negative and positive attitude dummies as the outcome variables. The first column uses naive OLS without municipality fixed effects, and finds a large increase in anti-immigration sentiment and a modest decrease in positive attitudes towards immigrants associated with the election of a Swedish Democrat. Of course, these results could be driven by endogeneity where municipalities with greater anti-immigration sentiment choose to elect an anti-immigration politician. In column (ii) we augment the OLS specification with municipality fixed effects to account for time-invariant municipal attitudes. This leads to small and insignificant effects for both negative and positive attitudes towards immigration, regardless of whether we use the FSI (panels A and C) or SOM (panels B and D) survey questions and data.

The remaining columns in the table report estimates using a variety of RD estimators; we first explain each of these estimators before discussing the empirical results. Column (iii) uses our baseline multivariate RD estimator, which includes a second order expansion of the 10 input variables which enter into the seat allocation rule (e.g., the vote share for each party, total seats and total votes). This second order expansion includes all of the inputs as well as their squares and interactions, for a total of 65 terms. Column (iv) uses a variable selection procedure proposed by Imbens (2015) to choose a more parsimonious set from all possible second and third order terms.[19] Column (v) reports our baseline univariate RD using Folke's specification with an inner window of .004, i.e., where the minimal distance in the number of vote changes expressed as a share of total votes to gain or lose an additional seat is less than

[19] 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.

.4 percentage points.[20] This amounts to 37 vote changes for the median municipality; 30% of observations are within this inner window. The final specification uses the same closeness measure to create a scalar running variable, but employs a standard univariate RD design with separate linear trends on each side of the cutoff, triangular weights and a bandwidth of ± 0.17.[21]

Consider first the RD results for the negative attitude outcome (panels A and B). Using either the FSI data or the SOM data, the various RD estimates appearing in columns (iii) - (vi) reveal a sizable backlash in immigration attitudes opposite the Sweden Democrats' policy platform.

The estimate using the FSI data and the baseline multivariate specification in column (iii) implies that when the Sweden Democrats' seat share increases by 1 percentage point, negative attitudes in the corresponding municipality decrease by 1.8 percentage points. Stated somewhat differently, since one seat equates on average to a seat share of approximately 2.3, an additional seat decreases negative attitudes towards immigrants by 4.1 percentage points. Relative to the average number of citizens who express anti-immigration views (54%), this is a sizable 8% decrease. Using the SOM data instead, there is a 0.8 percentage point reduction for each 1 percentage point increase in the seat share, which translates into a 1.8 percentage point decrease in negative attitudes for each additional seat the Sweden Democrats gain. Relative to the mean (23%), this is also an 8% decrease. The multivariate RD estimates using covariate selection yield similar results.

Turning to the univariate RD estimates, Folke's implementation yields similar results, as do the univariate estimates using separate linear trends. Compared to the multivariate estimators, the standard errors for the univariate RD estimators are over 40% larger, as expected based on the discussion in Section 3.3.2. Appendix Figure A3 provides a visual representation for a univariate RD specification with separate linear trends. We note, however, that this graph does not correspond to the univariate linear RD specification in column (vi) of Table 2. The reason is that the independent variable in our regressions is the seat share, whereas the graph corresponds to gaining an extra seat. We follow Folke (2014) and other researchers in using the seat share so as to account for the fact that different municipalities have a different number of seats on their municipal councils. As we will soon show in a robustness table, using seats instead of seat shares reveals a similar pattern, but is somewhat more noisily estimated.

[20] The window choice is a judgment call, and as Folke points out, optimal bandwidth tests have not been developed for this setting. We include the 65 second order expansion terms as additional controls 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.

[21] Since we use seat shares as the dependent variable instead of a dummy for gaining a seat, there are no formal results on how to choose an optimal bandwidth. What we do instead is to calculate the optimal bandwidth using the latest version of the Calonico et al. Stata package (rdrobust) for the model based on gaining a seat, and use it for our regressions based on seat shares.

We next look at positive attitudes in panels C and D. Using the FSI data, the estimates are all close to zero. Using the SOM data, the estimates show a modest increase in positive attitudes (which is opposite the Sweden Democrats' policy platform), with two of the four RD estimates being statistically significant.

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 Sweden Democrat representation either worsens attitudes toward immigrants (without accounting for municipal fixed effects) or has no effect on attitudes (after accounting for municipal fixed effects). A null result would not be surprising, since a low seat share might simply mean the Sweden Democrats have little influence or voice at the local level. But the RD estimates reveal there is in fact a sizable backlash in public opinion. Our estimates for positive and negative attitudes do not indicate an increase in polarization, but rather a shift in attitudes away from the extreme party's policy position. We explore two possible reasons for this backlash in Section 7.

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

5 Exogeneity, Robustness and Heterogeneity

5.1 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 A3 we analyze whether a party's seat share is significantly associated with lagged, and hence predetermined, municipality characteristics using our baseline multivariate and univariate RD specifications. In Appendix Table A4 we conduct a similar exercise, but use predetermined individual characteristics from the FSI and SOM surveys. Across the two tables, there is little evidence the seat shares of either party are related to municipal and individual level characteristics. Only 2 out of 36 estimates are statistically significant. We next test exogeneity by regressing pre-election attitudes on a party's seat share. Since these seats have not been allocated yet, they should not affect pre-election attitudes. We find that 1 out of 8 estimates is statistically significant (see Appendix Table A5). Our conclusion from these three appendix tables is that manipulation is unlikely to be a problem, as the number of significant estimates is roughly what would be expected due to chance.

5.2 Robustness checks

Our main estimates combine all of the parties except the Sweden Democrats into the omitted category for ease of interpretation. This enables the seat share coefficient to be interpreted as the effect relative to a weighted average of the effects for the other parties which would have gotten the marginal seat instead. In Table 3 we repeat the baseline multivariate specification, except that we include the seat share variables for all of the other parties, and use the Sweden Democrats as the omitted category. This allows us to examine whether the estimated effects are driven by some parties and not others.

For both policy issues and both surveys, we find that it does not matter much which party gets a marginal seat instead of the Sweden Democrats. In column (i), which uses the FSI survey, the other party seat share coefficients are positive and all but one are statistically significant. In other words, relative to the Sweden Democrats gaining another seat, when any of the other parties gain a seat instead, negative attitudes towards immigrants are higher. In column (ii), which uses the SOM data, all of the coefficients are likewise positive, but only two are statistically significant. We conclude that while the individual coefficients differ somewhat across parties, not much information is lost by using the simpler model with a single seat share variable.

Appendix Table A6 contains a series of further robustness checks. The first specification repeats our baseline multivariate and univariate RD estimates for comparison. The second specification includes additional expansion terms in the multivariate control function, adding cubes of each input as well as three-way interaction terms involving the Sweden Democrats, resulting in 130 terms.[22] The estimates are similar to baseline. Panel C cuts the inner window used by Folke's method in half; while the estimates change somewhat, the standard errors are relatively large. As the next specification shows, when we use the number of seats instead of seat shares as the independent variable, the results are the same order of magnitude. To see this, divide the seat coefficients by 2.3, the average seat share corresponding to one seat.

In panel E, we test for whether gaining a first seat is more consequential. In the FSI and SOM surveys, respectively, 76% and 77% of the data corresponds to municipalities where the Sweden Democrats did not previously hold a seat. Using the multivariate RD estimator, which has more precision, we find remarkably similar estimates based on prior representation. One might have thought that getting a first seat would have a larger effect, but this turns out not to be the case. One explanation is that having a second member on a municipal council (which has approximately 45 members on average) further increases the visibility of the party – consistent with the idea that having a "partner in crime" emboldens politicians to express their extreme political views more vocally or show up more regularly to council

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

meetings. The univariate RD estimates, which are less precise, present a more mixed picture, with one survey showing larger effects for gaining a first seat and the other the opposite.[23]

In panel F, we estimate RD regressions which do not include municipality fixed effects. The estimated coefficients remain statistically significant for the FSI survey, but not the SOM survey. Finally, when we omit the individual characteristics as control variables (panel G) or omit the three largest cities of Stockholm, Gothenburg and Malmo (panel H), we find little change in the estimated coefficients.

In Appendix Table A7, we probe alternative codings for the definitions of negative and positive attitudes. As a reminder, for the SOM survey, our choice to code a negative attitude as the most extreme response of a "very good proposal" was driven by the empirical observation that this categorization was most responsive to the 9/11 terrorist attacks (see Section 2.3). When we instead categorize a negative attitude as either a "very good proposal" or a "good proposal", there is no effect. This suggests the most extreme attitudes against immigration we moderated down one notch, rather than a general downward shift in the entire distribution. For the FSI survey, there is only one possible way to code positive and negative immigration attitudes, so no alternative coding appears in the table.

5.3 Heterogeneous Effects

In Appendix Table A8 we explore heterogeneity across individual demographic characteristics. As a reminder, gender, education level, age and immigrant status all strongly impact attitudes in OLS regressions (see Appendix Table A2). We find little evidence of heterogeneity on these margins, with only three of the 14 p-values testing for differential effects being statistically significant.

6 Incumbency Effects

The results so far document that political representation causes a backlash in policy attitudes which is opposite the Sweden Democrats' intended direction. A related question is whether there are 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, panel A of Table 4 regresses the log number of votes for the Sweden Democrats in the next election on the party's seat share in the last election. The naive OLS estimate, without municipality fixed effects, points to a strong incumbency effect. Since an additional seat equals a 2.3 seat share on average, the estimate translates into 50% more votes after getting one more council seat. Interestingly, including municipality fixed effects in

[23]We caution the reader against overinterpreting the univariate estimates, as we needed to widen the inner window used in the Folke method from 0.04 to 0.10 to prevent the standard errors from blowing up.

the OLS specification reverses the sign of the effect, with an implied 18% reduction in votes after getting one more council seat.

To arrive at causal estimates, we use the baseline multivariate and univariate RD specifications. There is little evidence suggesting an incumbency effect for the Sweden Democrats. The multivariate RD estimate is negative but not statistically different from zero, and the univariate RD estimate is close to zero and imprecise.[24]

To help put these estimates into perspective, we repeat the exercise, but for each of the other 5 small parties in Sweden. These are the other small parties shown in Appendix Figure A1: Center Party, Liberal Party, Christian Democrats, Green Party and Left Party. Each of these parties received less than 10% of the vote share on average in municipal elections during our time period, and so receiving another seat results in a large increase in their representation at the local level.

We estimate incumbency effects for each of the other small parties separately, and then take the inverse-variance weighted average of the individual estimates. Starting with OLS, there are smaller, but still positive incumbency effects for these other small parties compared to the Sweden Democrats, and including municipality fixed effects does not change the sign. Using the baseline multivariate RD estimator, we find the other small parties receive 1.8% (s.e.=0.5%) more votes in the next election for each 1% increase in their seat share (see panel B). A similar 1.9% (s.e.=0.7%) average effect is found using our baseline univariate estimator. Each of the 5 political parties contributing to this average effect have a positively estimated effect, although only two are statistically significant (see Appendix Table A9 for the individual estimates).

We next go a step further and test whether the incumbency effect for the SD party is statistically different from the average incumbency effect for the other small parties. Using the multivariate estimator, we find a difference which is statistically significant at the 10% level (difference=-4.6%, s.e.=2.7%). When we do a similar test using the univariate estimator, the difference is not significant. This is in part to the fact that, as described in Section 3.3.2, the univariate estimator uses less of the variation in the data, and has standard errors which are roughly 50% larger.

When interpreting these results, we caution that the analyses in Table 2 (attitudes) and Table 4 (voting) are each estimating a different local average treatment effect, and so are not directly comparable. In other words, the incumbency results are not necessarily capturing changes in attitudes for the same set of individuals. A negative attitude towards immigrants can be held by someone who votes for a party other than the Sweden Democrats. Indeed,

[24]We also explored whether it matters if the Sweden Democrats are getting their first seat, versus additional seats, by interacting the seat share variable with lagged seats being 0 versus 1 or more. Employing the multivariate RD specification we find negative estimates for both interaction terms, but which are relatively imprecise and not statistically different from each other (-0.022 (s.e.=.023) for the first seat and -.068 (s.e.=-.036) for additional seats).

the average fraction of individuals with a negative attitude towards immigration is 54% (FSI survey) or 23% (SOM survey). Since the average number of votes for the Sweden Democrats is much smaller, it follows that at least some of the changed attitudes on immigration are for individuals who never voted for the Sweden Democrats in the first place. To illustrate why this matters, if an individual's attitude towards immigration becomes less negative, it will only show up as a drop in future votes for the Sweden Democrats if the person either previously voted for the Sweden Democrats or was otherwise planning to do so in the future.

With this caveat in mind, we conclude there is suggestive evidence that the change in attitudes negated any incumbency advantage the Sweden Democrats otherwise would have experienced.

7 Possible Mechanisms

While there are likely to be many factors at play, in this section we explore two possible reasons for political backlash in attitudes: politician turnover and the influence of local newspapers.[25] The data used to construct each of these measures first becomes available for the 2006 and 2010 elections, so our analysis is limited to those two post-election periods. We use the same identifying variation as before, namely, the quasi-random variation in seat shares due to the election rules to study these two mechanisms.

Before exploring these two mechanisms, however, we first rule out coalition formation as a main driver of attitudinal changes in our setting. The lack of heterogeneous effects based on which party loses a seat, as documented in Table 3, argues against systematic coalition formation mattering for public attitudes. The reason is that if the Sweden Democrats 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 they take a marginal seat from. Moreover, it is important to note that the Sweden Democrats were never part of a governing coalition, as no parties were willing to partner with them.[26]

7.1 Politician Turnover

The first mechanism we examine is whether marginally elected seats are able to be filled with minimal turnover until the next election. High politician turnover could hurt a party's effectiveness in getting its message across to voters, causing a backlash in attitudes. Excessive turnover could be due to less committed politicians being assigned to a seat as well as forced and voluntary resignations related to internal party conflicts or pressure from the public.

[25] As an example of another factor in play, the salience of an issue for cultural group identity could influence public attitudes. See Bonomi, Gennaioli and Tabellini (2020), Grossman and Helpman (2018), Besley and Persson (2019) and Zaller (1992).

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

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.[27]

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.[28] On average, 23% of Sweden Democrat seats were unstable after the 2006 and 2010 elections. This stands in stark contrast to 7% seat instability on average for the other 5 small parties. Apparently, the Sweden Democrats had a much harder time filling, and keeping filled, the seats they won in local elections compared to other small parties.

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 two columns of panel A in Table 5 regress seat instability on the seat share of the Sweden Democrats. The OLS estimates are small and statistically significant without municipal fixed effects, and even smaller and statistically insignificant with municipal fixed effects. However, when using our RD estimators, the picture changes dramatically. For the baseline multivariate RD specification, the point estimate indicates that when the seat share for the Sweden Democrats goes up by 1 percentage point, seat instability goes up by 12 percentage points. The univariate RD specification finds a similar result. Since a seat share of 2.3 equals approximately one seat, this translates into an additional seat increasing instability by 28 percentage points. In contrast, there is a much smaller average effect for the other small parties on the order of 2 to 3 percentage points. The RD estimates for the Sweden Democrats, using either the multivariate or univariate specifications, are statistically different from the average estimate for the other 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 this is less true for the other, more established small parties.[29] This sign of local disorganization and inexperience may have turned off voters to the Sweden Democrats and their policies.

[27]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).

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

[29]This result suggests that the Sweden Democrats did not attract quality politicians, in contrast to what is generally found for most politicians in Sweden (Dal Bó et al. 2017).

7.2 Power of the Media

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

We note that during our time period, newspapers were one of the main sources for political news and information. According to surveys conducted by the World Internet Project (Findahl 2011), over half of individuals reported getting election information from tv, closely followed by daily newspapers (46% in 2006 and 41% in 2010). The internet was less important (17% in 2006 and 29% in 2010), and social media had not yet taken off as a source for political information.[30] Moreover, we note that based on a question asked in the SOM survey, 66% percent of respondents report having a home subscription to a daily newspaper, a number which is 60% by 2012.[31]

So while the internet and social media have become more important over time, for our analysis period, newspapers better capture local media exposure. Moreover, we note that a similar analysis cannot be performed using Google Trends, as data is only available for three cities or 11 counties. It is nonetheless reassuring that searches for the phrase "Sweden Democrats" on Google Trends correlate with newspaper articles mentioning the same phrase when aggregated up to the county level.[32]

7.2.1 Newspaper coverage. We begin by exploring whether local newspaper coverage increases after a party wins a seat in Table 6. To construct the dependent variable in panel A, we add up the number of articles which mention the Sweden Democrats after an election, but before the next election takes place, and take the natural log. We regress this on the seat share of the Sweden Democrats (in the municipalities covered by a newspaper), and include newspaper and election year fixed effects in the regression. For this analysis, we have fewer groups than in our prior analyses. This is because we have fewer newspapers

[30] According the the World Internet Project, in 2010 in Sweden "7 percent of the population use Twitter" and "ahead of the 2010 general election, 14% of the population discussed politics on Facebook" (p. 7).

[31] Individuals may also have access to a newspaper at their work or may purchase a newspaper during their daily commute, so this fraction should be viewed as a lower bound.

[32] Counties encompass municipalities, and while there are 21 counties throughout Sweden, not all are represented in Google Trends. We find that one additional newspaper article in a given county in a given month mentioning the phrase "Sweden Democrats" is associated with a 0.48 higher index (s.e.=0.09) on the 0-100 Google Trend relative scale in a regression which also controls for county fixed effects.

than municipalities (139 versus 290), and only two election cycles. This has the practical implication that the control functions for multivariate RD will need to include fewer terms.[33] 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 Sweden Democrats (30 terms). 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 without municipality fixed effects is positive and significant, but becomes small and statistically insignificant once the fixed effects are added. In contrast, the multivariate RD estimate in column (iii) is large, positive and statistically significant. 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 estimate in column (iv) tells a similar story.

When we conduct a similar exercise for the other 5 small political parties, we find little evidence of increased newspaper coverage. The average RD estimates for the other small parties are close to zero. Moreover, the average for the other small parties is statistically different from the sizable increase in coverage for the Sweden Democrats.

It would be interesting to explore whether there is an election-induced increase in tv, radio or internet coverage, but unfortunately, the requisite data do not exist.[35]

7.2.2 Newspaper content. A natural follow up question is whether this increased coverage of the Sweden Democrats is positive or negative. If negative, newspapers could be turning off citizens to the party and its anti-immigration stance. To answer this question, we carry out a content analysis of the types of words that appear in local newspapers. The analysis is the same as in Table 6, but with different search terms fed into the newspaper database. We also take the inverse hyperbolic sine of the dependent variable, as some newspapers have zero

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

[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 19.

[35]We explored using Facebook data, but the Sweden Democrats did not yet have a significant online presence during our time period. Using the CrowdTangle data platform provided by Facebook, we find that the local Sweden Democrat parties did not start developing Facebook pages until 2012. While tv and radio were in wide use, it is not feasible to retroactively obtain data on the news content of these media sources.

articles for these more specialized searches.

We first search for variants of the terms "racism" or "xenophobia" in newspaper articles which also include the phrase "Sweden Democrat". These terms carry negative connotations in Sweden, and are clearly used as reproachful and stigmatized labels. Once municipal fixed effects are included, OLS finds little evidence of an effect. However, using either the multivariate or univariate RD baseline specifications, the results are striking. Column (iii) in Table 7 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 larger standard error. We also search for articles which mention racism or xenophobia, but not the Sweden Democrats. We find no statistical evidence that the Sweden Democrats trigger a discussion of racism without a mention of their party. Next we search for articles which mention the Sweden Democrats, but not racism or xenophobia. We find some increase in newspaper coverage along this margin as well, but which is smaller in percent terms compared to the increase in articles mentioning racism or xenophobia in conjunction with the Sweden Democrats.

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.[36] The multivariate RD estimate indicates a 22% increase in these types of newspaper mentions for each percentage point increase in the Sweden Democrats' seat share. This translates to roughly 12% more of these types of articles for each extra seat. The univariate RD estimate tells a similar story. There is no statistical evidence of increased discussion about immigrants and integration in articles which do not mention the Sweden Democrats, although the estimates are positive.

These empirical findings are consistent with interviews of newspaper editors and journalists by Häger (2012) who found that newspapers consciously chose to oppose the Sweden Democrats and their anti-immigration stance, but did not aggressively attack other parties or their policies. As an example, on election day in 2010, the front page of the national newspaper *Expressen* was covered with a large "NO!" In the background was a crumpled ballot for the Sweden Democrats and a sentence which read "Today we vote for Sweden and against xenophobia." The treatment of the Sweden Democrats by the media leads us

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

to the following interpretation. As Rydgren (2008) found, people tend to vote for far-right parties because they are anxious about immigration and not primarily because they are racist or xenophobic. When newspapers label the Sweden Democrats and their policies as racist, individuals averse to these labels may try to distance themselves from the Sweden Democrats and their anti-immigration policies.

8 Conclusion

Political representation could provide a platform for extreme parties to convince the public of the merits of their proposals, but there could also be political backlash as the parties and their ideas are placed under closer scrutiny. Existing work has been limited to correlational evidence and generally finds no effect on attitudes or changes which move in the same direction as a party's position. We overcome the issues of reverse causality and omitted variable bias by taking advantage of large nonlinearities in the function which assigns municipal council seats in Sweden. Using this threshold variation, we estimate post-election attitudes for the signature policies of the far-right, anti-immigration Sweden Democrats. We find evidence that political backlash occurs when the Sweden Democrats win an additional seat in local municipal elections, with a decrease in negative views on immigration. In terms of mechanisms, we find evidence for politician turnover and a rise in negative newspaper coverage.

Our results speak to two different models of the politics of fringe parties. One is the concept of "light as disinfectant," where extreme parties can and should be allowed to be represented, as the parties will prove to be incapable or their proposals impractical. This will cure the public from extreme populist ideas more effectively than leaving them outside of councils and legislatures. The other model is one of "respectability," where formal representation of an extreme party grants access to money and media, and eventual mainstream legitimacy. Our results suggest light as disinfectant is the dominant force in local municipal elections in Sweden. We caution, however, that this finding does not necessarily carry over to other settings. For example, Bursztyn, Egorov and Fiorin (2020) find that the election of Donald Trump increased individuals' willingness to express xenophobic views in public.

Our paper focuses on a far-right fringe party with a unique policy priority in Sweden, a setting which allows for convincing causal identification. It would be interesting to explore if and why backlash occurs in other countries with proportional election systems and for other extreme policy positions. Further, while other statistical methods would probably need to be used, it would also be interesting to investigate how politicians influence attitudes in other settings, such as when the Tea Party gained influence in regions in the U.S. or when populist parties in other countries such as the National Front in France won city elections. 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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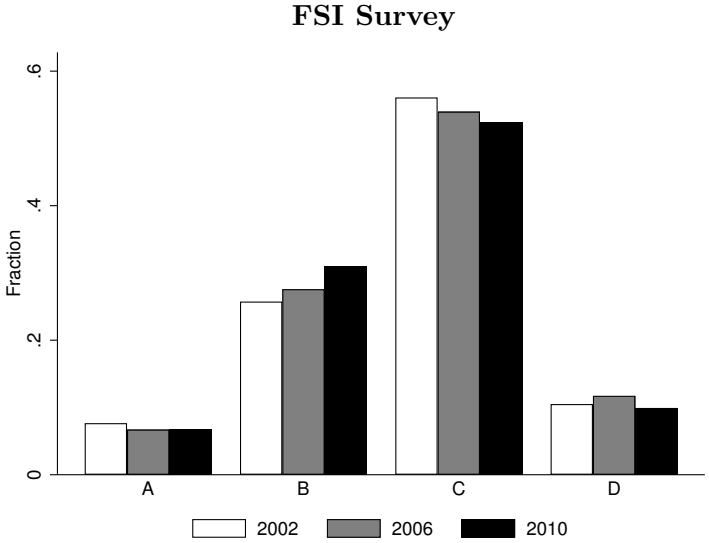
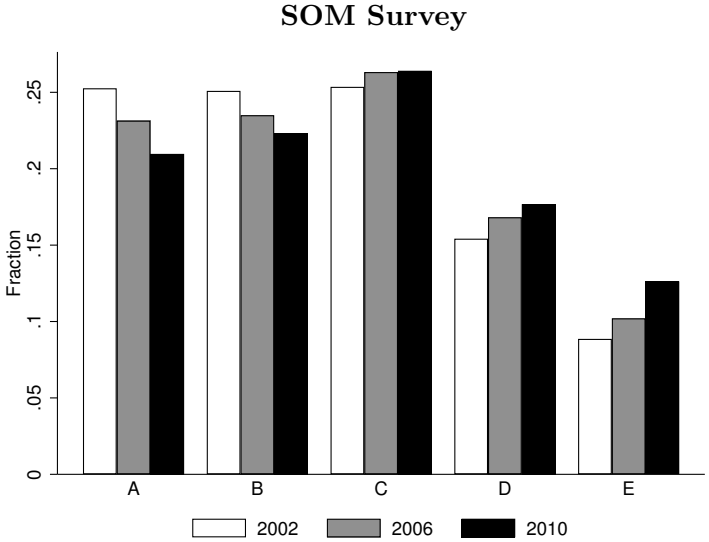
Figure 1. Attitudes Towards Immigration



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. 21,947 *respondents across all survey years. In some years, the word refugee was included in the question. Negative and positive attitudes towards immigration are defined as answers of C and A, respectively.*



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

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

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

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

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

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

Table 2. Sweden Democrat Representation and Policy Attitudes on Immigration

	OLS		Multivariate RD		Univariate RD			
	no muni f.e.	w/ muni f.e.	2nd order poly.	cov. selection	Folke method	linear trends		Dep.
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	N	mean
	Dependent variable: Negative attitude towards immigration/refugees							
A. Sweden Dem. seat share×100	.0121**	-.0024	-.0176**	-.0176**	-.0164**	-.0192**	21,947	.54
FSI survey	(.0015)	(.0023)	(.0054)	(.0047)	(.0078)	(.0089)		
B. Sweden Dem. seat share×100	.0111**	-.0015	-.0078**	-.0056*	-.0077*	-.0128**	40,760	.23
SOM survey	(.0008)	(.0017)	(.0034)	(.0034)	(.0047)	(.0056)		
	Dependent variable: Positive attitude towards immigration/refugees							
C. Sweden Dem. seat share×100	-.0025**	.0009	.0002	-.0002	-.0006	.0006	21,947	.07
FSI survey	(.0009)	(.0011)	(.0024)	(.0023)	(.0035)	(.0039)		
D. Sweden Dem. seat share×100	-.0035**	-.0003	.0024	.0034	.0070**	.0092**	40,760	.11
SOM survey	(.0015)	(.0010)	(.0024)	(.0022)	(.0030)	(.0036)		

Notes: Column (i) includes survey year fixed effects and controls for the individual characteristics used in Appendix Table A2; columns (ii)-(vi) also include municipality fixed effects. There are 290 municipalities for the election years of 2002, 2006 and 2010 and attitude data is from 2002 to 2012. Column (iii) includes 65 interaction terms in the control function for each regression; column (iv) includes 61, 28, 36, and 39 terms for specifications A, B, C and D, respectively. See text for details on the multivariate and univariate RD specifications. The univariate RD specification in column (vi) uses a bandwidth of +/-0.017, and hence uses fewer observations (18,191 and 33,723 for specifications A/C and B/D, respectively). 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

	Dependent variable: Negative attitude immigration	
	FSI Survey	*SOM Survey*
	(i)	(ii)
Moderates seat share×100	.0231**	.0059
	(.0071)	(.0050)
Center Party seat share×100	.0226**	.0060
	(.0076)	(.0047)
Liberal Party seat share×100	.0182**	.0131**
	(.0066)	(.0047)
Christian Democrats seat share×100	.0087	.0058
	(.0072)	(.0048)
Social Democrats seat share×100	.0154**	.0082**
	(.0068)	(.0040)
Green Party seat share×100	.0193**	.0071
	(.0088)	(.0055)
Other parties seat share×100	.0203**	.0070
	(.0074)	(.0045)
Left Party seat share×100	.0321**	.0023
	(.0087)	(.0053)
Sweden Democrats seat share×100	-	-
N	21,947	40,760
Dep. mean	.54	.23

Notes: Regressions mirror the baseline multivariate RD specification of Table 2 column (iii), except that the party of interest is left out and all other parties are included. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Table 4. Party Representation and Votes in the Next Election

	OLS		Multivariate RD	Univariate RD	
	no muni f.e.	w/ muni f.e.	2nd order poly.	Folke method	
	(i)	(ii)	(iii)	(iv)	N
	Dependent variable:				
	Log votes for party in the next election				
A. Sweden Democrat	.2192**	-.0776**	-.0277	.0084	579
seat share×100	(.0244)	(.0093)	(.0228)	(.0328)	
B. Average of other small	.0506**	.0289**	.0180**	.0189**	1,723
parties seat share×100	(.0061)	(.0030)	(.0047)	(.0065)	
Difference A-B	.1686**	-.1065**	-.0457*	-.0104	
	(.0265)	(.0097)	(.0268)	(.0388)	

Notes: Regressions mirror the specifications in Table 2, but use municipal-level rather than individual-level data. There are 290 municipalities for the election years 2002 and 2006 in panel A, and between 276-290 municipalities for the election years 1988, 1991, 1994, 1998, 2002 and 2006 in panel B (there are fewer elections in panel A since the Sweden Democrats are a relatively new party). 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. The average of other small parties is calculated as the inverse-variance weighted average of the individual estimates for the other five small political parties (see Table A9). The standard errors for the averages and differences are calculated using 5,000 bootstrap draws.
***significant at the 5% level; *significant at the 10% level*

Table 5. Party Representation and Seat Instability

	OLS		Multivariate RD	Univariate RD		
	no muni f.e.	w/ muni f.e.	2nd order poly.	Folke method		Dep.
	(i)	(ii)	(iii)	(iv)	N	mean
	Dependent variable:					
	Unable to fill elected seat without excessive turnover					
A. Sweden Democrat	.0303***	.0255	.1176**	.1443**	580	.23
seat share×100	(.0059)	(.0162)	(.0305)	(.0379)		
B. Average of other small	.0075**	.0051	.0197*	.0285**	580	.07
parties seat share×100	(.0011)	(.0036)	(.0108)	(.0144)		
Difference A-B	.0228**	.0204	.0978**	.1157**		
	(.0061)	(.0167)	(.0370)	(.0491)		

Notes: The dependent variable is 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 specifications in Table 2, but use municipal-level rather than individual-level data. There are 290 municipalities for the election years of 2006 and 2010. Standard errors clustered by municipality in parentheses. The average of other small parties is calculated as the inverse-variance weighted average of the individual estimates for the other five small political parties (see Table A9). Standard errors for the averages and differences are calculated using 5,000 bootstrap draws.

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

Table 6. Party Representation and Newspaper Coverage

	Dependent variable: ln(articles per election period)					
	OLS		Multivariate RD	Univariate RD		
	no paper f.e.	w/ paper f.e.	2nd order poly.	Folke method		Ave. #
	(i)	(ii)	(iii)	(iv)	N	articles
	Search term: "Sweden Democrats"					
A. Sweden Democrat	.2620**	.0270	.2350**	.3013**	278	430
seat share×100	(.0503)	(.0220)	(.0566)	(.0983)		
	Search term: *Name of other small party*					
B. Average of other small	-.0181	.0336**	.0320	-.0097	256	478
parties seat share×100	(.0357)	(.0137)	(.0338)	(.0680)		
Difference A-B	.2801**	-.0067	.2030**	.3110**		
	(.0646)	(.0269)	(.0762)	(.1577)		

Notes: The dependent variable is the natural log of the number of articles per post-election period appearing in a newspaper which include the specified search term. All specifications include election period and newspaper fixed effects, except for column (i) which excludes newspaper fixed effects. See text for details on the multivariate and univariate RD specifications. 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 other small parties was collected in 2016. Due to copyright issues, 11 newspapers were removed from the database in the intervening period, leaving 128 newspapers. Standard errors clustered by municipality in parentheses. The average of other small parties is calculated as the inverse-variance weighted average of the individual estimates for the other five small political parties (see Table A9). The standard errors for the averages and differences are calculated using 5,000 bootstrap draws.
***significant at the 5% level; *significant at the 10% level*

Table 7. Sweden Democrat Representation and Newspaper Content

	Dependent variable: arcsinh(articles per election period)					
	OLS no paper f.e. (i)	OLS w/ paper f.e. (ii)	Multivariate RD 2nd order poly. (iii)	Univariate RD Folke method (iv)	N	Ave. # articles
	Search terms: "Sweden Democrats" AND ("Racism" OR "Xenophobia")					
A. Sweden Democrat seat share×100	.2278** (.0451)	.0390 (.0326)	.3434** (.0780)	.6887** (.1573)	278	81
	Search terms: NOT ("Sweden Democrats") AND ("Racism" OR "Xenophobia")					
B. Sweden Democrat seat share×100	.1896** (.0357)	-.0057 (.0237)	.0661 (.0753)	.0789 (.1292)	278	268
	Search terms: "Sweden Democrats" AND NOT ("Racism" OR "Xenophobia")					
C. Sweden Democrat seat share×100	.2641** (.0505)	.0442** (.0189)	.1867** (.0559)	.2088** (.0952)	278	349
	Search terms: "Sweden Democrats" AND ("Immigrant" AND "Integration")					
D. Sweden Democrat seat share×100	.1951** (.0380)	.0254 (.0250)	.2217** (.0707)	.3020** (.1211)	278	19
	Search terms: NOT ("Sweden Democrats") AND ("Immigrant" AND "Integration")					
E. Sweden Democrat seat share×100	.1759** (.0361)	-.0804* (.0384)	.0771 (.0751)	.1527 (.1586)	278	69

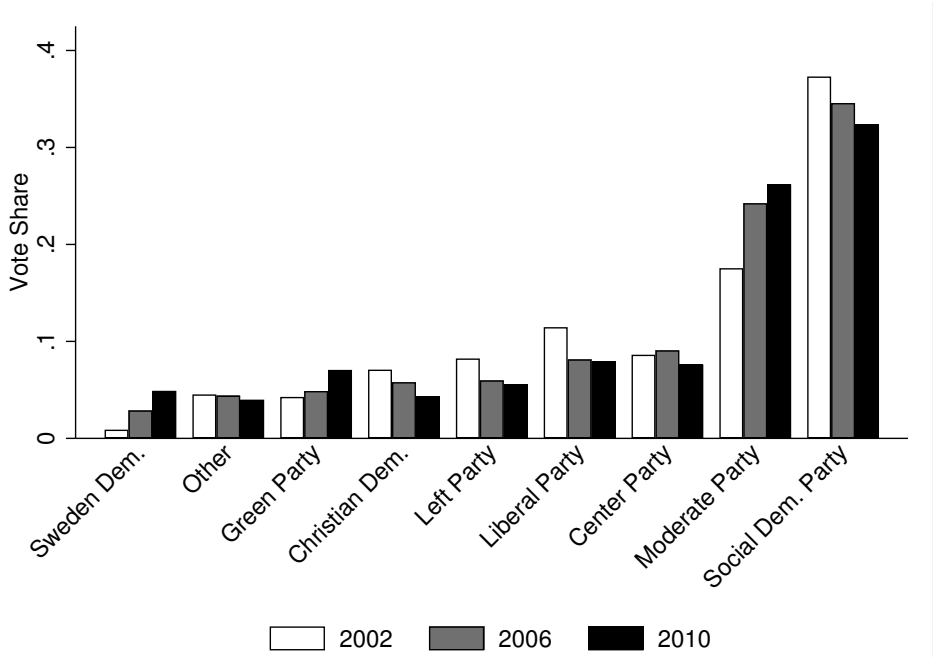
Notes: The dependent variable is the inverse hyperbolic sine of the number of articles per post-election period appearing in a newspaper which include the specified search terms. Regressions mirror those in Table 6. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Figures and Tables

"Backlash in Policy Attitudes After the Election of an Extreme Political Party"

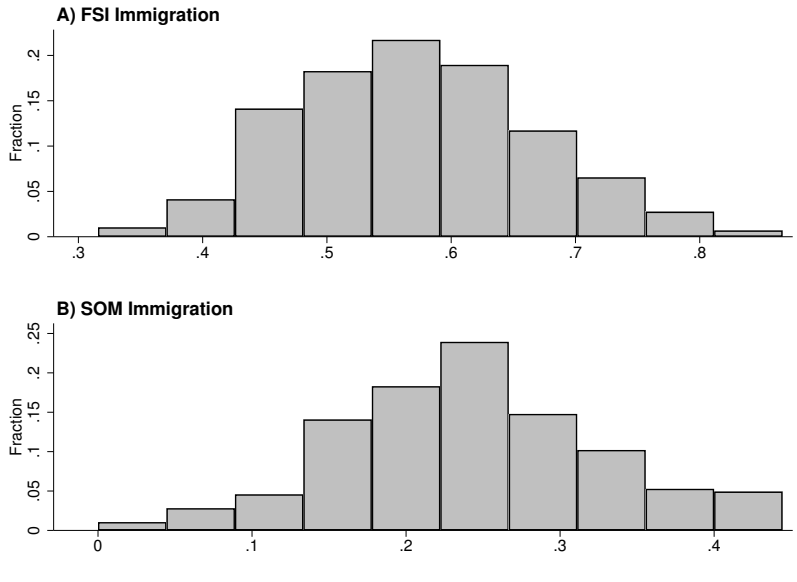
Magnus Carlsson, Gordon B. Dahl and Dan-Olof Rooth

Appendix Figure A1. Party Vote Shares in Municipal Elections



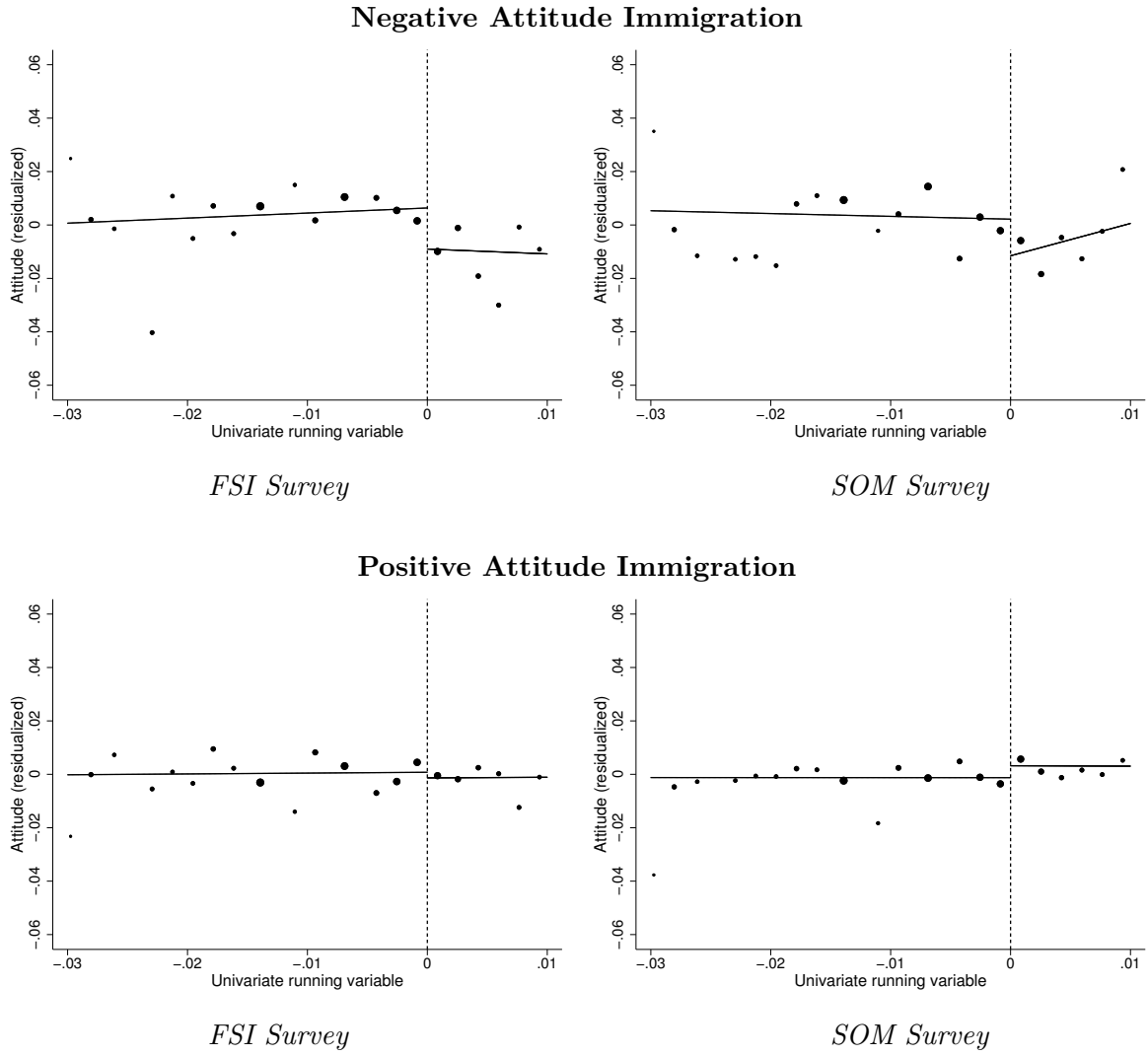
Notes: Average party vote shares across municipalities. Election data come from Statistics Sweden.

Appendix Figure A2. Distribution of Negative Attitudes Across Municipalities



Notes: Negative attitudes are defined in the notes to Figures 1. Distribution across 290 municipalities.

Appendix Figure A3. Univariate RD Graphs (Using Seats) for Immigration Attitudes



Notes: Each circle is the average value of residualized attitudes (regressing out municipality fixed effects, survey year fixed effects and individual characteristics) within equally spaced bins, where the size of the circle is proportional to the number of observations in the bin. For visual clarity, 2.5% of the data in bins more extreme than those shown are excluded from the left and right panels. The solid lines are linear trends. These graphs do not align exactly with the estimates in Table 2, which use seat shares instead of seats as the key independent variable.

Appendix Table A1. Summary Statistics

	FSI Survey (i)	*SOM Survey* (ii)
A. Survey respondents		
Compulsory education	.35	.22
Secondary education	.27	.43
Some college or more	.28	.33
Education missing	.10	.02
Female	.52	.52
Age	50	49
Immigrant	.10	-
Immigrant status missing	.10	-
N	21,947	40,760
B. Municipalities		
Fraction voting	.82	.82
Fraction net migration	.13	.13
Tax rate	.21	.21
Fraction immigrant	.04	.04
Fraction college graduate	.16	.16
Fraction older than 45	.47	.47
Unemployment rate	.08	.08
N	870	870

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

Appendix Table A2. OLS Regressions for Personal Characteristics and Negative Attitudes towards Immigration

	FSI Survey		*SOM Survey*	
	no muni f.e.	w/ muni f.e.	no muni f.e.	w/ muni f.e.
	(i)	(ii)	(iii)	(iv)
Female	-.0719**	-.0717**	-.0419**	-.0416**
	(.0069)	(.0068)	(.0042)	(.0043)
Education				
Compulsory (omitted)	-	-	-	-
Secondary	-.0382**	-.0461**	-.0603**	-.0586**
	(.0094)	(.0093)	(.0065)	(.0065)
Some college or more	-.2229**	-.2327**	-.1902**	-.1837**
	(.0090)	(.0093)	(.0066)	(.0069)
Age	.0023**	.0026*	.0015**	.0014**
	(.0015)	(.0015)	(.0006)	(.0006)
Age squared×100	-.0011	-.0013	-.0016**	-.0016**
	(.0014)	(.0014)	(.0005)	(.0005)
Immigrant	-.0808**	-.0801**	-	-
	(.0146)	(.0146)		
R-squared	.077	.081	.038	.058
Dependent mean	.54	.54	.23	.23
N	21,947	21,947	40,760	40,760

Notes: Columns (i) and (iii) include survey year fixed effects and indicators for missing values for the education, age and immigrant variables. Columns (ii)-(iv) additionally include municipality fixed effects. See notes in Table 2 for details on the samples. Standard errors clustered by municipality in parentheses; within R-squared is the within municipality R-squared.
***significant at the 5% level; *significant at the 10% level*

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

	% voting (i)	% net migration (ii)	Tax rate (iii)	% immigrant (iv)	% college (v)	% older than 45 (vi)	Unempl. rate (vii)	N
Sweden Democrat Seat share×100								
Multivariate RD (2nd order poly.)	-.0331	.0168	.0042	.0007	-.0261	-.0224	.0746	870
	(.0355)	(.0279)	(.0144)	(.0291)	(.0246)	(.0357)	(.0535)	
Univariate RD (Folke method)	.0013	-.0251	.0081	.0327	-.0445	-.0189	.0498	870
	(.0498)	(.0357)	(.0205)	(.0360)	(.0290)	(.0439)	(.0780)	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (iii) and (v) in Table 2. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A4. Effect of Political Representation on Predetermined Individual Characteristics

	Immigrant (i)	Compulsory education (ii)	Secondary education (ii)	College education (iii)	Female (iv)	Older than 45 (v)	N
A. *FSI Survey*: Sweden Dem. Seat share×100							
Multivariate RD (2nd order poly.)	.0006	.0025	.0015	-.0107**	.0052	-.0004	21,947
	(.0030)	(.0050)	(.0048)	(.0047)	(.0051)	(.0052)	
Univariate RD (Folke method)	-.0005	.0064	-.0061	-.0042	.0145*	.0000	
	(.0044)	(.0072)	(.0070)	(.0065)	(.0080)	(.0076)	
B. *SOM Survey*: Sweden Dem. Seat share×100							
Multivariate RD (2nd order poly.)	-	.0006	-.0027	.0002	.0026	.0023	40,760
		(.0035)	(.0046)	(.0037)	(.0043)	(.0040)	
Univariate RD (Folke method)	-	.0015	-.0074	.0053	.0005	.0035	
		(.0052)	(.0065)	(.0058)	(.0063)	(.0054)	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (iii) and (v) in Table 2. Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A5. Effect of Political Representation on Lagged Attitudes

	Multivariate RD 2nd order poly. (i)	Univariate RD Folke method (ii)	N
	Dependent variable: Lagged negative attitude immigration		
A. Sweden Democrat seat share×100	.0041	-.0079	14,585
FSI Survey	(.0066)	(.0091)	
B. Sweden Democrat seat share×100	.0055	.0163**	25,733
SOM Survey	(.0056)	(.0075)	
	Dependent variable: Lagged positive attitude immigration		
C. Sweden Democrat seat share×100	-.0048	.0017	14,585
FSI Survey	(.0030)	(.0044)	
D. Sweden Democrat seat share×100	.0021	-.0007	25,733
SOM Survey	(.0028)	(.0041)	

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (iii) and (v) in Table 2, but use lagged instead of future attitudes as the dependent variable.
***significant at the 5% level; *significant at the 10% level.*

Appendix Table A6. Robustness Checks for Negative Attitudes on Immigration

	FSI Survey		*SOM Survey*	
	Multivariate RD 2nd order poly. (i)	Univariate RD Folke method (ii)	Multivariate RD 2nd order poly. (iii)	Univariate RD Folke method (iv)
A. Baseline	-.0176**	-.0164**	-.0078**	-.0077*
	(.0054)	(.0078)	(.0034)	(.0047)
B. 2nd + partial 3rd order polynomials	-.0179**	-	-.0055	-
	(.0060)		(.0036)	
C. Smaller inner window	-	-.0065	-	-.0102*
		(.0096)		(.0060)
D. Using seats instead of seat shares	-.0244**	-.0311**	-.0114*	-.0146
	(.0092)	(.0149)	(.0059)	(.0089
E. Interacted with lagged seats				
0 lagged seats × seat share	-.0161**	-.0168**	-.0074**	-.0240**
	(.0058)	(.0081)	(.0036)	(.0063)
1+ lagged seats × seat share	-.0169**	-.0452**	-.0099**	.0064
	(.0075)	(.0182)	(.0044)	(.0121)
p-value (test of equal coeffs.)	[.902]	[.185]	[.439]	[.044]
F. Omit municipality fixed effects	-.0116**	-.0144**	-.0029	-.0050
	(.0049)	(.0072)	(.0033)	(.0046)
G. Omit demographic controls	-.0164**	-.0169**	-.0078**	-.0082*
	(.0057)	(.0080)	(.0036)	(.0049)
H. Omit 3 largest cities	-.0187**	-.0169**	-.0066	-.0065
	(.0054)	(.0080)	(.0034)	(.0046)

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (iii) and (v) in Table 2. See text for details on each specification.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A7. Alternative Codings of Attitudes for the SOM Survey

	OLS		Multivariate RD	Univariate RD		
	no muni f.e.	w/ muni f.e.	2nd order poly.	Folke method		Dep.
	(i)	(ii)	(iii)	(iv)	N	mean
	Dependent variable:					
	Negative attitude towards immigration/refugees					
A. *Answer of A or B*						
Sweden Democrat	.0135**	-.0022	.0005	-.0037	40,760	.47
seat share×100	(.0010)	(.0017)	(.0043)	(.0059)		
	Dependent variable:					
	Positive attitude towards immigration/refugees					
B. *Answer of D or E*						
Sweden Democrat	-.0091**	.0002	.0051	.0082*	40,760	.27
seat share×100	(.0016)	(.0014)	(.0034)	(.0048)		

Notes: Specifications mirror those of Table 2, but use different codings for positive and negative attitudes (see Figure 1 for the labeling of the possible survey responses). Standard errors clustered by municipality in parentheses.
***significant at the 5% level; *significant at the 10% level*

Appendix Table A8. Heterogeneous Effects Across Individual Characteristics for Negative Attitudes on Immigration

	FSI Survey		*SOM Survey*	
	Multivariate RD 2nd order poly.	Univariate RD Folke method	Multivariate RD 2nd order poly.	Univariate RD Folke method
	(i)	(ii)	(iii)	(iv)
A. Education interactions				
Compulsory × seat share	-.0183**	-.0240**	-.0064*	-.0082
	(.0056)	(.0109)	(.0037)	(.0081)
Secondary × seat share	-.0181**	-.0208**	-.0068*	-.0035
	(.0058)	(.0099)	(.0035)	(.0055)
College × seat share	-.0180**	-.0150	-.0105**	-.0166**
	(.0057)	(.0095)	(.0036)	(.0056)
p-value (test of equal coeffs.)	[.992]	[.673]	[.009]	[.036]
B. Gender interactions				
Female × seat share	-.0190**	-.0171*	-.0079**	-.0116**
	(.0055)	(.0088)	(.0035)	(.0052)
Male × seat share	-.0164**	-.0167*	-.0076**	-.0040
	(.0055)	(.0087)	(.0035)	(.0056)
p-value (test of equal coeffs.)	[.202]	[.960]	[.823]	[.158]
C. Age interactions				
age≤45 × seat share	-.0169**	-.0116	-.0068*	-.0037
	(.0056)	(.0096)	(.0038)	(.0065)
age>45 × seat share	-.0178**	-.0223**	-.0081**	-.0096*
	(.0056)	(.0098)	(.0035)	(.0054)
p-value (test of equal coeffs.)	[.719]	[.3627]	[.534]	[.412]
D. Immigrant interactions				
Native × seat shares	-.0175**	-.0202**	-	-
	(.0055)	(.0079)		
Immigrant × seat share	-.0256**	-.0261*	-	-
	(.0063)	(.0148)		
p-value (test of equal coeffs.)	[.024]	[.662]		

Notes: Regressions mirror the baseline multivariate and univariate RD specifications of columns (iii) and (v) in Table 2, 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*

Appendix Table A9. Estimates for Other Small Parties

	Party					
	C	FP	KD	MP	V	Ave.
	(i)	(ii)	(iii)	(iv)	(v)	(vi)
			Incumbency (see Table 4)			
A. Multivariate RD: 2nd order poly.	.0159**	.0123	.0279**	.0190	.0159	.0180**
	(.0077)	(.0112)	(.0107)	(.0134)	(.0135)	(.0047)
B. Univariate RD: Folke method	.0175*	.0199	.0260**	.0072	.0205	.0189**
	(.0105)	(.0161)	(.0128)	(.0170)	(.0185)	(.0065)
			Seat Instability (see Table 5)			
C. Multivariate RD: 2nd order poly.	.0054	.0335**	.0074	.0097	.0441*	.0197*
	(.0204)	(.0167)	(.0202)	(.0224)	(.0262)	(.0108)
D. Univariate RD: Folke method	.0257	.0659**	-.0021	.0224	.0242	.0285**
	(.0229)	(.0233)	(.0250)	(.0237)	(.0347)	(.0144)
			Newspaper Coverage (see Table 6)			
E. Multivariate RD: 2nd order poly.	.0476	-.0427	-.0736	.1054**	.0832	.0320
	(.0485)	(.0561)	(.0682)	(.0510)	(.0667)	(.0338)
F. Univariate RD: Folke method	.1243	-.0312	-.2925**	.1218	-.0474	-.0097
	(.1014)	(.1013)	(.0924)	(.0748)	(.1013)	(.0680)

Notes: C stands for the Center Party, FP the Liberal Party, KD the Christian Democrats, MP the Green Party, and V the Left Party. Regressions mirror the baseline multivariate and univariate RD specifications of columns (iii) and (v) in Table 2. We use the election years 1988-2010 for each of the parties in this table; we cannot start as early for the Sweden Democrats as they are a newer party. Standard errors clustered by municipality in parentheses. The average of other small parties is calculated as the inverse-variance weighted average of the individual estimates for the other five small political parties. The standard errors for the averages are calculated using 5,000 bootstrap draws.

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