Voting Alone: Ballot Reforms and Social Influence in Historical American Elections

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Abstract

The United States adopted the Australian ballot on a state-by-state basis beginning late in the nineteenth century. Replacing a system in which political parties printed and distributed ballots, the ballot reform sharply changed the way in which parties competed for votes. While previous scholarship has well documented the consequences of the Australian ballot adoption, a multitude of explanations exist as for what element of the multifarious reform drove these electoral changes. In laying out these alternative explanations in an organized fashion it becomes clear that there are other untested consequences of the ballot switch. Building off of a modern vein of political behavior that shows the importance of a voter's social environment on the decision to mobilize, this paper investigates whether changes of vote secrecy affected pressures to vote as a function of local social conformity. Linking electoral data from state districts in eighteen states with national election returns, I find evidence that ballot secrecy affected voter turnout independent of the strategic mobilization pressures previously shown. I discuss the implications of this finding with regards to the pressures of local social conformity. In the discussion I link the results to the burgeoning literature on ancillary social influences on voter behavior.

1 Introduction

The adoption of the Australian ballot at the turn of the century led to a great transformation in U.S. elections. Prior to its adoption participation in elections were at staggering levels by modern standards. State turnout for presidential elections frequently exceeded 80% of the voting-eligible public. In some cases (e.g. New Hampshire 1890) presidential turnout peaked above 90%. In some instances turnout for concurrent congressional races were even higher. But with the adoption of the Australian ballot turnout fell sharply and remained comparatively low through the twentieth century. Multiple explanations of this dramatic rise and fall in turnout fall abound. Reflecting an earlier era of scholarship Burnham (1974) maintained that cultural differences between waves of immigrant groups lie at the heart of the changes in turnout in the electorate. Critics of this theory, employing the then-nascent approach of New Institutionalism, linked the changes in the electorate to fundamental changes in electoral laws, such as the adoption of the Australian Ballot (Rusk, 1970; Converse, 1974; Rusk, 1974). Even within the literature identifying the Australian ballot as the primary culprit of declining voter turnout at the turn of the century, the literature points to a multitude of culprits.

Most certainly, previous scholarship showed the transition from the public casting of party-issued ballots to a state printed ballot transformed electoral politics in important ways. Cox and Kousser (1981) were quick to identify historical newspaper articles at the time of Australian ballot adoption in New York referencing a decline of vote buying and a rise of paying politically unaligned voters to stay home. Extending the logic of decreased vote buying found in New York, Heckelman (1995) showed that the decrease in turnout hewed closely to secret ballot adoption elsewhere. The anecdotal

evidence of vote buying in this era of the Tammany political machine model of politics are pervasive enough to suggest that voter fraud was, at the very least, a culprit in the declining turnout (Argersinger, 1992).

In addition to ensuring ballot secrecy, however, the adoption of the Australian ballot departed from the party ticket eras in another important way. The party ticket system of the nineteenth century was a fused vote ticket, meaning that barring physically tearing apart ballots from different parties and pasting them together, a single ballot was recorded as a vote for party candidates up and down the ticket. As an argument for affecting turnout, the fused vote of the party ticket era aligned the incentives of candidates within the political parties to coordinate their efforts to maximize voter turnout (Engstrom and Kernell, 2014). The extant literature on how the rule changes associated with the Australian ballot adoption has affected electoral outcomes primarily focuses on how the reforms changed the incentives and behavior of political parties. Considerably less attention, unfortunately, has been heeded to the role of individual voters making decisions under these different electoral regimes.

While accepting the arguments that the large changes were also affected by the incentives of fused vote tickets and the the capacity to buy the votes from wavering citizens, I contend that voters in institutional arrangements that provide for the capacity of vote choice monitoring (as was the case in 19th century party ticket system), may equally likely have been responding to conformity pressures exerted through interpersonal ties as to vote buying. Drawing on findings from the last decade showing clear affects of social ties on voting behavior, I posit that the adoption of the Australian Ballot not only changed the incentives of political parties, but similarly altered the context of decision-making for voters. With the increased potential of vote monitoring within

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an individual social network, each party could essentially subcontract the bulk of its mobilization activities to organized interest groups affiliated with the party and their activists' and voters' informal social networks. This raises a further question of where the power of political parties end and interpersonal influences and community pressures begin, which will be addressed later in the paper.

I begin the following Section (II) by further organizing the extant literature on ballot secrecy and voter mobilization. Drawing on insights from both the consequences of Australian ballot in the United States, as well as findings about ballot secrecy in developing countries I identify a series of affects associated with the adoption of the Australian ballot. While the vast majority of the extant literature frames the consequences of ballot reform as primarily a political party story, I bring to bear findings from political behavior that suggest the dynamics of secrecy can have similarly profound affects on voter decisions.

I introduce a theory of voter mobilization in Section III that mirrors Cox (2015) by incorporating a mechanism of social influence. This expansion of voter mobilization models to include secondary mobilization effects provides a framework for unifying the many empirical findings with several previously unidentified consequences of the Australian ballot adoption. The model provides empirical statics that offer clear, testable hypotheses. To test these hypotheses I introduce a previously unused data source from state house election results from the late nineteenth century and earlier twentieth century in Section IV. Linking the electoral data from state districts in eighteen states with their corresponding national election returns, Section V reports these results showing evidence that changes in ballot secrecy independently affected turnout. These models account for multiple alternative explanations of turnout previously shown in the litera-

ture. These results show that the Australian ballot led to a precipitous drop in turnout even where the preexisting incentives for buying votes was nil and the potential mobilization spillover from candidates' aligned incentives was nonexistent. Moreover, I find a pattern of voter mobilization within the multitude of state districts compromising congressional districts to fit with a pattern of voter turnout reliant social mobilization and not strictly vote buying.

2   Previous research

Electoral participation as a percent of the voting eligible electorate peaked in the second half of the nineteenth century before declining sharply and remaining comparatively lower through the twentieth century. Previous scholarship shows the transition from publicly casting party ballots to the government's secret ballot transformed electoral politics in important ways. This centrally administered, government-printed ballot replaced a party ballot system where parties provided voters with competing ballots to be deposited in public voting areas. The absence of secrecy in this voting system allowed parties to, at a minimum exhort voters, and at a maximum coerce or purchase their electoral loyalty (Cox and Kousser, 1981; Argersinger, 1992). With the adoption of the secret ballot, the feasibility and cost effectiveness of both legitimate and nefarious mobilization tactics decreased, given that mobilized voters could no longer be guaranteed supporters. In addition to making the act of voting secret, the party ticket was a de facto fused vote, meaning that barring physically tearing apart ballots from different parties and pasting them together, a single ballot was recorded as a vote for party candidates up and down the ticket.

2.1   Australian Ballot Reform – U.S.

The party ballot system of the nineteenth century was a fused vote ticket, meaning that barring physically tearing apart ballots from different parties and pasting them together, a single ballot was recorded as a vote for party candidates up and down the ticket. Presently only Bolivia, Honduras, and Uruguay employ a fused vote system, where a single cast ballot determines the outcome of elections at multiple levels of competition (Cox, 1997). The U.S., however, maintains plurality system, which makes the party ticket system incomparable to all other electoral systems. Whereas proportional rules allocate seats reflecting the ratio of votes cast for each party, a plurality system allocates all seats to the party that received the most votes. As a result the fates of down-ticket candidates were inextricably linked to the electoral fortunes of their party's presidential candidate, which served to align incentives of candidates down the ticket to mobilize voters. But beyond the impact of ballot reform on turnout, surprisingly few have systematically examined the electoral consequences of the sweeping adoption of the Australian ballot.

The unique electoral rules of the U.S. party ticket system in the nineteenth century structured a political landscape uniquely sensitive to small shifts in voter turnout. This party ticket system allowed parties to print their own ballots, which would be distributed to voters and deposited at polling stations come Election Day. Every open seat in an election cycle from president to governor to municipal clerks, consequently,

would be on the party's ballot (Burnham, 1974). Because a cast ballot in the pre-Australian system influenced the outcome of multiple candidates at different tiers of the federalist electoral system, their fates became collectively tied to mobilizing as many voters under that single ballot. The few other countries employing fused ballot electoral system, Uruguay for comparison, only link the executive and legislative chamber at the national level or use proportional and not plurality allocation rules (Cox, 1997).

As a signal to the cumulative effects of plurality and ballot length of the U.S. system, states governed by parties not in control of the presidency but with electorates favoring the president would often seek to hold elections counter-cyclical to presidential races to avoid being swept out of office (Engstrom and Kernell, 2005). Office-seeking candidates at different tiers of the federalist system–county, congressional district, state, and often national–had a strong incentives to coordinate mobilization strategies, which contrasts with candidates in the present system that have comparatively greater incentive to cultivate a personal vote (Carey and Shugart, 1995).

In an electoral system with fused tickets strategic parties will engage in voter mobilization strategies if the expected benefit from securing electoral seats relative to the costs of mobilizing voters necessary to provide sufficient electoral support (Cox, 1999). Several features of the party ticket system used in the U.S. during most of the nineteenth century made it particularly well suited to meet these conditions of efficiently mobilizing voters. First, by allowing parties to print and distribute their own ballots the party ticket system decreased the relative effort put toward convincing and monitoring a voter to vote for a your party. In the party ticket system if a fence-sitting voter had a party ballot in hand going to the voting booth, at worst they would not vote at all. However, in a secret ballot system a party would be more reluctant to bring

the same fence-sitting voter to the polls, because they could easily switch their decision once in the polling booth. Second, by fusing the electoral fortunes of a party's entire slate of candidates together, America's nineteenth century electoral system would have forced politicians to coordinate campaign efforts to a greater extent than today. If the campaign for one office on a party ticket had put in the effort to mobilize a voter that vote would be effectively won for all the races covered on the ballot. Additionally, all other candidates from that party would not need to expend the effort to assure the voter would vote party-line down (or up) the ticket. In short, by fusing candidates electoral fortunes on to a single ballot and allowing the public distribution of ballots by parties, the nineteenth century party ballot system arranged a confluence of incentives for strategic parties to bring voters to the polls. Left unasked is how did this institutional environment affect voters' decision making?

The evidence supporting institutionally-structured strategic decisions for voter mobilization is quite strong. Historical accounts from U.S. elections in the 19th century (Argersinger, 1992; Heckelman, 1995) suggest that vote buying was a common mechanism of electoral fraud for strategic parties seeking to win office. So too was the incentive to pay voters to not vote following secret ballot adoption Cox and Kousser (1981). Turnout decreased precipitously in presidential elections (Engstrom and Kernell, 2005) and congressional elections (Engstrom, 2012) as it became more difficult for parties to mobilize voters–by both legitimate and nefarious means. In fact, the reduction in turnout caused by secret ballot adoption was most prominent when elections were close and the incentive to mobilize voters was strongest.

However, just as it is with the case of party mobilization strategies, the institutional structure that shaped party incentives may also have shaped other influences on a

voter's decision to vote. Having the ballot be printed by parties and distributed publicly not only strengthened parties incentives for mobilizing voters, but from a voter perspective, it created a voting environment much different than the current secret ballot system. In a system where a voter must procure a ballot from a party and take it to a polling station to be counted, they are exposed to the observation of others in their community (political party members included) in a way that the current secret ballot system simply does not. Empirical studies of historical voting patterns that attribute changes in voter turnout to culture Burnham (1974) , vote buying Heckelman (1995), or party mobilization incentives (Engstrom 2012) must all take into account the way in which electoral rules also altered the voting environment in ways that made decisions more public. As I layout in the following sections, I hypothesize that by changing the context in which decisions are made, electoral rules, both past and present, indelibly alter the environment of social considerations that influence political behavior.

2.2 Ballot Secrecy Abroad

The work examining the prevalence of clientelist vote buying in developing states takes seriously the impact social ties could have in affecting vote choice. Typically social ties provide a means for a dispersed means of monitoring vote choices for political parties seeking to buy votes. The theoretical literature on the ability for potential vote buying parties and politicians to engage in voter fraud frequently identify the ability of political parties to monitor voter decisions as a necessary component for any vote buying scheme. Considerable anecdotal evidence of this monitored exchange of votes for money suggest that the practice is common in diverse settings through a variety of techniques (Argersinger, 1992; Cox and Kousser, 1981; Gingerich, 2013; Nichter, 2008). There is also a tendency to assume that if the conditions are ripe for vote buying to

occur, which is to say that vote choices are not perfectly secret, then vote buying is the causal mechanism for illuminating findings and the behavioral outcomes that come out of such an environment are the consequence of the vote buying regime (e.g. Heckelman (1995); Keefer (2007). In order for vote buying to reliably occur politicians must be able to monitor the vote choices of targeted voters to ensure that they honestly trade their vote for direct benefits, as opposed to surreptitiously voting for another candidates (Kitschelt and Wilkinson, 2007).

Even when vote buying and sanctioning do not exist, the way in which electoral rules structure the visibility of a voter's voting process may still produce acquiescence in the voter to the political norms of their community. For example, no widespread fraudulent activities of vote-buying or punitive sanctioning appear to occur in Vermont town meetings yet it would not be shocking to find that a community electing its officials by open floor votes could lead to greater conformity than if the vote were held secretly. Because the electoral rules of the nineteenth century in many ways mirror the simple differences described above (differences in adherence to electoral fraud laws withstanding) historical voting patterns that purportedly show the effects of vote buying and political party sanctioning may also be a function of the simple adherence to social conformity within highly transparent communities.

2.3 Electoral Institutions Shape Voter Turnout

Previous studies of institutional structure find that variation in electoral laws shape both the strategies of political parties Cox (1999, 1997); Engstrom and Kernell (2005) and of voters Abramowitz et al. (1981); Abramson et al. (1992). These studies of voter behavior that begin with institutional structure give scant attention to the potential

interplay between institutions and voters' social considerations, instead focusing primarily on incentives of parties to mobilize voters and voters incentives to make their vote count. Some comparative Stokes (2005); Keefer (2007) and American political development studies Cox and Kousser (1981) of vote buying regimes theorize about the interplay between institutional rules and the context of voting. These previous analyses strictly take the perspective of party strategy, while this project examines the ramifications of electoral rules on voter decisions.

2.4   Social Voters are sensitive to Secrecy

A longstanding literature links interpersonal ties to turnout decisions and political choices. Foundational research on voter behavior shows that the behaviors and attitudes of more proximate social ties correlate closely with individuals' political discussion partners and vote choice Berelson et al. (1950). More recent snowball sample surveys suggest that the political attitudes of conversation partners Beck et al. (2002); Huckfeldt and Sprague (1987), their degree of political sophistication Kenny (1992), and the resulting level of political homogeneity found within that discussion network Huckfeldt et al. (2002); Mutz (2002) all significantly predict a voter's participation and candidate choice. In short the more politically engaged, sophisticated, and ideologically similar an individual's peers are, the more likely, all else equal, that individual will vote, and will vote in conformity with their peers. Though the findings are robust across time and populations, snowball-sampling methods cannot provide clear causal inference because of the threat of endogenous homophily between individuals and their interaction partners. Previous scholars of voting behavior and interpersonal communication networks have not asked how electoral rules affecting the visibility of voting acts can mediate the relevant veins of influence from ones social network.

One notable exception finds that social pressure messages threatening neighborly monitoring significantly increase voter turnout relative to other types of GOTV messages Gerber et al. (2008). Similar research tapping into online social networks, find that simply showing subjects which of their friends had self-identified as voting boosted the likelihood of individuals voting (Bond et al., 2012). The experimental confirmations of findings from an earlier generation of correlational studies support the theory that individuals' turnout behavior is sensitive to the behavior of their interpersonal ties. But the story is a complicated one. A recent GOTV field experiment that reminded voters about the secrecy of their ballot increased turnout (Gerber et al., 2013). This stands in contrast to both the historical relationship to between secret ballot adoption and turnout as well as evidence from Gerber et al. (2008). Arguably priming voters in a GOTV campaign with information about institutional features like ballot secrecy can provide researchers with the tools to experimentally test hypotheses about institutional mediation of social pressure.

3   Theory and Hypotheses

3.1   Theory

The primary goal of political parties is to elect candidates to office. In order to have candidates elected, political parties must win the votes of citizens in the electorate. This broad range of behaviors can be thought of as voter mobilization. When political parties mobilize voters their mobilizational effort translates into votes with differing degrees of efficiency depending on electoral rules. For example, under the party ticket system preceding secret ballot adoption shepherding a prospective voter to the polls would nearly guarantee a vote for the party. The electoral rules provide a nearly 1:1

efficiency ratio of voters mobilized to votes cast in favor of the party. The same amount of effort expended in the post-reform era would have a less efficient ratio. A voter brought to the polls by a party worker may or may not cast a ballot in favor of the party that brought them to the polls. This is account of voter mobilization reflects the traditional understanding of voter mobilization. This is what I'll refer to as the primary mobilization effect of a political party.

However, there are many voters who arrive at poll stations shepherded not by political operatives, but instead surrounded by friends, family, or acquaintances. For a segment of this population the deciding factor of whether or not to vote – that marginal benefit pushing the grand calculus of voting to a net positive – stems from the influence and perceptions of others in their social environment. As a result many individuals arrive at the polls as a result of not just direct party mobilization efforts, but as consequence of the spillover effects of primary mobilization (increased turnout among those initially contacted). It is this turnout spillover (Gerber et al., 2008; Bond et al., 2012) that I refer to as secondary mobilization (i.e. increased turnout among the friends of those initially contacted).

Many mobilization models, such as (Uhlaner, 1989; Schram and van Winden, 1991) argue that organized social pressure is a key tactic party leaders employ to get out the vote. As (Shachar and Nalebuff, 1999) phrased it: "We believe the social pressure is very important. There is a contagion effect. The more people in a social network that encourage a person to vote, the more likely that person is to vote and to encourage others to do the same." It is my argument that the transition to the Australian ballot from the party ticket system altered the tendency and capacity of others to effectively encourage socially-proximate voters to vote. This in turn affected both the efficiency of

primary and secondary voter mobilization. One can think of the sum total of mobilized voters as two subcomponents of a larger mobilization system. Consider the following equation taken from Cox (2015):

$$V_p(e_p, e_{-p}) = V_p^{(0)} + V_p^{(1)}(e_p, e_{-p}; K_p^{(1)}) + V_p^{(2)}(e_p, e_{-p}; K_p^{(2)}). \tag{1}$$

Where: $V_p^{(0)}$ denotes the vote share P would receive if $e = 0$; $V_p^{(1)}(e_p, e_{-p}; K_p^{(1)})$ denotes the increment to P's vote share due to the primary mobilization fueled by effort e_p; and $V_p^{(2)}(e_p, e_{-p}; K_p^{(2)})$ denotes the increment to P's vote share due to secondary mobilization sparked by effort e_p.

The intuition behind this model is straight forward. First, a party mobilizes some portion of the electorate through campaign activities, such as canvassing, advertisements, candidate visits, etc. Additional voters who are not first mobilized directly through party efforts can also end up voting as a result of social influence exerted via their social network by those initially mobilized directly by campaigns. Following the logic of experiments by (Gerber et al., 2008; Bond et al., 2012), this secondary mobilization influence can either be outright, as in an individual urging their family to vote or as an ancillary consequence to the initial voter's behavior. In the latter case, the secondary mobilization voters may be responding to real or perceived threats of social disapprobation or other forms of conformity inducing influences.

The efficiency of primary and secondary mobilization each depend on contextual factors in the electoral environment, which are represented in Cox's model by $K_p^{(1)}$ and $K_p^{(2)}$ respectively. The K parameter can encompass everything from campaign assets that increase the efficacy of campaign efforts (such as a high quality voter database) to

the institutional rules that dictate the electoral game. It is in the latter case that I utilize the model to understand how the transition from the party ticket to the Australian ballot affects voter mobilization. Adoption of the Australian ballot changed both the degree of vote fusion and ballot secrecy in the voting process. Moreover, both of these electoral rule changes have the potential to increase primary and secondary mobilizing efficiency. Put differently, both components of the reform can influence the K parameter of the primary and secondary mobilization. Electoral rules can directly affect the net costs voters must bear to participate in elections by poll taxes, fines for nonvoting, and other means. Electoral rules can also influence voters' perceptions and thus indirectly affect turnout as well.

3.1.1   Vote Secrecy, Vote Buying and Social Context

The ability for a political party to identify its supporters and its opposition is fundamental to the strategic allocation of mobilization resources. To this end, vote secrecy directly affects the degree to which political parties will seek to mobilize voters to the polls. To the extent a political party can identify these individuals it then must ensure that these individuals "vote correctly" from the perspective of the party. That is, supporters vote for the party and opposition voters either stay home or are induced to switch their loyalties. Without the ability to closely monitor a voter's decision at the poll the decision to mobilize them to vote is an ambiguous affair. Consequently, increasing ballot secrecy may cause a political party to reallocate mobilization resources away from turning out undecided voters whose behavior can be clearly monitored to mobilizing the party faithful whose vote choice need not be monitored. Under the party ticket system, parties distributed ballots of atypical size, scent, and color to increase the visibility of voters' vote choices to the network of party activists (Argersinger, 1992).

Together this would suggest that ballot secrecy decreases voter mobilization by reducing the certainty that a mobilized voter's ballot will be cast in favor of the mobilizer's party. In the model of voter mobilization this fits within primary mobilization. As an election becomes more competitive the incentive to increase turnout by an additional marginal voter is greater than if the election were uncompetitive. Consequently, when competitive elections increase voter mobilization, we should observe an amplification in the mobilization effect prior to Australian ballot adoption.

Hypothesis 1: Adoption of ballot secrecy decreases turnout relative to the pre-reform party ticket system when the value of voter mobilization is at its highest: tightly contested elections

The relationship between vote secrecy and higher turnout may also exist outside the channel of the strategic mobilization described above. Variation in electoral rules provision of choice secrecy may also affect the degree to which individuals consider the preferences of others into their political decisions. Not all individuals a potential voter interacts with on election day is a party activist and their preferences and attitudes may factor into the decision of whether to vote. Prior to the party ticket era, in which an individual would need to seek out a party ticket to cast at the polls, the public effort necessary to vote was likely greater and subject to draw greater attention in the pre-secret ballot era. Because the parties printed ballots and then distributed their ballots to voters to later be taken to the polls, the institutional setting gave parties unique powers to tap into interpersonal influences to compel a voter to mobilize.

Ballot secrecy decreases secondary voter mobilization by decreasing the degree of social monitoring of the act of voting. Even when the outcome of the election is not in

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doubt, a lack of vote secrecy should increase the weight of social observation, which in turn should stimulate turnout.

Hypothesis 2: Adoption of the Australian ballot secrecy decreases turnout even in the absence of the incentive to mobilize voters to the polls.

Moreover, partisan voters in the minority in partisan districts should be uniquely sensitive to the secondary mobilization influences of secret ballot adoption. In a context where the prevailing partisan support runs counter to a potential voter's preference, the adoption of the Australian ballot may afford the voter the veil of secrecy to vote their true preferences.

Hypothesis 3: The transition from party ticket to state-printed Australian ballots decreases voters' willingness to conform to the prevailing attitudes in their district leading to increased competitiveness of elections.

3.1.2 Vote Fusion and Ticket Splitting

When separate offices are elected concurrently, voters mobilized for one race may or may not vote for co-partisans running in other races. While the party ticket system never legally fused together the electoral fortunes of a party's slate of candidates, it did create a de facto system of fusion. In the party ticket system if a voter wanted to cast her vote for candidates from different parties they would need to physically split multiple party tickets and paste together the remnants into a coherent ballot. Consequently, the adoption of the Australian ballot marked the dawn of split-ticket voting ((Rusk, 1970)). Pushing beyond the rate of ticket splitting, Engstrom and Kernell (2014) argue that the vote fusion party ticket drove turnout higher vis-a-vis vote fusion of the Australian

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ballot affected US turnout rates. Vote fusion increases voter mobilization by aligning the incentives of candidates to coordinate their turnout efforts.

> *Hypothesis 4: Turnout in state district elections will be differentially higher under the party ticket system the greater number of concurrent offices on the ballot.*

The primary and secondary mobilization mechanism of the Australian ballot's office fusion has been demonstrated before with presidential and congressional elections Engstrom (2012); Engstrom and Kernell (2014). Thus this hypothesis will not be tested in this paper. That said, under a more fused electoral system the number of separate contests held concurrently increase the potential benefits of amassing a 50% +1 vote margin. The way in which that 50% +1 majority is distributed across a congressional district, however, is still subject to district-level deviations in the efficiency and incentives for voter mobilization.

> *Hypothesis 5: Office fusion under the party ticket leads to greater cross-sectional variability of mobilization and turnout.*

4   Data and Estimation

To assess the impact of local context on the political preferences of 19th Century voters I utilize a new dataset of state house elections from 18 states. Table 1 identifies the states in the dataset. These election results come from a larger set of returns collected in (Engstrom and Kernell, 2014). Utilizing the geographic indicators listed in some historical state electoral returns I was able to place state electoral districts within congressional districts in eighteen states. With few exceptions both state electoral

district and congressional district boundaries coincide with county lines. In certain high population areas (e.g. Baltimore, New York City, San Francisco, etc.) multiple congressional districts within a single county complicated matters. For several of these multi district counties I used refined geographic indicators (township, boroughs, etc.) recorded in the historical state election files to identify sub-county locations of the electoral districts. Then, relying on the Lewis-Martis Congressional mapping project to identify congressional district boundaries, I was able to manually nest the state district within specific congressional districts. (Lewis et al.).[1]

I omit from the analysis all state districts that I am unable to definitively locate in a congressional district. All told, I successfully place over 87% of state electoral districts with identified boundaries in congressional districts. This is the first use of the actual vote shares and totals from the state election data. The national electoral data comes from (Engstrom, 2012). States have a long history of developing new electoral rules. In addition to the adoption of the Australian ballot the turn of the twentieth century was a particularly active time for electoral reform. Table 1 identifies additional electoral rule changes for the selected states, including poll taxes, literacy tests, and women's suffrage). Collectively these shaped electoral contestation in this period and are important controls. Finally, I extract several electoral timing variables from (Engstrom, 2012) to identify the instances of counter-cycle state district elections. Figure 1 illustrates the pre-post ballot reform state house election winners' votershare.

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[1]http://cdmaps.polisci.ucla.edu

4.1   Estimation

The present analysis lends itself to a time-series hierarchical model, where state-districts are nested within congressional districts, which are themselves nested within state-years. To empirically test whether the Australian ballot affected turnout independent of vote buying and vote fusion, I employ a series of time-series cross sectional regression. The generalized model is as follows:

$$Y_{i,j} = \alpha_{i,t} + \beta_1 Ballot_{i,t-1} + \beta_2 Margin_{i,t} + \beta_3 X_{i,t} + \tau_t + \gamma_i + \epsilon_{i,t} \tag{2}$$

Where: $Y_{i,t}$ is the margin of victory in state district i in year j, $\beta_1 Ballot_{i,t-1}$ is the coefficient for the type of ballot used in the election i, $\beta_2 Margin_{i,t}$ is the margin of victory at the Congressional Level, i, $\beta_3 X_{i,t}$ is a vector of control variables, τ_t is a vector of congressional session fixed effects, γ_i is a vector of panel fixed effects, $\epsilon_{i,t}$ is the error clustered by state district for each decennial redistricting.

One may also expect variation in the degree to which votes were observable prior to the reform. A hierarchical model allows for effects at multiple levels of the model to vary, which is important given that districts within states will vary as well as states within election years. So too, for that matter, will elections from year to year–something normally soaked up with year fixed effects in time series models. I also report hierarchical models following the general emipiral model below:

$$Y_{ijt} = \alpha_{ijt} + \beta_{ijt} X + \tau_t + \gamma_i + \kappa_{j(i)} + \epsilon_{ijt} \tag{3}$$

Where: Y_{ijt} is the margin of victory in district j within state i for year t, $\beta_{ijt} X$ is the matrix of independent variables, τ_t is a vector of congressional session fixed effects, γ_i

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is a random intercept at the state district level, $\kappa_{j(i)}$ is a random intercept at the state level, ϵ_{ij} is the error clustered by state district.[2]

5   Results

In order to identify any effects of the ballot reform specific to changes in vote secrecy we must first identify a way to control the simultaneous changes in vote fusion. Exploiting variation in the election timing to isolate cases where state district elections occur separate from statewide races offers one such method. The reported results in Table 2 specifically include only those state house elections occurring off-cycle from other state-wide elections. Doing so provides insulation against the vote fusion aspects of the party ticket system. With no other top-ticket elections concurrent to the state house election the reported higher turnout differences are not attributable to the secondary mobilization spillover from high profile elections. I find support for Hypothesis 1 that competitiveness led to greater mobilization in the party ticket era than in the secret ballot era. In Table 2 Column 2 the results show that as the competitiveness of an election increased there was a differential increase in mobilization under the party ticket system relative to the post-reform elections. Moreover, I find evidence that ballot reform lowered turnout independent of strategic mobilization and ballot fusion spillover. In Column 1 of Table 2 the reported results show that turnout in state house districts decreased following the adoption of the Australian ballot. All components of the interactions in Column 2 (Ballot adoption, margin of victory, ballot*margin) are significant. While electoral competitiveness drove turnout both before and after the reform, the

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[2]The reported results were tested using a variety of hierarchical model specifications augmenting the number of levels and random-slope parameters for a variety of variables. The results are quite consistent across specifications.

empirical evidence suggests that the lack of ballot secrecy in the pre-reform era aided in the efficiency of voter mobilization.

Given that the interaction term between margin of victory and ballot reform effectively controls for the incentive for parties to mobilize voters, it is particularly noteworthy that the main effect of ballot reform remains significant. Irrespective of the differential capacity for political parties to mobilize voters when it counts (e.g.close elections), the adoption of the Australian ballot substantially reduced the total number of votes cast in any given election. This evidence supports Hypothesis 2, that ballot secrecy affected voter turnout through changes in voter behavior as well as party behavior. The hierarchical specifications reported in Columns 3 & 4 show that the results are not a function of model dependency. The marginal effect of the ballot-margin of victory interaction displayed in Figure 2 reveal that the result is not only statistically significantly by substantively impactful. Highly competitive elections drive nearly twice as many voters to the polls in the pre-reform era as compared to under the Australian ballot. Moreover, turnout is relatively unresponsive to competitiveness under the Australian ballot.

The models reported in Table 3 provide support for Hypothesis 3, that the level of election competitiveness increased as a consequence of ballot introduction. To account for the simultaneous effect of office fusion in the party ticket system, I interact the number of state-wide offices on the ballot simultaneous to the state district election. The results show that even when zero statewide offices on the ballot the average margin of victory in state district elections decreased by roughly eight percentage points. Because the coefficient interactions make is difficult to evaluate the substantive effects of the models in Table 3 I report the marginal effects of the interaction in Figure 3. When

contrasted with the state house elections with multiple state-wide offices on the ballot, one can easily observe a distinct change in the level of competitiveness for . The hierarchical replication models in Columns 3 & 4 of Table 3 show the relationship is robust to more rigorous specifications.

Turning our attention to the impacts of decreased office fusion under Australian ballot Table 4 reports results on the change in variance of state district election turnout within a given congressional district following ballot reform. The dependent variable is the variance of state district outcomes within a congressional district. The results show a marked increase in the variability of state district turnout following the decoupling of offices on the Australian ballot. Figure 4 best illustrates the differences between the two ballot types. On one hand we observe under the Australian ballot considerable stability between the variation in state district turnout and congressional district margin of victory. In contrast, we see that the variation in turnout at the state district level is much more dependent on the competitiveness of the congressional election. This evidence is in line with the prediction in Hypothesis 5. Simply put, the spillover of a congressional election's competitiveness has a smaller impact on the overall spread of state district election totals.

6   Discussion

This paper offers support to the theory that the adoption of the secret ballot uniquely depressed voter turnout. But moving beyond previous studies merely suggesting that the relationship between turnout and ballot reform exists, this study seeks to disentangle the various mechanisms underlying the relationship. Whether designed as an attempt to disenfranchise certain voters or reign in voter fraud, the Australian ballot appears to have had a number of intended and unintended consequences. By both altering the secrecy of the ballot and defusing the electoral fortunes of candidates up and down the ticket, the reforms led to changes in both primary and secondary mobilization incentives.

Ballot reform lowered turnout by changing the incentives of political parties to bring voters to the polls and restructured the ballot choice available to those who did show up at the polls. But not only did political parties structure their mobilization efforts differently as a response to the Australian ballot, so too did voters alter their behavior. The newfound secrecy afforded by the Australian ballot reduced the salience of contextual pressures to vote and vote in conformity with prevailing opinion. As a result I argue that ballot reform affected the calculus of voters as much as the calculus of parties. In the absence of potential monitoring of voter ballots, the post reform led to a more competitive local elections.

As recent experimental GOTV approaches to voter mobilization have shown leveraging citizen's sensitivity to social influence can effectively increase mobilization (Gerber et al., 2008; Bond et al., 2012; Gerber et al., 2013). If the normative pressure to vote was as strong in the pre-secret ballot era as it is today, there is no reason to think that

changes in the landscape of potential vote monitoring would have strong impacts on voter turnout and vote choice. In this sense the institutional shift away from a secret ballot may have not only reduced political parties incentives to mobilize voters to the polls, but it also limited the socially-originated pressures to participate.

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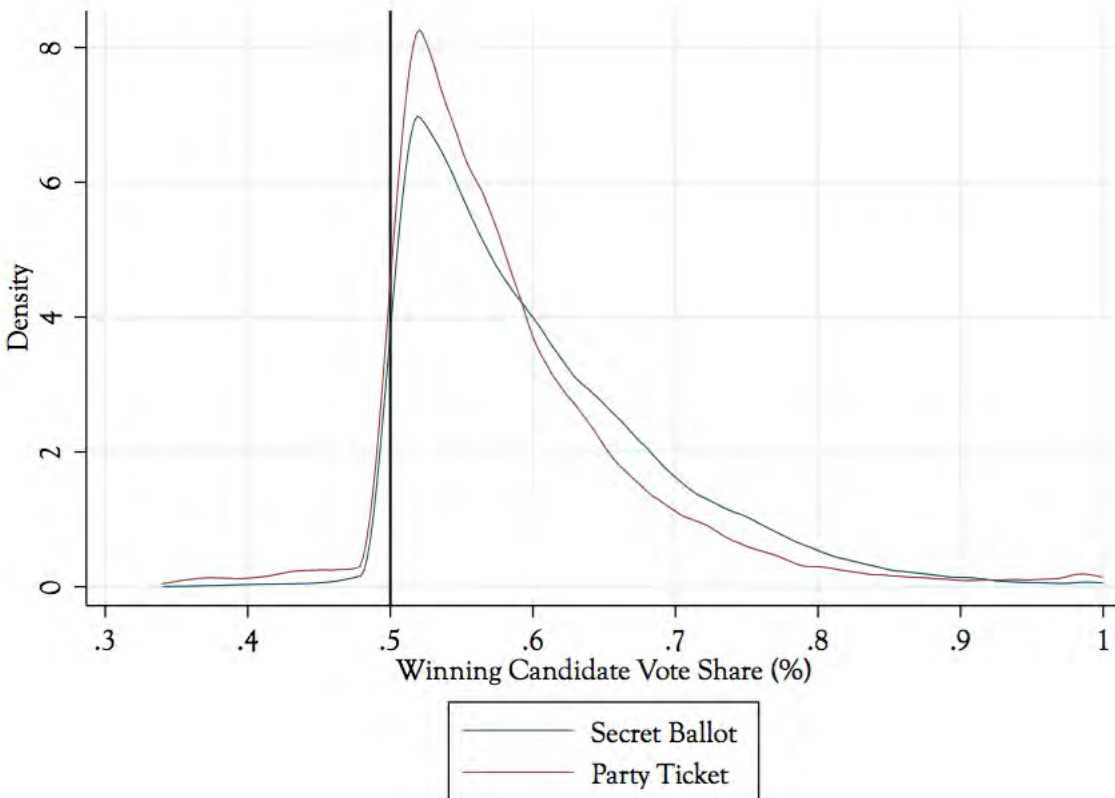Figure 1: Pre-Post Ballot Reform Winning Voter Share (State House Election)

Figure 2: Marginal Effects of Ballot Reform on State District Turnout by Margin of Victory
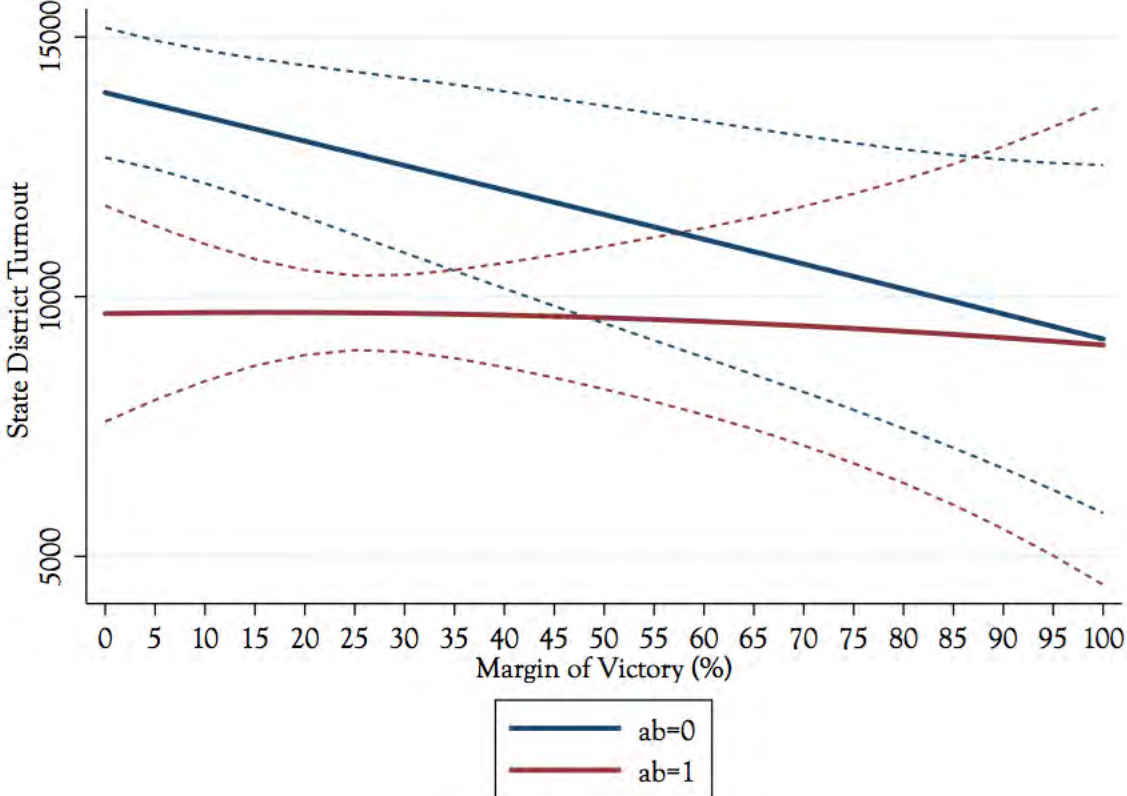
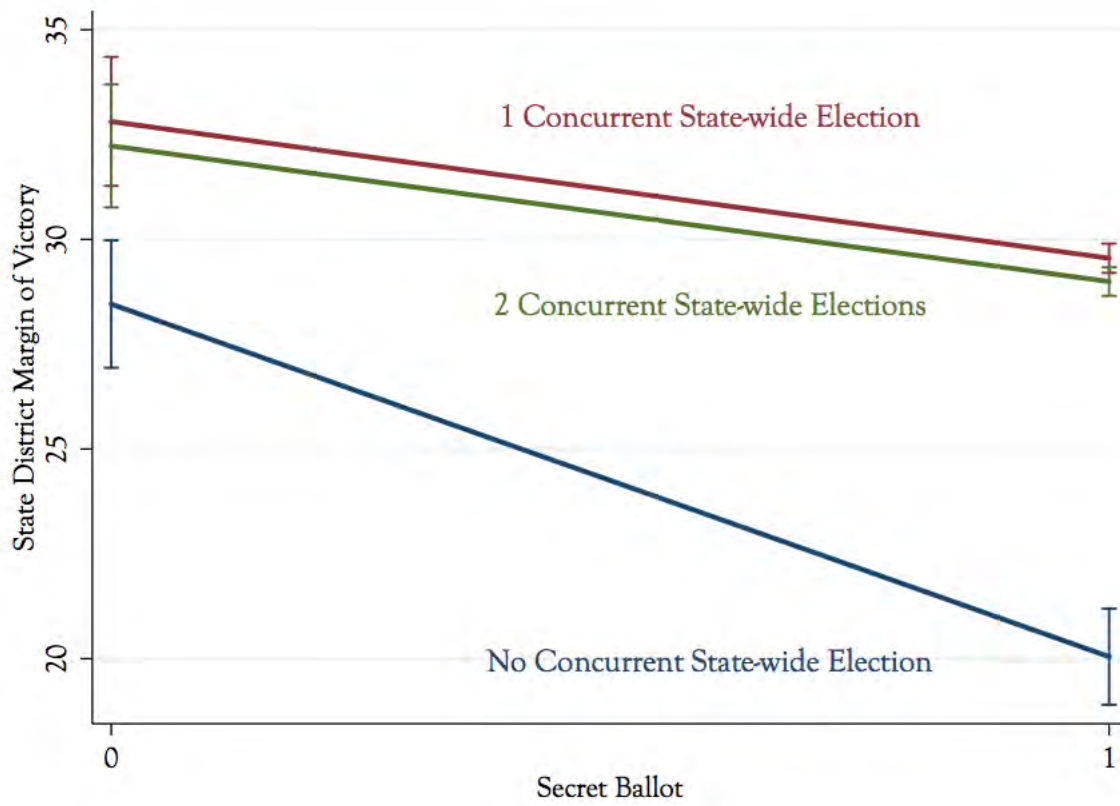Figure 3: Pre-Post Ballot Reform Winning Voter Share (State House Election)

Figure 4: Marginal Impact of Ballot Reform on Variation of Turnout within Congressional District
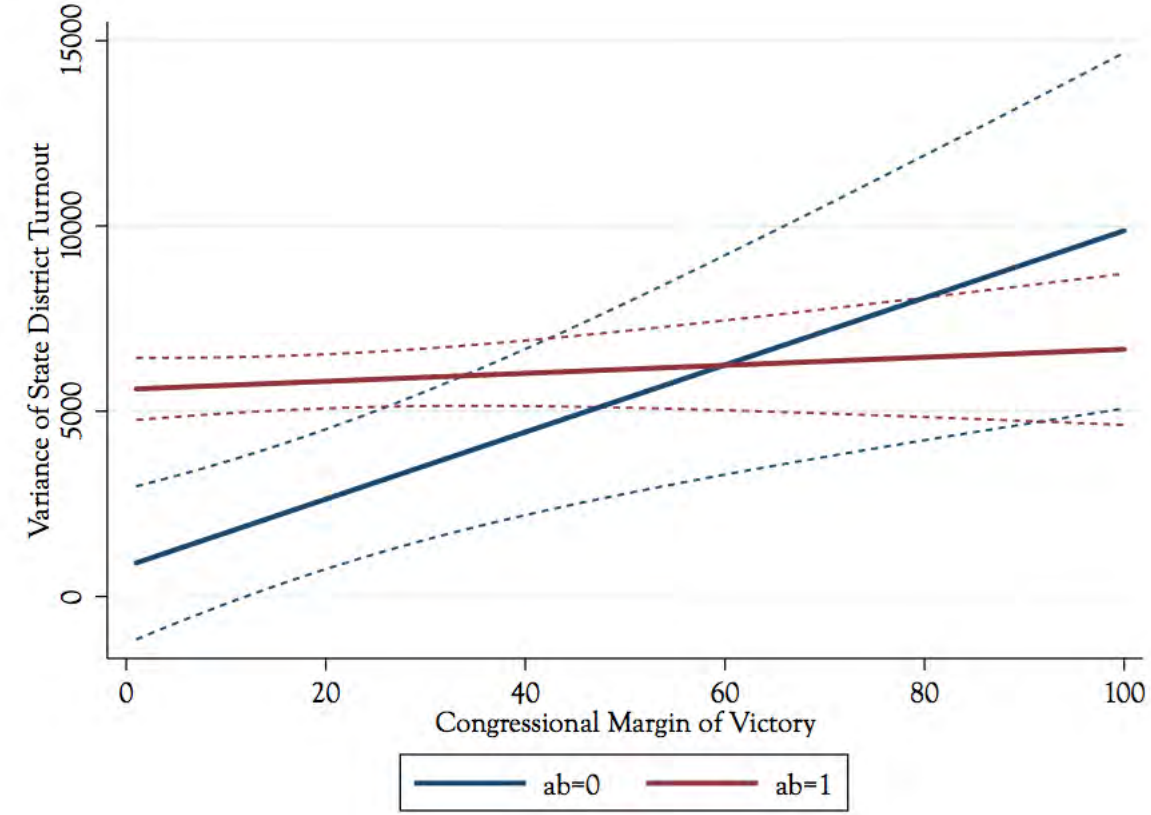
Table 1: Electoral Law Changes By State

State Name	# Elections	Secret Ballot	Women's Suffrage	Poll Tax	Literacy Test
Arizona	515	1891	1912		1912-
California	2,231	1891	1917		1894-
Colorado	1,013	1891	1893		
Connecticut	6,094	1909	1920		1856-
Idaho	1,058	1891	1896		
Iowa	2,044	1892	1919		
Kansas	4,864	1893	1912		
Maryland	2,188	1892	1920		
Massachusetts	2,293	1888	1920	-1891	1857-
Michigan	2,346	1891	1918		
Missouri	3,815	1891	1919		
Nevada	1,241	1891	1914	-1910	
New Hampshire	9,556	1891	1920		1902-
New Jersey	2,267	1911	1920		
New Mexico	689	1912	1920		
New York	7,037	1895	1917		1921-
Rhode Island	2,694	1889	1917	-1888	
West Virginia	1,481	1891	1920		
Wyoming	1,420	1890	1869		1889-

Notes: Electoral law changes taken from (Lott and Kenny, 1999). Australian Ballot Reform dates from (Engstrom, 2012).

Table 2: State District Turnout

DV: State House District Vote Count	Time-Series Cross-Sectional		Multi-Level	
	(1)	(2)	(3)	(4)
Australian Ballot	-3,373.381***	-4,182.918***	-1,831.074*	-1,875.829*
	(1,122.970)	(1,419.700)	(1,046.238)	(1,092.404)
Margin of Victory	-23.305	-47.418***	-25.259**	-27.061*
	(21.496)	(15.226)	(10.177)	(16.026)
Ballot*Margin		42.755**		3.036
		(20.813)		(20.817)
Female Suffrage	2,124.204***	2,106.062***	7,093.800***	7,094.692***
	(637.666)	(641.232)	(999.867)	(999.905)
Literacy Test	-16,231.246	-16,389.425	10,363.354***	10,360.771***
	(10,339.151)	(10,340.428)	(1,106.488)	(1,106.682)
Percent Electoral Restricted	128.437***	127.758***	325.976***	325.992***
	(22.338)	(21.980)	(56.291)	(56.300)
Year	1,060.822***	1,061.635***	374.132***	373.809***
	(199.191)	(199.411)	(39.377)	(39.447)
Poll tax			2,739.379	2,724.489
			(4,161.717)	(4,168.135)
State RE			7.683***	7.686***
			(0.529)	(0.529)
District RE			8.368***	8.369***
			(0.104)	(0.104)
Constant	-1991459.632***	-1992471.606***	-728,012.913***	-727,373.872***
	(374,942.133)	(375,224.578)	(76,205.261)	(76,350.841)
Observations	7,346	7,346	7,346	7,346
R-squared / LL	0.245	0.245	-82530.421	-82530.421
State FE	Yes	Yes	No	No
Number of stdist_id	744	744	744	744

Clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: The reported results are subset to include only those elections occurring off-cycle from congressional, senatorial, gubernatorial, and presidential elections. Consequently we can rule out that turnout differences are attributable to secondary mobilization spillover from high profile elections.

Table 3: State District Turnout

DV: District Margin of Victory	Time-Series	Cross-Sectional	Multi-Level	
	(1)	(2)	(3)	(4)
Secret Ballot	-3.783***	-8.408***	-3.618***	-8.570***
	(0.806)	(1.115)	(0.774)	(1.106)
1 Concurrent	-0.180	-3.650***	0.156	-3.649***
	(0.426)	(0.770)	(0 .617)	(0.925)
2 Concurrent	-1.243	-4.541***	-1.14	-4.496***
	(0.403)	(0.687)	(0.636)	(0.909)
Ballot*1 Concurrent		5.145***		5.642***
		(0.907)		(1.019)
Ballot*2 Concurrent		5.171***		5.279***
		(0.853)		(1.007)
Poll Tax	-13.175***	-13.040***	-10.947***	-10.552***
	(4.040)	(4.048)	(1.740)	(1.742)
Female Suffrage	5.867***	5.664***	9.274***	9.057***
	(0.991)	(0.991)	(0.735)	(0.736)
Literacy Test	5.555***	5.643***	6.250***	6.285***
	(0.705)	(0.703)	(0.596)	(0.596)
Year	-0.804	0.099***	-1.455	0.028
	(0.747)	(0.029)	(1.207)	(0.028)
Constant	1,586.509	-100.780*	2,809.862	36.471
	(1,399.673)	(55.721)	(2,260.326)	(52.966)
State RE			2.011***	2.038***
			(0.256)	(0.254)
District RE			2.032***	2.032***
			(0.072)	(0.072)
Observations	52,613	52,613	52,613	52,613
R-squared	0.075	0.076	-249697.5	-249677.8
Number of stdist_id	2,817	2,817	2,817	2,817
Congress FE	Yes	Yes	Yes	Yes
Number of groups	17	17	17	17

Clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Variation of State District Turnout and Australian Ballot Adoption

	DV: Variance of State District Turnout		
	(1)	(2)	(3)
Australian Ballot	3,864.044***	4,073.616***	5,057.157***
	(1,166.511)	(1,167.094)	(1,267.022)
Margin of Victory	22.653**	23.249**	70.893***
	(10.547)	(10.531)	(26.234)
Ballot*Margin			-56.749**
			(28.625)
Poll Tax		5,087.857*	5,268.391**
		(2,616.055)	(2,620.431)
Female Suffrage		2,494.698**	2,506.009**
		(1,051.688)	(1,051.131)
Literacy Test		-548.602	-541.644
		(777.142)	(776.978)
Year	-587.072	85.125	92.163
	(498.950)	(121.472)	(121.453)
On Cycle		781.182	797.463
		(506.673)	(506.464)
Off November		11,294.663***	11,347.381***
		(3,169.667)	(3,167.860)
Constant	1092900.179	-160,671.271	-175,176.538
	(929,630.557)	(235,386.718)	(235,362.479)
State RE	8.350***	8.438***	8.448***
	(0.209)	(0.209)	(0.208)
Congressional District RE	8.367***	8.368***	8.365***
	(0.079)	(0.079)	(0.079)
Observations	3,118	3,117	3,117
Number of State groups	19	19	19
Congress FE	Yes	Yes	Yes height

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1