Abstract
Many studies have shown that political parties change their political proposals and distribute benefits to certain parts of the electorate to enhance their re-election probabilities. In this paper, I argue that we can gain new insights into the policy outcomes of interest groups by analysing the electoral constituencies they represent. The explanatory value of this approach is demonstrated by a study of the geographic distribution of school closures in Sweden 2002-2010. Closures of public schools are one of the most important drivers of contentious politics in Sweden and advocacy groups often compete with other groups to keep their welfare institution intact. Two hypotheses are tested. The first hypothesis predicts that the political majority will avoid unpopular decisions affecting swing voters in order to minimize electoral losses. In contrast, the second hypothesis predicts that the political majority will avoid decisions hurting their own supporters. The preliminary results provide stronger support for the loyal voter hypothesis than the swing hypothesis. More specifically, political majorities avoid decisions on school closures affecting loyal districts to smaller niche parties in the coalition. The results from this project could increase our understanding of how political parties prioritize when multiple interest groups are competing for their attention.
1. Introduction

Political parties often change their political proposals to enhance their re-election probabilities. Numerous influential theoretical and empirical studies emphasize the policy preferences of the median voter when explaining shifts in political parties’ policy positions (Downs, 1957; Kirchheimer, 1966; Esping-Andersen, 1985, 1990; Dixit and Londregan, 1996; Erikson et al., 2002). Other scholars focus on the party supporter when explaining policy shifts (Dalton, 1985; Weissberg, 1978; Cox and McCubbins 1986). However, while these studies suggest that parties are more responsive to certain voter groups than other groups, this logic has rarely been applied in order to explain interest group influence on public policy.

In this paper, I argue that we can gain new insights into the policy outcomes of advocacy groups by analysing the electoral constituencies they represent. The explanatory value of this approach is demonstrated by a study of the geographic distribution of school closures in Sweden. As a result of demographic change and economic difficulties, hundreds of public schools have been closed in Sweden in recent decades and proposals on school closures often cause protests from parents and neighbourhood associations. As several schools are often threatened at the same time, closures affecting one advocacy group often imply that another group can keep their school intact. While school closures relate to objective measures like the number of children per school, it is also possible that elected officials avoid closures affecting certain parts of the electorate to maximize their chances of being re-elected. Can such electoral interests explain the distribution of school closures across electoral districts in Sweden? Two competing hypotheses are tested. The first hypothesis, inspired by the often-cited papers by Lindbeck and Weibull (1993) and Dixit and Londregan (1996), predicts that political majorities will avoid school closures that would affect swing voters. In contrast, the second hypothesis, inspired by Cox and McCubbins (1986), predicts that political majorities will avoid school closures that would hurt their own supporters. The hypotheses are tested using multi-level logistic regression models on the probability that a proposal from bureaucrats will result in a school

1 Advocacy groups/interest groups are here defined as ‘all organizations or movements independent of the political system who are attempting to influence the policy process’ (cf. Gamson, 2004; Burstein, 1999).
closure decision. The units of analysis are 269 proposals on school closures recommending full or partial closures in Sweden during the 2002-2010 period. The study will include more proposals on school closures in the near future.

In line with the loyal voter hypothesis, the preliminary results reveal that when small niche parties like the green rural Centre Party is part of the political majority; the coalition tends to avoid closures targeting districts with many Centre Party supporters. The swing hypothesis, however, is not supported. The final results from this project could increase our understanding of how political parties prioritize when multiple interest groups are vying for their attention. Only a few previous studies consider how competition with other organizations affects interest group outcomes (Hojnacki et al., 2012). While advocacy groups seldom compete with each other directly over school closures according to my data (i.e., that they are seldom debating with each other), they compete with each other indirectly as several schools are often threatened at the same time. If the advocacy groups do not differ in their abilities to mobilize voters, then it is likely that the type of voters mobilized by the groups (loyal voters) could play a pivotal role in deciding how political majorities prioritize between schools. However, one should be cautious when interpreting the preliminary results, as the loyal voter hypothesis only seems to apply in special circumstances (niche parties) and because the results are sensitive to how the variables are encoded.

The paper is organized as follows: In the next section, I present the theoretical models more in depth and explain how they could advance our understanding on how political parties prioritize between the interests of multiple advocacy groups. The following two sections present the case of school closures and describe how the empirical tests of the hypotheses are designed. The ensuing sections present the results of the quantitative study and discuss the implications of the results.

2. Theory

The last decade has witnessed an increased focus on policy outcomes among interest group scholars (Hojnacki et al., 2012, p. 383). However, only a handful of studies on social movements and interest organizations consider either how the presence of opposition from organizations and government officials (e.g. Mottl, 1980; Meyer and Staggenborg, 1996; Hojnacki, 1997,1998; Andrews, 2002; Holyoke, 2003; Soule and Olzak, 2004; Holyoke et al., 2007; Mahoney, 2008; Baumgartner et al., 2009; Luders,
or how competition with other organizations (e.g. Godwin et al., 2008; Holyoke, 2009; Young 2010;) affects the behaviour of groups and their influence on public policy. However, by incorporating knowledge from other subfields into this discussion, we could advance our understanding of the game between different interest groups and elected officials.

An example of such a subfield is the literature on how political parties distribute positive material benefits (grants) across regions and voter groups (e.g. Cox and McCubbins, 1986; Lindbeck and Weibull, 1993; Dixit and Londregan, 1996; Dahlberg and Johansson, 2002). Many political issues lead to situations where decision-makers are forced to prioritize between the interests of various advocacy groups and voter groups. An example is welfare retrenchment, when elected officials implement cutbacks across welfare services. As some voters and interest organizations are more interested in certain programs (certain type of social insurance, or welfare services located in their geographic area), cutbacks could be targeted against special interests and relatively homogeneous groups of voters (cf. Dahlström, 2009). For example, cutbacks in pension programs primarily affect older voters and pensioner organizations. The game of welfare retrenchment is hence similar to the game of intergovernmental grants, but reversed in the sense that the incumbent political parties distribute (electoral) costs and blame among different groups. From previous studies on how political parties distribute positive benefits and change their political positions, we know that political parties tend to reward some voter groups more than other groups in these kinds of situations. Two competing theoretical approaches that may help us explain how political parties prioritize when multiple interest groups are competing for their attention are the swing voter model and the loyal voter model. I will now present these two theoretical approaches and develop two testable hypotheses.

The famous ‘swing voter theory’ states that political parties motivated by vote-seeking or office seeking objectives (Downs, 1957; Stimson et al., 1995; Muller and Strom, 1999) will reward individuals that are not attached to political parties more than any other groups of voters and follow their political positions. An often-cited version of this theory is the model originating from the papers by Lindbeck and Weibull (1993) and Dixit and Londregan (1996). This model can easily be reworked
and applied to a situation in which interest groups compete for public goods, such as schools. We imagine a situation where two political parties (or blocks) are forced to withdraw some public goods, such as a public school. Each item is backed by an interest group, which in turn represents (or are able to mobilize) a group of voters. The political parties assume that the voters put their vote on the basis of a combination of their party preferences and change (positive or negative) in the amount of public goods they receive. The stronger ideological ties a voter has to a specific political party, the more difficult it is to persuade/influence him/her through public goods (and the larger investment/cutback required to influence their vote). The amount of public goods an interest group receives will hence be positively correlated with the number of swing voters they represent/can mobilize. There are thus persuasive theoretical arguments to suggest that vote-seekers who are forced to implement cutbacks in welfare services (such as closing down schools) will avoid affecting swing voters. I will refer to this hypothesis as the ‘swing voter hypothesis’:

**H1. Proposals on school closures are less likely to result in closure decisions if they target districts with many swing voters.**

The swing voter theory has received strong empirical support. However, contrary to conventional wisdom, many studies have also shown that material benefits are disproportionately directed towards *loyal voters* with partisan preferences for the ruling political party (Levitt and Snyder, 1995; Bickers and Stein, 2000; Balla, Lawrence, Maltzman and Sigelman, 2002; Ansolabhere and Snyder, 2003; Hiskey, 2003; Murillo and Calvo, 2004). There are several theories that provide explanations of these puzzling results that could also be used to explain why political parties form alliances with some interest groups and not others.

One often cited theory focuses on how risk-averse politicians allocate benefits to different voter groups (Cox and McCubbins, 1986). Assuming that parties are *risk-averse* and that swing groups and opposition groups are riskier investments than loyal groups, it predicts that the government will distribute small benefits (if at all) to

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2 Many scholars analysing party strategies in Western Europe have reported that mainstream political parties do indeed tend to be vote maximizing and centre-oriented (Kirchheimer, 1966; see also Kitschelt, 1997; Van Kersbergen, 1999). Furthermore, scholars have also shown that positive material benefits are disproportionately directed toward swing voters (Wright, 1974; Stein and Bickers, 1994; Bickers and Stein, 1996; Denemark, 2000; Case, 2002; Dahlberg and Johansson, 2002; Herron and Theodes, 2004; Stokes, 2005).
groups loyal to the political opposition, somewhat more to swing groups, and more still to groups loyal to them. The core voters of a political party are well-known quantities and the politicians have a relatively precise and accurate idea about how they will react to benefits/cutbacks. In contrast, swing groups are a less secure investment because their behaviour is unpredictable and because other political parties can be expected to also try to buy them. Examples of political parties that may be more responsive to support groups than swing groups are (1) incumbent political parties that want to promote the stability of electoral coalitions and keep their majority (Case, 2001, p.407; Cox, 2007, p.348), (2) smaller niche parties (i.e. parties with ideological clienteles including green, communist, and radical right parties) (Adams et al., 2004, 2006; Ezrow et al., 2010) and (3) parties that are concerned primarily with preserving their electoral support in the long term (Przeworski and Sprague, 1986).

Research on the strategic behaviour of political parties has also provided additional motives for rewarding support groups. Firstly, positive transfers may be used to motivate supporters to put more effort into mobilizing voters in election campaigns (Kramer, 1966; Ansolabhere and Snyder, 2003; Cox, 2009). Large interest organizations, such as trade unions and business associations, play a central role in mobilizing voters in the elections (cf. Gray and Caul, 2000) and support groups can provide economic resources than can be used in election campaigns (Miller and Schofield, 2003). Secondly, niche party elites who are willing to shift their policy orientations towards the mean voter position run the risk of being perceived as ‘selling out’ and may lose votes when they moderate their policy positions (Kitschelt, 1994; D’Alimonte 1999). This can be dangerous for small parties that are dependent on a group of voters and certain interest groups to enter the government.

In summary, there are also good theoretical arguments to suggest that political parties with other motives than vote seeking (such as promoting the stability of electoral coalitions or stabilizing their party support) will avoid cutbacks affecting loyal voters. I will refer to this hypothesis as the ‘loyal voter hypothesis’:

**H2. Proposals on school closures are less likely to result in closure decisions if they mainly target loyal voters.**

Besides increasing our understanding of how political parties prioritize between different interest groups, the swing voter model and the loyal voter model may also
help us understand why elected officials listen to interest groups in the first place. A dominant theory, both in the broader interest group literature and the social movement literature states that political actors are particularly interested in the electoral costs and benefits associated with responding to interest organizations (Hansen, 1991; Lohmann, 1993; Wright, 1996; Kollman, 1998; Burstein and Linton, 2002; Luders, 2010). Analysing the relationship between electoral constituencies and interest groups can help us explain how elected officials evaluate these costs. While the quantity of voters mobilized is probably important when evaluating electoral costs, it should also matter which kind of voters that the interest groups can mobilize. If the elected officials suspect that the voters mobilized by advocacy groups would vote for another party, regardless of any concessions, there is no reason to reward them. Furthermore, even if an advocacy group mobilizes relatively few voters, it could still threaten elected officials if these voters consist of loyal groups or swing groups. It is also unclear in the social movement literature why political parties form alliances (political opportunity structures) with certain interest groups but not others. For example, why do political parties often form alliances with groups with similar political preferences that may vote for them regardless of the collaboration? The swing voter theory and the loyal voter theory could help us fill these blank spots in the interest group literature.

The tests of the hypotheses are described in greater detail in the following sections. However, I first provide a brief background on school closures in Sweden and discuss the possibilities for generalizing the results obtained from this case.

3 The case

3.1 Background

As a result of demographic change, economic difficulties, and competition between municipal and independent schools, hundreds of public schools have been closed in Sweden in recent decades. The first systematic wave of school closures occurred in the early 1990s following two major reforms of the welfare state. First, Swedish

Another important factor when calculating electoral costs/benefits is whether the mobilized voters will actually vote in the election or not. This factor may play a smaller role in countries like Sweden, where turnout is high among most groups. However, it may play a greater role in countries such as the United States, with larger differences in turnout between different groups.
municipalities (the local governments) were given the administrative responsibility to organize and finance the school systems within their territories. Second, the public school sector was opened for competition; that is, it became legal to open non-municipal (independent) schools financed by the municipalities. As a result, more than 100 public schools were closed during the 1998-2003 period in only one-third of Swedish municipalities (Sveriges Radio, 2003). The trend of school closures continued into the 2000s as the number of school children aged 7-15 decreased in many municipalities during the period 2005-2012 (Montin, 2008). The data used in this paper suggest that the 18 Swedish municipalities included in this study 2002-2010 presented 274 proposals on school closures. At least 168 of these proposals led to protests4 from parents, neighbourhood organizations and personnel according to news media reports and municipal documents. It is likely that there were even more protests as many media reports and letters have gone missing over the years.

Proposals on closures are usually formulated by bureaucrats and result from comprehensive inquiries that focus on factors such as the projected number of pupils in the future and the condition of the school premises. Decisions on closures are often made by a School Board, a board of politicians responsible for education in the municipality, or the general legislative body of the municipality.

3.2 Case selection and potential for generalization

The main advantage of studying school closures in Sweden is that it could be seen as a least likely case for finding a relationship between interest group outcomes and electoral constituencies. Firstly, the hypotheses are probably more relevant in countries with majoritarian electoral systems where positive or negative transfers to some electoral constituencies can play a major role in winning elections. Sweden has a proportional electoral system. Secondly, although issues related to public schooling have been one of the most important drivers of political activism in Sweden (Solevid, 2009; Kriesi and Westholm, 2010), a recent study has demonstrated that school closures in Sweden have little, if any, effects on municipal election results (Wänström

4 A protest is here defined as any action by three or more people (or by representatives of organizations) that clearly stated its opposition to the proposed closure of a school. Had I only focused on the 168 proposals that led to protests for my study, I would have created a selection bias (there were probably more than 168 protests) and I would have had fewer observations for my regressions.
and Karlsson, 2011). Thirdly, the advocacy groups in the case of Swedish school closures primarily consist of ad-hoc voluntary groups such as parental networks and neighbourhood associations that often lack the resources required mobilizing numerous voters (Larsson Taghizadeh, 2014). The hypotheses are probably more relevant when it comes to professional interest organizations, such as labour unions. It is hence far from certain that elected officials are threatened by the possible electoral consequences of school closure decisions. The choice of a least-likely case for finding support for the hypotheses increases the possibility to generalize the results. The results of this study can likely be generalized to numerous other political issues characterized by political activism in industrialized countries where different groups compete with each other, and where political decisions affect relatively homogenous groups of voters. Examples are welfare retrenchment, environmental issues, and infrastructure and construction projects.

4 Designing the test
4.1 Statistical method
To determine whether the hypotheses could be relevant in explaining advocacy group influence on school closures, they will be tested using multi-level logistic regression models on the probability that a proposal will result in a closure decision. The models consist of two levels. The units of analysis are 269 proposals\(^5\) on school closures recommending full or partial closures in Sweden during the 2002-2010 period. The proposals are in turn nested into 34 municipality groups. Each of the 18 municipalities included in the study (except two) has two groups, one for the legislative term 2002-2006 and one for term 2006-2010, in total 34 groups\(^6\). Proposals, group activities and decisions are considered from September 2002 to September 2010, primarily due to the Swedish electoral cycle and data availability.

There are three reasons why the schools are nested into municipality groups. The first reason is that it makes theoretical sense. The loyal voter hypothesis is based on the idea that different political majorities may have different strategic motives and

\(^5\) 5 observations were dropped because of missing data (274-269=5) and some of the regression models include less than 269 observations because of missing data.

\(^6\) The second level can therefore also be seen as a municipal level (fixed during a certain time interval 2002-2006 or 2006-2010). For example, three of the 34 municipality groups are Uppsala 2002-2006, Uppsala 2006-2010 and Stockholm 2002-2006.
different electoral constituencies they want to satisfy. It also makes sense to group the schools by legislative term and by municipalities as schools/advocacy groups within a term and a municipality compete with each other, as opposed to proposed school closures in different legislative terms or municipalities. The second reason for using multilevel modelling is that it makes it easier to control for the differences across municipalities and political majorities in terms of political, socioeconomic, demographic and economic factors (cf. Gelman and Hill 2007, p.246). The third reason is that the models enable a few schools to appear twice in the dataset. 16 schools are present in two of the groups, as there existed proposals on closures both 2002-2006 and 2006-2010.

4.2 Variables and data

4.2.1 Dependent variable: school closure decisions

The dependent variable is a binary variable equal to 1 if there was a decision made for the full or partial closure of the school before the end of the legislative term (before 17 September 2006 for proposals presented 2002-2006, before 19 September 2010 for proposals presented 2006-2010).

The dependent variable is based on actual decisions found in municipal protocols and media reports. The proposals that determine the units of analysis must exist, in some form, in municipal documents by bureaucrats, but it is not necessary for them to have been presented as a final proposal at a School Board meeting by elected officials (at this point the case is generally already settled). I also collected data on which decisions were implemented by comparing the proposals with information on the state of the schools today provided by the municipalities.

4.2.2 Independent variables to test the swing voter theory

To test the swing voter hypothesis, three proxy variables on the demographic and socioeconomic characteristics of the electoral districts where the schools are located.

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7 The Swedish elementary school consists of nine years. To be categorized as a closure, the highest responsible political body must decide to close the lower level (years 1-3) and/or the intermediate level (years 4-5 or 4-6) and/or the upper level (6-9 or 7-9), and they must have implemented the decision before 2014.

8 Every Swedish municipality is divided into municipal electoral districts, geographic areas that usually consist of between 1,000 and 2,000 voters. The data on the socio-economic characteristics of the schools and the electoral data are hence based on the individuals that live in the electoral district where the school is located.
are used, and one variable on electoral volatility. The demographic/socioeconomic variables are labelled ‘Age’, ‘Education’ and ‘White collar’. The first captures the mean age of the parents\(^9\) (with children aged 6-18) in the electoral district. The second captures the proportion of parents (with children aged 6-18) with university education in the electoral district. The third captures the proportion of parents (with children aged 6-18) with white-collar jobs\(^{10}\) in the electoral district. If none of the three variables have statistically significant negative effects on the probability of decisions on closures, the result suggests that the hypothesis is of limited explanatory value.

The proxies were chosen in light of previous research. The intuitive understanding of a swing voter has been an individual with weak partisan preferences who are located somewhere in between the two major parties (or blocks) (Dixit and Londregan, 1996; Mayer, 2007). A number of studies have shown that members of the new middle class (such as white collar employees), highly educated groups and the young in particular, are more likely than other groups to be swing voters. This result holds regardless of whether we define swing voters as *apartisans* (individuals that are involved in politics, but not attached to political parties) through survey data (Dalton, 1984, p. 270-275; Dalton, 2000, p.30-31) or if we define them as *vote switchers*, those individuals who have actually voted for a different party in consecutive elections (Oscarsson and Holmberg, 2008, p. 44; Gómez Martinez, 2012, p.140-141). Another reason for using these proxies is that one can easily imagine that elected officials have a decent idea of where young and highly educated groups live in the cities. Furthermore, media in Sweden usually refer to younger middle class individuals when they write about median voters (Dagens Nyheter, 2014; Sveriges Television, 2014).

Other studies (Dahlberg and Johansson, 2002) have argued that using survey data on the electoral preferences of individuals is a superior method when estimating the

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\(^9\) By focusing on the characteristics of the parents, I avoid a bias that could arise from the possibility that strategically minded elected official would gain (both in political and economic terms) from closing down schools in areas with relatively few parents living close to the school. Schools with relatively few parents living in the local area can be expected to have more empty premises and are less likely to spawn protests if threatened.

\(^{10}\) Professions covered by the white-collar variable are those within trade and communication, financial services, education and research, health and social care and public administration. It is possible that these categories are too broad to only catch white-collar workers and I will therefore recode the variable in the near future.
number of swing voters in an electoral district. However, as there are no data available on the political preferences within municipal electoral districts in Sweden, I cannot use this method. There are also scholars who argue that electoral volatility (changes in the electoral support for the political parties at the aggregate level) works fairly well as a proxy for the proportion of individual voters who switches party on the micro level (e.g. Bartolini and Mair, 1990; Gómez Martinez, 2012). I will therefore also include a variable on the absolute difference in vote share for the ruling majority in the electoral districts between two consecutive elections labelled ‘Electoral volatility’. However, when using this proxy you ideally want to estimate aggregate electoral volatility on the basis of more than two elections (cf. Wright, 1974; Gómez Martinez, 2012). This is unfortunately impossible in my case, as numerous municipal electoral districts changed their territories in 1998 and 2002.

The data for the variables on age, education and white-collar jobs were taken from a database called Geosweden, which contains annual, geocoded data on all residents in Sweden. Because there are no available data on which parents have children in lower/intermediate level schools (years 1-6) for the 2002-2009 period, data on electoral districts are used. The correlation between the 2007 electoral district proxy and the real proportions in 2010 with respect to all schools in a municipality is quite strong (Pearson’s r=0.707). However, the use of electoral district proxies may still reduce the chances that the study will support the hypotheses.

4.2.3 Independent variables to test the loyal voter theory
To test the loyal voter hypothesis, two variables on the electoral districts where the schools are located are used. The first variable labelled ‘Majority support’ captures the share of the electorate in the electoral district that voted for the political majority in the election before the proposal on closure was presented (cf. Case, 2001; Dahlberg and Johansson, 2002). This variable could be problematic given that my study includes many types of political majorities that may be driven by different motives. Furthermore, there is a risk that differences in electoral support for the political majority between municipalities and electoral terms will have a larger impact on the

11 I have also tested using two binary variables equal to one if at least 5 per cent or at least 10 per cent of the electorate in the district voted for a different political majority between two consecutive elections. However, the effects of these variables were similar to the effect of the continuous variable included in one of my models.
results than differences between the electoral districts within municipalities (which I am interested in).^12 Because of these problems, I will test the hypothesis using a variable that is new to the literature.

The variable is a binary interaction term labelled ‘C support × C in majority’ equal to one if at least 15 per cent of the voters in the district voted for the Centre Party (Centerpartiet), in municipalities where the Centre Party is part of the ruling coalition. The Centre Party is a small green niche party (mean votes in the electoral districts included in the study 2002-2010: 7.12 per cent) who has much to lose if they anger their core voters. It is also easy for them to identify their supporters, as many of them are situated in rural areas. If the school closure target rural areas, they risk losing many supporters as the Centre Party (the former peasant party) is still expected to defend public services in rural areas. The party can hence be seen as an archetype of the niche party that according to previous research should be sensitive to the political preferences of their supporters (cf. D’Alimonte, 1999,1994; Tarrow, 1989). However, in order to avoid school closures targeting their supporters, they must negotiate with the major parties in the coalition. The 15-percent threshold was chosen in order to focus on loyal districts with twice as many Centre Party voters as in the average electoral district. The theoretical idea behind this threshold is that to be seen as a loyal district by the elected officials, it is possible that a district must contain a certain amount of supporters.

The data for the vote shares are taken from the Swedish Election Authority and they are based on the final municipal result of the election of 2002 and 2006 (depending on whether the proposal on closure was presented 2002-2006 or 2006-2010).

4.2.4 Control variables
A problem when testing theories that claim that the government uses public goods for tactical purposes is that we have to disentangle the strategic use of the distributive benefits from other purposes attached to the policies (Dahlberg and Johansson, 2002). The existence of other nearby schools and demographics were emphasized as the

^12 Furthermore, the variable is only based on one municipal election before the proposals on closures were presented, because of data availability. In contrast, other studies, like Shaw (2008, 88) classifies voters as “core” if they supported the same party over three consecutive elections.
most important factors in Swedish school closures in interviews with decision-makers (Abrahamsson, 2010). Although this study controls for many of these factors by only including schools that bureaucrats proposed closing, it also includes control variables on the school-level and on the municipal level. However, it is important to point out that it is still difficult to control for all kinds of policy objectives behind the closures. This is a problem that I share with previous studies on distributive benefits (cf. Cox 2007, p.347).

The first control is labelled ‘rural school’ and is a binary variable equal to 1 if the school was located outside of the largest urban population centre (tätort) in the municipality. School closures in rural areas often have more substantial consequences for the pupils because of travel time; therefore, these schools could face a lower likelihood of closure.

The second control is a binary variable labelled ‘New information’ equal to 1 if the advocacy groups provided at least one type of information to elected officials: alternative proposals, information on economic consequences, or information on capacity utilization. A previous study on school closures has shown that these types of information, in contrast to large protest actions, may have significant negative effects on the probability that proposals result in school closures (Larsson Taghizadeh, 2014).

The third control focuses on the capacity utilization of the schools. The number of pupils in the school in the year the proposal on closure was presented divided by the number of pupil’s four years prior. This variable captures to what degree the schools use their facilities more efficiently compared to four years earlier, which could influence the likelihood of closure.

The fourth control is a binary variable labelled ‘large protest’ and it can both be seen as a measure of public opinion and a measure of large protest actions. It is a binary variable equal to 1 if more than 0.5 per cent of those entitled to vote in the municipality (data from the Swedish election authority, 2006) were involved in petitions against the closure before any decisions were made. The variable is primarily based on petitions provided by the municipalities and a protest database on school closures based on media reports (see Uba, 2010, pp. 100–101). The 0.5 per
A cent threshold was selected to focus on the largest protests in the database in terms of number of participants while ensuring sufficient observations (29 obs).\(^{13}\)

The study also includes eight binary variables (2003, 2004, 2005, 2006, 2007, 2008, 2009 and 2010) that indicate which year the first closure proposal was presented to control for time-specific effects. Several alternative controls for time were considered, but 1-year dummies had the strongest statistically significant effects on closures.

Finally, the models will also include three variables on the municipality level. One is labelled ‘socialist majority’ and is a binary variable equal to 1 if the Social Democratic Party was part of the political majority when the school closure was proposed. The Social Democratic Party is the largest political party on the left in Sweden, and it is a good indicator of a left majority. This variable is included because different political majorities may be more or less willing to engage in welfare retrenchment (Korpi and Palme, 2003). The other two variables on the municipality level are labelled ‘Municipality age’ and ‘Municipality education’ and they control for the mean age in the municipality and the proportion of the population with at least three years of higher (university) education. The main purpose of these two variables is to increase the possibilities to generalize the results to other municipalities. It is possible that municipalities with many young and with many highly educated citizens implement fewer school closures due to reasons other than strategic ones. For example, municipalities with many young people can utilize its school facilities more efficiently than municipalities with an older population. It is also possible that the total numbers of swing voters in the municipalities could affect the strategies that elected officials choose. I have also tested several other types of controls on the municipality level, including local government finances, the costs of school premises and the amount of empty premises, but neither of these variables was statistically significant and they did not affect the significance levels of the other variables.

Descriptive statistics concerning the control variables are provided in the appendix (table 2).

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\(^{13}\) Another variable was considered using a 1 per cent threshold (11 obs), but the effect of this variable did not differ.
4.3 Choice of municipalities

It was not possible to include all 290 Swedish municipalities when testing the hypotheses because this would have required time and resources to manually match hundreds of schools with electoral, socioeconomic and demographic data. This preliminary study uses a dataset consisting of the 18 Swedish municipalities with the largest urban population centres\(^{14}\) (Statistics Sweden, 2005) and at least six proposed school closures in total. The goal is to ultimately include the 32 municipalities with the largest population centres and with at least one proposed school closure. Approximately one-third of the Swedish population lives in the 18 included municipalities.

By focusing on municipalities with the most threatened schools located in urban areas, the possibility of generalizing the results to larger cities in other countries increases (Swedish municipalities include both urban and rural areas). The focus on urban areas also provides a more rigorous test of the loyal voter hypothesis because decision-makers can be expected to be more responsive to rural groups. Some political parties in Sweden such as the Centre Party may wish to preserve rural schools for ideological reasons, and they have many loyal voters in rural areas. By focusing on larger cities, the study also includes urban electoral districts loyal to the Centre Party, where ideology may have a smaller influence on the decision of the Party to protect the school.

Because of the selection of municipalities, it may be difficult to generalize the results to smaller municipalities.

5 Preliminary results

The preliminary results of the multilevel logistic regression models are presented in Table 1. Odds ratios greater than one indicate a positive relationship between the independent variable and the probability that a proposal resulted in a closure. Odds ratios equal to one indicate no relationship, and odds ratios less than one indicates a negative relationship. In addition to the main results presented in the table, I will also

\(^{14}\) This is a measure of the urban population and not the total population of the municipality. The definition of a population centre is that it consists of contiguous buildings with no more than 200 meters between houses.
discuss significant effects that can be found when I exclude controls that correlate with the variable of interest.

Table 1. The effects of swing voter and loyal voter proxies on the probability of closure decisions (Logistic regression, odds ratios)

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<td>1.29e-09*</td>
<td>3.48e-10**</td>
<td>7.31e-15**</td>
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<td>0.0333</td>
<td>0.0348</td>
<td>0.0075</td>
<td>0.0465</td>
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Exponentiated coefficients; Standard errors in parentheses
* p < 0.10,  ** p < 0.05,  *** p < 0.001
In models 1-4, the swing voter hypothesis is tested. Previous studies have shown that the young, the highly educated and white-collar workers may be more likely than other groups to behave like swing voters. Furthermore, other scholars have argued that *electoral volatility* (changes in electoral support for the political majority between elections) should work as a proxy for the proportion of swing voters in an electoral district. Variables that measure these characteristics are tested one by one (one in each model 1-4) as they are highly correlated with each other. As we can observe in the table, none of the four models support the hypothesis. The effect of the age variable in model 1 even contradicts the hypothesis, as younger parents seem to be *more likely* to be affected by school closures than older parents.

This unexpected result can be interpreted in several ways. One interpretation is that political majorities avoid closures targeting older parents because older voters tend to have stronger partisan preferences and may therefore be seen as loyal votes. However, it is questionable if older parents really have stronger partisan identities than younger parents. The difference between the average age of the parents in the oldest electoral district (41.5) and in the youngest electoral district (33.4) is only 8.1 years. A more reasonable interpretation is that the age variable captures the political resources of the parents and their ability to mobilize voters against the political majority. The correlation (Pearson’s r) between the mean age in the district and proportion of the population with education is 0.6993. Furthermore, the education variable in model 2 is statistically significant when excluding the new information variable or the large protest variable, indicating that highly educated parents (resourceful parents) are less likely to be affected by closures.\(^{15} \) The variables that capture the proportion of the parents in the electoral district with white-collar jobs (model 3) and electoral volatility (model 4), however, are not statistically significant even when excluding controls that correlate with them.\(^{16} \) In sum, the preliminary results suggest that the swing voter theory may be of limited explanatory value in the case of school closures.

\(^{15} \) These variables are not as correlated as we might think. The correlations between education and new information/large protest are only 0.109 and -.074 respectively. This can be compared to the two strongest correlations among my control variables (Electoral volatility-Municipality education 0.4831, Education- Municipality education 0.3119)

\(^{16} \) However, the white-collar variable is statistically significant when excluding all control variables from the model.
Models 5-6 present the results regarding the loyal voter hypothesis. The variable capturing the share of the electorate that voted for the political majority in the electoral district has no statistically significant effect on the probability of a decision on closure (model 5). However, the relationship is in the expected direction, as a higher vote share for the political majority leads to a lower probability of a decision on closure. Model 6 supports the loyal voter hypothesis. The interaction term (C support × C in majority) indicates that schools in districts where at least 15 per cent of the voters voted for the Centre Party are less likely to be closed down than other schools, in municipalities where the Centre Party is part of the ruling coalition. The interaction term also indicates that schools in loyal districts seem to be more likely to be closed down than other schools, in municipalities where the Centre Party is not a part of the ruling coalition. The interaction effect is statistically significant at the 0.05 level. This result suggests that it may exist systematic differences in the way different political majorities reward their supporters. In sum, as one of the two models supported the hypothesis, the results suggest that the loyal voter theory may be of explanatory value.

The statistically significant effects of the control variables in table 1 were expected and in line with my discussion on page 14-15. The main effects of the variables C support and C in majority in model 6 are not estimable in the presence of the interaction terms. Finally, the likelihood ratio tests suggest that the multi level models I use are preferable over ordinary logistic regression models (Prob>=chibar2<0.05).

6 Conclusions

Questions about inequalities in the interest group system and their implications for public policy are not only important in the interest group literature but also in the broader field of democratic representation. In spite of the importance of

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17 A continuous interaction term capturing the vote share of the Centre Party in the electoral districts, in municipalities led by the Centre Party, is also statistically significant. It is, however, not statistically significant when the yearly time controls are included. Furthermore, the binary ‘C support × C in majority’ interaction used in model 6 is only statistically significant when excluding the schools that appear twice in the dataset if time controls are also not included.
understanding the outcomes of interest groups, there has been very little empirical examination of how competition with other organizations affects the influence of groups on public policy. In this paper, I argued that we might gain new insights into how political parties prioritize when multiple interest groups are competing for their attention by analysing the electoral constituencies the groups can mobilize.

The explanatory value of this approach was demonstrated by a quantitative study of the geographic distribution of school closures in Sweden 2002-2010. More often than not, closures of public schools cause protests from parental association and neighbourhood associations, and several schools are often threatened at the same time. Two hypotheses inspired by the literature on how political majorities reward different vote groups were tested on the case. The preliminary results provided stronger support for the loyal voter hypothesis than the swing voter hypothesis. The results revealed that when the niche Centre Party is part of the majority coalition, the coalition avoids closures affecting districts with many Centre Party supporters. The swing hypothesis, however, was not supported. The implication of the result is the following. If we hold all other factors constant (for example, the number of voters the groups can mobilize, the information they can convey to decision makers), elected officials are more likely to listen to advocacy groups that represent voters that have previously voted for niche parties in the majority coalition. Furthermore, it is likely that the type of voters mobilized by the interest groups (loyal voters), could be especially important when the groups do not differ in their ability to mobilize voters.

This conclusion might be seen as surprising for the reader, or even strange. Why would any political party avoid cutbacks in welfare programs targeting groups that may vote for them regardless of the unpopular decisions? It is possible that cutbacks directed at support groups may lead to larger electoral losses than what we would expect in the light of previous research. Given that membership rates of parties (Dalton & Wattenberg, 2000, Chapter 4) are on the decline in Western countries, it is possible that ‘loyal voters’ are not as loyal as they used to be. Furthermore, the loyal voter model may be more relevant in special circumstances when risk-averse political parties want to promote the stability of electoral coalitions and stabilize their electoral support in the long run. My interviews with elected officials who implemented school closures in a Swedish municipality offered two explanations on why elected officials would avoid school closures affecting support groups. Two anonymous decision-
makers from the majority coalition who confessed that they had avoided closing down schools located in their constituencies say they did so to keep their campaign promises. They were also afraid to betray their constituents and hence lose votes. The leader of the political opposition argued, in turn, that a rural school was saved in order to keep the centre-right political coalition intact, as the closure would affect the constituencies of the Centre Party. The interviews, like the regressions, provided no support for the swing voter hypothesis.

The surprising preliminary results from my quantitative study could also be a result of methodological problems. Although the regressions suggest that loyal districts to niche parties in the majority coalition may be less likely to be affected by closures, the results do not prove that there were strategic motives behind the distribution of school closures. Survey data on the electoral preferences of the voters is probably a superior method when estimating the number loyal voters in an electoral district. Furthermore, the results are sensitive to which types of variables that are used when testing the loyal voter hypothesis. While the binary Centre Party interaction term was statistically significant, a variable on the vote share for the ruling majority in the electoral districts was not statistically significant. Finally, it is also difficult to know how the current sample of Swedish municipalities included in the study affects the possibilities to generalize the results to other municipalities and countries. Although this study uses multi-level modelling and includes many relevant controls on the municipal level, it is probably impossible to control for all the municipality-specific variables and all the policy objectives behind the closures that may play a role in the results. These problems should decrease as I include more municipalities in the study.

However, two factors suggest that the preliminary results are interesting and that the theories may still be relevant in other countries and other policy areas. Firstly, school closures in Sweden could be seen as a least likely case for tactical redistribution as a recent study has demonstrated that these closures have little, if any, effects on municipal election results (Wänström and Karlsson, 2011). We would expect that the hypotheses would get even stronger support if they were tested on countries with majoritarian electoral systems, on larger interest organizations and on political issues that lead to larger electoral consequences. Secondly, the interviews
with elected officials previously mentioned suggested that some politicians, after all, think strategically and that they care about their loyal voters.

Against this background, I think it is at least safe to say that there is potential in these theories and that we need more research on the relationship between interest group outcomes and electoral constituencies. Future studies could study most likely cases for the theories and analyse if the assumptions made in this paper are correct. Furthermore, it would be interesting to conduct meta-analyses on whether successful interest groups (according to previous studies) really represented loyal/swing voters or not. In this way, we could understand which role the electoral constituencies play in relation to other factors that previous studies have shown to affect group outcomes, such as different lobbying strategies, protest activities and political opportunity structures.
7. Appendix

Table 2. Variable statistics (obs=274-269)

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<th>Max</th>
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8 References


Dagens Nyheter. (2013). S-jakt på mittväljare får underkänt av LO. Ocober 16


Sveriges radio. (2013) Ökat antal skolor läggs ned, Sveriges Radio, July 7


