

**BALLOT BOX CONSERVATION: A STUDY OF LOCAL U.S. CONSERVATION
MEASURES AND ITS USE BY LOCAL GOVERNMENTS AND PLANNERS**

by

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Abstract

As a legislative technique, the application of initiative or referendum is considered unconventional, yet frequently utilized to address local conservation issues throughout most of the United States. The subject of its appropriateness continues to remain under debate, especially in the field of planning. This longitudinal study employs a descriptive trend analysis on conservation measures conducted by local governments between 1996 and 2012, in order to identify any changes or consistencies in application. Subsequently, personal interviews were conducted with experienced local government officials to facilitate an understanding of current perceptions, specific experiences, and the outcomes relationship to comprehensive and capital improvement plans. Some key findings from this study include numerous relationships between ballot box conservation and election cycles, and a misperception by local governments of the passage capabilities of ballot box conservation. The inferences from this study will aid local governments and planners to consider or reconsider their stance on the use of ballot box conservation. Additionally, if local communities and governments do choose to practice or continue to practice the use of ballot box conservation, this study's key findings will assist them in making their measures more successful.

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Dedication

I dedicate this thesis to my entire family, especially my mother Alison, father Charles, and sister Elizabeth for their continual love and support. I also want to dedicate this thesis to my friends and colleagues who have supported me throughout not only the development of this study, but my entire tenure at Kansas State University.

Chapter 1 - Introduction

Importance of Topic

This thesis seeks to investigate the application of initiatives and referendums for land conservation issues by local governments, and the outcomes relationship to comprehensive and capital improvement plans. The definitions for the terms initiative and referendum in this study are derived from the author Roger Caves (2000). In his book, Caves' (2000) defines an initiative as "a citizen proposed legislative measure that is put before the electorate for approval or rejection," and a referendum "follows an action by the legislative body [...] allow[ing] citizens to approve or reject an ordinance already adopted" (p. viii). When first investigating initiatives and referendums that contend with planning issues, it was discovered that the majority of measures addressed open space/natural resources/recreation (Myers & Puentes, 2000). It was subsequently reaffirmed in November 2008, when Myers produced a similar report alluding that land conserving measures continued to dominate. Upon further investigation, it was revealed that the use of initiatives and referendums on this topic typically emerge to determine the acceptance of funding towards land acquisition, maintenance, protection, or improvements for conservation. Since such reports have only recently become available, research of its efficiency and impacts is still limited. As a result, this research aims to expand upon this complex topic.

This topic becomes particularly complex and important as it merges two major topics into the one centralized topic of this research. The first major topic that must be clearly defined is land conservation. For the purposes of this research, land conservation is defined as the processes and procedures of maintaining, protecting, improving, or the acquisition of land by local governments, and establishing it as a natural resource. As metropolitan urbanization continues in the United States, it is clear problems concerning indiscriminate management and treatment of land have escalated and presented the need for land conservation (Levine, 2007). Evidence of this can be observed by the depleting water resources, increased flood hazards, and the damaging of unique natural, aesthetic, and scenic qualities that in most cases are nonrenewable (Levine, 2007). As a result, it is sensible to regard land conservation as a subject of immense importance. In response to issues of land conservation, numerous local governments have decided to utilize initiatives and referendums to influence decision making.

The application of initiatives and referendums at any level of government has been considered controversial ever since the creation of this nation, due to its direct democracy approach. Though representative democracy has been the chosen path throughout the nation, with sound reasoning, some debate still emerges of its appropriateness in lower levels of government decision making. This controversy presents a significant issue in planning, as decision making is a crucial part of the planning process. As a result, the second major topic is the use of initiatives or referendums and their relationship to process of planning. In order to adequately define and exhibit the importance of this topic, it is necessary to provide a brief overview of the extensive historical narrative, illustrating the evolution of this topic towards the profession of planning.

Some of earliest examples of the topic's foundation are evident at the broader perspective, including such works by Jean Jacques Rousseau and John Mill. In 1762, Jean Jacques Rousseau suggested that by choosing to be represented, citizens are surrendering aspects of their freedom. Conversely in 1873, John Mill debated in favor of representative governments at lower levels of government by advising:

It is evident that the only government which can fully satisfy all the exigencies of the social state is one in which the whole people participate; that any participation, even in the smallest public function, is useful; that the participation should everywhere be as great as the general degree of improvement of the community will allow; and that nothing less can be ultimately desirable than the admission of all to a share in the sovereign power of the state. But since all cannot, in a community exceeding a single small town, participate personally in any but some very minor portions of the public business, it follows that the ideal type of a perfect government must be representative (Mill, 1873, p. 45).

Clearly, Mill understood the value of public participation at the local level, however, believed that once "small towns" became densely populated, it becomes too difficult to manage a direct democracy approach. These two writers, and many others, led the discussion and debate of direct democracy towards its existence today, predominately at the local level through initiatives and referendums.

The practice of initiatives and referendums at the local level became more conventional in the late 1970s, and continued to expand through the early 2000s. One common theme of these initiatives and referendums were there connection to the field of planning, particularly land use

planning. This became evident in 1976 with a ruling by the U.S. Supreme Court in favor of initiatives and referendums for land use issues, stating that such use is a “basic instrument of democratic government” (Eastlake v. Forest City Enterprises, Inc., p. 1). It became even more evident by 1990, as the debate of employing initiatives and referendums began to appear in the American Planning Association (APA). David Callies and Daniel Curtin (1990) argued in favor of representative governments on land use decisions, and believed the proper approach to change a decision was through the courts and electoral process. To emphasize this, Callies and Curtin (1990) proposed four “motions” to the APA that would reduce, oppose, repeal, or limit the use of initiatives and referendums at the state and local levels, including both land use and non-land use decisions (p. 223).

In response to Callies and Curtin’s article, Bruce McClendon dissented claiming that such action is “substituting by the people and for the people” with “by public officials for some of the people.” McClendon continues his argument by stating, “The use of initiative and referendums is a critical part of the ‘checks and balances’ that protect the people from political abuse” (1990, p. 223). To conclude, McClendon (1990) provided a substitute motion which encouraged education and training for public officials explaining the significance of citizen participation and involvement, and that the APA support the use of initiative and referendums. Addressing both perspectives, Jay Marder (1991) believed a balanced approach towards initiatives and referendums should be established by the APA. He emphasizes this by suggesting that the use of initiative and referendum should only be utilized for land use issues when the governing body is disregarding their constituents (Marder, 1991). As evident from these articles, the relationship between the use of initiatives and referendums and the process of planning, is a valued topic to the profession. Since both of the major topics discussed are of such importance, it undoubtedly creates an even more significant, complex, and a centralized planning topic when combined. In this study, the merging of these two major topics will be characterized as ballot box conservation.

For the purposes of this research, ballot box conservation is defined as the process of utilizing initiatives or referendums, by local governments, for the approval or rejection of funding towards land conserving efforts. While the profession of planning has discussed and debated the application of initiatives and referendums on land use topics such as zoning changes, there has been limited to no discussion on ballot box conservation. This is considered surprising, as reports such as Myers’ have suggested since 2000 that conservation measures have been the most common

of planning-based measures. Additionally, even if the appearance is still consider exceptional, the impacts of ballot box conservation may be vital, as most planners or local governments may not consider such measures to occur when developing a comprehensive or capital improvement plan. Inclusively, the principal topic of this thesis, ballot box conservation, clearly encompasses numerous components that have yet to be explored, of which, will likely provide valuable information for local governments and planners.

Statement of Significance, Research Questions, Objective, and Hypotheses

Of the limited research conducted on the subject of ballot box conservation, there is some consensus on its appearance, success, impacts, influencers, and preferences. After identifying the information already explored on the subject of ballot box conservation, it was clear that multiple gaps in knowledge remain. The initial gap identified was there has yet to be an in depth investigation of what trends may have transpired over the years, specifically through 2012. Subsequently, there has been limited to no discussion in previous research with local governments about ballot box conservation. Such inquires might investigate the decisions, overall opinions, interpretations of the potential trends, perceptions, or the relationship and impacts to community comprehensive and capital improvement plans. Since this thesis aims to address multiple gaps in the current research on ballot box conservation, multiple questions need to be asked. Fortunately, while this thesis does consist of three central questions, it is easily manageable as they support one another and can be addressed with just two methods. Therefore, the central questions of this thesis consist of the following:

- 1. How has the application of ballot box conservation, by local governments throughout the United States, progressed, regressed, or remained consistent between 1996 and 2012;*
- 2. What are the current perceptions by local governments of the application of ballot box conservation; and*
- 3. Do outcomes from ballot box conservation typically reflect the goals, objectives, or priorities of community comprehensive and capital improvement plans?*

The first two questions are of an exploratory nature in order to provide the needed background information for the final inquiry of this study. As alluded in central research question one, the objective is to identify any significant trends that may have occurred. Subsequently, central research question two's objective is to obtain a present perspective based on perceptions. By identifying the historical trends and current perceptions of ballot box conservation, it provided the complementary background needed for addressing central research question three. The hypothesis tested for central research question three includes the following:

Outcomes from ballot box conservation do typically reflect the goals and objectives of community comprehensive plans, due to the 'for the people' approach of comprehensive plans. However, they do not typically reflect the priorities of capital improvement plans, due to the need for it to emerge and its purpose to seek change.

These corresponding questions are relevant not only for local governments, but to the field of planning. The inferences from this study can aid local governing bodies and planners consider or reconsider their stance on use of ballot box conservation. Additionally, if local governments do choose to practice or continue to practice the use of ballot box conservation, this study's key findings could assist them in making their measures more successful.

Research Design

The research design of this thesis is a mixed method approach. The first method consists of a longitudinal secondary data trend analysis. This analysis will address question one by statistically illustrating the changes and consistencies that have occurred. The unit of analysis for the trend analysis section of this research is local ballot box conservation measures. The sample is a census of all conservation measures recorded in *The Trust for Public Land's* database "LandVote" between 1996 and 2012. Subsequently, the second method incorporates personal interviews. Conducting these interviews will provide insight to central research questions two and three, by reaching a saturation point of consistency from experiences. The unit of analysis for the personal interviews section of this research is local government officials that have experience with ballot box conservation. The sample for the personal interviews is set at 20, however, reaching a saturation point of response consistency is the ultimate goal.

Organization of the Thesis

The precedent literature concerning the application of initiatives and referendums by local governments, and its evolution in research towards ballot box conservation, is comprehensively provided in Chapter Two. The descriptions of the two methods and how they were conducted in this thesis are detailed in Chapter Three. Findings from both methods are presented in Chapter Four. Finally, Chapter Five provides a summary of key findings, reflection on the objectives and hypothesis, and descriptions of practical implications.

Chapter 2 - Comparable Analysis

Introduction

In order to develop the framework of this thesis, it was necessary to review sources significant to ballot box conservation through articles, books, and organizations. Inclusively, this comparable analysis serves three main purposes. First, it reveals what has already been established and investigated. This was done by classifying each source into one of four categories: ballot box planning, organizations, ballot box conservation, or open space acquisition. The first category, ballot box planning, includes empirical studies on planning-based measures that do not focus on open space or conservation, yet provide findings that can be applicable to ballot box conservation. The second category, organizations, identifies the institutions that have impacted and provided the greatest support to previous and current research on ballot box conservation. The third category, ballot box conservation, includes numerous empirical studies on conservation measures examining such topics as appearance, application, and impacts. The final category, open space acquisition, describes the potential effects of acquiring land for conservation, including what acquisition technique is chosen. Subsequently, the second purpose of this chapter is to identify any consistencies and contradictions found in the current empirical literature. Finally, this chapter describes the theoretical framework that guided the design of this thesis.

Empirical Evidence of Ballot Box Planning

The empirical evidence on ballot box planning and its applicableness to ballot box conservation is discussed in the following section and Table 1 provides a summary literature review. There are four empirical sources included in this section and the research time frame ranges between 1980 to projections through 2025. Problems considered in these studies include further investigation into ballot box planning, the impact on economic development, the impact of voter requirements, and impacts on affordable housing. By initially considering the key empirical studies on ballot box planning, comparable results to ballot box conservation can be identified due to the common processes and procedures of application. In addition, these studies provide the broader context for the more specific topic of ballot box conservation.

Table 1: Empirical Evidence of Ballot Box Planning Summary

Author(s)	Area(s) of Focus	Method(s)	Problem Explored	Researched Time Frame	Main Conclusion
Roger Caves (1992)	United States; Barnstable County, MA; Portland, ME; San Diego, CA; Seattle, WA	Telephone Survey; Case Studies	Improve understanding of the application of direct democracy in local planning matters.	1985-1992	Pitted grassroots organizations against well financed oppositions.
Samuel Staley (2001)	Ohio	Survey; Multivariate Regression Model	What are the impacts of ballot-box planning on economic development?	1980-1994	Measures can reduce economic activity.
Elisabeth Gerber, Justin Phillips (2004)	California	Regression Model	What is the impact of voter requirements in the planning process?	1986-2000	Voter requirements change the way developers interact with interest groups in a community.
Lucy Acquaye, Joseli Macedo, Rhoda Phillips, Douglas White (2007)	Florida	Economic Impact Analysis	What are the economic impacts of ballot box planning on affordable housing?	1990-2025	Measures have a negative impact on affordable housing.

One of the first authors to coin the term ballot box planning is attributable to Larry Orman (1984). However, the subject was not scientifically researched until 1992 by Roger Caves. His study became influential and inspiring to succeeding researchers, due to its objective of revealing the rise in application of ballot box planning. According to Caves (1992), ballot box planning exists once a planning-based initiative or referendum is utilized in the decision making process. Caves' utmost contributions to the research on ballot box planning are his excellent definitions, and his four case studies observing how ballot box planning is exercised in the United States. As a result, Caves' ballot box planning definitions are included in Table 2 and employed in this study as noted in Chapter 1 (1992, p. viii-ix). Caves' definitions are specifically applied in this study due to his extensive knowledge of this limitedly researched topic and his research focus and interest in planning issues.

Table 2: Key terms as defined by Roger Caves (1992)

Initiative:	A citizen proposed legislative measure that is put before the electorate for approval or rejection.
<i>Direct Initiative:</i>	Follows the required procedures for getting the measure placed on a ballot, goes straight from the petitioners to the voters, and bypasses the appropriate legislative body.
<i>Indirect Initiative:</i>	First submitted to the legislative body, which can either adopt the measure or reject it, but is not allowed to alter the initiative in any form.
<i>Advisory Initiative:</i>	Advises and alerts public officials about citizen feelings on particular issues.
Referendum:	Follows an action by the legislative body and allows citizens to approve or reject an ordinance already adopted by the legislative body.

While Caves’ definitions continue to be cited in ballot box planning research today, his case studies also have tremendous value. In order for Caves to provide an adequate generalization of how ballot box planning was being exercised in the United States, he chose four case study locations across the country. These included Barnstable County, Massachusetts, Portland, Maine, San Diego, California, and Seattle, Washington. From these case studies, Caves (1992) recognized that while controversy was high, the measures typically passed. His major realization however was the relationship between grassroots organizations and the well-financed opposition (Caves, 1992). According to Caves (1992), grassroots organizations focused on the negatives associated with growth, while the opposition countered with warnings of decreasing jobs and economic development if passage occurred. While inclusively Caves’ (1992) study focused on land use ballot box planning, it provides significant findings that can also apply to ballot box conservation. The key definitions from his study are analogous, and evidence of grassroots organizations verses well-financed oppositions are also conceivable in ballot box conservation. In the conclusion of his book, Caves (1992) emphasized the need for further research on ballot box planning, by providing questions future researchers might consider investigating.

Unfortunately, the following years after Caves’ book saw limited research on ballot box planning. However by 2000, data collection on local ballot measures became much easier to access, and as a result, interest in the topic reemerged. For example, reporters such as Phyllis Myers and Robert Puentes (2000) began collecting and analyzing data from local ballot measures throughout the United States. In their survey of November 2000 state and local ballots, they classified each planning-based measure into one of the following groups: economic development, governance/flexibility, growth management/regulatory, infrastructure, and open space/natural resources/recreation (Myers and Puentes, 2000). A major finding from their report was the

significant amount of measures and passage for open space/natural resources/recreation (Myers and Puentes, 2000). Of the 575 measures that occurred, 257 or 44.7 percent were categorized under open space (Myers and Puentes, 2000). Of the 257 open space measures, 201 or 78.2 percent passed, representing an increase of 15.1 percent from 1998 (Myers and Puentes, 2000). Myers produced a subsequent report in November 2008, and while not as detail oriented as the 2000 report, she alludes that the open space trend had continued. It was reports such as these that led the way for increased research interest in ballot box planning once again, and became a critical establishing element for ballot box conservation.

One of the first researchers to respond and develop a query from the reports was Samuel Staley (2001). To contribute to the still limited research on ballot box planning, Staley (2001) explored the potential economic consequences of initiatives and referendums on a community. In order to investigate this matter, Staley surveyed over 140 cities and townships in five urban counties in Ohio; 63 of which were utilized in the final conclusion (2001). He hypothesized that the uncertainty from initiatives and referendums in the planning process will drive up transaction costs and reduce land development (Staley, 2001). Staley's methods for investigating his 1980-1994 data were through multivariate and regression analysis. From his analysis Staley (2001) failed to reject his hypothesis, as he discovered cities rezoning through public referenda experienced lower levels of building activity. While Staley predominately focused on rezoning in his study, his hypothesis and findings suggest potential correlation to ballot box conservation due to the element of uncertainty. Since similar uncertainties are present in ballot box conservation, it is fair to say that comparable or contrasting results are feasible.

Staley was not the only researcher intrigued by the number of measures in 2000, as evident by Elisabeth Gerber and Justin Phillips (2004). Their contribution to the research on ballot box planning was investigating the effects of direct democracy institutions on land use politics (Gerber and Phillips, 2004). Derived from a 1985 San Diego proposition, they hypothesized that developers change the way they interact with interest groups when voter requirements are present (Gerber and Phillips, 2004). To test this hypothesis, the methodology employed was regression analyses. The data examined in these analyses were 29 California measures that occurred between 1986 and 2000. From their analyses they failed to reject their hypothesis, as they found pro-development groups were forced to interact differently with interest groups in communities where voter requirements are present. This finding is particularly applicable to ballot box conservation when

considering the factor of adaptation. Gerber and Phillips (2004) emphasize this in their discussion, suggesting that property owners and developers adapt to the constraints created by direct democracy institutions. As a result, it is plausible to suggest that similar adaptations might occur during the process of ballot box conservation.

Like their predecessors, Lucy Acquaye, Joseli Macedo, Rhonda Phillips, and Douglas White (2007) were also intrigued by the Myers and Puentes (2000) report. They expanded the research on ballot box planning by examining the impacts of ballot box measures on affordable housing (Acquaye et al., 2007). Developed from previous research, they hypothesized a negative relationship between ballot box planning and affordable housing (Acquaye et al., 2007). To test this hypothesis, the methodology utilized was an economic impact analysis. The data assessed in this analysis was Florida housing affordability, impacted by ballot box measures, from 2000 projected into 2025. From their analysis they failed to reject their hypothesis, as they projected a negative impact on affordable housing. The source of this negative impact is believed to be due to the decrease in building activity caused by ballot box planning, of which, is consistent with Staley's (2001) study. Moreover, it is clear the element of uncertainty is a critical factor of the negative economic impacts resulting from ballot box planning.

As alluded earlier, since similar uncertainties are present in ballot box conservation, it is feasible that comparable or contrasting results are possible. Comparable results between ballot box planning and conservation are likely possible due to the common processes and procedures. Therefore, the findings from these ballot box planning studies may prove valuable when considering ballot box conservation. However, there is the potential for contrasting results as the functions of ballot box planning and conservation are distinct. For example, since most of these studies focused on land use and development, and ballot box conservation concentrates on the contrary, it is feasible to suggest that potential results might contrast. Nevertheless, the studies in this section are still considered valuable as they provide potential impact results, and support the research on ballot box conservation from the broader perspective.

Initiative, Referendum, & Conservation Organizations

As data became increasingly easier to collect, organizations interested in initiatives, referendums, and land conservation became widespread. Consequently, such organizations have become the leading sources for current researchers to obtain data. At the broader scope, the

Initiative and Referendum Institute at the University of Southern California collects state data on all types of initiatives and referendums throughout the United States. For researchers who are mainly interested at the state level or initiatives and referendums in general, the *Initiative and Referendum Institute* provides a tremendous source. However, for those seeking a more in depth look at initiatives and referendums at the local level, particularly dealing with open space and land conservation, other sources may be more appropriate.

This is evident from most research dealing with land conservation measures, as *The Trust for Public Land* has created a highly utilized database known as “LandVote.” In this database, *The Trust for Public Land* has collected all known measures dealing with land conservation from 1988 to the present. For each measure, the database provides summary information under such categories as: state, jurisdiction name, jurisdiction type, date, description, finance mechanism, purpose, total funds at stake, total funds approved, pass/fail, and percent yes/no. By 2000, *The Trust for Public Land* also established a nonprofit and nonpartisan organization known as *The Conservation Campaign*. The goal of *The Conservation Campaign* is to “create, renew, and protect public funding for conservation,” with the mission to “provide practical and operational support to local and statewide voter campaigns and legislative lobbying efforts” (The Conservation Campaign, 2012). Inclusively, these organizations and the data they collect have played a substantial role in the boom of research on ballot box conservation starting in the late 1990’s and early 2000’s.

Empirical Evidence of Ballot Box Conservation

The empirical evidence of the application of ballot box conservation is discussed in the following section and Table 3 provides a summary literature review. There are ten empirical sources included in this section and the research time frame ranges between 1982 and 2010. Due to the number of studies presented, the problems considered vary extensively. The conclusions from these studies are the most significant of the literature review as they serve as the key sources for comparing what is already know to the findings from this study. This comparison is discussed in detail in Chapter 5.

Table 3: Empirical Evidence of Ballot Box Conservation Summary

Author(s)	Area(s) of Focus	Method(s)	Problem(s) Explored	Researched Time Frame	Main Conclusion(s)
Jeffrey Kline, Dennis Wichelns (1994)	Pennsylvania; Rhode Island	Econometric Model	Factors that contribute to the support of referenda for farmland preservation.	1982-1990	<ul style="list-style-type: none"> • Rapid population growth increases support • Increasing land and housing values at higher rates amplified support
Timothy McDaniels, Karen Thomas (1999)	Richmond, British Columbia	Random Survey	What is the preference for AV and SRV measures?	Summer, 1995	<ul style="list-style-type: none"> • A strong positive preference for AV and SRV measures
Shannon Martin, Robert Mason, William Solcki (2004)	New Jersey	Regression Model; Principal Components	Investigate spatial characteristics	November, 1998	<ul style="list-style-type: none"> • Extensive wealthy support • Low participation in urban areas
Jeffrey Kline (2006)	United States	Secondary Data; Logistic Model	What factors are increasing the demand for more open space, particularly through measures?	1999-2004	<ul style="list-style-type: none"> • Population Density • Income • Education • Open Space Scarcity
Matthew Kotchen, Shawn Powers (2006)	United States; New Jersey; Massachusetts	Regression Model; Case Studies	Financial Mechanisms? Why the emergence?	1998-2003	<ul style="list-style-type: none"> • Bonds are preferred • Population growth, household incomes, home values, and ownership rates
Erik Nelson, Michinori Uwasu, Stephen Polasky (2007)	United States	Regression Model	What factors influence municipality measure emergence and support?	2000-2004	<ul style="list-style-type: none"> • Large population, rapid growth, high education
Spencer Banzhaf, Wallace Oates (2010)	United States	Regression Model; Econometric Model	Assessing the performance of the conservation movement in managing the direct democracy process.	1998-2006	<ul style="list-style-type: none"> • Local conservation efforts are steered towards ecologically valuable areas
Martin Heintzelman (2010)	Massachusetts	Difference-Indifferences; Fixed Effects; Quantile Regression	What is the impact of CPA on property values?	2000-2010	<ul style="list-style-type: none"> • There was no significant effect on property values

Table 3: Continued

Author(s)	Area(s) of Focus	Method(s)	Problem(s) Explored	Researched Time Frame	Main Conclusion(s)
Spencer Banzhaf, Wallace Oates (2012)	United States	Multivariate Regression Model	Bonds or taxes preference? Is there a renter effect?	1998-2006	<ul style="list-style-type: none"> • Bonds are preferred • Renters tend to vote no at a higher rate than homeowners
Martin Heintzelman, Patrick Walsh, Dustin Grzeskwiak (2012)	New Jersey	Survival Model; Spatial Error Model	Improve understanding of the factors that contribute to the emergence and passage of measures.	1989-2009	<ul style="list-style-type: none"> • Education • Population Density • Unemployment • Household income

One of the first empirical works that can be considered ballot box conservation research is attributable to Jeffrey Kline and Dennis Wichelns (1994). Their contribution to the newly developing topic of ballot box conservation was investigating the factors that contribute to the support of referenda for farmland preservation (Kline and Wichelns, 1994). They hypothesized that the “public’s desire to preserve farmland is motivated by a combination of agricultural, environmental, and municipal objectives” (Kline and Wichelns, 1994, p. 225). To test their hypothesis, the methodology employed was an econometric model. The secondary data analyzed in this model included referendum and census statistics of Pennsylvania and Rhone Island between 1982 and 1990. From their model they rejected and failed to reject components of their hypothesis, due to convincing factors in population change and land and house values.

First, they discovered that counties and towns experiencing higher rates of population growth were more likely to support funding for farmland preservation (Kline and Wichelns, 1994). This is considered significant as it is “consistent with the belief among the public that farmland preservation yields a growth-control benefit” (Kline and Wichelns, 1994, p. 231). Subsequently, they revealed that counties and towns experiencing rapidly increasing land and house values were also more likely to support funding for farmland preservation (Kline and Wichelns, 1994). This too can be attributed to the public’s perception that “farmland and other open land is more likely to be developed when local land and house values are rising” (Kline and Wichelns, 1994, p. 231). Therefore, by supporting such measures, it reflects the public interest in slowing municipal growth (Kline and Wichelns, 1994). Inclusively, this study provides a valuable contribution to the research

on ballot box conservation in two ways. It provides insight into what factors might influence support, and indirectly suggests a reason for appearance, land scarcity.

Another early contribution to the research on ballot box conservation is attributable to Timothy McDaniels and Karen Thomas (1999). Their research is considered unique in the topic, as they were predominately interested in the procedural side of ballot box conservation. More specifically, they wanted to identify how people respond to the application of Structured Value Referendums (SVR) with approval voting (AV). An SVR is defined as “a vote involving a choice among several structured alternatives, [...] in which the best available information is used to characterize the trade-offs” (McDaniels and Thomas, 1999, p. 264). With the addition of AV, it allows voters to “select as many alternatives as they deem acceptable” (McDaniels and Thomas, 1999, p. 264). To test their query, they had a random sample of 200 registered voters in the summer of 1995 vote on a mock SVR and AV referendum at three different locations. It must also be noted that this sample did not occur in the United States, but in British Columbia. The subject of this mock referendum was the preservation of green space in a place called Terra Nova. In addition, a subsequent survey was included to provide feedback on the referendum. The fundamental finding of their study was the strong preference for SVR with AV over the conventional yes/no format (McDaniels and Thomas, 1999). While in theory its use in ballot box conservation seems advantageous, McDaniels and Thomas (1999) admit that in practice its use is unlikely due to the current nature of politics.

In 2004, William Solecki, Robert Mason, and Shannon Martin became one of the first researchers to investigate spatial characteristics from ballot box conservation. The data examined in their analysis was from a 1998 New Jersey conservation measure. Methods in their case study consisted of regression and principal component analyses (Martin et al., 2004). From their analyses, they acquired two major findings. Firstly, they identified that the support for the ballot measure was extensive, and “exceptionally strong in the ‘wealth belt’ area of north central New Jersey” (Martin et al., 2004, p. 634). Secondly, they discovered a “falloff in voting in urban areas” (Martin et al., 2004, p. 636). Therefore, it is clear socioeconomic status and housing tenure plays a critical role in voting behavior for ballot box conservation.

The first researcher to highly utilize the database “LandVote” was the previously referenced author Jeffery Kline (2006). In his study, Kline examined conservation referendums seeking to identify the factors responsible for the increasing demand of open space. To investigate

his query, Kline (2006) collected a census from “LandVote” of all conservation measures between 1999 and 2004. His overall methodology consisted of a variety of logistic models (Kline, 2006). From his models, he found that “the impetus for preserving local open space is positively correlated with increasing population density, income, and education” (Kline, 2006, p. 653). Comparably, these findings are consistent with preceding studies indicating larger voter support for ballot box conservation among educated and wealthy people (Kline and Wichelns, 1994; Martin et al., 2004). As a result, it is clear the socioeconomic status of a community is a significant factor and must be considered when implementing ballot box conservation.

Another study that highly utilized the data from “LandVote” and continue the discussion on ballot box conservation was by Matthew Kotchen and Shawn Powers (2006). Vastly cited, Kotchen and Powers (2006) contributed to the literature on ballot box conservation in four primary ways. The first contribution was to “construct the most comprehensive data set on open-space referenda to date” (Kotchen and Powers, 2006, p. 375). To construct this, Kotchen and Powers (2006) utilized “LandVote” data from 1998 through 2003, which collectively resulted in 857 measures to be analyzed. Their remaining contributions aimed to identify any effect of financial mechanisms, how responsive voters were to cost, and what factors influence referendum success (Kotchen and Powers, 2006). In order to estimate the effects of financial mechanisms and how responsive voters were to costs, their methodology consisted of regression models. To examine the factors that influence measure success however, Kotchen and Powers (2006) decided to develop two case studies for New Jersey and Massachusetts.

It is the findings and conclusion of their study that is considered the most enlightening, and has made it a fundamental source in ballot box conservation research today. The first critical finding was identifying factors that contribute to the appearance of ballot box conservation. Comparable to the preceding literature, they discovered that places with greater population growth, household incomes, home values, home ownership rates, open space, and open-space loss, increases the likelihood of ballot box conservation emergence (Kotchen and Powers, 2006). Subsequently, the next finding focused on funding mechanisms and there potential effect on the way citizens vote. They discovered that voters are far more likely to support conservation measures through bond financing rather than tax increases (Kotchen and Powers, 2006). Correspondingly, the next finding investigated the effect of funding rates on favorable votes in ballot box conservation. Expectedly, they found that higher funding rates at the local level tend to decrease

voter support (Kotchen and Powers, 2006). Lastly, they examined the impact of socioeconomic characteristics on ballot box conservation success, and like their predecessors, found that household income has the greatest impact (Kotchen and Powers, 2006).

At roughly the same time as Kotchen and Powers (2006), Erik Nelson, Michinori Uwasu, and Stephen Polasky (2006) were also interested in ballot box conservation. Widely cited in the topic of ballot box conservation like Kotchen and Powers (2006), Nelson et al. (2006) also utilized “LandVote” data. However, they examined only municipalities and open space measures between 2000 and 2004. The topic questions they pursued were also extremely similar to Kotchen and Powers (2006). Nelson et al. sought to distinguish “what factors make it more likely that a municipality will hold an open space referendum,” and if the referendum were to ensue, “what factors increase the level of support” (2006, p. 581). In order to acquire answers to their questions, Nelson et al. chose to use regression models. Since they used both a similar methodology and data as Kotchen and Powers (2006), it comes to no surprise that their conclusions are comparable. They also found that rapid growth, low unemployment rates, and highly educated residents increase ballot box conservation appearance and success (Nelson et al., 2006).

In response to both the Kotchen and Powers (2006) and Nelson et al. (2006) articles, Spencer Banzhaf, Wallace Oates, and James Sanchirico (2010) aimed to continue and contribute new information on the discussion of ballot box conservation. Like their predecessors, Banzhaf et al. (2010) utilized “LandVote” data to provide their comprehensive background. However unlike their predecessors, their data included both municipal and county levels starting from 1998 up to the most recent data in 2006. While Banzhaf et al. (2010) did investigate the same questions as their predecessors, to assess if they still held true through 2006, this was not their major contribution to the literature. According to Banzhaf et al. (2010), their contribution to the literature on ballot box conservation was assessing “the performance of the conservation movement in managing the direct democracy process” (2010, p. 2). As a result, they developed the following hypotheses:

“Conservation organizations direct their efforts toward areas with more conservation value, as proxied by nearby surface water and endanger species.” Additionally, “conservation organizations are using the initiative process efficiently and effectively to conserve more land” (Banzhaf et al., 2010, p. 2-3).

To conduct their study, Banzhaf et al. (2010) employed regression and econometric models. From these models, they discovered that conservation measures were more likely to be held when endanger species and surface water were abundant, both effects of which were statistically significant (Banzhaf et al., 2010). This result suggests that the local conservation movement did systematically seek out areas with more ecological value (Banzhaf et al., 2010). They also failed to reject their second hypothesis, claiming their results expose conservation organizations as “quite effective at strategically targeting the time and place for referenda” (Banzhaf, et al., 2010, p. 23). Additionally, while previous researchers focused predominantly on internal influencers, Banzhaf et al. (2010) identified the rise in conservation organizations such as *The Conservation Campaign* and *The Trust for Public Land*. The topic of this study is vastly beneficial to the discussion, as it allows researchers to see how an external source, such as conservation organizations, can affect ballot box conservation appearance and success.

An author who took a new approach to ballot box conservation and its impacts was Martin Heintzelman (2010). His contribution to the literature was investigating the impacts of ballot box conservation on property values (Heintzelman, 2010). To test his query, the methodology he employed consisted of difference-in-differences, fixed effects, and quantile regression models. The locations he examined were two Massachusetts communities that passed the Community Preservation Act (CPA) of 2000. From his analyses, he found no overall statistically significant effect, suggesting that CPA and other conservation policies do not produce widespread increase in property values (Heintzelman, 2010). He accredits some of the lack of a strong property-value effect as resulting from the uncertainties associated with ballot box conservation (Heintzelman, 2010). Therefore, it is probable that ballot box conservation will have limited to no property value effect as evident in Heintzelman’s (2010) study.

Banzhaf and Oates did not limit their research to only external influencers. Currently, Banzhaf and Oates (2012) are researching the existence of a debt or renter effect in ballot box conservation. Utilizing the same 1998 through 2006 “LandVote” data from their previous research and the 2000 Census, Banzhaf and Oates (2012) aim to statistically identify the effects of financial mechanism choice, and how renters of a community influence ballot box conservation success. Recognizing Kotchen and Powers’ (2006) previous research on financial mechanism choice and its effect on conservation measures, Banzhaf and Oates (2012) hypothesize that local voters throughout the United States prefer debt financing over other options. An alternative term for *debt*

financing approved by referendum that Banzhaf and Oates (2012) do not directly apply is *bond referendums*; or “the authorization of [government] debt by the voters in a referendum” (Marlowe et al., 2009, 251). Banzhaf and Oates also hypothesize that “communities with a higher share of renters are less likely to support expenditures for open space” (2012, p. 4). Evidence of whether or not this is true is a critical new contribution to the literature on ballot box conservation.

For example, a university setting may contain numerous characteristics of referendum appearance and success as identified in the precedent research (e.g., larger populations, rapid growth of the surrounding area, and highly educated and environmentally concerned residents). However, if the university setting contains predominately renters, in theory, it may drastically affect ballot box conservation appearance and success negatively. To acquire answers for their queries, Banzhaf and Oates (2012) applied regression models. For their question on debt financing preference by voters, Banzhaf and Oates (2012) found consensus with the Kotchen and Power’s (2006) study. Their results underscored the preference of debt-financing referendums at a statistically significant 65 percent support, and only 57 percent for property tax and 58 percent for sales tax (Banzhaf and Oates, 2012). In terms of there being a potential effect on ballot box conservation by renters, Banzhaf and Oates (2012) discovered that by increasing the share of renters by 10%, it decreases the yes vote in the average county by about five percent. Moreover, the municipality model also observed a renter effect, however, to a much less extent of only a one percent decrease in the yes vote (Banzhaf and Oates, 2012). Overall, it is clearly evident that the public at the local level prefer the use of bonds, and that renters typically have a negative impact on the success of ballot box conservation.

Heintzelman also did not limit his research on ballot box conservation, as evident by his working paper with Patrick Walsh and Dustin Grzeskowiak (2012). Acknowledging their predecessors, Grzeskowiak et al. (2012) also used “LandVote” data, however, exclusively examined municipalities in the state of New Jersey. In this study, they too were interested in the factors that influence the appearance and success of ballot box conservation. Therefore, in order to contribute to the already heavily researched question, they concentrated on measures that occurred between 1989 through 2009, and applied different models not previously utilized (Grzeskowiak et al., 2012). Such models included spatial error and survival. Not only did they discover comparable results to the precedent studies, but were also able to expand upon the current

knowledge. Table 4 below summarizes these findings, as they are main contributing factors to ballot box conservation research.

Table 4: Ballot box Conservation Appearance and Success by Grzeskowiak et al. (2012)

Appearance:	Success:
<ul style="list-style-type: none"> • Education is positive and significant • Municipalities with large number of residents under 18 is negative • Number of men per 100 females is negative but insignificant (i.e. no gender effect) • Higher population density is positive and significant • Unemployment is negative and significant • Median household income is positive, but insignificant 	<ul style="list-style-type: none"> • Education is strongly positive and significant • Age cohort over 65 and under 15 are both positive and significant • Existing property tax rate was not significant • Population Density was not significant • Timing was not significant • Home values are positive and significant

Open Space Acquisition

In most cases of ballot box conservation, when passed, some form of open space acquisition will follow. Therefore, understanding the impacts of acquisition on communities is critical to the research on ballot box conservation. A recent study that illustrates some of the impacts of open space acquisition, was produced by Donald Vandegrift and Michael Lahr (2011). They examined the effect of open space acquisitions on municipal house prices and tax base in New Jersey between 1995 and 2000. From that period of time, they discovered that open space acquisition had a positive effect on house prices by an average increase of 0.72 percent (Lahr and Vandegrift, 2011). Conversely, they found a negative effect on tax base by an average decrease of 0.075 percent (Lahr and Vandegrift, 2011). However, the negative effect on tax base appeared to be immediate and did not extend into future years (Lahr and Vandegrift, 2011). Findings such as these can be particularly helpful for a community considering ballot box conservation. When implementing ballot box conservation, the acquisition technique should be considered before going to the polls. Doing so allows the local government and voters to understand the potential impacts. The acquisition techniques that are typically applied in conservation include: conservation easements, purchase of development rights (PDRs), transference of development rights (TDRs), special zoning districts, and fee simple purchases. An author who effectively defined, described the pros and cons, and identified the trade-offs of each technique involved was John Wright (1994). As a result, his table comparing the major acquisition techniques is provided in Table 5 below.

Table 5: Comparison of Major Acquisition Techniques by John Wright (1994)

Conservation Easements	Purchase of Development Rights (PDRs)	Transference of Development Rights (TRDs)	Special Zoning Districts	Fee Simple Purchases
Permanent: partial legal interest; only rights necessary to protect conservation values are acquired.	Permanent: partial legal interest; only rights necessary to protect conservation values are acquired.	Permanent: only rights necessary to protect conservation values are transferred.	Temporary: laws, regulations, land use planning goals, and politics change.	Permanent: full interest, all rights acquired.
Compensation: potential tax benefits; many landowners do not gain substantially.	Compensation: direct cash payment.	Compensation: direct cash payment for each development right transferred.	No direct economic compensation; landowners may resist regulation.	Compensation: direct buyout; landowners may not willingly sell.
Land stays on tax rolls.	Land stays on tax rolls.	Land stays on tax rolls.	Land stays on tax rolls.	Land is removed from tax rolls.
Inexpensive local acquisition costs; federal tax incentives.	Moderate local acquisition costs can be 30-70% of fee simple value.	High administrative costs; cumbersome, yet marketplace funds system.	Administrative costs only; fees and taxes fund system, routine planning function.	Expensive local acquisition costs; 100% of fee simple value.
Low management costs.	Low management costs.	Moderate management costs.	Low management costs.	High management costs.
Potentially high enforcement costs.	Potentially high enforcement costs.	Potentially high enforcement costs.	Low to moderate enforcement costs.	High management costs.
No liability exposure.	No liability exposure.	No liability exposure.	No liability exposure.	Significant liability exposure; public use insurance is needed.
Encouraged by stewardship; financial incentives are important but not the driving rationale.	Economic compensation is very important; stewardship secondary.	Economic compensation is very important; stewardship secondary.	General public interest is served; may be compatible with stewardship.	Private stewardship is eliminated.

Theoretical Framework

It is clear the literature, discussion, and research on the topic of ballot box conservation is continually evolving. One key lesson from this historical and empirical narrative of ballot box conservation, is the understanding of how comparatively advantageous it is to utilize predecessors. As a researcher, it is critical to recognize where the topic came from, how it has developed over time, and who have been the major contributors in order to develop an innovative contribution. From this comparative analysis, it is evident that additional research is still necessary on the topic of ballot box conservation, particularly from a planner’s perspective. While there have been

numerous studies and consensus on ballot box conservation appearance, success, impacts, influencers, and preferences, there has yet to be an in depth investigation of what trends may have transpired over the years; specifically through 2012. Additionally, there has been limited to no discussion in previous research with local government officials about their experiences. By filling these gaps in the research, it is believed it will not only enhance the research and discourse, but also provide local governments an up-to-date reference of the status quo in ballot box conservation.

Chapter 3 - Methodology

Introduction

Since this thesis aims to provide answers to numerous gaps in the literature on ballot box conservation, a mixed method approach is necessary. The mixed method approach in this study consists of two primary methods. The first method consists of a secondary data trend analysis, in order to discover how the application of ballot box conservation has progressed, regressed, or remained consistent over time. The sample for the trend analysis includes a census of all local governments in the United States, as recorded in the “LandVote” database, that have utilized measures for the conservation of open space or farmland. The unit of analysis is local conservation measures. The unit of measurement is the evolution and fluctuation of conservation measures between 1996 and 2012. The analytical strategy consists of three stages: data preparation, descriptive statistics, and geospatial analysis. In terms of validity and limitations, since the data for the trend analysis is secondary data, questions may arise as to its reliability.

Subsequently, the second method to be applied includes personal interviews with local government officials conducted to discuss their perceptions of and experiences with ballot box conservation, in order to address central research questions two and three. Potential interviewees were contacted via email for a request to interview, and those who accepted were interviewed over the phone. The sample for the personal interviews is set at 20, however, reaching a saturation point is the ultimate goal. While the personal interview’s study area is also the United States, the county is subdivided into four regions for organizational and representational purposes. The unit of analysis is local government officials that have experienced ballot box conservation. The unit of measurement is local government officials’ responses about ballot box conservation. The analytical strategy will also consist of three stages: question and cluster generation, interviewing process, and descriptive statistics. In terms of validity and limitations, since all the responses will consist of human opinions, perceptions, and experiences, internal validity may be a concern.

Nevertheless, the inferences from this study can aid local governments and planners consider or reconsider their stance on the use of ballot box conservation. Additionally, if local governments do choose to practice or continue to practice the use of ballot box conservation, this study’s key findings could assist them in making their measures more successful. Inclusively, this

chapter provides details for both methods by describing the samples, units of analyses and measurement techniques, analytic strategies, and any issues of validity.

Description of Samples

Trend Analysis

For the trend analysis segment of this research, the study population includes a census of all local governments in the United States that have employed measures for the conservation of open space or farmland. Doing so will construct the most comprehensive data set on ballot box conservation to date. In order to complete the trend analysis of conservation measures in a reasonable amount of time, secondary data originating from *The Trust for Public Land's* database "Land Vote," as precedent researchers have done, will be implemented. From this data, the sample frame only consists of measures that fall under the jurisdiction types: municipalities, counties, or special districts. This is done because measures within these jurisdiction types will have the greatest relationship to community comprehensive and capital improvement plans; the focus of the subsequent method. Additionally, the measures in the sample frame only include those between 1996 and 2012, as "Land Vote" indicates this interval as their most comprehensive. Once these criteria are considered, the sampling technique of a new census group is developed. As a result, the final sample size for the trend analysis includes 2,079 measures.

Personal Interviews

The next segment of this research includes personal interviews conducted with United States local government officials who have experienced ballot box conservation recently. Choosing officials involved in a ballot box conservation recently allows for the most up to date answers, opinions, perspectives, and perceptions on the use, choices, and changes occurring with ballot box conservation. In addition to interviewing local governments that have applied ballot box conservation recently, how often local governments implement its use will also be considered in the sample frame. From this sample frame, it appears the most efficient and effective sampling technique for conducting these interviews is through a cluster technique. By considering the findings from the trend analysis and the criteria of the sample frame, specific organizational clusters can be created. From this criteria, geographic clusters are determined to be the most suitable. More specifically, the United States is separated into four geographic regions: Northeast,

South, Midwest, and West. This technique not only allows for the criterion to be met, but ensures that each geographic region is represented and contributes to the study in some fashion. Once the cluster technique was determined, the final sample size was fixed at 20 interviews, five for each geographic region. However, due to semester time constraints the original goal of 20 respondents was not met. Nevertheless, the ultimate goal of a saturation point was reached with 13 respondents and at least one from each geographic region.

Measurement

Trend Analysis

The unit of analysis for the trend analysis section of this research is local ballot box conservation measures. By analyzing local conservation measures over an extended period of time, there will likely be clear trends and consistencies occurring that have yet to be identified. Therefore, the unit of measurement for this analysis is investigating the evolution and fluctuation of conservation measures annually between 1996 and 2012. As alluded earlier, included with each measure are several categories of data that can be measured to identify any changes and consistencies over time. For the purpose of this study, the following categories will be measured to support the overarching unit of measurement previously mentioned: number of measures, pass rates, jurisdictions, number of votes, approved conservation funds, financial mechanisms, and a geospatial analysis. By analyzing each category in various ways, further discussed in the analytical strategies section, clear statistical measurements of the changes and consistencies are expected to address central research question one.

Personal Interviews

The unit of analysis for the personal interviews section of this research is local government officials' that have experienced ballot box conservation. The unit of measurement is local government officials' responses about ballot box conservation. Comparable to the trend analysis, the personal interviews section will be organized to into multiple categories. The categories of which will be measured include general perceptions, personal experiences, and a comprehensive analysis. Additionally, as mentioned in the description of samples section, a criterion was developed to determine which cluster technique will make the unit of measurement more organized. By choosing the geographic cluster technique, it ensures that the data obtained remains

organized and that each geographic region is represented in some fashion. From this unit of measurement, an analytical strategy is developed to address central research questions two and three.

Analytical Strategies

Trend Analysis

For the trend analysis, the analytical strategy consists of three stages: data preparation, descriptive statistics, and geospatial analysis. After collecting the data, the data was organized and prepared for analysis by removing any measures that did not fit under the sample frame. Once arranged by year numerous variables were calculated including: totals, averages, standard deviations, ranges, medians, maximums, minimums, four year averages, percent changes, and coefficient of determination (R^2). The coefficient of determination (R^2) is included as it indicates how well data fits on a statistical model. By employing such descriptive statistics, the major fluctuations, trends, peaks, and troughs that need to be examined will be evident. To observe these variables in greater depth, visual representations other than tables are necessary. Such graphics include bar graphs, line graphs, pie charts, and maps. The maps of the geospatial analysis are created from the raw data and the findings of the descriptive statistics. These maps geospatially illustrate from the state level various components of conservation measure application including: overall application, property tax application, bond application, sales tax application, and pass rates. After completing all three stages of this analytical strategy, the findings will address central research question one and prepare for investigation into central research questions two and three.

Personal Interviews

For personal interviews, the analytical strategy will also consist of three stages: question and cluster generation, interviewing process, and analysis. In order to implement the first stage of this analytic strategy, the trend analysis first needed to be completed. After completing the trend analysis and considering the central research questions of this study, two question clusters were created. The two clusters are general perceptions and personal experiences, and each cluster contains five questions. For the general perception questions, the five questions were developed from the various findings of the trend analysis for the purpose of addressing central research question two. The general perception questions are close-ended and the topics comprise of average

pass rate, most applied financial mechanism, average number of measures, average number of approved funds, and most engaging geographic region. Each of the questions provide four choices from which the respondent then must choose one that they believe is the most accurate. For the personal experience questions, the five questions are specifically created to address central research questions three. As a result, the questions consist of topics including impact on measure outcome, measure emergence, relationship to comprehensive plan, impact on capital improvement plan, and measure reemergence. Each of the questions are initially close-ended with a choice between two options, and then become open-ended with an explanatory opportunity.

After designing the questions, potential interviewees are contacted via email for a request to interview and those who accept are interviewed over the phone. The interviews are conducted with one person per community and takes approximately 15 minutes to complete. After reaching either the sample goal or a saturation point, the data is organized and prepared for an in-depth analysis. For the general perception questions, the responses are first compared to the findings trend analysis to determine the cognizant realities and misperceptions by local governments about ballot box conservation application. Subsequently, Chapter 5 analyzes all of the responses from the personal interviews in order to address central research questions two and three.

Validity and Limitations

Evident in any research method, the uncertainties of validity and realization of limitations are always questionable. For the trend analysis, the two types of validity that must be considered are construct and external as it relates to generalizability. Since the data for the trend analysis is secondary data, questions may arise as to its reliability. My confidence in this secondary data is not jeopardized however, as numerous past researchers on the topic have employed the same data, and *The Trust for Public Land* is known as a respectable source on the subject of conservation. Still, this method is limited by the number of years that can be analyzed, and it is a possibility that not every conservation measure has been recorded. As some of the questions for the personal interviews are derived from the trend analysis findings, similar concerns of validity and limitations may extend over to the interviews. Comparable to the trend analysis, the uncertainties in construct and external validity as it relates to generalizability is also evident. By choosing to cluster the interviews by geographic region, it is expected to increase generalizability across the United States as it will help prevent a certain cohort from being missed. Nevertheless, there is clear realization

that the external validity is limited by the quantity of responses. Finally, a noteworthy limitation of the interview responses is that the findings are based on professional but still human opinions, perceptions, and experiences.

Chapter 4 - Findings

Introduction

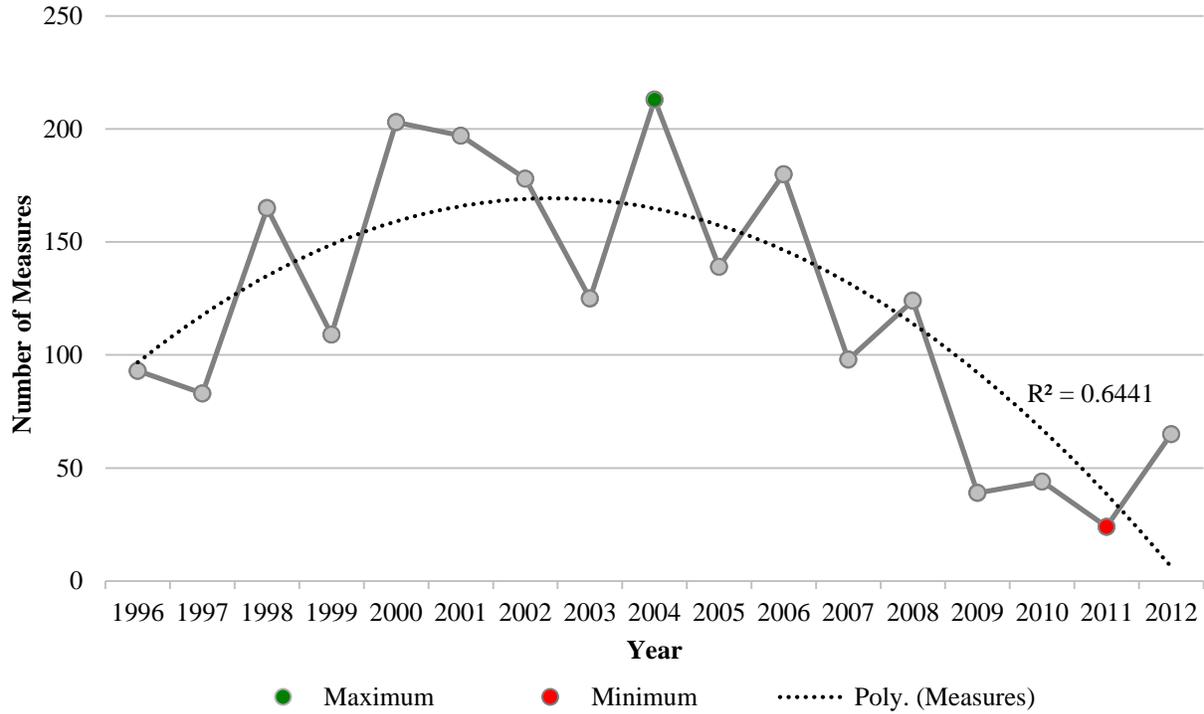
This chapter presents the findings from the two methods, *trend analysis* and *personal interviews*, as discussed in Chapter 3. The *trend analysis* findings are subdivided into seven subsections: number of measures, pass rates, jurisdictions, number of votes, approved conservation funds, financial mechanisms, and geospatial analysis. All of the findings in the *trend analysis* were derived from the raw data of the “LandVote” database, and only municipal, special district, and county measures in the United States between 1996 and 2012 were included. Subsequently, the *personal interview* findings are subdivided into four subsections, background, general perceptions, personal experiences, and a comprehensive analysis. All of the findings in the *personal interview* section were developed from phone interview responses by local government officials who have experienced ballot box conservation in the past. To close the *personal interview* section and this chapter, a comprehensive analysis of the two methods provides key findings of the cognizant realities and misperceptions by local governments about ballot box conservation application.

Trend Analysis

Number of Measures

Figures 1 through 3 and Table 6 present the findings of the trend analysis for the number of measures between 1996 and 2012. The independent variable for this component is time (years) and the dependent variable is the number of measures. During this 17-year period, there were 2,079 total measures, of which, 1,572 passed. Approximately 122 measures will be conducted in an average year, and there is a median of 124. Moreover, the annual number of measures have not reached the median or average since 2008. As seen in Figure 1, the year 2004 produced the most measures at 213, while 2011 had the least at 24. The range in this period is therefore 189 measures. As noted in Chapter 3, the best fit trend line is determined by the coefficient of determination (R^2), which means the closer the number is to 1.0 the stronger the representation of the line to the data. For Figure 1, it was found that a polynomial trend line was the most suitable, with a coefficient of determination (R^2) of 0.6441. This trend line reveals a gradual rise in application to a peak point in 2004, followed by a decline ever since. Also noteworthy in Figure 1, there appears to be consistent fluctuation in measure application from year to year.

Figure 1: Number of Measures Fluctuation



The discovery of annual fluctuation inspired further investigation. To do this, an annual positive or negative change table was created, Table 6. As evident from the table, the positive and negative changes correspond to the peaks and troughs of Figure 1. The table also reveals a cyclical component. More specifically, the positive changes have only occurred during midterm election and presidential general election years, with the single exception of 2002. Therefore, election cycles have a clear presence and relationship with measures application. This is reaffirmed in Figure 2, which illustrates the increase of positive changes during this period by election cycles. By including a linear trend line, Figure 2 also tests if the relationship between election cycles and measure application is consistent. Since the linear coefficient of determination (R^2) is 0.9681, election cycles do have a consistent relationship. Finally, due to the finding of election cycle influence, Figure 1 was modified into Figure 3 in order to display the average number of measures in each election cycle (quadrennial intervals). Comparable to Figure 1, Figure 3's curve best fits with a polynomial trend line ($R^2 = 0.9948$), however, depicts a much more drastic decline in measure application.

Table 6: Number of Measures Annual Change

Year	Change from Previous Year
1997	-
1998	+
1999	-
2000	+
2001	-
2002	-
2003	-
2004	+
2005	-
2006	+
2007	-
2008	+
2009	-
2010	+
2011	-
2012	+

Notes: Grayed in rows indicate presidential general election years; percentages are rounded to the nearest second decimal place; source (TPL).

Figure 2: Measure Application and Election Cycles

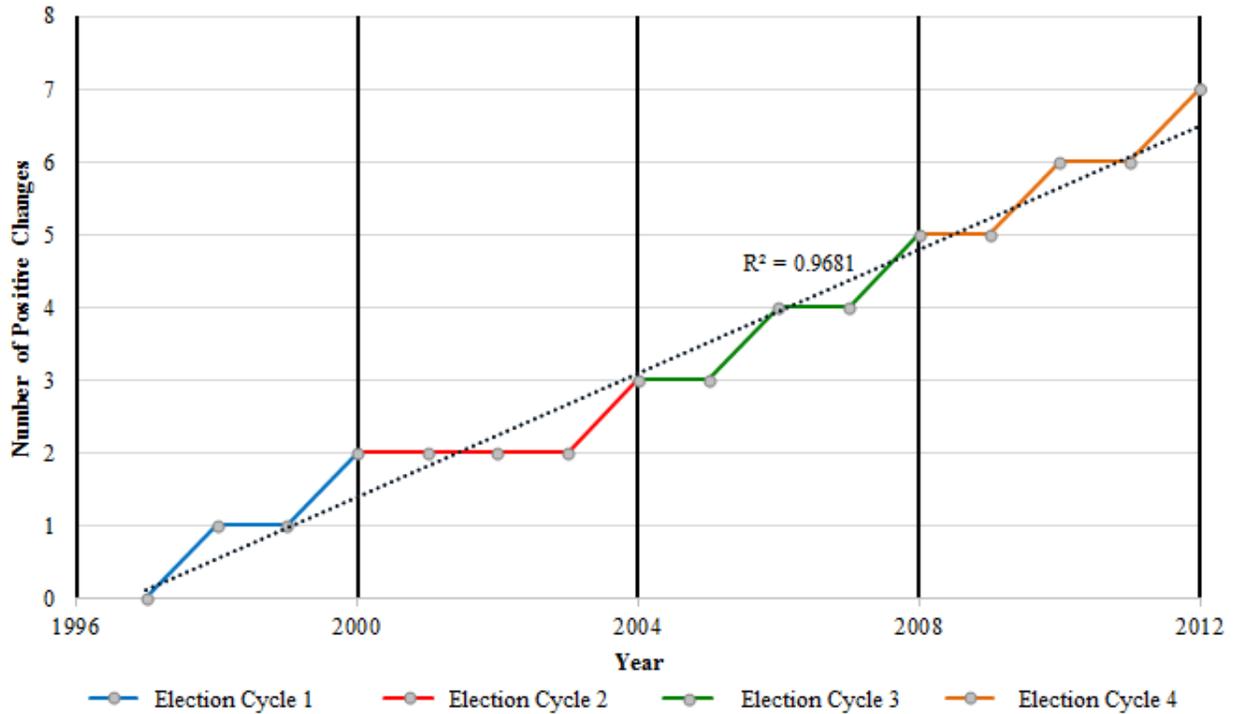
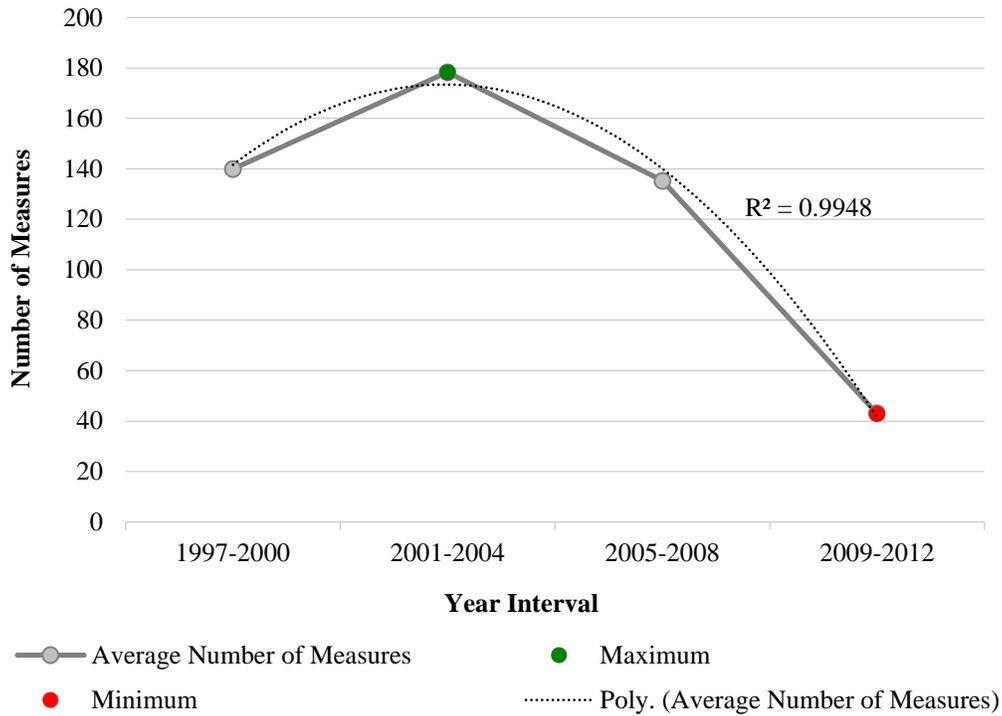


Figure 3: Total Measures by Election Cycle Averages (4 Years)



Pass Rates

Figures 4, 5, and Table 7 present the findings of the trend analysis in terms of pass rates between 1996 and 2012. The independent variable for this component is time (years) and the dependent variable is pass rates. In an average year, approximately 75 percent of all measures will pass. As seen in Figure 4, conservation measures have maintained a constant overall pass rate of greater than 50 percent every year during this 17 year-period. The year 1999 had the highest overall pass rate at 89 percent and 2011 had the lowest pass rate at 58 percent. The resulting pass rate range is 31 percent. Comparable to the number of measures, Figure 4 also exposes a fluctuation but in case of pass rates. The discovery of this fluctuation inspired further investigation of potential trends or a relationship with election cycles as before. Consequently, the same approach as the number of measures was taken. The annual change table, Table 7, visually reveals no trends or relationship with election cycles. Since there was no visual trends or relationship with election cycles, there was no need to test for consistency.

Figure 4: Total Measure Pass and Fail Rate Fluctuation

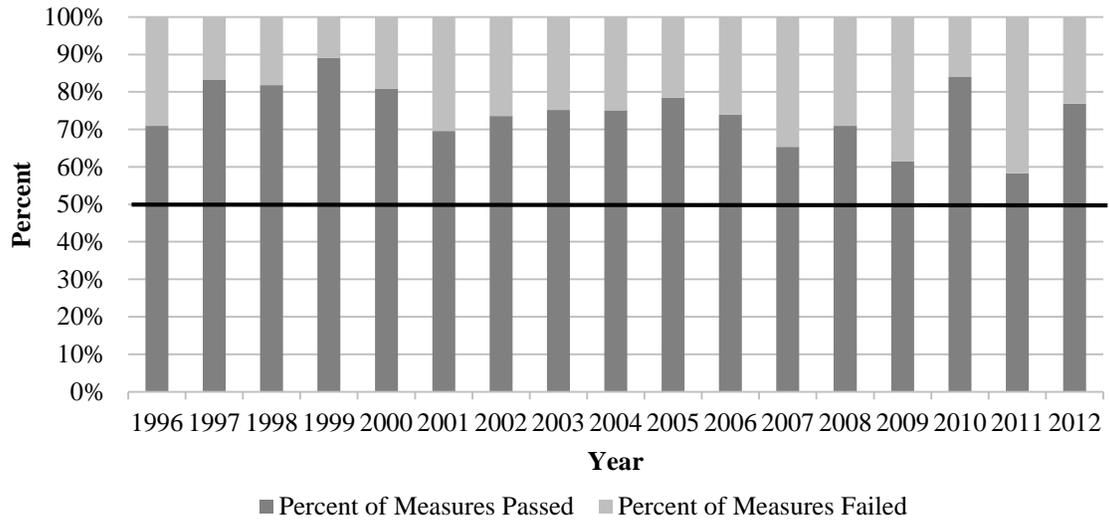


Table 7: Annual Pass Rate Change

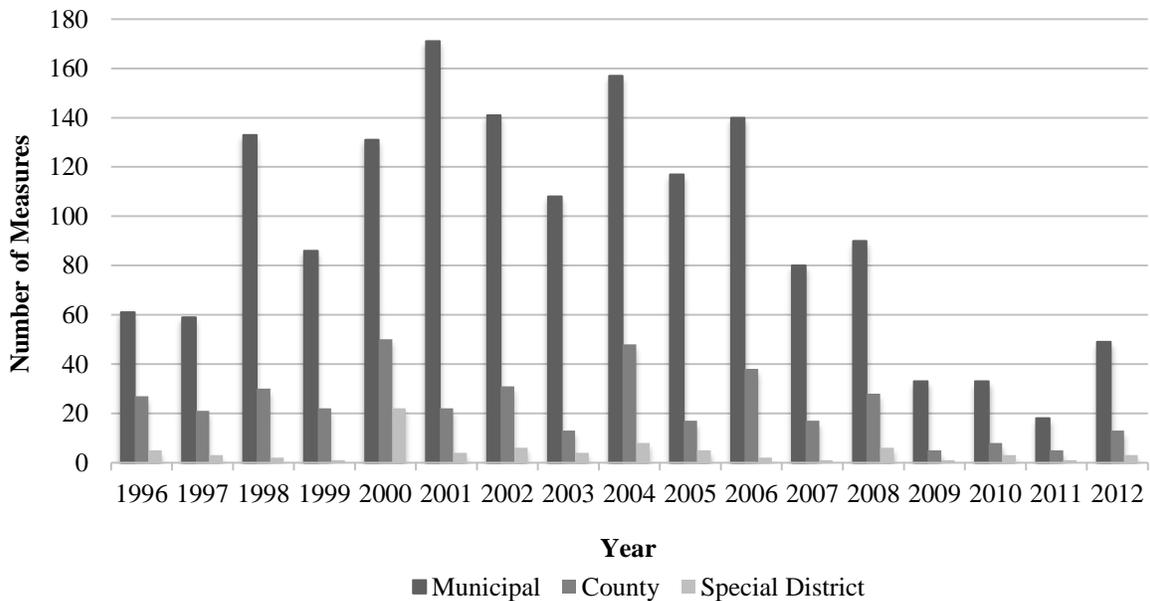
Year	Change from Previous Year
1997	+
1998	-
1999	+
2000	-
2001	-
2002	+
2003	+
2004	-
2005	+
2006	-
2007	-
2008	+
2009	-
2010	+
2011	-
2012	+

Notes: Grayed in rows indicate presidential general election years; source (TPL).

Jurisdictions

Figures 6 through 9 and Table 8 present the findings of the trend analysis in terms of jurisdictions between 1996 and 2012. The independent variable for this component is time (years) and the dependent variable is number of measures by jurisdictions. This study included the jurisdictions of counties, municipalities, and special districts. Municipalities had the most measures during the 17-year period with 1,607, of which, 1,219 passed. As seen in Figure 6, 2002 had the most municipal measures at 171 and 2011 had the least at 18. The municipal median is 90 measures and the range is 153 measures. In an average year, there are approximately 95 municipal measures, 72 of which will pass. Clearly visible from Figure 6, counties had significantly less measures during this time than municipalities, with a total of 395 measures (306 passed). The year 2000 had the most county measures at 50, while 2011 had the least at five. The county median is 22 measures and the range is 45 measures. In an average year, there are approximately 23 county measures, 18 of which will pass. Finally, special districts had the least number of measures with 77, of which 46 passed. Comparable to counties, special districts had the most measures in 2000 with 22, and the least during 2011 with only one. The special district median is three measures and the range is 21 measures. Additionally, there are only five special district measures in an average year, three of which will pass.

Figure 5: Fluctuation of Measures by Jurisdictions



Since this subsection deals with number of measures and is only categorized by jurisdictions, the fluctuations from Figure 6 are expected. While a relationship between number of measures and election years is also expected of each jurisdiction, Table 8 was created to reaffirm. From the table, it is found that even when categorized by jurisdictions, the annual change appears to have a consistent relationship with election cycles as seen before. In addition, the table reveals that while each jurisdiction type does have a consistent relationship, the level of consistency varies. To test the consistencies of each jurisdiction, the same method as the number of methods was taken. As a result, Figures 6, 7, and 8 display the linear trends and coefficient of determinations (R^2) for each jurisdiction. From Figure 6, it is found that municipalities have the least consistency by a slight margin with a coefficient of determination (R^2) of 0.9638. Counties had the highest consistency with a coefficient of determination (R^2) of 0.9888, as seen in Figure 7. Consequently, special districts fell in the middle in terms of a consistent relationship with election cycles, with a coefficient of determination (R^2) of 0.9679 as shown in Figure 8. Finally, in order to illustrate the overall distribution of measures by jurisdictions, Figure 9 is provided. As seen in Figure 9, municipality measures consisted of 77 percent, county measures 19 percent, and special district measures four percent. This data reaffirms the finding from Figure 5 that municipalities have the largest distribution of measures compared to counties and special districts.

Table 8: Annual Change by Jurisdiction

Year	1997	1998	1999	2000	2001	2002	2003	2004
Municipal	-	+	-	+	+	-	-	+
County	-	+	-	+	-	+	-	+
Special District	-	-	-	+	-	+	-	+

Year	2005	2006	2007	2008	2009	2010	2011	2012
Municipal	-	+	-	+	-	--	-	+
County	-	+	-	+	-	+	-	+
Special District	-	-	-	+	-	+	-	+

Notes: Grayed in rows indicate presidential general election years; source (TPL).

Figure 6: Municipal Measure Application and Election Cycles

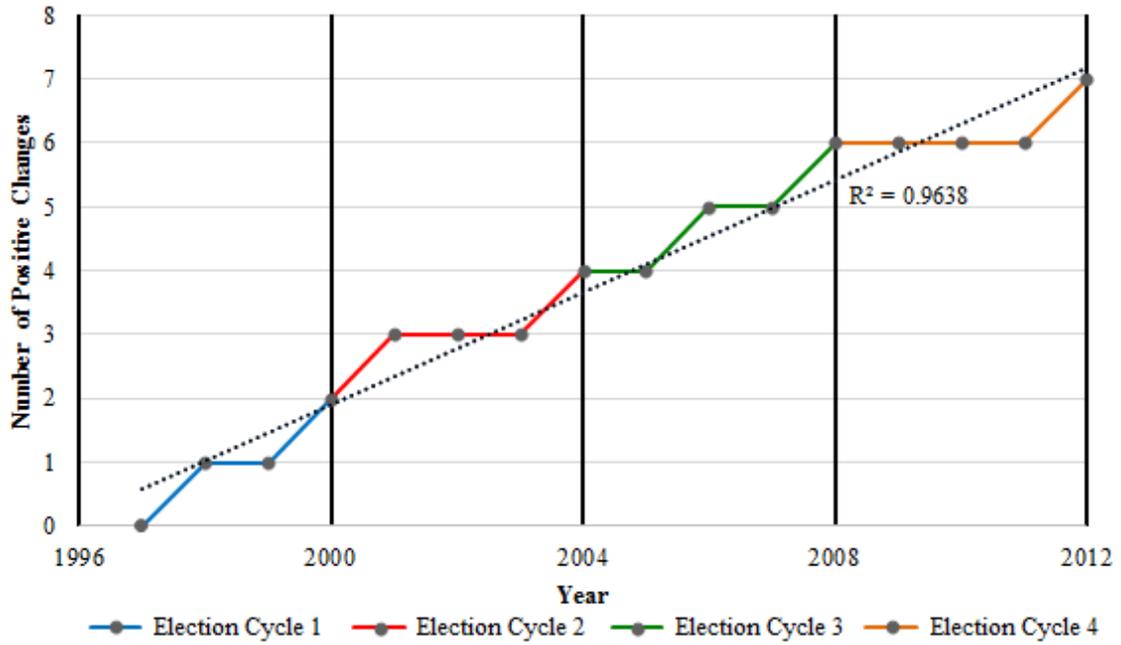


Figure 7: County Measure Application and Election Cycles

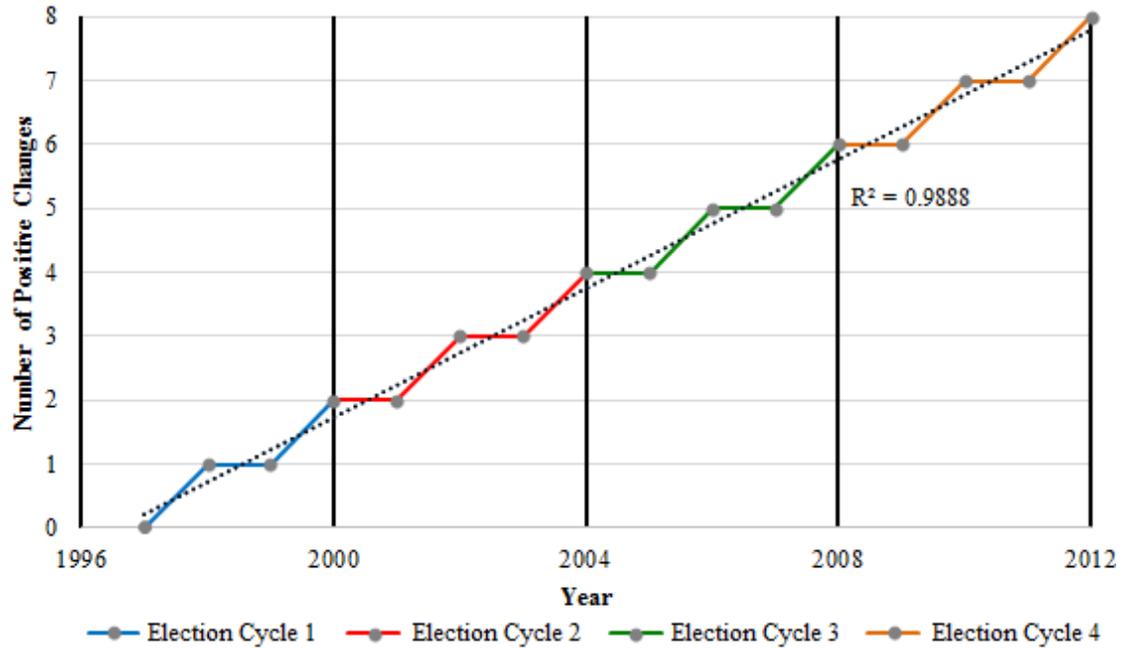


Figure 8: Special District Measure Application and Election Cycles

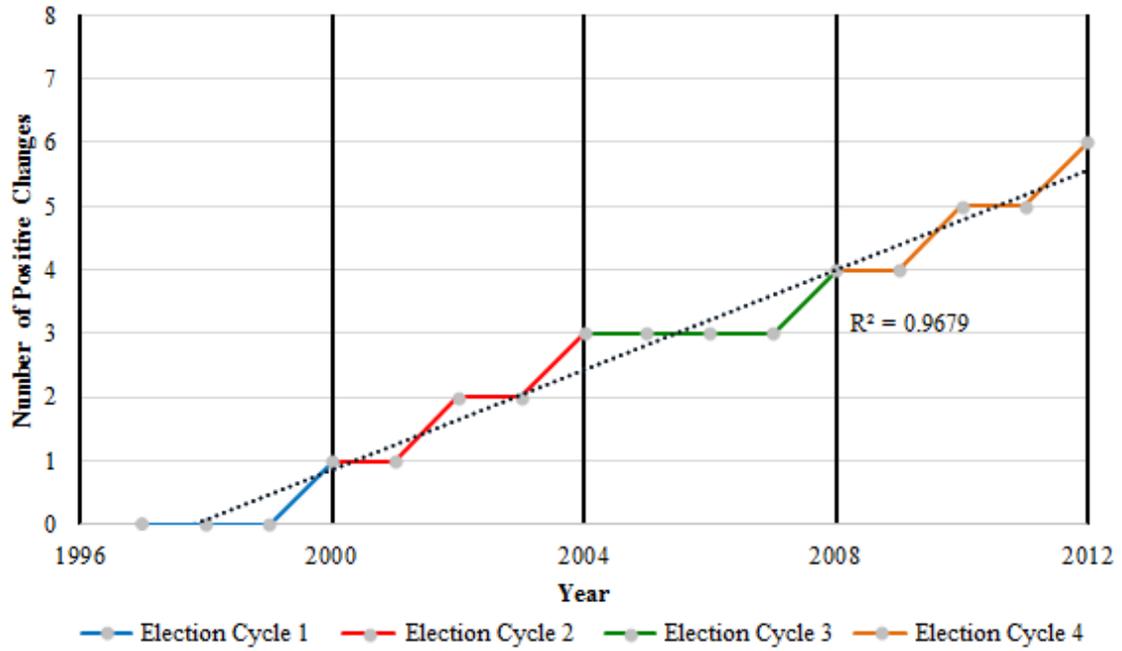
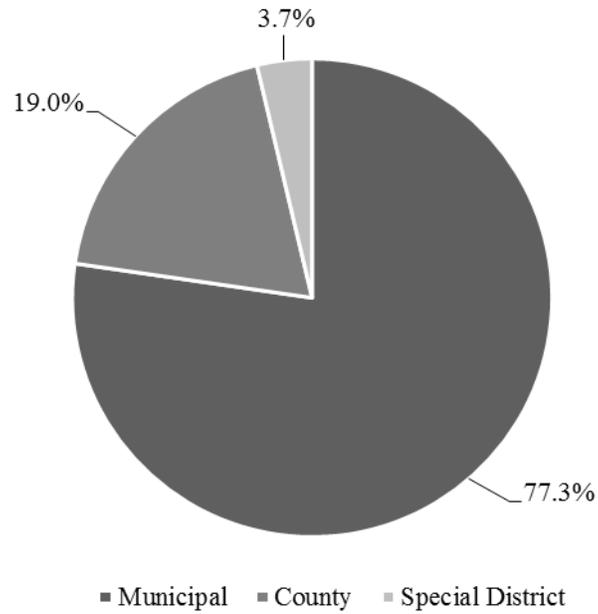


Figure 9: Distribution of Measures by Jurisdictions



Number of Votes

Figures 10, 11, and Table 9 present the findings of the trend analysis for the number of votes between 1996 and 2012. The independent variable for this component is time (years) and the dependent variable is number of votes. Throughout this 17-year period, there were 62,383,928 votes, of which, 39,046,436 were “yes” votes. In an average year there are approximately 3,669,643 votes, and the median of this period is 1,943,931. The year 2004 produced the most votes with 12,366,538, while 2011 had the least with 242,290. The range in this period is therefore 12,124,248 votes. As evident in Figure 8, the number of “yes” votes has been consistently over 50 percent throughout this period. This finding is comparable to the measure pass rate consistency seen in Figure 4, in addition, the presence of fluctuation is also apparent. By investigating the fluctuation with an annual change table, Table 9, it exposed the same trend and consistency as seen before. More specifically, a relationship between the number of votes and election cycles. To test the relationship consistency between election cycles and number of votes, Figure 10 was created. From Figure 10, it was found that the relationship between election cycles and number of votes does have a strong consistency due to a linear coefficient of determination (R^2) of 0.9888. Also noteworthy, since the coefficient of determination (R^2) for number of votes is greater than the coefficient of determination for number of measures, election cycles have a more consistent relationship with number of votes than number of measures.

Figure 10: Yes/No Vote Fluctuation

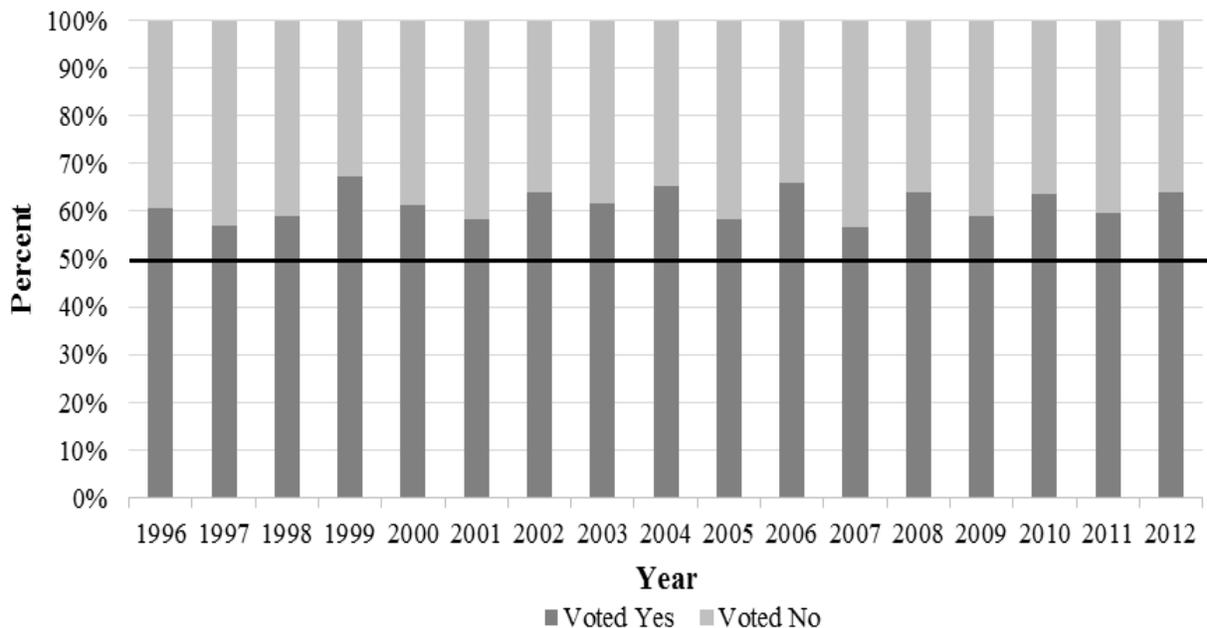
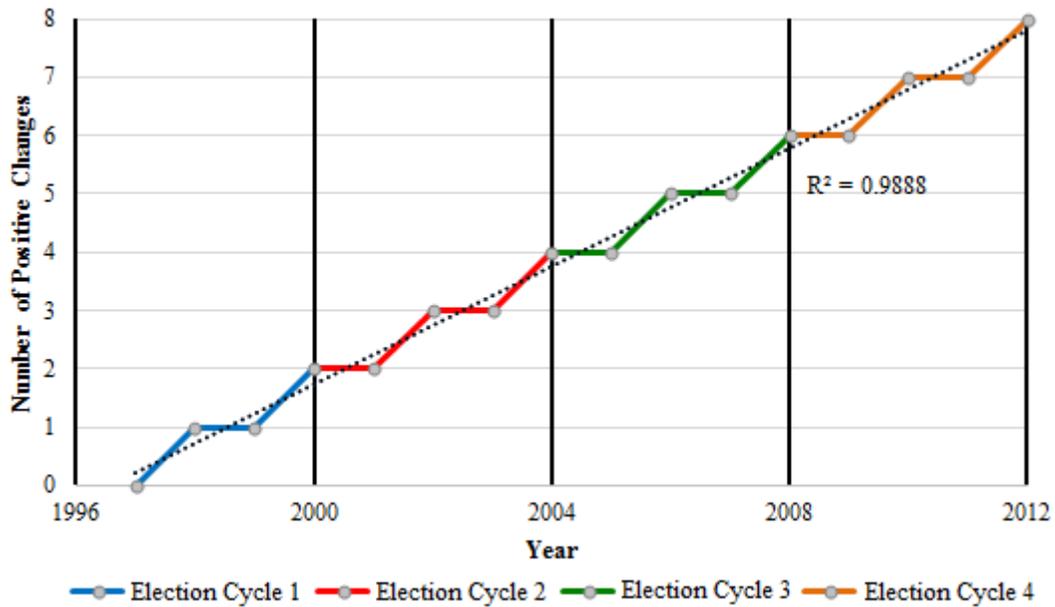


Table 9: Number of Votes Annual Change

Year	Change from Previous Year
1997	-
1998	+
1999	-
2000	+
2001	-
2002	+
2003	-
2004	+
2005	-
2006	+
2007	-
2008	+
2009	-
2010	+
2011	-
2012	+

Notes: Grayed in rows indicate presidential general election years; source (TPL).

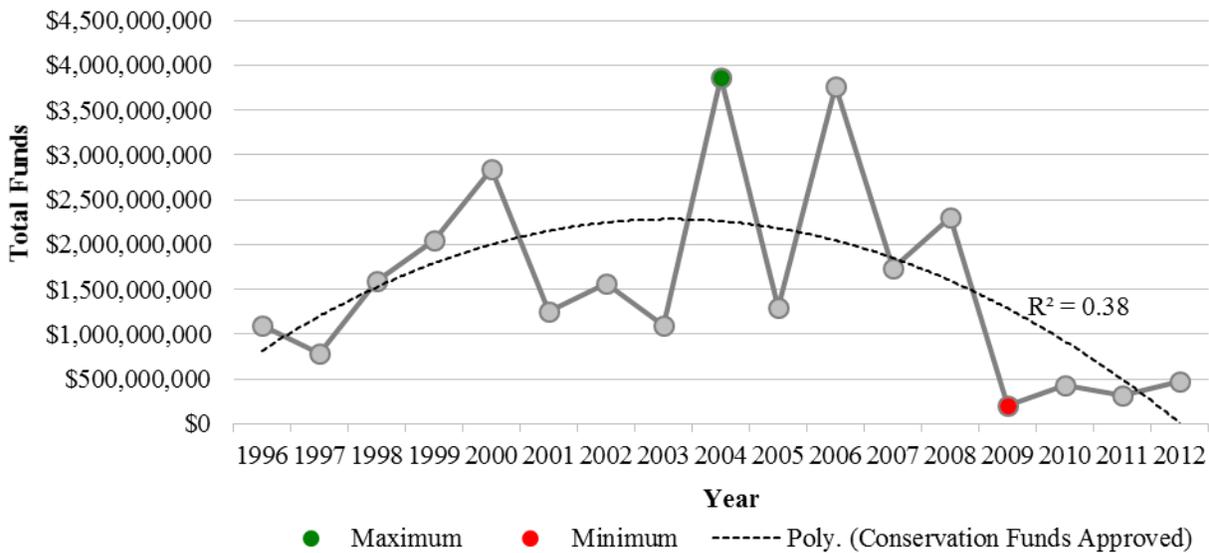
Figure 11: Number of Votes and Election Cycles



Approved Conservation Funds

Figures 12, 13, and Table 10 present the findings of the trend analysis in terms of the approved conservation funds between 1996 and 2012. The independent variable for this component is time (years) and the dependent variable is approved conservation funds. During this 17-year period, a total of \$26,659,488,884 has been approved from conservation measures. In an average year, approximately \$1,568,205,228 is approved, and the median of this period is \$1,288,503,889. Analogous to the number of measures, the approved conservation funds have not reached the average or median since 2008. The year 2004 generated the most approved funds at \$3,864,245,265 seen in Figure 12, while 2009 had the least at \$207,668,083. The range in this period is therefore \$3,656,577,182. A notable finding from Figure 12 is its similarity to Figure 1 dealing with number of measures. For example, it was found that Figure 12’s curve also fits best with a polynomial trend line, but with a much lower coefficient of determination (R^2) of 0.38. In addition, the polynomial trend line reveals a gradual rise in approved conservation funds to a peak point in 2004, followed by an equivalent decline ever since. Finally, Figure 12 also exhibits an annual fluctuation of approved conservation funds.

Figure 12: Approved Conservation Fund Fluctuation



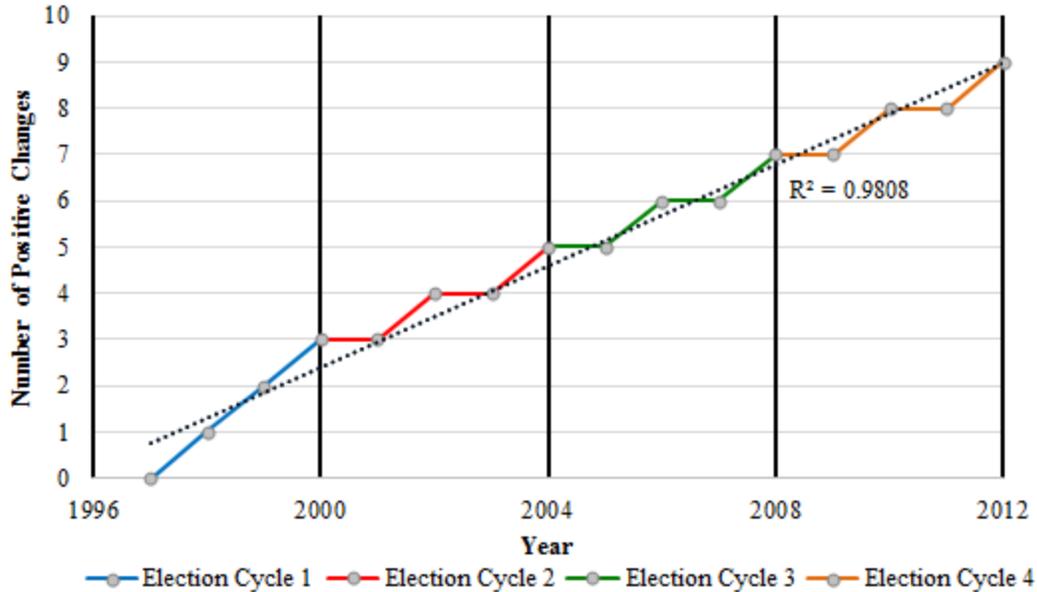
The discovery of another annual fluctuation inspired further analysis as before. From the annual change table, Table 10, it is clear that election cycles do have a relationship with approved conservation funds. This is evident due to the positive changes only occurring during midterm election and presidential general election years, with the single exception of 1999. The finding is reaffirmed in Figure 13, which illustrates the increase of positive changes during this period by election cycles. An inclusion of the linear trend line in Figure 13 tests if the relationship between election cycles and approved conservation funds is consistent. Since the linear coefficient of determination (R^2) is 0.9808, election cycles do have a consistent relationship to approved conservation funds. When comparing election cycle relationships in terms of consistency, it is found that election cycles have a more consistent relationship with approved conservation funds than number of measures. Conversely, election cycles have a less consistent relationship with approved conservation funds than number of votes.

Table 10: Approved Conservation Funds Annual Change

Year	Change from Previous Year
1997	-
1998	+
1999	+
2000	+
2001	-
2002	+
2003	-
2004	+
2005	-
2006	+
2007	-
2008	+
2009	-
2010	+
2011	-
2012	+

Notes: Grayed in rows indicate presidential general election years; source (TPL).

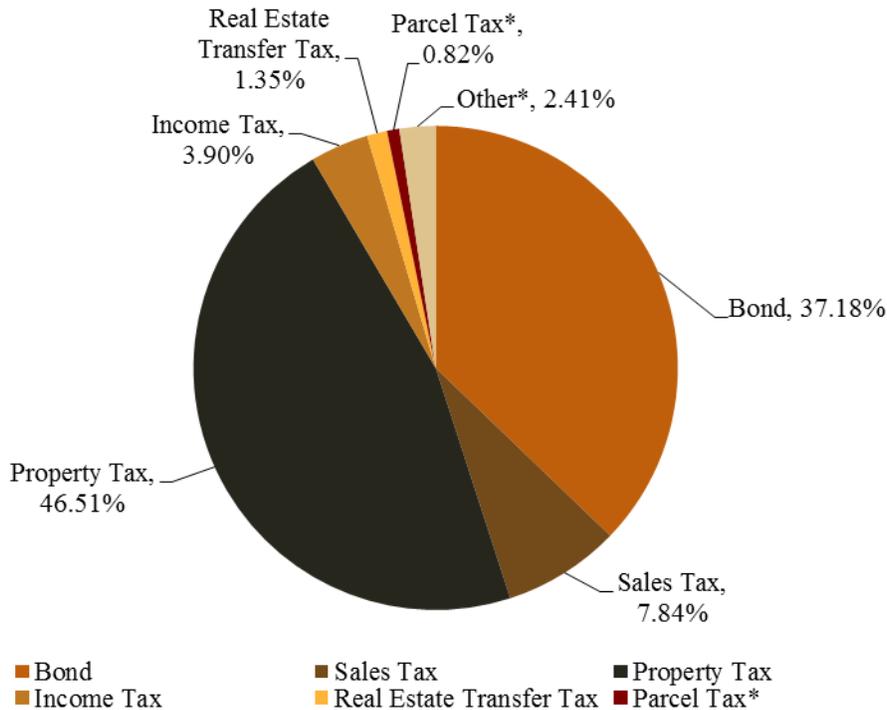
Figure 13: Approved Conservation Funds and Election Cycles



Financial Mechanisms

Figures 14, 15, and Table 11 present the findings of the trend analysis in terms of financial mechanisms between 1996 and 2012. The independent variable for this component is time (years) and the dependent variable is number of measures by financial mechanisms. From the 17-year period, it is found that seven types of financial mechanisms were voted on the most. These financial mechanisms include bonds, sales taxes, property taxes, income taxes, real estate transfer taxes, parcel taxes, and other. In Figure 14, the distribution of measures by financial mechanisms is provided. The graphic exhibits a majority for property tax measures consisting of 47 percent, followed by bonds at 37 percent, sales tax at 8 percent, income tax at four percent, other at two percent, real estate tax at one percent, and parcel tax at one percent. There are approximately 57 property tax, 46 bond, ten sales tax, five income tax, three other, two real estate transfer tax, and one parcel tax measure in an average year. The maximum number measures for each financial mechanism type is as follows: property tax 133 (2001), bond 84 (2000), sales tax 26 (2004), income tax 15 (2006), real estate transfer tax eight (1998), other seven (1996), and parcel tax three (2012). The minimum number of measures for each financial mechanism type are twelve for property taxes in 2011, five for bonds in (2011), two for sales taxes in 2009 and 2011, and the remaining mechanisms have had none in the past. The average pass rate for the top three financial mechanisms are 82 percent for bonds, 71 percent for property tax, and 77 percent for sales tax.

Figure 14: Distribution of Measures by Financial Mechanism



Notes: Parcel Tax* Conservation Measures have only occurred in the state of California. Other* Conservation Referendums include one or multiple of the following financial mechanisms: Benefit assessment, Charter Amendment, Bedroom Tax, Sales Tax, Property Tax, Lodging Tax, Utility Tax, Advisory Measure, Use Tax, Budget allocation, Transient Occupancy Tax, Proceeds from Sale of Town land, Building Materials Use Tax, Occupational Privilege Tax, Funding Cap Increase, Bonds, Appropriation, Meals Tax.

Analogous to the jurisdiction subsection, this subsection is also a categorization of the number of measures, therefore, the presence of fluctuations are foreseeable. However, the fluctuation of each financial mechanism is diverse. As a result, Table 11 exposes the diversity of fluctuations. The table also allows for an evaluation to determine which financial mechanisms have a stronger relationship with election cycles. From the table, it is found that property tax, bond, and sales tax measures are the only financial mechanisms with a strong relationship with election cycles. This is evident due to their consistent positive changes occurring during midterm election and presidential general election years. To further test the consistencies of these three financial mechanisms, the same method as before is applied. Accordingly, Figures 15, 16, and 17 display the linear trends and coefficient of determinations (R^2) for each financial mechanism. From Figure 15, it is found that property tax measures have the greatest consistency with a coefficient of determination (R^2) of 0.9832. Bond measures fell in the middle in terms of a consistent relationship

with election cycles, with a coefficient of determination (R^2) of 0.9711 as shown in Figure 16. Consequently, sales tax measures have the least consistency of the three, with a coefficient of determination (R^2) of 0.9633, as seen in Figure 17.

Table 11: Financial Mechanism Annual Change

Year	Property Tax	Bond	Sales Tax	Income Tax	Real Estate Transfer Tax	Parcel Tax	Other
1997	+	-	--	+	+	+	-
1998	+	+	-	--	+	+	-
1999	-	-	+	+	-	--	+
2000	+	+	+	+	+	--	+
2001	+	-	-	--	-	-	-
2002	-	+	-	+	+	--	-
2003	-	-	+	+	-	-	--
2004	+	+	+	-	--	+	--
2005	-	-	-	+	+	--	-
2006	+	+	+	+	+	-	--
2007	-	-	-	-	-	-	-
2008	+	+	--	-	-	--	-
2009	-	-	-	-	--	--	+
2010	+	-	+	+	--	--	-
2011	-	-	-	+	+	--	--
2012	+	+	+	-	-	+	--

Notes: Grayed in rows indicate presidential general election years; source (TPL).

Figure 15: Property Tax Measures and Election Cycles

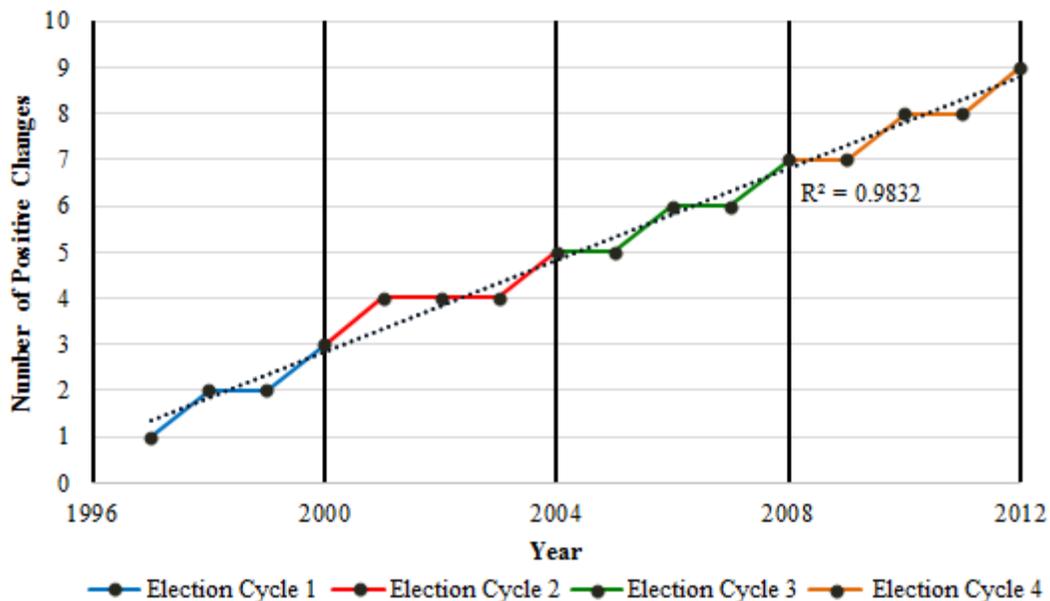


Figure 16: Bond Measures and Election Cycles

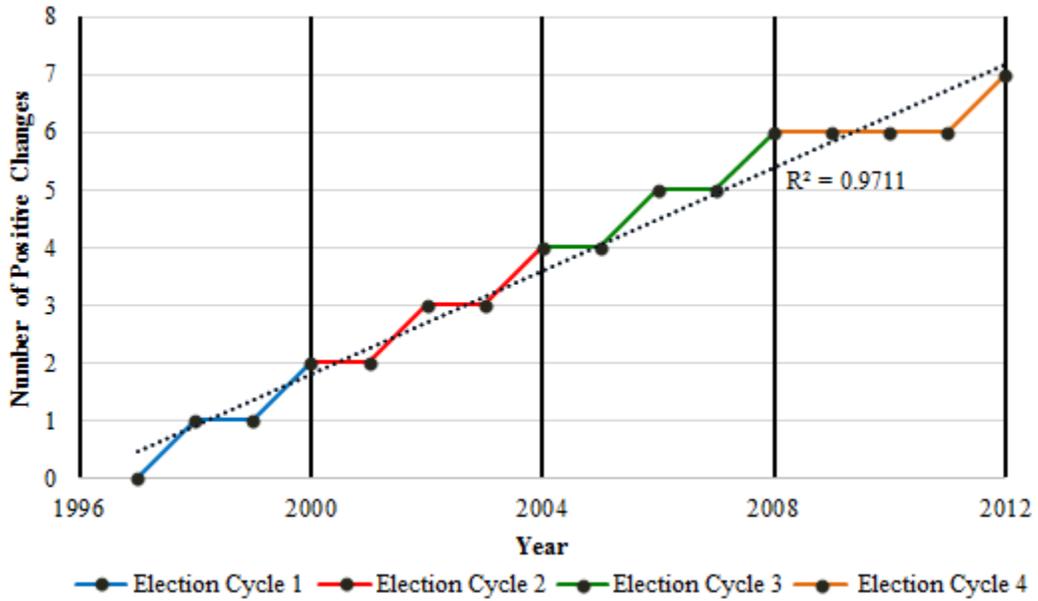
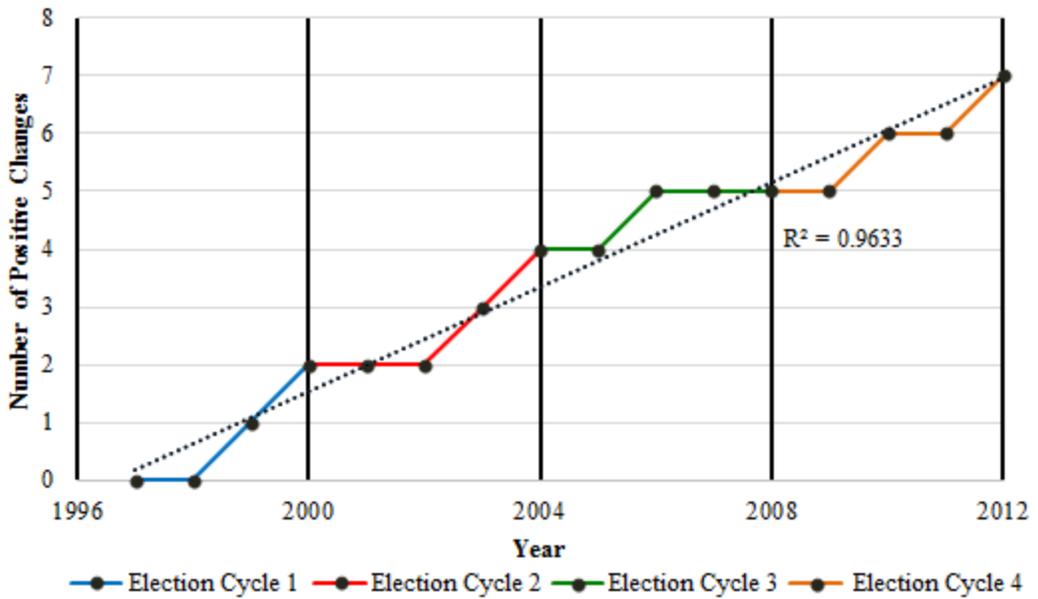


Figure 17: Sales Tax Measures and Election Cycles

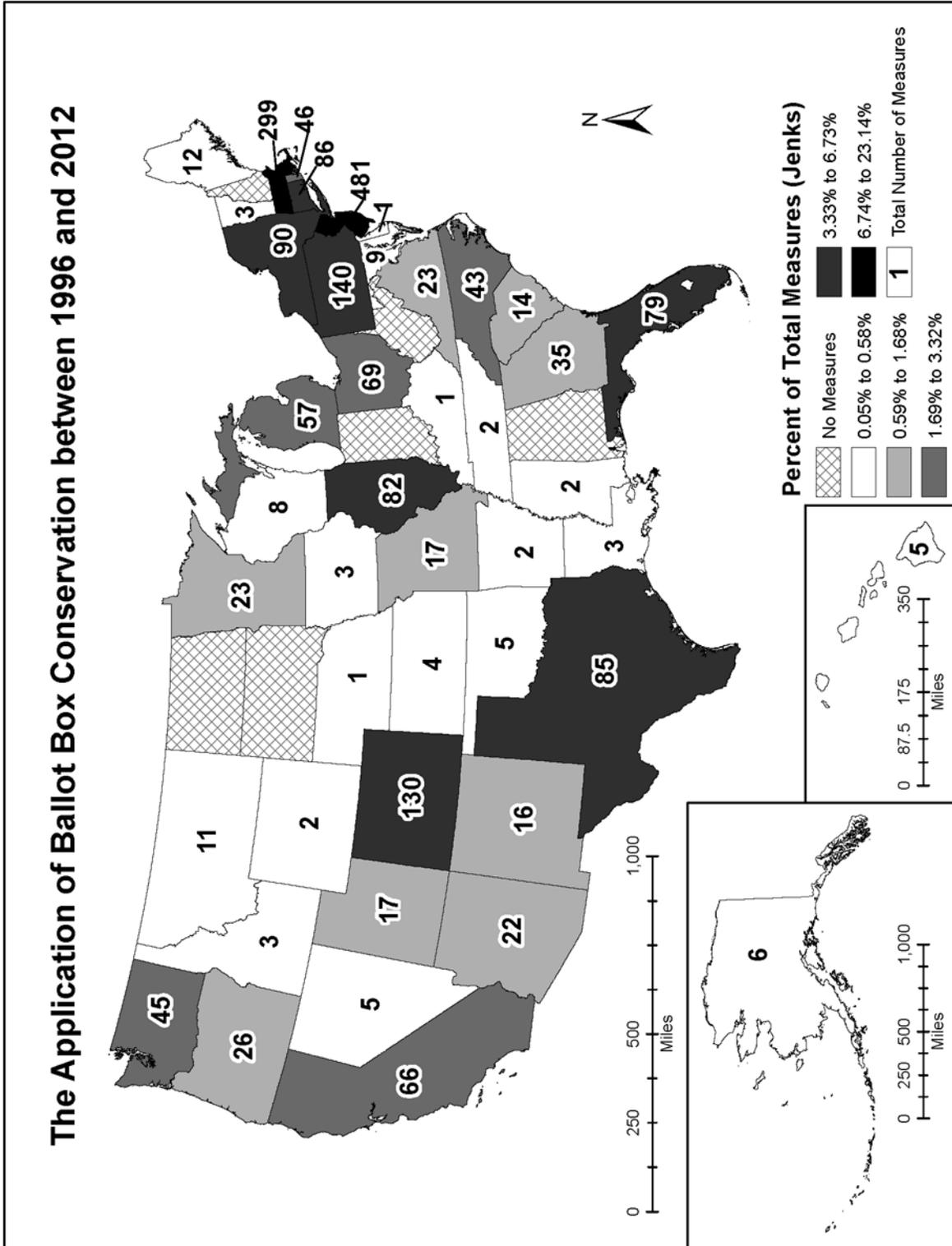


Geospatial Analysis

Figures 18 through 22 present the findings of the trend analysis in terms of the geospatial analysis. As noted in Chapter 3, the geospatial analysis includes the study area of the United States, which is also subdivided into the four regions of Northeast, South, Midwest, and West. Throughout the 17-year period, the following states consisted of no conservation measures: Alabama, Indiana, New Hampshire, North Dakota, South Dakota, and West Virginia. Therefore, these states were excluded from the geospatial analysis entirely. As seen in Figure 18, the top three states in terms of conservation measure application were New Jersey with 481, Massachusetts with 299, and Pennsylvania with 140. Consequently, the Northeast region has a simple majority (56%) over the other geographic regions in terms of measure application. Figure 18 also exposes the bottom three states with only one conservation measure respectively, including Delaware, Kentucky, and Nebraska.

The residual distribution of measure application by regions are the West at 17 percent, the South at 15 percent, and the Midwest at 13 percent. The average number of measures from this period for a state is 47, which has only been met by 12 or 27 percent of the states. The median state is Missouri with 17 measures and the standard deviation is 86 measures. When considering percent of total measures as seen in Figure 18, the states which fall under the two darkest shades consist of over 70 percent of all measure application. In addition, a significant disproportionality is exposed, as only 21 percent or nine states are included in this supermajority. Lastly, a noteworthy finding from Figure 18 is the unexpected status quo of California, due to its referendum heavy reputation. More specifically, the state of California had less measures during this period than states such as Texas, Florida, and Ohio.

Figure 18: Application of Ballot Box Conservation Map

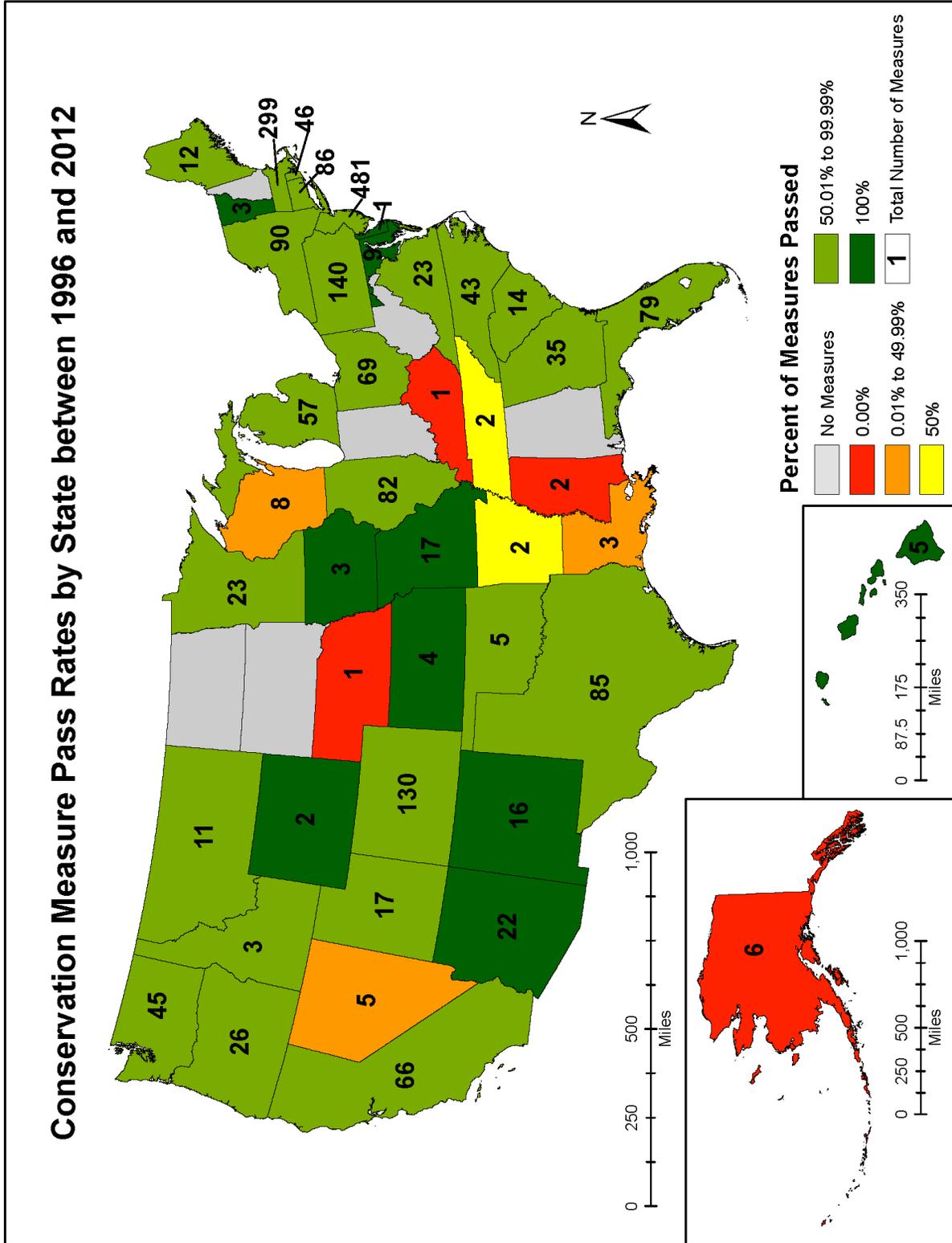


The next component of the geospatial analysis investigates the pass rates of all the measures by states. Therefore, comparable to Figure 18, the same states were excluded from this component of the geospatial analysis. As evident in Figure 19, there are five hues which a state may fall under. The red hue is for states which have not passed any of their respective measures. This hue includes the states of Alaska, Kentucky, Mississippi, and Nebraska. The orange hue is for states which have passed measures but have a majority of failed measures. This hue includes the states of Louisiana, Nevada, and Wisconsin. The yellow hue is for states which have passed and failed the same number of measures. This hue included the least with only the two states, Arkansas and Tennessee. Clearly the most prominent hue, light green, this hue is for states which have passed the majority of their respective measures but not all. This hue covers the majority of states with 25 or 57 percent. The final hue, dark green, represents those states which have passed all of their measures and consists of ten or 23 percent of the states.

Another significant finding that can be determined from Figure 19 is the averages of each hue. For the states depicted with the red hue, there is an average of three measures. The orange hued states have an average of five measures. The yellow hued states have an average of two measures. The light green hued states have an average of 79 measures. Lastly, the dark green hued states have an average of eight measures. From these averages and examination of Figure 19, it cannot be determined whether or not a low number of conservation measures has a relationship with pass rates. However, there does appear to be a positive relationship between number of measures and pass rates once an impact point of around ten measures has been reached.

In terms of regional distribution, there appears to be a general disparity in hues. To reaffirm this visual finding, the percentage of each hue is measured for the respective regions. In the Northeast region, there are no red, yellow, or orange hues, 13 percent is dark green, and 88 percent is light green. In the South region, 14 percent is red, seven percent is orange, 14 percent is yellow, 14 percent is dark green, and 50 percent is light green. In the Midwest region, there is no yellow, 11 percent is red, 11 percent is orange, 33 percent is dark green, and 44 percent is light green. Finally, the West region has no yellow, 8 percent is red, 8 percent is orange, 31 percent is dark green, and 54 percent is light green. From these percentages a clear majority for the light green hue is apparent in each geographic region, however the remaining hues somewhat vary.

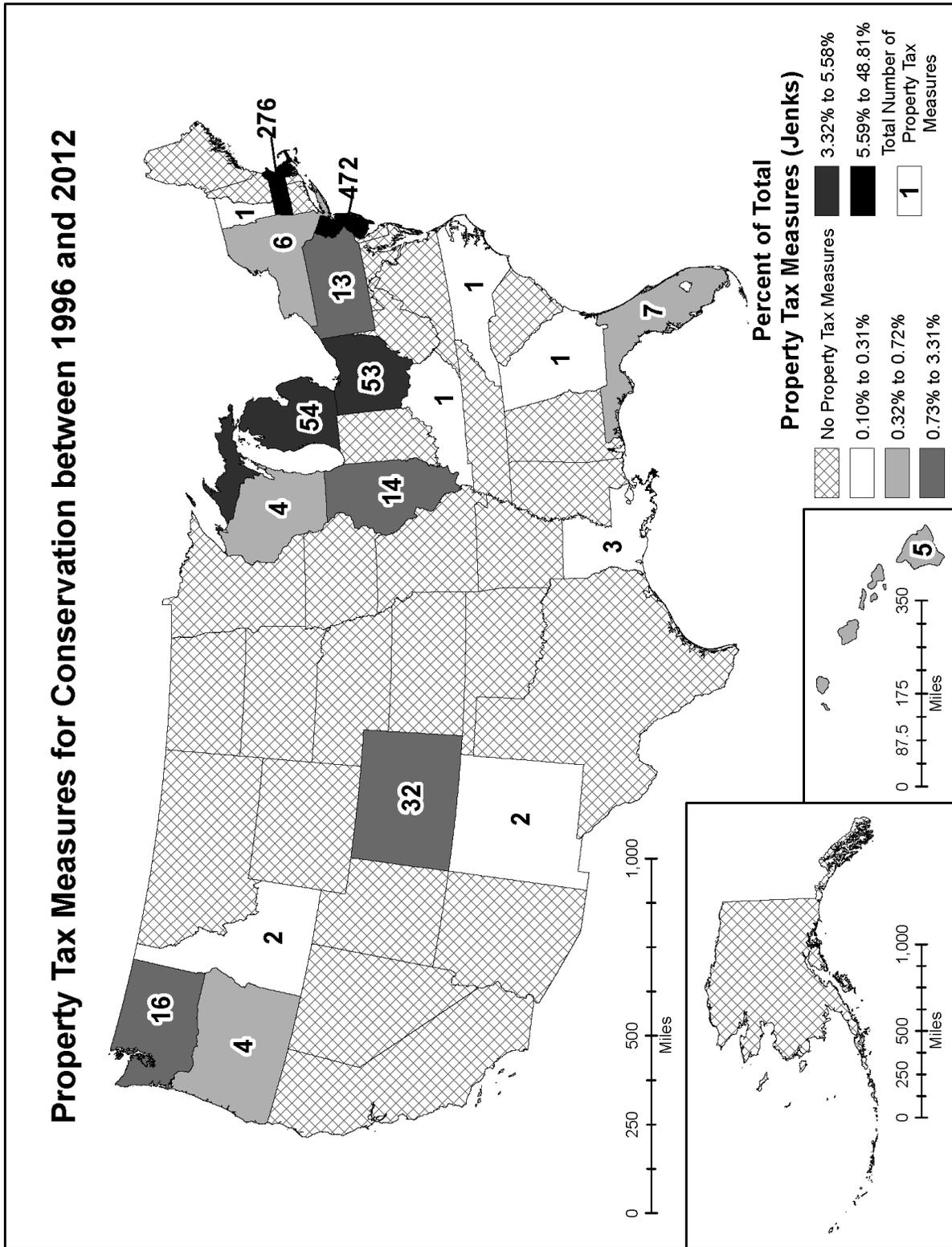
Figure 19: Pass Rates of Conservation Measures Map



Starting with Figure 20, the geospatial analysis investigates the number of measures by financial mechanisms. However, the geospatial analysis only examines the top three financial mechanisms of property tax, bond, and sales tax measures. For Figure 20, in addition to the states that did not produce any conservation measures, 24 other states have not voted on any property tax conservation measures. As a result, these states were excluded from this component of the geospatial analysis. Apparent in Figure 20, the top three states in terms of property tax measure application were New Jersey with 472, Massachusetts with 276, and Michigan with 54. Consequently, the Northeast region holds a supermajority (79.4%) over the other geographic regions. Figure 20 also exposes a tie in the bottom states with only one conservation measure respectively, including Georgia, Kentucky, North Carolina, and Vermont.

The residual distribution of property tax measure application by regions are the Midwest at 13 percent, the West at six percent, and the South at one percent. The average number of property tax measures from this period for a state is 6, which has only been met by 10 or 50 percent of the states. The median state is New York with 6 measures and the standard deviation is 117 measures. When considering percent of total measures as seen in Figure 20, the states which fall under the two darkest shades consist of over 88 percent of all property tax measure application. In addition, a significant disproportionality is exposed, as only 20 percent or four states are included in this supermajority. Lastly, in addition to a clear northeast and overall disproportionality, there appears to be another disproportionality based on the Mississippi River. More precisely, 94 percent of all property tax measures occurred on the east side of the Mississippi River.

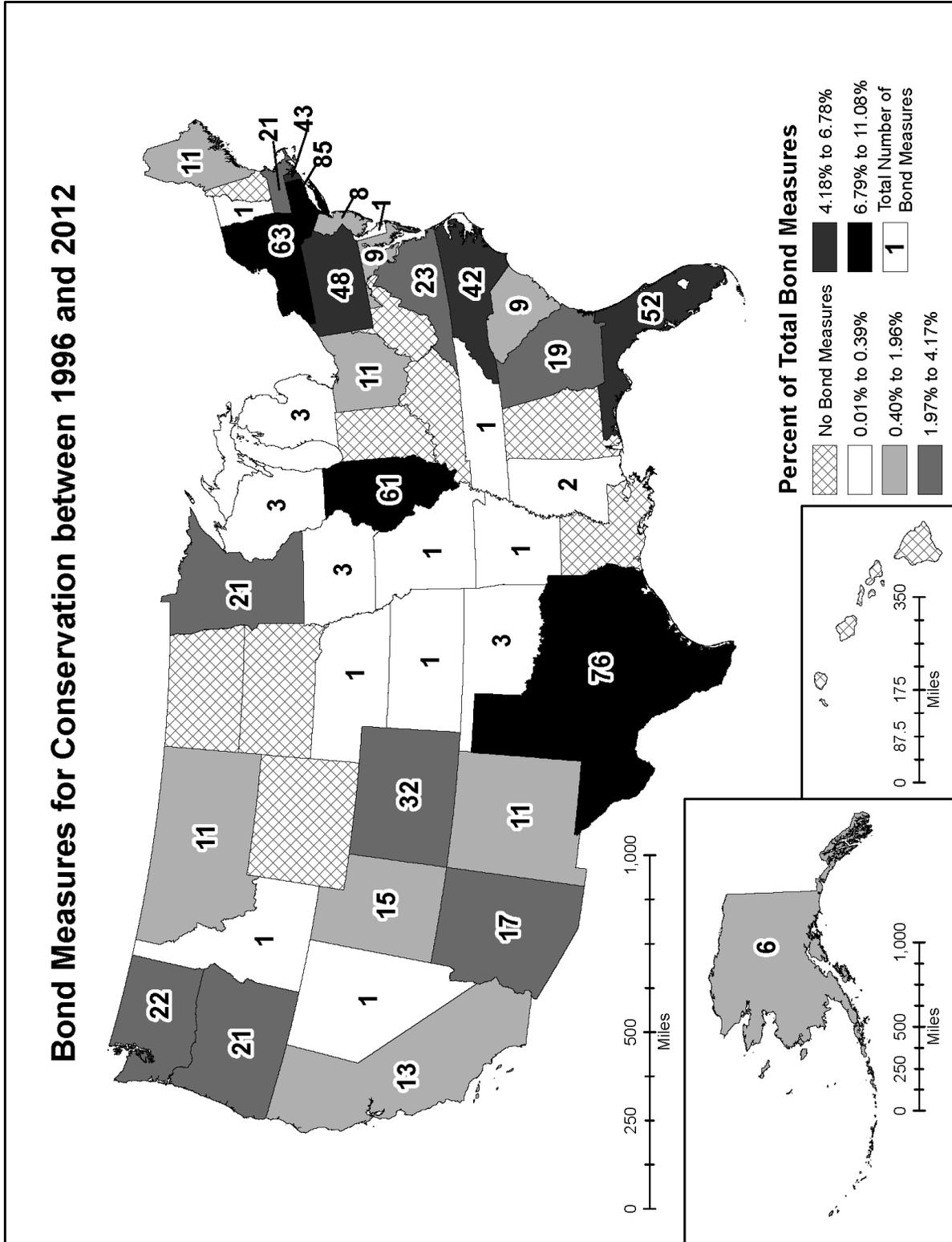
Figure 20: Property Tax Measure Map



The next financial mechanism examined in the geospatial analysis is bond measures. For Figure 21, in addition to the states that did not produce any conservation measures, Hawaii, Kentucky, Louisiana, and Wyoming have not voted on any bond conservation measures. As a result, these states were excluded from this component of the geospatial analysis. Apparent in Figure 21, the top three states in terms of bond measure application were Connecticut with 85, Texas with 76, and New York with 63. Figure 21 also exposes a tie between nine states with only one bond measure respectively for the bottom three states. The distribution of bond measure application by regions are the Northeast at 36 percent, the South at 31 percent, the West at 19 percent, and the Midwest at 14 percent. The average number of bond measures from this period for a state is 19, which has only been met by 15 or 38 percent of the states. This average is particularly significant as the property tax average is only 6 for a state, yet there have been more property tax measures. The median states are Maine, New Mexico, and Ohio with 11 measures and the standard deviation is 22 measures.

When considering percent of total measures as seen in Figure 21, the states which fall under the two darkest shades consist of over 60 percent of all bond measure application. In addition, a disproportionality is exposed, as only 20 percent or eight states are included in this majority. However, compared to overall measure application and the other financial mechanisms, bond measures do have the most evenly applied distribution across the United States. The finding is particularly evident by the distribution of regions, as this is the first case where the Northeast region has a majority difference of less than ten percent. Finally, a noteworthy finding from Figure 21 is the application of bond measures in the center or “heart” of the country (e.g. Kansas, Missouri, and Nebraska). More specifically, there is an unmistakable concentration of low bond measure application in this area of the country.

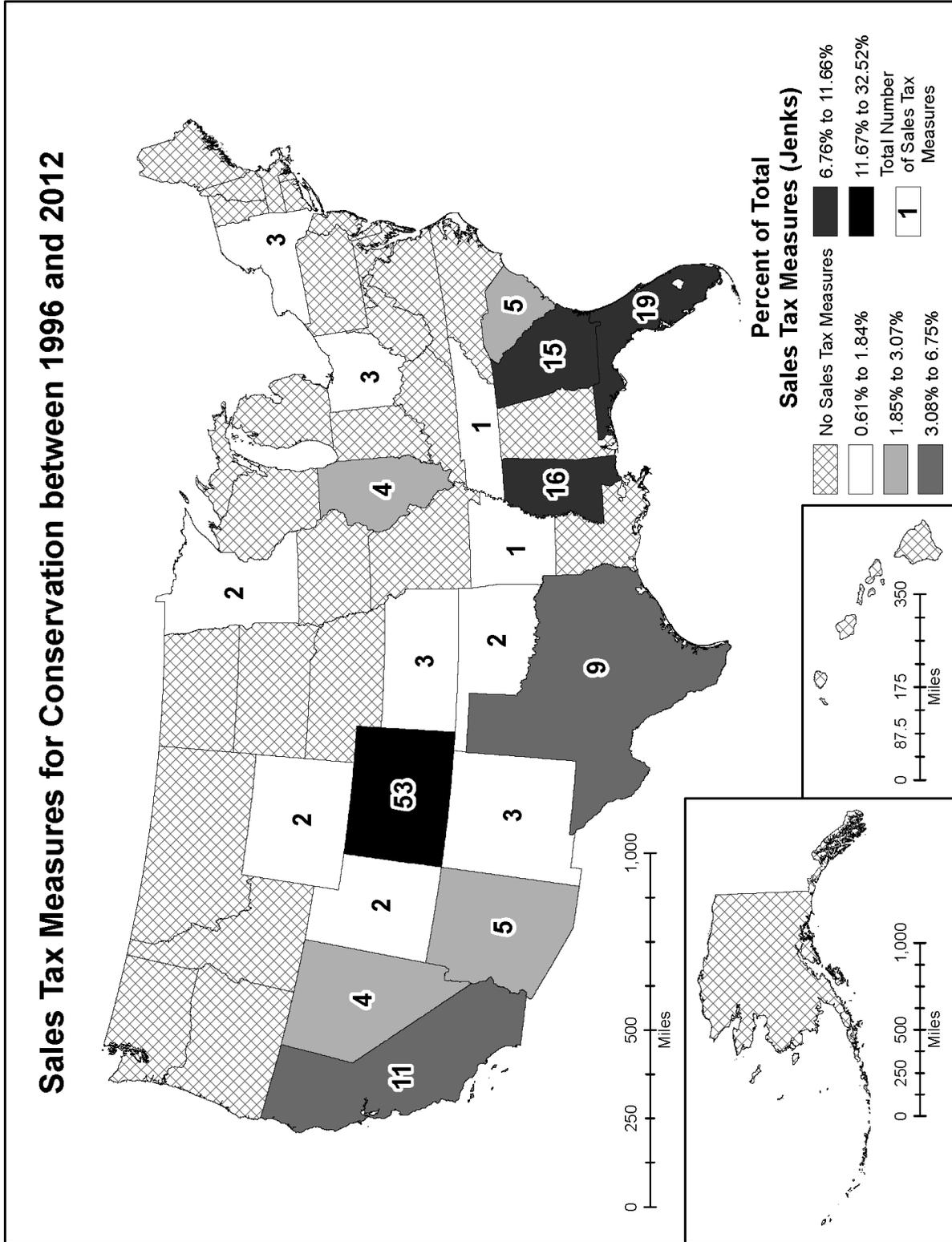
Figure 21: Bond Measure Map



The final financial mechanism to be considered in the geospatial analysis is sales tax measures. For Figure 22, in addition to the states that did not produce any conservation measures, 24 other states have not voted on any sales tax conservation measures. As a result, these states were excluded from this component of the geospatial analysis. Apparent in Figure 22, the top three states in terms of sales tax measure application were Colorado with 53, Florida with 19, and Mississippi with 16. Figure 22 also exposes a tie between Arkansas and Tennessee with only one sales tax measure respectively for the bottom two states. The distribution of sales tax measure application by regions are the West at 49 percent, the South at 42 percent, the Midwest at seven percent, and the Northeast at two percent. Not only is this the first finding where the Northeast region was not the majority, but it is first finding where the West region is the majority.

The average number of sales tax measures from this period for a state is eight, which has only been met by six or 30 percent of the states. The median states are Illinois and Nevada with 4 measures and the standard deviation is 12 measures. When considering percent of total measures as seen in Figure 22, the states which fall under the two darkest shades consist of over 63 percent of all sales tax measure application. In addition, another disproportionality is exposed, as only 20 percent or four states are included in this majority. Finally, a noteworthy finding from Figure 22 is the concentration of sales tax measures below roughly the 42nd parallel north latitude line, which is the northern boundary lines of California, Nevada, and Utah.

Figure 22: Sales Tax Measure Map

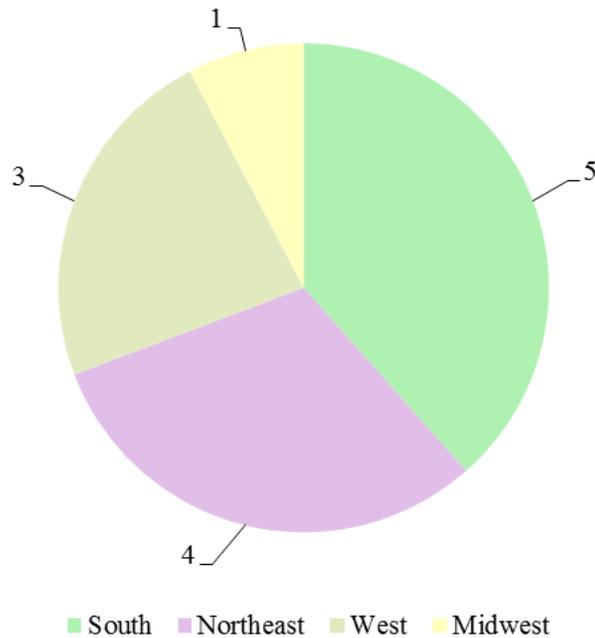


Personal Interviews

Background

All of the findings in this section were developed from phone interview responses by local government officials who have experienced ballot box conservation in the past. Of the 60 requests for an interview that were out sent via email, 13 respondents agreed and participated in the phone interviews. While the original goal of 20 respondents was not met due to semester time constraints, the 13 acquired responses were enough to reach the ultimate goal of a saturation point. As seen in Figure 23, the distribution of interviewees by region is five from the South, four from the Northeast, three from the West, and one from the Midwest. From the 17-year period, the average number of measures based on each participated interviewees' community is four measures. The community with the most conservation measure experience had ten measures in their past, while the least had only one transpire. In terms of their most recent conservation measure, 54 percent occurred in 2012, 23 percent occurred in 2010, 8 percent occurred in 2008, and 15 percent occurred in 2007. The jurisdictional breakdown of the interviewees are 46 percent representing a municipality, 46 representing a county, and 8 percent representing a special district. Finally, all of the participants were from communities in which their pass rates were at or greater than 50 percent.

Figure 23: Interview Region Distribution



General Perceptions

The general perception component of the personal interviews allowed for data to be obtained which discloses how communities who have personal experience with ballot box conservation currently perceive its application. As noted in Chapter 3, the five questions were developed from the various subsection findings of the trend analysis, for the purpose of addressing central research question two. A comparison between the perceptual responses and the findings from the trend analysis will be presented in a later section. For question one which focused on the average pass rate of conservation measures, there were two responses for 20 percent, five for 40 percent, six for 60 percent, and none for 80 percent. While 60 percent was the most frequent response, it is also found that 54 percent of the respondents believe the average pass rate for conservation measures is below 50 percent. In question two which focused on the most used financial mechanism of conservation measures, there were nine responses for bonds, two for property taxes, two for sales taxes, and none for other. A noteworthy finding from this question is the 69 percent frequency at which bonds were chosen, since it has the strongest majority in this set of five questions.

For question three which focused on the average number of conservation measures in a single year, there were three responses for less than 50, two for between 50 and 74, one response for between 75 and 100, and seven responses for greater than 100. By comparing the results from this question to the results from question one, it is curious to find that while 54 percent of the respondents believe the average pass rate is below 50 percent, 62 percent believe there are greater than 75 measures in a single year. For question four which focused on the average number of approved funds from conservation measures in a single year, there were six responses for \$500 million, three for \$1 billion, one for \$1.5 billion, and three responses for \$2 billion. While the response frequency for this question is more diverse compared to the other questions, there is a clear skew by the responders towards the lower funds. For question five which focused on the geographic region that utilizes conservation measures the most, there were six responses for West, one Midwest, one for South, and five responses for Northeast. These responses reveal the most uncertainty compared to the other questions, however, the uncertainty is bivariate between the West and Northeast regions.

Personal Experiences

The personal experience component of the personal interviews provides additional data which investigates the application of ballot box conservation from a planning and practiced perspective. As stated in Chapter 3, these five questions were specifically created to address central research questions three. Each of the five questions in this set begin with a bivariate approach, followed by an open ended explanation opportunity. For question one which focused on influential factors of measure outcome, 54 percent said financial mechanism was more impactful, while 46 percent said it was overall cost. The insignificant frequency difference between the two factors reveals a wavering opinion by the respondents. This was reaffirmed by the in-depth discussion with the interviewees, as indecisiveness was acknowledged. Moreover, the respondents consistently accredited their responses to be largely based on their locational background. In question two, which concentrated on the nature of conservation measures emergence, 23 percent said the emergence was (A) unexpected and spontaneous, while 77 percent said the latest measure was (B) expected and planned for. The explanatory opportunity in this question revealed that a range of factors can cause a measure to emerge unexpectedly and spontaneously. For example, the poor economy, an originally unwilling property owner, and a previously failed measure were all factors mentioned in the interviews.

For question three which focused on the impact of conservation measures on community comprehensive plans, all of the interviewees claimed it was a progression towards the goals and objectives of their comprehensive plan. Also noteworthy, this question investigates the most recent conservation measure, and all of respondents' most recent measure had passed. The explanatory opportunity revealed that all of the communities strongly supported the conservation of open space and farmland in their comprehensive plans. In question four, which examined the impact of conservation measures on community capital improvement plans, 46 percent said the impact was minor while 54 percent said the measure had a major impact. Comparable to question one in this set of five question, the frequency difference between the two answers is insignificant. In addition, the interviewees' responses were strictly location specific. Nevertheless, an intriguing finding was discovered from the in-depth discussion of this question. In 23 percent of the cases, the community's capital improvement plan for conservation was an independent entity. For question five which focused on the possibility of applying ballot box conservation in the future, 62 percent said yes, while 39 percent said no. Of the 39 percent that said no, 40 percent accredited their

reasoning as enough land had already been acquired and therefore not necessary. This final question also developed an opportunity for feedback about their experiences with ballot box conservation. Inclusively, the interviewees expressed positive feedback and an interest in the findings of this study.

Comprehensive Analysis

To close this section and chapter, a comprehensive analysis provides key findings of the cognizant realities and misperceptions by local governments about ballot box conservation application. More specifically, the general perception responses are compared to the findings of the trend analysis. There are two comparisons considered in this analysis, a comparison to the entire 17-year study period and a comparison to the most recent election cycle (2009-2012). The reasoning for comparing the responses to the most recent election cycle was developed during the personal interview process. During this process, it was considered that the respondents will likely base their perceptions on recent experiences, even when aware of the time period of this study. Therefore, both comparisons are provided in this study.

In general perception question one, the interviewees were asked which percentage best represented the average pass rate for conservation measures today. From the trend analysis, the average pass rate during the 17-year period is 75 percent, while the most recent election cycle average is 70 percent. Therefore, for both time periods the average pass rate is closest to 80 percent. Since none of the respondents choose 80 percent and 54 percent believe the pass rate is lower than 50 percent, there is a clear misperception by planners of the passage capability of conservation measures. This finding is also quite astounding as the average pass rate for the communities the interviewees' represent is 80 percent. If communities which frequently and successfully apply ballot box conservation are unaware of the passage capabilities, how can any community be expected to consider such application.

For general perception question two, the interviewees were asked which financial mechanism is voted on the most in conservation measures. The trend analysis reveals the answer to be property taxes for both the 17-year period and most recent election cycle. Therefore, property taxes is considered the correct answer. However, only 15 percent said property taxes, while a majority of 69 percent believed the answer to be bonds. The reasoning for this skew is likely due to the pass rates and geographic distribution differences discussed in earlier subsections. From the

interviews, there was a strong awareness of the favoritism and success of bond measures in local government funding. Additionally, since property tax measures have a more concentrated locational spread than bonds, and all regions of the United States were considered in this study, the frequency for bonds as the chosen answer is reflected. Therefore, while there is a minute misperception by planners of which financial mechanism is applied the most, planners are cognizant of the capabilities of bond conservation measures over the other alternatives.

Successive, general perception question three asked the interviewees which range best represented the average number of conservation measures for a single year. This is another question where the average is dependent on the time period examined. From the trend analysis, the average pass rate during the 17-year period is 122 measures, while the most recent election cycle average is 43 measures. Therefore, depending on which time period is considered, either extreme can be correct. Since 54 percent chose the greater than 100 extreme, either the interviewees are cognizant of the long term average or fairly optimistic about its current application. When the most recent perspective is considered, planners evidently have a misperception that measure application has remained consistent. This is a counteractive misperception, because 54 percent believe the average pass rate is below 50 percent, yet 54 percent believe there are greater than 100 measures in a single year.

In general perception question four, interviewees were asked which dollar amount best represented the average number of funds approved from conservation measures in a single year. The topic of this question is another which is vastly dependent on the time period examined. From the trend analysis, the average funds approved during the 17-year period is \$1.57 billion, while the most recent election cycle average is approximately \$354 million. Therefore, depending on which time period is considered, the correct answer can either be \$1.5 billion for the 17-year period or \$500 million for the most recent election cycle. Since 46 percent chose \$500 million, it is evident that the interviewees are cognizant of the most recent election cycle's relationship with approved funds. However, when the long term perspective is considered, the interviewees either misperceive the amount of money approved in the past for conservation or are pessimistic about its capability to do so. Another counteractive misperception is also discovered, because 54 percent believe there are greater than 100 measures in a single year, yet 46 percent believe only \$500 million is approved.

Finally, general perception question five asked the interviewees which geographic region utilizes conservation measures the most. This is the one question where time period is not considered significant because it involves a large regional scale. As noted in the geospatial analysis of the trend analysis, the region with the most conservation measures during this period is the Northeast. From the responses, there was a clear indecision by the interviewees between the West and Northeast region. This indecision reveals that planners are cognizant of the top two measure application regions, however, there is a misperception that the application in the West region is equal to or greater than the Northeast. While this misperception is the least significant compared to the others for a practical situation, an awareness of the geospatial trends can be an initial and supportive step if a case study is ever needed.

Chapter 5 - Analysis and Conclusion

Introduction

The purpose of this thesis was to investigate the application of initiatives and referendums by local governments for land conservation, and the outcomes relationship to comprehensive and capital improvement plans. The term ballot box conservation was thus coined and defined as the process of utilizing initiatives or referendums, by local governments, for the approval or rejection of funding towards land conserving efforts. While the profession of planning has discussed and debated the application of initiatives and referendums on land use topics such as zoning changes, there has been limited to no discussion on ballot box conservation both professionally and academically. Nevertheless, of the research conducted on the subject of ballot box conservation thus far, there has been some consensus on its appearance, success, impacts, influencers, and preferences. After identifying the empirical studies on ballot box conservation, it was clear that multiple gaps in knowledge remain. The initial gap identified was there has yet to be an in depth investigation of what trends may have transpired over the years, specifically through 2012. Subsequently, there has been limited to no discussion in previous research with local governments about ballot box conservation. As a result, the following central research questions were developed to fulfill these current gaps in knowledge:

1. *How has the application of ballot box conservation, by local governments throughout the United States, progressed, regressed, or remained consistent between 1996 and 2012;*
2. *What are the current perceptions by local governments of the application of ballot box conservation; and*
3. *Do outcomes from ballot box conservation typically reflect the goals, objectives, or priorities of community comprehensive and capital improvement plans?*

As alluded in central research question one, the objective was to identify any significant trends that may have occurred. Subsequently, central research question two's objective was to obtain a contemporary perspective based on perceptions. The hypothesis tested for central research question three was:

Outcomes from ballot box conservation do typically reflect the goals and objectives of community comprehensive plans, due to the 'for the people' approach of comprehensive plans. However, they do not typically reflect the priorities of capital improvement plans, due to the need for it to emerge and its purpose to seek change.

This chapter provides a summary of key findings, compares the findings to the literature, reflects upon the objectives and hypothesis from the central research questions, considers practical implications, identifies study limitations and suggestions for further research, and concludes with final remarks.

Summary of Key Findings

Since this thesis aimed to provide answers to numerous gaps in the literature on ballot box conservation, a mixed method approach was necessary. The mixed method approach in this study consisted of two primary methods. The first method comprised of secondary data in a descriptive trend analysis. This method was employed to address central research question one, to discover how the application of ballot box conservation has progressed, regressed, or remained consistent over time. Subsequently, the second method applied was personal interviews with local government officials to discuss their perceptions of and experiences with ballot box conservation, in order to address central research questions two and three. While the detailed findings are presented in Chapter 4, this section focuses on summarizing the key findings from both methods and provide analytical interpretations.

Commencing with the trend analysis, the studied 17-year period revealed a total of 2,079 measures and a pass rate of 76 percent. This finding suggests that when a land conservation measure is put before the electorate it will probably pass. In addition, it can be inferred from the average that in the majority of cases local electorates favor measures for land conservation. The emergence and application of ballot box conservation gradually rose between 1996 and 2004, then gradually fell until 2008 when it fell dramatically. A likely cause for the decline, specifically the drastic decline in 2008, was the economic collapse the United States experienced at that time. This claim was reaffirmed from the personal interviews as the interviewees acknowledged that the economic decline had a substantial negative impact. The most significant finding from the trend analysis was the discovery of election cycle influence and its consistency. More specifically, it was found in numerous cases that positive changes only occur during midterm election and

presidential general election years. This relationship was found in all of the major categories of the trend analysis with the only exception of pass rates. The presence of this relationship is possibly due to the fact that voter turnout is greater during midterm and presidential election years compared to off-year elections. In terms of pass rates not having a relationship with election cycles, it just reaffirms the claim that local electorates favor measures for land conservation because the pass rates remain fairly consistent even during off-years.

By categorizing measures by jurisdictions, it was discovered that municipalities comprised of the most compared to counties and special districts. This was expected as municipalities are the most common jurisdiction. A total of \$26,659,488,884 has been approved from conservation measures, and analogous to the number of measures, approved conservation funds have declined drastically since 2008. Yet another indication that the economic collapse negatively impacted conservation measure application. The second most significant finding from the trend analysis was the discovery that property tax is the most frequent financial mechanism voted on in conservation measures. From the geospatial analysis, it was revealed that the Northeast region has a simple majority (56%) over the other geographic regions in terms of overall measure application. In addition, the Northeast region holds a supermajority (79%) over the other geographic regions in terms of property tax measures. This finding suggests that while property tax measures may be the most common, the application is disproportional. Conversely, the distribution of bond measures is fairly even and thus more generalizable as the preferred financial mechanism across the United States. Finally, another noteworthy finding was the concentration of sales tax measures in southern states. This indicates a political preference in the south for sales tax measures, a conflicting mechanism in northern states.

Following the trend analysis, the personal interviews also revealed some significant findings. The first component, general perceptions, investigated how local government officials currently perceive the application of ballot box conservation. The five topics asked in this component include: average pass rate, most applied financial mechanism, average number of measures, average number of approved funds, and geographic region application. In addition, comparisons between the responses and the findings of the trend analysis exposed current misperceptions and cognizant realities. There were two comparisons considered in this analysis, a comparison to the entire 17-year study period and a comparison to the most recent election cycle (2009-2012). The reasoning for comparing the responses to the most recent election cycle was the

realization that the respondents may base their perceptions on recent experiences, even when aware of the time period of this study. Therefore, both comparisons were considered in Chapter 4.

From the interviews, it was discovered that 54 percent of the respondents believe the average pass rate for conservation measures is below 50 percent. An evident misperception by local government officials of the passage capabilities of conservation measures. This is also a significant finding as the average pass rate for the communities the interviewees' represent is 80 percent. As noted in Chapter 4, if communities which frequently and successfully apply ballot box conservation are unaware of the passage capabilities, how can any community be expected to consider such application. Another significant and supportive finding was the 69 percent frequency at which bonds were chosen as the most voted on financial mechanism. A justification for this skew is likely due to the general preference for bond measures. Therefore, while there is a minute misperception of which financial mechanism is applied the most, local governments are cognizant of the capabilities of bond conservation measures over the other alternatives. When asked about the average number of measures in a single year, it was found that local governments have a misperception that measure application has remained consistently high. Conversely however, local governments are cognizant of the economic collapse's recent impact on the average conservation funds approved. These findings may suggest that local governments' believe application was not directly affected by the economic collapse, but rather indirectly via passage or funds at stake. Finally, the general perception questions exposed a misperception by local governments that the application in the West region is equal to or greater than the Northeast. This finding may likely be the result of the West's, specifically California's, reputation for referendum and initiative application.

The second component of the personal interviews was focused more on the interviewees' personal or specific experiences with ballot box conservation. From the first question, a wavering opinion was discovered between overall cost and financial mechanism in term of impacting the outcome. Moreover, the respondents consistently accredited their responses to be largely based on their locational background. Therefore, while both choices were considered impactful to the outcome, political ideology may have some impact on their choice. The second question revealed that in the majority of cases conservation measures are expected and planned. In addition, it was found that a range of factors can cause a measure to emerge unexpectedly and spontaneously, such as poor economy, an originally unwilling property owner, or a previously failed measure. Another

significant finding was discovered from question three, as all the respondents claimed that their most recent conservation measure progressed the goals and objectives of their comprehensive plan. This is likely attributable to the fact that all of the participated communities strongly support the conservation of open space and farmland in their comprehensive plans. For question four, dealing with the impact on capital improvement plans, the frequency difference between the two choices (major or minor) was insignificant. Additionally, it was found in 23 percent of the cases that the community's capital improvement plan for conservation was an independent entity. This wavering opinion may yet again be the result of location specific circumstances. Lastly, the final significant finding was revealed from question five. A majority of the respondents claimed that the ballot box will be utilized by their community in the future for conservation. Inclusively, the interviewees expressed positive feedback about their experiences with ballot box conservation and an interest in the findings of this study.

Findings Compared to Literature

The findings from this thesis do not dispute any of the findings from previous studies regarding ballot box conservation, but rather supports and contributes new information to the discourse on the subject. Since the new contributions to the topic of ballot box conservation are already discussed throughout this chapter, this section will focus specifically on the findings that reinforce some of the precedent literature conclusions noted in Chapter 2. As a result, there are three conclusions from the precedent literature that were also experienced during this study. The comparative conclusions include: a preference for bond measures, the impact open space scarcity has on emergence, and the consistency of application in ecologically valued areas. Each comparison is further detailed in this section.

First, in the literature review there were two studies which found a preference by local governments and communities for bond measures, Kotchen and Powers (2006) and Banzhaf and Oates (2012). From the trend analysis, the findings revealed that in fact property tax measures were more common. However, this finding is insufficient to claim property tax measures to be the preferred financial mechanism. By illustrating the data geospatially, bond measures were found to be more evenly distributed across the United States compared to property tax measures. This discovery was the first indication that the precedent authors were accurate in their conclusions. In addition, the trend analysis revealed a higher pass rate for bond measures by 11 percent and the

personal interviews exposed a 69 percent perception that bond measures are the most common. Inclusive, this study's findings support the conclusion by Kotchen and Powers (2006) and Banzhaf and Oates (2012) that bond measures are the preferred financial mechanism.

The second comparative finding derives from Kline's (2006) article which claims that open space scarcity has an impact on ballot box conservation emergence. During the personal interviews of this study, the interviewees in a number of cases claimed open space scarcity was an issue and a factor in their ballot box conservation emergence. Conversely, others claimed that the extensive application of ballot box conservation had caused a surplus of open space in their community. These discussions further expose how the amount of open space may influence ballot box conservation emergence, and how the application of ballot box conservation can impact the amount of acquired open space. Overall, this study's findings endorse the conclusion presented in Kline's (2006) article.

Finally, the last comparative finding originates from the Banzhaf and Heintzelman (2010) article, which attributes the consistent application of ballot box conservation to places where measures are most likely to succeed and the environment is highly valued. While the trend analysis of this study does not directly back their first conclusion, the claim is considered accurate due to the consistently high pass rates of conservation measures. Moreover, the findings of the personal interviews support their claim, as the frequency of application and success rate appear to have a potential correlation. Their conclusion on application consistency in communities where the environment is highly valued was also recognized in this study. More specifically, the personal interviews revealed in every case that the conservation of land was a priority in their respective comprehensive plans. Collectively, this study's findings support the conclusions offered by Banzhaf and Heintzelman (2010) and the previously mentioned authors.

Reflection of Objectives and Hypothesis

As alluded in the beginning of this chapter, this section reflects on the objectives and hypothesis presented in this study. The overall objective for central research question one was to identify any significant trends that may have occurred with ballot box conservation application. Due to the various findings of the trend analysis, the first objective is considered completed beyond expectations. Subsequently, central research question two's objective was to obtain a contemporary perspective based on perceptions. This objective is also considered to be completed

beyond expectations, as the personal interviews exposed current misperceptions and cognizant realities. Inclusively, the objective of the first two central research questions was successful in providing the necessary context for central research question three.

For central research question three, the test was to determine the relationship between ballot box conservation outcomes and community plans. Community plans in this context meaning comprehensive and capital improvement plans. Since the question encompasses two components, the hypothesis also consisted of two components. The first component of the hypothesis claimed that the outcomes of ballot box conservation do typically reflect the goals and objectives of comprehensive plans. Based strictly on the findings, this study fails to reject this hypothesis only in the case of successful outcomes. In every personal interview, the respondents' claimed that the most recent outcome was a progression of their respective comprehensive plan. However, as noted in Chapter 4, the most recent outcome for every case was passage. Therefore, only passing outcomes can be empirically confirmed as reflecting the goals and objectives of comprehensive plans. While negative outcomes cannot be empirically tested in this study due to the circumstances, the open ended discussions did suggest in a few cases that failing measures do not reflect the goals and objectives of comprehensive plans, and thus may reject this hypothesis. Nevertheless, since roughly 75 percent of conservation measures pass and the hypothesis uses the term *typically*, this study still considers the findings as failing to reject the hypothesis.

Lastly, the second component of the hypothesis claimed that the outcomes of ballot box conservation do not typically reflect the priorities of capital improvement plans. To address this hypothesis, personal experience question four asked whether the most recent measure had a major or minor impact on their capital improvement plan. By selecting the major option, this suggested that the outcome did not reflect the priorities of the capital improvement plan, while the minor option implied that the outcome did reflect the priorities. The term impact was also clarified during the interviews to focus on priority not on costs. Since seven respondents believed the impact was major and six believed the impact was minor, the test for this hypothesis is inconclusive. The findings clearly do not reject the hypothesis, yet one respondent is insufficient to fail to reject the hypothesis. While a conclusion to this question was not obtainable at this time, discovering that 23.1 percent of capital improvement plans for conservation are independent entities is believed to be a valuable contribution.

Practical Implications

The central research questions of this study are relevant not only for local governments, but to the field of planning. In the profession of planning, planners function as an advisor for local governments with the objective of identifying what the planning decisions might be, and how and when these decisions might be made. Although planners may not have the final political standing to determine the latter, the awareness and ability to justify or criticize the various opinions can be valuable. Therefore, this study's overall contribution to the practicing planner is providing awareness of one such option, ballot box conservation. More specifically, the inferences from this study can aid local governing bodies and planners consider or reconsider their stance on use of ballot box conservation. Additionally, if local governments do choose to practice or continue to practice the use of ballot box conservation, this study's key findings will assist them in making their measures more successful. Five examples of findings which fall within one or all these practical implications are subsequently provided in this section.

By discovering the relationship between election cycles and ballot box conservation, planners can now see what is included in this relationship, and most importantly, what is not. For example, the findings indicate that the number of measures and amount of approved conservation funds are higher during midterm and presidential election years compared to off-years. However, pass rates do not have a relationship and are fairly consistent. Therefore, what the current year is will generally have no impact on the success of a measure. This means planners and local governments do not need to wait for an optimal time in which their measure may be more successful. Another finding that is applicable to local governments and planners is the preference and success of debt financed or bonds measures. This is another observation in which the success of ballot box conservation comes into play. Based on the findings of this study, by choosing bonds as the financial mechanism for a conservation measure, there is an 11 percent higher success rate than the most commonly applied mechanism property taxes. Therefore, if the intention is to have a successful outcome in a conservation measure, a bond measure is recommended.

As noted in Chapter 4 and in the summary of key findings, the personal interviews revealed a perception that the majority of respondents believe the average pass rate for conservation measures is below 50 percent. This is however a misperception as roughly 75 percent of conservation measures pass. The finding is also surprising as the average pass rate for the communities the interviewees' represent is 80 percent. If communities which frequently and

successfully apply ballot box conservation are unaware of the passage capabilities, how can any community be expected to consider such application. This finding provides an awareness opportunity for planners and local governments to realize the passage capabilities of ballot box conservation. By being more aware of the passage capabilities of ballot box conservation, planners and local governments may now see the advantage of application. Conversely, they may accept the high pass rates and not apply ballot box conservation at all, saving time and money that can be used elsewhere.

The final findings which may have practical implications are the progression of comprehensive plans and the anticipated reemergence of ballot box conservation. From the personal interviews, every respondent claimed that a successful conservation measure was a progression of their respective comprehensive plans. Since roughly three of every four conservation measures pass and every respondent said their comprehensive plan encourages land conservation, this finding indicates that planners and local governments can expect a similar connection. The respondents in a majority of cases also expressed positive feedback towards ballot box conservation and stated that their community will apply this method in the future. While this finding is subjective and locational, planners and local governments may still respect and reflect on this opinion by fellow professionals.

Limitations and Future Research

The findings from this thesis are intended to contribute to the dialogue on the subject of ballot box conservation. Nevertheless, there are some noteworthy limitations to this study. More specifically, the limitations discussed in this section are derived from the completion of this study and not the general limitations identified in Chapter 3. The purpose of acknowledging these limitations is to help future researchers avoid similar shortcomings. In addition, while the methodology of this study is adequate for assessing the questions at hand, the methods can be expanded upon to develop even more findings. Therefore, the following section reflects on the limitations and provides suggestions for future research on this topic.

When considering the limitations of this study, the personal interviews predominantly comes to mind. The realization is however unsurprising, since this method is more complex than the secondary data trend analysis. There are three limitations to the personal interviews which can also be present in other research. The first limitation is not having direct control over how many

people are willing to conduct an interview within the research time frame. While the initial sample size for the personal interviews was not reached due to this limitation, the ultimate goal of reaching a saturation point of consistency was still achieved. The second limitation is not having direct control over who is willing to conduct the interview. For example, when evenly distributing the requests for interviews across the United States, the quantity of willingness was not equivalent due to this limitation. Finally, the third limitation was not having the time to conduct pilot interviews. If the research time frame was more abundant, pilot interviews would have provided an opportunity for the interview questions to be tested and adjusted for clarity.

In terms of suggestions and recommendations for future research, there are numerous possibilities and questions that can be investigated on the subject of ballot box conservation. A future study might investigate how the trends have or have not change in 2013 and beyond. There could be a more in-depth geospatial analysis which illustrates change over time. Further analysis of time in terms of months may or may not reveal higher success rates. A future study may investigate how the perception of ballot box conservation has changed since this study. Interviews with planners from communities which have recently experienced a failed conservation measure may expand the discourse of this study. Comparatively, a survey or additional interviews with local governments may reveal a generalizable impact of ballot box conservation on capital improvement plans. All of these topics can provide extensive information about ballot box conservation that will be applicable to planning and local government decision making.

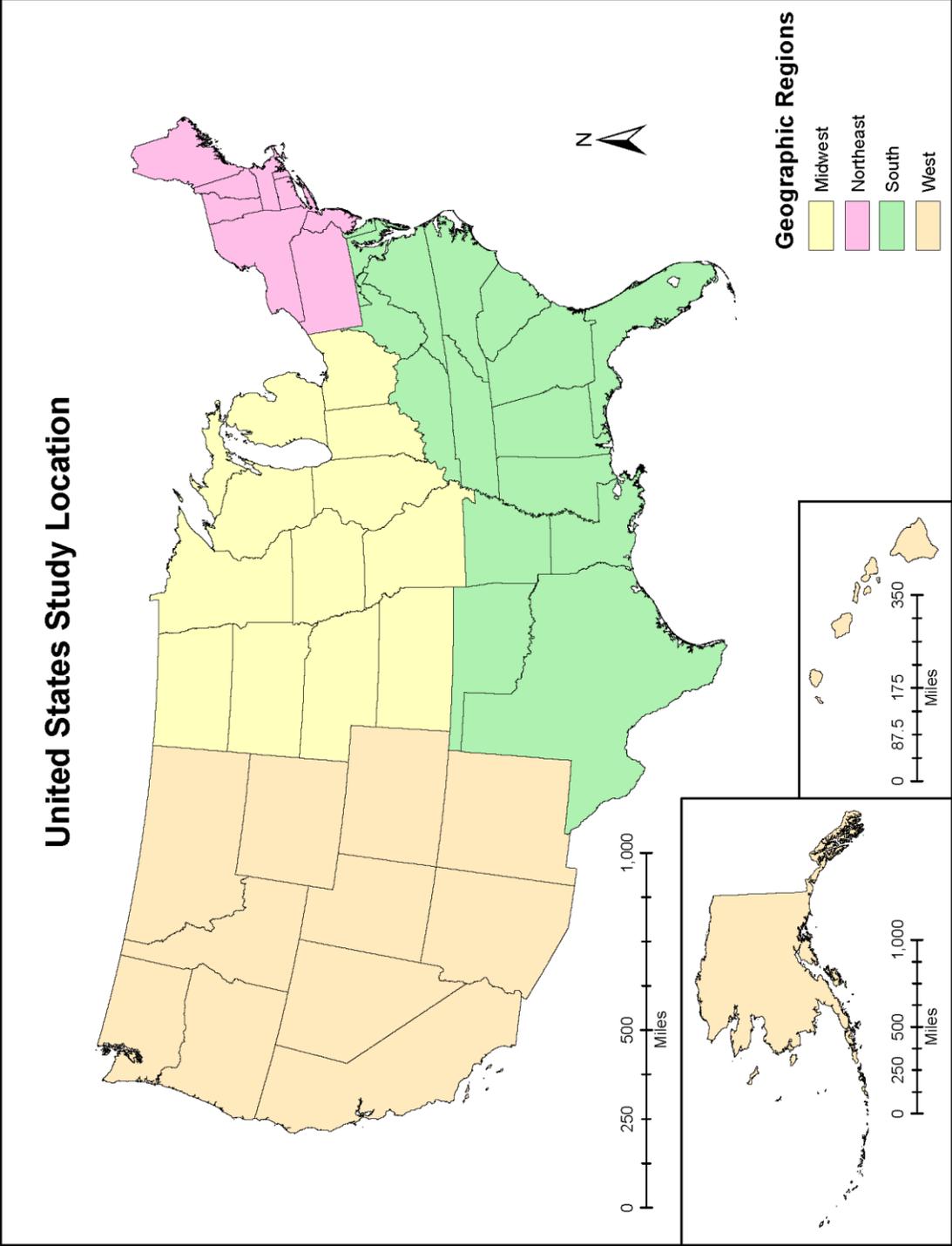
Concluding Remarks

Inclusively, the purpose of this thesis is to provide two contributions to the literature on ballot box conservation. The first contribution is supplying an in-depth investigation of the trends that have transpired over the years. Subsequently, personal interviews with local governments, particularly planners, offers unique perceptions and experiences with ballot box conservation. Through the implementation of a mixed method approach, this study successfully meets these contributions beyond expectations. This study also provides an awareness opportunity for practicing planners to become more informed about this unconventional yet frequently applied decision making technique for land conservation. Finally, the findings presented in this thesis will likely expand the discourse and agenda for future research on the subject of ballot box conservation.

Appendices

Appendix A – Study Location

Figure 24: Study Location and Organizational Clusters



Appendix B - Total Measures

Table 12: Descriptive Statistics of Total Measures

Year	Number of Measures	Number of Measures Passed	Number of Measures Failed	Percent Passed	Percent Failed
1996	93	66	27	71.0	29.0
1997	83	69	14	83.1	16.9
1998	165	135	30	81.8	18.2
1999	109	97	12	89.0	11.0
2000	203	164	39	80.8	19.2
2001	197	137	60	69.5	30.5
2002	178	131	47	73.6	26.4
2003	125	94	31	75.2	24.8
2004	213	160	53	75.1	24.9
2005	139	109	30	78.4	21.6
2006	180	133	47	73.9	26.1
2007	98	64	34	65.3	34.7
2008	124	88	36	71.0	29.0
2009	39	24	15	61.5	38.5
2010	44	37	7	84.1	15.9
2011	24	14	10	58.3	41.7
2012	65	50	15	76.9	23.1
	Number of Measures	Number of Measures Passed	Number of Measures Failed	Percent Passed	Percent Failed
Total	2,079	1,572	507	--	--
Average	122	92	30	74.6	25.4
Median	124	94	30	75.1	24.9
Range	189	150	53	30.7	30.7
Standard Deviation	60	47	16	8.1	8.1
Maximum	213 (2004)	164 (2000)	60 (2001)	89.0 (1999)	41.7 (2011)
Minimum	24 (2011)	14 (2011)	7 (2010)	58.3 (2011)	11.0 (1999)

Notes: Grayed in rows indicate presidential general election years; percentages are rounded to the nearest first decimal place; source (TPL).

Appendix C - Jurisdictions

Table 13: Descriptive Statistics of Jurisdictions

Year	Municipal			County			Special District		
	Pass	Fail	Total	Pass	Fail	Total	Pass	Fail	Total
1996	43	18	61	21	6	27	2	3	5
1997	52	7	59	15	6	21	2	1	3
1998	111	22	133	22	8	30	1	1	2
1999	75	11	86	21	1	22	1	0	1
2000	122	9	131	30	20	50	12	10	22
2001	118	53	171	17	5	22	2	2	4
2002	97	44	141	29	2	31	5	1	6
2003	83	25	108	10	3	13	1	3	4
2004	118	39	157	37	11	48	5	3	8
2005	92	25	117	13	4	17	4	1	5
2006	102	38	140	30	8	38	1	1	2
2007	51	29	80	13	4	17	0	1	1
2008	65	25	90	19	9	28	4	2	6
2009	20	13	33	4	1	5	0	1	1
2010	26	7	33	8	0	8	3	0	3
2011	9	9	18	5	0	5	0	1	1
2012	35	14	49	12	1	13	3	0	3
Total	1,219	388	1,607	306	89	395	46	31	77
Average	71.71	22.82	94.53	18.00	5.24	23.24	2.71	1.82	4.53
Median	75	22	90	17	4	22	2	1	3
Maximum	122	53	171	37	20	50	12	10	22
Minimum	9	7	18	4	0	5	0	0	1
Range	113	46	153	33	20	45	12	10	21
Standard Deviation	37	14	47	9	5	13	3	2	5
Average Pass Percent	75.86			77.47			59.74		
Average Fail Percent	24.14			22.53			40.26		

Notes: Grayed in rows indicate presidential general election years; percentages are rounded to the nearest second decimal place; source (TPL).

Appendix D - Number of Votes

Table 14: Descriptive Statistics of Number of Votes

Year	Total Votes	"Yes" Votes	"No" Votes	"Yes" Vote Percent	"No" Vote Percent
1996	7,410,563	4,487,278	2,923,285	60.6	39.4
1997	1,943,931	1,106,909	837,022	56.9	43.1
1998	4,418,697	2,610,663	1,808,034	59.1	40.9
1999	1,619,785	1,089,602	530,183	67.3	32.7
2000	7,708,772	4,732,818	2,975,954	61.4	38.6
2001	1,832,851	1,067,873	764,978	58.3	41.7
2002	3,131,454	2,001,364	1,130,090	63.9	36.1
2003	1,576,640	970,095	606,545	61.5	38.5
2004	12,366,538	8,084,286	4,282,252	65.4	34.6
2005	1,444,920	842,077	602,843	58.3	41.7
2006	5,982,998	3,940,262	2,042,736	65.9	34.1
2007	1,916,876	1,084,117	832,759	56.6	43.4
2008	5,671,210	3,636,850	2,034,360	64.1	35.9
2009	451,470	266,683	184,787	59.1	40.9
2010	1,400,725	889,500	511,225	63.5	36.5
2011	242,290	144,404	97,886	59.6	40.4
2012	3,264,208	2,091,655	1,172,553	64.1	35.9
	Total Votes	"Yes" Votes	"No" Votes	"Yes" Vote Percent	"No" Vote Percent
Total	62,383,928	39,046,436	23,337,492	--	--
Average	3,669,643	2,296,849	1,372,794	61.5	38.5
Median	1,943,931	1,106,909	837,022	61.4	38.6
Range	12,124,248	7,939,882	4,184,366	10.7	10.7
Standard Deviation	3,226,118	2,082,922	1,151,932	3.3	3.3
Maximum	12,366,538 (2004)	8,084,286 (2004)	4,282,252 (2004)	67.3 (1999)	43.4 (2007)
Minimum	242,290 (2011)	144,404 (2011)	97,886 (2011)	56.6 (2007)	32.7 (1999)

Notes: Grayed in rows indicate presidential general election years; percentages are rounded to the nearest first decimal place; source (TPL).

Appendix E – Approved Conservation Funds

Table 15: Descriptive Statistics of Approved Conservation Funds

Year	Total Conservation Funds Approved
1996	\$1,102,716,498
1997	\$778,514,321
1998	\$1,594,042,774
1999	\$2,049,759,028
2000	\$2,844,222,298
2001	\$1,252,556,655
2002	\$1,559,434,357
2003	\$1,102,196,985
2004	\$3,864,245,265
2005	\$1,288,503,889
2006	\$3,764,041,755
2007	\$1,735,415,707
2008	\$2,307,210,160
2009	\$207,668,083
2010	\$423,514,866
2011	\$312,765,748
2012	\$472,680,495
Total	\$26,659,488,884
Average	\$1,568,205,228
Median	\$1,288,503,889
Range	\$3,656,577,182
Standard Deviation	\$1,109,657,768
Maximum	\$3,864,245,265.00 (2004)
Minimum	\$207,668,083.00 (2009)

Notes: Grayed in rows indicate presidential general election years; percentages are rounded to the nearest dollar; source (TPL).

Appendix F - Financial Mechanisms

Table 16: Descriptive Statistics of Financial Mechanisms

Year	Bond	Sales Tax	Property Tax	Income Tax	Real Estate Transfer Tax	Parcel Tax*	Other*
1996	51	14	21	0	0	0	7
1997	39	14	23	2	1	1	3
1998	59	8	84	2	8	2	2
1999	39	11	50	3	1	2	3
2000	84	25	79	5	2	2	6
2001	44	9	133	5	0	1	5
2002	58	8	95	7	5	1	4
2003	51	10	50	10	0	0	4
2004	84	26	90	7	0	2	4
2005	42	6	75	9	2	2	3
2006	68	9	78	15	6	1	3
2007	40	4	46	5	2	0	2
2008	57	4	58	4	0	0	1
2009	18	2	16	0	0	0	3
2010	15	4	24	1	0	0	0
2011	5	2	12	4	1	0	0
2012	20	7	33	2	0	3	0
	Bond	Sales Tax	Property Tax	Income Tax	Real Estate Transfer Tax	Parcel Tax*	Other*
Total	773	163	967	81	28	17	50
Average	46	10	57	5	2	1	3
Median	44	8	50	4	1	1	3
Range	79	24	121	15	8	3	7
Standard Deviation	23	7	34	4	2	1	2
Maximum	84 (2000)	26 (2004)	133 (2001)	15 (2006)	8 (1998)	3 (2012)	7 (1996)
Minimum	5 (2011)	2 (2009; 2011)	12 (2011)	0 (1996; 2009)	0 (1996; 2001; 2003-2004; 2008-2010; 2012)	0 (1996; 2003; 2007- 2011)	0 (2010- 2012)

Notes: Grayed in rows indicate presidential general election years; *Parcel Tax Measures have only occurred in the state of California; *Other Measures include one or multiple of the following financial mechanisms: Benefit assessment, Charter Amendment, Bedroom Tax, Sales Tax, Property Tax, Lodging Tax, Utility Tax, Advisory Measure, Use Tax, Budget Allocation, Transient Occupancy Tax, Proceeds from Sales of Town Land, Building Materials Use Tax, Occupational Privilege Tax, Funding Cap Increase, Bonds, Appropriation, Meals Tax; source (TPL).

Table 17: Pass Rates of Financial Mechanisms

Year	Bond	Sales Tax	Property Tax	Income Tax	Real Estate Transfer Tax	Parcel Tax	Other
1996	66.7	57.1	90.5	--	--	--	71.4
1997	89.7	85.7	73.9	50.0	0.0	100.0	100.0
1998	89.8	50.0	83.3	100.0	62.5	0.0	50.0
1999	87.2	90.9	96.0	66.7	100.0	50.0	66.7
2000	88.1	60.0	77.2	100.0	100.0	100.0	83.3
2001	81.8	66.7	66.2	60.0	--	0.0	80.0
2002	77.6	87.5	68.4	85.7	100.0	0.0	75.0
2003	78.4	70.0	72.0	70.0	--	--	100.0
2004	85.7	73.1	67.8	85.7	--	0.0	50.0
2005	85.7	100.0	78.7	55.6	50.0	50.0	33.3
2006	88.2	100.0	53.8	86.7	100.0	100.0	66.7
2007	82.1	75.0	50.0	80.0	50.0	--	50.0
2008	75.4	50.0	69.0	50.0	--	--	100.0
2009	66.7	50.0	50.0	--	--	--	100.0
2010	80.0	100.0	83.3	100.0	--	--	--
2011	80.0	100.0	50.0	25.0	100.0	--	--
2012	90.0	85.7	72.7	0.0	--	66.7	--
Average	82.0	76.6	70.8	67.7	73.6	46.7	73.3

Notes: Grayed in rows indicate presidential general election years; percentages are rounded to the nearest first decimal place; source (TPL).

Appendix G - Geospatial Analysis

Table 18: Descriptive Statistics of Geospatial Analysis

State	Bond	Sales Tax	Property Tax	Income Tax	Real Estate Transfer Tax	Parcel Tax	Other	Total
AK	6	--	--	--	--	--	--	6
AR	1	1	--	--	--	--	--	2
AZ	17	5	--	--	--	--	--	22
CA	13	11	--	--	--	17	25	66
CO	32	53	32	--	--	--	13	130
CT	85	--	--	--	--	--	1	86
DE	1	--	--	--	--	--	--	1
FL	52	19	7	--	--	--	1	79
GA	19	15	1	--	--	--	--	35
HI	--	--	5	--	--	--	--	5
IA	3	--	--	--	--	--	--	3
ID	1	--	2	--	--	--	--	3
IL	61	4	14	--	1	--	2	82
KS	1	3	--	--	--	--	--	4
KY	--	--	1	--	--	--	--	1
LA	--	--	3	--	--	--	--	3
MA	21	--	276	--	2	--	--	299
MD	9	--	--	--	--	--	--	9
ME	11	--	--	--	--	--	1	12
MI	3	--	54	--	--	--	--	57
MN	21	2	--	--	--	--	--	23
MO	1	16	--	--	--	--	--	17
MS	2	--	--	--	--	--	--	2
MT	11	--	--	--	--	--	--	11
NC	42	--	1	--	--	--	--	43
NE	1	--	--	--	--	--	--	1
NM	11	3	2	--	--	--	--	16
NJ	8	--	472	--	--	--	1	481
NV	1	4	--	--	--	--	--	5
NY	63	3	6	--	18	--	--	90
OH	11	3	53	2	--	--	--	69
OK	3	2	--	--	--	--	--	5
OR	21	--	4	--	--	--	1	26
PA	48	--	13	79	--	--	--	140
RI	43	--	--	--	2	--	1	46
SC	9	5	--	--	--	--	--	14
TN	1	1	--	--	--	--	--	2
TX	76	9	--	--	--	--	--	85
UT	15	2	--	--	--	--	--	17
VA	23	--	--	--	--	--	--	23
VT	1	--	1	--	--	--	1	3
WA	22	--	16	--	5	--	2	45
WI	3	--	4	--	--	--	1	8
WY	--	2	--	--	--	--	--	2
Total	773	163	967	81	28	17	50	2079

Average	19.33	8.15	48.35	40.50	5.60	17.00	4.17	47.25
Median	11	3.5	5.5	40.5	2	17	1	16.5
Range	84	52	471	77	17	0	24	480
Standard Deviation	22.40	11.83	116.92	54.45	7.09	--	7.40	86.01
Maximum	85 (CT)	53 (CO)	472 (NJ)	79 (PA)	18 (NY)	17 (CA)	25 (CA)	481 (NJ)
Minimum	1	1	1	2	1	17	1	1

Table 19: Descriptive Statistics of Pass Rates for Geospatial Analysis

State	Pass	Fail	Pass %	Fail%
AK	0	6	0.00%	100.00%
AR	1	1	50.00%	50.00%
AZ	22	0	100.00%	0.00%
CA	42	24	63.64%	36.36%
CO	98	32	75.38%	24.62%
CT	77	9	89.53%	10.47%
DE	1	0	100.00%	0.00%
FL	63	16	79.75%	20.25%
GA	28	7	80.00%	20.00%
HI	5	0	100.00%	0.00%
IA	3	0	100.00%	0.00%
ID	2	1	66.66%	33.33%
IL	52	30	63.41%	36.59%
KS	4	0	100.00%	0.00%
KY	0	1	0.00%	100.00%
LA	1	2	33.33%	66.66%
MA	190	109	63.55%	36.45%
MD	9	0	100.00%	0.00%
ME	11	1	91.67%	8.33%
MI	37	20	64.91%	35.09%
MN	18	5	78.26%	21.74%
MO	17	0	100.00%	0.00%
MS	0	2	0.00%	100.00%
MT	8	3	72.73%	27.27%
NC	37	6	86.05%	13.95%
NE	0	1	0.00%	100.00%
NM	16	0	100.00%	0.00%
NJ	374	107	77.75%	22.25%
NV	2	3	40.00%	60.00%
NY	80	10	88.89%	11.11%
OH	47	22	68.12%	31.88%
OK	4	1	80.00%	20.00%
OR	15	11	57.69%	42.31%
PA	110	30	78.57%	21.43%
RI	44	2	95.65%	4.35%
SC	11	3	78.57%	21.43%
TN	1	1	50.00%	50.00%
TX	77	8	90.59%	9.41%
UT	13	4	76.47%	23.53%
VA	21	2	91.30%	8.70%

VT	3	0	100.00%	0.00%
WA	23	22	51.11%	48.89%
WI	2	6	25.00%	75.00%
WY	2	0	100.00%	0.00%
Total	1,571	508		
Average	35.70	11.55	70.65%	29.35%
Median	14	3	78.42%	21.59%
Maximum	374	109	100.00%	100.00%
Minimum	0	0	0.00%	0.00%
Range	374	109	100.00%	100.00%
Standard Deviation	64.55	23.18	29.72%	29.72%

Notes: Green text indicates a positive overall pass rate; Red text indicates a negative overall pass rate; percentages are rounded to the nearest first decimal place; source (TPL).

Appendix H - Interview Questions

- | | | | | | |
|---|--|---------------------------|---------------------------|-------------------------|--------------|
| General Perception | 1. Which percent do you believe is the closest representation of the average pass rate for conservation measures in the United States today? | | | | |
| | <table style="width: 100%; text-align: center;"> <tr> <td>20%</td> <td>40%</td> <td>60%</td> <td>80%</td> </tr> </table> | 20% | 40% | 60% | 80% |
| | 20% | 40% | 60% | 80% | |
| | 2. Which financial mechanism do you believe is voted on the most in conservation measures throughout the United States? If other is chosen please elaborate. | | | | |
| | <table style="width: 100%; text-align: center;"> <tr> <td>Bonds</td> <td>Property Taxes</td> <td>Sales Taxes</td> <td>Other</td> </tr> </table> | Bonds | Property Taxes | Sales Taxes | Other |
| Bonds | Property Taxes | Sales Taxes | Other | | |
| 3. What would you guess is the closest representation of the average number of conservation measures for a single year throughout the United States? | | | | | |
| <table style="width: 100%; text-align: center;"> <tr> <td>Less than 50</td> <td>Between 50 and 74</td> <td>Between 75 and 100</td> <td>Greater than 100</td> </tr> </table> | Less than 50 | Between 50 and 74 | Between 75 and 100 | Greater than 100 | |
| Less than 50 | Between 50 and 74 | Between 75 and 100 | Greater than 100 | | |
| 4. In an average year approximately how many funds do you believe are approved from conservation measures throughout the United States? | | | | | |
| <table style="width: 100%; text-align: center;"> <tr> <td>\$500 Million</td> <td>\$1 Billion</td> <td>\$1.5 Billion</td> <td>\$2 Billion</td> </tr> </table> | \$500 Million | \$1 Billion | \$1.5 Billion | \$2 Billion | |
| \$500 Million | \$1 Billion | \$1.5 Billion | \$2 Billion | | |
| 5. In which geographic region of the United States would you say utilizes conservation measures the most? | | | | | |
| <table style="width: 100%; text-align: center;"> <tr> <td>West</td> <td>Midwest</td> <td>South</td> <td>Northeast</td> </tr> </table> | West | Midwest | South | Northeast | |
| West | Midwest | South | Northeast | | |
| Personal Experience | 1. Which component of a conservation measure do you believe impacts the outcome the most, the financial mechanism or overall cost? Please elaborate on your choice. | | | | |
| | 2. Would you describe your community's last conservation referendum as (A) somewhat unexpected and spontaneous or (B) somewhat expected and planned? Please explain your answer. | | | | |
| | 3. Was the outcome of the most recent conservation measure a setback or a progression towards the goals and objectives of your community's comprehensive plan at the time? Please explain your answer. | | | | |
| | 4. Did the outcome of the most recent conservation measure have a major or minor impact on your community's capital improvement plan at the time? Please explain your answer. | | | | |
| | 5. Is there a high probability that your community will utilize referendums in the future to address conservation issues? Please explain your answer. | | | | |

Appendix I – Personal Interview Responses Background

Table 20: Personal Interview Background Data

ID	Region	Number of Measures	Most Recent	Pass Rate
1	SOUTH	8	2010	100
2		6	2008	83.3
3		4	2012	75
4		2	2012	50
5		2	2012	100
6	NORTHEAST	10	2007	100
7		9	2012	100
8		2	2012	50
9		2	2012	50
10	WEST	7	2010	85.7
11		2	2007	50
12		1	2012	100
13	MIDWEST	3	2010	100

Appendix J – Personal Interview Responses General Perceptions

Table 21: General Perceptions Data

Question	Response	Frequency	Percent
1	20	2	15.38%
	40	5	38.46%
	60	6	46.15%
	80	0	0.00%
2	Bonds	9	69.23%
	Property Taxes	2	15.38%
	Sales Taxes	2	15.38%
	Other	0	0.00%
3	Less than 50	3	23.08%
	Between 50 and 74	2	15.38%
	Between 75 and 100	1	7.69%
	Greater than 100	7	53.85%
4	\$500 Million	6	46.15%
	\$1 Billion	3	23.08%
	\$1.5 Billion	1	7.69%
	\$2 Billion	3	23.08%
5	West	6	46.15%
	Midwest	1	7.69%
	South	1	7.69%
	Northeast	5	38.46%

Appendix K – Personal Interview Responses Personal Experiences

Table 22: Personal Experiences Data

Question	Response	Frequency	Percent
1	Overall Cost	6	46.15%
	Financial Mechanism	7	53.85%
2	Unexpected & Spontaneous	3	23.08%
	Expected & Planned	10	76.92%
3	Setback	0	0.00%
	Progression	13	100.00%
4	Major	7	53.85%
	Minor	6	46.15%
5	Yes	8	61.54%
	No	5	38.46%

Appendix L – Interview Responses

South

Location 1

Total Number of Measures: 8

Most Recent: 2010

Pass Rate: 100%

General Perceptions

Question 1: 40%

Question 2: Sales Taxes

Question 3: Less than 50

Question 4: \$1 Billion

Question 5: Northeast

Personal Experience

Question 1: Overall Cost

Question 2: Somewhat expected and planned; Application began in 2000, and renewed in 2005 and 2010.

Question 3: Progression

Question 4: Minor; Independent CIP

Question 5: Yes; Financial mechanism may change.

Location 2

Total Number of Measures: 6

Most Recent: 2008

Pass Rate: 83.3%

General Perceptions

Question 1: 20%

Question 2: Bonds

Question 3: Between 50 and 74

Question 4: \$500 Million

Question 5: Midwest

Personal Experience

Question 1: Overall Cost

Question 2: Somewhat expected and planned; Sustainability policy guidelines.

Question 3: Progression

Question 4: Major

Question 5: No; It is now a regulatory requirement.

Location 3

Total Number of Measures: 4

Most Recent: 2012

Pass Rate: 75%

General Perceptions

Question 1: 40%

Question 2: Bonds

Question 3: Less than 50

Question 4: \$500 Million

Question 5: West

Personal Experience

Question 1: Financial Mechanism; Not inclined for a tax increase; Bonds Preferred

Question 2: Somewhat expected and planned; Established in Comprehensive Plan.

Question 3: Progression

Question 4: Major

Question 5: No; Enough land has already been acquired, therefore is not necessary.

Location 4

Total Number of Measures: 2

Most Recent: 2012

Pass Rate: 50%

General Perceptions

Question 1: 60%

Question 2: Bonds

Question 3: Less than 50

Question 4: \$500 Million

Question 5: South

Personal Experience

Question 1: Overall Cost; Previous measures failed due to high cost, and passed when lowered.

Question 2: Somewhat unexpected and spontaneous; Owner of the land changed their mind and decided to sell.

Question 3: Progression

Question 4: Major

Question 5: No; Enough land has already been acquired, therefore is not necessary.

Location 5

Total Number of Measures: 2

Most Recent: 2012

Pass Rate: 100%

General Perceptions

Question 1: 40%

Question 2: Property Taxes

Question 3: Greater than 100

Question 4: \$500 Million

Question 5: West

Personal Experience

Question 1: Overall Cost; Tight Budgets

Question 2: Somewhat expected and planned; Previous 10-year measure expired.

Question 3: Progression; Strategy of Comprehensive Plan to target local acquisition.

Question 4: Minor; Most of the CIP remained the same.

Question 5: Yes; When this 10-year measure expires.

Northeast

Location 6

Total Number of Measures: 10

Most Recent: 2007

Pass Rate: 100%

General Perceptions

Question 1: 60%

Question 2: Bonds

Question 3: Greater than 100

Question 4: \$1 Billion

Question 5: Northeast

Personal Experience

Question 1: Financial Mechanism

Question 2: Somewhat expected and planned; Other measures were voted on with it.

Question 3: Progression; Community prioritizes open space and farmland.

Question 4: Minor; Small amount of the overall CIP.

Question 5: No

Location 7

Total Number of Measures: 9

Most Recent: 2012

Pass Rate: 100%

General Perceptions

Question 1: 40%

Question 2: Bonds

Question 3: Greater than 100

Question 4: \$2 Billion

Question 5: Northeast

Personal Experience

Question 1: Financial Mechanism; Prefer not to use taxes.

Question 2: Somewhat expected and planned; Public Outreach

Question 3: Progression; The Comprehensive plan strongly supports open space and parks.

Question 4: Minor

Question 5: Yes; Such application is a typical means for acquiring open space.

Location 8

Total Number of Measures: 2

Most Recent: 2012

Pass Rate: 50%

General Perceptions

Question 1: 60%

Question 2: Bonds

Question 3: Between 75 and 100

Question 4: \$500 Million

Question 5: Northeast

Personal Experience

Question 1: Financial Mechanism; Cost is expected.

Question 2: Somewhat expected and planned; Statewide Preservation Act

Question 3: Progression

Question 4: Major

Question 5: No

Location 9

Total Number of Measures: 2

Most Recent: 2012

Pass Rate: 50%

General Perceptions

Question 1: 40%

Question 2: Property Taxes

Question 3: Greater than 100

Question 4: \$2 Billion

Question 5: West

Personal Experience

Question 1: Overall Cost

Question 2: Somewhat expected and planned

Question 3: Progression

Question 4: Minor; Independent CIP

Question 5: Yes; More land is still wanted, however, it may take a while.

West

Location 10

Total Number of Measures: 7

Most Recent: 2010

Pass Rate: 85.7%

General Perceptions

Question 1: 60%

Question 2: Sales Taxes

Question 3: Between 50 and 74

Question 4: \$1 Billion

Question 5: West

Personal Experience

Question 1: Financial Mechanism; Significant for public support.

Question 2: Somewhat unexpected and spontaneous; A similar measure failed the previous year.

Question 3: Progression; Allowed high priority property to be acquired as outlined in the comprehensive plan.

Question 4: Minor

Question 5: Yes; Currently out of funds for additional land that is needed.

Location 11

Total Number of Measures: 2

Most Recent: 2007

Pass Rate: 50%

General Perceptions

Question 1: 60%

Question 2: Bonds

Question 3: Greater than 100

Question 4: \$500 Million

Question 5: Northeast

Personal Experience

Question 1: Financial Mechanism; How it is paid over time (long term) is significant.

Question 2: Somewhat expected and planned; Referendum heavy state.

Question 3: Progression; Consistent with the long term vision of the comprehensive plan.

Question 4: Major

Question 5: Yes; Referendum heavy state and more land still needed.

Location 12

Total Number of Measures: 1

Most Recent: 2012

Pass Rate: 100%

General Perceptions

Question 1: 60%

Question 2: Bonds

Question 3: Greater than 100

Question 4: \$1.5 Billion

Question 5: West

Personal Experience

Question 1: Overall Cost

Question 2: Somewhat unexpected and spontaneous; Poor economy and already land rich.

Question 3: Progression; Green space land trust organization and vision.

Question 4: Major; Independent CIP

Question 5: Yes; Referendum heavy state.

Midwest

Location 13

Total Number of Measures: 3

Most Recent: 2010

Pass Rate: 100

General Perceptions

Question 1: 20%

Question 2: Bonds

Question 3: Greater than 100

Question 4: \$2 Billion

Question 5: West

Personal Experience

Question 1: Financial Mechanism; Costs change over time.

Question 2: Somewhat expected and planned;

Question 3: Progression; Parks are currently a major concern in the master plan.

Question 4: Major

Question 5: Yes; When the current measure expires.

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