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Election Timing and the Electoral Influence of Interest Groups

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It is an established fact that off-cycle elections attract lower voter turnout than on-cycle elections. I argue that the decrease in turnout that accompanies off-cycle election timing creates a strategic opportunity for organized interest groups. Members of interest groups with a large stake in an election outcome turn out at high rates regardless of election timing, and their efforts to mobilize and persuade voters have a greater impact when turnout is low. Consequently, policy made by officials elected in off-cycle elections should be more favorable to the dominant interest group in a polity than policy made by officials elected in on-cycle elections. I test this theory using data on school district elections in the United States, in which teacher unions are the dominant interest group. I find that districts with off-cycle elections pay experienced teachers over 3% more than districts that hold on-cycle elections.

he United States is home to more than 500,000 elected officials in almost 90,000 governments, and most of those elected officials are not elected on "Election Day"—the first Tuesday after the first Monday in November of even-numbered years. Close to 80% of American cities hold elections on days other than presidential and congressional elections (Wood 2002). More than half of all American school district elections are held separately from state and national elections (Hess 2002). There are even some state governments that hold elections in the autumn of the odd-numbered years.

A well developed literature has shown that the timing of elections matters a great deal for voter turnout. Turnout in gubernatorial elections tends to be highest during presidential elections, slightly lower during midterm congressional elections, and lower still in the odd-numbered years (Patterson and Caldeira 1983). When cities and school districts hold elections at times other than state and national elections, voter turnout is far lower than when those elections are held at the same time as presidential or gubernatorial elections (Hajnal, Lewis, and Louch 2002; Hess 2002). More generally, an "off-cycle" or "nonconcurrent" election refers to an election that is held on a different day than other elections that attract greater political participation.

In this paper, I argue that the lowering of voter turnout that accompanies off-cycle election timing empowers the largest and best organized interest groups to have increased influence on election outcomes. Members of organized interest groups that have a large stake in a particular election turn out to vote in high numbers regardless of whether other elections are on the ballot at the same time. Therefore, they make up a greater proportion of the total vote when that election is held off-cycle. In addition, interest groups' efforts to strategically mobilize, inform, and persuade voters are more likely to have an impact on the election outcome when baseline turnout is low. As a result, public policy made by officials elected in off-cycle elections should be more favorable to organized interest groups than policy made by officials elected in on-cycle elections. In contexts where multiple interest groups compete over policy, off-cycle election timing advantages whichever group is the largest, best organized, and best equipped to dominate the polls on the day of the election.

School district elections provide an excellent test bed for the theory: teacher unions tend to be the dominant interest group involved in school district elections (Moe 2005), and a primary goal of teacher unions across the country is to secure higher salaries for public school teachers. Using a unique dataset on school district election timing and public school teacher salaries in the United States, I find that districts that hold school board elections on days other than state and national elections pay teachers significantly more than districts that hold on-cycle elections. Moreover, the premium increases with teacher seniority,

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consistent with the claim in the literature that teacher unions are more responsive to senior teachers than beginning teachers (Moe 2011): I find that teachers with bachelor's degrees and no experience receive 1.5% more, teachers with master's degrees and 10 years of experience 3.8% more, and maximally qualified teachers 4.2% more in districts with off-cycle elections. I also establish that these differences are related to lower voter turnout in districts with off-cycle elections. In Minnesota, when turnout is low—for example, 10% of registered voters—a five percentage point decrease in voter turnout is associated with approximately a 0.7% increase in district average teacher salary.

These findings are important for a number of reasons, most notably because they demonstrate that a little-studied electoral institution has significant consequences for outcomes that are central concerns in evaluating the democratic process: turnout bias, representation, and public policy. The study illustrates that there are indeed policy consequences of the low voter turnout that is characteristic of off-cycle elections. Building on the small literature that has shown that the timing of elections has the potential to affect election outcomes, I demonstrate that offcycle election timing specifically works to empower special interest groups. The evidence shows that a simple institutional choice—whether elections of different levels or branches of government are bundled together or held separately—has significant consequences for who turns out to vote and to whom elected officials respond in designing public policy.

Related Literature

Like most countries around the world, voter turnout in the United States varies considerably by the type of election (Lijphart 1997). Turnout in presidential elections today is typically 50–55% of voting age population, whereas turnout in most midterm congressional and gubernatorial elections is about 13 percentage points lower (Jacobson 2001). Primary elections see an additional drop in voter turnout levels (Ranney 1972), and a still smaller percentage of Americans participate in city, school district, and other local government elections (Bridges 1997; Weimer 2001; Wood 2002).

Since more voters are drawn to the polls to vote in national and statewide elections than in local elections, voter turnout for local elections should be higher when those elections are combined with national or statewide elections rather than held separately (Aldrich 1993). In their study of California cities, Hajnal and Lewis (2003) find that city elections held at the same time as presidential elections have voter turnout rates that are 36 percentage points higher than off-cycle elections. Moreover, the turnout boosting effect of concurrent elections is not limited to municipalities (Boyd 1989) or governments in the United States (Lijphart 1997), and it holds even when one accounts for roll-off (Caren 2007).

A growing body of work argues that politicians manipulate election timing to achieve the election outcomes they desire. Dunne, Reed, and Wilbanks (1997) provide evidence that school board members strategically schedule school bond referenda for off-cycle elections in order to increase the proportion of "yes" voters who turn out on election day (see also Meredith 2009 and Pecquet, Coats, and Yen 1996). Berry (2009) suggests that special districts manage to expand their budgets by holding elections off-cycle, which reduces overall voter participation and increases the proportion of high demanders at the polls.

There is little analysis of the role of interest groups' electoral activity within this literature, but organized interest groups are active forces in mobilizing voters in American elections (Schlozman and Tierney 1986). Moe (2005; 2006) has examined one group closely—the teacher unions—and has found that they are powerful forces in school board elections in the United States. By actively participating in school board elections, teachers help to select their employers—the very people who set their salaries, benefits, and working conditions (Moe 2006). Teacher unions mobilize their members and other voters in school board elections using a diverse portfolio of strategies, including door-to-door canvassing, phone drives, and endorsements (Moe 2005). Teachers turn out to vote at disproportionately high rates (Wolfinger and Rosenstone 1980), and their differential turnout is largely motivated by occupational self-interest (Moe 2006). When the margin of victory is small enough, their differential turnout can be pivotal (Moe 2006).

A Theory of Election Timing and Interest Group Influence

Interest groups first and foremost seek to further the interests of their members, and often, they seek benefits of a particularistic nature (Olson 1965). I argue that interest groups are more likely to secure the benefits they seek from officials who are elected in off-cycle elections than from officials elected in oncycle elections. Consequently, policy made by officials elected off-cycle should be more favorable to

dominant interest groups than policy made by officials elected on-cycle.

First, interest groups' own members make up a larger proportion of the total vote when elections are off-cycle. For a voter who has already turned out to vote in a presidential election, for example, the marginal cost of voting in a local race held on the same day is virtually zero, and therefore, the turnout rate for the local race is likely to be approximately equal to that of the presidential race. When the local election is held on an entirely different day than the presidential election, the marginal cost of voting in that local race is considerably higher (Aldrich 1993). For many presidential election voters, this increase in the cost of voting outweighs any potential benefit they would receive from their preferred local candidates being elected. Voters who stand to benefit the most from the local election, however, turn out at high rates regardless of the additional cost, and they therefore make up a greater proportion of the electorate when the local election is held off-cycle (Dunne, Reed, and Wilbanks 1997). Since many of the voters with the largest stake in the local election are organized into interest groups, the shift from an on-cycle to an offcycle schedule increases the proportion of the ballots cast by interest group members.¹

This individual-level approach to voter turnout is only half the story, however, since political participation also depends on interest groups' mobilization efforts (Rosenstone and Hansen 1993), and the effectiveness of those mobilization efforts is enhanced by an off-cycle election schedule. A shift from an oncycle to an off-cycle local election increases the marginal cost of voting for all presidential election voters, but an organized interest group can counter that demobilizing effect for the people most likely to support the group's preferred local candidate. It can provide these potential supporters with information about the candidates, ensure that they know the date of the election and their polling place, and give them rides to the polls.² This activity lowers the cost of

voting for the individuals strategically mobilized by the interest group, all the while keeping its likely opponents at bay. The goal of the interest group, of course, is to supply a sufficient number of additional supportive votes to make a difference to the election outcome, and an extra 500 supportive votes is far more likely to tip the election outcome in a race in which 10,000 ballots are cast than in a race in which 40,000 ballots are cast. Thus, the low turnout that accompanies off-cycle election timing enhances the electoral influence of groups that are well-equipped to mobilize their supporters.

Interest groups' efforts to contact likely voters in an attempt to persuade them of the desirability of their preferred candidates might also be made easier in off-cycle elections. First, the pool of likely voters is substantially smaller in an off-cycle election, which makes it easier for interest groups to contact all individuals they identify as likely voters. Second, the smaller the number of races on the ballot, the fewer will be the number of groups competing for the attention of voters: in an on-cycle election, an interest group that hopes to persuade likely voters of its preferred choice in one race must compete for voters' attention with groups campaigning for other races that share the same election day. Of course, to the extent that many of the likely voters in off-cycle elections are individuals who already have strong views about the issues of the election, the ability of an interest group to successfully persuade those voters would be reduced. The direction of the combined effect is an empirical question and one that I do not directly test in this paper. However, the drastic reduction in the pool of likely voters together with the decrease in competition for the attention of those voters could create a net advantage for the interest group, even if individual voters are more resistant to persuasion efforts in off-cycle elections.

In sum, the theory predicts that interest group members and other voters contacted and mobilized by interest groups will make up a greater proportion of the active electorate in off-cycle elections than in oncycle elections. The net result of this increased influence, however, depends on the structure of interest group competition in the election. In virtually every polity, there are multiple interest groups active in elections. As long as two groups' policy goals are not in conflict with one another, it is likely that they *both* benefit from off-cycle election scheduling. In fact, it is advantageous for them to work together, coordinating their mobilization efforts so as to induce politicians to be responsive to both groups (see Becker 1985; Moe 2006). If the two groups work at cross-purposes,

¹See also Bennett and Orzechowski (1983), Berry (2009), and Borcherding, Bush, and Spann (1977). Some individuals who have a large stake in a given election are not members of an organized interest group, for example, homeowners in municipal elections (Fischel 2001). They, too, make up a higher proportion of the electorate when elections are off-cycle. If their policy preferences are in conflict with the goals of the dominant interest group, then their high turnout rates would likely dampen the extent to which off-cycle elections create an advantage for the interest group.

²See Moe (2005) and Lieberman (1997) for details on how teacher unions inform and mobilize voters.

however, off-cycle elections cannot possibly help them both to secure the policies they seek. In this case, the benefit of off-cycle election timing accrues to whichever group has larger membership, more resources, and greater capacity to organize a mobilization effort. Therefore, when interest groups compete in elections, the candidates favored by the largest and best organized interest group will be more likely to win when the election is held off-cycle as opposed to on-cycle.³ Consequently, the policy made by officials elected in off-cycle elections will be more favorable to the largest, best organized interest group active in elections.⁴

Data and Empirical Strategy

The theory is relevant for a wide variety of electoral settings, including comparisons between on- and offcycle local government elections, midterm and presidential-year congressional elections, even- and odd-year state elections, and even primary and general presidential elections. To take one example, voter turnout in municipal elections held on days other than presidential, congressional, and gubernatorial elections typically runs over 30 percentage points lower than turnout in municipal elections held concurrently with presidential elections (Hajnal, Lewis, and Louch 2002), and the theory predicts that this lowering of turnout advantages the dominant interest group in city politics, whether that group be a chamber of commerce, a municipal employee organization, a developer's association, or an environmental group. Designing an empirical test of the theory, however, is more challenging than concocting examples. First, the theory requires that I identify the dominant interest group in each electoral context to be examined. This task is particularly difficult for state elections, congressional elections, or any set of elections in which there is a large number and sizeable diversity of interest groups involved. In addition, the test requires a dependent variable that captures the relative influence of interest groups across units, which presents a challenge when the goals of the dominant interest group differ from one unit to the next.

³In anticipation of this effect of off-cycle elections, candidates might shift their campaign platforms in favor of interest group preferences, while candidates with opposing views might decline to enter races that they would otherwise have entered.

⁴Even if neither candidate's policy platform is amenable to the goals of the interest group, a group might induce a politician to be responsive to its demands by demonstrating that it has sufficient electoral muscle to affect his reelection prospects. The severity of the threat of electoral retaliation will be higher if the politician is to be reelected in an off-cycle election.

School district elections in the United States provide an excellent testing ground for the theory, most importantly because a single kind of group teacher unions—tends to be the largest and best organized group in school district elections across the country. Hess (2002) and Hess and Leal (2005) find that teacher unions top the list of groups cited by school board members as active in local school board elections, and Moe (2005) finds that candidates in about half of California school districts report that the teacher unions are the most influential group. Even in districts where school board candidates cite other groups as important in school district elections, those other groups are usually allies rather than adversaries of teacher unions: parent groups-which are typically organized in parent-teacher associations and the unions of other employee groups in the district. Business groups, which tend to be the main adversaries of the unions in education politics, are occasionally cited as important, but far less frequently than teacher unions and their allies (Moe 2005).5

Moreover, teacher unions across the country share many of the same basic policy goals. The most obvious example is teacher pay: state and local chapters of the National Education Association (NEA) and the American Federation of Teachers (AFT) consistently press for higher professional pay at the school district level. Teacher salaries are largely determined by the school board members elected in school district elections, often in collective bargaining with teacher unions themselves. Therefore, we should expect school board members to be more responsive to teacher union demands for higher teacher salaries when those teachers exert greater influence in their elections. As former AFT president Albert Shanker explained, "If teachers control both sides of the bargaining table in a substantial number of school districts, we should find many teachers with huge salaries, greatly reduced class sizes, longer holidays and vacations than ever before you name it" (1979, 653). Therefore, if off-cycle school district elections confer greater power of electoral influence on the teacher unions than on-cycle elections, then school board members in districts with off-cycle elections should be more responsive to teacher unions, and teacher salaries in those districts should be higher.

Beyond the usefulness of school districts for empirical testing purposes, school district elections and district-level teacher salary policies are important in their own right. The 14,500 public school systems

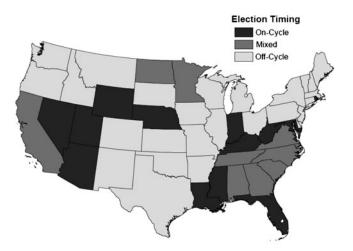
⁵For this analysis, I do not test the conditioning effect of interest group competition in the district because I do not have a school district-level measure of the strength of groups that are adversaries of the teacher unions.

in the United States elect between 15 and 20% of the 500,000 elected officials in the country, and in total, they employ 4.3 million full-time teachers—39% of all full-time local government employees. Moreover, at \$527 billion per year, spending on elementary and secondary education makes up 35% of all local government spending in the United States, and about 40% of current expenditures in the average American school district is spent on instructional salaries and wages (Census of Government 2007; 2009). Changes to school districts' teacher salary policies therefore have substantial consequences for school district budgets and local government spending in the United States as a whole.

The 2003-2004 Schools and Staffing Survey (SASS) conducted by the National Center for Education Statistics (NCES) contains a set of teacher compensation variables for a sample of 4,421 public school districts throughout the United States.⁶ For each sampled district, it provides information on whether the district uses a salary schedule for teachers (97% do), the normal yearly base salary for teachers with bachelor's and master's degrees with zero and ten years of experience, and the highest step on the salary schedule. Unlike average teacher salary, which depends on the education and experience levels of teachers in the district, these variables allow comparisons in salaries across districts for teachers with similar levels of education, training, and experience. In addition, the SASS data include variables on district enrollment, student body composition, and district location. I combine the SASS data with variables from the NCES Common Core of Data (CCD) files from the 2003-2004 academic year, including school district finances and district-level demographics from the 2000 Census.

I collected information on the timing of school board elections in each of the U.S. states using a mixture of resources, including state statutes, documents provided by individual states' departments of education, secretaries of state, and school board associations, and information acquired from personal communications. I provide the details of the sources I used for each state in the online appendix. Figure 1 summarizes the results of the data collection. The figure displays the 48 mainland U.S. states shaded according to whether school board elections within the state are on-cycle—meaning they coincide with federal general

Figure 1 School District Election Timing by State, 2003



Notes: States are shaded according to the timing of school district elections within the state as of 2003. Certain exceptions apply: In Kentucky, independent school districts containing a city of the fifth class are allowed to have off-cycle elections; there are six school districts that meet this criterion throughout the state (Cloverport, Raceland, Silver Grove, Walton-Verona, West Point, Williamstown). The four municipal school districts in Louisiana do not necessarily have to hold their elections concurrently with national elections. Massachusetts regional school districts that hold district-wide elections are in November of even-numbered years. In Nebraska, the Lincoln school district holds its elections in November of odd-numbered years. In New Hampshire, Concord, Keene, and Laconia school boards can be elected in November of even-numbered years. In Texas, as of 2003, there were approximately 15-20 districts (out of over 1,000) that had November elections. Not all school boards within each state are elected. Source: Election timing data collected by author (see the online appendix).

elections, federal primary elections, or statewide elections—or off-cycle as of 2003. The timing of school district elections is generally legislated at the state level, and therefore, it tends to be uniform across districts within the same state. Moreover, there is a striking regional pattern across states: Many states in the South and a few in the Mountain West hold school board elections at the same time as national and statewide elections. With a few exceptions, school districts in the Midwest, Northeast, and New England states hold school board elections at times other than national and state elections.⁷

⁷Few scholars have attempted to explain the variation in election timing across the country or over time. Elsewhere, I demonstrate that political parties tampered with city election timing as early as the 1840s in attempts to gain an edge over rival parties (Anzia 2010). Bridges (1997) and Trounstine (2008) explain that the widespread use of off-cycle city elections took hold as a result of the Progressive Era municipal reform movement. In Michigan, off-cycle school board election timing originated during the Progressive Era as well. The history of school board election timing in other states has yet to be studied in detail.

⁶The 2003–2004 SASS used a stratified probability proportionate to size sample of the universe of 2001–2002 NCES Common Core of Data (CCD) school districts that operated at least one school. A total of 5,437 public school districts were sampled, and the weighted response rate was 82.9%.

Figure 1 also illustrates that few states have internal variation in school district election timing. Cross-state comparisons of the effect of election timing on teacher salary are problematic, because numerous state-level factors such as the school governance structure, education code, union strength, and financial equalization policies are undoubtedly correlated with both district election timing and teacher salaries. Indeed, Murray, Evans, and Schwab (1998) find that 64.7% of the variance in per-pupil spending across school districts in the United States is explained by between-state differences. For this reason, I focus my analysis on eight of the nine states that have within-state variation in district election timing: California, Minnesota, Georgia, North Carolina, South Carolina, Tennessee, Virginia, and Alabama.8

Within these eight states, I code the districts in the SASS sample according to whether they hold off-cycle or on-cycle school board elections. I classify all school district elections held at the same time as a federal or statewide general election as on-cycle elections. In addition, I classify district elections held concurrently with national primary elections as on-cycle for two reasons. First, voter turnout in presidential primary elections is, on average, 20 percentage points higher than turnout in local elections held at other times during the spring months or during the fall of oddnumbered years (Hajnal, Lewis, and Louch 2002). Second, national primary elections involve rigorous campaigning by political parties and a multitude of interest groups interested in national races, which, as discussed above, I expect to detract from local teacher unions' mobilization and persuasion efforts. I code all other school district elections as off-cycle. I exclude districts that are not either regular or component school districts as well as districts in which 50% or more of the schools are charter schools.9 The remaining number of school districts with elected school boards in the eight-state sample is 672. There are 103 California districts with on-cycle elections and 80 with off-cycle elections (mostly in November of odd-numbered years). Respectively, there are 81 and 30 in Minnesota, 39 and 14 in South Carolina, 69 and 9 in Georgia, 49 and 8 in Virginia, 53 and 12 in Alabama, 60 and 5 in Tennessee, and 57 and 3 in North Carolina.

The regional pattern of election timing evident in Figure 1 provokes an additional question: what process generates the pattern of school board election timing that we observe throughout the country? It is certainly not the case that the selection of school board election timing is uncorrelated with teacher union influence in all settings. To the contrary, interest groups that stand to benefit from off-cycle elections are active in lobbying legislators for the implementation of off-cycle elections. If stronger teacher unions are more likely to secure off-cycle election timing and higher teacher salaries, I run the risk of attributing a positive relationship between offcycle election timing and teacher salaries to the institution rather than to the combined effect of the institution and teacher union strength. In the analysis that follows, therefore, I control for a measure of teacher union strength in an attempt to reduce the omitted variable bias in the estimated relationship between off-cycle election timing and teacher salaries.

Of course, if we observe that interest groups lobby for the implementation and preservation of offcycle election timing, that is evidence that off-cycle election timing does, in fact, create advantages for them. Teacher unions—as with all interest groups have fixed resources at any given time. It would be pointless for them to expend precious resources pressuring for an off-cycle election schedule if it did not benefit them in some way (Cox 1997, 17). Furthermore, even if a strong teacher union could be influential in its local school board election in a high turnout, on-cycle context, it is no doubt more efficient for it to achieve its political aims by securing off-cycle elections. Since the politics of election timing choice is an important topic in its own right, I will return to it at the end of the paper.

Empirical Analysis

To test the prediction that teacher unions exert greater influence when elections are held off-cycle, I compare teacher salaries in school districts that hold off-cycle elections to salaries in those that hold on-cycle elections. I focus on district salary for teachers with bachelor's degrees and no experience, master's degrees and 10 years of experience, and the highest step on the salary schedule. I model district teacher salary linearly using ordinary least squares with state fixed effects:

$$\ln(salary_{ij}) = \beta_0 + \beta_1(Off\ Cycle_{ij}) + X_{ij}\psi + \delta_i + \varepsilon_{ij}$$

Subscript i denotes the state, and j denotes the school district. β_0 , β_1 , and ψ are regression coefficients,

⁸North Dakota does not have a central source of information on school district election timing.

⁹Only three districts meet the latter condition. I exclude these districts because charter schools often operate according to different rules than regular public schools, including rules of how teacher salaries are determined. I also exclude districts that do not hold school board elections.

Off-Cycle_{ij} is a binary indicator variable equal to 1 if district j in state i has school board elections at a time other than federal or state elections in state i, X_{ij} is a matrix of district characteristics, δ_i are state fixed effects, and ε_{ij} is an error term. The dependent variables are logged to reduce positive skew in the distribution of teacher salaries. I cluster the standard errors by state to correct for spatial correlation in the errors for districts within the same state.

One of the most important variables in the matrix X_{ij} is district size. Large school districts pay their teachers more because they are typically found in large cities where the cost of living is higher and the day-to-day working environment is more challenging. They also are more likely to have off-cycle elections than smaller districts simply because their heftier budgets allow them to cover the cost of holding standalone elections as opposed to relying on counties for support. For this reason, I include district size in all models, measured by the natural log of the number of enrolled students.

I also expect district affluence to influence both election timing and teacher salary. If administrators of affluent districts are equally likely as administrators of less affluent districts to prefer off-cycle election timing, but affluent districts have greater revenue with which to finance their own elections, then we would expect to see a positive relationship between district affluence and the presence of off-cycle election timing. For reasons unrelated to election timing, teacher salaries tend to be higher in areas of greater wealth. Therefore, in all models below, I include as a regressor the natural log of median family income in the district as measured by the 2000 Census.¹⁰

In addition, I include a variable equal to the percentage of the district's annual revenue that comes from state sources in order to account for the varying degree to which districts are dependent upon the state government for resources. I anticipate that districts that are more dependent on the state for resources are less likely to be able to fund increases in teacher salaries and also less likely to be able to fund and operate their own elections. Lastly, to control for districts' urbanicity, I incorporate indicator variables for two of the three 2000 Census metro status code categories as well as variables describing the percentage of students in the district who are Hispanic, African American, Native American, and Asian or Pacific Islander. Teacher salaries tend to be higher in more urban districts, and the presence of municipal governments within urban districts' borders might allow them to more easily consolidate their elections with off-cycle city elections than districts that do not have large municipalities within their borders.

Columns (1), (3), and (5) of Table 1 present the results from the specification described. The dependent variable in column (1) is the base salary in the district for teachers with bachelor's degrees and no experience. Column (3) presents the results from the same model using district-level salaries for teachers with master's degrees and 10 years of experience. The dependent variable in column (5) is the highest step on the salary schedule, or the most a teacher can make in base salary in the district.

For teachers of all three levels of education and experience, I find that districts that hold off-cycle elections pay significantly higher teacher salaries than districts that hold on-cycle elections. Districts with off-cycle elections pay inexperienced teachers with bachelor's degrees an average of 1.5% more than districts that have school board elections concurrent with national or state elections. This coefficient is statistically significant at the 1% level. The salary gap between off-cycle and on-cycle election districts widens as teachers achieve higher levels of education and experience: a teacher with a master's degree and 10 years of experience takes home 3.8% more in base salary in districts with nonconcurrent elections. A 3.8% increase from the average base salary for a teacher of these qualifications amounts to an extra \$1,375 a year in Tennessee to \$2,072 per year in California. The maximum base salary in a district the highest step on the schedule—is approximately 4.2% higher in districts with off-cycle elections, amounting to \$2,169 extra in Minnesota, \$2,727 extra in Georgia, and \$2,996 extra in California. The finding that the salary premium in districts with off-cycle elections increases with teacher experience is consistent with the literature, which shows that teacher unions are more responsive to senior teachers than to beginning teachers (Moe 2011).

The other predictors behave as expected. Enrollment is positively associated with salaries. Likewise, the coefficient on median income is positive and statistically significant in all specifications. The urbanicity indicator variables fail to reach significance, but we do see that districts with larger percentages of minority students tend to pay higher teacher salaries. This is most likely the case because the ethnic composition variables capture variation in district urbanicity and ideology. I find a negative relationship between teacher salary and the percentage of district funds that come from state sources, but the coefficient

¹⁰Enrollment and median family income are logged to reduce right skew in the variables' distributions.

Table 1 Effect of Off-Cycle Elections on Teacher Salaries

	Bachelor's, No		Master's,		Highest	
	Experience		10 Years		Step	
	(1)	(2)	(3)	(4)	(5)	(6)
Off-Cycle	0.015	0.016	0.037	0.035	0.042	0.041
	(0.005)***	(0.007)**	(0.005)***	(0.004)***	(0.011)***	(0.011)***
NEA-to-Teacher Ratio	(,	0.031 (0.020)	(******)	0.027 (0.028)	(3.13)	0.042 (0.016)**
Enrollment	0.007	0.008	0.019	0.019	0.037	0.037
	(0.002)**	(0.002)**	(0.006)**	(0.005)**	(0.006)***	(0.006)***
Median Income	0.097	0.093	0.121	0.12	0.135	0.137
	(0.017)***	(0.015)***	(0.030)***	(0.030)***	(0.022)***	(0.023)***
City	-0.007	-0.01	0.009	0.009	0.007	0.007
	(0.006)	(0.006)	(0.013)	(0.014)	(0.013)	(0.014)
Fringe	-0.002 (0.004)	-0.003 (0.005)	0.008 (0.009)	0.01 (0.010)	0.005 (0.011)	0.006 (0.012)
% Hispanic	0.105	0.106	0.145	0.152	0.113	0.113
	(0.010)***	(0.009)***	(0.037)***	(0.036)***	(0.013)***	(0.013)***
% Black	0.029 (0.017)	0.023 (0.020)	0.044 (0.025)	0.038 (0.024)	0.016 (0.021)	0.007 (0.022)
% Asian	0.229	0.218	0.149	0.14	0.126	0.116
	(0.011)***	(0.009)***	(0.016)***	(0.011)***	(0.025)***	(0.020)***
% Native American	0.139 (0.023)***	0.123 (0.019)***	0.108 (0.041)**	0.096 (0.039)**	0.047 (0.036)	0.032 (0.034)
% Revenue from State	-0.026 (0.041)	-0.043 (0.029)	-0.094 (0.089)	-0.093 (0.088)	-0.136 $(0.061)^*$	-0.134 $(0.058)^*$
Observations	665	643	658	636	665	643
R-squared	0.84	0.84	0.84	0.84	0.84	0.84

Notes: Robust standard errors clustered by state in parentheses. Dependent variables are district-level logged annual base salary for teachers of the three sets of qualifications. Off-Cycle equals 0 if the district holds school board elections at the same time as the federal general election, a federal primary election, or a statewide general election; it equals 1 if school board elections are not held at those times. City equals 1 if the district is in a large or mid-size central city, Fringe equals 1 if the district is part of urban fringe of a large or mid-size central city, and small towns and rural areas are the excluded category. All models include state fixed effects. The test for Off-Cycle is one-tailed, since I am testing a one-sided hypothesis. All other tests are two-tailed. * significant at 10%; ** significant at 5%; *** significant at 1%

is only significantly different from zero at the highest salary level. Together, the control variables act to lower the coefficients on *Off-Cycle* relative the coefficients estimated by a model that controls for state fixed effects alone: the state fixed effects model without control variables yields a coefficient of .023 (.004) for beginning teachers with no experience, .056 (.015) for teachers with master's degrees and 10 years of experience, and .061 (.029) for maximally qualified teachers.¹¹

If I categorize school district elections held at the same time as national primary elections as off-cycle elections rather than on-cycle elections, the estimates of the coefficients on *Off-Cycle* for each of the salary categories are still substantively large and statistically significant at the 1% level. When I replace *Off-Cycle* with two binary indicator variables—one variable

equal to 1 if the district's election is at the same time as a general election, the other variable equal to 1 if the district's election is at the same time as a primary election—an *F*-test of the regression coefficients shows that there is no statistically significant difference between teacher salaries in those two types of districts, although both pay lower teacher salaries than districts that hold elections independently of both primary and general elections.¹²

Since I control for certain demographic characteristics of the district, it is unlikely that district ideology—particularly constituents' preferences for greater spending on public education and teacher

¹¹Figures in parentheses are standard errors clustered by state.

¹²When I estimate the Table 1 models using all states, I still find a significant 3% effect of off-cycle election timing on salaries for experienced teachers. See the online appendix for additional results.

salaries—explains the positive coefficient on Off-Cycle. District demographics have been used in the literature to measure education policy preferences: Berkman and Plutzer (2005), for example, use demographics and General Social Survey data to impute school districtlevel preferences for public education spending. As an additional test, however, I have matched each school district with the two-party presidential vote in its parent county in 2004,13 since party identification is a reasonably good predictor of individuals' views on education issues.14 When I estimate the effect of Off-Cycle controlling for the percentage of the 2004 vote for Kerry in the district's parent county, the coefficients are essentially the same as those in Table 1, and all are statistically significant.¹⁵ Therefore, I find no evidence that districts' ideological leanings account for the higher teacher salaries in districts with off-cycle elections.

As discussed above, it is possible that a portion of the effect I am attributing to off-cycle elections is driven by the strength of the teacher union in the district. A good measure of teacher union strength in this context would capture both teachers' individual incentives to participate in school board elections as well as the organizational capacity of the union—how well it is equipped to mobilize and persuade voters. Unfortunately, I have no such measure, so I use data on the number of NEA members in each school district in 1999, a few years prior to the collection of the SASS data used in this analysis. The vast majority of unionized teachers in the United States are

¹³I use presidential vote share from 2004 because that election was closest to the time period in which the SASS data were collected. Presidential vote shares are not readily available at the school district level for most states. Matching school districts to parent counties is unproblematic in the South, where many districts are coterminous with counties. In MN and CA, school districts usually do not follow county boundaries. Fortunately, for MN, I am able to use precinct-level presidential vote share files from 2000 to create an accurate measure of presidential vote share at the school district level. In the online appendix, I use the MN data to confirm that county-level vote share is a reasonable proxy for district-level vote share.

¹⁴For example, Gallup/Phi Delta Kappa polls have shown that Democratic respondents are more likely than Republicans to say that the amount of money spent on a public school student's education matters a great deal for the quality of her education. Gallup/Phi Delta Kappa, 33rd Annual Survey of the Public's Attitudes toward the Public Schools, May 23–June 6, 2001, national telephone survey of 1,108 adults with an oversample of parents. Data are available through the Roper Center for Public Opinion Research.

¹⁵Notably, districts in counties that favored Bush in 2004 pay teachers less than districts in counties that favored Kerry, on average, suggesting that county-level presidential vote is a reasonable proxy for district-level preferences for higher teacher pay.

members of a state or local chapter of the NEA.¹⁶ Therefore, in models (2), (4), and (6), I include the ratio of NEA members to full-time equivalent teachers as a control variable.¹⁷ Admittedly, this is a crude measure of teacher union strength. However, it allows me to at least approximate how much of the effect of off-cycle elections persists once I include a measure of the teacher unionization rate.

As expected, the ratio of NEA members to teachers in the district is positively associated with higher teacher salaries at all three levels of teacher qualification. The positive coefficient on the unionization rate variable is statistically significant for the highest step on the salary schedule and approaches significance for beginning teacher salaries (p=0.16). Most importantly, for all three salary categories, the coefficient on Off-Cycle remains positive, substantively large, and statistically significant. On average, beginning teachers make 1.6% higher salaries in districts that hold off-cycle school board elections, controlling for the level of teacher union strength in the district. Column (4) shows that teachers with master's degrees in districts with off-cycle elections make 3.6% higher salaries than their counterparts in on-cycle districts. Maximally qualified teachers earn 4.2% more in districts with off-cycle elections. The coefficients in all three models are statistically significant at least at the 5% level. Granted, the overall weakness of the NEA ratio as a predictor of teacher salaries suggests that the endogeneity problem is not fully resolved by the inclusion of the unionization rate measure. However, these results do provide additional support for the hypothesis that off-cycle election timing contributes to higher teacher salaries above and beyond the effect of teacher union strength.¹⁸

¹⁶About 12% of teachers throughout the United States are organized in chapters of the AFT rather than the NEA, but they are predominantly in NY, DC, and RI, none of which are included in this analysis.

¹⁷I am missing NEA data for 10 of the school districts in the analysis. The ratio of NEA members to full-time equivalent teachers can be greater than 1 since part-time teachers, retired teachers, education support professionals, and students training to become teachers are eligible for NEA membership. For the results presented in Table 1, I exclude 12 districts for which the NEA-to-teacher ratio is greater than 2 since the coefficient on that variable is sensitive to these outlying values. The coefficient on *Off-Cycle*, however, is not sensitive to the inclusion of these outliers. See the online appendix for details.

¹⁸I have also run these models using the log of NEA membership rather than the ratio, and the results are essentially unchanged. In addition, I have tested for an interactive effect between off-cycle election timing and teacher union strength, and I find that the coefficient on the interaction term is negative but statistically insignificant. See the online appendix for full results.

In a final set of tests, I focus on a single state to examine the proposed mechanism by which election timing affects interest group influence—voter turnout—and also explore the most plausible alternative explanation for the relationship between election timing and teacher salaries. First, I measure voter turnout in on- and off-cycle school district elections directly and examine its relationship to district teacher salary. While most states do not have central, statewide repositories of local election data, the Minnesota Office of the Secretary of State collects election data for the state's public school districts. Rather than rely on the sample of Minnesota districts in the SASS data, I use the full set of Minnesota school districts that reported to the Secretary of State that they held elections in either November of 2006 (176 districts) or November of 2007 (62 districts). I combine these election data with a set of 2006-2007 district-level data files from the Minnesota Department of Education as well as the variables from the NCES CCD database. The result is a cross-sectional dataset of 238 Minnesota school districts with variables describing district election timing, voter turnout, district finances, staff information, and student demographics. Consistent with the literature on election timing and turnout, voter turnout in the median school district election in 2006 (concurrent with congressional and state elections) was a full 23 percentage points higher than the median school district election held in 2007.¹⁹

The Minnesota Department of Education does not track teacher salary schedules, but it does provide figures for the average teacher salary in each of the state's districts. This measure is less than ideal since it depends on the education and experience levels of teachers in the district. However, the data also include variables on the average number of years of experience for teachers in the district as well as the percentage of teachers who are in their first year of teaching.²⁰ I use these as control variables to account for any differences in average district salary due to differences in teacher experience.

First, in order to ensure that the results from the Minnesota data are comparable to the results presented in Table 1, I replicate that analysis. The results are presented in column (1) of Table 2. The dependent variable is the natural log of average teacher salary, and the standard errors are clustered by county.21 The results confirm that the salary advantage that accrues to teachers in districts with off-cycle elections is of a similar magnitude to the effects we observed in the previous tables: districts with offcycle elections pay their teachers 2% more than districts with on-cycle elections. The results persist when I control for district-level presidential vote from 2000, as I do in column (2). I find that a 10 percentage point increase in the district's vote share for the Democratic presidential candidate is associated with about a 1% increase in average teacher salary. The effect of off-cycle election timing remains unchanged. These results also persist when I include the NEA ratio as a predictor.²²

Next, I estimate the effect of voter turnout directly rather than by the dichotomous off-cycle election variable. I include both turnout and its square because I expect the marginal effect of a decrease in turnout on teacher salary to diminish as overall turnout increases. For example, a 5 percentage point decrease in voter turnout should have a greater impact on interest groups' ability to influence elections when baseline turnout is 10% of registered voters as opposed to 40% of registered voters.

The results, presented in column (3) of Table 2, are consistent with expectations. The coefficients on both turnout and its square are statistically significant at the 1% level, and the marginal effect of a decrease in turnout on average teacher salary is positive when overall turnout is relatively low. Figure 2 illustrates the marginal effect of a 5 percentage point decrease in turnout on average salary: When turnout drops from 10% of registered voters to 5% of registered voters, the model predicts a 0.7% increase in district average teacher salary. When turnout drops from 30% to 25% of registered voters—still a 5 percentage point drop, but at a higher level of overall turnout—the

¹⁹I calculate turnout by dividing the number of ballots cast in the race by the number of voters who were registered in the district as of 7:00 am on the day of the election. Since most school districts allow voters to cast as many votes as there are available seats, I estimate the number of ballots cast by dividing the total votes cast by the number of seats up for election in each race.

²⁰On average, in Minnesota, teachers in districts with off-cycle elections have slightly less experience than teachers in districts with on-cycle elections.

²¹I lack median income data for two of the districts, and I exclude one district that has a logged average teacher salary that is below the first quartile by about 2.5 times the interquartile range.

²²Results are not shown. Specifically, when I include the NEA-to-Teacher Ratio in the model, the coefficient on *Off-Cycle* is still 0.02 and significant. Also, the coefficient on *Off-Cycle* changes only slightly when I use county-level Democratic vote share from 2004 as the measure of district ideology. I have also run the model including an indicator for whether there was a school district question on the ballot during the 2007 election to test whether holding tax and bond referenda in off-cycle elections contributes to higher teacher salaries. The coefficient on the school district question variable is positive but insignificant, and the coefficient on *Off-Cycle* is still .02.

TABLE 2 Election Timing, Turnout, and Salaries in Minnesota Districts

	Av	erage Teacher Sala	Superintendent Salary		
	(1)	(2)	(3)	(4)	(5)
Off-Cycle	0.02 (0.009)**	0.02 (0.009)**		-0.005 (0.025)	
Dem. Vote Share		0.096 (0.051)*			
Turnout			-0.167 (0.066)***		-0.048(0.148)
Turnout Squared			0.184 (0.072)***		0.014 (0.147)
Enrollment	0.06 (0.006)***	0.059 (0.006)***	0.061 (0.006)***	0.122 (0.019)***	0.122 (0.019)***
Median Income	0.055 (0.035)	0.068 (0.034)*	0.042 (0.040)	0.141 (0.068)**	0.096 (0.080)
% Revenue	-0.289 (0.071)***	-0.257 (0.071)***	-0.301 (0.081)***	-0.486 (0.219)**	-0.566 (0.241)**
from State					
City	0.002 (0.015)	0.003 (0.016)	0.007 (0.018)	-0.007 (0.035)	-0.025 (0.034)
Rural	-0.007 (0.023)	-0.001 (0.023)	-0.012 (0.025)	-0.042 (0.040)	-0.059(0.042)
Town	0.005 (0.021)	0.007 (0.021)	0.001 (0.022)	-0.035 (0.035)	-0.043 (0.040)
% Hispanic	-0.095 (0.071)	-0.091 (0.069)	-0.088 (0.071)	0.128 (0.139)	0.114 (0.140)
% Black	0.218 (0.078)***	0.166 (0.091)*	0.177 (0.083)**	0.11 (0.149)	0.085 (0.156)
% Asian	-0.184~(0.132)	-0.162 (0.117)	-0.193 (0.139)	0.15 (0.268)	0.022 (0.240)
% Native American	0.027 (0.045)	0.013 (0.045)	0.007 (0.045)	0.023 (0.102)	-0.019(0.116)
Avg. Teacher Exper.	0.015 (0.002)***	0.015 (0.002)***	0.015 (0.002)***	-0.004 (0.005)	-0.004 (0.005)
% New Teachers	$-0.354 (0.184)^*$	-0.36 (0.175)**	-0.363 (0.181)**	-0.067 (0.456)	-0.14 (0.454)
Constant	9.707 (0.392)***	9.498 (0.383)***	9.883 (0.442)***	9.596 (0.807)***	10.163 (0.959)***
Observations	235	235	228	226	219
R-squared	0.74	0.74	0.74	0.71	0.7

Notes: Robust standard errors clustered by county in parentheses. Dependent variables are logged. Off-Cycle equals 1 if the district held its school board election in November 2007 and 0 if the district held its school board election in November 2006. Turnout is the proportion of registered voters who cast a ballot in the school board election. The tests on Off-Cycle, Turnout, and Turnout Squared are one-tailed. All other tests are two-tailed. *significant at 10%; *** significant at 5%; *** significant at 1%

associated increase in average district teacher salary is 0.3%. Once overall turnout reaches 45% of registered voters, the estimated effect of a decrease in voter turnout on average teacher salary is zero, and the effect is not statistically significant above a turnout level of 28 percent. In sum, if voter turnout is high enough, slight increases or decreases in turnout matter little for teacher union influence.²³

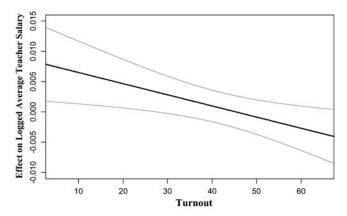
Of course, Minnesota leads the nation in voter turnout rates in national and state elections (see Bibby and Holbrook 2004). If the same is true for off-cycle school board elections—meaning that turnout in off-cycle Minnesota school board elections is higher than turnout in off-cycle school board elections in other states—then I would expect the size of the off-cycle election effect to be even larger in other states than it is in column (1) of Table 2. However, there is little evidence that turnout in Minnesota off-cycle local elections is higher than comparable elections in other states. Median turnout in the school

district elections in 2007 in Minnesota was a paltry 13% of registered voters, and that figure is an overestimate because it does not include same-day registrants in the denominator. Studies of off-cycle school district elections in other states have quoted even lower turnout figures—such as the 7.8% average in Michigan in 2000 (Weimer 2001)—but clearly, participation levels in Minnesota elections are not markedly higher. It is therefore likely that the results from Table 2 generalize to other states.

It is possible that something other than teacher union influence explains these results, although it is highly unlikely. Teachers are the most active interest group in school board elections and have strong pecuniary incentives to participate, and therefore it makes sense that they fare better when school board elections are off-cycle and turnout is low. One Michigan school board member explained the effect of election timing as follows: "The November election keeps unions from controlling the vote. If you have 3,000 people voting in June, teachers can get 1,600 people there; if you have 16,000 people voting, teachers are a minor factor" (Allen and Plank 2005, 519).

²³The results persist if I use the log of turnout rather than turnout and its square.

FIGURE 2 Marginal Effect of a 5 Percentage Point Decrease in Turnout



Notes: Figure depicts the marginal effect of a 5 percentage point decrease in voter turnout on average teacher salary. Ninety-five percent confidence bounds are in grey. The 99th percentile value of turnout in MN school board elections for 2006–2007 was 65% of registered voters. Dependent variable is logged.

Still, a vast literature finds that minorities and individuals with low levels of income and education are underrepresented in the active electorate when turnout is low, such that policy tends to have an upper class bias (e.g., Hajnal and Trounstine 2005; Hill and Leighley 1992; Hill, Leighley, and Hinton-Andersson 1995). It is worth taking seriously the concern that the preferences of high-income voters are driving the results presented here. Perhaps those who turn out in off-cycle elections tend to be predominantly wealthy, well-educated individuals who also prefer greater spending on public education—including teacher salaries. How can we know that the higher teacher salaries in districts with off-cycle elections represent a private benefit for teachers as opposed to a broad policy of greater spending on public education?

Inspection of other expenditure variables in onand off-cycle districts is of little help for this question, since teacher unions have many reasons to prefer greater spending on most district budget items, including facilities, support staff, and transportation. All such expenditures improve the quality of teachers' working conditions, and they also improve the employment terms of other school employees like bus drivers, janitors, and cafeteria workers, whose unions are allies of the teacher unions (Moe 2006). However, there is at least one element of a school district's finances that the teacher unions typically have little interest in growing: the salary of the district superintendent. The superintendent is the district's chief school administrator. She is generally selected by the local school board and tends not to be affiliated with unions (e.g., Currall 1992). If the effect of election timing on teacher salaries is truly the effect of teacher union influence in elections, then we should *not* expect to see higher superintendent salaries in districts with off-cycle elections.

Columns (4) and (5) of Table 2 present the results of the same models as (1) and (3) but using the natural log of district superintendent salary as the dependent variable. Within the same set of districts as models (1) and (3),²⁴ I find that there is no difference in superintendent salaries between off-cycle and oncycle districts, nor do superintendent salaries vary with voter turnout. As a robustness check, I have also estimated the model using the natural log of the average administrative salary in the district as the dependent variable (the district's general administrative salary expenditures in 2005–2006 divided by the number of local education agency administrators and their support staff).25 As in the model of superintendent salary, the coefficient on Off-Cycle is negative and statistically insignificant, and the effects on both *Turnout* and its square are not statistically distinguishable from zero.²⁶ The fact that there is no salary benefit for administrators in districts with offcycle elections supports the argument that off-cycle elections help teachers, who are represented by a powerful interest group, not administrators.

Discussion

It is well documented that voter turnout in state, local, and even national elections depends on whether those elections are held on the same day as other elections. I have argued that the timing of elections not only has consequences for how many people vote but also who votes, which candidates get elected, and to whom officeholders respond in designing policy.

²⁴Nine districts do not have a superintendent salary on record.

²⁵Data come from the 2005–2006 NCES CCD files. This figure represents the average salary of superintendents, deputy and assistant superintendents, and anyone with district-wide responsibilities such as district administrative assistants and business managers.

²⁶There may exist cases where teacher unions work to elect school board members whom they expect to hire a congenial superintendent—perhaps even a superintendent who is an ally of the unions. In this case, we would expect superintendent salary to also be tied to teacher union influence. The absence of effects of Off-Cycle and the turnout variables for superintendent salary suggests that this is not the case in the average district in MN, even if it is true for some districts. The evidence that there is no salary advantage for district administrators reinforces this point.

When an election is separated from other elections that attract higher turnout, many eligible voters abstain, but interest group members that have a large stake in the election outcome turn out at high rates regardless of the increase in the cost of voting. Moreover, interest groups' efforts to strategically mobilize supportive voters have a greater impact on election outcomes when overall turnout is low. Consequently, the electoral influence of interest groups is greater in off-cycle elections than in oncycle elections. As a result, the policy made by officials elected in off-cycle elections should be more favorable to dominant interest groups than policy made by officials elected in on-cycle elections.

I have tested the theory using data on school district elections and teacher salaries in the United States, and the results are remarkably consistent with the theory: School districts that hold off-cycle elections pay beginning teachers 1.5% more and their experienced teachers over 3% more per year in base salary than districts that hold on-cycle elections. The fact that the off-cycle district salary premium is greater for senior teachers is consistent with the literature on teacher unions, which finds that teacher union leadership tends to be more responsive to the needs of senior teachers than beginning teachers (Moe 2011). Moreover, this salary advantage is related to the decrease in voter turnout that accompanies the separation of school district elections from state and national elections.

This empirical analysis is only one application of a theory that has potential to shed light on the consequences of bundling and unbundling elections at all levels of government, in the United States and in other countries. The theory implies that city elections that are held at times other than state and national elections confer electoral advantage on the dominant interest group in those cities and that city policy should be more favorable to that group than policy in cities with on-cycle elections. It raises other questions that are ripe for empirical testing: Does the composition of the electorate in state legislative races and gubernatorial races depend on whether a president is on the ballot at the same time? Do interest groups have greater influence in midterm congressional elections than in presidential years, and do they hold less sway in midterm House elections when there is a Senate race on the ballot at the same time? Are governmental units whose elections consistently draw low voter turnout more responsive to interest groups than those whose elections attract higher voter turnout? And does more responsiveness to interest groups imply that policy is less representative of median citizen preferences?

Of course, elections in the United States are incredibly diverse. Elections at different levels of government, in different parts of the country, and at different periods in time vary tremendously in how candidates are nominated, whether party labels appear on the ballot, whether elections are competitive, atlarge, by district, and so on. The extent to which election timing aids interest groups in securing favorable policies might depend on some of these factors.

For example, political party activity might attenuate the interest group advantage in off-cycle elections. Turnout in partisan elections is higher than in nonpartisan elections (Karnig and Walter 1983), in part because party labels provide informative cues to voters who might otherwise not feel sufficiently informed to vote (Popkin 1993). If party labels mitigate the degree to which off-cycle election timing lowers turnout, the effect of off-cycle election timing should be smaller in partisan elections. In addition, political parties are active forces in mobilizing voters (Rosenstone and Hansen 1993). If interest groups have to compete with parties for the attention of voters during partisan elections, we would expect the interest group advantage in off-cycle elections to decrease. On a broader level, some argue that the strength of parties is inversely related to the strength of interest groups (e.g., Schattschneider 1961) and that the prohibition of formal political party activity in many city elections gradually gave rise to an expanded role for nonparty groups in elections (see Bridges 1997; Trounstine 2008). For all of these reasons, increases in political party activity might dampen the degree to which off-cycle election timing enhances interest group influence.

An alternative characterization of United States political parties yields a different prediction. Today, each major political party has a core constituency of interest groups on which it depends for campaign donations, votes, and mobilization. The interest groups within a party's core constituency want to elect politicians of that party who will be responsive to them in office. If today's relatively weak party organizations are dependent on the support of interest groups, the increased strength of an interest group in an off-cycle election should result in greater vote share for the political party with which it is affiliated. In contrast to the hypothesis that political parties mitigate the influence of interest groups in elections, this would suggest that by altering the balance of power among interest groups in elections, changes in election timing actually affect the distribution of the vote for the political parties. Of course, this is an empirical question, and one that should be tested in future research.

The nature of interest group competition also varies from one government to the next, and the strength of the competition for the dominant interest group likely conditions the impact of off-cycle election timing. In school bond elections, for example, elderly voters constitute a reliable voting bloc regardless of when the bond elections are held (Meredith 2009), which could counteract the electoral efforts of teacher unions in school elections. On the other hand, teacher unions have strong allies in school elections: they can coordinate their efforts with other groups whose goals are not in conflict with their own, such as other school employee unions and parent-teacher associations (Moe 2006). In fact, tapping into other existing organizations that have non-conflicting goals is an efficient way for an interest group to identify and mobilize supportive voters. In this way, the extent to which off-cycle election timing helps the dominant interest group should depend on both the strength of the group's adversaries as well as the strength of its allies.

As I noted above, it is more difficult to characterize the interest group dynamic in city and state elections, since the number of competing groups likely increases with the size and scope of government. However, perhaps the empirical reality is simpler than it seems. Like the employees of school districts, the employees of state, county, and municipal governments are well organized into public sector unions (Bennett and Orzechowski 1983; Corey and Garand 2002). Public sector employee unions have powerful incentives to be active in state and local elections—likely more so than other interest groups—since doing so helps them to elect the very people with whom they bargain over their members' salaries, benefits, and working conditions (Moe 2006). While political scientists have only begun to research the role of public sector unions in politics, the work that does exist suggests that they are immensely powerful and that their policy goals are not necessarily aligned with the broader public interest (see Moe 2009). It is quite possible that election timing conditions the extent of government employee unions' success in extracting policy concessions from elected

One of the most fascinating puzzles that arises from this study is how government election timing is determined in the first place. The United States did not have a uniform day for electing members of Congress until the late nineteenth century, and it was also quite common in the nineteenth century for state elections to be held separately from national elections (James 2007). By contrast, many local elections were held concurrently with state elections until

Progressive Era reformers campaigned in favor of offcycle local elections (Trounstine 2008). While Smith (2004) has explored the political motivations behind the timing of national elections in parliamentary systems, there is little existing research on the choice to bundle or unbundle certain elections with others (although see Negretto 2006). This would be a promising line of future research: How did governments throughout the United States come to adopt their modern election schedules? Furthermore, if the choice of election timing has consequences for election outcomes and policy, why do we not observe frequent changes in the schedule of elections? Under what conditions are interest groups successful in achieving and maintaining an advantageous election schedule?

The Michigan legislature's recent effort to combine school district elections with municipal elections is suggestive of the dynamics at play in the politics of election timing choice. The Michigan Republican Party and the statewide organizations of city and county clerks were the strongest proponents of moving school district elections from June to November so as to coincide with city elections. State Democrats, the Michigan Association of School Boards, and the Michigan Education Association aggressively resisted the change. After three years of fighting over the election timing bill in the state legislature, it finally passed, but in severely compromised form: school districts retained discretion to hold standalone elections in the spring. This not only suggests that interest groups that benefit from offcycle elections do lobby to maintain them, but also that election timing has the potential to become a contentious partisan issue if a particular election schedule benefits the interest groups affiliated with one party at the expense of the other party. These matters await systematic examination in future work.

Clearly, there is great potential for scholars to build upon our existing knowledge of the conditions under which the timing of elections affects election outcomes. This paper takes an important step by demonstrating that the lowering of voter turnout that accompanies off-cycle election timing increases the ability of special interest groups to affect election outcomes. As a result of this increased influence, political officials elected in off-cycle elections make public policy that is more favorable to interest groups than officials elected in higher turnout on-cycle elections. As it happens, something as seemingly simple as the *date* of an election can have substantial consequences for the composition of the electorate and the content of public policy.

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References

- Aldrich, John H. 1993. "Rational Choice and Turnout." American Journal of Political Science 37 (1): 246-78.
- Allen, Ann, and David N. Plank. 2005. "School Board Election Structure and Democratic Representation." *Educational Policy* 19: 510–27.
- Anzia, Sarah F. 2010. "Partisan Power Play: The Origins of Election Timing as an American Political Institution." Presented at the 2010 annual meeting of the Midwest Political Science Association.
- Becker, Gary S. 1985. "Public Policies, Pressure Groups, and Dead Weight Costs." In *Chicago Studies in Political Economy*, George J. Stigler, ed. Chicago: University of Chicago Press, 85–105
- Bennett, James T., and William P. Orzechowski. 1983. "The Voting Behavior of Bureaucrats: Some Empirical Evidence." *Public Choice* 41 (2): 271–83.
- Berkman, Michael B., and Eric Plutzer. 2005. Ten Thousand Democracies: Politics and Public Opinion in America's School Districts. Washington, DC: Georgetown University Press.
- Berry, Christopher R. 2009. *Imperfect Union: Representation and Taxation in Multi-Level Government*. New York: Cambridge University Press.
- Bibby, John F., and Thomas M. Holbrook. 2004. "Parties and Elections." In *Politics in the American States*, 8th ed., eds. Virginia Gray and Russell L. Hanson. Washington, DC: CQ Press, 62–99.
- Borcherding, Thomas E., Winston C. Bush, and Robert M. Spann. 1977. "The Effects on Public Spending of the Divisibility of Public Outputs in Consumption, Bureaucratic Power, and the Size of the Tax-Sharing Group." In Budgets and Bureaucrats: The Sources of Government Growth, ed.

- Thomas E. Borcherding. Durham, NC: Duke University Press, 211–28.
- Boyd, Richard W. 1989. "The Effects of Primaries and Statewide Races on Voter Turnout." *Journal of Politics* 51 (August): 730–39.
- Bridges, Amy. 1997. Morning Glories: Municipal Reform in the Southwest. Princeton, NJ: Princeton University Press.
- Caren, Neal. 2007. "Big City, Big Turnout? Participation in American Cities." *Journal of Urban Affairs* 29 (1): 31–46.
- Census of Governments, U.S. Census Bureau 2009. 2008 Public Employment Data, Local Governments, United States Total.
- Census of Governments, U.S. Census Bureau 2007. Current Spending of Public Elementary-Secondary School Systems by State, State and Local Government Finances by Level of Government and State, and Public School System Finances for Elementary-Secondary Education by State.
- Corey, Elizabeth C., and James C. Garand. 2002. "Are Government Employees More Likely to Vote? An Analysis of Turnout in the 1996 U.S. National Election." *Public Choice* 111: 259–83.
- Cox, Gary W. 1997. Making Votes Count: Strategic Coordination in the World's Electoral Systems. New York: Cambridge University Press.
- Currall, Steven C. 1992. "Group Representatives in Educational Institutions: An Empirical Study of Superintendents and Teacher Union Presidents." *Journal of Applied Behavioral Science*: 296–317.
- Dunne, Stephanie, W. Robert Reed, and James Wilbanks. 1997. "Endogenizing the Median Voter: Public Choice Goes to School." *Public Choice* 93: 99–118.
- Fischel, William A. 2001. The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies. Cambridge, MA: Harvard University Press
- Hajnal, Zoltan L., and Paul G. Lewis. 2003. "Municipal Institution and Voter Turnout in Local Elections." *Urban Affairs Review* 38 (5): 645–68.
- Hajnal, Zoltan L., Paul G. Lewis, and Hugh Louch. 2002. "Municipal Elections in California: Turnout, Timing, and Competition." San Francisco: Public Policy Institute of California.
- Hajnal, Zoltan, and Jessica Trounstine. 2005. "Where Turnout Matters: The Consequences of Uneven Turnout in City Politics." Journal of Politics 67 (2): 515–35.
- Hess, Frederick M. 2002. "School Boards at the Dawn of the 21st Century: Conditions and Challenges of District Governance." Alexandria, VA: National School Boards Association.
- Hess, Frederick M., and David L. Leal. 2005. "School House Politics: Expenditures, Interests, and Competition in School Board Elections." In *Besieged: School Boards and the Future of Education Politics*, ed. William G. Howell. Washington, DC: Brookings Institution Press, 228–52.
- Hill, Kim Quaile, and Jan. E. Leighley. 1992. "The Policy Consequences of Class Bias in State Electorates." American Journal of Political Science 36 (May): 351–65.
- Hill, Kim Quaile, Jan E. Leighley, and Angela Hinton Andersson. 1995. "Lower Class Mobilization and Policy Linkage in the U.S. States." American Journal of Political Science 39: 75–86.
- Jacobson, Gary C. 2001. The Politics of Congressional Elections. New York: Longman.
- James, Scott C. 2007. "Timing and Sequence in Congressional Elections: Interstate Contagion and America's Nineteenth

Century Scheduling Regime." Studies in American Political Development 21: 1–22.

- Karnig, Albert K., and B. Oliver Walter. 1983. "Decline in Municipal Voter Turnout: A Function of Changing Structure." American Politics Quarterly 11 (4): 491–505.
- Lieberman, Myron. 1997. *The Teacher Unions*. Washington, DC: Free Press.
- Lijphart, Arend. 1997. "Unequal Participation: Democracy's Unresolved Dilemma." American Political Science Review 91 (1): 1–14.
- Meredith, Marc. 2009. "The Strategic Timing of Direct Democracy." *Economics and Politics* 21: 159–77.
- Moe, Terry M. 2005. "Teacher Unions and School Board Elections." In *Besieged: School Boards and the Future of Education Politics*, ed. William G. Howell. Washington, DC: Brookings Institution Press, 254–87.
- Moe, Terry M. 2006. "Political Control and the Power of the Agent." *Journal of Law, Economics, and Organization* 22 (1): 1–29.
- Moe, Terry M. 2009. "Collective Bargaining and The Performance of the Public Schools." *American Journal of Political Science* 53 (1): 156–74.
- Moe, Terry M. 2011. Special Interest: Teachers Unions and America's Public Schools. Washington, DC: Brookings Institution Press.
- Murray, Sheila E., William N. Evans, and Robert M. Schwab. 1998. "Education-Finance Reform and the Distribution of Education Resources." *American Economic Review* 88 (4): 789–812.
- Negretto, Gabriel L. 2006. "Choosing How to Choose Presidents: Parties, Military Rulers, and Presidential Elections in Latin America." *Journal of Politics* 68 (2): 421–33.
- Olson, Mancur. 1965. *The Logic of Collective Action*. Cambridge, MA: Harvard University Press.
- Patterson, Samuel C., and Gregory A. Caldeira. 1983. "Getting Out the Vote: Participation in Gubernatorial Elections." American Political Science Review 77 (3): 675–89.

- Pecquet, Gary M., R. Morris Coats, and Steven T. Yen. 1996. "Voters: Evidence From Louisiana School Tax Elections." Public Finance Review 24 (2): 131–47.
- Popkin, Samuel I. 1993. "Information Shortcuts and the Reasoning Voter." In *Information, Participation, and Choice*, ed. Bernard Grofman. Ann Arbor University of Michigan Press, 17–36.
- Ranney, Austin. 1972. "Turnout and Representation in Presidential Primary Elections." *American Political Science Review* 66 (1): 21–37.
- Rosenstone, Steven J., and John Mark Hansen. 1993. *Mobilization, Participation, and Democracy in America*. New York: MacMillan Publishing Company.
- Schattschneider, E. E. 1961. *The Semisovereign People: A Realist's View of Democracy in America*. Forth Worth: Holt, Reinhart and Winston.
- Schlozman, Kay Lehman, and John T. Tierney. 1986. Organized Interests and American Democracy. New York: HarperCollins.
- Shanker, Albert. 1979. "A Reply to Myron Lieberman." *Phi Delta Kappan* (May): 652–54.
- Smith, Alastair. 2004. *Election Timing*. New York: Cambridge University Press.
- Trounstine, Jessica. 2008. *Political Monopolies in American Cities:* The Rise and Fall of Bosses and Reformers. Chicago: University of Chicago Press.
- Weimer, Debbi. 2001. "School Board Elections, Data Brief 5: September 2001." East Lansing, MI: The Education Policy Center at Michigan State University.
- Wolfinger, Raymond E., and Steven J. Rosenstone. 1980. *Who Votes?* New Haven, CT: Yale University Press.
- Wood, Curtis. 2002. "Voter Turnout in City Elections." *Urban Affairs Review* 38 (2): 209–31.

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