The Costs of Democracy: Election Administration Spending on Runoff Elections

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Abstract

To what extent do runoff elections increase election administration costs? Previous scholarship has highlighted the correlation of production and demand sides of the public sector cost model, and more recent evidence has added political considerations such as the partisanship of county commissions. Using Georgia's unique election processes—runoff elections and multiple methods of election administration at the county level—we contribute to understanding election administration expenditures. We demonstrate that general election runoffs and counties with Boards of Election spend more dollars per registered voter between 2014 and 2020. This further develops the literature regarding procedural costs and the impact of professionalization of election bureaus.

Keywords: Election administration, Runoff elections, Public sector costs, Professionalization.

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Introduction

The U.S. Constitution leaves to the states the authority to decide the time, manner, and place of electing its representatives to Congress, as well as state and local-level elections. The approach and manner taken by the 50 states have considerable similarities, but also many key differences. Within an individual state, county, or municipal governments often pursue a number of disparate paths and processes to carry out their electoral functions. The voting controversies of the last number of years have brought this sharply into focus.

Without question, democracy is a costly endeavor. Most attention on election costs focuses on candidate expenditures, and—in 2020—the United States saw a record-breaking $14.4 billion spent by all federal candidates (Evers-Hillstrom 2021). Elections are not just costly for candidates but for the public as well. A National Council of State Legislatures (NCSL) report suggests that the 2020 election cost states around $4 billion to administer, an increase over the typical $2 - $3 billion they would normally spend in a presidential election year (Underhill 2022).[1] This increase can be largely attributed to the COVID-19 pandemic, but the fact is these are incredibly huge expenditures being done to fulfill a basic electoral function for a democratic republic.

To what extent do the administrative and policy choices of states affect the election costs for states?

The state of Georgia is a great example. The Peach State has 159 counties, second only to Texas. As Georgia has become more competitive, its election outcomes increasingly have national consequences. This is particularly true regarding Georgia's recent history of statewide

[1] Additional costs incurred from COVID-19 were offset by one-time philanthropic programs and increases in federal grants (Underhill 2022).

runoff elections for federal office. Most importantly, our project uses Georgia as a case study for the costs of elections administration because Georgia has two election factors that warrant investigation regarding administrative costs. First, Georgia is the only state where runoff elections are used to declare general election winners.[2] This is compounded, as with most states, Georgia statute requires that counties bear the financial burden for conducting and administering all elections in the state, but the state has two methods for administering elections at the local level—probate-registrar administrations or a "combined" Board of Elections. Thus, Georgia presents a unique empirical puzzle: how do runoff elections and Georgia's split method of election administration affect administrative costs?

This paper continues in the following manner: First, we outline the relevant literature on election administration. Then, we explain the factors that make Georgia a useful case to advance our understanding of election administration expenditures. We then outline our data and methods. Our results show that general election runoffs and counties with Boards of Election do spend more dollars per registered voter between 2014 and 2020. We add to the literature in terms of procedural costs and the impact of professionalization in election bureaus. We conclude with thoughts about how our findings advance the literature and the next steps for research in this area.

What We Know About Election Administration

Elections are where democratic theory and practice intersect. Elections administration is a crucial function for state and local governments, which is explicitly delegated to state legislatures in Article I. Election administration has two general components: registration and voting. While

[2] As of 2020, Mississippi also has a runoff election law for general elections on their books, but it has not been used.

both aspects require state and local government capital outlays, voting is the most capital-intensive element of election administration. Understanding the impact of runoff elections on the dollar costs and administrative burden for counties is therefore an important empirical question to explore.

In recent years, election administration costs have garnered increased attention. Indeed, NCSL has extensive research and documentation about how states fund their elections, the sources of that funding, and the sometimes-complex relationships states and local governments create to deal with these funding mechanisms. The fact is that since the expiration of the Help America Vote Act (HAVA) funding in 2002, states have been largely on their own to allocate resources to voting infrastructure that continues to get more complex and technologically sophisticated (Hubler and Underhill 2018). For instance, in 2019, Georgia awarded Dominion Voting Systems a $107 million contract to update the voting system from the original Diebold voting machines first implemented in 2002 (Niesse and Wickert 2019). Unlike the initial push to electronic voting that occurred after the 2000 presidential election, which saw states receive more than $3 billion in federal funds, recent updates to voting machines and processes are coming directly from state and local funds (Hubler and Underhill 2018).

Dollar-Per-Registered Voter as a Measure of Election Costs

Scholarship in election administration is a growing and essential field of research (Hale, Montjoy, and Brown 2015). As elections become more technologically complex—with additional scrutiny in an increasingly polarized America—the need to understand the per-voter costs of elections and the variables that affect that value are crucial to explore. Hill's (2012) pathbreaking work using the "public sector cost model" on California counties demonstrates that production variables like elections post-HAVA, population, number of statewide elections, number of

languages, and vote tabulation machine type all make elections more expensive. Furthermore, Hill notes that the only demand variable associated with increased expenses is the minority percentage of the county population. Building from Hill, Mohr *et al*. (2019) introduce a "political model" of election administration expenditure. They use North Carolina's 100 counties to test for the effects of local political variables on the expenditures counties make to administrate elections. Mohr and colleagues show that as voting for Republican presidential candidates reaches 57.6 percent, counties with GOP boards of elections begin to spend less on their election administration. They theorize this happens because once a county reaches a preferred political saturation point (i.e., Republican candidates are winning in an area with a GOP election board), the need to increase voter outreach efforts diminishes.

It is well documented that with the growth of electronic voting, there are growing unfunded costs associated with election administration (Montjoy 2010). Some are concerned that the multiple voting methods—voting by mail, early in-person voting, and the multiple systems for Election Day voting—add burdens and expenses for state election administrators (Underhill 2022), but empirical evidence suggests convenience voting does not necessarily add additional costs (Burden and Gaines 2015; Hill 2012) and can increase turnout while decreasing overall administrative costs (Bonica et al. 2021; Richey 2008). In fact, Lamb (2021) builds on Hill and Mohr *et al.* assessing the dollar-per-registered voter costs of election administration in Colorado's move to predominantly vote-by-mail (VBM). He finds that VBM significantly decreases election administration costs while controlling for other factors.

Additionally, with the numerous voting methods now available to most voters in the United States, some studies report election administrators having increased strain and a desire to have more simplified workflows (Burden et al. 2012). The key aspects of election administration

expenses and costs are primarily related to economies of scale and the number of elections being held in a given year (Hill 2012; Kimball and Baybeck 2013). The larger the population, the fewer dollars per registered voter need to be spent. However, if there are more elections each year, those elections will cost more. Thus, it is reasonable to assume that those places where runoffs are the norm will have higher costs and associated administrative burdens as a result. These assumptions need to be tested empirically.

Election Administration and Managerial Capacity

A key development in election administration since HAVA has been increasing professionalization and managerial capacity. Professionalization occurs when four conditions are met: full-time vocation, formal training, support from professional associations, and the adoption of a code of ethics (Wilensky 1964). Depending on the state and county in question, these hallmarks of professionalization met to some greater or lesser degree in the United States. Certainly, all election administrators in the United States can avail themselves of the National Association of Election Administrators organization and their accompanying code of ethics. The nature of employment and potential training received by county-level administrators highlight the fundamental differences in professionalization. In North Carolina, for instance, all 100 counties have professional elections administrators who report to the county commission and State Board of Elections. Conversely, Georgia has a bifurcated system where some counties have Boards of Elections with full-time administrators, but some counties use a probate-registrar model where the probate judge serves as the election administrator while the registrar oversees voter registration. This part-time/full-time dichotomy illustrates the potential gap in professionalization that could result in different experiences for voters in counties using one system or the other.

For election administration, increases in managerial capacity lead to more effective policy outcomes. For instance, managerial capacity alleviates problems like decreasing the percentage of residual votes observed by counties (Kropf et al. 2020). This is the case because counties with higher levels of managerial capacity can overcome problems and deficiencies better than those without. Moreover, managerial capacity is all the more crucial for election administration because it is one of the more underfunded areas of public policy (James and Jervier 2017; Mohr et al. 2020).

When accounting for inflation, election administrators routinely deal with lower funding levels for each successive election (Mohr et al. 2020). This trend is exacerbated when economic slowdowns occur (James and Jervier 2017). For example, the 2008 recession impacted state budgets with a sharp decrease in state revenues, leading to a general contraction in state spending. As state spending shrank, state election processes were not spared from the negative impacts (Reilly 2020). Evidence from local government administration shows that professionalization produces more sophisticated responses to administrative problems when compared to non-professional counterparts (Lofton and Ivonchyk 2022). McGowan *et al.* (2021) suggest the same could be applied to election administrators, specifically. They find that because election administration has no natural constituency, election funding is routinely level-funded or outright cut to provide for other programs with clearer connections to active issue publics. However, when administrative changes occur that produce increases in election funding, we can consider these increases in administrative capacity.

Theory and Hypotheses

As is clear from the preceding literature review, additional components of administrative demand—more elections—potentially lead to more election administration spending (e.g., see

Coll 2022; Hill 2012; Mohr et al. 2019). Furthermore, the extent to which administrators are "professionalized" has potential effects on election administration as well. While previous studies elucidate how the public sector cost model fits election administration spending in California and North Carolina, neither of these cases allows us to fully explore the impact of two important factors: additional elections (demand) and differences in election administration by county (professionalization). Georgia, therefore, because an excellent case to allow us to assess both of these factors.

Adding Georgia into the Mix

Georgia presents a distinctive case for the two theories of election administration. First, unlike California and North Carolina, Georgia counties are uniform in their voting process. All counties use the same balloting machines under a blanket state contract. However, Georgia uses expanded early and no-excuse absentee voting and has some counties where ballot language requirements reflect some counties in California (e.g., Gwinnett County). Another way Georgia is an illustrative case is its use of runoff elections for both primaries and general elections.

The Georgia legislature instituted runoff elections for all primary elections—statewide and otherwise—in 1964 (Hallerman 2020; Salvatore et al. 2009). At this time, Georgia was a one-party state where the Democratic Party controlled all state offices and the legislature. Given this reality, the primaries were considered the only truly competitive elections. After a surprisingly close gubernatorial election in 1966, the Democratic leadership extended runoffs to the general election as well (Henderson 2020). This remained the case until the 1980s when a lawsuit seeking to end Georgia's runoffs was filed in federal court (Brooks v. Miller, 158 F.3d 1230 1998). In fact, as the case made its way through the federal court system, the state of Georgia amended the law to allow for plurality vote winners in general elections once candidates hit a 45 percent threshold.

According to some, this was done by the then-Democratic legislature to avoid issues like the 1992 U.S. Senate election where incumbent Sen. Wyche Fowler won the plurality of the vote but lost the runoff to then-state Sen. Paul Coverdell (Tharpe 2009). The only candidate to benefit from the plurality threshold in a statewide race was former U.S. Senator Max Cleland, who won his 1996 Senate race with just under 49 percent of the vote (Georgia Secretary of State 2021).

With their capture of both state legislature chambers in 2005, the new GOP majorities in the Georgia General Assembly revised Georgia's election laws once again to reinstitute the runoff system in general elections. Critics of primary runoffs, both in the past and present, suggest that runoffs are ways to keep minority voters and candidates from gaining political power (see Hallerman 2020; Salvatore et al. 2009). However, the Eleventh Circuit did not find runoffs had a discriminatory effect in 1998, which allowed Georgia to continue runoff elections in primaries and resume them in general elections in 2005. Previous scholarship on runoff elections notes the normative value to candidates, officeholders, and citizens in knowing that the person who wins an election has achieved 50 percent of the vote, plus one (Bullock III and Johnson 1992), but there is little to no research on the administrative and cost effects of these extra elections. To test the effects of professionalization, we can use Georgia's two methods of election administration at the county level. As of 2023, 24 Georgia counties use a system where the county registrar oversees voter registration, and the county probate judge oversees the election administration. The other 135 counties use a Board of Election with civil administrators overseeing a staff whose only job is election administration. Georgia has a professional organization, the Georgia Association of Voter Registration and Election Officials, which provides all county election administrators with training and resources. However, it is simply an empirical fact that a probate judge can only be an election administrator for part of their time.

Thus, any county using a Board of Elections with a full-time administrator would be getting more managerial capacity in that arrangement.

Accounting for these variables in replicating the public sector cost and political model of election administration would represent an important advance to the literature on election administration overall. Runoff elections add an additional demand to election administrators. Though there are several demand factors that impact election administrative costs, each additional election should increase those costs even accounting for other significant predictors.

Next, because Georgia has two methods of election administration, we can test the effect of professionalization and managerial capacity on election costs. It is likely the case that more professionalized election administrations can get more money to do their jobs. They would have a deeper level of knowledge and understanding of their counties' needs and would have the time and interest to seek those funds from county commissions. Thus, professionalized election administrations will likely result in more dollars-per-registered voters being spent. Therefore, there are two hypotheses that we will seek to test to look at the relationship between costs and election administration:

H_1: *Administrative Demand:* Runoff elections will increase the dollar-per-registered voter costs for counties.

H_2: *Political/Professionalization:* Counties using a Board of Election will have higher dollar-per-register voter costs.

Data and Methods

Dependent Variable: Dollar Per Register Voter

To test our theory and hypotheses, we constructed an original dataset consisting of data from all 159 Georgia counties for the 2014, 2016, 2018, and 2020 election cycles. We use the two-

year election cycle as our time component for two reasons. First, we wanted to capture the effects of both primary and general election runoffs and any additional elections beyond the standard primary and general elections. Secondly, Georgia counties are allowed to set their own fiscal year timeframes. Some use the state's fiscal year (i.e., July 1 – June 30), some use the calendar year, and some use the federal fiscal year (i.e., Oct. 1 – Sept. 30). As a result, being able to assess the impact of runoff elections or even standard primaries and generals in the same timeframe became difficult. However, conceptualizing the time component as the election cycle, we are able to add two fiscal years together—both of which encompass all elections of interest—and still assess the effects of our independent variables of interest while accounting for different fiscal years.

Our dependent variable, "dollar per register voter" (DPRV), reflects the standard variable concept and operationalization for election costs research. The values for DPRV are obtained by taking the total dollar amount counties spent on election administration over the two-year election cycle and dividing that by the total number of registered voters. To gather the specific dollar-amount expenditures for all 159 counties, we use the University of Georgia's Vinson Institute repository for local governments' comprehensive financial reports and audits (CFRA). By law, all counties are required to perform and publish a CFRA within six months after the end of their fiscal year. Unfortunately, not all counties within our research timeframe complied with this statute. For those counties publishing their CFRAs with the Vinson Institute, we identified the line-item cost specified for "elections," "election administration," "voting and registrar," "voter registration," or other similarly identified election administration budget line.

We sum the fiscal years contingent on fiscal year type to get the per cycle total for election spending per county. For instance, to get the 2014 election cycle sum for counties using

the state and federal fiscal year, we added fiscal year (FY) 2014 (i.e., June 2013 – July 2014) with FY 2015. We added FYs 2013 and 2014 for counties using the calendar year. Once all election administration costs were totaled by election cycle, we divided that number by the number of registered voters as reported by the Georgia Secretary of State for the election cycle in question. Though it is possible for the number of registered voters to fluctuate from one year to the next, the Secretary of State only reports in election years. Furthermore, because we are assessing expenditures over an eight-year period, we inflation adjust the dollars to 2020 inflation levels. The distribution for our four time periods can be seen in Figure 1.

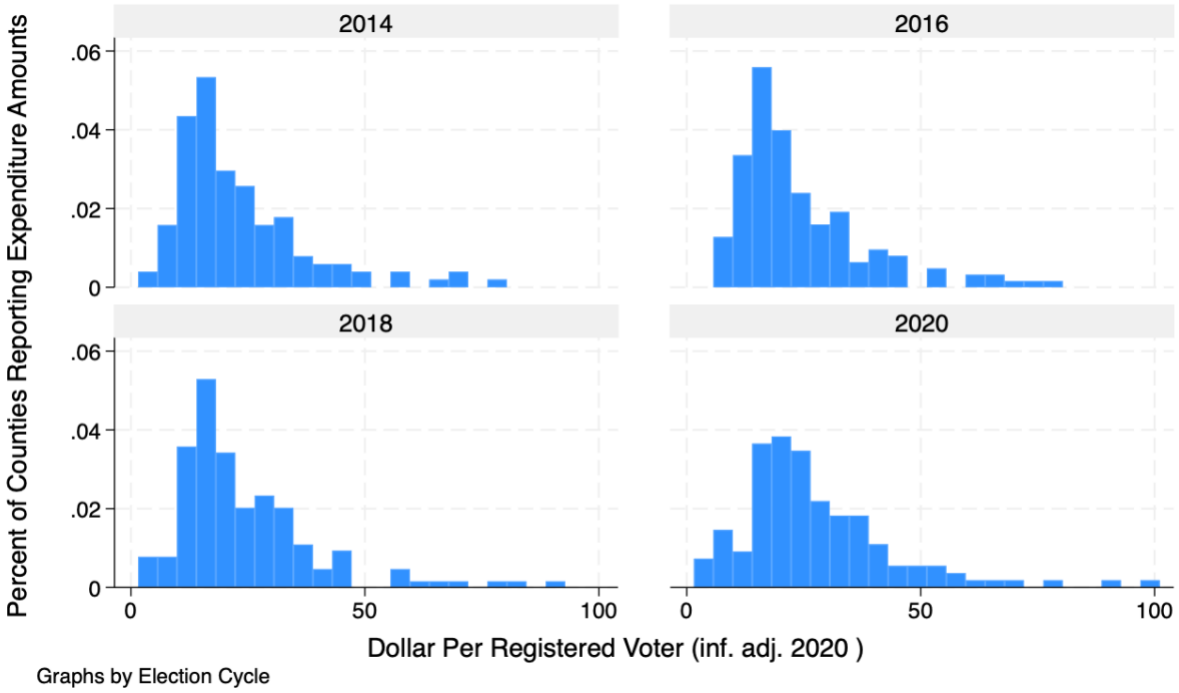

FIGURE 1. Distributions for the Dependent Variable, Dollar Per Registered Voter by Election Cycle.

Independent Variables: Runoff Elections & Administration Type

We have two independent variables of interest—one public sector cost variable and one political model variable. Adding to the production costs, we measure elections beyond the

primary and general for each election cycle; we count counties' runoff elections after their primaries or general elections and the number of special elections they have in a given cycle. The minimum for each of these variables is zero, indicating that some counties had none of these additional elections. The maximum for primary runoffs is nine, general elections is three, and special elections is ten. For county administration type—our addition to the political model—we assess whether counties use the probate judge as their chief elections supervisor or if they use a Board of Elections with a civil service election supervisor or director. The traditional method for Georgia counties to administer elections was to use the county probate judge, but this has decreased over time. Between 2014 and 2020, 10 Georgia counties moved from probate judges as elections administrators to Boards of Election so that by the 2020 elections, only 30 Georgia counties still used probate judges as their chief election administrators.

Control Variables

Based on the preceding literature, we control for several known correlates of election administration spending. First, following Hill (Hill 2012), we control for several "production cost" variables. We control for the total population in the county, non-English ballot requirements, and the percentage of the county using convenience voting (e.g., early and absentee). Following Mohr et al. (2019) on the production cost variables we control for the switch to Dominion Voting Systems, which occurred for the 2020 elections (Niesse and Wickert 2019). Finally, we control for the cycle being a midterm election.

The second set of control variables covers the demand and political model of election administration. For demand variables, we control for the per capita income for each county as a way to assess relative wealth across the state and time periods. We also control for the counties' percent minority population, percent over 65 years old, and percent with a high school education.

For the political model controls, we measure the partisan valence on the county commission (e.g., Republican), and the percentage of the vote the county gave to the ballot topping Republican candidate in the election. The summary statistics for the dependent, independent, and control variables are in Table 1.

Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ln(DPRV)	560	3.053	0.57	0.436	4.574
ln(DPRV) Lagged	559	3.052	0.571	0.436	4.574
Multiple Language Ballots	636	0.002	0.040	0	1
ln(Population)	636	10.198	1.205	7.348	13.88
Percent Convenience Voting	636	57.319	15.83	21.857	89.619
ln(Registered Voters)	636	9.610	1.262	1.523	13.6
Dominion Voting Systems	636	0.250	0.433	0	1
General Election Runoffs	636	0.759	0.840	0	3
Primary Election Runoffs	636	2.223	1.878	0	9
Special Elections	636	0.184	0.707	0	10
Midterm Election	636	0.500	0.500	0	1
*ln(*Per Capita Income)	636	10.444	0.215	9.763	11.454
Percent Non-White	636	32.212	17.358	2.850	81.250
Percent Over 65	636	16.801	4.483	3.950	34.650
Percent HS Attainment	636	82.792	5.872	66.800	96
Republican County Commission	636	0.656	0.473	0	1
Top-Ballot GOP Percent	636	63.824	15.496	11.786	91.391
RCC × GOP Percent	636	46.318	34.346	0	91.289
Election Board	636	0.777	0.417	0	1

Method: Panel Regression with Random Effects

Our data are 159 counties in four election cycles. This constitutes a panel where we need to account for the election cycle and county clusters. We use random effects Generalized Least Squares regression with robust standard errors to accomplish this. Because our dependent variable is a measure of public expenditure, we need to account for two items: public budgeting practice to ask for more money each year and inflation. We deal with inflation by normalizing the dollar per registered voter expenditure to 2020 dollars using multipliers from the Bureau of

Labor Statistics. Then, because it is common practice to create budgets using the previous year's spending as a baseline, we create a lag of our dependent variable. Finally, we test for both skewness and kurtosis, finding both significant ($p \leq 0.001$), so we use the natural log of inflation-adjusted dollar per registered voter expenditure as our primary dependent variable.

Results

The results of our regression are in Table 1. Our dependent variable, ln*(DPRV)*, is the natural log of the inflation-adjust dollar per registered voter in Georgia counties in the 2014 to 2020 election cycles. Our predictors are organized by type—production cost, demand, and political model of election administration. Our independent variables of interest—*General Election Runoff*, *Primary Runoff*, *Special Elections,* and *Election Board*—are bold to denote their position in the table.

TABLE 2. Generalized Least Squares Regression w/ Random Effects for Dollar Per Registered Voter Costs of Election Administration in Georgia, 2014 – 2020.

Variables; DV: *ln*(DPRV)	**Coef.**	**Robust St. Err.**
Lagged DV	0.269**	0.058
Public Sector Cost Model—Production		
Multiple Language Ballots	0.721**	0.101
ln(Population)	-0.169**	0.054
Percent Convenience Voting	0.002	0.003
ln(Registered Voters)	-0.058	0.04
Dominion Voting Systems	-0.014	0.057
General Election Runoffs	0.054†	0.032
Primary Election Runoffs	0.024	0.020
Special Elections	0.025	0.020
Midterm Election	-0.245**	0.092
Public Sector Cost Model—Demand		
*ln(*Per Capita Income)	-0.098	0.226
Percent Non-White	-0.001	0.003
Percent Over 65	-0.008	0.007
Percent HS Attainment	-0.005	0.005
Political Model of Election Administration		
Republican County Commission	0.354	0.238
Top-Ballot GOP Percent	-0.008†	0.004
RCC × GOP Percent	-0.004	0.004

Election Board	0.293**	0.078	
Constant	6.24**	2.067	
Overall r-squared	0.509	Number of obs.	505
Chi-square	1746.508	Prob > chi2	0.000
R-squared within	0.041	R-squared between	0.557

*** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.1$, two-tailed test for significance.*

We start by assessing the model fit. The chi-square test for our model is significant indicating our model's covariates are jointly different than zero. We also use a Breusch-Pagan Lagrangian Multiplier test for random effects; our test is significant ($p \leq 0.001$), indicating the use of a random effects model is appropriate. Finally, assessing the overall model fit, we see that our overall R-squared is 0.51, which means that we are explaining about 50 percent of the variance in our dependent variable.

We begin our interpretation by focusing on the production-specific variables. First, consistent with previous research, we find that counties spend fewer dollars per registered voter as populations increase. We also see that the Voting Rights Act requirement for ballots in multiple languages also significantly increases the dollar-per-registered voter expenditures for counties in Georgia.[3] *Midterm*, which is a control for election type, also has a significant effect; this effect shows that midterm elections are less costly than presidential election years.

Moving to our first independent variables of interest, we see that only one is significant. *General Election Runoffs*, *Primary Election Runoffs*, and *Special Elections* are variables that count the number of these elections by county in our analysis's four election cycles. Thus, the omitted comparisons are standard primaries and general elections—each county has one primary election and general election per cycle. A zero for each of the estimated variables would represent a county with only those general elections and no additional elections—neither runoffs

[3] Although this really serves as a dummy variable for Gwinnett County in 2020 as they are the only county that is required to provide ballots in a second language.

nor special elections. Among these variables, only the *General Election Runoffs* is significant and signed in the theorized direction. In short, each additional general election runoff in Georgia between 2014 and 2020 significantly increased counties' dollar-per-registered voter expenditure for election administration.

Because the dependent variable is transformed to the natural log, we have to exponentiate the coefficient to interpret this finding and interpret the effect as a percent change in the dependent variable (Stock and Watson 2017). For the *GER* estimate, 0.054, this becomes 5.55 percent, which means that for every additional general election runoff, the dollar per registered voter cost to Georgia counties increased 5.5 percent while controlling for predictors of election administration costs. Using Stata's 'margins' command, we estimate the marginal effect of each additional general election runoff while holding all other variables at their means. Figure 2 displays the results and shows that—though the confidence intervals at the highest end are large due to relatively few counties having as many as three general election runoffs—counties experiencing zero general election runoffs can expect to spend about $20 per registered voter per cycle, while counties with the maximum observed number of general election runoffs could expect to spend around $25.50 or about 18% more.

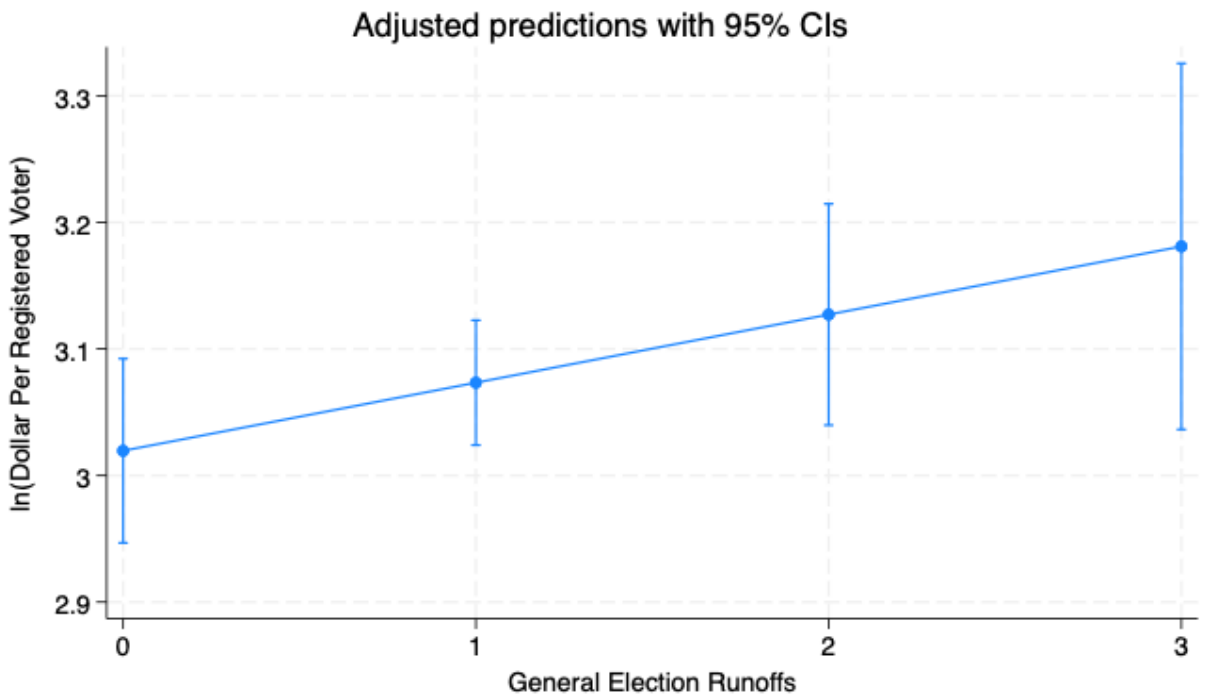

FIGURE 2. Marginal Effects for General Election Runoffs, (all others at means).

Moving to the demand variables, we see that all the control variables are insignificant for our model. Previous studies use the natural log of per capita assessed property value to measure counties' wealth. In our research, these data are currently unavailable for Georgia, so we replace that measure with the natural log of per capita income. The property value variable was not significant in previous research, nor is the per capita income variable significant here.

Turning to the demographic demand variables, Hill's study of California between 1992 and 2008 finds that the percent non-white was a positive and significant predictor of increased costs. However, Mohr *et al*. studied North Carolina between 1994 and 2014 it was not significant. Our findings follow Mohr *et al*. Neither Mohr *et al*. nor Hill shows significant effects for percent over 50 or high school attainment, so our findings follow these previous null effects.

The last portion of our results test Mohr *et al*.'s political model of election administration with our addition of the election board type used in all 159 Georgia counties. Mohr *et al*. found

that North Carolina counties saw a statistically significant decrease in election administration spending in counties with Republican County Commissions and higher levels of GOP support by the voting public. We do not replicate this finding in Georgia. Our interaction term, *RCC × GOP Percent*, is negative, but not significantly different than zero. However, our independent variable of interest is positive and significant, which matches our hypothesized relationship.

Election Board is positive and significant with a coefficient of 0.293. This means that for Georgia counties using a Board of Elections, there is an increase of about 34 percent over counties using probate judges as their chief election administrator. Using 'margins' again, we estimate the marginal effects of moving from a probate judge to a Board of Elections while holding all other variables at their mean. As shown in Figure 3, the change is substantial.

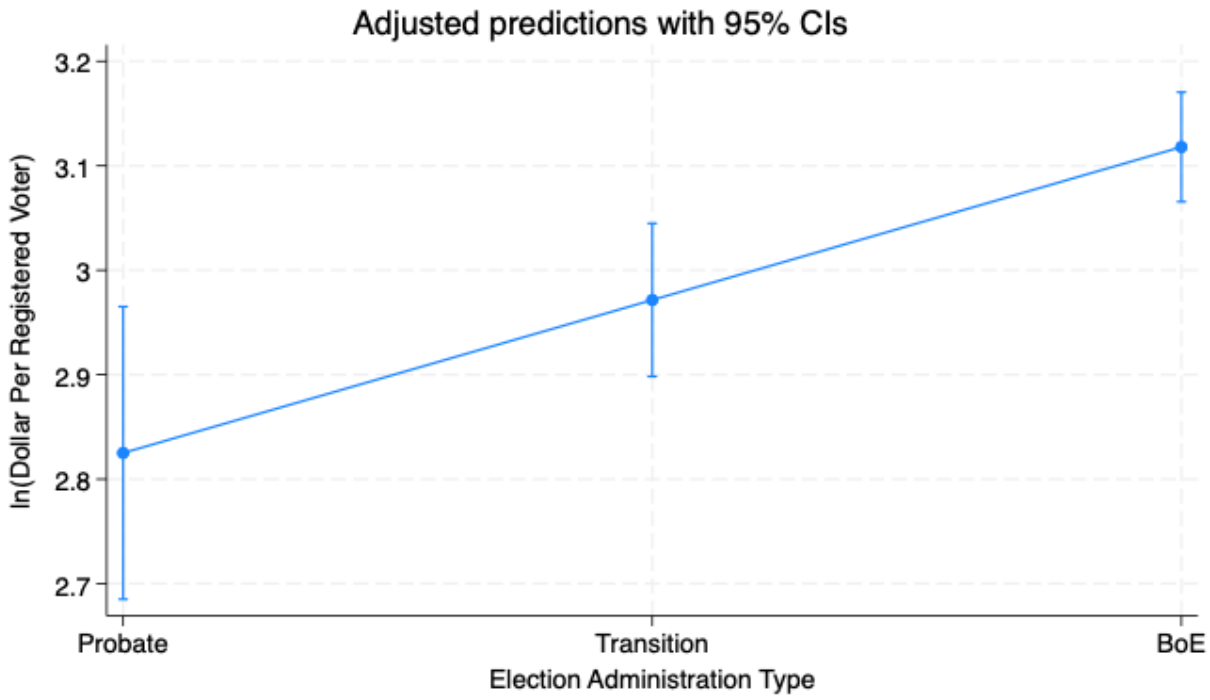

FIGURE 3. Marginal Effects for Board of Elections, (all others at means).

Recall that our time periods are election cycles. Some counties began an election cycle as a probate-registrar administrative model but transitioned to a Board of Elections in the middle of

the cycle. That is represented by the middle category—"Transition." However, to estimate the effect of moving from a probate judge to the Board of Elections, we can calculate the actual dollar amounts from the estimated natural log of dollars per registered voter expenditures for counties with probate judges as elections supervisors and Boards of Election. Holding all other variables at their mean, probate judge-administered elections spent about $16.44 per registered voter in an election cycle or about $8.22 per year. For counties with a Board of Election, that expenditure rises to $22.97 or $11.48 annually. These results demonstrate that the move to a Board of Election has administrative costs that need to be considered when moving away from the probate judge model of election administration or when considering changes to the Board of Elections.

Discussion and Conclusions

Implications for Additional Elections

Georgia is one of ten states that uses runoff elections in primaries and the only state where general election runoffs are required if no candidate wins a majority (50 percent of the vote) for any election for state and federal offices. Though the reasons for runoffs have been explored in both history and political science research before (Bullock III and Johnson 1992; Hallerman 2020; Tharpe 2009), what has not been empirically assessed is the extent to which these additional elections result in additional costs for taxpayers. Our findings show that primary election runoffs are not correlated with increases in dollar-per-registered voter expenditures for Georgia counties between 2014 and 2020, and neither are special elections. However, general election runoffs—of which there have been several in recent years—are positive and significant predictors of increased election administration costs for Georgia counties. Given the control variables included in this analysis, this finding is robust to important considerations like county

population, election cycle type, convenience voting, federal ballot requirements, and demographic factors like non-white population, high school attainment, and population age.

Implications for Election Administration

In addition to evidence for the effects of general election runoffs, we also show that election administration organizations have implications on spending as well. Specifically, Georgia counties with Boards of Election spend substantially more dollars per registered voter on elections than counties using probate judges as their chief election administrators. In essence, this is what we call the "professionalization premium." The reasons counties want to move from a probate judge to a Board of Elections are likely due to the constraints on the probate judge—who has numerous other responsibilities—and the need for a more professionalized staff to deal with the increasingly complicated business of running a modern election.

In 2020, Georgia transitioned away from Diebold voting machines first used in the 2002 election to the Dominion Voting Systems touchscreen with a paper optical scan. While this was a necessary move for information security reasons, it also required hours of additional training for election administrators and poll workers. It may be tempting to blame increased election expenditures on that transition, but our model includes this as an independent variable. The Dominion move is not a significant predictor of increased costs. This shows that the *Election Board* variable does account for something more than the transition from one voting system to another and the accompanying costs that incur.

Final Thoughts and Caveats

We model the dollar per registered voter expenditure for Georgia counties between 2014 and 2020. We hypothesized that Georgia's runoff elections would predict significant increases in this expense, and we explored the open empirical question about the differences between probate

judges and election boards as administrative models. We find that general election runoffs are associated with 5.5 percent increases in dollar per registered voter spending while counties using election boards spend about 34 percent more dollars per registered voter compared to counties using the probate-registrar administrative model. These findings show that general election runoffs have public finance implications and that there is an "administrative premium" counties have to pay for professionalized elections staff.

With any research there are caveats and limitations. First, our data are from only one state, so there may be issues with generalizing our results across other states. However, as we follow previous scholarship with our variables and model choices, future research can use our evidence as a guide to see if our findings replicate as we have done with others. Secondly, we are missing some observations for our dependent variable due to the somewhat non-uniform nature of Georgia counties' code compliance. Had we had access to CFRAs for all counties and been able to identify the line-item for election expenditures in all counties for all years and cycles in our dataset we would have 636 observations. However, because of the lack of compliance, and the lack of a uniform audit structure,[4] we only have 505 observations in the final analysis. This is a limitation, but we feel confident in our findings because we are following an established theoretical specification and model choice. Finally, we structure our data as election cycles due to the non-uniform standards for county fiscal years. As with our other limitations, we acknowledge this, but do not expect the cycle-based structure to affect the results of implications of our model.

This research shows what may be intuitive to some: general election runoffs and more professionalized election administration cost more money for counties. The question is this: is

[4] Counties use a variety of audit templates, some of which have line-items for elections—some do not.

this a cost counties are willing to bear? There are good reasons to think these are reasonable costs. More professionalized staffing means more effective election processes and tabulation. More professionalization means decreasing the chances for mistakes or malfeasance. On runoffs, perhaps it is the case that voters want their election winners to obtain majorities, or at least that they appreciate the chance to choose between two candidates who obtained the most votes in a previous round of voting. These are empirical questions that future research should assess. There is nothing normatively wrong with spending more dollars per registered voter in election administration if that expense is making citizens more satisfied with democracy and election outcomes. It is important, however, to have some baseline and process for studying these outcomes empirical, and—in the case of dollars per registered voter expenses in Georgia—we now have that.

References

Bonica, Adam, Jacob M. Grumbach, Charlotte Hill, and Hakeem Jefferson. 2021. "All-Mail Voting in Colorado Increases Turnout and Reduces Turnout Inequality." *Electoral Studies* 72 (August): 102363. https://doi.org/10.1016/j.electstud.2021.102363.

Brooks v. Miller, 158 F.3d 1230. 1998. United States Court of Appeals, Eleventh Circuit.

Bullock III, Charles S., and Loch K. Johnson. 1992. *Runoff Elections in the United States*. The Thornton H. Brooks Series in American Law and Society. Chapel Hill, NC: University of North Carolina Press. https://uncpress.org/book/9780807865156/runoff-elections-in-the-united-states/.

Burden, Barry C., David T. Canon, Kenneth R. Mayer, and Donald P. Moynihan. 2012. "The Effect of Administrative Burden on Bureaucratic Perception of Policies: Evidence from Election Administration." *Public Administration Review* 72 (5): 741–51. https://doi.org/10.1111/j.1540-6210.2012.02600.x.

Burden, Barry C., and Brian J. Gaines. 2015. "Presidential Commission on Election Administration: Absentee and Early Voting: Weighing the Costs of Convenience." *Election Law Journal: Rules, Politics, and Policy* 14 (1): 32–37. https://doi.org/10.1089/elj.2014.0270.

Coll, Joseph A. 2022. "Determinants of Local Election Resource Distribution Nationwide." *Election Law Journal: Rules, Politics, and Policy* 21 (3): 187–99. https://doi.org/10.1089/elj.2021.0035.

Evers-Hillstrom, Karl. 2021. "Most Expensive Ever: 2020 Election Cost $14.4 Billion." OpenSecrets News. February 11, 2021. https://www.opensecrets.org/news/2021/02/2020-cycle-cost-14p4-billion-doubling-16/.

Georgia Secretary of State. 2021. "General Election Results, 1996." Government Agency. Georgia SOS Election Results. December 30, 2021. https://sos.ga.gov/sites/default/files/2022-01/november_1996_generalelection_totals.pdf.

Hale, Kathleen, Robert Montjoy, and Mitchell Brown. 2015. *Administering Elections: How American Elections Work*. New York, NY: Palgrave Macmillan. https://link.springer.com/book/10.1057/9781137388452.

Hallerman, Tamar. 2020. "Georgia's Unique Runoff System Shaped by Long, Complicated History." *The Atlanta Journal-Constitution*, December 31, 2020, sec. Elections 2021.

Henderson, Harold. 2020. "Gubernatorial Election of 1966." In *New Georgia Encyclopedia*. https://www.georgiaencyclopedia.org/articles/government-politics/gubernatorial-election-of-1966/.

Hill, Sarah A. 2012. "Election Administration Finance in California Counties." *The American Review of Public Administration* 42 (5): 606–28. https://doi.org/10.1177/0275074011413914.

Hubler, Katy Owens, and Wendy Underhill. 2018. "Election Costs: Who Pays and With Which Funds?" *LegisBrief* 26 (11). https://www.ncsl.org/research/elections-and-campaigns/election-costs-who-pays-and-with-which-funds.aspx.

James, Toby S., and Tyrone Jervier. 2017. "The Cost of Elections: The Effects of Public Sector Austerity on Electoral Integrity and Voter Engagement." *Public Money & Management* 37 (7): 461–68. https://doi.org/10.1080/09540962.2017.1351834.

Kimball, David C., and Brady Baybeck. 2013. "Are All Jurisdictions Equal? Size Disparity in Election Administration." *Election Law Journal: Rules, Politics, and Policy* 12 (2): 130–45. https://doi.org/10.1089/elj.2012.0174.

Kropf, Martha, JoEllen V. Pope, Mary Jo Shepherd, and Zachary Mohr. 2020. "Making Every Vote Count: The Important Role of Managerial Capacity in Achieving Better Election Administration Outcomes." *Public Administration Review* 80 (5): 733–42. https://doi.org/10.1111/puar.13216.

Lamb, Matt. 2021. "The 'Costs' of Voting: The Effects of Vote-by-Mail on Election Administration Finance in Colorado." *Social Science Quarterly* 102 (4): 1361–79. https://doi.org/10.1111/ssqu.13012.

Lofton, Michelle L., and Mikhail Ivonchyk. 2022. "Financial Manager Professionalism and Use of Interfund Transfers: Evidence from Georgia Counties." *Public Budgeting & Finance* 42 (2): 171–95. https://doi.org/10.1111/pbaf.12301.

McGowan, Mary Jo, JoEllen V. Pope, Martha E. Kropf, and Zachary Mohr. 2021. "Guns or Butter… or Elections? Understanding Intertemporal and Distributive Dimensions of Policy Choice through the Examination of Budgetary Tradeoffs at the Local Level." *Public Budgeting & Finance* 41 (4): 3–19. https://doi.org/10.1111/pbaf.12289.

Mohr, Zachary, JoEllen V. Pope, Martha E. Kropf, and Mary Jo Shepherd. 2019. "Strategic Spending: Does Politics Influence Election Administration Expenditure?" *American Journal of Political Science* 63 (2): 427–38. https://doi.org/10.1111/ajps.12422.

Mohr, Zachary, JoEllen V. Pope, Mary Jo Shepherd, Martha Kropf, and Ahmad Hill. 2020. "Evaluating the Recessionary Impact on Election Administration Budgeting and Spending: Part of Special Symposium on Election Sciences." *American Politics Research* 48 (6): 709–13. https://doi.org/10.1177/1532673X20935785.

Montjoy, Robert S. 2010. "The Changing Nature … and Costs … of Election Administration." *Public Administration Review* 70 (6): 867–75. https://doi.org/10.1111/j.1540-6210.2010.02218.x.

Niesse, Mark, and David Wickert. 2019. "Georgia Bets on New Voting System amid High-Stakes Election." *The Atlanta Journal-Constitution*, November 1, 2019, sec. Politics. https://www.ajc.com/news/state--regional-govt--politics/georgia-bets-new-voting-system-amid-high-stakes-election/XVR7Jw5i1J7MiZ11O8xUZK/.

Reilly, Shauna. 2020. *The Trifecta in Voting Barrier Causation: Economics, Politics, and Race*. Lanham, MD: Rowman & Littlefield.

Richey, Sean. 2008. "Voting by Mail: Turnout and Institutional Reform in Oregon." *Social Science Quarterly* 89 (4): 902–15. https://doi.org/10.1111/j.1540-6237.2008.00590.x.

Salvatore, Susan Cianci, Neil Foley, Peter Iverson, and Steven F. Lawson. 2009. "Civil Rights in America: Racial Voting Rights." Government. A National Historic Landmarks Theme Study.

Stock, James H., and Mark K. Watson. 2017. *Introduction to Econometrics*. 3rd edition. New York, NY: Pearson.

Tharpe, Jim. 2009. "Runoff System a Southern Relic." *The Atlanta Journal-Constitution*, November 9, 2009. https://www.ajc.com/news/local/runoff-system-southern-relic/Ifbyj1S5WTqsAEpGdQJrqL/.

Underhill, Wendy. 2022. "Democracy Is Priceless, but Elections Cost Big Bucks." National Conference of State Legislatures. April 20, 2022. https://www.ncsl.org/state-legislatures-news/details/democracy-is-priceless-but-elections-cost-big-bucks.

Wilensky, Harold L. 1964. "The Professionalization of Everyone?" *American Journal of Sociology* 70 (2): 137–58. https://doi.org/10.1086/223790.