

ELECTION TIMING AS A PREDICTOR OF ELECTORAL OUTCOMES IN PUBLIC
SCHOOL BOND ELECTIONS IN MISSOURI

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by
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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled:

ELECTION TIMING AS A PREDICTOR OF ELECTORAL OUTCOMES IN PUBLIC SCHOOL BOND ELECTIONS IN MISSOURI

presented by Shiloh D. Dutton

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and hereby certify that, in their opinion, is worthy of acceptance.

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DEDICATION

This dissertation is dedicated to my son, Knox J. Dutton.

Though we didn't have nearly enough time together, I will be forever grateful for the memories, purpose, and perspective that he gave to my life.

We miss you bubba.

ACKNOWLEDGEMENTS

It goes without saying that I would not have completed the coursework and dissertation for this program without the support, encouragement, and understanding of my wife, Brooke. Brooke, thank you so much for agreeing to take on all of those solo trips to soccer practice, mowing the lawn, and keeping our house together when I would seemingly disappear on Wednesday evenings. Most importantly, thank you for ordering those textbooks in December 2015 when life made it so difficult for me to see the value in the pursuit of this program. You were right; I am glad that I stuck with it. I could not have done this without you—I love you.

Dad. Thank you for emphasizing the value of an education throughout my childhood. I have always looked up to you, and I could not have asked for a better role model. Riding to school together and debating for you are some of my fondest memories. Those little things have left an indelible mark on my life. I love you.

Reese. You are an awesome kid – stay that way! May you never lose your tenacity, and remember to always tackle life with a fearless heart and a courageous mind. I love you.

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ABSTRACT

This quantitative study sought to investigate the differences in the electoral outcomes of school bond elections in Missouri from 2009-2016 based on election timing. The researcher utilized election timing theory as a framework for the study. Data from Missouri school bond elections was compiled from online databases, the Missouri State Auditor's office, and archived newspaper reports. Results suggest that differences exist in electoral outcomes for school bond issues based on election timing. The study concludes with recommendations for Missouri school administrators, designed to aid in the successful passage of school bond issues.

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SECTION ONE – INTRODUCTION TO THE DISSERTATION-IN-PRACTICE

Background

For much of its history, the State of Missouri had required that general obligation bonds be approved by two-thirds of voters (Foley, Johnson, and Lentz, n.d.; Phillips, 1911). After facing nearly 150 years of difficulty passing bond issues (Foley et al., n.d.; Phillips, 1911), disparities in funding and school facilities between districts (Robinson, 2016), legal challenges to the local property tax based system of funding school districts (Joondeph, 1996; Rowe, 2010), and failed attempts in 1968 and 1982 to lower the minimum required passing percentage for school bond elections (Murphy, 1988), Constitutional Amendment 4 was put forward to voters in 1988 (“End Government,” 1988; Murphy, 1988; Scott, 1988; Scoville, 1988; “Yes for amendment 4,” 1988). Amendment 4 was adopted by Missouri voters on November 8, 1988 (Valentine, 2010), and was enshrined in Article VI, 26(b) of the Missouri Constitution (Missouri DESE, 2016).

The current law creates options for Missouri school districts in regard to when bond issues may be voted on by the public. School districts may choose to float bond issues during February, August, and November special elections, all of which still require a two-thirds majority for passage (Missouri DESE, 2016). Alternatively, school districts may opt to float bond issues during regularly scheduled April municipal elections, August primaries, and November general elections, all of which require a four-sevenths majority for passage (Missouri DESE, 2016).

Research suggests that school bond issues floated later in the calendar year (Bowers, Metzger, & Militello, 2010b), as well as bond issues floated during special

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elections (Collins & Dove, 2013; Dunne, Reed, & Wilbanks, 1997; Lentz, 1999) were more likely to pass. Additional research suggests that strategically timing elections to maximize the turnout of voters in support of school bonds may increase the likelihood of passage (Anzia, 2011; Berry & Gersen, 2010; Dunne et al., 1997). Moreover, voter turnout varies widely depending upon timing and type of election (Anzia, 2011; Anzia, 2012a; Hajnal & Lewis, 2003; Hess, 2002; Jacobson, 2001; Wood 2002). As voter turnout rates fluctuate, the rate at which citizens vote according to demographic variables such as age, race, and socioeconomic backgrounds varies, which may in turn decrease the likelihood of school bond passage (Bowers & Lee, 2013; Bowers, Metzger, & Militello, 2010b; Button, 2010; Hickey, Linn, & Vaughn, 2008; Piele & Hall, 1973; Plutzer & Berkman, 2005; Priest & Fox, 2005; Ted, Matland, & Wieher, 2001). These factors make it difficult for school administrators to determine if and how school bond election timing affects passage rates.

Statement of the Problem

Problem of Practice

The problem under investigation was the lack of knowledge as to whether differences existed in the election outcomes of Missouri school bond issues voted on during elections requiring a four-sevenths majority and those requiring a two-thirds majority. Additionally, there was a lack of knowledge regarding whether a difference in election outcomes existed between school bond issues floated during regularly scheduled municipal, primary, and general elections, and those floated during special elections.

Growing school districts often develop long-term strategic plans outlining student enrollment and building capacity so that facilities are able to keep pace with student

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demands (Erickson, 2009; Tanner, 2010). Inevitably, all school districts will be faced with tough decisions regarding building maintenance, expansion, and construction. One of the potential advantages that Missouri school districts have when forced to seek public approval of general obligation bonds, is the ability to choose when the bond issue will be placed on the ballot. Historically, progressives have advocated for separate municipal elections in order to secure success for their candidates and issues by capitalizing on reduced voter turnout due to the lack of state and national level races that typically draw casual voters to the polls (Anzia, 2012a). Anzia's (2011) research suggests that school districts may be able to take advantage of low voter turnout in local elections by mobilizing likely supporters rather than conducting a broad campaign designed to increase turnout and raise community-wide awareness of proposed school bonds. Yet, it is not clear if such advantages exist in Missouri, which has adopted a unique set of minimum required passing percentages to approve general obligation bonds depending upon when the election is held (Missouri DESE, 2016).

Further complicating the process of seeking voter approval for general obligation bonds, school districts in Missouri are not legally able to use public money to engage in campaigning (Mo. Rev. Stat. § 115.646). This effectively limits school districts in their ability to hire political consultants, which can result in defeated bond issues, low patron morale, and questionable ties to bond underwriting firms that offer political services in exchange for higher service fees should bond issues pass (Casey, 2016). Moreover, bond issues are high stakes ventures for school districts. With each failed bond issue, the likelihood of future bond issues passing decreases (Bowers et al., 2010a). Difficulty in securing public support for financing schools can lead to long-term tax base deficiencies,

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as a community's willingness to approve levies and bonded debt for education has been directly linked to new residential and commercial construction (Brasington, 2017; Scott, 1988). Thus, it is imperative for school districts to be aware of differences in school bond election passage rates as they relate to minimum required passing percentages and election timing.

Existing Gap in Literature

This study sought to fill a gap in the related literature in two distinct ways. First, while there have been a number of studies conducted in the last two decades concerning various factors influencing school finance elections in the United States, the question of how these factors function in the state of Missouri, which has its own unique school finance election laws, remained to be answered. Secondly, the study sought to address the relationship of election timing as a primary variable of school bond election outcomes. Missouri law allows for school districts to put forth bond questions throughout the year via special, municipal, primary, and general elections (Missouri DESE, 2017). Thus, election results from the state of Missouri create a rich and diverse data set for analysis.

Little research existed regarding whether school bond election outcomes were related to school bond election timing. Key differences in state election laws and the funding mechanisms studied in prior literature made generalizing the findings difficult and unreliable. For example, some states restrict when districts may place bond issues on the ballot, some allow districts to ask the public for both capital project bonds and operational bonds, and others require voters to annually approve district budgets (Anzia, 2012b; Gong & Rogers, 2014; Ingle et al., 2012; Silverman, 2011). There were no studies

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concerning the relationship between election timing and school bond election outcomes in Missouri.

Purpose of the Study

The purpose of this study was to fill the gap in the knowledge as to whether differences existed in school bond election outcomes based on the election's required minimum passing percentage and the timing of the election.

Missouri's state constitution was amended in 1988 to reduce the threshold for school bond issue approval to a four-sevenths majority on municipal, primary, and general election days, while retaining a two-thirds majority requirement on all other election dates (Hettrick & McMaster, 1988; Missouri DESE, 2017; Valentine, 2010). Research indicates that election timing can impact voter turnout and special interest group mobilization, both of which may potentially influence school bond election outcomes (Anzia, 2011; Anzia, 2012b; Dunne et al., 1997; Lentz, 1999). This median voter manipulation theory, combined with varying super-majority requirements imposed by the Missouri State Constitution and election timing differences, warranted further investigation as to how the variables possibly impact school bond election outcomes in Missouri.

Research Questions

The following research questions guided this study:

- What are the descriptive summary statistics for Missouri school bond elections when analyzed by the following variables: election timing, minimum require passing percentages, and election outcomes?

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- Is there a statistically significant relationship between election outcomes and required minimum passing percentages for Missouri school bond elections held from 2009-2016?
- Do electoral outcomes of Missouri school bond elections differ between on-cycle elections and off-cycle elections?
- Do electoral outcomes of Missouri school bond elections differ between elections held early in the calendar year and those held late in the calendar year?
- Do electoral outcomes of Missouri school bond elections differ between elections held in April and on-cycle elections held in August and November?

Theoretical Framework

The theoretical framework of this study is organized around the election timing effect theory as posited by Anzia (2011, 2012b). There are three major concepts underlying the theory. The first is the voter self-interest principle, which suggests that demographic factors such as age, race, and gender can be used to identify voters who are more or less likely to support school bond issues. The second is interest group magnification, which argues that election timing can be utilized as a tool to minimize the turnout of likely opponents of school bond issues, while maximizing the political impact of special interest groups in support of school bond issues. The last concept contends that school finance elections, including bond issues, are pivotal in combating or prolonging economic injustices that create educational inequalities within the public-school system.

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Figure 1

The Underpinnings of Election Timing Theory

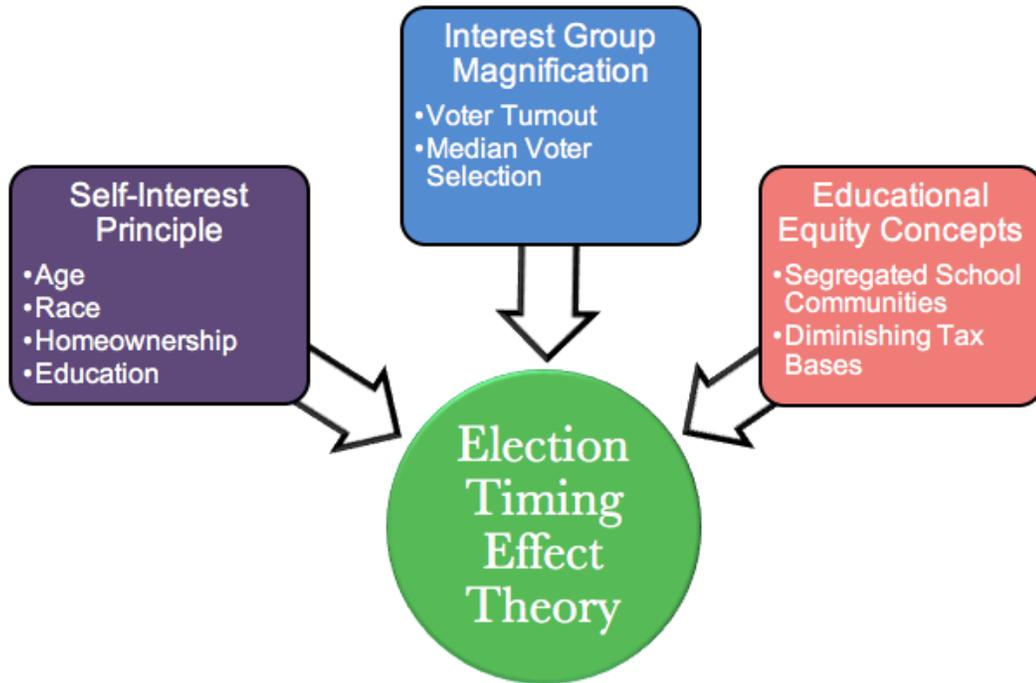


Figure 1. The three major components of election timing theory are represented by the square figures. Each component is a key element in understanding how the theory envisions elections occurring. Together these factors create the conditions for an election timing effect to be realized at the polls.

Voter Self-Interest Principle

One of the most commonly researched variables regarding political behavior is the demographic makeup of voters in relation to their voting preferences. This principle argues that voters will cast ballots that reflect the policy preference that is most advantageous to themselves. This is no different for studies of school finance issues, where one might argue that homeowners and elderly voters on fixed incomes may be more averse to increasing school property taxes than younger voters with families, who stand to gain more direct benefits from higher school taxes.

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While there are many demographic categories to choose from, one of the most widely studied is race. Literature supports the notion that white voters are generally less likely to support school bond questions (Hickey, Linn, & Vaugh, 2008). This is especially true of white voters over the age of 65 (Tedin, Matland, & Weiher, 2001). Conversely, there is much research that suggests minority voters, especially Hispanics, are more apt to support school finance issues at the ballot box (Bowers & Lee, 2013; Hickey et al. 2008; Priest & Fox, 2005; Silverman, 2011).

Outside of race, demographic analyses of school bond elections have included voter age, level of education, socioeconomic status, and self-interest variables to determine if there are any conditions that predispose voters to support or oppose school finance questions. Generally, voters with post-secondary education, higher socioeconomic status, and direct benefit characteristics (e.g. having a school age children at home, or a new school built in your attendance area) are more inclined to support school bonds (Bowers & Lee, 2013; Hickey et al., 2008; Tedin et al., 2001). As voters age, especially beyond 65, research suggests that they are less likely to support school bonds (Bowers & Lee, 2013; Button, 2012; Hickey et al., 2008; Ingle et al., 2012; Tedin et al., 2001).

While research concerning the general trends in voter behavior based on demographic characteristics can be valuable to school districts planning bond issues, the demographic data does not always create a clear and accurate prediction of how the public will receive school bond proposals. Many of the demographics may conflict. For example, assuming the demographic trends to be true, it would be difficult to predict the

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choice of a retired, wealthy, college educated, white voter due to the fact that the demographic indicators seem to contradict one another.

Interest Group Magnification and Election Timing

A more accurate prediction of school bond election outcomes may be achieved by filtering demographic theories through the lens of election timing. Bowers, Metzger, and Militello (2010b) found that Michigan school bond issues that were voted on later in the calendar year had a greater likelihood of being successful, though researchers were unable to replicate those findings in a later study conducted in Texas (Bowers & Lee, 2013).

Election timing may have a greater impact on school bond election outcomes when considering how the timing of an election can affect voter turnout. Typically, state and national elections have higher turnout rates than municipal elections (Anzia, 2012a; Wood 2002). General elections, presidential elections, and on-cycle elections usually have higher turnout rates than primary elections, mid-term elections, and off-cycle elections, respectively (Aldrich, 1993; Hajnal & Lewis, 2003; Jacobson, 2011; Raney, 1972). When elections experience low voter turnout, the policy preferences of special interest groups can be magnified due to a lack of opposition at the polls (Anzia, 2011). Dunne, Reed, and Wilbanks (1997) argue that school districts can select the median voter that will cast a vote on their proposed school bond issues by simply choosing election dates that suppress voter turnout. This may be a positive development for school districts should they be able to mobilize their supporters; or, it could signal defeat considering the demographic group that most consistently votes during low turnout elections are voters over the age of 65 (Button, 1992; Tedin et al., 2001). This study sought to determine if

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strategically timing a school bond election may help school districts capitalize on their demographic advantages.

Educational Equity and School Finance Elections

Lastly, this study attempted to uncover best practices in regard to school bond election timing in order to better allow school districts to use general obligation bonds as a tool in achieving school funding equalization. Historically, voting against school bonds has been a way for voters to oppose school desegregation policies (Priest & Fox, 2005). Poorly timed elections may exacerbate school funding inequalities in urban districts by magnifying the policy preferences of white voters living in school districts in which a majority of students enrolled are minorities (Silverman, 2011; Tedin et al., 2001). Compounding this barrier to school funding equalization is the fact that when school bond issues are defeated at the polls it is more difficult to pass future bond issues and attract commercial and residential development that is key building a tax base capable of supporting major renovations and building projects (Bowers et al., 2010a; Bowers et al., 2010b; Brasington, 2017; Scott, 1988).

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Figure 2

The Election Timing Theory as a Process

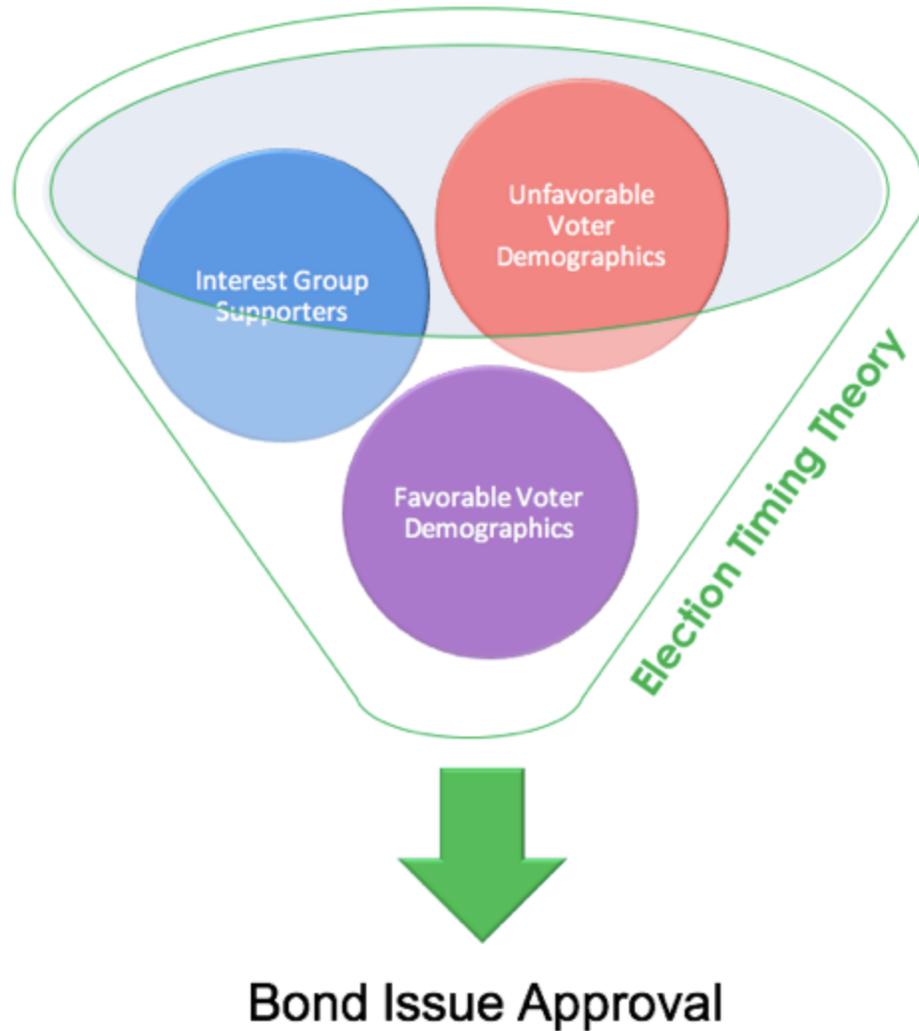


Figure 2. The election timing theory may also be viewed as a process in which strategically timed elections are used to capitalize on the diffuse costs of policy issues such as school bond proposals. Special and municipal elections tend to see lower rates of voter turnout, which effectively funnels casual voters out of the election, leaving organized interest group's voters to make up a higher proportion of the electorate.

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Design of the Study

This study sought to determine whether there was a difference in the election outcomes of school bond issues decided by Missouri voters from February of 2009 to November of 2016 based on election timing and minimum required passing percentages.

Setting

The setting for the study was the state of Missouri. Missouri's unique constitutional law regarding required minimum passing percentages for school bond elections based on election dates, warranted a statewide setting for the study.

Participants

All school districts that floated bond issues between 2009 and 2016 were considered participants in the study. Elections beginning in the year 2009 were chosen as a parameter for the study due to the fact that December 2007 is largely recognized as the beginning of the “great recession” (Weinberg, 2013). This world-wide economic downturn had a major impact on homeownership, property values, median household income, and the socioeconomic status of many communities in the United States—factors that often negatively impact the outcome of school bond issues (Bowers & Lee, 2013; Hickey et al., 2008; Weinberg, 2013). The selected range of election dates covers two complete four-year election cycles, starting at the height of the recession.

Data Collection Tools

The data used in this study was entirely archival. School bond elections in Missouri are certified by county election boards rather than the secretary of state's office. This means that the historical records for each school bond election are housed locally throughout Missouri's 114 county election offices. The inconsistencies between counties

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in making archival elections records available to the public, made the compilation of data somewhat problematic. However, archival newspaper records, bond registration information provided by the Missouri Auditors office, and online databases were utilized to gather a dataset of over 400 school bond issues floated during 2009-2016.

Data Analysis

Research question one (RQ1) was analyzed by creating frequency distributions for school bond election counts based on election timing (February, April, August in even numbered years, August in odd numbered years, November in even numbered years, and November in odd numbered years), minimum required passing percentages (four-sevenths/two-thirds), and election outcome (pass/fail) (Field, 2013).

A Pearson's chi-square test of independence was used to evaluate research question two (RQ2), which required the analysis of two dichotomous, categorical variables: *minimum required passing percentage* (two-thirds majority or a four-sevenths majority), and *election outcome* (pass or fail). Applying a chi-square test for independence to this data created a 2 x 2 contingency table resulting in one degree of freedom. Degrees of freedom (*df*) "are calculated as $(r-1)(c-1)$ in which r is the number of rows and c is the number of columns" (Field, 2013, p. 723). Pearson's chi-square test compares the frequencies observed in the sample to frequencies that one might expect to find in those categories by chance (Field, 2013). The critical value for the chi-square distribution using $df=1$, and a p-value of 0.05 is 3.84 (Field, 2013). Should the analysis for RQ2 have produced an χ^2 value greater than 3.84, it would have indicated that there was strong evidence to reject the null hypothesis. The stated null hypothesis for RQ2

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was: the proportion of school bond elections that pass in Missouri is independent of required minimum passing percentages.

If significant differences were found via the chi-square analysis, the researcher calculated odds ratios to indicate the effect size of the relationships between the minimum required passing percentages and election outcomes (Field, 2013).

Additional analysis of RQ2 was conducted via an independent-samples *t*-test. The independent-samples *t*-test is used to compare means of two samples from the same population (Cronk, 2017; Field, 2013). The *t*-test assumes an equality of means, thus “a significant result indicates that the means are not equivalent” (Cronk, 2017, p. 64). This analysis used required minimum passing percentages as the independent variable, and the mean score of “yes” votes received by the bond issue, expressed as a percentage of total votes, as a dependent variable. Should the *t*-test analysis for RQ2 produce a significance value of *t* less than or greater to .05, it would indicate that there was strong evidence to reject the null hypothesis. The stated null hypothesis was: there is no significant difference in the mean score of “yes” votes captured by Missouri school bond issues floated during elections requiring a two-thirds minimum passing percentage and those floated in elections requiring a four-sevenths minimum passing percentage.

The analysis of research question three (RQ3) employed an independent-samples *t*-test. RQ3 compared the mean score of “yes” votes cast for Missouri school bond issues floated during on-cycle election years to the mean score of “yes” votes cast for Missouri school bond issues floated during off-cycle election years. Should the analysis for RQ3 produce a significance value of *t* less than or greater to .05, it would indicate that there was strong evidence to reject the null hypothesis. The stated null hypothesis for RQ3

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was: there is no significant difference in the percentage of “yes” votes captured by Missouri school bond issues floated in on-cycle elections and the percentage of “yes” votes captured by Missouri school bond issues floated in off-cycle elections. This research question was tested using two *t*-tests. The first included all election data from 2009-2016. The second *t*-test included only data from August and November elections, as Anzia’s theory of election timing suggests that differences in electoral outcomes may exist due to lower voter turnout caused by the lack of state and national level elections. Because April and February elections in Missouri never included state or local races, they were excluded from the sampling in order to isolate the potential effects of the election timing theory.

Research question four (RQ4) was also tested using an independent-samples *t*-test. RQ4 compared the mean score of “yes” votes cast for Missouri school bond issues floated during April and February elections to the mean score of “yes” votes cast for Missouri school bond issues floated during August and November elections. In order to examine potential differences in electoral outcomes based on election timing in regard to calendar positioning, the election data was divided into two groups: *early elections* (February and April), and *late elections* (August and November). Should the analysis for RQ4 produce a significance value of *t* less than or greater to .05, it would indicate that there was strong evidence to reject the null hypothesis. The stated null hypothesis for RQ4 was: there is no significant difference in the percentage of “yes” votes captured by Missouri school bond issues floated during February and April elections and the percentage of “yes” votes captured by Missouri school bond issues floated during August and November elections.

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Finally, research question five (RQ5) was also analyzed using an independent-samples *t*-test. An overwhelming majority of school bond issues floated in Missouri were proposed during elections that required the lower threshold of a four-sevenths majority for approval. By using only data from election dates that required the lower minimum passing percentage, RQ5 sought to look for differences in outcomes due to election timing. Thus, two groups were created: *April elections*, which are predominantly municipal elections in Missouri, and *On-cycle August and November elections*, which coincide with regularly scheduled state and national elections. Should the analysis for RQ5 produce a significance value of *t* less than or greater than .05, it would indicate that there was strong evidence to reject the null hypothesis. The stated null hypothesis for RQ5 was: there is no significant difference in the percentage of “yes” votes captured by Missouri school bond issues floated during April elections and the percentage of “yes” votes captured by Missouri school bond issues floated during on-cycle August and November elections.

Independent-samples *t*-tests do not indicate the causality of differences of mean scores, if any exist. However, the results of the *t*-test used to explore RQ2, RQ3, RQ4 and RQ5 could support the notion that it is significantly more or less difficult to pass school bond issues at different times throughout the election cycle due to the characteristics of the uniquely timed elections themselves.

Summary of Findings

This section is intended to serve as a summary of findings for the study. More detail regarding the statistical analysis of all five research questions can be found in section five of the dissertation.

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The descriptive summary of the dataset found three well-defined trends. First, between 2009-2016, 76.3% of all school bond issues proposed by Missouri school districts were floated to the public during April rather than February, August, or November. Second, 96% of all school bond issues proposed by Missouri school districts between 2009-2016 were floated to the public during elections requiring a 4/7ths majority (57.14%) vote for approval, rather than elections requiring a 2/3rds majority (66.67%) vote for approval. Lastly, school bond issues enjoyed high levels of success, as 86% of bond issues were approved by voters between 2009-2016.

With regard to differences in electoral outcomes based on a school bond election's required passing percentage, the analysis did not find significant differences in the share of "yes" votes received by bond issues based upon an election's required minimum passing percentage. However, the analysis found that there was a significant relationship between pass/fail rates of bond issues and the required passing percentage. Bonds floated during elections requiring a 4/7ths majority were roughly 3.2 times more likely to be approved than bonds issues requiring a 2/3rds majority.

The election timing theory hypothesizes that interest groups may be able to magnify the effect of their group's voters by running referendums during off-cycle elections when voter turnout is typically lower. The analysis in this study found no significant difference in the share of "yes" votes received by school bond issues floated during on-cycle elections when compared to those floated during off-cycle elections. However, when comparing the election results from on-cycle and off-cycle elections in August and November (the only election months which would experience higher voter turnout rates due to state and national level elections), the study found that off-cycle

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school bond elections received a significantly higher share of “yes” votes than on-cycle school bond elections. On average, this difference amounted to approval rates 5.5% higher than those received by school bond issues held during off-cycle elections.

Though previous research has suggested that electoral outcomes for school bond issues may differ between elections held early in the calendar year and those held later in the calendar year, this study’s analysis was unable to find similar results in Missouri school bond issues. After combining school bond election results into categories of *early elections* (February and April), and *late elections* (August and November), the study found no significant difference in shares of “yes” votes received by early and late elections.

Lastly, because the vast majority (96.3%) of Missouri school bond issues were floated during elections requiring a 4/7ths majority vote for approval, the study sought to test for differences in electoral outcomes based on timing within this group of elections. When comparing all April school bond elections to on-cycle August and November school bond elections, the study found a significant difference in electoral outcomes. On average, April school bond issues received 3.25% higher approval rates than school bond issues floated during on-cycle August and November elections.

Limitations

The researcher relied on three publicly available sources to compile data regarding the outcomes of school bond elections in Missouri. First, an online database of local bond issue results was consulted to form the foundation of the dataset (Graves, n.d.). Second, all public bonds issued within the state must be registered with the Missouri Auditor’s office. The auditor’s office provides a certified record of the final

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vote tally for every bond issue approved by Missouri voters. While this presents an exhaustive record of bond issues that pass, it does not include issues that fail.

Complicating the collection of records regarding failed bond issues is the fact that all local elections are certified at the county level, and there is no state level record of local tax election results. In order to compile records for failed bond issues, the researcher utilized the *Newsbank* database to search archived Missouri newspapers for election results. This methodology produced a record of 409 bond issues decided by voters between February 2009 and November 2016. In an attempt to verify the completeness of the dataset, the researcher compared the dataset to the records of a Missouri based investment bank that specializes in general obligation bond issues for schools in Missouri. While this data collection process was exhaustive, it may not represent a complete record of all bond issues floated between 2009 and 2017, especially for issues in rural areas of the state that do not receive major newspaper coverage.

Additionally, the design of the study did not allow for the research to account for unique or extraordinary political climates within school district locales. While conflicts between stakeholders, public scandals, and public distrust of school officials may lead to the rejection of school bond proposals, such variables are often difficult to quantify and incorporate in the study's design.

Lastly, the State of Missouri's unique set of required minimum passing percentages and election date options reduced the study's generalizability to school bond elections outside of the study's setting.

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Delimitations, Assumptions, and Design Controls

Only school bond elections were included in this study. Missouri state law allows for school districts to seek voter approval for tax levy increases and Prop C waivers designed to increase school operating budgets (Missouri DESE, 2016). However, tax levy related elections were excluded from this study.

The timeframe in which data points for the study were collected was another delimitation chosen by the researcher. The year 2009 was selected as a delimiter because it was firmly within great recession following the collapse of the housing markets, and it allowed the study to use data from two complete four-year election cycles (Weinberg, 2013). Because bond issues are typically financed through property tax increases, the researcher chose to limit the scope of the study to recent elections dating back to the beginning of the economic recovery.

Due to the researcher's desire to study the unique combination of minimum required passing percentages and election times codified in Missouri state law (Missouri DESE, 2016), bond elections must have been held within the state of Missouri in order to be included in the study.

The researcher assumed that each school bond election in the dataset was an independent event. In other words, the outcome of one bond election did not influence the outcome of any others.

Lastly, the study assumed that the chi-square distribution, which models the expected distribution of random events, is an appropriate benchmark for comparing election outcomes. There were no design controls employed for either of the statistical analyses utilized in the study.

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Definitions of Key Terms

This study utilized terminology specific to the setting of school bond elections and the election cycle. The following terms are defined for clarification purposes.

Float. To float a bond issue is to put forward a referendum to voters that typically proposes raising property taxes to pay for bonded debt acquired by a school district.

General elections. A regularly scheduled election in which voters may choose candidates for office and vote on referendums and ballot initiatives.

Minimum required passing percentages. The percentage of the total vote count in an election that school districts must win in order to receive voter approval of bond issue proposals. In Missouri, the minimum required passing percentage is four-sevenths (57.14%) of the total vote during regularly scheduled municipal, primary, and general elections; and, two-thirds (66.67%) of the total vote for special elections.

Municipal elections. Municipal elections are elections in which voters choose candidates for city offices and vote on referendums and ballot initiatives relating to city issues. In Missouri, many cities choose to hold their municipal elections in April, separate from most state and national elections which are typically held in August and November.

Off-cycle election. Off-cycle, or off-year, elections are elections held in the United States during odd numbered years when there is no presidential or congressional midterm election.

On-cycle election. On-cycle elections are elections held in the United States during even numbered years in conjunction with either a presidential or congressional midterm election.

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Primary elections. A preliminary election in which political parties choose designees to run for office in general elections.

Special elections. An election scheduled at an unusual time, for a specific purpose. Special elections are often held to fill an office that has become vacant before the incumbent has completed the term. In Missouri, most special elections are held in February, August of odd numbered years, and November of odd numbered years.

Significance of the Study

School districts throughout the United States are consistently faced with the need to build new schools or renovate existing buildings in order to accommodate increasing enrollment, safety and security requirements, and/or new curriculums (Bowers & Lee, 2013). While research exists that explores the impact of voter demographics on school bond election outcomes, there is much less research based on election timing as a major variable (Bowers & Lee, 2013; Button, 1992; Tedin et al., 2001). While the socioeconomic factors of the community and its voters are often influential in the outcomes of school bond elections, those factors lie outside of the control of school districts. However, school districts do possess control over a number of factors that contribute to the nature of the election (e.g. bond amount, bond wording, election timing, ballot position, and voter turnout). By using election timing as the main unit of analysis, this study stood to contribute practical knowledge that could be applied by Missouri school districts when planning school bond elections in order to increase the likelihood of a positive election outcome.

While literature does exist regarding the impact of election timing on school bond issues, those studies utilized limited samples from single states such as Texas, Michigan,

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and Oklahoma (Anzia, 2012b; Bowers & Lee, 2013; Bowers et al., 2010a; Bowers et al., 2010b; Gong & Rogers, 2014). In most states, the timing of school related elections is uniformly mandated by state legislatures (Anzia, 2012b). This poses two problems for researchers interested in isolating the effect of election timing on school bond election outcomes. First, states with uniform requirements for election timing present very little opportunity to analyze differences in outcomes based on varying election dates because there are simply fewer election dates allowed by law. This is not the case in Missouri, where there are six different election times in which school districts may place bond issues on the ballot. Secondly, conclusions from studies of election timing effects conducted within a single state are often not generalizable to other states due to confounding variables unique to each state's own political climate. Thus, this study presents an opportunity to provide unique, strategic information regarding Missouri's school bond election process.

Summary

School districts in Missouri have options when it comes to choosing when their bond proposals will be put forward to the public. Research that examines the relationship between election timing and school bond outcomes is limited in number, scope, and generalizability to the state of Missouri. This study sought to determine if there was a significant difference in school bond issue outcomes based on election timing in Missouri. The study proposed two central statistical analyses in order to explore potential relationships between election timing and outcomes, while using archival data from school bond elections held between February of 2009 and November of 2016. First, a Pearson's chi-square test was used to determine if there was a significant difference in

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school bond election outcomes for elections requiring a four-sevenths majority for approval when compared to elections requiring a two-thirds majority for approval. Second, a Pearson's chi-square test was used to determine if there was a significant difference in the school bond election outcomes for elections held at different times in the election cycle. The study added to a small body of research that explores the relationship between election timing, school bond election outcomes, and minimum required passing percentages while creating knowledge that is uniquely applicable to Missouri school districts. Such analysis may prove valuable to local school boards when determining when to float school bond proposals.

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SECTION TWO – PRACTITIONER SETTING FOR STUDY

The State of Missouri is currently home to 518 public school districts, excluding chartered local education agencies, state board operated programs, and virtual programs (Missouri DESE, 2017). These traditional brick and mortar districts must adhere to state laws regarding school finance when seeking electoral approval of public bonds for capital improvements.

The process of proposing and passing a school bond is a highly local endeavor that operates within a framework established by state law. Decisions to seek bonded indebtedness for capital improvement projects are ultimately left to individual school districts. School boards and district administrators determine when to seek bond issues, how large bonds should be, and what projects bonds will pay for. Local election boards are tasked with conducting bond elections in accordance with state law, and certifying election results. Upon winning approval, school boards issue the bonds, and then register the bonds with the state auditor.

The researcher considered the State of Missouri, and its system of laws regarding minimum required passing percentages for school bond elections to be the setting of the study.

History of the Organization

Missouri has a longstanding, well-defined history of preferring systems of locally controlled school finance tied to property values. The Missouri Enabling Act, in which the United States Congress authorized Missouri to enter the Union as its 24th state, set aside every 16th section of land to be sold in order to fund the construction and operation of schools (Foley et al., n.d.; Phillips, 1911). In all, 2.1 million acres of land were to be

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sold, and the profits from those sales were to be invested in public schools (Phillips, 1911).

In 1825, the Missouri General Assembly passed the School Act which declared that each township should form a school district to be funded by fines, penalties, and the sale and rent of school land (Foley et al., n.d.; Phillips, 1911).

A decade later, the General Assembly passed the Act of 1835, which authorized the voters of each county to tax themselves up to three and one-third cents on one hundred dollars of assessed valuation for the operation of local schools (Phillips, 1911). The Act of 1835, as well as state laws regarding the finance of public schools passed in 1839 and 1853, required that a two-thirds majority of county voters approve proposed school taxes. This proved to be a nearly insurmountable threshold. Phillips (1911) noted that because of the two-thirds requirement “practically nothing ever came from the provision” (p. 45). As result, schools throughout the state faced a severe lack of funds (Foley et al., n.d.).

The General Assembly’s Act of 1853 crafted expectations for state funding that were eventually revived in Missouri’s postbellum constitution when it established that 25% of the state’s revenue should be directed to education (Phillips, 1911; Robinson, 2016). The General Assembly also established a state superintendent of schools who was directed to divide the state provided funds among county school districts according to their student enrollments (Phillips, 1911). While the Act of 1853 was somewhat progressive for its time, it contained a major flaw in that the law did not “require any local tax to be levied even for the construction of schools” (Foley et al., n.d., p. 7).

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Following the Civil War, Missouri adopted the Constitution of 1865, which established free public schools for all students 5 to 21 years of age and declared that school “buildings were to be constructed and paid for by taxation” (Foley et al., n.d., p. 9). Additionally, the constitution mandated that all schools throughout the state be funded equally (Robinson, 2016). Working within the organizational framework established by the new constitution, State School Superintendent T. A. Parker proposed a complex set of school reforms that came to be known as the “Parker Laws” (Phillips, 1911). Though these laws were rarely enforced and relatively short-lived, they reaffirmed the state’s commitment to local control of school finance issues by requiring every local school district to meet annually on the first Tuesday of April to decide policies including the rate of taxation necessary for the district to erect and furnish schoolhouses. The Parker Laws reestablished a two-thirds majority requirement for the levying of local school taxes, and sought to firmly place control of schools into the hands of the people of Missouri (Phillips, 1911; Foley et al., n.d.).

In 1901, Missouri passed its first consolidation law, which created larger school districts with new building and infrastructure needs (Foley et al., n.d.). At times, districts faced challenges emanating from the local nature of the school bond election process. For example, in 1906 the St. Joseph School District sought a \$250,000 bond issue in order to construct new buildings and remodel existing schoolhouses. The school board was forced to nullify the election when local election officials failed to maintain tally sheets, 11 of 30 precincts failed to report results to the board, and two precincts failed to report their results to anyone (Foley et al., n.d.). For much of the remainder of the twentieth century school bond elections continued to be a uniquely local undertaking.

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Evolution of Missouri Public Bond Election Law

Ever since the passage of the School Act of 1835, Missouri has held one of the highest thresholds for voter approval of general obligation bonds. In fact, in 1988, when Amendment 4 was proposed to the public in an attempt to reduce the minimum required passing percentage for bond approval from a two-thirds majority to a four-sevenths majority, Missouri was one of only four states in the union that still required a two-thirds majority (“End Government,” 1988; Scoville, 1988).

Prior to the passage of Amendment 4 in 1988, the state had twice before attempted to reduce the two-thirds requirement. Missouri first attempted to reduce the minimum required passing percentage statewide to 60% in 1968, but the proposal was narrowly rejected by voters (Murphy, 1988; Valentine, 2010). Fourteen years later, a proposal to institute a four-sevenths majority requirement in Kansas City and St. Louis only was rejected by a statewide vote (Murphy, 1988; Valentine, 2010).

Supporters of Amendment 4 argued that these supermajority thresholds were undemocratically keeping the government from providing key services and infrastructure for municipalities and school districts (“End Government,” 1988; Scott, 1988; Scoville, 1988; “Yes for amendment 4,” 1988). This changed on August 2, 1988, when Amendment 4 was passed with slightly less than the four-sevenths majority that would subsequently be required to issue general obligation bonds (Valentine, 2010). At the time of its adoption, Amendment 4 was widely supported in the metro areas and the “bootheel,” while support waned in most rural areas (Murphy, 1988).

As a result of Amendment 4, Missouri state law currently consists of a bifurcated set of minimum required passing percentages for general obligation bond elections

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depending upon the date on which a bond election is held (Missouri DESE, 2016). Bond issues that are put on ballots during April municipal elections, and August and November general elections during even numbered years require a four-sevenths (57.14%) majority (Missouri DESE, 2016). A two-thirds (66.67%) majority is still required for bond issues sought during February special elections, and August and November elections in odd numbered years (Missouri DESE, 2016). This current statutory requirement has served to sustain a school funding system that relies heavily on local property tax bases to provide for capital improvements for school districts in Missouri.

San Antonio ISD v. Rodriguez

Missouri's arrangement of relying on local voter support via property tax increases for capital improvements is not unique to the state, nor are the challenges and inequalities that such a system presents for school districts. In 1973, the United States Supreme Court issued a landmark ruling in the case of *San Antonio Independent School District v. Rodriguez*, the reverberated throughout state education systems well beyond the State of Texas. In *Rodriguez*, a group of parents challenged the legality of Texas' school funding formula which relied on a combination of state funds and local funds based on property taxes. The plaintiffs argued that the reliance on property taxes created large disparities in the funding of school districts located in poorer neighborhoods typically inhabited by minority residents when compared to the funding of school districts with higher property values and largely white student populations (Orozco, 2010). The plaintiffs sought to prove that such inter-district disparities violated the 14th Amendment's equal protection requirements (Orozco, 2010; Robinson, 2016). A federal district court found in favor of the plaintiffs. However, in a 5-4 decision, the U.S.

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Supreme Court reversed the district court's ruling. In doing so, the U.S. Supreme Court established that there was no constitutionally guaranteed right to an education. The majority opinion found that the court lacked expertise in deciding school funding formulas, overturning the Texas formula would substantially upset the balance of federalism in regard to state operated school systems, and thus, issues of school funding formulas were best left to the states. Although the majority opinion urged states to reform their "school finance systems in light of the persistent and heavy reliance on property taxes and the disparities in the educational opportunity," it paved the way for decades of legally protected inter-district disparities in educational funding (Robinson, 2016, p. 235). In his dissent, Justice Thurgood Marshall decried the decision as, "a retreat from our historic commitment to the equality of educational opportunity" (Orozco, 2010).

Missouri v. Jenkins

After the *Rodriguez* ruling, it was left up to local efforts to establish a legal recognition of a right to education at the state level, as well as seek the reform of state funding formulas that relied heavily on local property tax support. Four years after the *Rodriguez* decision, the issue of inter-district funding disparities was revisited in a court case which featured the Kansas City Missouri School District (KCMSD) suing the States of Kansas and Missouri, the federal government, and KCMSD's neighboring school districts over funding disadvantages resulting from de jure segregation prior to the U.S. Supreme Courts *Brown v. Topeka Board of Education (1954)* ruling. After nearly a decade of court orders resulting in the dismissal the State of Kansas, neighboring suburban school districts, and the federal government from the lawsuit, as well as amendments to the plaintiff's original motion, and the court's reorganization of the case

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to include KCMSD as a respondent, the litigation culminated in the case of *Missouri v. Jenkins*.

Initially KCMSD found relief in federal district court when the court ruled that de jure segregation had “led to white flight from the KCMSD to suburban district[s]... and [to] private schools” (Joondeph, 1996). The district court ordered an extensive remedy designed to desegregate KCMSD by creating a school district that would be attractive enough to white suburban families to encourage voluntary transfers from the suburbs into KCMSD. The remedy was expansive and expensive. It ordered the district to hire more teachers, reduce teaching loads, add art and music classes, reduce class sizes, implement tutoring programs, establish all-day kindergarten, develop magnet schools, and various other curricular initiatives (Joondeph, 1996). In addition to the programming requirements, the district courts ordered the district and the state to jointly pay for between \$200 and \$300 million dollars in capital improvements, which would be partially paid for by raising the property tax rate within the district from \$2.05 to \$4.00 per \$100 valuation (Joondeph, 1996).

The district court’s ruling was upheld by the Eighth Circuit Court of Appeals, but reversed by the U.S. Supreme Court in 1990. While the Supreme Court noted that courts do have the authority to order local governments to levy taxes when constitutional justification exists, in this case the district court erred in requiring a specific property tax increase. Instead, the district court should have issued injunctive relief by enjoining Missouri state law that prevented the school district from raising its own property tax rates. In 1995, the U.S. Supreme Court revisited this long-running litigation and found that a district court order requiring local tax increases in order to pay for teacher salary

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increases exceeded the district court's authority. In effect, the U.S. Supreme Court returned control of school finance to local governments and their constituents.

Committee for Educational Equality v. State of Missouri

While the case of *Jenkins v. Missouri* wound its way towards the U.S. Supreme Court for a third time, another case regarding property tax assessments and school finance was being decided in Missouri's state court system. The 1994 case of *Committee for Educational Equality (CEE) v. State of Missouri* saw the CEE challenge the state's funding formula on the grounds that the use of property taxes resulted in inequalities in funding and educational quality between school districts throughout the state (Rowe, 2010). The Circuit Court of Cole County found that the state's funding formula "based predominantly on district property taxes, failed to provide free public schools and equal protection of the laws under the Missouri Constitution" (Rowe, 2010, p. 1049). Though the court's finding was a win for school districts with low property tax bases, the court chose to stay its own ruling pending action by the Missouri legislature. The Missouri General Assembly had already passed the Outstanding Schools Act of 1993, which was meant to correct the funding formula by moving it away from primarily using property taxes. Subsequent legal challenges to the Outstanding Schools Act, combined with a lack of action resulting from *CEE v. State of Missouri*, did little to change the realities of a school funding system that relies heavily on local support and local property tax bases in Missouri (Rowe, 2010). In the status quo, a Missouri school district's ability to construct and operate school buildings depends largely upon the support of the district's voters and its ability to passing a bond issue.

Organizational Analysis

Bolman and Deal (2013) offer an accessible model of organizational analysis in their book, *Reframing Organizations*. The authors argue that the functions of organizations can be categorized into one of four key frames: political, symbolic, human resources, and structural. Thus, Bolman and Deal's (2013) four frames were employed to better understand how school districts may choose to approach school bond elections.

Political Frame

School districts are arenas for internal politics, and bond issues often illuminate the political nature of working within a school district. Bolman and Deal (2013) suggest that effective political leaders exercise four key skills: agenda setting, mapping the political terrain, networking and building coalitions, and bargaining and negotiating. When it comes to planning and proposing school bond issues for capital improvement projects, all of these skills are necessary. School district officials must set the agenda by outlining goals and setting a schedule for activities related to bond development and proposal. In relation to mapping the political terrain and coalition building, it is imperative for district officials to recognize that faculty, staff, patrons, and stakeholders have their own agendas when seeking bond issues. Lastly, in order to accommodate various interests in the bond design process, district officials must bargain in order to create a proposal with value for all stakeholders.

Local communities make up a school district's public policy ecosystem. Families, businesses, policy analysts, and tax payers "want to cut frills and keep costs down" (Bolman & Deal, 2013, p. 235). This is especially true for older voters who may be living on fixed incomes and typically do not have students enrolled in school (Bowers & Lee,

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2013; Hickey, Linn, & Vaughn, 2008; Button, 1992; Crader, Holloway, & Stauffacher, 2002; Poterba, 1997). Crader et al. (2002) suggests that school districts court elderly voters by “providing senior citizens with free admission to activities” and using senior citizens in school. When asked to identify the single most significant, positive influence on school bond issue passage, over 35% of respondents selected the use of a diverse community task force committee to develop a bond proposal (Holt, Wendt & Smith, 2006). The second most identified strategy encompassed a visible public relations campaign which focused on a bond’s benefit to students and the community. Such strategies allow school districts to engage community members of various ages, race, educational background, and occupation.

While an inclusive plan of bond development can be an asset to districts, other research suggests that a widely publicized campaign is not always the best political strategy. The Holt et al. (2006) survey also identified a strategy of focusing resources on “yes” voters rather than trying to change the minds on “no” voters as the fifth most important campaign activity. Other research suggests that timing elections so as to suppress voter turnout, keeping a low public profile, and activating only likely “yes” voters is the surest way to pass a bond issue (Anzia, 2011; Anzia, 2012b; Berry & Gersen, 2010; Dunne et al., 1997; Holt et al., 2006).

Symbolic Frame

Schools can be organizational symbols, as they often reflect a community’s values, facilitate rituals and ceremonies, and provide a structure for uniting people and developing a shared culture (Bolman & Deal, 2013). Bolman and Deal note that “giving is a matter of heart more than head” (2013, p. 300), which is a valuable observation when

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considering how to effectively fundraise or campaign for a school bond issue. The inclusion or exclusion of building projects that reflect the community's values—auditoriums, football stadiums, technology initiatives—may directly increase or decrease the likelihood of a bond's approval by voters (Beckham & Maiden, 2003; Bowers & Lee, 2013; Bowers & Chen, 2015). The emotional value a community attaches to a school building's history can be enough to carry or defeat a bond proposal (Holt et al., 2006). Ultimately, framing a bond issue in ways that reflect the symbolic values of a school district can be related to the outcome of school bond elections.

The process of planning for a school bond can become a valuable symbolic tool as well. Bolman and Deal (2013) argue that plans are symbols, especially for educational organizations that lack the profit based measurements common to many businesses. Instead of measuring success in terms of dollars, educational organizations conduct “self-studies,” and create long term strategic plans. Often these plans include new buildings and facilities. Planning can become an excuse for interaction, as well as advertisements for the organization (Bolman & Deal, 2013). The process of organizing committees and patron groups to provide input on the strategic goals behind bond proposals can foster interaction between school districts and their local communities (Holt et al., 2006).

Human Resources Frame

One of the most basic approaches to viewing the human resources framework within organizations is to focus on the human needs of the people that make up organizations. Bolman and Deal (2013) utilize Maslow's hierarchy of needs as one of the earliest illustrations of the types of conditions that must be met in order for humans to maximize their potential. Maslow's work argued that “physical well-being and safety are

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prepotent” (Bolman & Deal, 2013, p. 120), and must be satisfied first. These basic needs can often be addressed by school bond issues that repair and refurbish crumbling school buildings, modernize security measures, and address local hazards (Bowers & Lee, 2013; Love & Krapf, 2012; Scott, 1988).

Bolman and Deal (2013) note that organizations need people for their energy, effort, and talent, while people need organizations for everything from salary to rewarding work. School bond issues can be used to not only invest in buildings, but the people who staff those buildings as well. The physical conditions of school buildings including interior air quality, lighting, noise, and overall appearance can directly impact teacher job satisfaction, employee health and safety, teacher effectiveness, and teacher attrition (Schneider, 2003; Uline & Tschannen-Moran, 2008). Low teacher morale resulting from less than desirable working conditions can lead to high rates of turnover, and negative effects on a school building’s learning environment and student achievement (Schneider, 2003; Uline & Tschannen-Moran, 2008).

Structural Frame

Bolman and Deal’s (2013) structural frame concerns how powers and responsibilities are arranged within organizations. Power structures are categorized as being vertically or laterally aligned. Vertical alignments focus on “top-down” control of activities, tasks, and decisions, while lateral alignments rely on activities that feature collaboration and flexible rules and systems. Organizations must utilize both vertical and horizontal procedures for coordination as they attempt to meet their goals (Bolman & Deal, 2013, p. 58). Combinations of vertical and lateral coordination in an attempt to propose and pass bond issues have traditionally been seen as beneficial to the process

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(Holt et al., 2006). Vertical coordination takes the form of following district policies and state laws, and planning the bond proposal process. Lateral coordination occurs when school districts organize meetings, community task forces, and networks vital to the passage of bond issues.

Leadership Analysis

Electoral success on school bond issues requires skillful leadership at the school district level. Thus, the leadership traits required to navigate Missouri's school bond election process were viewed through two distinct leadership lenses: political leadership and path-goal theory. Descriptions of each leadership paradigm's relationship to the school bond election process follows.

Political Leadership

In order to secure the resources to build and operate safe and effective schools, school district leaders must delve into the political arena. Bolman and Deal (2013) defined political leadership by identifying four principles for political leaders to observe:

- a. Political leaders clarify what they want and what they can get.
- b. Political leaders assess the distribution of power and interests.
- c. Political leaders build linkages to key stakeholders.
- d. Political leaders persuade first, negotiate second, and coerce only if necessary.

When approaching school bond proposals, it is important for school district leaders to identify clear needs and wants for new building projects. Though findings have been mixed, recent studies show that higher bond amounts are more likely to be rejected by voters (Bowers & Lee, 2013; Bowers et al, 2010a; Bowers et al., 2010b; Zimmer et al., 2011). Additionally, the specific projects included in a bond proposal, along with the

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ballot language used to describe the proposal, can increase or decrease the chances of electoral success (Beckham & Maiden, 2003; Bowers & Lee, 2013; Bowers & Chen, 2015).

Upon setting clear goals, communicating those goals to key stakeholders and patrons should be the priority of successful political leaders. Two of Bolman and Deal's (2013) principles for political leaders emphasize identifying key stakeholders: assessing the distribution of power and interests, and building linkages to key stakeholders. These principles align with practices that have been shown to increase voter approval of bonds such as creating programming designed to involve senior citizens in the schools (Crader et al., 2002), establishing diverse community task forces to conduct facilities studies, public relations campaigns (Holt et al., 2006), and identifying and mobilizing likely "yes" voters (Anzia, 2011; Anzia, 2012b; Berry & Gersen, 2010; Dunne et al., 1997; Holt et al., 2006). These traditional campaign activities are central to solid political leadership.

Path-Goal Leadership Theory

Path-goal leadership theory attempts to explain how effective leaders assist followers in achieving the goals of an organization (Northouse, 2013). Leaders are tasked with defining goals, clarifying the path, removing obstacles, and providing support (Northouse, 2013). In addition to facilitating the path towards goal achievement, the leader must make decisions that empower the followers. Empowerment comes in the form of decisions that motivate followers, increase follower efficacy, and make the work satisfying to followers. Effective leaders must consider the unique characteristics of their followers in order to make decisions regarding what types of behavior will motivate followers (Northouse, 2013). Additionally, leaders must account for the unique

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characteristics of the task at hand when deciding which actions are likely to assist their followers (Northouse, 2013).

When applying path-goal leadership to the school bond process, district leaders should develop a path that clearly outlines the steps that will be taken prior to a bond election. A directive leadership style may be employed by district leaders at the outset of the bond issue process (Holt et al., 2006). Directive leadership creates timelines, instructions, and specific expectations for the task that is to be completed (Northouse, 2013). Administrators with intimate policy knowledge of the school bond election process should be looked to for directive guidance. Additional steps along the path to goal achievement may include focus groups, task forces, campaign activities, and community outreach events (Crader et al., 2002; Holt et al., 2006). District leaders may also reward followers by providing resources secured through the bond itself, such as incorporating teacher requests into building designs.

Implications for Research in the Practitioner Setting

This study may be used to advise school district leaders and state policymakers on the impact that Article VI, 26(b) of the Missouri State Constitution has had on school bond elections over the past decade.

School Districts

The relationship between election timing, the minimum required passing percentages, and school bond election outcomes in Missouri should be studied. Proponents of 1988's Missouri Constitutional Amendment 4 argued that the minimum required passing percentage for general obligation bonds must be lowered from a two-thirds majority to a four-sevenths majority in order for school districts and municipalities

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to secure funding for vital projects (Bradley, 1988; “End Government,” 1988; Scott, 1988; “Yes for amendment 4,” 1988). Beyond anecdotal evidence suggesting that the lower threshold for required minimum passing percentages would have allowed for the passage of bond issues that had previously been narrowly defeated under the two-thirds requirement, no study was conducted to analyze what, if any, impact Amendment 4 had on the election outcomes of school bond issues (Hettrick & McMaster, 1988). Such a study may produce valuable information for school district administrators to consider while strategically planning for upcoming bond issue elections. This is especially true when one accounts for the fact that Amendment 4 left the two-thirds requirement in place for special, and off-cycle elections.

State Policymakers

When policymakers proposed Amendment 4, the referendum received bipartisan support from key politicians, including Republican Governor John Ashcroft and former Democratic Secretary of State James Kirkpatrick (“Yes for amendment 4,” 1988). Members of both parties, along with public sector unions, expressed a clear desire to make funding key public projects easier to achieve. Additionally, many of those who were generally skeptical of previous attempts to reduce the required minimum passing percentages viewed Amendment 4 more favorably due to the fact that it left in place the two-thirds majority requirement for bond issues held during special elections (Bradley, 1988; Murphy, 1988). This made it less likely that school districts would be able to “sneak” bond issues past tax payers by utilizing special elections that traditionally saw lower voter turnouts (Bradley, 1988). Findings concerning differences in election outcomes school bond elections with varying minimum required passing percentages and

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election dates may be valuable to policymakers when conducting oversight of the constitutional amendment.

Summary

The State of Missouri has a long history of adherence to the principle of local control when it comes to funding school districts. The state has maintained a two-thirds majority requirement to approve general obligation bond issues dating back to 1835. Despite difficulty approving bonds, disparities in funding levels between school districts within the state, and legal action challenging the school funding system, the two-thirds majority requirement persisted for over 150 years. In 1988, the requirement was reduced to a four-sevenths majority for elections held during regularly scheduled municipal elections, state primaries, and general elections. Still, the two-thirds requirement remained in place for special elections.

School district leaders attempting to pass a bond issue must display effective political leadership. Setting clear goals, clarifying what they want and what they can get in a bond issue, building linkages to key stakeholders, and persuading voters to support the bond issue are all central components of political leadership. Additionally, district leaders must facilitate a clear path towards the goal of bond passage. This requires long-term planning and the consideration of when to propose a bond issue to the public. The state's minimum required passing percentages election timing should be taken into account when planning.

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SECTION THREE – SCHOLARLY REVIEW

This study of how election timing relates to school bond election outcomes is couched in the election timing effect theory (Anzia, 2011). The election timing effect theory is supported by three major concepts. First, the election timing effect theory accepts that voters act in their own self-interest, an assumption which is warranted through demographic analysis of voter behavior. Second, the theory suggests that politicians, special interests, and school districts can manipulate the median voter by timing elections so that low voter turnout magnifies the effect of special interest group supporters. Third, the theory of election timing effect implies that election timing has profound consequences on social justice and educational equality in the United States. Accordingly, the literature review is organized into three sections: the self-interest principle through voter demographics, interest group magnification through election timing, and the implications of school finance elections on educational equity.

The Self-Interest Principle Through Voter Demographics

As is true with many political campaigns, sponsors of school bond issues have been keenly interested in building a demographic profile of likely voters and non-voters, as well as likely “yes” and “no” voters. Many studies have sought to build upon the foundational work of Piele and Hall (1973) in confirming the characteristics of those voters who are most likely to vote, and most likely to vote “yes” in school finance elections. Piele and Hall’s research consisted of a meta-analysis of over 100 studies conducted throughout the 1960s, making it the cornerstone of future research regarding voter demographics and school finance elections. Current demographic information may prove invaluable to school districts in predicting school finance election outcomes and

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crafting campaign strategies. There are four demographic attributes that are essential to understanding the self-interest principle theory underlying this study: race, age, education and socioeconomic status, and self-interest levels.

Race

The findings regarding the relationship between race and voter behavior in school finance elections have been mixed, though the extant literature reveals emerging trends. Piele and Hall's (1973) meta-analysis declared that white voters were more likely than their minority counterparts to vote in school finance elections; however, black voters were more likely than whites to vote in affirmation of school finance proposals. Plutzer and Berkman (2005) confirmed this by compiling data from five polls conducted between 1981 and 2000, which indicated that black voters consistently showed more support for increases in educational spending than white voters. Hickey, Linn, and Vaughn (2008) conducted bivariate correlation analysis of relationships between voter demographic characteristics and the percentage of "yes" votes cast in school bond elections in Texas. Hickey et al. (2008) found a negative correlation between the percentage of white citizens in a school district and "yes" votes on school bond issues in those districts. However, contrary to the previous research, Hickey et al. (2008) also found a negative correlation between the percentage of black voters and "yes" votes on school bond questions.

When comparing the preferences and behavior of black voters to other minority groups, Priest and Fox (2005) found that black voters were more likely to support the local school bond than other minority voters. However, Hickey (2004) and Hickey et al. (2008) revealed a positive correlation between Hispanic voter populations and "yes" votes on school bond issues, indicating that Hispanic voters were more receptive to

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school bond issues than black voters in the same districts. Bowers and Lee (2013) replicated this finding in a logistic regression study of Texas bond issues from 1997 to 2009, in which they determined Hispanic and Asian student populations corresponded to an increased likelihood of school bond issues passing. Tedin, Matland, and Weiher (2001) also found that support for school bond issues was higher among black and Hispanic voters when studying a bond issue floated in Houston, Texas in 1996. Contrarily, Silverman (2011) found that New York school districts with “larger minority populations are more likely to reject school budgets” (p. 307). However, this research referenced annual school budgets rather than school bond issues. Silverman also noted that the research failed to determine which constituencies were most likely to vote against proposed budgets, leaving the possibility that white voters could have accounted for budget defeats. While investigating the impact of race on school referenda outcomes, Bali (2008) found that minority voters did prefer a California initiative that reduced the voter approval threshold for school bond passage, however the finding was not considered to be statistically significant.

Possible explanations for the differences in the rate at which racial groups are supportive of school bond issues typically focus on the motivations of each group. Tedin et al. (2001) found that white voters were generally more motivated by self-interest (i.e. being a homeowner, retired, or never married), whereas black and Hispanic voters were more motivated by symbolic factors (i.e. political party affiliation, group identity politics, and equalitarianism). In other words, identity politics prevailed among voters of similar racial backgrounds, creating a consistent voting bloc on issues perceived to be critical to the best interests of the racial group as a whole.

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Age

Voter age is another demographic tied to clear indicators of voter preference in school finance elections. Initial research by Piele and Hall (1973) suggested that middle-aged voters were the most likely to vote in school bond elections, while younger voters were most likely to vote “yes.” Since the Piele and Hall (1973) findings, multiple studies have shown that older voters, especially those over the age of 65, are less likely to support school bond issues (Bowers & Lee, 2013; Button, 2012; Harris, Evans, & Schwab, 2001; Hickey et al., 2008; Plutzer & Berkman, 2005). Tedin et al. (2001) notes, “It is common to find anti-tax sentiment among older citizens to be a major predictor of a negative vote on bond referenda” (p. 271). Some researchers believe that these findings indicate older voters vote according to their own self-interest considering many retired persons live on fixed incomes, are averse to tax increases, and see little in the way of a direct benefit to themselves without having school-aged children in the home (Bowers & Lee, 2013; Button, 1992; Tedin et al., 2001).

The behavior of aging voters in school finance elections becomes more defined when analyzing race as a sub-demographic. White voters over the age of 65 were significantly less likely to support school bond issues than black and Hispanic voters of the same age (Tedin et al., 2001). Additionally, Tedin et al. (2001) found that black and Hispanic voters were more receptive to school bond issues when offered tax exemptions based on age. However, this was not true of elderly white voters. The trend of older voters opposing school bond issues becomes even more well-defined when voters and “the school-age population are members of different racial groups” (Ladd & Murray, 2001, p. 344). Multiple researchers have suggested that support for school finance

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elections wanes among older, white voters when the school district in question has majority-minority student enrollments (Bali, 2008; Ladd & Murray, 2001; Silverman, 2011; Tedin et al., 2001).

Although voters over the age of 65 vote against school bond issues at a higher rate than other age groups, all may not be lost for districts with aging populations. Plutzer and Berkman's (2005) findings suggest that each successive cohort of voters "becomes more supportive of educational spending, rather than less, as they reach their 60s and 70s," suggesting that the age demographic will become less influential over time. Bowers & Lee (2013) note that there are indicators that the traditional perception of older voters may be becoming obsolete.

Education & Socioeconomic Status

Research suggests that voters with a post-secondary education are more inclined to support school finance issues than voters without post-secondary educations (Bowers, Metzger, & Militello, 2010b; Hickey et al., 2008; Piele & Hall, 1973; Plutzer & Berkman, 2005). Tedin et al. (2001) found that higher levels of education only increased the likelihood of supporting school bonds among white voters, while educational attainment showed no relationship for black and Hispanic voters. While it may seem counterintuitive that voters without a college education would not support additional school funding, Bowers et al. (2010b) posits that this response may be due to the self-perception that these voters "received fewer personal or economic benefits from their own educational experience and feel less motivation to pay more for new schools" (p. 390).

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Socioeconomic status, as measured by income levels, seems to show similar trends. Piele and Hall (1973) identified high-income earners as the most likely to vote in school finance elections, and the most likely to vote “yes” in those elections. Piele and Hall surmised that this could be explained “by the theory of the marginal utility of income: as dollars increase in numbers, their value to their possessor decreases” (p. 11). Once again, Tedin et al. (2001) found that higher socioeconomic status only resulted in increased support for school bond issues among white voters, while showing no relationship for black and Hispanic voters. Bowers et al. (2010b) found that districts in Michigan with lower socioeconomic status (as measured by free lunch rates) had more difficulty passing bond issues; however, Bowers and Lee’s (2013) assessment of the same variable in Texas was found to be not significant. While seeking correlations, Hickey et al. (2008) found mixed results which indicated that higher city median incomes and lower city poverty levels were positively correlated to higher percentages of “yes” votes in school bond elections. Yet, when correlating district wide socioeconomic status—as measured by the Texas Education Agency’s Academic Excellence Indicator System—to the percentage of “yes” votes, Hickey et al. (2008) found a slightly negative correlation. These findings suggest that the school districts most in need of tax payer support will have the most difficulty achieving successful school bond election outcomes.

Self-Interest Principle

In an attempt to explain the political behavior revealed through demographic analysis, some political scientists have turned to the self-interest principle (Bali, 2008; Button, 2012; Tedin et al., 2001; Piele & Hall, 1973; Plutzer & Berkman, 2005). Essentially, this theory asserts that voter behavior is typically motivated by the action

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best serves the interest of the voter. The self-interest principle was demonstrated in studies by showing that voters, regardless of other demographic characteristics, were more likely to support school bond issues if they had children enrolled in the school district, or were homeowners that stood to increase their home's value via school improvements (Bali, 2008; Harris, Evans, & Schwab, 2001; Tedin et al., 2001).

Alternately, this theory could also be used to explain why retired homeowners on fixed budgets consistently vote against higher school taxes (Bowers & Lee, 2013; Button, 2012; Tedin et al., 2001). In explaining voter trends by racial group, Tedin et al. (2001) offers that minority groups often define their self-interest in terms of groups benefits, and "as long as race plays a major role in defining life chances it is rational for African-Americans to follow group cues in coming to political decisions" (p. 286).

Interest Group Magnification Through Election Timing

If the self-interest principle can be used to explain voter behavior according to race, age, education, socioeconomic status, and homeownership, how can school districts capitalize on this information to pass school bonds? Perhaps the answer lies in election timing and median voter manipulation through interest group magnification.

The timing of school bond elections has been researched in various capacities. Bowers et al. (2010b) found that school bond issues in Michigan were more likely to pass when they were voted on later in the calendar year. In a separate study, Bowers, Metzger, and Militello (2010a) found that timing mattered due to the fact that first floats of bond issues were always more successful than second and third floats. Multiple researchers have found that school finance elections are more successful during special elections than general elections (Collins & Dove, 2013; Dunne et al., 1997; Lentz, 1999). Others

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suggest that timing makes little difference (Beckham & Maiden, 2003; Gong & Rogers, 2014). It should be noted that Beckham & Maiden (2003) found that the time of year in which a school bond election was held made no difference on the election's outcome. However, Beckham and Maiden (2003) utilized multiple regressions that categorized Oklahoma school bond issues as either being held between January 1 and June 30, or July 1 and December 31. While their findings contradicted Bowers' et al. (2010b) findings from Michigan, Beckham and Maiden (2003) did not categorize the bond issues into polychotomous groups such as such as election type (e.g. special, primary, or general elections), or month of election.

For this study, the review of literature regarding election timing is organized around three concepts: how election timing has been viewed as a tool of progressive reform, how election timing affects voter turnout, and how election timing can be used to select the median voter.

Progressive Reform

Beginning in the late nineteenth century, many major American cities began separating their municipal elections from state and national elections (Anzia, 2012a). While some municipalities chose to move their elections to the spring in order to separate them from state and national elections, others chose to shift elections to off-cycle years and avoid state and national election years altogether. Today, roughly “80 percent of cities... hold general elections at times other than national Election Day” (Anzia, 2012b, p.210). Additionally, “more than half of all American school district elections are held separately from state and national elections” (Anzia, 2011, p. 412). Anzia (2012a) suggests that the local election schedule was a tool used by progressive era reformers to

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loosen the grip of political machines on the control of city government. Progressives not only pushed election reform, but education reform as well. Progressive reforms resulted in an increase in the number of schools and students served in rapidly growing urban communities, compulsory school laws, and a growing educated middle class (Laats, 2012).

Voter Turnout

It is well documented that voter turnout fluctuates depending upon the type of election. National and state elections see higher voter turnout than local elections (Anzia, 2012a; Wood 2002). General elections see higher voter turnout than primary elections (Jacobson, 2001). Presidential elections see higher voter turnout than midterm elections (Raney, 1972). Off-cycle municipal elections see voter turnouts over 30 percentage points lower than on-cycle municipal elections (Hajnal & Lewis, 2003). The increased voter turnout for high profile state and national races tends to create a down-ballot effect that results in increased voter turnout for local elections that are held concurrently (Aldrich, 1993). This trend holds true for school board elections, which see lower voter turnout when they are held separately from other elections (Anzia 2011; Hess, 2002).

While researchers generally agree that voter turnout wanes during local elections, there is disagreement over what, if any, impact voter turnout has on election results. Some studies find that voter turnout has little to no effect on national election outcomes (Highton & Wolfinger, 2001). However, studies of local elections suggest that the impact of voter turnout may affect outcomes. For example, Dunne et al. (1997) found that off-cycle election timing increased the number of “yes” votes in school bond elections. Piele and Hall (1973) argued that the demographic indicators of those most likely to vote

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largely coincide with the indicators of those most likely to vote “yes” in school finance elections. Consequently, Piele and Hall (1973) argued that strategies aimed at increasing voter turnout would likely result in increasing the “no” votes. Similarly, Gong and Rogers (2014) found that turnout was generally predictable based on demographic indicators, and while predictable levels of turnout did not influence bond election outcomes, “higher-than-expected turnout [was] associated with lower bond approval shares and lower chances of passing” (p. 260). Lentz (1999) suggested that school districts choose primaries over general elections when floating school bond issues after finding that school referenda in small rural and residential communities were more likely to fail in general elections, and school referenda in mixed-rural and growing, older communities were more likely to pass in primary elections.

Voter Self-Selection & Median Voter Selection

Dunne et al. (1997) offered the most straightforward explanation for how school districts can utilize election timing to maximize school bond approval rates:

Voters will generally show up at the polls in the proportion to which a particular electoral decision is likely to affect them. If the benefits from a particular public choice are concentrated among voters, and the costs are dispersed, then the voter self-selection will result in a disproportionate number of ‘yes’ voters casting votes on election day. Politicians can encourage this self-selection by choosing voting dates and places that discourage ‘no’ voters from voting. In this sense, politicians can be thought of as ‘choosing’ the median voter. (p.100)

Dunne et al. (1997) noted that school districts could influence the median voter by placing bond issues on ballots during special elections rather than general elections,

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scheduling bond elections during the school year, and targeting “yes” voters during campaigns. Creating such conditions may allow for organized special interest groups to maximize their effectiveness by mobilizing voters while their issues and candidates’ low public profile suppresses turnout from the opposition (Anzia, 2011; Anzia, 2012b; Dunne et al., 1997).

Median voter selection achieved through election timing is also discussed in the work of other relevant researchers. Similar to Dunne et al. (1997), Anzia (2011) and Berry and Gersen (2010) argue that highly organized special interest groups are able to activate their voters during off-cycle elections because their voters stand to benefit the most from voting. Conversely, voters who do not stand to gain directly from the issues promoted by special interest groups may find less motivation to vote due to the lack of a high-profile race at the top of the ballot. Consequently, large numbers of potential “no” voters who may vote on local issues when they appear on ballots during national elections, simply do not vote on off-cycle election days.

Collins and Dove (2013) reaffirm these theories through their work analyzing educational special purpose local option sales tax (ESPLOST) elections in Georgia. Similar to school bonds, ESPLOSTs raise money for capital projects, can be proposed by school boards, can be placed on special, primary, or general election ballots at the discretion of school boards, and must be approved by voters. Collins and Dove (2013) found that ESPLOST proposals “placed on a special election ballot were significantly more likely to pass, had much higher voter approval rates, and also saw much lower voter turnout in general” (p. 291).

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The Implication of School Finance Elections on Educational Equity

While the prospect of school districts timing bond elections in order to manipulate the median voter, create favorable voter self-selection, and mobilize likely “yes” voters would seemingly predict an affirmative election outcome, these strategies can be—and have been—used to suppress school spending, entrench school segregation, and disenfranchise minority voters.

Prior to *Brown v. Board of Education* (1954), white voters often supported bond issues in order to solidify school segregation. Notably, in 1923 the Indianapolis Ku Klux Klan publicly supported a school bond issue that would eventually fund the building of Crispus Attucks High School in order to continue segregation at the secondary level (Laats, 2012). After court-mandated desegregation became a reality, southern white voters often voted against school bond issues in order to resist school desegregation (Atkinson, 1984; Priest & Fox, 2005; Wainscott & Woodard, 1986). In 1984, *The Washington Post* reported on the Sumter County (GA) School District, which had a student enrollment that was 81% black, yet was “run by an all-white school board, a white superintendent and a white attorney, none of whom sent their children or grandchildren to the public schools” (Atkinson, 1984, p. A1). It was reported that tax support for the district had “been reduced by two-thirds since the schools were desegregated in 1970” as whites increasingly sent their children to all-white private academies (Atkinson, 1984, p. A1).

There is reason to be concerned that poorly timed school bond elections could be deny urban districts with large minority enrollments the tax revenue that is needed to update, repair, and equalize their school facilities. Throughout the United States, large

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metropolitan school districts—including Kansas City and St. Louis—have experienced white flight, immigration, and high minority birth rates, resulting in majority-minority student enrollments and electorates made up of “a majority or plurality of white voters” (Tedin et al., 2001, p. 271). This demographic dynamic is troubling when considering the prospects for school funding equality, for a number of reasons. First, most demographic research suggests that white voters are likely to be motivated by self-interest factors (Bali, 2008; Hickey et al., 2008; Tedin et al., 2001). When white voters choose to send their children to private schools, it presumably lowers the direct benefit they would receive in return for imposing higher property taxes on themselves via a public-school bond. Second, multiple studies have found that elderly voters—who are typically opposed to any new tax—support school bond issues at even lower rates when they and the district’s students are from different races (Bali, 2008; Ladd & Murray, 2001; Poterba, 1997). Third, the impact of these preferences may be profound, considering that elderly, white voters are the most likely to vote in low-turnout elections (Anzia, 2014; Piele & Hall, 1973). Lastly, the failure of a school bond issue can have lasting impacts on economically depressed communities because a perceived unwillingness to support school spending proposals can lead to lower rates of residential and commercial development, which prolongs tax revenue based school spending inequalities (Brasington, 2017).

Anzia (2014) suggests that we need not look any further than Ferguson, Missouri to illustrate how election timing can suppress the political preferences of the majority. Ferguson drew national and international attention when violence and unrest broke out after a white police officer, Darren Wilson, shot and killed an unarmed black teenager,

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Michael Brown (U.S. Department of Justice, 2015). Beyond the controversy surrounding the shooting itself, many critics were left to wonder how the city, where two-thirds of the residents are black, “elected a white mayor, five out of six white council members, and has a 53-member police force with only three black officers” (Anzia, 2014, para. 2). As an explanation, Anzia notes that Ferguson, like all Missouri municipalities, holds its city elections off-cycle. This resulted in city elections in the spring of 2013, in which only 12% of residents voted. Of those voting, white residents were three times more likely than black residents to cast a ballot.

When considering median voter manipulation via electoral timing, it is easy to envision this political strategy being used as a way to increase (or decrease) the likelihood of school bond issues passing. Such a strategy could be used to combat, or entrench, educational inequalities in much the same way that off-cycle elections were used to reinforce white political dominance in Ferguson.

Discussion of the Study Through the Theoretical Framework

The state of Missouri presents a unique opportunity to study the relationship between election timing and school bond passage rates. Little research regarding school bond election timing focuses on the election date and minimum required passing percentages as the main unit of analysis.

In Missouri, school districts are allowed to select from a wide range of dates and types of elections in which to propose bond initiatives. If election timing results in median voter manipulation as the research suggests, Missouri school districts should see a distinct advantage in proposing school bonds during February special elections, April municipal elections, and off-cycle (special) August and November elections. However, in

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1988, when Missouri voters adopted Amendment 4, which reduced the minimum required passing percentage for general obligation bonds from a two-thirds majority to a four-sevenths majority, the amendment left in place the two-thirds majority for special elections in February, August, and November (Bradley, 1988; Missouri DESE, 2017). In a 1988 interview with *The Kansas City Star*, State Representative Bonnie Sue Cooper (R – North Kansas City) endorsed Amendment 4, noting that the proposal garnered widespread support by maintaining the two-thirds majority requirement for special elections so that school districts could not “sneak something by the voters” (Bradley, 1988). This is a clear allusion to the median voter manipulation theory. To date, no research has been conducted to determine if this added layer of “voter protection” has any relationship to school bond passage rates.

A number of social and demographic factors combined to make this study even more relevant. First, Missouri is on the cusp of experiencing a dramatic increase in the number of voters over the age of 65 as baby boomers reach retirement. In fact, the state of Missouri projects that the number of citizens over the age of 65 will increase by 87% between 2000 and 2030. Suburban counties near St. Louis and Kansas City are expected to see major overall population increases. By 2030, the state projects St. Charles County to grow by 76%, and Cass, Clay, and Platte Counties to grow by 62% (Missouri Office of Administration, n.d.). Such growth will likely place burdens on school districts to accommodate increasing student enrollments. These demographic changes, combined with recent flashpoints of racial unrest surrounding educational institutions in Missouri, stand to potentially alter the self-interest calculus of voters according to race. The state takeover of St. Louis Public School District, increased state oversight of Kansas City

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Public Schools, Riverview Gardens School District, and Normandy Schools, and racial unrest at the University of Missouri, have highlighted differences in educational policy preferences along racial lines (Gay, 2007; Griffin, 2013; Izadi, 2015). In light of these demographic factors, the ability of Missouri school districts to understand the relationship between election timing and school bond elections is an issue of great weight and merit.

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SECTION FOUR – CONTRIBUTION TO PRACTICE

Plan for Dissemination of Practitioner Contribution

Missouri School Board Association Conference

September 27-30, 2018

Tan-Tar-A, Osage Beach, MO

Type of Document

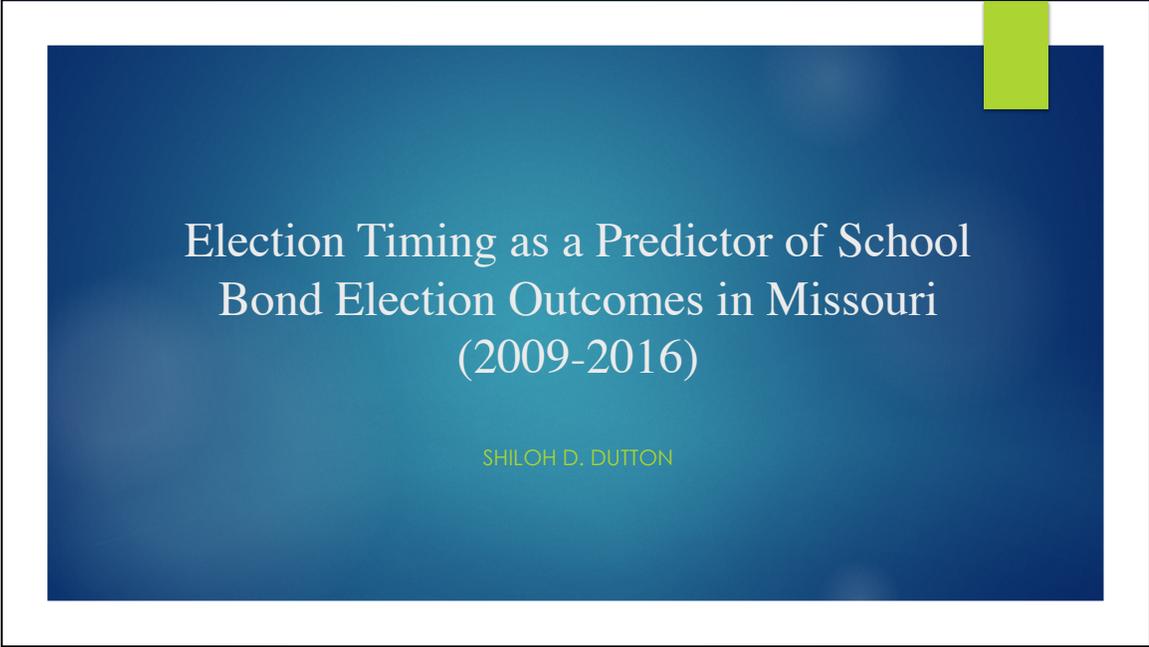
Slide Show Presentation

Rationale for this Contribution Type

The slide show presentation is designed to assist stakeholders in making decisions based upon how proposed policy actions will likely effect the achievement of stated goals. The findings of this study will assist school boards in determining what the probable effect of policy regarding the electoral timing of school bond issues will have on the outcome of school bond elections. This information will also be useful in the long-term planning of school finance decisions by Missouri school boards.

Outline of Proposed Contents

- I. Statement of Problem
- II. Election Timing Theory
- III. Analysis of Missouri School Bond Elections 2009-2016
- IV. Recommendations for Missouri School Administrators



Election Timing as a Predictor of School
Bond Election Outcomes in Missouri
(2009-2016)

SHILOH D. DUTTON

Purpose of Research

- ▶ The goal of this study is to search for differences in Missouri school bond election outcomes based on:
 - ▶ Election Timing
 - ▶ Special Elections v. Regularly Schedule Elections
 - ▶ On-cycle (Even Years) v. Off-cycle Elections (Odd Years)
 - ▶ Municipal Elections v. State & National Elections
 - ▶ Calendar Positioning

Special Elections: Bond issues more likely to pass during special elections. (Collins & Dove, 2013; Dunne, Reed, & Wilbanks, 1997; Lentz, 1999)

On-cycle v. Off-cycle: Linked to rates of voter turnout (Anzia, 2011; Anzia, 2012a; Hajnal & Lewis, 2003; Hess, 2002; Jacobson, 2001; Wood 2002)

Municipal v. State/National: Linked to rates of voter turnout (Anzia, 2011; Anzia, 2012a; Hajnal & Lewis, 2003; Hess, 2002; Jacobson, 2001; Wood 2002)

Calendar Positioning: Bowers, Metzger & Militello (2010b) found bond issues floated later in the calendar year in Michigan were more likely to pass. Factors may include: closer to start of the school year, before holiday spending debts, and further removed from tax day.

November 1988: Amendment 4

- ▶ Statewide referendum to reduce the 2/3 majority required to pass public bond issues.
- ▶ "The [2/3 majority] system is programmed against reasonable, planned, responsible action... government at its worst."

-Governor John Ashcroft

- Missouri's requirement of 2/3 majority for school bond issues (all public bonds) dates back to School Act of 1835.

- Originally intended to protect the public from railroads and other semi-public corporations.

- In 1988, MO was one of four states still requiring 2/3 majority for public bond approval.

- **Bipartisan support for Amendment 4:** long term costs of running multiple bond issues, rising cost of projects put off until structures were beyond repair, hampered economic development, competition with Kansas in KC metro.

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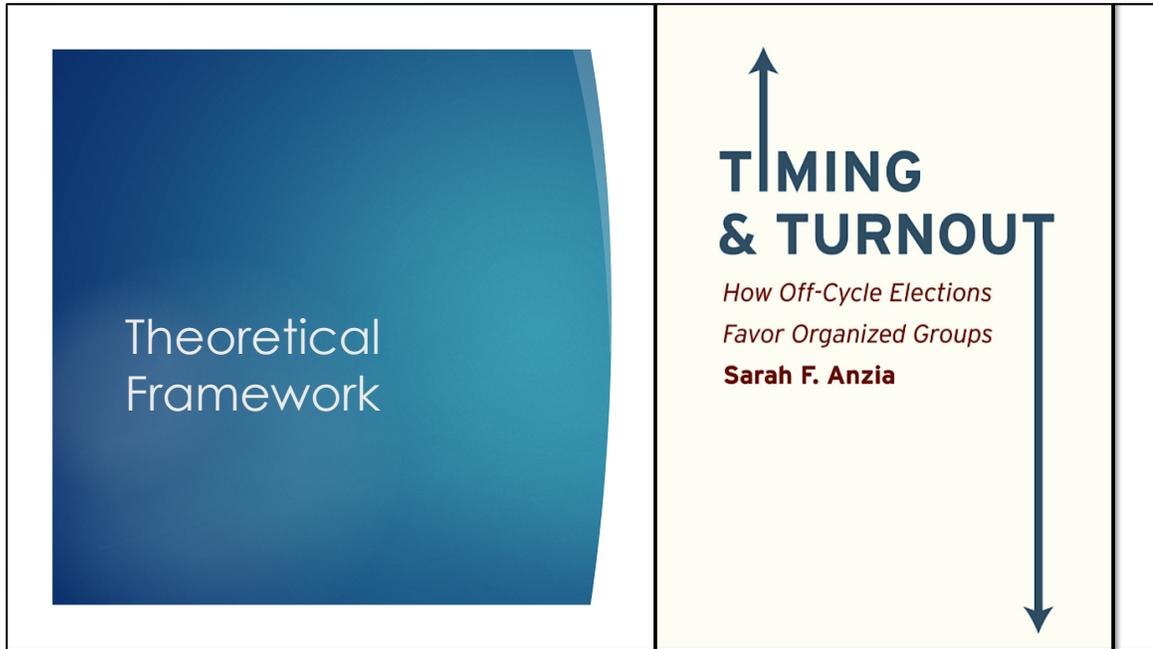


The graphic features a dark blue header with the title 'School Bond Elections in Missouri' in white. A small lime green square is positioned in the top right corner of the header area.

Tax Proposal	Month	Required Passing %	Reference
Bond Issue	February	66 2/3%	
	April	57.14%	
	August	66 2/3% in odd years 57.14% in even years	Article VI, 26(b) Missouri Constitution
	November	66 2/3% in odd years 57.14% in even years	

- Source: Missouri DESE (2016)
- “Odd Years” = Off-cycle August and November elections.

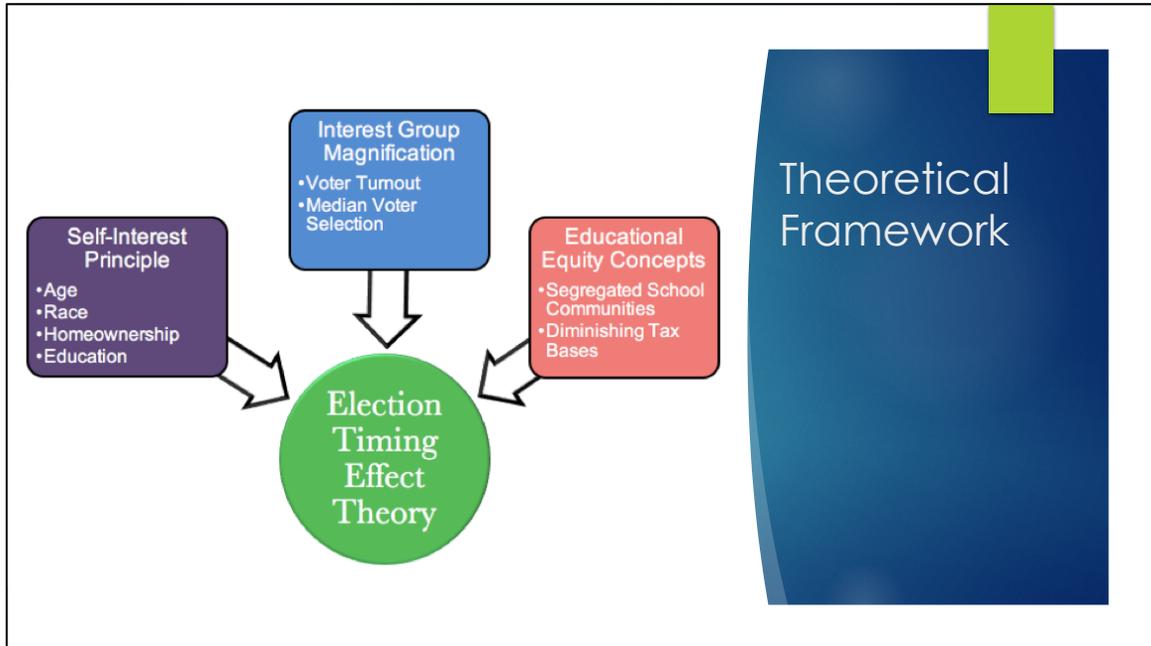
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- Anzia, S. F. (2014). *Timing & turnout: How off-cycle elections favor organized groups*. Chicago: The University of Chicago Press.

- The core of the study's theoretical framework.

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Self-Interest Principle: Voters will behave in ways that benefit themselves. Often these demographics conflict: property taxes v. school-aged children.

Key Demographic Studies:

- Race – negative correlation between white voters and school bond approval (Hickey, Linn, & Vaughn, 2008). Blacks and Hispanics more likely to support school bond issues (Bowers & Lee, 2013; Hickey et al., 2008; Priest & Fox, 2005; Tedin, Matland & Weiher, 2001). Perhaps due to the notion that white voters are more likely to define self-interest at a personal/individual level, whereas minority groups are more likely to perceive self-interests in terms of what is best for the collective minority group (Tedin et al., 2001).

- Age – Does the graying of America = doom for school spending? Maybe not, but older voters generally don't help pass school bonds (Bowers & Lee, 2013; Button, 2012; Harris, Evans, & Schwab, 2001; Piele & Hall, 1973; Plutzer & Berkman, 2005)

 - Older voters are more consistent voters... (Piele & Hall, 1973)

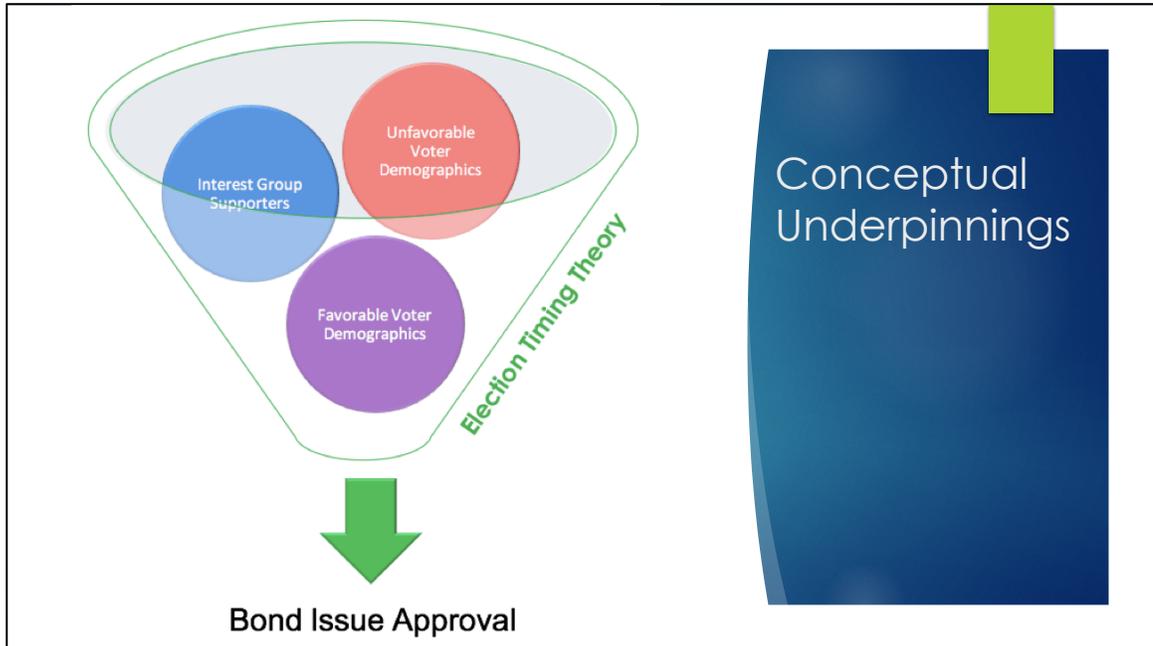
 - Older voters more likely to reject school bond issues when the school-age population are members of different racial groups. (Ladd & Murray, 2001)

- Education -- Higher education levels = more likely to support school bonds (Bowers, Metzger, & Militello, 2010b; Hickey et al., 2008)

Interest Group Magnification: Election timing may discourage certain demographic groups from voting. (Anzia, 2011, 2012b, 2014)

Educational Equity Concepts: Bonds key to drawing business and property tax values (cyclical). Impact of private schools on self-interest principle calculations.

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- **Interest Group Magnification:** Election timing may discourage certain demographic groups from voting. (Anzia, 2011, 2012b, 2014)
- Metaphor would be more accurate with a filter on the tip of the funnel...

Research Questions

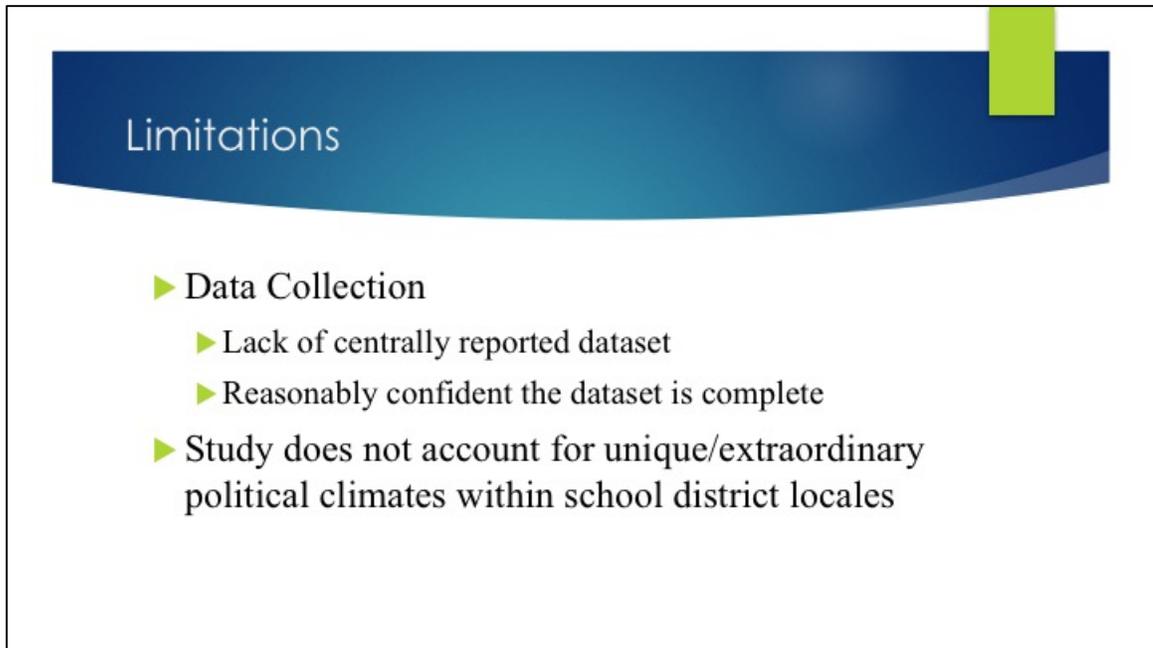
- ▶ RQ1: What are the descriptive summary statistics for Missouri school bond elections when analyzed by the following variables: election timing, minimum required passing percentages, and election outcomes?
- ▶ RQ2: Is there a statistically significant relationship between election outcomes and required minimum passing percentages for Missouri school bond elections held from 2009-2016?
- ▶ RQ3: Do electoral outcomes of Missouri school bond elections differ between on-cycle elections and off-cycle elections?
- ▶ RQ4: Do electoral outcomes of Missouri school bond elections differ between elections held in early in the calendar year and those held late in the calendar year?
- ▶ RQ5: Do electoral outcomes of Missouri school bond elections differ between elections held in April and on-cycle elections held in August and November?

Research Methodology

- ▶ Data Collection
 - ▶ Missouri State Auditor
 - ▶ Archived Missouri Newspaper (*Newsbank*)
 - ▶ *Ballotopedia* Online Database
- ▶ Statistical Analysis
 - ▶ Descriptive Statistics (Research Question 1)
 - ▶ Chi-square test of independence (Research Question 2)
 - ▶ Independent-samples *t*-test (Research Questions 2-5)

Data Collection:

- High confidence in the data for approved bonds (MO Auditor)
- Less confidence on failed bonds, especially from rural areas without major newspaper coverage.
- Cross-referenced dataset with industry records when available



Limitations

- ▶ Data Collection
 - ▶ Lack of centrally reported dataset
 - ▶ Reasonably confident the dataset is complete
- ▶ Study does not account for unique/extraordinary political climates within school district locales

- School bond issues are locally certified, and there is no requirement to report election results to the Missouri Secretary of State's office.
- Some districts prefer February elections (Grain Valley), and such a process has become part of the district's culture. Others have dealt with scandals, public relations issues, and economic issues that are unique to their district. These issues may outweigh any impact that timing has on election results.



Research
Question #1



What are the descriptive summary statistics for Missouri school bond elections when analyzed by the following variables: election timing, minimum require passing percentages, and election outcomes?

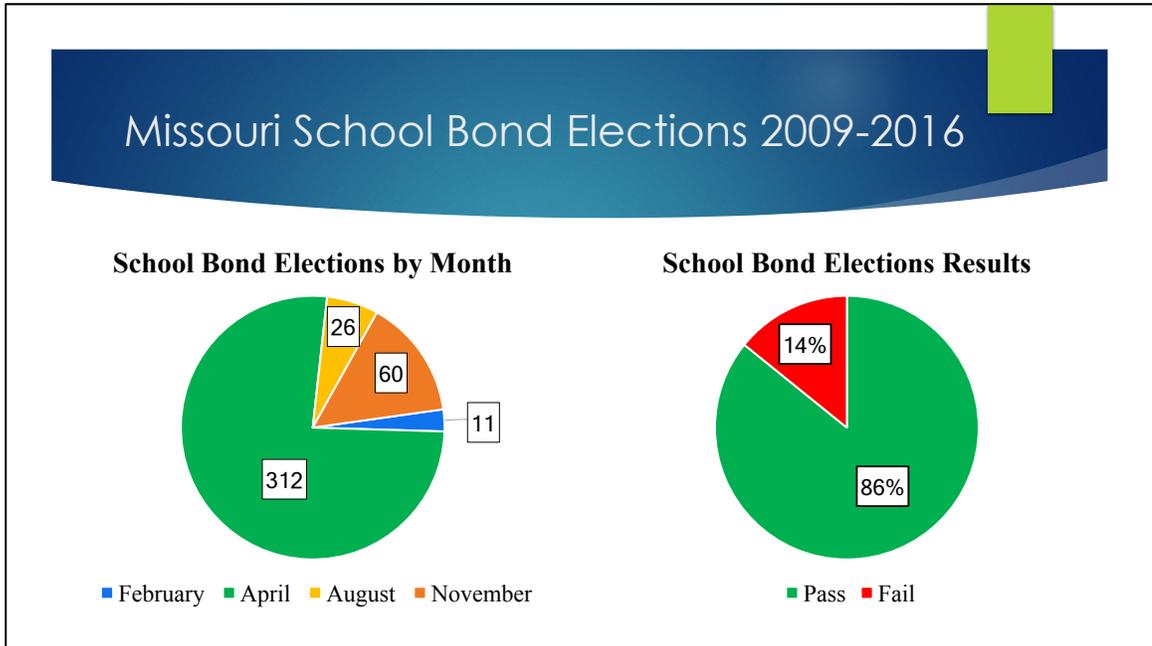
SCHOOL BOND ELECTION TIMING

Missouri School Bond Elections 2009-2016

Election Type	Required Passing %	Pass	Fail
February	66.67	8	3
April	57.14	270	42
August On-Cycle	57.14	18	6
August Off-Cycle	66.67	1	1
November On-Cycle	57.14	19	3
November Off-Cycle	66.67	1	1
	57.14 ^a	34	2
Total		351	58

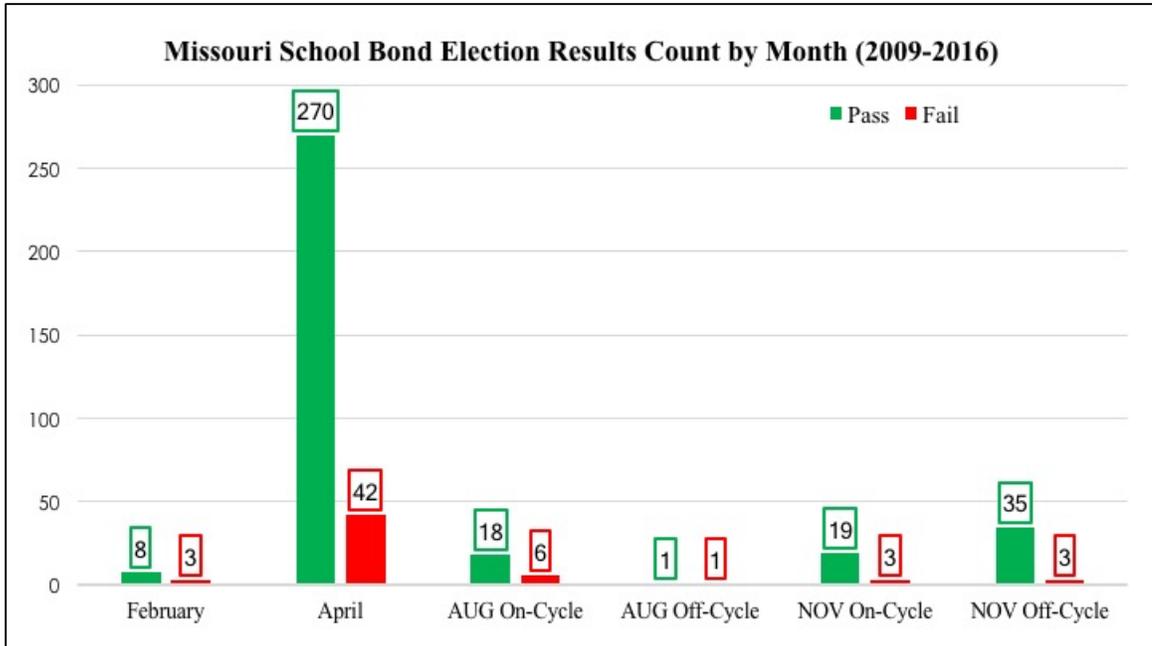
^aWith the passage of A.L. 2009 S.B. 291, the Missouri General Assembly provided for a one-time special election in November of 2009 which allowed school districts to propose bond issues using the 57.14% threshold for approval.

SCHOOL BOND ELECTION TIMING



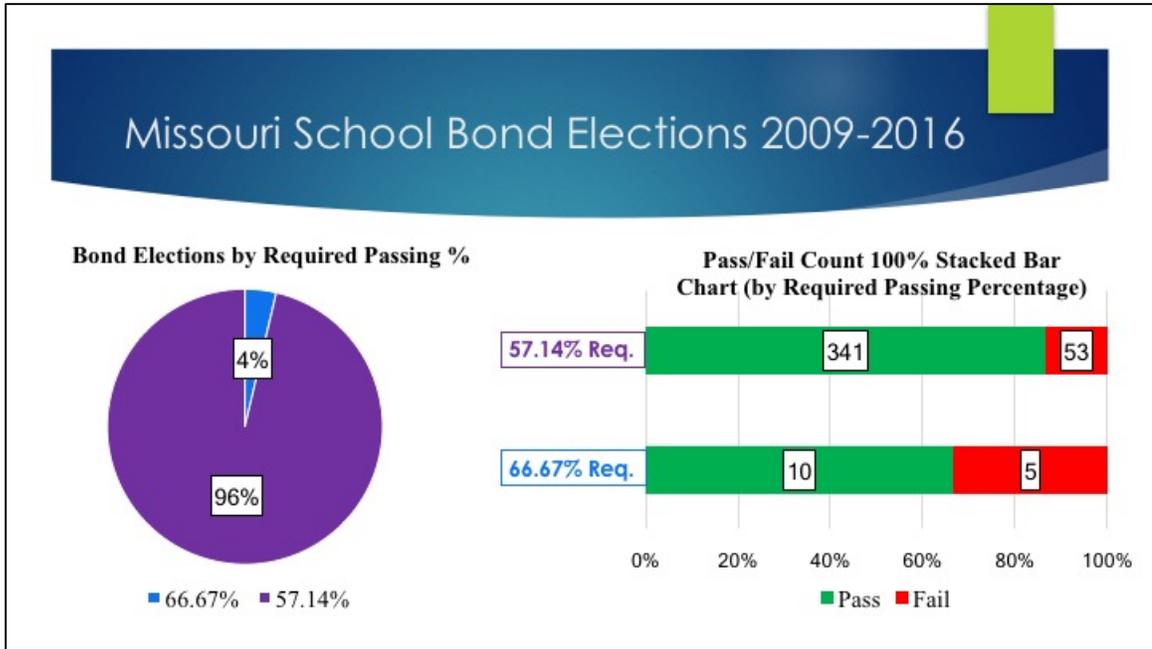
- 76% of school bond issues floated during April
- 38 of the 60 November elections were floated during 2009 when the 57.14% RPP was in effect.

SCHOOL BOND ELECTION TIMING



- November Off-cycle: 36 of 38 elections floated in 2009, when RPP was lowered to 57.14%.
- NOV 2009: 34 Pass – 2 Fail
- ALL OTHER NOV Off-Cycle: 1 Pass – 1 Fail

SCHOOL BOND ELECTION TIMING



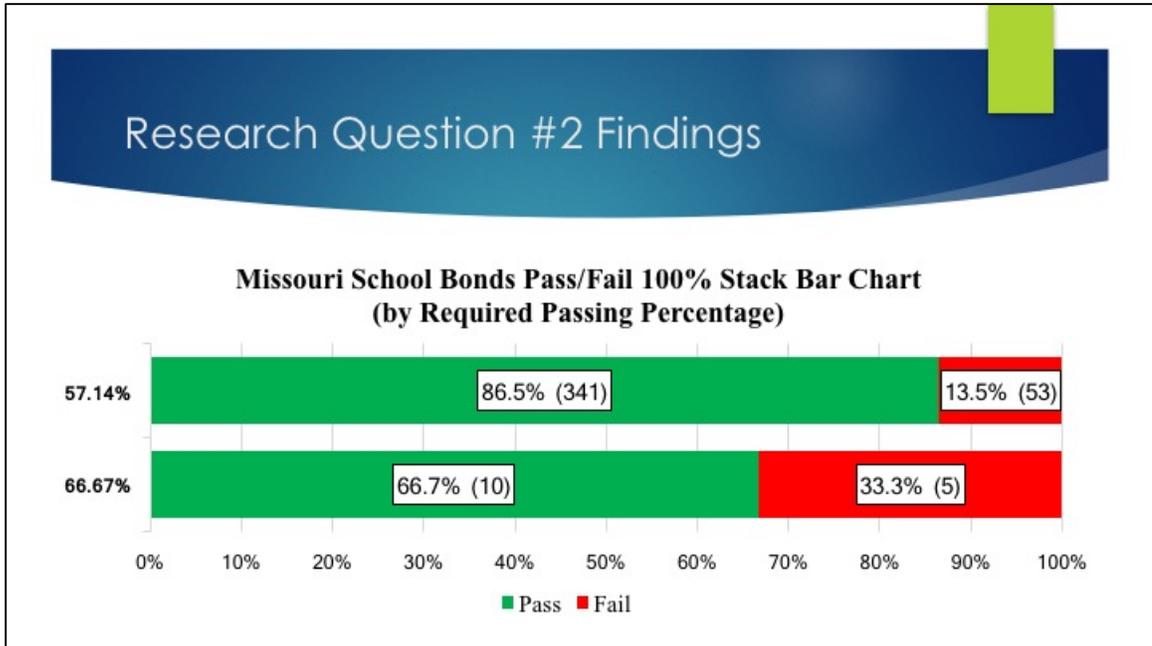


Research
Question #2

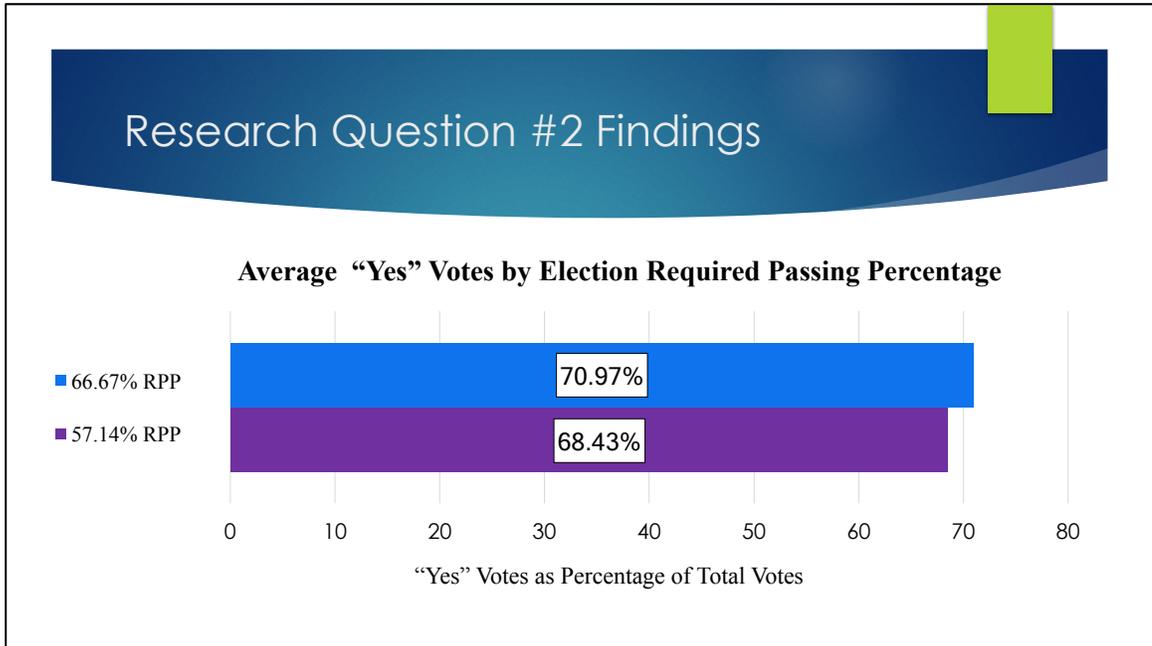


Is there a statistically significant relationship between election outcomes and required minimum passing percentages for Missouri school bond elections held from 2009-2016?

SCHOOL BOND ELECTION TIMING



- Chi-square test found a significant interaction found between Require Passing Percentages and Pass/Fail Rates.
- Odds Ratio calculations show bonds requiring 57.14% PP were 3.2 times more likely to pass than those requiring 66.67%.



- 2/3 RPP majorities left in place to keep school districts from “sneaking bonds past voters” (Bradley, 1988).
- Closes “loophole” of using special elections and off-cycle elections prescribed by Election Timing Theory...
- No significant difference in share of vote received by bond issues in 4/7ths RPP elections compared to 2/3rds RPP elections.

Research Question #2 Findings

- ▶ Significant difference in pass/fail outcomes between elections requiring 2/3rds and 4/7ths majorities for approval.
- ▶ No significant difference in vote shares between the two types of elections.
- ▶ What does this mean?



Research
Question #3



Do electoral outcomes of
Missouri school bond
elections differ between on-
cycle elections and off-cycle
elections?

Research Question #3

- ▶ Election Timing Theory & On-cycle v. Off-cycle elections.
 - ▶ Turnout highest in presidential elections
 - ▶ Lower during presidential mid-term elections
 - ▶ Lowest during off-cycle municipal election

- ▶ Do these trends hold true in Missouri?

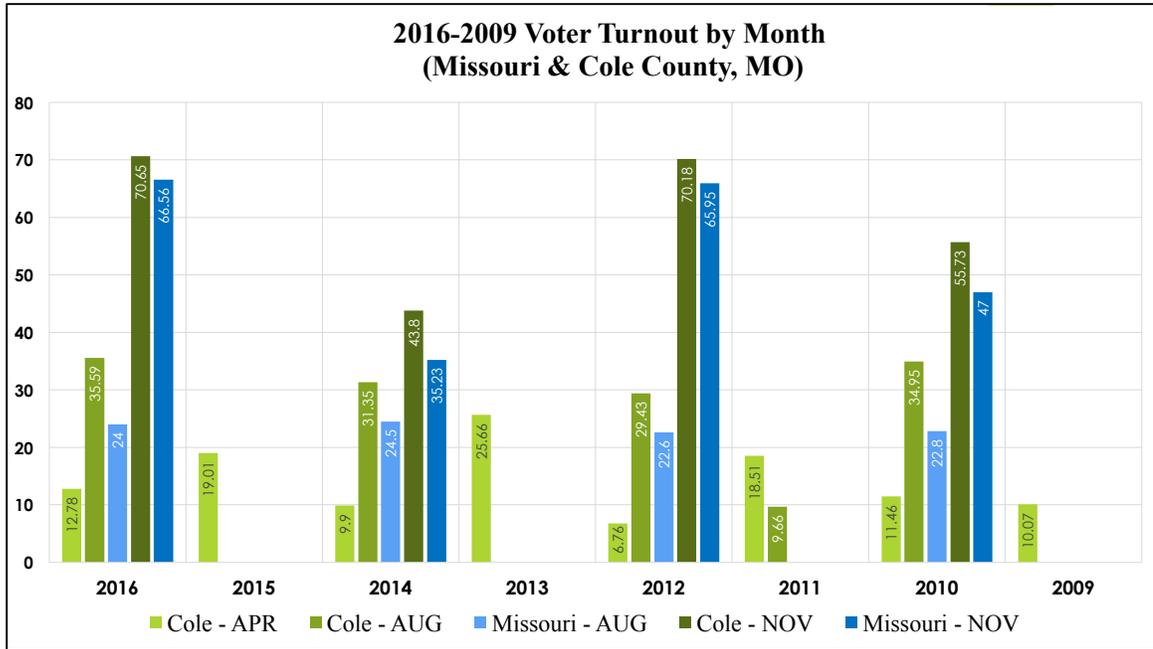
• **Special Elections:** Bond issues more likely to pass during special elections. (Collins & Dove, 2013; Dunne, Reed, & Wilbanks, 1997; Lentz, 1999)

• **On-cycle v. Off-cycle:** Linked to rates of voter turnout (Anzia, 2011; Anzia, 2012a; Hajnal & Lewis, 2003; Hess, 2002; Jacobson, 2001; Wood 2002)

• **Municipal v. State/National:** Linked to rates of voter turnout (Anzia, 2011; Anzia, 2012a; Hajnal & Lewis, 2003; Hess, 2002; Jacobson, 2001; Wood 2002)

• True in Missouri? In short, YES.

SCHOOL BOND ELECTION TIMING



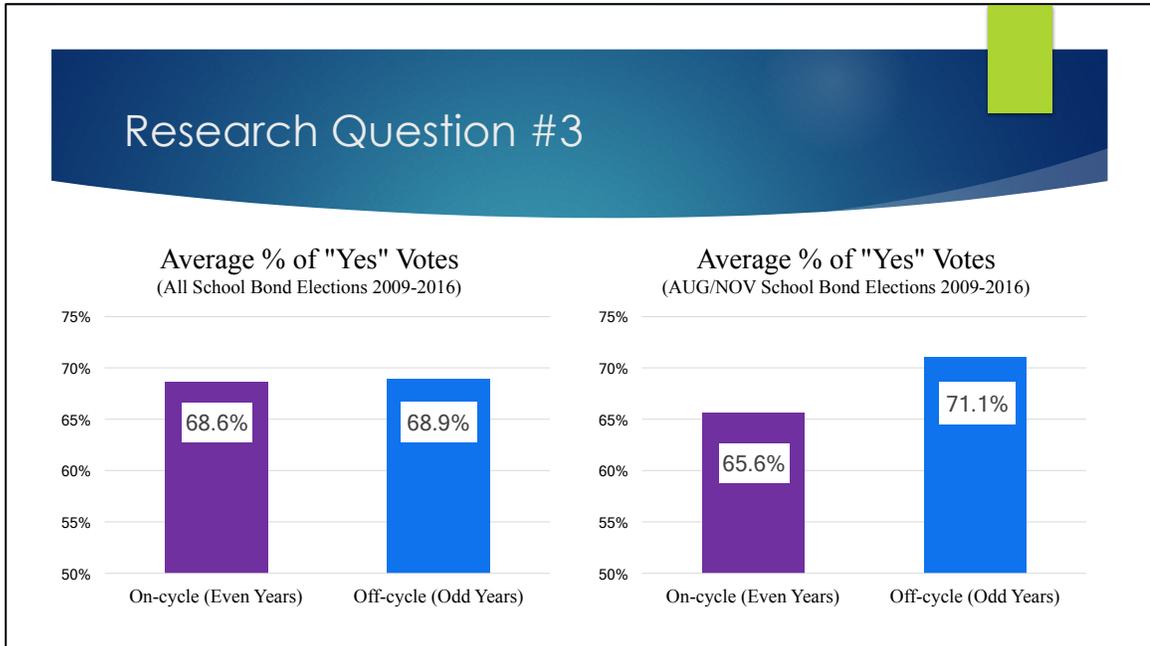
- Blue bars denote statewide elections in Missouri (AUG & APR)

- Statewide Voter Turnout Calculated by race with highest turnout:

- Nov 2016 – Presidential General Election
- Aug 2016 – Gubernatorial Primary
- Nov 2014 – MO Constitutional Amend. 3
- Aug 2014 – MO Constitutional Amend. 7
- Nov 2012 – Presidential General Election
- Aug 2012 – MO Constitutional Amend. 2
- Nov 2010 – US Senate General Election
- Aug 2010 – MO Prop C (Nullify Affordable Care Act)

- Why use Cole County as a measuring stick? Slightly higher SES, and more politically active than state average in state and national elections. Still, Cole County's local elections see significant declines in voter turnout. This trend is typical of what the research literature predicts in municipal and local elections.

SCHOOL BOND ELECTION TIMING



- No significant difference in share of “yes” votes for school bond issues when comparing on-cycle elections to off-cycle elections.
- Using only August & November data:
 - Rationale – February and April never see state and national elections, therefore to consider them on-cycle or off-cycle is not entirely accurate.
 - Difference in share of “yes” votes received for school bond issues in Aug/Nov on-cycle issues is **significantly different** than Aug/Nov off-cycle elections.
 - On average, off-cycle Nov/Aug elections saw approval rates 5.5 point higher than on-cycle elections.
 - This supports election timing theory, but is not likely enough to overcome 2/3rds RPP required in off-cycle elections.

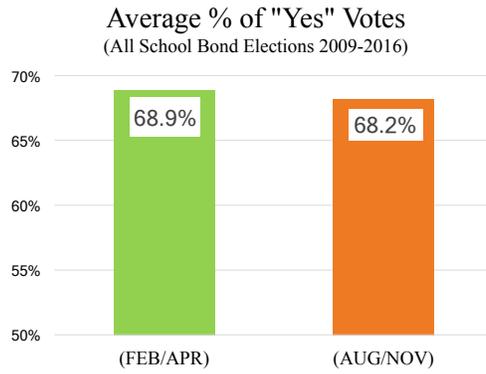


Research
Question #4



Do electoral outcomes of Missouri school bond elections differ between elections held early in the calendar year and elections held late in the calendar year?

Research Question #4



- ▶ Does election timing with regard to calendar positioning?
- ▶ Combined February & April data into "early elections"
- ▶ Combined August & November data into "late elections"
- ▶ No statistically significant difference in vote shares between the two groups.

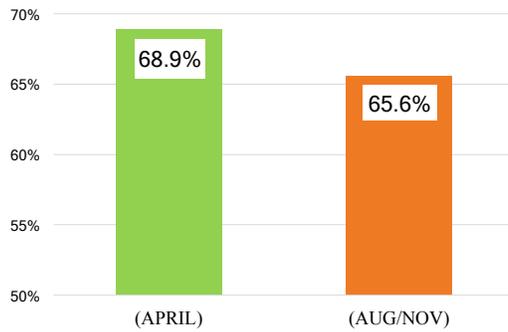


Research
Question #5

Do electoral outcomes of Missouri school bond elections differ between elections held in April and on-cycle elections held in August and November?

Research Question #5

Average % of "Yes" Votes
(4/7 RPP Bond Elections 2009-2016)



- ▶ 394 of the 409 school bond issues floated in Missouri required a 4/7ths (57.14%) majority vote for approval.
- ▶ Do differences in election outcomes exist between April and Aug./Nov. elections requiring 4/7ths majority?
- ▶ Significant difference in vote shares exists between the two groups.

Summary of Key Findings

- ▶ The lack of centrally collected election results data for local elections in Missouri is problematic for researchers and stakeholders.
- ▶ This study's findings support Anzia's theory of election timing.
- ▶ On balance, increases in voter support for school bond issues gained via strategic election timing is typically not enough to overcome the 2/3 majority required in special elections.

Recommendations for Missouri School Administrators

- ▶ Avoid elections requiring 2/3 (66.67%) majority votes for approval
 - ▶ Bond issues in these elections see slightly higher shares of “yes” votes
 - ▶ Higher rate of “yes” votes not significant enough to overcome RPP
- ▶ Prefer April elections to on-cycle August/November elections
 - ▶ On average, bonds in April elections see higher shares of “yes” votes than those in August/November
 - ▶ Data analysis would support Election Timing Theory
- ▶ Work to mobilize interest group supporters during elections with low turnout

Recommendations for Future Research

- ▶ What effect does the strategy of pursuing “no tax increase” bond issues have on election outcomes when considering election timing?
- ▶ Does a district’s geographic (urban, suburban, rural) locale affect the impact of the election timing theory?
- ▶ Do differences in school bond election outcomes based on election timing exist when accounting for bond issue amount?

SCHOOL BOND ELECTION TIMING

SECTION FIVE – CONTRIBUTION TO SCHOLARSHIP

Target Journal

Public Finance and Management

Rationale for this Target

Public Finance and Management is an international interdisciplinary journal devoted to increasing knowledge of public finance and administration through policy analysis, empirical research, and theoretical inquiry.

Outline of Proposed Contents

Basic Elements

Separate Title Page

Abstract, Introduction, & Conclusion

Maximum of Five Tables and Graphs

Formatting

Word Document

1” Margins, Double Spaced

APA style guideline for formatting

Parenthetical Citations

Plan for Submission

The article will be submitted in a Word document, via email to the editor of the Public Finance Management: vanderhoek@ext.eur.nl. The submission will be completed within three months of the defense of this dissertation.

SCHOOL BOND ELECTION TIMING

A STUDY OF ELECTION TIMING AND MISSOURI SCHOOL BOND ISSUES

Abstract

This quantitative study sought to investigate the differences in the electoral outcomes of school bond elections in Missouri from 2009-2016 based on election timing. The researcher utilized election timing theory as a framework for the study. Data from Missouri school bond elections was compiled from online databases, the Missouri State Auditor's office, and archived newspaper reports. Results suggest that differences exist in electoral outcomes for school bond issues based on election timing. The study concludes with recommendations for Missouri school administrators, designed to aid in the successful passage of school bond issues.

Introduction

School districts throughout the country are often faced with the daunting task of seeking voter approval for acquiring bonded debt in order to finance school building and improvement projects. Missouri school districts are no exception. While many of the factors associated with bond issue defeats lie outside of the control of school districts, others—including bond amount, bond usage, ballot language, and election timing—are uniquely influenced by the strategic decisions of the districts. The purpose of this study was to determine if there are differences in the electoral outcomes of Missouri school bond issues based on the timing of elections.

Relevant Literature

Recent literature suggests that the timing of elections is linked to electoral outcomes. Bowers, Metzger, and Militello (2010) found that school bond issues in Michigan were more likely to pass when they were voted on later in the calendar year.

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Bowers et al. speculates that this may be due to any number of factors ranging from weather to the election's proximity to Tax Day and holiday spending. Others have found that school finance elections are more successful during special and primary elections than general elections (Collins & Dove, 2013; Dunne, Reed, & Wilbanks, 1997; Lentz, 1999). All three of these studies linked election timing and election outcomes to voter turnout. Collins and Dove (2013) found that educational special purpose local option sales tax proposals floated during special elections in Georgia were significantly more likely to pass with higher approval rates and lower voter turnout than those floated during regularly scheduled elections. Lentz's (1999) study of Illinois school referenda recommended that school administrators float bond issues during primaries as opposed to general elections, due to the fact that bonds were more likely to fail in small rural communities during general elections, and more likely to pass in growing residential communities during primaries. Dunne et al. (1997) suggested that the lower voter turnouts associated with special elections could be used by school districts to discourage likely "no" voters from participating in school bond elections, in effect "choosing" the median voter.

The theoretical framework underpinning this study is Anzia's (2011, 2012b, 2014) theory of election timing, in which Anzia furthers the discussion of Dunne et al. (1997) regarding election timing as a tool to select the median voter. Anzia builds the theory of election timing around three major premises. First, it is widely accepted that voter turnout in elections is significantly lower during odd-numbered years (off-cycle elections) when elections do not coincide with national congressional and/or presidential races, than in even-numbered-years (on-cycle elections) when elections coincide with

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high profile national races (Anzia, 2012a; Anzia, 2014; Hajnal & Lewis, 2003; Wood 2002). The existence of high profile races increases turnout amongst casual voters who wish to vote for a well-known candidate, but may not have much directly at stake in a school finance elections. This results in school related interest groups forming less of the electorate than they would have absent the higher profile races. Second, citizens with large self-interests in the outcome of elections are more likely to vote, regardless of when an election is held (Anzia, 2014). Thus, well organized interest groups stand to gain a higher proportion of the vote when voter turnout is reduced, as casual voters are less motivated to participate than those who have more at stake in the election's outcomes. Third, Anzia (2011, 2012b, 2014) suggests that interest groups may increase their share of the vote by strategically timing elections so that voter turnout is suppressed.

Much of Anzia's work is related to the theory of median voter selection and the study of voter behavior associated with demographic variables. However, Anzia takes a unique approach to this subject matter by focusing on the impact of organized interests as a voting bloc. In the case of school finance elections, school districts and their supporters certainly qualify as an organized interest group. Moreover, the unique distribution of benefits associated with school bond issues may amplify the effect of election timing on electoral outcomes. Anzia (2011, 2012b, 2014) argues that organized interests advocating for policies with concentrated benefits and diffuse costs are most likely to benefit from low voter turnouts. In the case of school bonds, school districts, teachers, and parents are likely to see direct benefits in the form of capital improvements, while the cost of these improvements are widely shared by all taxpayers throughout the community. This unbalanced distribution of costs and benefits encourages organized interest group activity

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amongst those who stand to benefit from the policy, while likely suppressing political opposition group activity.

Missouri School Bond Elections

The state of Missouri provides a unique setting in which to test Anzia's theory, for two reasons. First, Missouri statutes allow the state's school districts to float bond issues in February, April, August, or November of any given year. This wide range of options creates a diverse dataset for examining differences in election outcomes based on election timing. Secondly, Missouri combines its school election calendar with a unique set of mandatory minimum passing percentages, presumably aimed at curbing the effects of the theory of election timing.

For much of its history, the state of Missouri had required all general obligation bond issues to be locally approved by a two-thirds (66.67%) majority vote. This high threshold for approval created difficulties for many school districts in securing bonded debt for capital improvements. In 1968, the state attempted to reduce the required minimum passing percentage to a three-fifths (60%) majority, but the proposal, which required a constitutional amendment, was rejected in a statewide referendum (Murphy, 1988; Valentine). In 1982, a similar amendment, which would have reduced the required minimum passing percentage to a four-sevenths (57.14%) majority for Kansas City and St. Louis only, was also rejected in a statewide vote (Murphy, 1988; Valentine). It was not until 1988, when the state passed Amendment 4, that the modern system of election dates and minimum passing percentages were imposed (Valentine, 2010).

Table 1 shows Missouri's current required passing percentages for school bond issues by election date. Missouri requires a four-sevenths majority to approve bonds

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issues floated during regularly scheduled municipal, primary, and general elections, while a two-thirds majority is required for all others (Missouri DESE, 2016).

The passage of Amendment 4 was aided by bipartisan support from key political figures in the state, particularly then-current Republican Governor John Ashcroft and former Democratic Secretary of State James Kirkpatrick (“Yes for amendment 4,” 1988). Much of the debate surrounding this proposal alluded to the very themes and concepts that are key to Anzia’s theory. Supporters noted that the amendment retained the two-thirds majority requirement for special elections, which, as North Kansas City Republican state representative Bonnie Sue Cooper acknowledged, made it more difficult for school districts to “sneak something by the voters” (Bradley, 1988). Ironically, while discussing the amendment with *The Kansas City Star*, Campaign Director Gary Passmore for the committee “Yes on 4,” revealed that the committee’s strategy for the August primary election date was to target only “high frequency voters” who were likely to vote yes (Murphy, 1988). A strategy, which is clearly validated by Anzia’s (2014) theory, seemingly paid off as the amendment passed with 56.2% of the vote (Valentine, 2010).

Table 1

Missouri School Bond Election Dates and Required Passing Percentage

Election Date	Required Passing %
February	66.67
April	57.14
August (On-Cycle/Even Years)	57.14
August (Off-Cycle/Odd Years)	66.67
November (On-Cycle/Even Years)	57.14
November (Off-Cycle/Odd Years)	66.67

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Research Design

This study employed Pearson's chi-square test of independence and two-tailed independent samples *t*-tests to determine if differences exist in election outcomes for school bond elections held at varying times, using results from 409 Missouri school bond elections held from 2009 through 2016. The independent variables selected represented three election timing conditions unique to Missouri: election dates requiring specific minimum passing percentages, on-cycle and off-cycle elections, and election dates by month.

Data Collection

Over the course of two months, data regarding school bond elections held in the state of Missouri from 2009 through 2016 was collected using an online database of election results, public records from the Missouri Auditor's office, archival newspaper records retrieved from *NewsBank*, and records from various county clerk's offices throughout the state (Galloway, n.d.; Graves, n.d.).

Limitations

All general obligation bonds that are approved by the public at the polls, and subsequently issued by local school districts, must be registered with the Missouri State Auditor. Because of this requirement, there is a high degree of confidence in the dataset's completeness regarding issues that were passed. However, local bond elections are certified by county clerk's offices, and those results are not required to be reported to the Missouri Secretary of State's office. The lack of centralized election result reporting in the state made it difficult to ensure the completeness of the dataset with regard to failed bond issues. The dataset was then cross-referenced with industry records provided by a

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local bond service provider, which verified the researcher's reasonable confidence in the completeness of the dataset. The resulting dataset is summarized in Table 2.

Research Findings

This study posed five questions in an attempt to determine if differences in electoral outcomes exist for Missouri school bond referendums held at varying times.

Research Question 1: What are the descriptive summary statistics for Missouri school bond elections when considering the following variables: election timing, minimum require passing percentages, and election outcomes?

Table 2 answers this question. From 2009 to 2016, the majority (76.2%) of Missouri school bond issues were floated in April municipal elections as opposed to February, August, and November elections. It would appear that the conventional wisdom of seeking voter approval during elections with traditionally lower voter turnouts, combined with April's lower four-sevenths required passing percentage, led school administrators to prefer April elections. The greatest disparity lies in the number of school bond issues floated during elections that required two-thirds of voter's approval to those that required only a four-sevenths majority. Only 15 of the 409 bond issues were put forward to the public under the higher passage threshold.

Research Question 2: Is there a statistically significant relationship between election outcomes and required minimum passing percentages for Missouri school bond elections held from 2009-2016?

A Pearson's chi-square test of independence was conducted to determine if there was a difference in election outcomes (pass/fail) based on minimum required passing percentages. Pearson's chi square test of independence was an appropriate statistical tool

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for the second research question because the test compares the frequencies observed in two dichotomous, categorical variables to frequencies that one might expect to find by

Table 2

Missouri School Bond Election Results (2009-2016) by Election Type

Election Type	Required Passing %	Election Result	
		Pass	Fail
February	66.67	8	3
April	57.14	270	42
August On-Cycle	57.14	18	6
August Off-Cycle	66.67	1	1
November On-Cycle	57.14	19	3
November Off-Cycle	66.67	1	1
	57.14 ^a	34	2
Total		351	58

^aWith the passage of A.L. 2009 S.B. 291, the Missouri General Assembly provided for a one-time special election in November of 2009 which allowed school districts to propose bond issues using the 57.14% threshold for approval.

chance (Field, 2013). This test resulted in a contingency table which produced a single expected value count of less than 5, which violated an assumption of the Pearson's chi-square test. In order to remedy this, Fisher's exact test was utilized to determine the significance of the deviation from the null hypothesis: there is no statistically significant relationship between election outcomes and required minimum passing percentages for Missouri school bond elections. A significant interaction was found ($p = .047$, Fisher's exact test), as 86.5% of bond issues floated during elections requiring a four-sevenths majority passed, whereas 66.7% of bond issues floated during elections requiring a two-thirds majority passed. Thus, the null hypothesis was rejected.

Odds ratio calculations determined that bond issues that were floated during elections which required a four-sevenths majority for approval were 3.2 times more likely

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to pass than bond issues floated during elections requiring a two-thirds majority for approval.

To further investigate this question an independent-samples *t*-test was utilized to compare the differences in the percentage of “yes” votes received by school bond issues floated in elections requiring a four-sevenths majority for passage when compared to the percentage of “yes” votes received by school bond issues floated in elections requiring a two-thirds majority. For this analysis, the independent variable groupings were based on the traditional legally prescribed required passing percentages due to the fact that the research was primarily interested in the effect of timing on election outcomes. As such, results for school bond elections held in November of 2009 were included with the elections that typically required a two-thirds majority for passage (See Table 2, Note a). This process allowed for a comparison of the mean of “yes” votes received, expressed as a percentage of the total vote per bond election, between special elections (February, off-cycle August, and off-cycle November) and regularly scheduled elections (April, on-cycle August, and on-cycle November). On average, school bond issues floated during elections requiring a two-thirds majority for passage received a higher percentage of “yes” votes ($M = 70.97$, $SD = 14.00$), than those floated during elections requiring a four-sevenths majority ($M = 68.43$, $SD = 11.75$). This difference, -2.54 , BCa 95% CI $[-6.39, 1.93]$, was not significant ($t(403) = -1.41$, $p = .160$).

These findings suggest that while Missouri school bond issues receive slightly more “yes” votes during February, and off-cycle August and November elections, the difference is not statistically significant, nor is it enough to overcome the higher required minimum passing percentage.

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Research Question 3: Do electoral outcomes of Missouri school bond elections differ between on-cycle elections and off-cycle elections?

This analysis relied on independent-samples *t*-tests to examine electoral outcomes, represented by “yes” votes as a percentage of the total vote, received by school bond issues. This methodology, which was also utilized with research question four and five, compares means of two samples from the same population (Cronk, 2017; Field, 2013). The *t*-test assumes an equality of means, thus significant findings indicate that the means are not equivalent (Cronk, 2017). Data was separated into two groups: on-cycle elections (even numbered years), and off-cycle elections (odd numbered years). On average, on-cycle school bond elections received a slightly lower percentage of “yes” votes ($M = 68.62$, $SD = 11.61$), than off-cycle school bond elections ($M = 68.9$, $SD = 12.58$). This difference, -0.28 , BCa 95% CI $[-2.81, 2.26]$, was not significant ($t(403) = -.23$, $p = .456$). The lower shares of “yes” votes for school bond issues during on-cycle elections is consistent with Anzia’s theory of election timing, as the theory posits that it is more difficult for organized interest groups to influence election results during elections with higher turnout. However, drawing this conclusion from the analysis is problematic. First, this interpretation assumes that turnout is lower in all elections held during odd-numbered years than in even-numbered years, but there are no consistent records to verify that this assumption is true. Second, the dataset includes a large number of April elections. Municipal elections in Missouri are held in April during both even and odd years. These April elections would likely not see the same voter turnout drop off due to the lack of coinciding national elections, because all of Missouri’s national level elections

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during 2009-2016 were held in August and November (with the exception of the 2016 presidential primary, which was held in March).

When the independent-samples t -test was repeated using only August and November election data, the results were strikingly different. On average, on-cycle school bond issues floated in August and November received a lower percentage of “yes” votes ($M = 65.61$, $SD = 10.09$), than off-cycle school bond issues floated in August and November ($M = 71.1$, $SD = 13.66$). This difference, -5.5 , BCa 95% CI $[-10.78, 0.12]$, was statistically significant ($t(84) = -2.14$, $p = .035$). These results appear to support the notion that organized interest groups, in this case school districts and their stakeholders, are better able to influence elections results during elections with lower voter turnout and fewer casual voters.

Research Question 4: Do electoral outcomes of Missouri school bond elections differ between elections held early in the calendar year and elections held late in the calendar year?

Once again, the analysis of this question relied on an independent-samples t -test. The data from February elections was paired with the data from April elections to create the group: *early elections*. Data from August elections was paired with data from November elections, creating the group: *late elections*. This organization of the data was designed to determine if election outcomes differed for elections held early in the calendar year vs. late in the calendar year, a phenomenon that was described in Bowers et al.’s (2010b) study of Michigan bond elections. On average, the group of early elections received a slightly larger percentage of “yes” votes ($M = 68.9$, $SD 12.07$), than the elections held later in the calendar year ($M = 68.17$, $SD = 12.13$). However, this

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difference, 0.75, BCa 95% CI [-1.98, 3.49], was not significant ($t(403) = .51, p = .612$).

From this analysis, it does not appear that timing a school bond election to fall earlier or later in the calendar year results in any difference in electoral outcome.

Research Question 5: Do electoral outcomes of Missouri school bond elections differ between elections held in April and on-cycle elections held in August and November?

This final research question was also investigated using an independent-samples t -test. As displayed in Table 3, 394 of the 409 school bond issues proposed by Missouri school districts were floated during elections requiring the lower, four-sevenths minimum passing percentage. This is likely due to the fact that, as indicated by the results of this study, bond issues are three times more likely to pass when facing the lower threshold. As such, it was prudent to investigate whether or not differences in electoral outcomes for school bond issues facing the four-sevenths requirement exist based on election timing via research question five.

Table 3

Missouri School Bond Election Results (2009-2016) by Minimum Required Passing Percentage

Required Passing %	Election Result		Total	% of Total	% Passed
	Pass	Fail			
57.14	341	53	394	96.3	86.55
66.67	10	5	15	3.7	66.67
Total	351	58	409	100.0	85.82

The t -test utilized in research question five measured differences in outcomes, represented by “yes” votes as a percentage of total votes, between all April elections and on-cycle August and November elections. On average, April elections received a higher

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percentage of “yes” votes ($M = 68.9$, $SD = 11.94$), than on-cycle August and November election ($M = 65.61$, $SD = 10.09$). This difference, 3.25, BCa 95% CI [0.07, 6.35] was significant ($t(352) = 1.75$, $p = .044$). This finding supports Anzia’s (2014) hypothesis that organized school interest groups represent a larger portion of the voter turnout during municipal and special elections.

Discussion

On balance, this analysis produced results supporting Anzia’s (2014) theory of election timing. First, the distribution of school bond elections in Missouri suggests that school administrators prefer to float bonds in April municipal elections, when voter turnout is expected to be lower than state and national primary and general elections. This strategy would be supported by the theory of election timing (Anzia, 2011, 2012b, 2014).

Second, when isolating data from August and November elections, there was a significant difference in the amount of support voters gave school bond issues during off-cycle elections when compared to on-cycle elections. On average, off-cycle elections saw 5.5% more “yes” votes than their on-cycle counterparts. Significantly higher amounts of “yes” votes were also recorded for April municipal elections when compared to on-cycle August and November elections. The theory of election timing would argue that this is due to voters being drawn to the polls to vote in state and national level elections, which likely decreases the overall share of voters who would identify as school interest group supporters (Anzia, 2011, 2012b, 2014; Dunne et al., 1997).

Third, this research found that school bond issues floated during special elections (February, off-cycle August, and off-cycle November) did average 2.5% more “yes” votes than those floated during regularly-scheduled elections (April, on-cycle August,

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and on-cycle November). While this finding appears to support Anzia's (2014) assertion that interest groups may be able to take advantage of low voter turnout in special elections in order to magnify the impact of their voting members, this slight difference was not found to be statistically significant. Additionally, it is unlikely that this difference is practically significant in the state of Missouri, considering the bond issues that averaged 2.5% more "yes" votes during special elections required a margin of victory that was 9.5 percentage points higher than those held during regularly scheduled elections.

Lastly, the study's findings suggest elections held earlier in the calendar year did not result in statistically significant differences in electoral outcomes when compared to elections held later in the calendar year. This does little to support the theory of election timing with regard to calendar positioning (Bowers et al., 2010b). While Anzia's (2014) theory does not depend on the timing of an election in terms of calendar positioning, the groupings used to test calendar positioning paired special February elections and April municipal elections with August and November primary and general elections. According to election timing theory, disparities in voter turnout between special and municipal elections, and primary and general elections, should be reflected in election outcomes (Anzia, 2011, 2012b, 2014; Collins & Dove, 2013; Dunne et al., 1997; Lentz, 1999). The results of the statistical analysis of research question five did not necessarily support this aspect of election timing theory.

Recommendations for Missouri School Administrators

After reviewing the data analysis, the following recommendations have been formulated to aid Missouri school administrators in successfully passing bond issues.

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- Avoid seeking bond approval during elections which require a two-thirds majority for passage. While bonds floated during special elections did, on average, receive a slightly higher percentage of “yes” votes, that difference was not statistically significant, nor was it enough to overcome the higher required vote threshold.
- Prefer April elections to on-cycle August and November elections. Among the election dates that required the lower four-sevenths threshold for bond passage, April elections saw school bond issues receive a statistically significant higher percentage of “yes” votes than on-cycle August and November elections. On average, April bond issues received “yes” vote totals 3.2 percentage points higher than on-cycle August and November elections.
- Missouri school districts should take the initiative to compile all school bond election data in a central location to support future research concerning bond election strategy.

Conclusion

This study provides evidence to suggest that Anzia’s (2014) election timing theory is correct in assuming that organized interest groups have the ability to influence election outcomes by mobilizing supporters during elections with low voter turnout. In Missouri, this effect has been largely mitigated for special elections by the legal requirement of a two-thirds majority for approval. When Amendment 4 was proposed in 1988, supporters alluded to the fact the introduction of the four-sevenths majority for regularly scheduled elections only protected voters from school districts seeking to quietly pass school bond issues during low-turnout elections (Bradley, 1988). It appears that this arrangement was a practical compromise that has worked to allow school

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districts to take on bonded debt more easily, while at the same time valuing the democratic process by strategically discouraging school districts from floating bond issues during traditionally low-turnout elections.

While this arrangement of minimum required passing percentages negates much the advantage school districts gain by floating bond issues during special elections, opportunities to adopt the strategies prescribed by Anzia's (2014) election timing theory still exist during regularly scheduled elections. When comparing election results among only those elections requiring the lower four-sevenths majority for approval, April elections received higher amounts of "yes" votes that were statistically and practically significant. Thus, Missouri school administrators would be wise to continue to prefer floating school bonds in April elections to any other.

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SECTION SIX – SCHOLARLY PRACTITIONER REFLECTION

Influence of Dissertation on my Practice as an Educational Leader

When I first decided to pursue a doctorate, and began looking into the various programs that offered coursework to satisfy such a degree, I was determined to find a program that would challenge me. In my view, the most meaningful educational and personal growth is gained through overcoming struggle, pushing one's self, and committing to a growth mindset. The University of Missouri's Educational Leadership and Policy Analysis doctoral dissertation process was unlike many of its competitors. From the start, I felt that completing the requirements of this dissertation would offer me opportunities to grow, reflect, and connect practical lessons to my craft as a classroom teacher. In short, I did not want to take the easy road to a degree that will likely be the capstone of my formal career as a student. The process did not disappoint.

Coursework to Program Evaluation to Dissertation

Long before I embarked on writing the dissertation, I was witnessing a change in myself as an educational leader at work. To this point, I have spent all of my professional life as a classroom teacher. As a young teacher, it is often difficult to envision one's self as an educational leader—there are both formal and informal hierarchies within a school setting that complicate the cultivation of self-efficacy. Throughout the coursework leading up to the dissertation process there were numerous opportunities for me to collaborate and interact with fellow cohort members who held unique perspectives on educational issues. Some were classroom teachers, but many were administrators from all different levels. Their perspective often shifted mine when it came to issues such as educational equity, social justice, leadership, and adult learning.

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Beyond the theoretical discussion of education, the program presented me with opportunities to take on leadership roles in the workplace. The most valuable of these opportunities was undoubtedly the program evaluation process. For this project, my cohort peers and I undertook the study of a high school response-to-intervention program that was instituted within the building where I worked. This project was a worthwhile precursor to the dissertation process. It required collaboration and constant communication with administrators in my building, in-depth data analysis, and a professional presentation of findings. The program evaluation gave me an opportunity to engage in practical, real-world problem solving within my workplace.

Looking back at the coursework for this program, there were three concepts that have stuck with me: knowledge as conversation, critical theory, and policy analysis. I was able to immediately incorporate these concepts into my own classroom upon consuming them in our coursework.

Knowledge as Conversation

The notion of knowledge as a conversation was a concept presented by Bruffee (1999). As a communication arts teacher, speech and debate coach, and dabbler of philosophy, this was a particularly interesting concept. Bruffee argues that knowledge is a shared social construct, and that it is defined through conversation with others. If we assume this to be true, every conversation that we engage in throughout a given day shapes the collective body of human knowledge. This perspective gives added weight and value to the curriculum I teach, and the activities that I coach and sponsor. If my students start to view a debate as more than just a competition, and embrace the activity as an

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opportunity to shape the collective knowledge of our society, it can be a very powerful perspective on their own learning process.

Critical Theory

A second concept that immediately shaped my curriculum as a classroom teacher was Merriam and Bierma's (2014) conceptualization of critical theory. This concept was something that I had experience with prior to the coursework beginning, as the idea of incorporating critical theory into competitive high school debate is not new. What debaters refer to as "kritiks" have been used in competition at the high school level since the mid 1990s. As a coach, I had been opposed to students running kritiks due to what I perceived as competitive disadvantages that they present to debaters. Yet, after engaging with Merriam and Bierma's position that critical theory is key to fully embracing and understanding opposing world views, I have made a conscious effort to begin addressing common critical arguments in my advanced debate class. Critical thinking is more than just thinking hard about a subject, it extends thought to the point where one is willing to adopt a new world view based on the evidence that they are presented. I cannot in good conscious deny such opportunities for personal growth to my students by preventing their engagement with critical schools of thought.

Policy Analysis

A final takeaway from this program has been a new approach to policymaking. Coming into the program I had always assumed a rational, "black and white" approach to making policy decisions. This typically involved some sort of calculus around program goals, costs, benefits, and disadvantages. It was Stone (2012) that presented a well thought out argument in defense of including emotion in that calculus. Stone argued that

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the world has no universal value system, and that assuming shared values while determining policy would be undesirable. Instead, policymakers should opt to reaffirm their own value systems only after approaching policy paradoxes from an alternate world view. In many ways, Stone advocates for the consideration of critical theories while creating rational policy. This is something that I was immediately able to connect to my Lincoln-Douglas debaters, who often struggle to apply philosophy and complex schools of thought to debate topics that require them to evaluate policy. In all, the Ed.D program has equipped me with new, practical knowledge that I have been able to incorporate directly into my classroom.

Influence of Dissertation on my Practice as a Scholar

The dissertation process has been every bit of the challenge that I had expected. This challenge has given me a new perspective on scholarship and the effort that it takes to maintain high levels of achievement. When I consider the journey that I have undertaken throughout the dissertation writing process, there are three key lessons that I have learned: carefully consume scholarly works, always value the data, and be prepared to defend the data analysis.

Consuming Scholarly Works

Perhaps one of the most practical skills that I have improved upon throughout this process is finding and consuming scholarly works. The experience I have gained navigating research databases, utilizing abstracts and key terms, and pouring over journal articles and research studies has made me a much more efficient researcher. This process has also instilled in me a sense of academic discipline that I had not previously attained. The dissertation process was, by far, the most challenging academic endeavor I have

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undertaken. Up until this process started I had generally been able to complete assignments in one or two sittings, relying on minimal levels of research. I quickly found that this undertaking would be very different. Developing a schedule for researching and composing the dissertation became a key to my success, and this disciplined approach to the process spilled over into my professional and personal life. For that, I am very grateful.

Valuing the Data

The second lesson I learned was to value the data. The process for collecting the data that I needed to complete this dissertation was at times very tedious and frustrating. What I had thought would be a simple exchange of emails in order to obtain a complete data set turned into weeks of scouring digital newspaper archives and compiling a dataset line by line. Prior to this experience I had assumed that most of the data we need to address key issues facing our society was readily available, and that it was simply the analysis of the data that was missing. I quickly found this to be a naïve view of the process. While the construction of my dataset was at times very frustrating, it turned out to be a rewarding experience that I am proud of. I will never again discount the value of readily available data.

Defending the Data Analysis

After I had cleared the hurdle of data collection, I quickly ran into another. It became rather clear that I am not a statistician as I tried to complete the analysis of my data. This was remedied by hours of consulting textbooks, online videos, fellow cohort members and advisors. Paradoxically, it seemed that as I gained a greater understanding of the math involved in my statistical analysis, I became less sure of the results. As I

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learned more about what chi-square analysis and independent-samples *t*-tests measured and what conclusions could be drawn from them, I was struck by what those tests did not prove. It became clear that quantitative analysis was much more ambiguous than I had initially assumed. Still, I am pleased with the conclusions that I was able to draw from this research, and satisfied that my research has answered many important questions while also raising new ones.

Conclusion

Though I may never lead a school bond issue campaign in my future roles in education, the process of writing this dissertation will serve me well as my career continues. The discipline, commitment, personal growth, scholarly growth, and perspective gained throughout the Ed.D program has been invaluable. I am very thankful for the confidence and competence I have gained throughout this experience, and I look forward to leaning on these experiences as I tackle new challenges that arise in my professional career.

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Appendix

Figure A1

IRB Approval from the University of Missouri

Tuesday, February 20, 2018 at 4:57:38 PM Central Standard Time

Subject: IRB #2010276 C

Date: Tuesday, February 20, 2018 at 4:54:31 PM Central Standard Time

From: eCompliance

To: sddn74@mail.mizzou.edu

eCompliance

IRB #2010276 C; Exempt Application: 233016

Hello Investigator,

It appears that you are only collecting publically available data and you will not be interacting or intervening with human subjects, therefore, this project does not qualify as human subjects research, and does not need IRB review and approval. I will withdraw the application.

Thank you,

Melissa Freeman
Compliance Specialist
573.884.7223

HOW TO RESUBMIT YOUR FILE

1. Login to [eCompliance](#).
2. Under the **Submission to IRB** header, click **Open Saved IRB Project**.
3. Locate the file that has been returned, click **Continue Form**.
4. Navigate to the appropriate section(s) of the form and edit, then click save and continue.
5. Go to the **Attached Files** section to upload requested documents.
6. Go to the **Submit** section to resubmit your file.

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SCHOOL BOND ELECTION TIMING

VITA

Shiloh Dutton earned a Bachelor of Science in secondary education from Kansas State University in 2007. While at K-State, he was elected to the Student Governing Association's Student Senate, served as the Student Governing Association's Attorney General, volunteered with the American Legion's Boys' State of Kansas program, and served on the Dorothy L. Thompson Civil Rights Lecture Series Committee. In 2013, he received a Master of Science in educational administration from Emporia State University.

Shiloh has worked as a classroom teacher for eleven years in Manhattan, KS, Smithville, MO, and Kansas City, MO. He has taught a wide range of courses including AP U.S. History, AP U.S. Government and Politics, AP Comparative Politics and Government, Civics, Speech Communication, 9th Grade English Language Arts, 10th Grade English Language Arts, American Literature, Competitive Drama and Forensics, and Debate.

Shiloh currently serves as the Director of Speech and Debate at Staley High School, where he has been recognized as a diamond coach by the National Speech and Debate Association.