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I, Chad J. Kinsella, hereby submit this original work as part of the requirements for the degree of Doctor of Philosophy in Political Science.

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The Little Sort: A Spatial Analysis of Polarization and the Sorting of Politically Like-Minded People

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The Little Sort: A Spatial Analysis of Polarization and the Sorting of Politically Like-Minded People

A dissertation submitted to the
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by
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Abstract

This dissertation uses spatial analyses to examine several contemporary issues within the field of political science. Overall, the bulk of information used within the field of political science to draw conclusions about the electorate has primarily come from survey data. This dissertation not only uses survey data but also relies on election data. Using precinct-level election data as opposed to county data, allows for a higher level of detail than is typically found in previous research. Conclusions from this dissertation rely on a spatial analysis of precincts in the fifteen counties of the Cincinnati Metropolitan Statistical Area.

Within the field of political science, survey data provide the means by which voting patterns and beliefs are most commonly analyzed, particularly among and between the groups in society. The data collected from surveys continues to provide critical information and trends in the electorate, however it has not been able to provide conclusive results about polarization and there remains much disagreement over the level of polarization within the electorate, whether there is a link between ideology and party and the degree of that link, and whether people who vote and think alike politically are living in close proximity to one another or dispersed amongst each other. Academics and pundits on opposite sides of the issue have produced empirical evidence from survey data to support their points of view on the matters. These same camps use state and county level data with inconclusive results. However, with the additions of spatial statistics in Geographic Information Systems, or GIS, there is an opportunity empirically analyze and provide new and statistically sound findings to lend new conclusions to old arguments.
This dissertation, using spatial analysis, examines the phenomena of geographic clustering of like-minded people, polarization, and ideological sorting within the American electorate using several sources. First, an analysis of presidential voting by residential location between the years of 1952-2000 as well the 2008 presidential election via the American National Election Studies (ANES) and between the years of 1968-2008 via the General Social Survey is provided. Second, a case study of voting results within the Cincinnati Metropolitan Statistical Area is analyzed using spatial statistics available in ArcMap GIS. This dissertation tests the following hypotheses:

1. Voters are polarized;
2. Polarized voters are the most active;
3. Ideology and party are closely related; and
4. Those who are like-minded politically are sorted geographically.

Through the use of precinct-level election data, this dissertation provide answers to three contemporary questions: (1) whether the electorate is more polarized, (2) whether politically like-minded people cluster with others like themselves, and (3) whether partisans are sorting into parties based on ideology. This dissertation advances the field of political science by demonstrating the ability of spatial analysis to provide answers to contemporary questions within the field and by exploring the application of GIS methods in election analysis.
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Dissertations, by definition, are supposed to be the culmination of an individual’s work as a graduate student that adds something new to whatever field they choose. Although they represent the work of one individual it is likely that no dissertation would have been possible without a system of support. This dissertation is no different. Throughout my time as a graduate student and while researching and writing my dissertation, I have received much support and encouragement from faculty, family, and friends, without whom none of this would have been possible.

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Chapter 1

Introduction

To date, analysis of survey data is the means by which voting patterns, behaviors, and beliefs have been studied, particularly among different groups in society (e.g., Race, Sex, Income, Religious affiliation, etc.). Although the data shows clear trends among groups, there has been debate about the level of polarization in the electorate, whether group voting behavior exhibits ideological constraint, and whether people who vote alike politically are also geographically clustering near each other. Academics and pundits on the polar opposite sides of the issue are able to produce empirical evidence from survey data to support their points of view on the matters and evidence from maps is inconclusive. However, with recent additions of empirical tests available in Geographic Information Systems, or GIS, there is an opportunity to provide new and statistically sound data to lend new support to these old arguments.

Before a discussion can be started, it is necessary to operationalize several of the key concepts discussed throughout the dissertation: polarization, sorting, and clustering. Each concept will rely on other, more basic concepts used broadly in political science. One such concept is partisanship, defined by Campbell, et al., in their seminal piece, The American Voter, as an “individual’s affective orientation toward an important group object in his environment” (Campbell, et al., 1960, 121). In the case of voters, the object that is referred to as party affiliation, typically in American politics one of two parties: The Republican Party or Democrat Party. This psychological attachment is a crucial
point to consider because it provides a lens through which individuals view their political world and creates their political identities (Levendusky, 2009).

Party identification, or partisanship, for voters is central to examining polarization, ideological sorting, and geographical sorting. For the last several decades, many have observed that there is not a “dimes worth of difference” between the two parties. To remedy this situation, a group of political scientists put forth a call for a clear division between the two parties. The American Political Science Association’s report that was issued in August 1950, titled *Toward a More Responsible Two Party System*, called for the parties to give voters a clear choice by taking clear stances on issues. Debate centers on the effectiveness of parties to heed the reports advice. Although it is unlikely that APSA report was the catalyst for a responsible two party system there are strong indications that the parties have effectively followed through with the request and now offer the electorate a very clear choice.

In his book, *The Partisan Sort*, Levendusky operationalizes polarization and sorting and discusses their link to partisanship. Sorting indicates a growing correlation between partisanship and ideology and is referred to in this dissertation as “ideological sorting.” If the electorate is sorted, it would indicate that partisanship and ideology are strongly related, whereas if the electorate is unsorted then there would be little, if any, relationship between partisanship and ideology (Levendusky, 2009). This definition indicates the movement of people with one type of ideology or another, in this case liberal or conservative, to attach to a party the corresponds with their beliefs.

According to Levendusky, polarization occurs when voters adopt more ideologically extreme positions. When the electorate is polarized, centrist attitudes begin
to disappear, and there are more voters at the extremes than at the center. He also concludes that as the electorate becomes more polarized, moderate voters will become scarce and eventually be removed altogether (Levendusky, 2009). As the parties become more sorted, individuals who exhibit the highest degrees of ideological extremes may pull the parties toward those same extremes.

Finally, geographic clustering, also referred to as sorting, is defined by Bishop as the movement of politically like-minded individuals to areas where there are others like themselves. Bishop suggests that people have been sorting into politically like-minded counties throughout the United States. Based primarily on county data from each presidential election since 1976, Bishop argues that counties throughout the United States have seen a dramatic increase in polar partisan behavior over time, suggesting that like-minded people are sorting into Democrat and Republican counties (Bishop, 2008).

This dissertation seeks to examine the phenomena of geographic clustering, polarization, and ideological sorting within the American electorate using several sources. First, an analysis of presidential voting by residential location is conducted using the composite 1952-2000 as well as the 2008 American National Election Studies (ANES) data. Second, a case study of voting results of the Cincinnati Metropolitan Statistical Area is analyzed using mapping software available in GIS. The overall hypotheses tested in this dissertation are that (1) voters are polarized; (2) polarized voters are the most active; (3) ideology and party are closely linked; and (4) that those who are like-minded politically are sorted geographically.
A Brief History of Mapping and Spatial Analysis in Political Science

The use of maps in political analysis is as old as the use of maps themselves. Denoting the location of groups of people, tribes, empires, countries, etc., has been a crucial task since maps were first made. More recently, maps have become a critical tool in providing information about American politics. The creation and refinement of Congressional Districts as well as state legislative districts require a high degree of precision and accuracy. The nature of the Electoral College system has yielded a variety of maps, analysis, and strategies based on the results of presidential elections.

Overall, however, mapping in American politics has taken a second-tier role (at best) in political analysis and has been used to further illustrate certain points because the information within maps was not enough to yield in-depth results. However, with the arrival of more sophisticated and readily available data between the 1960s and today, spatial analysis has grown steadily as a useful tool in empirical analysis. Despite these advances, there continues to be debate about the best way to use these spatial tools. Below is a brief summary of the literature regarding mapping and spatial analysis within the field of political science including a brief discussion of how this dissertation fits into the literature and into the broader context of spatial analysis in the field of political science.

Electoral Geography

Electoral geography focuses on the geographical aspects of the organization, conduct, and results of elections. Election analysis in political geography relies primarily on the various electoral jurisdictions, such as states, congressional districts, counties, wards, and precincts within the American politics. The majority of studies are empirical
analyses of voting patterns, some published in the early twentieth century, but most
dating to the 1960s (Taylor, 1979).

According to the Johnston, et al., in their *Dictionary of Human Geography*,
elections are inherently spatial in their form. They identify five separate subfields within
electoral geography. The first variation of electoral geography identifies spatial
variations of voting patterns along with their relationship to socio-economic
characteristics of the population. The second variation takes into account local
contextual factors, such as local newspapers, discussion among neighbors and friends,
and religious affiliation to name a few, on political attitudes and voting decisions. The
third variation examines the spatial organization of elections with a focus on defining the
constituency of parties and candidates. The fourth variation uses spatial patterns of
electoral representation to examine the results of elections. Finally, the fifth variation of
electoral geography examines the spatial variations in policy implementation that reflect
patterns of representation (Johnston et al., 1994).

By the 1960s, the advancement of technology and adoption of quantitative
methods to analyze spatial data brought significant advances in electoral spatial analysis.
The combination of voting returns and census data allowed for an in-depth analysis of
population characteristics and voting behavior. Much of the work of electoral studies,
particularly within political science, focused on cleavages in voting. The examination of
cleavages involves the examination of division of society into groups that have similar
political attitudes and behaviors and, especially the split of people into partisan
identifications. These divisions or cleavages can be observed in the geography of the
voting surface (Johnston et al., 1994).
Several prominent American political scientists began to use aspects of electoral geography in some early, key studies. One of the earliest studies in political science that examined spatial patterns in voting was accomplished by Berelson and Lazarsfeld in the pioneering books *Voting* and *The People’s Choice*. The purpose of their research was to investigate voting behavior; however, the former took place in a small town in New York State and the latter took place in Erie County, Ohio. What they found in their analysis was that demographic groups mattered in how people voted. Overall, the major contribution of the Columbian school of thought, named after the university where Berelson and Lazarsfeld were affiliated, was “its interest in how social relationships—with family, friends, co-workers, and acquaintances— influenced people’s attitudes.” (Glynn et al., 2004 p. 204). Although they did not focus on divisions based on where people lived, the studies provided the foundations of many later political explorations, including spatial analysis.

Perhaps one of the most important studies to usher in electoral geography in American politics was V.O. Key’s *Southern Politics in State and Nation*. Key used a variety of election results and demographic information of counties in the eleven states that formerly made up the Confederacy during the Civil War. His results were a boon for spatial analysis: Key found that there were regional variations in voting behavior. He investigated the Democratic primary elections in several Southern States and found a relationship between the location of a candidate’s home and the percentage of the vote received. Perhaps his most important and enduring finding was with respect to voters who supported segregationist politicians. Key found that white voters who lived in counties with a high percentage of blacks were more likely to vote for segregationist
candidates and candidates who support racial intolerance. He also found that turnout among white voters in those same counties within the Democratic primary was much higher than in other counties within the state (Key, 1949).

Another critical piece within the field of political science is Walter Burnham’s *Critical Elections and the Mainsprings of American Politics*. In his book, Burnham uses spatial analysis similar to Key and also draws upon precinct and county voting behavior in Pennsylvania to point out critical elections and changes in partisan loyalties. One particular example Burnham used involves an analysis by precinct of Delaware County in Pennsylvania. It compared the votes for Kennedy and Nixon in the 1960 presidential election to the number of skilled and unskilled laborers in each precinct, according to the census and further mapped the percent of each precinct that later voted for Wallace as a third-party candidate in the 1968 presidential election. Burnham used this to point out the shift of partisan loyalties that was underway in the 1960s (Burnham, 1970).

*Contextual Theory*

As the amount and quality of geographic data improved, along with the technology to analyze it, several political scientists used the advances to examine contextual effects on voting behavior. Contextual theory borrows from several of the early spatial analyses, such as those by Key and Burnham, because those studies were able to identify local and regional variations among voters. Even within the influential *American Voter*, there are indications of contextual effects. Campbell, et al. suggest that there are “personal” reasons that may cause fluctuation in party identification. They suggest three personal factors that will change party identification: marriage, a new job, and a change in neighborhood. Personal reasons accounted for only 17 percent of the
total partisan change they observed, with the bulk of the partisan change occurring because of social forces, such as the economy. They also argue that political upheaval can cause regional and community partisan changes. It is also stated that “community patterns of party affiliation have a remarkable capacity to persist long after the disappearance of the issues that created the pattern” (Campbell et al., 1960, pp. 149-167). These findings, along with what many political scientists thought was the beginning of the end of partisan identification and a movement toward issue voting (Nie et al, 1979), helped contextual theory grow in popularity and importance.

Another influence that provided a theoretical basis for contextual theory is the Neighborhood Effect. The Neighborhood Effect is based primarily in theory within the field of Geography and has its base of disciples in Europe, primarily in Great Britain. It was pioneered in the 1960s within the field of electoral studies and is used to explain the spread of political information. The Neighborhood Effect envisions political information as being synonymous with the spread of disease and implies that it was a contagious process. It is theorized that individual voting behavior is influenced by the information and cues that are prevalent in the voter’s area of residence. Therefore, voting behavior is influenced by those people with whom a voter has frequent contact (Johnston et al., 1994). The Neighborhood Effect manifests because some people in a certain area convert others to their viewpoint by discussing various political views with them through the neighborhood communications network despite having no overt intention for the conversation (Taylor and Johnston, 1979).

Using these various methodological and theoretical foundations, several political scientists began to investigate contextual effects within American politics. One of the
first political scientists to create a specific definition of contextual theory is John Agnew. He defined context in terms of “place” and identified three elements that comprise place (1) locale, the setting of routine social interaction, (2) location, the role of place in the world economy, and (3) sense of place, meaning the socialization that occurs when living in a place (Agnew, 1987).

Two other political scientists who added much to the theoretical and methodological mechanisms of contextual theory are John Books and Charles Prysby. Their book, *Political Behavior and the Local Context*, is one of the most important scholarly works to date that seeks to advance the study of contextual theory. In it, the authors narrow the definition of context to “a geographically bound social unit,” including such things as states, counties, cities, communities, precincts, voting districts, census tracts, and neighborhoods as potential and actual context. Books and Prysby exclude families, clubs, associations, parties, interest groups, and other organizations on the basis that these groups are better analyzed from the socialization and group dynamic perspectives (Books and Prysby, 1991).

Furthermore, Books and Prysby state contextual effects occur when some aspect of the community in which a person resides alters the flow and meaning of the information that the individual receives. This altered flow and interpretation may lead the individual to behave differently in this specific context than another. Ultimately, people in one context have access to different informational cues than people in other contexts. The goal of contextual theory, according to Books and Prysby, is to advance social science theory and understanding by finding the extent of contextual effects and
discovering the mechanisms by which environments influence individuals (Books and Prysby, 1991).

**Context and Controversy**

The popularity of contextual theory is evident in the number of scholarly works that were produced to analyze contextual effects on individuals in a range of contexts. However, a controversy that erupted regarding contextual theory caused many to re-think the future of mapping and spatial analysis. The two main players in this controversy are one of the best known contextual theorists, John Agnew, and arguably one of the best methodologists in the field of political science, Gary King.

The controversy opened with a paper and presentation by John Agnew in which he argued that context counts in electoral geography and is necessary to bridge the gap between the social sciences and geographical study. Agnew attempted to “refocus electoral geography upon what it can offer to political studies” (Agnew, 1996, p. 131) by demonstrating the use of analyzing historical geographical context on political activities. He argued that it is critical for geographical context to “draw attention to the spatial situatedness of human action in contrast to the non-spatial sorting of people out into categories based on census and other classification schemes that inspires most conventional social science” (Agnew, 1996, p. 131). Agnew pointed out that there were several different stimuli across geographic scales that would produce effects on political behavior. He concluded that if electoral geography was to move beyond simply being “cartographic illustrations that decorate more compelling aspatial accounts of electoral geography,” then more focus must be placed on studying context and its importance (Agnew, 1996, p. 144).
Agnew’s article in the academic journal “Political Geography” was followed by an article from Gary King. King’s article was a not-too-subtle rebuttal of Agnew’s article, titled: *Why context should not count*. His article could be misunderstood as a condemnation of electoral geography as a whole, particularly if you believe the fields of electoral geography and contextual analysis are inseparable. However, King’s article demands a different course for electoral geography, one that steers clear of contextual analysis.

King argues that within social sciences, political context makes little difference. To illustrate his point clearly, particularly within the realm of American politics, King uses the following example:

Consider two voters. Both are conservative, poor, white men who identify with the Republican Party, prefer more defense spending and insist that the federal government balance the budget immediately. They are each afraid that someone will take their guns away, hope to end welfare as anyone knows it, and think Rush Limbaugh should be president. The only difference is that, after being raised as twins in Utah, they were separated. One moved to Lancaster County, Pennsylvania amidst many other voters like himself. The other settled in Brookline, Massachusetts, with Michael Dukakis and many other Liberal Democrats.

Now suppose Bill Clinton runs for re-election against Phil Gramm in 1996. Both voters would obviously vote for Graham. Academics know this with a reasonable degree of certainty from extensive research in political science,
political geography and relate fields. Politicians know this from district surveys, studying precinct election returns and talking with constituents. This might not have been so obvious without the last hundred years of quantitative and qualitative scholarly research, but is plainly obvious today. But how much does context matter? How long did the context of liberal Brookline, Massachusetts cause the second voter to consider voting Democrat? To be more precise, how much did the probability of voting Republican differ between the two voters? The answer is pretty clear from the scholarly literature: not much (King, 1996, pp. 160).

If there was any doubt left after reading the title of his article, King clearly supports the idea that context does not matter in electoral geography or any form of political geography.

The other side to the King article is that, despite adamantly opposing contextual theory as the premise for political mapping, he does argue in support of spatial analysis. The article even begins with a point on which he agrees with Agnew and quotes him that the “geographical theory - elections connection was abandoned prematurely and stands in need of re-establishing.” King further argues that “geography matters but contextual effects do not.” He further supports political geography because political scientists do not understand politics to a sufficient degree. Geography, according to King, is “powerful in revealing features of data and the political world that we would not otherwise have considered.” Political geography, or more specifically, electoral geography, is a clear way of connecting what is not known to something that is known
because people “feel comfortable thinking geographically.” Ultimately, King’s article is an endorsement of political mapping, so long as context is not the goal (King, 1996).

Moving Forward in Political Mapping and Spatial Analysis

King’s article is not the end of contextual theory. A host of political scientists and geographers continue to use contextual theory as the prime goal of political mapping. Following Agnew’s and King’s calls to reignite the link between geography and the study of elections, I collected an original data set of precinct-level election returns from the fifteen counties in the Cincinnati Metropolitan Statistical Area. Although at times during the research process I had doubts about contextual theory, in the end my findings were consistent with Agnew’s claim that geographic context matters in politics. I have found that mapping data can be useful in lending answers to some of the contemporary issues in political science, particularly questions about polarization, partisan sorting, and partisan geographic clustering. Also, with the advances in GIS, mapping can go beyond the supporting role and provide an avenue for empirical analysis of spatial patterns in voting. Statistical advances in mapping now allow for hypothesis testing with spatial data. With all of this in mind, this dissertation seeks to use parsimonious data and complex yet straightforward spatial analysis to demonstrate how mapping in politics can answer key questions in the field of political science.

This dissertation uses precinct-level election data collected by the author to provide answers to three contemporary questions: (1) whether the electorate is more polarized, (2) whether politically like-minded people cluster or sort with those like themselves, and (3) whether partisans are sorting into parties based on ideology. In doing
so, this demonstrates the ability of spatial analysis to provide answers to contemporary political problems and the capacity of GIS methods to enhance election analysis.

**Summary and Description of Chapters**

The ongoing debate within the field of political science over polarization, sorting, and ideological constraint of voters is currently highlighted by two opposing camps. There are those who argue that polarization and the “culture war” is a myth and confined to elite discourse (Fiorina et al, 2006), while an opposing camp argues that polarization and geographic as well as ideological sorting are occurring within the electorate (Bishop, 2008; Abramowitz, 2008). Using an assortment of survey and election data, this dissertation will seek to prove that sorting and polarization are occurring and can be demonstrated using a case study of empirically tested spatial patterns of presidential voting behavior in a Metropolitan Statistical Area, defined by the US Census Bureau.

**Chapter 2** will use survey data from the American National Election Studies and the General Social Survey to explore whether there are major voting variations for the two major parties based on residential location. Primarily, data for this analysis comes from an in-depth analysis of the “urbanism” variable that existed in the ANES dataset from 1952 to 2000 and a similar variable added to the 2008 ANES study. Results from this analysis will begin to build the case for further spatial analysis.

**Chapter 3** is devoted to introducing the methods involved in the spatial analysis. It will detail data collection and how the election data are coded to account for precinct changes.
that occurred in counties between 1976 and 2008. This chapter will also describe the statistical methods employed for spatial analysis.

**Chapter 4** will examine whether politically like-minded individuals cluster toward one another by using voting results of presidential elections between 1976 and 2008 and analyzing precinct-level data in a metropolitan statistical area. This chapter will examine whether geographical clustering is occurring and if it has increased over time.

**Chapter 5** will use turnout and voting statistics to determine the degree of polarization and its impact on political participation. If polarization has increased over time, precincts with the highest degree of partisan voting should also have high levels of turnout or there should be an increase in turnout over time.

**Chapter 6** will test whether the electorate is ideologically sorting by partisanship. This is accomplished by examining the votes on same-sex marriage referendum that occurred in Kentucky and Ohio counties within the Cincinnati Metropolitan Statistical Area in 2004. This study will examine whether there is a correlation between presidential vote and the vote to ban same-sex marriages.

**Chapter 7** will summarize the results of the findings and offer recommendations for further research.
Chapter 2

Presidential Voting and Residential Location

One of the most pressing reasons cited for the continued use of spatial analysis and political mapping is the lack of geographic information available in survey data. In his article discussing the need for political mapping, King highlights the methodological difficulties posed by trying to narrow down survey respondents’ locations and extrapolating conclusions from a smattering of points on a map. Even if it was accomplished, he argues that the amount of information that could be gained from such an endeavor would be small (King, 1996). Despite these problems, there are variables in the American National Election Study (ANES) and the General Social Survey (GSS) that enable an analysis of respondents based on residential location.

Within the GSS dataset, the population size of the county in which a respondent resides is an available variable. It is expected that this variable will shed some light on the importance of geographic location and voting behavior. The second and far more useful variable is the “urbanism” variable within the ANES. This variable was used between 1952 and 2000 and provides a large range and number of respondents to examine to find if there is an association between residential location and voting behavior. The “urbanism” variable was removed after the 2000 ANES survey, and the item put in its place for the 2004 survey was not comparable for a valid comparison. However, the variable for residential location established for the 2008 survey is much
more comparable to the original “urbanism” variable and, despite some validity issues, is worth examining.

This section of the dissertation will examine presidential voting behavior by respondents in surveys based on their residential location. The analysis will use longitudinal data from the ANES and GSS surveys to test the various hypotheses. This analysis will provide a basis for examining geographical clustering of politically like-minded individuals and not only the geographical sorting of partisans but the ideological polarization of partisans in geographic areas. This analysis will also answer the question of what is causing people who live in similar locations to exhibit similar political behavior.

**Literature on Residential Location and Partisan Political Behavior**

Overall, the literature available on the relationship between residential location and voting and/or political behavior is relatively scarce. There are several reasons political scientists have, to varying degrees, avoided voting analysis by residential location. The first, and likely the largest cause of the void in analyses, is that there is no agreed-upon definition of urban, suburban, and rural. Despite attempts by geographers, demographers (especially the Census Bureau), political scientists, and a host of other social scientists, there is no easy way to clearly delineate residential location, nor does there seem to be any clear consensus on the matter. To borrow from Justice Potter Stewart, many social scientists view defining residential location like obscenity and “know it when [they] see it.”

In addition, political scientists also have eschewed residential location because survey methods have made so many other social and group characteristics that it is easier
and more telling to focus on the “who” not the “where.” And even if a definition of residential location could be agreed upon, it is constantly in flux. Areas that were recently large swathes of farmland have been converted to large-scale residential neighborhoods. Areas that were once considered suburban, just outside the urban center, are abandoned and become related with the urban setting. To further complicate matters, large urban areas that largely became abandoned are bulldozed and resemble farmland. Such changes create validity issues when attempting to make assumptions about a location based on zip code, county name, or addresses over time.

These methodological and operational problems make defining and studying political behavior in residential areas difficult. However, there are political and demographic studies that provide evidence of political behavior in residential areas and explain why voters who live in different residential locations vote differently.

Some of the earliest studies that identify residential location and voting behavior come from the *American Voter* and V.O. Key’s *Southern Politics in State and Nation*. In the *American Voter*, Campbell, et al., have a chapter on “agrarian political behavior” in which they examine how the portion of the electorate that lives on small and large farms behave politically. They found that rural voters in the South had little if any political options and overwhelmingly voted Democratic. Rural voters elsewhere were considered reliably Republican except in elections in which there was a “farmers revolt” in which large numbers of rural voters would vote Democratic (Campbell et al., 1960). Key’s conclusions about rural voters in the South largely mirrors those of Campbell and his co-authors, that outside of some counties in mountainous regions in several Southern states, rural voters in the South voted reliably Democratic, with the only competition coming in
the Democratic Primary. Key also noted islands of Republican voters in several cities throughout the South (Key, 1949).

Two recent pieces that discuss rural voters are *What’s the Matter with Kansas?* by Thomas Frank and, to a large degree a response to Frank’s book, an article by Gimpel and Karnes (2006) discussing the rural side of the urban-rural voting gap. Frank’s book is a completely qualitative piece that examines rural voters in Kansas. Although most of the book focuses on why rural voters vote the way they do and why Frank believes they vote contrary to their interest, there is empirical information that is important to this study. Specifically, rural voters, particularly in Kansas, vote reliably Republican (Frank, 2004).

Gimpel and Karnes’ article on the rural-urban divide makes several contributions. The article is written to contest the conclusions of Frank’s *What’s the Matter with Kansas?*, in which Frank contends that rural voters ignore their economic interest to vote for conservatives and Republicans. Gimpel and Karnes contend that there are social and economic forces that drive rural voters to favor Republicans. They use ANES data to examine the economic and social identity of rural voters and explain that those voters are voting in line with their economic and social interests and are not, in fact, disenfranchising themselves. Key aspects of that article for this study are the conclusion that rural voters have gradually migrated toward the Republican Party and that it uses the GSS county population variable to analyze the movement of urban voters toward the Democratic Party and rural voters toward the Republican Party. The analysis by Gimpel and Karnes creates four variations of county size and tracks them over time to better explain rural voting. They examine the difference in voting preferences between
respondents who live in counties with populations of 300,000 and above and one million and above and those who live in counties with populations of 25,000 and below and 10,000 and below (Gimpel and Karnes, 2006).

Lisa McGirr, a Harvard historian, wrote a recent book in which she tracks the origins of what she calls the “new American right” by examining Orange County, California from the 1960s forward. According to her book, *Suburban Warriors*, the current manifestation of the Republican Party that is linked to conservatism can be traced to suburbanites. Using the case study of suburban Orange County, McGirr uses a compilation of interviews, studies on population shifts, newspaper articles, group memberships, and voting records to argue that the “new American right” exists primarily in the suburbs (McGirr, 2001).

Another article on suburban voting, one with empirical and statistical evidence to support its conclusions, was completed by McKee and Shaw. Their article is critical not only for its conclusions, but for the methods that they employ. Using the “urbanism” variable in the ANES dataset, McKee and Shaw argue that suburban voters have voted reliably Republican since 1952, but, during the Clinton era, they were a less reliable vote for Republican presidential candidates. To test their hypotheses, they use binary logistic regression to examine respondents by group nested within Democratic presidential voting and then further examine groups labeled as “suburban” within the “urbanism” variable (McKee and Shaw, 2003).

Much of the literature on urban voters is dated, and there are few contemporary articles that examine urban voting. However, a geographer who has written some articles about urban society deserves some attention. Richard Florida, an economic geographer,
has written extensively about the creative class and the importance of cities to appeal to this new group. He defines the creative class as a fast growing, highly educated, and well-paid segment of the workforce. This creative class seeks out cities that are more tolerant, diverse, and open to creativity. Florida also created something called the “gay index,” which theorizes that cities with higher gay populations attract more talent and new, high-tech industries (Florida, 2002). Although Florida does not examine voting habits, his conclusions imply that urban areas are diverse and attract people who have more liberal political ideologies and offer evidence to explain the large movement of urban voters toward the Democratic Party.

Another key piece to understanding residential location and voting behavior comes from a report out of Brown University that is related to demographic trends. Demographers have found that over the last several decades, census data indicates a large-scale voluntary segregation within American society (see Table 2.1). Despite the move of large numbers of African-Americans into the middle class, segregation among blacks and whites still remains at high levels. Segregation between whites and Hispanics and Asians has increased. Some of this segregation can be explained because newly arrived immigrants move to areas with those of the same background. Ultimately, the demographic data from this report shows a society that is deeply segregated by ethnicity. This segregation can have deep impacts on voting behavior, as discussed below (Logan and Stults, 2010). In addition to the Brown University report on census data, another report from an urban think tank has more results that, although focus on economic and demographic trends, have enormous political results. According to the report on the 2005-2009 Community Survey census numbers, younger Americans are flocking to
urban areas. Two-thirds of the nation’s fifty-one largest cities saw a dramatic increase in the number of young, college educated residents. Even in cities that lost large numbers of residents, such as Detroit and Cleveland, these cities still gained younger well-educated people. As of the recent census numbers, younger adults with a four-year college degree were ninety-four percent more likely to live in urban neighborhoods than those of the same age with less education (Impresa for CEO’s for Cities, 2011).

**Hypotheses**

There are several expected findings that are presented here to consider during the discussion portion of the analysis. The first hypothesis deals with expected voting behavior by residential location:

*Hypothesis 1: Voters in urban areas are significantly more likely to vote for Democratic presidential candidates, while voters in rural and suburban areas are significantly less likely to vote for Democratic presidential candidates.*

It is expected that regardless of the candidate and the election, voters in urban areas will represent a key constituency for the Democratic Party while voters in suburban and rural areas represent a key constituency for the Republican Party. The next hypothesis deals with the theory as to why location matters. If the theory of geographical sorting is true, then urban residents should be overwhelmingly comprised of key Democratic constituencies and suburban and rural areas comprised of key Republican constituencies, otherwise the idea of sorting and “like attracting like” would be called into question.

*Hypothesis 2: Voters in urban areas are significantly overrepresented by constituencies that overwhelmingly support the Democratic Party while voters in*
suburban and rural areas are significantly overrepresented by constituencies that overwhelmingly support the Republican Party.

Finally, if Democratic voters are sorting into urban areas and Republican voters into suburban and rural areas, and if ideological sorting is also occurring, then it would be reasonable to assume that survey respondents in each residential area would exhibit positive and negative feelings towards issues and images that align with ideologies of each, overall.

Hypothesis 3: There will be statistically significant correlations between residential location and “feeling thermometers” that gauge feeling on partisan issues and images.

Each hypothesis will be tested and discussed based on the statistical analysis provided.

Methods

Data for this research were obtained primarily from the cumulative ANES data file and the 2008 ANES election surveys. Also, to augment the argument made here and show a consistency in the findings, the GSS cumulative data file was used to show a similar trend in residential voting. There is no attempt to make a new definition of what is urban, suburban, or rural, and these definitions are either gathered from the individual data sets (ANES predefines these), or previous instructions from the literature are employed. In the case of the GSS data, respondents who live in counties with a population of 300,000 or more and respondents that live in counties with a population of 299,999 or less are analyzed (see Gimpel and Karnes, 2006).

In the ANES cumulative data set, the “Urbanism” variable is recoded into three different dummy variables that are used in the different statistical analyses: urban
(urban=0 and all others=1), suburban (suburban=0 and all others=1), and rural (rural=0 and all others=1). It is critical to note that the “Urbanism” variable is no longer in use after the 2000 ANES survey due to the use of new methods to collect survey responses. However, there are variables that somewhat replicate the “Urbanism” variable that were re-coded into the appropriate dummy variables. In 2004, the variables that denote residential location are split between “urban” and “rural” and are not comparable and not used in this analysis. In 2008, “rural town” and “rural farm” were coded into the dummy variable rural (rural town and farm=0, all other=1), suburban was re-coded into a dummy variable (suburban=0 and all others=1), and “urban, residential only” was also re-coded into a dummy variable urban (urban, residential only=0 all others=1). It is important to note that the 2008 variables are not completely comparable to the previously used “Urbanism” variable; therefore it is critical to note that there are some validity issues when using the 2008 variables compared to the “Urbanism” variable used between 1952 and 2000. These variables are used to make the argument that residential location is an important factor in voting behavior and demonstrate that partisan geographic sorting is occurring. Finally, within the GSS data set, a fourth dummy variable was created (respondents living in a county with a population of 300,000 or over=0 and all others=1).

In order to analyze the data further, particularly in order to examine statistical relationships using Logistic Regression, several variables within each data set were recoded. In each analysis, the dependent variable is a vote for the Democratic candidate. This was accomplished in the ANES cumulative dataset (1952-2000) by recoding the Democratic candidate as “0” and the Republican and other major third-party candidates as “1.” In the 2008 ANES dataset, Obama was recoded into a “0” and McCain and any
third-party candidates were given a “1.” Within the GSS dataset, each of the presidential elections had to be recoded into the two major party candidates, with Republican candidates and major third-party candidates receiving a “1” and the Democratic candidate receiving “0.”

In order to further analyze the data within the GSS and multivariate modeling, several other demographic and political variables were made into dummy variables, including: Democratic Party affiliation (1=Strong Democrat, Weak Democrat, and Independents who lean Democratic, 0=all others), Republican Party affiliation (1=Strong Republican, Weak Republican, and Independents who lean Republican, 0=all others), Conservative Ideology (1=Extremely Conservative, Conservative, Slightly Conservative, 0=all others), Liberal Ideology (1=Extremely Liberal, Liberal, and Slightly Liberal, 0=all others), Black (1=Black, 0=all others), Catholic (1=Catholic, 0=all others), Jewish (1=Jewish, 0=all others), Age (18 and up), Female (1=Female, 0=Male), Above High School (any schooling above high school), Income Above $25,000 (1=income greater than $25,000, 0=all others), Marital Status (1=married, 0=all others), and Union Household (1=respondent belongs, respondents spouse belongs, respondent and spouse belong, 0=all others).

Within the ANES data sets previously mentioned, other key demographic and political variables were also dummy coded into new variables to observe the independent effect of residential location on vote choice. The following variables within the ANES cumulative file and 2008 election file received dummy codes: Female (1=female, 0=all others), Black (Black=1, all others=0), Ages 18 and Up, Income (all percentiles), Catholic (1=Catholic, 0=all others), Jewish (1=Jewish, 0=all others), Education
(Attainment Grade School and Beyond), Married (1=Married, 0=all others), Union Household (1=Union Household, 0=all others), Democratic Party Identification (1=Democrat, 0=all others), and Republican Party Identification (1=Republican, 0=all others). It should be noted that while most of the variables used in the cumulative data file were replicated in the 2008 ANES data sets, some variables may vary slightly but remain comparable.

**Analysis and Discussion**

The first part of this analysis will examine the data from the GSS survey. Using the population of a respondent’s county as a proxy to define urban and non-urban areas, respondents living in counties with a population of less than 300,000 are separated from those living in counties with a population of 300,000 or more. This designation comes from Gimpel and Karnes’ (2006) article. Although a higher threshold to denote urban might have decreased the chances of picking up a large rural or suburban county, the number of respondents would be too low for a meaningful analysis, as only twenty percent of the respondents in the GSS dataset live in counties with a population of 300,000 or more.

After creating the proxy for urban and non-urban and examining the percent that voted for the Democratic candidate in each of the elections analyzed, a clear voting pattern becomes evident (Table 2.2). The percentage of Democratic voting in the urban areas is consistently higher than the national average indicated in the GSS survey. With the exception of 1976, each year the proxy urban Democratic vote percentage is higher than the national average by double digits. A chi-square test of the findings indicates statistically significant results for each election year. To further test the influence of the proxy urban variable among other demographic and political variables, a multivariate
analysis was conducted (see Table 2.3). The results indicate that if the proxy variable for urban increases one unit, holding all other independent variables constant, then it is expected that there will be 0.125 increase in the log-odds of Democratic presidential vote. The proxy urban variable in the model is statistically significant at $p < 0.05$ (0.005). Despite the inherent problems with proxy urban indicator, it does offer a statistically significant variable indicating that geographic location and voting behavior do have a relationship.

After finding that the proxy urban variable in the GSS analysis is a statistically significant indicator of voting behavior it is important to examine the demographic and political variables within the variable to test the overall theory of what is driving vote difference between residential locations. Another multivariate model was run with all of the same variables, minus the proxy urban and non-urban variables. This model, though, examines variables nested in the proxy urban variable, with the dependent variable remaining vote for the Democratic presidential candidate between 1968 and 2004. The findings (see Table 2.4) indicate overall that groups that generally vote Democratic, including those who consider themselves Liberals, Democratic partisans, and African Americans, are significantly more likely to vote for the Democratic candidate within the proxy urban variable. Groups that, overall, tend to vote more Republican, such as Conservative ideologues, Republican partisans, and those who are married, were less likely to vote for the Democratic candidate within the proxy urban variable.

Overall, the analysis of the GSS data yields helpful results and a preliminary indication that there is a difference in voting habits based on residential location. However, the proxy variable for urban, within this dataset, leaves much to be desired.
Without any way to gauge density or remove from the proxy urban variable respondents who reside in large counties, the proxy urban variable within the GSS dataset only provides a somewhat flimsy starting point for understanding residential political behavior.

The ANES cumulative database is one of the few datasets that provides a consistent geographic marker for residential location. Between 1952 and 2000, the dataset used the same variable, referred to as the “urbanism” variable, which consistently labeled respondents’ residential dwellings as being located in either rural, suburban, or urban areas. The 2004 ANES residential indicator is not compatible with the original “urbanism” variable, in that it lists respondents’ residences as being in either urban or rural locations, creating an insurmountable reliability issue. However, in the 2008 ANES dataset, the residential coding for respondents included two choices for rural (farm or small town), suburban, and urban. Although the 2008 variable is not the same as the “urbanism” variable used between 1952 and 2000 and does pose some validity issues, it is reliable enough to include in the analysis and provides a more recent milestone.

The three classified residential locations are separated and examined for each presidential election (see Table 2.5). Between 1952 and 1968, residential location and the percent that voted for the Democratic presidential candidate is subject to several dramatic swings and shifts. In fact, in the Eisenhower landslide of 1956, the chi-square analysis conducted finds that the difference between the expected and observed variables is not statistically significant. However, starting in 1972, there is a clear progression for urban areas to vote reliably Democratic. Respondents in suburban and rural residential locations maintain a fairly consistent pattern, with some variations, toward voting against
the Democratic candidate. Aside from the 1956 presidential election, the chi-square statistic indicates that there are significant differences in residential voting patterns in each election, with some elections having higher scores than others. This chart shows that there is significant disparity between presidential voting patterns based on residential location.

To investigate the importance of residential voting, dummy variables capturing rural and suburban residential locations (with urban as the excluded reference category), along with several demographic and political variables, were put into a multivariate model where vote for a Democratic candidate for president is the dependent variable (see Table 2.6). The same analysis was repeated with the urban dummy variable included without the rural and suburban dummies (see Table 2.7). In the cumulative dataset, all three residential locations are statistically significant in the logistic regression. However, in the 2008 ANES dataset, none of the residential locations except rural is statistically significant. This might be explained by the lower number of responses or President Obama’s strong showing across all residential area respondents or due to the change in how the residential locations are defined, causing validity issues.

The data from both the GSS and ANES indicates that there are differences between the political behaviors of survey respondents based on residential location. Three more logistic multivariate models are provided (Tables 2.8, 2.9, and 2.10) to further analyze the causes of the voting disparity. Essentially, at this point it is a “chicken and egg” argument. Are voters in certain residential areas more inclined to vote differently because of their location, or are the voters themselves geographically clustered
in such a way that groups with prior well-defined partisan behavior cluster within certain residential areas?

Examining the demographic and political variables nested within each of the residential locations seems to indicate that location is not the cause of voting behavior; partisans and groups within each residential area are consistent in their voting patterns. Looking at race, African Americans, regardless of location, favor Democratic candidates. Democratic and Republican partisans vary minimally across residential location in supporting their party. Married respondents, when significant, are less likely to vote for the Democratic candidate, while respondents who are members of unions, when significant, vary little in support for Democratic candidates. Ultimately, regardless of residential location, there is a high degree of consistency among certain demographic groups and partisans to vote for or against Democratic candidates (see Tables 2.7, 2.8, and 2.9). It is also interesting to note that the ANES findings are consistent with the GSS findings.

The final piece of the analysis is to determine whether there is any significant correlation between residential location and several feeling thermometers within the ANES cumulative dataset and the 2008 dataset that would likely illicit an ideological response. Feeling thermometers that exist in both datasets were analyzed. Despite some minor variations between the question wording in the feeling thermometers, it is expected that any validity issues will be minor.

Feeling thermometers for both parties were tested on the three residential locations. Urban respondents have a consistently positive, statistically significant correlation with warm feelings toward the Democratic Party, while Rural and Suburban
respondents register negative, statistically significant correlations with the Democratic Party thermometer ratings. As expected, the opposite is true when examining the Republican Party feeling thermometer analyzed by residential location. Urban respondents register a negative, statistically significant correlation with the Republican Party, while rural and suburban respondents have a positive, statistically significant correlation. Correlations between feeling thermometers for conservatives and liberals and residential location yielded results similar to the party feeling thermometers. Urban respondents had positive, statistically significant correlations for liberals and a negative, statistically significant correlation with feelings toward conservatives. Conversely, suburban and rural respondents had a negative, statistically significant correlation with liberals and a positive, statistically significant correlation with conservatives. The only difference is that the party feeling thermometers yielded higher statistical significance than the ideology feeling thermometers.

Correlations of feeling thermometers on several other issues, including race, union membership, illegal immigration, gays and lesbians, and other topics, were also tested to find if there is a relationship with residential location. These issues seemed the most likely to elicit a partisan response if there is geographic clustering of politically like-minded people. The race feeling thermometers, feeling towards “Blacks” and “Whites,” indicate that there is a positive, statistically significant relationship between the “Black” feeling thermometer and urban residence and a negative, statistically significant relationship between the “White” feeling thermometer and urban residence. Respondents in rural residences, conversely, register positive and statistically significant correlations with the “White” feeling thermometer and negative, statistically significant correlations
with the “Black” feeling thermometer. Suburban respondents in the ANES cumulative data file register a negative, statistically significant correlation with both the “White” and “Black” feeling thermometers, while suburban respondents in the 2008 ANES data set register positive, but not statistically significant correlations with both feeling thermometers that deal with race. There is a positive, statistically significant relationship with urban respondents and the “People on Welfare” feeling thermometer, while rural and suburban respondents were found to have negative and statistically significant correlations with the same thermometer.

The last group of feeling thermometers tested with residential location yielded a different pattern of correlations. The feeling thermometer with “Poor People” had positive and statistically significant correlations with both urban and rural respondents in the cumulative ANES data set and negative, statistically significant correlations with suburban respondents. However, the correlations were not statistically significant with any of the residential respondents in the 2008 ANES file. The feeling thermometers dealing with illegal immigrants and gays and lesbians both show positive, statistically significant correlations with urban respondents in the cumulative ANES data set. Within the 2008 ANES data file, a positive yet not significant correlation between the gay and lesbian thermometer exists. Rural respondents show a negative, statistically significant correlation with both the gay and lesbian and illegal immigrants feeling thermometers. Suburban respondents show a positive correlation with both the illegal immigrant and gay and lesbian feeling thermometers but the correlations are not significant.

The institutional feeling thermometers yielded a range of results. The feeling thermometer that registers feelings toward “Big Business” has no statistically significant
correlations across the board with all respondents in all residential locations. Urban respondents were positively and significantly correlated with the feeling thermometer dealing with labor unions, while rural and suburban respondents were negatively and significantly correlated with the Union Feeling Thermometer. Finally, the Federal government feeling thermometer has positive and statistically significant correlations with urban respondents in the cumulative ANES data set, and negative, statistically significant correlations with suburban and rural respondents in the same data set. However, the 2008 ANES file shows that correlations with residential respondents and the Federal Government feeling thermometer are not statistically significant.

Further Evidence of a Pattern of Residential Voting in 2008

One would expect the 2008 election to be the “perfect storm” in analyzing urban versus non-urban voting behavior. Unfortunately, due to ANES doing away with the “Urbanism” variable after 2000 and the problems of comparability, the statistical evidence presented so far is not overwhelming. However, there is other data that shows a clearer divide between urban and non-urban voting behavior in the 2008 presidential election.

In 2008, according to Gallup post-election polls, 99 percent of African Americans voted for President Obama. Exit poll numbers that look specifically at urban populations and their votes show a clear trend within urban voting. In a New York Times exit poll, those who identified themselves as living in a “big city” provided President Obama with a 42 percent margin of victory over McCain (70 percent President Obama, 28 percent McCain, and 2 percent other). In the same exit poll, those who identified as living in a “small city” voted for Obama by 59 percent, with only 39 percent voting for McCain.
(Saad, 2008). In an exit poll by MSNBC, 70 percent of those who identified themselves as living in a city of over 500,000 people voted for President Obama and 59 percent of those who identified themselves as living in a city of between 50,000 and 500,000 people. These numbers indicate a great divide between how those who live in urban, suburban, and rural areas vote, how they identify their political ideology, and perhaps most tellingly, who lives in these different areas.

**Conclusions**

The evidence indicates that there are significant differences between residential location and voting behavior, particularly voting patterns in presidential elections. The data, particularly from Tables 2.2 and 2.5, accept Hypothesis 1, that respondents in different residential areas vote differently from one another. The largest difference between voting behavior, according to the data, is between urban respondents and respondents residing in suburban and rural areas, overall. The only piece of the data that does damage to the urban, suburban/rural split in voting behavior is reflected in Table 2.6, which indicates a negative relationship between urban respondents and Democratic Presidential vote equal to that of rural respondents.

Tables 2.8, 2.9, and 2.10, as well as the table of residential segregation (Table 2.1), provide evidence that indicates that Hypothesis 2 can be accepted. The multivariate analysis of each residential location demonstrates that within each location, those who are more likely to vote for or against the Democratic presidential candidate are significantly uniform. This finding suggests that a driving force behind the difference in voting by residential location is the number of Democratic partisans in some residential locations relative to others. This lends support to King’s conclusions about the state of contextual
theory in national elections, particularly presidential elections, i.e., that there is not much to examine because survey data has successfully indicated who is supporting the candidates of either party. However, there are two caveats. First, we would need longitudinal data to determine a person’s residential location changes his or her previously held political preferences over time. In other words, cross-sectional data cannot fully address the “chicken or egg” questions of causality mentioned earlier. Second, as noted at the outset of this chapter, the geographic variables in survey data are quite limited. Further analysis with more precise spatial measures may well yield different findings.

Finally, Hypothesis 3 is also accepted based on the findings in Table 2.11. Each residential location exhibits statistically significant correlations with almost every feeling thermometer, indicating ideological consistency. It is also worth noting the urban respondents exhibited ideological consistencies that are considered more liberal, and rural and suburban respondents exhibited ideological attitudes that are consistent with a conservative ideology. If there is any truth to the relationship between partisanship and ideology (discussed in Chapter 5), then this consistency would also indicate a partisan leaning consistent with the findings in Tables 2.2 and 2.5.

This chapter indicates that there is a relationship between where people live and voting behavior, particularly presidential voting behavior. Survey data provided large amounts of evidence about who votes Democratic and who votes Republican, but shed little light on where voters are and the degree to which they are concentrated. Finally, there is evidence between partisan voting and ideological leanings based on location. The data in this chapter provides a clear indication that there is a relationship between
location and voting. However, there are several methodological problems, and with the changing of the “Urbanism” variable by ANES and the near total abandonment of geographic markers by other survey houses (such as Gallup), it becomes even more important to use spatial analysis to provide more conclusive results to several of the questions already discussed.
Table 2.1: De-Facto Segregation in American Communities

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<tbody>
<tr>
<td><strong>Blacks</strong></td>
<td></td>
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</tr>
<tr>
<td>Living in Neighborhood with Percent of People of Same Race</td>
<td>61.6</td>
<td>55.8</td>
<td>51.5</td>
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<tr>
<td>Percent Segregation from Whites</td>
<td>73.6</td>
<td>68.7</td>
<td>65.2</td>
<td>62.7</td>
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<td><strong>Hispanic</strong></td>
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<tr>
<td>Living in Neighborhood with Percent of People of Same Race</td>
<td>38.4</td>
<td>42.4</td>
<td>45.5</td>
<td>46.3</td>
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<tr>
<td>Percent Segregation from Whites</td>
<td>41.6</td>
<td>41.9</td>
<td>42.1</td>
<td>45.9</td>
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<td><strong>Asian</strong></td>
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<tr>
<td>Living in Neighborhood with Percent of People of Same Race</td>
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<td>18.5</td>
<td>21</td>
<td>21.4</td>
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<tr>
<td>Percent Segregation from Whites</td>
<td>41.6</td>
<td>41.9</td>
<td>42.1</td>
<td>45.9</td>
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Source: Brown University/US 2010 Project
<table>
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<tr>
<th>Table 2.2: General Social Survey Patterns of Residential Voting, 1968-2008</th>
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<tbody>
<tr>
<td>Democratic Share of Vote</td>
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<tr>
<td>Counties of 300,000 People and Over</td>
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<tr>
<td>57.7</td>
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<tr>
<td>Counties Under 300,000 People</td>
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<td>35.5</td>
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<tr>
<td>US Overall</td>
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<tr>
<td>40.6</td>
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<tr>
<td>Difference from National Average (Over 300,000)</td>
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<td>17.1</td>
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<tr>
<td>Difference from National Average (Under 300,000)</td>
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<td>-5.1</td>
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<tr>
<td>Chi-Square</td>
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Source: General Social Survey, National Opinion Research Center at the University of Chicago
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| n | 32965 |
| Log ratio Chi-Square | 27632.133 |
| Pseudo R-Square | 0.420 |

Source: General Social Survey, National Opinion Research Center at the University of Chicago
Table 2.4: Logistic Regression Analysis of Variables Within Residential Location, General Social Survey

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Source: General Social Survey, National Opinion Research Center at the University of Chicago
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Chi-Square: 15.448, 5.737, 30.136, 48.713, 5.983, 51.529, 54.473, 37.695, 55.730, 17.278, 25.300, 80.803

Significance: 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000, 0.000

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*Dependent variable is vote for Democratic candidate

Table 2.7: Logistic Regression of Residential Location (Urban) in Comparison to Other Variables, ANES

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Table 2.8: Logistic Regression of Variables within Urban Residential Location

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Log ratio Chi-Square 10209.303 888.447
Pseudo R-Square 0.113 0.235

*Dependent variable is vote for Democratic candidate
^Examines variables nested within the “urban” of the “Urbanism” variable
Table 2.9: Logistic Regression of Variables within Suburban Residential Location

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<thead>
<tr>
<th></th>
<th>1952-2000</th>
<th></th>
<th></th>
<th>2008</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
<td>Significance</td>
<td>Coefficient</td>
<td>SE</td>
<td>Significance</td>
</tr>
<tr>
<td><strong>Party Identification</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Democratic</td>
<td>1.608</td>
<td>0.089</td>
<td>0.000</td>
<td>1.523</td>
<td>0.168</td>
<td>0.000</td>
</tr>
<tr>
<td>Republican</td>
<td>-0.998</td>
<td>0.108</td>
<td>0.000</td>
<td>-2.074</td>
<td>0.333</td>
<td>0.000</td>
</tr>
<tr>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Black</td>
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<td>0.001</td>
<td>0.895</td>
<td>0.200</td>
<td>0.000</td>
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<tr>
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</tr>
<tr>
<td>Catholic</td>
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<td>0.000</td>
<td>0.197</td>
<td>0.188</td>
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<tr>
<td>Jewish</td>
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<td>0.000</td>
<td>1.554</td>
<td>0.989</td>
<td>0.116</td>
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<td>Degree</td>
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<td>1.451</td>
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<td>0.216</td>
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<tr>
<td>18 and Up</td>
<td>-0.672</td>
<td>0.311</td>
<td>0.031</td>
<td>0.871</td>
<td>0.655</td>
<td>0.183</td>
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<td><strong>Gender</strong></td>
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<tr>
<td>Female</td>
<td>0.174</td>
<td>0.057</td>
<td>0.002</td>
<td>0.297</td>
<td>0.161</td>
<td>0.065</td>
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<td><strong>Income</strong></td>
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<tr>
<td>Family Income</td>
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<td>0.160</td>
<td>0.661</td>
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<td>0.025</td>
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<tr>
<td>Union Household</td>
<td>0.311</td>
<td>0.063</td>
<td>0.000</td>
<td>0.092</td>
<td>0.246</td>
<td>0.709</td>
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<td><strong>Constant</strong></td>
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<td>Pseudo R-Square</td>
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</table>

*Dependent variable is vote for Democratic candidate

^Examines variables nested within the “suburban” of the “Urbanism” variable

Table 2.10: Logistic Regression of Variables within Rural Residential Location

<table>
<thead>
<tr>
<th></th>
<th>1952-2000</th>
<th></th>
<th></th>
<th>2008</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
<td>Significance</td>
<td>Coefficient</td>
<td>SE</td>
<td>Significance</td>
</tr>
<tr>
<td>Party Identification</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Democratic</td>
<td>1.720</td>
<td>0.089</td>
<td>0.000</td>
<td>1.283</td>
<td>0.249</td>
<td>0.000</td>
</tr>
<tr>
<td>Republican</td>
<td>-757.000</td>
<td>0.111</td>
<td>0.000</td>
<td>-1.747</td>
<td>0.462</td>
<td>0.000</td>
</tr>
<tr>
<td>Race</td>
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<td></td>
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</tr>
<tr>
<td>Black</td>
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<td>0.095</td>
<td>0.000</td>
<td>1.342</td>
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<td>0.000</td>
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<td>Religion</td>
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</tr>
<tr>
<td>Catholic</td>
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<td>0.000</td>
<td>0.433</td>
<td>0.318</td>
<td>0.173</td>
</tr>
<tr>
<td>Jewish</td>
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<td>0.003</td>
<td>20.678</td>
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<td>0.999</td>
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<td>Education</td>
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<tr>
<td>Above a High School</td>
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<td>2330.000</td>
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<td></td>
</tr>
<tr>
<td>18 and Up</td>
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<td>0.999</td>
<td>0.493</td>
<td>0.791</td>
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<td>0.023</td>
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<td>Income</td>
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</tr>
<tr>
<td>Union Household</td>
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<td>0.377</td>
<td>0.443</td>
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</tr>
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<td>Pseudo R-Square</td>
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<td>0.255</td>
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</tbody>
</table>

*Dependent variable is vote for Democratic candidate
^Examines variables nested within the “rural” of the “Urbanism” variable
Table 2.11: Residential Location and Correlations with “Feeling Thermometers”

<table>
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<tr>
<th>Correlations with &quot;Feeling Thermometers&quot;</th>
<th>1952-2000</th>
<th></th>
<th></th>
<th>2008</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Suburban</td>
<td>Urban</td>
<td>Rural</td>
<td>Suburban</td>
</tr>
<tr>
<td>Democratic Party</td>
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<td>-0.020</td>
<td>-0.066</td>
<td>0.124</td>
<td>-0.098</td>
<td>-0.063</td>
</tr>
<tr>
<td>Republican Party</td>
<td>-0.073</td>
<td>0.065</td>
<td>0.079</td>
<td>-0.104</td>
<td>0.094</td>
<td>0.065</td>
</tr>
<tr>
<td>Blacks</td>
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<td>-0.069</td>
<td>-0.060</td>
<td>0.068</td>
<td>-0.083</td>
<td>-0.010</td>
</tr>
<tr>
<td>Whites</td>
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<td>0.108</td>
<td>-0.021</td>
<td>-0.047</td>
<td>0.053</td>
<td>0.024</td>
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<td>Big Business</td>
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<td>0.009</td>
<td>0.011</td>
<td>0.010</td>
<td>0.000</td>
</tr>
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<td>Labor Unions</td>
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<td>-0.028</td>
<td>-0.046</td>
<td>0.082</td>
<td>-0.070</td>
<td>-0.052</td>
</tr>
<tr>
<td>Liberals</td>
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<td>-0.033</td>
<td>0.098</td>
<td>-0.062</td>
<td>-0.076</td>
</tr>
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<td>Conservatives</td>
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<td>0.033</td>
<td>0.018</td>
<td>-0.058</td>
<td>0.037</td>
<td>0.063</td>
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<td>People on Welfare</td>
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<td>-0.057</td>
<td>-0.060</td>
<td>0.066</td>
<td>-0.042</td>
<td>-0.036</td>
</tr>
<tr>
<td>Poor People</td>
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<td>0.037</td>
<td>-0.044</td>
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<td>-0.007</td>
<td>-0.007</td>
</tr>
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<td>Federal Government</td>
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<td>-0.019</td>
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<td>Gays and Lesbians</td>
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<td>-0.198</td>
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<td>0.019</td>
<td>-0.091</td>
<td>0.029</td>
</tr>
</tbody>
</table>

*Italics and Bold for those significant at the 0.01 level. Italics for those significant at the 0.05 level.
Chapter 3

Methods: Data Collection and Spatial Statistics

Prior to beginning the spatial analysis of the Cincinnati Metropolitan Statistical Area it is imperative to describe how I collected, manipulated, and analyzed the data. The goal of this analysis is provide answers to several political questions using spatial data as the primary, rather than secondary, source of data. To accomplish this goal, it was determined that the methods for analysis should be parsimonious. Therefore, the methods used to accomplish the goals of making the analysis methodologically clear and simple require the odd arrangement of pulling together historical election data and boundary changes, current maps, and spatial statistics.

Area of the Case Study

The area involved in this spatial case study is the Cincinnati Metropolitan Statistical Area (MSA) as defined by US Census Bureau. This area is comprised of fifteen counties in three different states and includes five counties in Ohio (Brown, Butler, Clermont, Hamilton, and Warren counties), seven counties in Kentucky (Boone, Bracken, Campbell, Gallatin, Grant, Kenton, and Pendleton counties), and three counties in the State of Indiana (Dearborn, Franklin, and Ohio counties). The City of Cincinnati is located in Hamilton County, and there are various smaller cities and townships within Hamilton and the other surrounding counties. The purpose for selecting this MSA was its close proximity to where the research was being conducted.
It is important to note that the Cincinnati MSA, despite its unique physical geography and culture, does not vary greatly from other MSAs politically. It is expected that the spatial political patterns that are observed in the Cincinnati MSA will be largely applicable to other MSAs throughout the country and will vary depending only on the size of the MSA. It is expected the pattern will remain intact, and that the findings of this case study will largely, with some variation, be replicable in any other large American city and its surrounding area.

Unit of Analysis

The unit of analysis for the spatial analysis part of this dissertation is the precinct. In electoral geography and American political structures, the precinct is the smallest geographic unit of analysis. Administration of precincts usually involves a county entity, typically a Board of Elections or clerk’s office. Precincts are areas in which registered voters who live within their territorial boundaries must vote at a certain location, usually a location that can handle a large number of people and parking, such as administrative buildings, businesses, churches, or other community buildings. Tallies of precincts are available for each election within a county, and the county total is determined by the total tally of precinct election results. Precinct sizes vary by population density and administrative as well as budgetary capabilities. Usually, rural areas will have larger precincts because it takes larger areas to supply the number of people needed to justify polling staff and machinery. Suburban and urban areas have small precincts, in general, because of the higher population density. Overall, precinct size usually reflects the need to balance resources with the need to adequately serve voters. One of the problems,
discussed below, is that precinct boundaries change based on population as well as budgetary and administrative considerations.

The use of precincts as the unit of analysis presents an opportunity to get the greatest level of detail in a spatial analysis. To date, most spatial analyses have relied on state (Gelman, 2008) or county-level election data to draw conclusions (Bishop, 2008; Gimpel, 2004). This dissertation argues that spatial analyses of county-level voting data may lead to false or incomplete conclusions. The false or incomplete conclusions are due to the ecological fallacy.

The ecological (or sometimes referred to as the ecological inference fallacy) was first discussed by W. S. Robinson in his article "Ecological Correlations and the Behavior of Individuals." In his article, Robinson attempts to clarify problems with using ecological correlations and the practice of stating that there is an exact relationship between ecological and individual correlations. He also dismisses that practice of using ecological correlations as substitutes for individual correlations (Robinson, 1950).

Ultimately, by using large geographic units, such as states and counties, and then aggregating the election data, it is likely that the research will commit an ecological fallacy. Using precinct-level data minimizes the likelihood of committing ecological fallacy, presents a clearer picture of the true sense of the spatial voting pattern, and allows for more conclusive results.

**Data Collection and Processing**

Data for this dissertation were gathered from the election results of the fifteen counties within the Cincinnati MSA. Election results by precinct for the presidential elections that occurred between 1976 and 2008 were obtained mostly by going to each
county administrative office and copying the data or, in a few cases, by obtaining the election results online. Relevant election data were entered into a database by county, by year. The accessibility of election data varied by county, with some results available online while others were in large books that needed to be copied and entered into a spreadsheet.

Precinct boundaries, unlike county boundaries, change frequently (See Table 3.1). Several of the counties surrounding the City of Cincinnati saw huge amounts of population growth during the time period studied. As large numbers of people entered these counties, it became administratively necessary to increase the number of precincts. Precincts split based on population increases or for administrative expediency, but they are split into adjacent precincts. In other areas, particularly in the City of Cincinnati proper, precincts were merged because of the loss of population and the need to be efficient with election resources. If the population became too low, it no longer made sense to pay for staff and material to serve a small number of voters. Also, like precinct splits, at times it made geographic or administrative sense to simply combine precincts regardless of population.

The maps used for this analysis are of precinct boundaries as they were during the 2008 presidential election. In order to conduct the analysis properly, precinct data for each election needed to mirror that of the 2008 precincts. Using the 2008 precinct maps and boundaries as a starting point, precincts election results were manipulated in order to mirror the boundaries of the 2008 precincts. To account for precinct changes over time, several methods were employed. The majority of precinct changes that occurred between 1976 and 2008 were recorded in a county’s Board of Elections minutes or filed with the
Board of Elections. Other precinct changes could be obtained by viewing maps pre- and post- precinct change. In some cases, when a small group of precincts were lumped together and split without using former precinct boundaries, election data was reprocessed by taking the aggregate of the election data and then dividing by the number of new precincts.

When a precinct split, election data were split by the same proportion and, in some cases, added with other data if two or more precincts split to form a new precinct. Overall, most precincts split in half, and therefore, election results were also split in half. In the case of an odd number, since votes cannot be cast in fractions, the rule of thumb was to leave the extra vote with the original precinct. This methodology is used because it is impossible to find out which voters from what part of a precinct voted. Therefore, the only reasonable method to keep the original voting proportion of the original precinct is to split them by the same proportion that was split from the original precinct in order to create a new precinct. In the case of precinct mergers, precincts were simply aggregated together. In some cases, where there was no information about the precinct split, the data was left blank.

It is not unexpected that trying to understand the methodology of handling precinct changes over time may lead individuals to assume, incorrectly, that the voting results for past years are essentially put in a blender, mixed, and spit back out. In fact, the methods used here are extremely sensitive to the geography of the original voting records. They reflect the same proportion as they did in the relevant year, yet reflect that the area was split several times over the years. The proportion of the vote, which is the key to the whole analysis, remains intact, and it represents the same area as the original
precinct. This method allows for the most accurate and parsimonious analysis of precincts over time.

**Spatial Statistics**

In order for political mapping to move from being simply secondary or backup information to other forms of analysis it is necessary to identify spatial statistics that can provide empirical analysis of election data. Recent versions of GIS or ArcMap introduced spatial statistics that allow for empirical analysis of spatial patterns and clusters. The analyses completed in this dissertation rely on two specific spatial statistics that identify spatial patterns of polygons (precincts in this case) and clustering.

The statistic used to identify and measure spatial patterns is the Moran $I$, which is commonly used to measure spatial autocorrelation in aerial data (Rogerson, 2006). The Moran $I$ statistic will indicate if neighboring units, in this case precincts, over a study area have similar values. If this is the case, there will be an indication of a strong positive spatial autocorrelation. If the inverse is true, that neighboring aerial units have dissimilar values, then the Moran $I$ statistic will indicate a strong negative spatial autocorrelation. The values of Moran $I$ run from 1, indicating an extremely positive spatial autocorrelation, to -1, indicating an extremely negative spatial autocorrelation. It is important to note that zero does not indicate that a spatial autocorrelation does not exist. Although zero, particularly in this case, would seemingly indicate a reference point that distinguishes positive from negative spatial autocorrelation, it is not necessarily the case, and what it indicates will depend on the size of the spatial system (Wong and Lee, 2005). However, numbers close to zero indicate the absence of a spatial pattern (Rogerson, 2006).
Typically, the Moran $I$ will indicate whether polygons are in one of two spatial patterns. If there is a strong positive spatial autocorrelation, it is an indication that the polygons are clustered, or that polygons with similar results are in close proximity to one another. If there is a strong negative spatial autocorrelation, then polygons with similar values would be dispersed, indicating the different values have no relationship to one another and that the values are randomly distributed (Wong and Lee, 2005).

The other spatial statistic used to make determinations about the voting patterns in this dissertation, particularly clustering, is the Ord-Getis $G_i^*$ statistic, also commonly referred to as Hot Spot Analysis. The Ord-Getis $G_i^*$ statistic tests whether a particular location and its surrounding area have higher than average values of a certain variable (Rogerson, 2006). The statistic is similar to the Moran $I$ in that it measures clustering. Hot spots refer to areas that are clusters of high index values, while cold spots refer to clusters of low index values (Wong and Lee, 2005). In many ways it is a superior analysis because it provides indications of clustering and the spatial autocorrelation.

This chapter has described the collection and processing of election data and how the maps used in the following chapters were created. Using the data within the maps, the statistics above are used to provide empirical evidence to test hypotheses in subsequent chapters.
Table 3.1: Number of Precincts per County per Election Year

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
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<td>25</td>
<td>25</td>
<td>36</td>
<td>38</td>
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Chapter 4

The Little Sort: A Spatial Analysis of the Clustering of Politically Like-Minded People in the Cincinnati Metropolitan Statistical Area

A key part of the debate as to whether the American electorate is polarized centers around whether partisans and ideologues are deeply divided geographically. Political scientists and pundits have examined this closely over the last several elections. One of the most influential articles to come out of the discussion that argues that America is the “49% nation,” indicating the winning party in a variety of elections won by cobbling together 49 percent of the electorate within a given geography to win. This would indicate that the electorate is closely divided, but that the divisions do not run deep. An opposing camp of political scientists and pundits, such as Bill Bishop and Alan Abramowitz, argue that the electorate is closely and deeply divided.

In this chapter, I will argue that there is a deep partisan divide based on geography. People who think alike politically are clustered in geographic units. The idea that the American electorate is closely and not deeply divided is due to the fact that much of the geographic analysis of this phenomenon is conducted at too large a geographic unit, such as states (Gelman, 2008) or counties. This analysis will argue that there is a geographic sorting of politically like-minded individuals, and that it is best observed by using the smallest unit available in electoral geography: the precinct.

A large portion of the debate over polarization and the “culture wars” revolves around whether geographic sorting of politically like-minded people is occurring. This
chapter will examine this phenomenon using a case study of a census-defined metropolitan statistical area. Unlike previous studies that have attempted to answer this question, the unit of analysis will not be counties, rather precincts within counties. Patterns of presidential voting will be examined using empirical statistical analysis now available in GIS. Political mapping will provide empirical data to draw conclusions about the question of whether we are geographically polarized or whether, as Fiorina states in his book *Culture War? The Myth of a Polarized America*, we are confusing closely divided with deeply divided.

**Review of the Literature**

The literature of like attracting like spans an array of social sciences, including sociology, psychology, geography, and political science. The literature below reflects the diversity within the subject but focuses on the political research of “sorting.” It is also worth noting that the literature on this subject is mostly recent, indicating the newness of the topic.

One way in which sociologists and psychologists refer to the clustering of people of similar backgrounds is homophily. The definition of homophily is simply that “like attracts like.” Furthermore, homophily indicates that people tend to interact with people like themselves in traits such as physical, cultural, and attitudinal characteristics. People also tend to not interact as often with those who are dissimilar to themselves. Psychological research indicates that people feel more comfortable when they interact with people with similar belief systems and cultural traits. Another finding, important for the discussion of homophily in political science, is that people feel more justified in their beliefs when talking to others with the same or similar beliefs. Finally, the more people
interact, the more similar they become over time. Research has found that, even with the introduction of diversity into an area, groups will not interact, but instead form small clusters of cultural groups within the broader area (Centola et al., 2007).

The principle of homophily, that like attracts alike, structures social networks like friendship, marriage, membership, work, and variety of other social interactions. These social interactions have significant effects on communications and information that is received. The limit that homophily puts on people’s social world has important implications. These implications include attitude formation and interpretations of interactions that are experienced (McPherson et al., 2001).

Research on homophily indicates that the greatest divide between people is along racial and ethnic lines. Other divisions that are pervasive in society are divisions by age, religion, education, occupation, and gender. As people cluster in these groups geographically, ties between non-similar individuals dissolve. Despite the preponderance of communication technology, the bulk of social interactions occur within small geographic units, making family, friends, and co-workers still a key variable in understanding homophily (McPherson et al., 2001).

Within the field of political science, there are two groups with divergent ideas about whether politically like-minded individuals are geographically clustered. One group, spearheaded by writings by one of the greats in political science, Morris Fiorina, argues that divisions within the electorate are geographically close but not deep. Fiorina uses limited political mapping to make his points. However, in his book *Culture War? The Myth of a Polarized America*, he points to a state map of the Electoral College results of 2004. Using this map he argues that by observing state-level data it can be perceived
that America is deeply divided. However, he uses a map of counties and blends them based on the percent in each county who voted Democratic or Republican. A county that voted completely Republican in 2004 would be colored red, and a county that voted completely Democrat in 2004 would be colored blue, with varying shades of purple for those somewhere in between, leaving a map that is overwhelmingly purple. Using this map, which indicates a closely divided but not deeply divided electorate, he argues that there is no culture war but only a “culture skirmish” (Fiorina et al., 2006).

Fiorina also argues that the media are responsible for overplaying the differences between “blue” and “red” counties and states. He argues that the media uses examples from the “political class” and each other to highlight political differences, giving the impression of polarization, but that the average citizen is not representative of this sample. Furthermore, he argues that the press use extreme examples and “colorful” characters to illustrate the difference between Republicans and Democrats, liberals and conservatives, creating the perception of a deep split. Fiorina argues that if you look at the people who live in the same neighborhood of then Speaker of the House Nancy Pelosi, you would find a diversity of people of all backgrounds also implying all kinds of political backgrounds, as well. Ultimately, he argues that the media uses examples that fit their template of deeply polarized nation, creating this perception (Fiorina et al., 2006). This analysis would indicate the press plays a role in creating the perception that politically like-minded people are living in close proximity when in reality, according to Fiorina, they are not.

In the opposing camp, which argues that polarization of the electorate is occurring and having enormous effects on the political landscape, are political scientist Alan
Abramowitz and reporter Bill Bishop. Abramowitz, in his book *The Disappearing Center*, argues that geographic polarization has been increasing steadily since the 1970s. He argues that one-party domination in states has been on the increase, and competition at the sub-national level, especially congressional districts and counties, is declining to a point where one party dominates. Abramowitz argues (as does Levendusky 2009) that the increase in ideological alignment has caused a dramatic increase in the correlation between ideology and partisanship. Some manifestations of this that he cites are the movement of conservative whites from the Democratic to the Republican Party and the movement of liberal whites in metropolitan areas in the Pacific Coast, Midwest, and Northeast from the Republican to the Democratic Party. Abramowitz also argues, as does Bishop, that people who fit demographic and attitudinal characteristics of supporters of the Democratic and Republican Parties are moving to areas with similar people, creating counties that are intensely partisan and ideological (Abramowitz, 2010).

Another political scientist who examines the competitiveness of congressional elections, Oppenheimer, identifies three causes of the incumbency advantage and decline in competitiveness. The first explanation is that there has been “improved data and computer technology available to those doing the redistricting and the incentives they have to create noncompetitive districts.” A second explanation for the lack of competitive districts is “declining partisan competitiveness resulting from the creation of increasingly majority-minority districts.” The final explanation, and the argument most important to the thesis of this dissertation, is “that the increasing ability of Americans to select where they reside, and their tendency to do so on bases that are strongly correlated
with political party preferences, is the underlying cause for the decline in partisan competitiveness” (Oppenheimer, 2005, p. 136).

Oppenheimer argues that mobility has allowed Americans to select where they will reside. This is applicable to people across the social and political spectrum. White and blue-collar workers have multiple locations from which to choose from when deciding where to go to work. Retirees can select where and with whom they will spend their retirement. Even college students can select where they want to go to school nationally and are not bound by constraints of proximity. Although partisanship is most likely not a conscious consideration when determining a place to live, the criteria on which the decision of where to live are linked to partisanship and political ideology, hence the ease of movement has partisan consequences (Oppenheimer, 2005).

Partisan and ideological factors help people decide where to go to college, where to work and where to retire. After an area is selected, partisanship and ideology provide guidance in deciding where to reside once arriving at a certain locale, such as whether to live in the central city, a first or second tier of suburbs, or even in a more rural location. Oppenheimer uses this principle to explain the disappearance of Republican Congressional districts that once existed on the periphery of many Northern cities (Oppenheimer, 2005).

Oppenheimer argues that residential self-selection did occur in the past; however, it was not as extensive as it has been recently. Americans now tend to live in areas with people who are more ideologically similar. Voters today are less likely to live in areas that are politically heterogeneous or live near someone with different political points of
This phenomenon has made a significant impact on Congressional elections and has especially allowed for the parties to “pack” districts (Oppenheimer, 2005).

Perhaps one of the most important and extensive discussions of geographic political and ideological clustering was accomplished by reporter Bill Bishop and sociologist Robert Cushing. In their book, *The Big Sort*, they argue that Americans are moving to communities with politically like-minded individuals. Bishop argues that this sort has increased dramatically since 1976 and he uses county-level data to demonstrate the political divisions within the United States. These findings are based Bishop’s analysis of the percent of voters who live in a landslide county during competitive (where the margin of victory in the popular vote is single digits) and uncompetitive (where the margin of victory in the popular vote was in double digits) presidential elections since 1948. He uses presidential elections as the measurement of geographic political sorting because it is the one common election among all counties, which avoids the effects of having different candidates and changing voting districts. According to Bishop’s methodology, a landslide county is one in which there is a difference of twenty percent or more support for the presidential candidate of the two major parties. Bishop excludes third parties to even out the comparison over time (Bishop, 2008).

Bishop, like Oppenheimer, argues that people move to find good jobs, good schools, and safe neighborhoods, but an expanding economy, rising levels of education and a breakdown of older social groupings have allowed more personal choice in deciding where and how to live. Americans can move to places that reinforce their identities and find comfort among others like themselves. Bishop argues that the power of “assortative migration” would attract more Democrats to Democratic counties and
Republicans to Republican counties, making counties more politically and ideologically homogenous (Bishop, 2008).

Using counties as his unit of analysis, he argues that since World War II, the number of counties that have tipped in supporting one party each presidential election has grown considerably. Prior to the growth of the “tipping” phenomenon, the difference between Republican and Democratic presidential candidates over the years was usually between two and three percent in “untipped” counties. However, once a county tipped, the spread kept growing. According to Bishop, the trend was more pronounced in Republican counties since Democratic counties tended to attract a more diverse population. He also surmises that people who left Republican and Democratic counties in 2004 were highly likely to move into similar areas (Bishop, 2008).

The voting gap in presidential elections between the two parties increased between 1976 and 2004. This voting gap increased in 2,085 counties, making them significantly less competitive, while 1,026 counties became more competitive. To further prove the point, in the close election of 1976, only 38 percent of the nation’s counties had a disparity larger than twenty percentage points between voting for the Democratic and Republican candidates. However, looking at the close election of 2004, more than sixty percent of all of the nation’s counties produced landslide results. This tipping phenomenon is not relegated to specific regions. Every region in the country has become more segmented as it has tipped toward one party or the other (Bishop, 2008).

In his book, *Patchwork Nation*, James Gimpel examines sectionalism in several states throughout the country. He concludes that several sections and counties in several states are politically polarized. Gimpel points to several different underlying causes of
sectionalism or sorting within geographic areas. The five key determinants of sectional variation are:

1. Racially based sectionalism based in the uneven distribution of race-based settlement equates to unequal distribution of partisan support. Areas that have a majority of minorities, such as Blacks, will support Democrats, while areas that are predominantly White are more politically divided or likely to support Republicans.

2. Ethnically based sectionalism occurs where geographic differences in party support are founded in underlying ethnic diversity within a population that has distinct political identities. Those more likely to identify as Democrats are those in areas with ethnic diversity and recent immigrants, whereas people who live in areas that have a more native-born population are more likely to vote Republican.

3. Economically based sectionalism that identifies the main determinant of partisan support within a geographic area depends upon economic disparities, with those with lower incomes supporting Democrats and those with higher incomes supporting Republicans. Gimpel also points out that the uneven distribution may be rooted in professional backgrounds.

4. Ideologically based sectionalism occurs when there is an imbalance of partisanship within a geographic area. Ideological sectionalism is based on voters in one area having polarized ideological differences on issues. Hence, support for a party or candidate rest on the division between conservative and liberal voters.

5. Religiously based sectionalism occurs when party support is traced to the difference in religious traditions and moral beliefs (Gimpel, 2004).
These differences help explain in most instances why certain geographic units are heavily partisan. Although it is beyond the scope of the research of this dissertation to fully explain the reasons behind the geographic sorting of politically like-minded people, it is assumed that Gimpel’s explanation of sectionalism will broadly apply to the findings here.

**Hypotheses**

There are two hypotheses that are tested in this portion of the dissertation.

**Hypothesis 1:** There will be a significant increase in the spatial autocorrelation, defined by Moran $I$ statistic, within the precincts of the fifteen counties that make up the Cincinnati Metropolitan Statistical Area between the 1976 presidential election and 2008 presidential election.

If Bishop’s conclusions about counties are true, then the same should be expected of precincts over the same time period. Instead of simply counting counties that were won by the Democratic or Republican candidates, a more sophisticated, statistical method, the Moran $I$, is employed to determine if sorting is occurring.

**Hypothesis 2:** There will be a significant difference in the presidential voting behavior of voters within the precincts that will create an easily discernable pattern each presidential election.

Using the Ord-Getis $G^*$ statistic or Hot Spot Analysis, a clear pattern should emerge when examining the percent of the vote that the Republican or Democratic candidate receives. The pattern should resemble a “bull’s eye,” with the center being heavily Democratic and the periphery Republican.
**Methods**

A dataset of presidential election results between the years of 1976-2008 collected by precinct of the fifteen counties that comprise the Cincinnati MSA, modified to match 2008 precinct boundaries, was created (as described in Chapter 3). Once the dataset was established, totals for each precinct for each year were created to reflect the total number of votes cast for the two major party presidential candidates; votes for third party candidates were excluded from the total.

Using the number of total votes for the two major party candidates and the number of votes each candidate received in each precinct, two variables were created. The first was a sorting score that determined the percentage of victory of the Republican over the Democrat or visa versa. This score was completed using the following formula:

\[
\text{(Republican Votes/Total Votes)} - \text{Democratic Votes/Total Votes}
\]

This formula creates a score that ranges from 100, if all votes were for the Republican candidate, to -100, if all votes were for the Democratic candidate. A score of “0” would indicate that the precinct was split between the two parties, half voting Republican, half voting Democratic. These scores were used to determine whether a precinct was a “landslide” precinct and, if so, for which party. The landslide methodology is borrowed from Bill Bishop, in that he defined landslide counties as those where the margin of victory was twenty percent or more for one candidate or another. Also, like Bishop, third-party candidates were left out to keep continuity over each year and each state (some third-party candidates did not make the ballot in all three states in the study area for each election). If a precinct received a score of 0.20 to 1.00, the precinct was given a score of “1” indicating a Republican landslide. If the precinct received a score of -0.20 to
-1.00, a score of the “2” was given, indicating a Democratic landslide. Finally, if a
precinct had a score between -0.20 and 0.20, then the precinct received a score of “0,”
indicating there was no landslide victory. The numbering system accomplishes two
tasks: first, it makes the political mapping parsimonious and visually simple to
understand; second, it creates a system that can be tested using the Moran $I$ statistic.

The other formula used in this analysis is simply the percentage of the two-party
vote that is Republican in each precinct. This is determined using the following formula:

$$\frac{\text{Republican Votes}}{\text{Total Votes}}$$

Each precinct has a number representing the percent of voters within each precinct that
voted Republican, ranging from 0-100. This number is used in the Ord-Getis $G_i^*$ or Hot
Spot Analysis. Percent Republican is used as opposed to percent Democratic simply for
the color scheme that appears in the Hot Spot Analysis. Areas that appear a darker shade
of red are precincts that have a higher standard deviation of voting Republican, while
those precincts shaded blue, or cold spots, have a lower standard deviation in percent
voting Republican.

**Findings and Discussion**

The findings of the mapping and the subsequent statistical analysis provide
several key conclusions. The first part of the analysis will focus on whether there are
indications of geographic sorting of like-minded individuals. This analysis will rely on
the patterns created by the landslide precincts and on the Moran $I$ Index score indicating
the degree of spatial autocorrelation. The second part will examine the patterns created
by the Ord-Getis $G_i^*$ or Hot Spot analysis to determine what, if any, spatial pattern is
created within the MSA. Overall, the tables and figures with maps included therein
essentially speak for themselves, supporting the old adage that "a picture is worth a thousand words."

The maps of landslide precincts throughout the MSA provided for each presidential election indicate a growing pattern evolving from 1976 forward (See Figures 4.1, 4.3, 4.5, 4.7, 4.9, 4.11, 4.13, 4.15, and 4.17). The pattern of landslide precincts in the 1976 presidential election indicates that there is a concentration of Democratic-landslide precincts at the center or the City of Cincinnati. Surrounding those Democratic-landslide precincts is a circle of Republican-landslide precincts that create a very uneven bull’s eye shape at the center of the map. The precincts in the peripheral areas are largely Democratic-landslide precincts with a smattering of Republican-landslide and no-landslide precincts. Overall, the 1976 presidential election results by precinct within the study area yields a disjointed pattern with what looks to be a small, Democratic urban core, surrounded by suburbs that vote reliably Republican, and then rural areas that, overall, look to have voted Democratic but have an undefined pattern of voting results.

Beginning with Reagan’s first presidential victory in 1980 and into President George H.W. Bush’s first term in 1988, a clearer pattern begins to emerge. The central city precincts become more defined as major bastions of Democratic voters, while the suburbs remain strongholds of Republican support. Rural areas at the fringes of the study area begin to move from supporting Democrats to voting more Republican, with almost all of the outer areas becoming Republican-landslide precincts or no-landslide precincts by 1988.

The 1992 and 1996 presidential elections changed little in the way of voting patterns. The central city continued to be heavily Democratic with the areas just around
the city still heavily Republican. However, both the 1992 and 1996 presidential election saw several precincts in periphery counties become Democratic-landslide precincts since their hiatus in the 1984 election. The pattern of voting during these two elections becomes more like a bull’s eye, indicating that a stronger partisan pattern is emerging.

Between 2000 and 2008, the pattern of precincts becomes especially clear. The precincts in and around the central part of the city remain Democratic-landslide precincts with only a couple of other landslide precincts apparent in other more urban areas and around Miami University. All other precincts outside of the central city and other, smaller urban areas are Republican-landslide precincts.

The Moran $I$ statistic provides interesting results, as well. Each presidential election was found to be highly clustered, with a less than one percent chance that the pattern is the result of random chance, indicating that each election yielded a strong clustering pattern. However, using the Moran $I$ Index, each election gradually displayed more spatial autocorrelation. Ultimately, the index for the elections examined also had a distinguishable pattern. According to Table 4.10, the Moran $I$ Index increases slightly between 1976 and 1988. In 1992, there is substantial jump in spatial autocorrelation, another increase in 1996, and then a slight decrease in 2000. However, there is another jump in the amount of spatial autocorrelation in 2004 and again in 2008. This chart indicates that each decade, the amount of clustering and spatial autocorrelation of landslide precincts increases. It is also important to note that each Moran $I$ statistic has a p-value that indicates that the findings are statistically significant for each year.

The second part of this analysis examines output from the Ord-Getis $G_i$ statistic, better known as Hot Spot analysis (See Figures 4.2, 4.4, 4.6, 4.8, 4.10, 4.12, 4.14, 4.16,
The Hot Spot analysis performs the dual role of spatial autocorrelation and identifying areas that are above (hot spots), at, or below (cold spots) a standard deviation from the mean. The expectation, if there is any truth to the idea that politically like-minded individual are sorting, is that there should be a clear pattern within that analysis. Using percent Republican as the basis for the analysis, results were obtained for each presidential election.

The results were similar to those obtained from the landslide spatial maps, except the pattern of partisan voting behavior became clearer. The Hot Spot analysis, like the landslide precinct map, shows a gradual pattern begin to develop in which precincts within and nearer to the central city are below a standard deviation(s) from the mean, precincts in what would be considered the suburbs are above a standard deviation(s) from the mean, and periphery precincts gradually move from being below standard deviation(s) from the mean to at or near the mean. Ultimately, the bull’s eye pattern gradually, over each presidential election, becomes more and more apparent. The 2008 Hot Spot analysis indicates a central city and adjacent areas being the blue cold spots of percent of voters voting Republican and a ring of precincts at the standard deviation followed by a circle of red hot spots, with the outlying area being at the midpoint in standard deviation.

Conclusion

Clearly, the precinct maps of the Cincinnati MSA indicate that there are partisan patterns within the electorate. Each presidential election, the patterns present a better picture that there is a clear, deep divide among the electorate. The use of state-level and even county-level data does not give a clear picture of the divide in the electorate. When
election results are aggregated to the state and even county level, it gives the appearance that there is a close divide, but not as deep. Using precinct data, despite the difficulties it poses with addressing precinct changes over time, gives a better, clearer picture of the divisions within the electorate largely concealed by aggregate election data at the state and county levels.

According the spatial analysis conducted, using the Moran $I$ statistic as an indicator of spatial autocorrelation to determine if there was growing pattern of landslide counties, is a clear and significant pattern emerges. The Moran $I$ index chart (4.10) indicates a gradual yet clear increase in spatial autocorrelation. Hypothesis 1 is supported: there is a significant increase in spatial autocorrelation in the study area between the presidential election of 1976 and the presidential election of 2008.

The Hot Spot analysis provides a clear, convincing pattern of percent of voters in each precinct within the study area that vote Republican. Each presidential election, the pattern increasingly resembled a bull’s eye, with lowest percentage of votes for the Republican candidate in the center of the map, a high percentage of votes for the Republican candidate surrounding the low-percentage precincts, and an outer ring of precincts that provided an average amount of support for the Republican candidate. This pattern created by the Hot Spot analysis indicates that Hypothesis 2, that there is a clear pattern of clustering observable, is accepted.

It is also important to point out that the division of politically like-minded people pre-dates 1976. Using county level data, the phenomenon would be difficult to identify because of the relative closeness of the central city to the suburbs, leaving most counties throughout the United States as being rural and not densely populated. Hence, the
county-level data can be deceiving in that the pattern in several of the more densely populated counties prior to 1976 would indicate that they were not a landslide for either party because of the vote aggregation. This would allow the ebb and flow of political support in rural counties to indicate sorting, overall, and miss the changes occurring in counties that have urban centers surrounded by suburbs. Sorting has become clearer in several counties because, overall, rural voters have largely finished their migration to the Republican Party and the suburbs have expanded significantly. To varying degrees, sorting of politically like-minded individuals has likely been around longer than 1976; however the configuration of county populations and the instability of rural voters hid this fact. As the current party coalition has coalesced and suburbanization has increased markedly, it would appear that sorting has increased.

The aggregation of election data at the county and state level leads to false conclusions about polarization (e.g., Fiorina, 2006). Aggregate data of counties and states hides the true, deep divides of the electorate easily visible at smaller units, in this case, precincts. As several political scientists and pundits continue to use counties and states as the unit of analysis for election results and draw conclusion about the population within counties, they are committing an ecological fallacy. When conclusions are made by correlating vote in a state or county with demographic variable false assumptions about the voters that live in counties and states occur (Bishop, 2008 and Gelman, 2008).

The pattern of partisan divide likely became clearer for several reasons. Suburbanization of several MSA’s, including Cincinnati, meant that people were leaving areas around the city and moving further out into areas that were once rural. Many areas that were literally cow pastures in 1976 are huge subdivisions today. Although there
does seem to be a trend of voters in rural areas to move gradually to the Republican Party, many of the areas around the city have been converted to suburbia. This exodus of people has lead to the expansion of the inner city, making the voting pattern there clearer to see as well.

This analysis strongly favors the conclusion that geographic polarization is occurring within the electorate. The best way to observe and understand the clustering of politically like-minded people is through the spatial analysis of precinct voting. Finally, spatial statistics available in ArcMap GIS software provides statistical analysis of political mapping that clearly identifies patterns and clustering.
Figure 4.1: Landslide Precincts in the 1976 Presidential Election

Legend
Polarization
1976
- No Landslide
- Republican Landslide (Ford)
- Democrat Landslide (Carter)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.1: Spatial Autocorrelation, 1976

Moran's I Index = 0.14
Z Score = 40.96 standard deviations

There is less than 1% likelihood that this clustered pattern could be the result of random chance.

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<td>P-Value</td>
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</tr>
</tbody>
</table>
Figure 4.2: Clustering of Polarized Precincts, 1976

Legend
1976
GIZ Score
- < 2.58 Std. Dev.
- 2.58 - 1.96 Std. Dev.
- 1.96 - 1.65 Std. Dev.
- 1.65 - 1.00 Std. Dev.
- 1.00 - 1.06 Std. Dev.
- > 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.3: Landslide Precincts in the 1980 Presidential Election

Legend

Polarization

1980

- No Landslide
- Republican Landslide (Reagan)
- Democrat Landslide (Carter)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.2: Spatial Autocorrelation, 1980

Moran’s I Index = 0.15
Z Score = 42.07 standard deviations

There is less than 1% likelihood that this clustered pattern could be the result of random chance.

<table>
<thead>
<tr>
<th>Moran’s Index</th>
<th>0.148</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Index</td>
<td>-0.001</td>
</tr>
<tr>
<td>Z Score</td>
<td>42.0723</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Figure 4.4: Clustering of Polarized Precincts, 1980

Legend

1980

GIZ Score
- < -2.58 Std. Dev.
- -2.58 - -1.96 Std. Dev.
- -1.96 - -1.65 Std. Dev.
- -1.65 - -1.65 Std. Dev.
- 1.65 - 1.96 Std. Dev.
- 1.96 - 2.58 Std. Dev.
- > 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.5: Landslide Precincts in the 1984 Presidential Election

Legend

Polarization
1984
- No Landslide
- Republican Landslide (Reagan)
- Democrat Landslide (Mondale)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.3: Spatial Autocorrelation, 1984

Moran's I Index = 0.14
Z Score = 41.35 standard deviations

There is less than 1% likelihood that this clustered pattern could be the result of random chance.
Figure 4.6: Clustering of Polarized Precincts, 1984

Legend
1984
GIZ Score

- Blue: < -2.58 Std. Dev.
- Dark Blue: -2.58 - -1.96 Std. Dev.
- Gray: -1.96 - -1.65 Std. Dev.
- Light Gray: -1.65 - -1.05 Std. Dev.
- Yellow: 1.05 - 1.65 Std. Dev.
- Orange: 1.65 - 1.96 Std. Dev.
- Pink: 1.96 - 2.58 Std. Dev.
- Red: > 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.7: Landslide Precincts in the 1988 Presidential Election

Legend
Polarization
1988
- No Landslide
- Republican Landslide (Bush)
- Democrat Landslide (Dukakis)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.4: Spatial Autocorrelation, 1988

Moran's I Index = 0.156
Z Score = 44.415

There is less than 1% likelihood that this clustered pattern could be the result of random chance.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Moran's Index</td>
<td>0.156</td>
</tr>
<tr>
<td>Expected Index</td>
<td>-0.001</td>
</tr>
<tr>
<td>Z Score</td>
<td>44.415</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Figure 4.8: Clustering of Polarized Precincts, 1988

Legend
1988
GI2 Score
- > 2.58 Std. Dev.
- 1.96 - 2.58 Std. Dev.
- 1.65 - 1.96 Std. Dev.
- 1.65 - 1.65 Std. Dev.
- 1.96 - 1.65 Std. Dev.
- 2.58 - 1.96 Std. Dev.
- < 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.9: Landslide Precincts in the 1992 Presidential Election

Legend
Polarization
1992
- No Landslide
- Republican Landslide (Bush)
- Democrat Landslide (Clinton)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.5: Spatial Autocorrelation, 1992

<table>
<thead>
<tr>
<th>Moran's Index</th>
<th>0.226</th>
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</thead>
<tbody>
<tr>
<td>Expected Index</td>
<td>-0.001</td>
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<tr>
<td>Z Score</td>
<td>64.296</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Moran's I Index = 0.23
Z Score = 64.3 standard deviations

There is less than 1% likelihood that this clustered pattern could be the result of random chance.
Figure 4.10: Clustering of Polarized Precincts, 1992

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.11: Landslide Precincts in the 1996 Presidential Election

Legend
Polarization
1996
- No Landslide
- Republican Landslide (Dole)
- Democrat Landslide (Clinton)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.6: Spatial Autocorrelation, 1996

Moran’s I Index = 0.26
Z Score = 73.73 standard deviations

There is less than 1% likelihood that this clustered pattern could be the result of random chance.

<table>
<thead>
<tr>
<th>Moran’s I Index</th>
<th>0.259</th>
</tr>
</thead>
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<tr>
<td>Expected Index</td>
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</tr>
<tr>
<td>Z Score</td>
<td>73.726</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Figure 4.12: Clustering of Polarized Precincts, 1996

Legend
1996
GIZ Score
- < -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - -1.58 Std. Dev.
0.75 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.13: Landslide Precincts in the 2000 Presidential Election

Legend
Polarization 2000
- No Landslide
- Republican Landslide (Bush)
- Democrat Landslide (Gore)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.7: Spatial Autocorrelation, 2000

<table>
<thead>
<tr>
<th>Moran’s Index</th>
<th>0.252</th>
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</thead>
<tbody>
<tr>
<td>Expected Index</td>
<td>-0.001</td>
</tr>
<tr>
<td>Z Score</td>
<td>71.7</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.000</td>
</tr>
</tbody>
</table>

There is less than 1% likelihood that this clustered pattern could be the result of random chance.
Figure 4.15: Landslide Precincts in the 2004 Presidential Election

Legend
Polarization
2004
- No Landslide
- Republican Landslide (Bush)
- Democrat Landslide (Kerry)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.8: Spatial Autocorrelation, 2004

<table>
<thead>
<tr>
<th>Moran's Index</th>
<th>0.284</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Index</td>
<td>-0.001</td>
</tr>
<tr>
<td>Z Score</td>
<td>80.817</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Moran's I Index = 0.28
Z Score = 80.82 standard deviations

There is less than 1% likelihood that this clustered pattern could be the result of random chance.
Figure 4.16: Clustering of Polarized Precincts, 2004

Legend
2004
GIZScore

-2.58 <= Std. Dev.
-2.58 - 1.96 Std. Dev.
-1.96 - 1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.17: Landslide Precincts in the 2008 Presidential Election

Legend
Polarization
2008
- No Landslide
- Republican Landslide (McCain)
- Democrat Landslide (Obama)

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Table 4.9: Spatial Autocorrelation, 2008

Moran’s I Index = 0.325
Z Score = 92.55 standard deviations

There is less than 1% likelihood that this clustered pattern could be the result of random chance.
Figure 4.18: Clustering of Polarized Precincts, 2008

Legend

2008

GIZ Score

-2.58 - 1.96 Std. Dev.
-1.96 - 1.65 Std. Dev.
-1.65 - 1.05 Std. Dev.
1.05 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 4.19: Trend of Spatial Autocorrelation, 1976-2008
Chapter 5

Polarization and Turnout

One of the key debates over the last several decades in the field of political science is the whether the electorate is polarized and, if so, to what degree. If members of the electorate are sorting ideologically and are living in close proximity to those who think like themselves politically, it is expected that there will be a large degree of polarization. In the 1950s, political scientists and politicians noted that there was little difference between the parties. Governor Wallace, who ran for president as an independent on the platform of segregation, noted that there was not a “dimes worth of difference between the two parties.” Furthermore, noted political scientists published a well known report requesting greater policy differences between the parties to provide a clear choice for the electorate. Governor Wallace and the panel of political scientists who demanded a more responsible two-party system would be surprised at how much has changed in the last several decades, particularly in regards to polarization.

Polarization, as defined here, is the degree to which ideologues in a party are active and pull the party from the center to the more extreme “right” or “left” of the ideological spectrum. Not only does polarization result in the parties becoming more ideologically extreme, but those with moderate political ideologies exit the political process or are at least less involved, particularly moderate partisans. Therefore, as the electorate becomes more polarized, candidates will increasingly represent their polarized constituency and rely on those members, or party base, to turnout in elections.
This chapter will examine polarization and whether it has increased over the last several elections. Conclusions for this analysis will be drawn from a case study of the Cincinnati Metropolitan Statistical Area by examining turnout and degree of partisanship within precincts for each presidential election between 1976 and 2008. If theories of party polarization are correct, there should be an increasing relationship between turnout and the intensity of vote for one party or the other.

**Review of the Literature**

Polarization, its causes, and its effects are widely discussed within the field of political science and psychology. The debate within the field of political science focuses on who is polarized. Two groups have emerged that differ on who is polarized and the degree to which ideologues have sorted into parties. Several political scientists argue that polarization is an artifact of elite discourse. Elites in academia, politicians, the media, and political activists are polarized and falsely project this polarization to the electorate, overall. The other group argues that ideology and partisanship have become synonymous, with elites and the electorate all exhibiting polarized political behavior.

Perhaps the standard bearer for those who argue that polarization is occurring within the political elites and not the electorate, overall, is Fiorina. In his book, *Culture War, The Myth of a Polarized America*, he argues that American electorate is not polarized. He offers four contributing factors that create the perception that the American electorate is polarized:

1. Confusing closely divided with deeply divided. Close elections do not indicate that one portion of the electorate is opposed to the other; it is combination of those who care deeply about a candidate and those who care little but still voted.
2. Political activists are not normal people. Elites and the mass public and not the same and have different levels of political knowledge and sophistication. Political activists are polarized whereas the mass public are not, according Fiorina.

3. The media uses examples and stories that perpetuate the idea that the electorate is polarized because it fits their understanding of the political world (as elites) and makes for a more interesting story.

4. Confusing positions with choices. Just because the mass public vote for a candidate in one party or the other does not necessarily mean that they agree with all of the policy positions of the candidate. Therefore, even though candidates have polarized positions, just because the mass public vote for them does not mean that they are in lock-step with the candidates.

In a paper titled, “Is Polarization a Myth,” Abramowitz and Saunders directly disagree with Fiorina and others who argues that polarization is artifact of elite discourse. They argue that polarization is not a myth and that the electorate, according to their in depth analysis of survey data from the American National Election Study, has grown increasingly polarized and was extremely polarized in the 2004 presidential election. Their analysis finds that it is no longer elites that are polarized but the mass public as well. They further suggest that polarization does not turn off voters from the political process or decrease turnout, to the contrary, they find that polarisation energizes the electorate and stimulates political participation (Abramowitz and Saunders, 2005, emphasis added).

Two political scientists who are proponents of the theory that not only are elites polarized, but that the electorate is equally polarized are Levendusky and Abramowitz.
Both argue that the electorate has become more polarized because ideologues have moved into corresponding parties, what Levendusky refers to as “sorting.” As ideologues move into the parties and move the parties more toward the ideological extremes, moderate voters move out of the parties, leaving those that are the most ideologically extreme to dominate the parties (Levendusky, 2009, Abramowitz, 2010).

Furthermore, Abramowitz argues in his book, *The Disappearing Center*, not only is the electorate increasingly polarized, but the most polarized are the most likely to be politically active. Using a host of survey data from the American National Election Study (ANES), Abramowitz finds that the most polarized members of each party are the most likely to engage in political activities such as protesting, contacting elected officials, writing a letter to the editor, etc (Abramowitz, 2010). Abramowitz’s work provides a critical foundation for this dissertation: if the electorate is polarized and the polarized are the most likely to participate in political activity, then there should be a relationship between voting and polarization.

What drives polarization and what does it mean? One the seminal works on political communication and mass opinion is Zaller’s book, *The Nature and Origins of Mass Opinion*. In it, Zaller explains the polarization effect that he finds within the mass public. As many political scientists before have found, the most educated, whether it be formal education or attention to or knowledge about politics, are more likely to affected by elite discourse on policy matters. Within what Zaller calls “Mainstream Effects” those that are the most educated, politically observant, or politically involved will take cues from elite discourse and take the appropriate side. Essentially, if elites display a large degree of consensus on a policy issue than the mass public will also be more likely to
display consensus, as well. As an example of this phenomenon, Zaller points to elite discourse on the Vietnam War, with elites initially supporting the war and then, later, elites turned against the war and the mass public following their cue. Furthermore, he also identifies a “Polarization Effect” in which those that are the most politically aware will take liberal or conservative cues from the elite on a policy issue where the elites have a clear ideological divide. Those within the mass public that are the most aware and knowledgeable about politics will pick up the cues within elite communication, process those messages, and take positions that are supportive of their own preferred ideology. Those will lower amounts of knowledge will be less likely to process those messages and cues from the elite and remain unaware of the liberal or conservative stance of the policy issue and not consistently follow their respective ideological camp (Zaller, 1992). Based on Zaller’s findings and the fact that the general public has become more and better educated over time, there should be more members of the mass public who understand the political cues within messaging from liberal and conservative elites. By understanding those messages and cues, partisan discourse should be more salient to the mass public, leading them to take stances on issues that are consistent with their ideological leanings and supporting parties that elites indicate have an ideological leaning.

If the electorate is polarized, able to process elite discourse that provides them indicators on which party and policy positions to support, and if ideologues are living in close proximity to one another, what effects might this have on elections? There are several possible answers. In his book, Going to Extremes, Sunstein argues that groups of people that are like-minded will go to ideological extremes. After conducting a series of
social and group experiments he found that members of a deliberating group typically end up at a more extreme position of their already predisposed inclinations before deliberating began. Like-minded people tend to move to a more extreme version of what they thought before they start to talk and discuss with others like-minded people. Sunstein further argues that political extremism is a by-product of group polarization and that social segregation produces polarization. If you separate people from others who think differently, a moderating effect, the separation can lead to the creation of extremes. Finally, he argues that if a member of a group perceives that they have a shared identity and a high degree of solidarity with others around them and those they converse with on a frequent basis it will lead to heightened levels of polarization (Sunstein, 2009).

Sunstein’s findings have important implications. Earlier chapters indicate that politically like-minded people live in close proximity to one another which creates polarization. In living in such close proximity to other people who think similarly it creates an echo chamber that is more intense the more people of the same political background are isolated together.

**Hypotheses**

This chapter, based on the literature reviewed above, expects to find a relationship between the most polarized precincts and turnout. If being around people that look and think like you is a catalyst for polarized political behavior and if the most polarized are the most likely to be politically active then there should be a relationship between the most polarized precincts within the study area and turnout rates.
Hypothesis 1: There will be positive, statistically significant correlation between the percent who vote for the Democratic or Republican presidential candidates, in the precincts they win, and voter-turnout.

The greater the victory of a Democrat or Republican presidential candidate in a precinct, the more likely that the people in that precinct are more alike and the more likely the people think alike politically. This being the case, there should be a positive relationship with these polarized precincts and turnout.

Hypothesis 2: The correlation between the precincts with highest percentage of voting for a Republican or Democratic presidential candidate, in which they win, and turnout will increase each election.

According to the literature, ideologues have gradually migrated to parties that match their ideological views over the last several decades. Also, if the most polarized are indeed energized and moved to action by polarization, then each year the correlation between the most polarized precincts and turnout should increase as polarization increases.

Methods

As discussed in previous chapters, precinct-level election results were collected from the fifteen counties within the Cincinnati Metropolitan Statistical Area as defined by the US Census Bureau for the presidential elections held between 1976 and 2008. Polarization, in this case, is defined by the percentage of votes for either the Republican or Democratic presidential candidate in each election. In order to remain consistent over each election third-party candidates were removed from the analysis, leaving only the
major two-party candidates to compare. The percentage within each precinct that voted for each candidate was found by using the following formula:

\[
\frac{\text{Number of Votes for the Republican Candidate}}{\text{Total Votes Cast for both Candidates}}
\]

\text{Or}

\[
\frac{\text{Number of Votes for the Democratic Candidate}}{\text{Total Votes Cast for both Candidates}}
\]

Votes for the presidential candidate are used to determine polarization because it is the top election on the ticket in all three states and presidential candidates are deemed to be the standard bearers for their party and singular elites who can disseminate policy stances to the mass public and embody the policy stances of the party and ideology.

Earlier chapters indicate that over time politically-like-minded people have sorted and live in close proximity to one another, which is an indicator of polarization and, according to the literature, indicates that those in the most polarized areas should be the most participatory. With only election results to examine, the only participatory (and arguably the most important) act to test polarization against is turnout. To compare polarization and turnout all precincts that voted fifty percent or above for a Democratic or Republican candidate were separated each year. Correlations were run to test whether there is a relationship between higher levels of polarization and turnout.

Democrats and Republicans are separated each year for this analysis. This is done because they need to be analyzed separately and should have separate expectations for their correlation results. Democratic voters share social demographic characteristics with citizens who are the least likely to vote, overall. In contrast, Republican voters share social demographic characteristics of those who are the most likely to vote. Based on
this, they should be examined separately and have separate expectations when relationship are tested.

It is important to note that in several earlier elections turnout figures were not available for outlying counties. In the presidential election of 1976 only two counties had turnout statistics available: Hamilton and Clermont Counties in Ohio. On its face, this would seem to be a major methodological problem, however the number of precincts within Hamilton County alone in the years where other counties were missing were large enough in number to make up for those records that were missing. Overall, the sample size is large enough for each election examined to conduct a meaningful analysis.

**Analysis and Findings**

Few analyses of voter turnout have taken into account polarization as a factor that would explain it. Some of the recent literature in political science and psychology finds that when like-minded people, when isolated and around others that corroborate their own beliefs, will be moved to extremes and be moved to action. To date, however, the political science literature is clear about which voters will and will not turnout to vote in elections. Currently, a voter’s individual social demographic factors are the key indicators of whether they will turnout to vote on Election Day. Research has found that age, income, interest, and education are the best predictors of whether and individual will vote on Election Day. Furthermore, Putnam adds another dimension to the literature by arguing that social connectedness is the key to understanding who and why citizens vote (Putnam, 2000). Almost all of the studies regarding turnout and political participation rely on survey data and, in a few cases, contextual analysis.
Correlations are used to test whether there is a linear relationship between partisanship, as measured by the percent of the vote for Democratic or Republican presidential candidate, and turnout. Despite findings within the literature about polarization and its ability to drive interest and action, the findings of this study are mixed. Table 5.1 and Figure 5.1 display the correlation results for each presidential election from 1976 to 2008. The correlations do not show a strong relationship between the most polarized precincts and turnout. Looking at the Republican polarization and turnout there is, for most years, a positive statistically significant relationship between the most polarized precincts and turnout, however the relationship is not especially strong. Furthermore, Figure 5.1 does not support a consistent trend. There is an increase from 1976 to 1988 and then a significant drop in 1992 which is likely related to the third-party candidacy of Ross Perot. After the dip in correlation in 1992 there is a substantial increase in 1996 and 2000 before the correlations decrease again during the 2004 and 2008 presidential elections, at a time when intuition would suggest a surge in correlations between turnout and percent partisanship.

The precincts in which Democrats won (or tied) show an even murkier trend and statistical relationship. In most years there is a negative, statistically significant correlation with those precincts where the percentage of the vote was highest for the Democratic presidential candidate and the percent who turned out on Election Day in those same precincts. It was expected that individual demographic characteristics of Democratic voters would be different from those from Republican voters and skew slightly less, however it was not expected that there would be negative relationship. Ultimately, correlations between turnout and those precincts that voted the highest
percentage for Democrats had a negative, statistically significant relationship or a positive, not statistically significant relationship all of which offer little evidence to support the expected relationship between partisan makeup of a precinct and turnout. The correlation trend over the nine presidential elections start with dramatic swings upward and downward, bottoming out (like the Republican trend) in the 1992 presidential election, again likely caused by the independent candidate Ross Perot in that same year. After the 1992 presidential election, the correlations increase each election, creating some promise for a latent effect of partisanship on the vote. However, in 2008, there is a dip in the correlation trend suggesting a negative relationship between the most partisan precincts and turnout. The 2008 results are the most surprising given the findings by pollsters, members of the press, and members of academia who found increases in turnout among several key Democratic constituencies for Obama.

**Conclusion**

Based on the findings of Abramowitz and Sunstein, it was expected that precincts where either the Democrat or Republican candidate won by the largest margins should be strong correlated with turnout. According to Abramowitz’s analysis of extensive survey data, those that are the most polarized are those that are the most likely to participate politically and, since voting is a form of political participation, turnout and polarization should have a positive and significant relationship. Furthermore, Sunstein argues that areas where people’s opinions are not challenged and reinforced by other like them, particularly in areas where like-minded people are segregated, then they should be prone to extremes and to action. Again, using this rationale, there should be a strong
relationship between precinct turnout and the degree of victory for one candidate or the other. The findings in this analysis do not support these expectations.

In Hypothesis 1 it was expected that there would be a positive, statistically significant correlation between precinct turnout and the percent of victory for the Republican or Democrat candidate in the elections evaluated. There is, in most years, a positive, statistically significant correlation between the precincts with the highest percentage of victory for Republican presidential candidates but the same analysis for Democrats yields a negative or positive, non-significant findings. Furthermore, the correlations do not demonstrate any meaningful or explainable trend over each relationship whereas in Hypothesis 2 it is expected that the correlations trend should increase with each election. The statistical evidence provided in this chapter indicates that both hypotheses should be rejected because there appears to be no relationship between turnout in a precinct and the percentage amount that a presidential candidate wins, nor is there a discernable trend in the correlation statistics over the elections examined.

What information can be gathered from this analysis? First, the definition used to define polarization, percent within a precinct that either candidate wins, may not be a suitable operationalization of that concept. In this case, survey data may be a much more suitable vehicle to analyze polarization because of the ability to create and define more parsimonious concepts with which to test. Second, based on the large quantity and quality of data on who turns out in elections and why, there are likely a large number of intervening variables that would likely have a dramatic effect on the findings. This analysis simply examines turnout and has nothing else to compare, such as individual
demographic variables, except for the margin of victory of the presidential candidates for each election. Factors such as age, ethnicity, income, community connectedness, education, and other mitigating variables are left out and cannot be controlled for in this analysis. These intervening variables likely play a much more substantial role in explaining the observed correlations between turnout and the precinct where the Republican candidate won by higher margins versus those precincts where the Democratic presidential candidate won by the highest percentage and turnout. Hence it may be too much of a stretch to expect any measure of polarization to simply outweigh and push to the side other tried and true explanations of turnout. A more in depth, contextual analysis of the study area may have yielded more favorable results.
Table 5.1: Partisan Precinct and Turnout Correlations

<table>
<thead>
<tr>
<th>Year</th>
<th>Democratic Turnout Correlation</th>
<th>Republican Turnout Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>0.002</td>
<td>0.226</td>
</tr>
<tr>
<td>1980</td>
<td>-0.232</td>
<td>0.370</td>
</tr>
<tr>
<td>1984</td>
<td>0.024</td>
<td>0.430</td>
</tr>
<tr>
<td>1988</td>
<td>-0.176</td>
<td>0.529</td>
</tr>
<tr>
<td>1992</td>
<td>-0.324</td>
<td>0.126</td>
</tr>
<tr>
<td>1996</td>
<td>-0.163</td>
<td>0.541</td>
</tr>
<tr>
<td>2000</td>
<td>-0.020</td>
<td>0.579</td>
</tr>
<tr>
<td>2004</td>
<td>0.060</td>
<td>0.452</td>
</tr>
<tr>
<td>2008</td>
<td>-0.054</td>
<td>0.410</td>
</tr>
</tbody>
</table>

Correlations are significant at the 0.01 Level (2-tailed).

Figure 5.1: Polarized Precincts and Turnout, 1976-2008
Chapter 6

The Culture War and Partisanship: A Spatial Analysis of the 2004 Same-Sex Marriage Vote

One of the key debates within the field of political science revolves around the question of to what extent there is a link between partisanship and ideology. Since Converse’s landmark study on ideological constraint, which concluded that only elites hold ideologically consistent views, political scientists have continuously sought to support or refute his findings. Like Converse, the vast majority of studies conducted on the study of links between ideology and partisanship use survey data to make their respective cases. The results of these studies vary over time; however the intensity and quantity of the research in this area has increased recently because it is linked to the larger debate over whether the American electorate is polarized.

As the debate over the connection between ideology and partisanship has grown more intense, political scientists are beginning to use spatial analysis to further prove or refute the idea that ideology is or is not linked to partisanship. To date, the vast majority of spatial analysis on the topic uses county, state, and regional results to draw conclusions. This study will examine a snapshot of the “culture war” by examining precinct level data in a Metropolitan Statistical Area and the 2004 vote on banning same-sex marriage and its possible correlation to the presidential vote held during the same election. This analysis will use two key determinants to draw conclusions as to whether there is ideological polarization in the electorate and if it has any relationship to partisan
voting. First, this analysis will use spatial statistics to ascertain if there are patterns that exist within the study area that would indicate voting behavior indicative of a polarized electorate. Second, this analysis will use simple correlations to find if there is a relationship between presidential vote in 2004 and voting for or against banning same-sex marriage. Although this analysis only offers a snapshot of the state of polarization and ideological sorting, the results will offer some evidence of whether there is, in fact, a “culture war” underway and the degree to which it is occurring.

**Review of the Literature**

As mentioned above, the debate over polarization and, more so, the link between ideology and partisanship has been extensively explored over the last couple of decades by political scientists. The literature examined here will focus on the foundations of this argument and then focus on recent studies. The focus on contemporary literature is based on the fact that this analysis is not a longitudinal study and cannot empirically demonstrate a difference over time, making earlier contributions on the topic irrelevant. However, the importance of this analysis is to further the recent attempts to determine links between partisanship and ideology.

The foundation of the argument over ideological consistency within the electorate is found in the seminal piece completed by Philip Converse (1964), “The Nature of Belief Systems in Mass Publics.” This study continues to be debated and used as the starting point for any analysis that explores the ideological consistency or inconsistency of the electorate. In his study, Converse found that the vast majority of the American electorate does not have what he refers to as “ideological constraint,” meaning that individuals do not have any consistency in their belief system despite self-identifying with one party
over another. He further finds that only a small portion of the American public, less than twelve percent, have any consistency in their ideological beliefs and regularly follow the news about political discourse. Overall, Converse concluded that there was little ideological coherence of policy preferences of the mass public either within domestic policy or foreign policy.

Using Converse’s conclusions as a foundation for the current debate about the connection between ideology and partisanship, two groups of political scientists have formed that either agree or attempt to refute his findings and are based in the broader argument over whether there is or is not greater polarization in the electorate and ongoing “culture war.” Fiorina, in his book, Culture War, argues that political elites and the media are the cause of a perceived ideological battle within the American electorate. He, like Converse, argues that only a small majority of political elites are aware and propagating the ideological battles and are not representative of the electorate. Furthermore, he argues that media coverage of the political elites that are ideologically coherent maintains the false idea that the electorate, overall, is split ideologically and locked in a “culture war” (Fiorina, et al., 2006).

Fiorina also argues that there is a broad misunderstanding when we examine partisanship and ideology. He argues that another reason for the misconception that nation is split into ideological camps, embodied in two parties, is the mistake of “confusing positions with choices.” Fiorina argues that just because Republicans vote for Republican candidates and Democrats vote for Democratic candidates does not mean that there is polarization on issues. Despite the fact that candidates may take more polarized stances on issues does not mean that the electorate has also polarized on the issues as
well. Hence, the idea that party and ideology are linked and that ideologues have polarized into the two parties is an artifact of partisan loyalty and has nothing to do with actual stances on issues. Voters in the electorate, according to Fiorina, choose between one of the two parties and, more so than ever before, remain loyal to that party, but their choice in party does not reflect an endorsement of all or even most of the positions taken by the selected party or candidate of a party (Fiorina, et al., 2006).

Furthermore, Fiorina dedicates an entire chapter towards analyzing opinions on homosexuals, and more specifically, opinions and voting on same-sex marriage amendments. His argument, overall, again remains that the political elites and the mass public are disconnected over the issue of same sex marriage and issues related to homosexuality. After the Supreme Court struck down a Texas law outlying sodomy in *Lawrence v. Texas*, Fiorina points to the lack of public outrage and protests after this ruling, despite claims of victory by gay rights advocates and displays of anger and frustration by conservative religious and political leaders, as an indication of the disconnect. To further back his claim that there is a disconnect between the political elites and the mass public and homosexual issues, Fiorina provides data from multiple surveys that indicate that the public, overall, has moderate views on same-sex marriage, relationships between adults of the same gender, and host of other homosexual issues. Not only are the views moderate, but the trend according to multiple surveys is that since questions were asked about homosexual issues, each trend line indicates moderation over time. Fiorina concludes by evaluating opinions on homosexuals based on party identification (Democrats, Republicans, and Independents) indicating that views on homosexuality of partisans do not vary widely and are moderate (Fiorina, et al., 2006).
Fiorina also attempts to dispel claims of link between partisanship and ideology via same-sex marriage by arguing that the amendments placed on the ballot in eleven states had no discernable impact on the presidential vote in those states. He argues that religious voters, especially those conservative religious voters most likely to oppose same-sex marriage, did not turn out in any higher proportion than they did for Bush in the 2000 presidential election. Fiorina also argues that when taken into account with other factors present in the eleven states, the same-sex marriage amendment had no discernable impact in the increase in turnout. Finally, Fiorina argues that by placing these issues on the ballot, Republicans made no difference in the proportion of church-going voters that supported the party in the 2004 election. He concludes that the 2004 presidential election is another indication of the political elites, surmising that a “culture war” issue would have dramatic effects on turnout and support, are disconnected from the mass electorate and there is no clear relationship between partisanship and ideology (Fiorina, et al., 2006).

Making a similar argument as Fiorina, with different data and slightly different conclusions, Ansolabehere, Rodden, and Snyder in their article, “Purple America,” argue that the idea of a “culture war” within the American electorate is over dramatized and does not, in fact, account for split in the electorate. They argue that moral issues, although not irrelevant, play a smaller role in the minds of voters and that economic issues are what are on voters’ minds when they decide which candidate and party they will cast a vote. By analyzing survey data over time, Ansolabehere et al. argue that the American electorate holds moderate views of both moral and economic issues. They also argue that economic issues hold more weight in voters’ minds when they make voting
decisions then moral issues and that the differences on economic issues is what accounts for the “red” and “blue” state divide. Ansolabehere et al. argue that the “culture war” is a artifact of the fact that “red” states are slightly more conservative than the average citizen on economic views but much more morally conservative while “blue” states are slightly more liberal on economic views than the average citizen but much more liberal on moral issues. Hence, there is no “culture war” because overall the electorate is moderate and economic issues are actually more salient in voters’ minds (Ansolabehere et al., 2006).

The other group of scholars takes an opposing view of the applicability of Converse’s work on ideological constraint within the current electorate and the idea that consistent political ideology is consolidated in the political elites and not in the mass public, overall. They believe that there is, in the current electorate, a connection between ideology and partisanship in the broader argument of polarization and regardless of how the mass public came to be ideologically “sorted,” that they have done so on many key, divisive moral issues. In his book, *The Disappearing Center*, Abramowitz argues that absence of constraint in Converse’s original study and lack of consistency between ideology and partisanship are largely no longer applicable to today’s electorate. He points to two key differences that have occurred since Converse’s study that have made the mass public more aware of the differences between parties and affiliate with the party that most closely exhibits their own ideological leanings. Abramowitz argues that education, something the Converse himself points to explain ideological constraint in the electorate in his own study, as being a leading reason why people in today’s electorate are more ideologically polarized. Today, survey respondents are highly unlikely to have only completed a grade school education and highly likely to have had at least some college, a
drastic change from the electorate examined by Converse in the 1950s and 1960s that had
a much lower level of education. The other major difference, according to Abramowitz,
is that the political elites have more (and more accessible) ideological battles, allowing
the electorate to fully grasp where each party stands on ideological issues (Abramowitz,
2010).

Using survey data spanning several decades, Abramowitz argues that ideological
polarization and party sorting are closely related. Party leaders of both parties, over time,
have taken distinct positions with several issues, leading politically active citizens to
follow their lead, bring party and ideology into a close relationship. Ultimately, the result
has led to a growing relationship between and across issue positions and party
identification, which Abramowitz refers to as “partisan-ideological polarization.” He
argues that those who are the most engaged, especially voters, view politics in ideological
terms while the disengaged, non-voters do not view politics ideologically. Furthermore,
Abramowitz pays considerable attention to “partisan-ideological polarization” in 2004,
arguing the bulk of self identified Democrats considered themselves liberals while the
bulk of Republicans considered themselves to be conservative. The consistency between
partisanship and ideology increased more with those who were the most politically
engaged. Abramowitz also examines policy stances and how they differ between the
most engaged partisans. Using liberal stance on issues as the dividing line on multiple
issues, he finds that Democrats rate much higher on the liberal issue continuum on a host
of issues (Abortion, the death penalty, diplomacy versus force, health insurance, etc.)
while Republicans score much lower, ranking between twenty-seven percent and nine
percent. With gay marriage, Democrats score a sixty-nine percent on the policy
liberalism scale while Republicans score an eighteen percent on the same scale (Abramowitz, 2010).

Making a similar argument as Abramowitz in his book, *The Partisan Sort*, Levendusky argues that ideology and partisanship are closely related and explores the causes of the relationship. When ideologues move to support one party over another based on the ideological differences between the parties, Levendusky refers to this as sorting. Using survey data, he argues that electorate is much more sorted than it was a generation ago, with party and ideology more closely aligned now than ever before. Levendusky also argues that the cue that has been the driving cause behind sorting are the political elites and that clarifying what it means to be a Republican or Democrat over the last several decades has led to the mass public to follow their lead. Although he admits that the political elites exhibit higher degrees of sorting then the mass public, there is a clear link between the two and both display clear indications of sorting. Finally, Levendusky attempts to clarify that cause behind sorting, testing other theories that may explain the link between party and ideology. His findings indicate that party is the key variable causing sorting. These findings, according to Levendusky, highlight the importance of parties in the American politics and are at the forefront of most Americans’ minds when they think about politics and helps citizens understand the political world. The findings also highlight that parties not only frame the terms of the debate, parties also provide a solid base for understanding where individuals and politicians stand on the issues (Levendusky, 2009).

In an article that examines voting theories, Saunders and Abramowitz analyze what drives party loyalty in their article, “The Rise of the Ideological Voter.” In this
case, they contest that party loyalty is less a matter of group membership, but based upon ideological stances of the parties. They make the case that group loyalty does not drive party identification and that several subgroups have broken ranks with their original party identification over time. They use the example of non-Southern white Catholics as their primary example to prove their case, since they currently vote Republican overwhelmingly after voting reliably Democratic during the 1960s and 1970s. They argue that ideology has driven party identification, those who are the most ideological are the most loyal to their party, and ideological realignments led to the current system of unprecedented party loyalty (Saunders and Abramowitz, 2007).

In his article, “Rise of the Right,” Stonecash examines the recent increase in Republican electoral and policy successes. His article argues that the number of conservatives has not increased over the years, but that conservatives have coalesced around the Republican Party. The merging of ideology and party, according to Stonecash, drastically improved the electoral prospects of the Republican Party and had the effect of making conservative policy a priority (Stonecash, 2007).

One of the few pieces of research that examines spatial patterns of a vote that deals with gay rights was completed by Brown et al. In their article, “The culture wars and urban electoral politics: sexuality, race, and class in Tacoma, Washington,” they examine a vote in the City of Tacoma, Washington, to repeal a city ordinance to provide equal rights for homosexuals. They conduct a contextual analysis to try and find out which groups of people within the City are more likely to support or not support the ballot measure; however they do not examine party identification or any links that it may have to supporting or not supporting the measure. Although the vote is limited to the City of Tacoma and not the surrounding area, they find that a clear pattern emerges of those who support the measure and
those who vote against the measure. There are concentric circles starting from the center of
the city to the city limits, when looking at the percent that support the gay rights ordinance.
The most support comes from those in center of the city with each band of the concentric
circles being less supportive.

Brown et al., using census data to determine demographic information about
supporters and non-supporters, find that there is a clear pattern within demographic variables.
Those most likely to support the gay rights ordinance are those who are not married, those
without families, younger people, professionals, and those with a higher education. Those
least likely to support the gay rights ordinance are those that are married, those with families,
minorities, those with less education, those employed in manufacturing and labor, and those
in single family homes (Brown et al., 2004). Although there is not discussion of partisanship,
their findings will have some significance for later discussion.

Overall, the literature highlights several key findings. First, there are those who agree
with Converse’s original findings and, to varying degrees, argue the ideology and
partisanship are not linked and that there is not a “culture war” ongoing within the electorate.
Voters make choices on parties and candidates, not issues. Second, there is a growing list of
scholars who find a link between partisanship and ideology and that the two major parties are
increasingly driven by ideologues. The two sides use survey data exclusively to make their
case, with the exception of Brown et al., who analyze a vote on gay rights yet, as
geographers, eschewed any examination of partisanship in their analysis. The analysis in this
chapter will provide several key aspects to the literature. First, it will use actual voting
results, at the precinct level, within a metropolitan statistical area that covers portions of two
states to determine the link between partisanship and ideology based on a real actual vote.
Second, this will present a contemporary analysis of the link between ideology and
partisanship. However, one of the drawbacks to the analysis is that it is a snapshot, with no
possibility of a temporal analysis to determine if the link between partisanship and ideology has increased or diminished over time.

**Hypotheses**

Using the election data from the twelve counties in Ohio and Kentucky that held referendums on whether to ban same-sex marriage within their respective state constitutions in 2004, there are two hypotheses that will be tested.

**Hypothesis 1:** The percentage of voters voting to ban same-sex marriage will create a pattern of concentric circles, with those least in favor of banning same-sex marriage in center and more voters favoring same-sex marriage gradually increasing, when the voting results are examined by percentage and the Ord-Getis $G_i^*$ spatial statistic.

It is expected that the most ideologically liberal will live in the center city and, as one goes further from the City of Cincinnati to the surrounding suburbs and rural areas, the more conservative the voters and the more likely they are to disapprove of same-sex marriage.

Not only is it critical to demonstrate that there is a spatial pattern to voting to ban same sex marriage, but it must be demonstrated that there is a relationship between partisan vote and the expression of ideology as displayed by voting for or against banning same-sex marriage.

**Hypothesis 2:** There will be a positive, statistically significant correlation between the percent that voted Republican (Bush) in the 2004 presidential election and the percent that voted to ban same sex marriage in Ohio and Kentucky precincts.
If, as much of the literature indicates, there is a relationship between partisanship and ideology then a simple correlation will be able to indicate if the relationship exists and to what degree.

**Methods**

Election results for the twelve counties in Ohio and Kentucky that are within the Cincinnati MSA were obtained for the analysis. The three counties from Indiana that are also within the Cincinnati MSA were left out because they did not have a similar same-sex marriage amendment on the ballot. The two elections that took place in 2004 and are analyzed here are the presidential election and referendums on whether to ban same-sex marriage in the state constitutions of Ohio and Kentucky. The presidential election of 2004 is used to measure partisanship because it is the one election that both states have in common, is at the top of the ticket in both states, presidential candidates essentially carry the banner for their respective party, and it is the most salient election for most voters.

Third party candidates were removed from the analysis for two reasons: first, the analysis is concerned with connection between partisanship and ideology within the two major parties; second, third party candidates were removed due to the possibility that both states may have different candidates from minor parties that made it on to the ballot.

To find the percent that voted Republican in the 2004 presidential race, the total number of votes for Bush and Kerry were totaled. Then, the number of votes for Bush was divided by the total to come up with the percent who voted Republican:

\[
\frac{\text{Number of votes for Bush}}{\text{Total votes for Bush and Kerry}}
\]
Likewise, in order to find the percent who voted to ban same-sex marriage in each precinct the “Yes” and “No” votes were totaled. Since a vote for “Yes” indicated a vote to ban same-sex marriage in both states, it was divided by the total:

\[
\text{Number of “Yes” votes/Total “Yes” and “No” votes}
\]

The percentage who voted to ban same-sex marriage was analyzed spatially by simply mapping the percent who voted for and against it and via the Geddis Ord statistic or Hot Spot Analysis. Also, correlations were obtained between the percent who voted for the Republican presidential candidate and percent who voted to ban same-sex marriage.

**Results and Discussion**

After mapping the percent of voters within each precinct that voted for and against banning same-sex marriage in Ohio and Kentucky, at least within the counties analyzed here, there is a clear pattern that emerges. Looking at Figure 6.1, those most likely to vote against banning same-sex marriage are in the central city. As you look to the suburbs the number of people voting to ban same-sex marriage gradually increases. The furthest areas, the most likely to be rural, are the most likely to vote to ban same-sex marriage (Note: the northwestern corner of map shows a large number of voters that voted not to ban same-sex marriage and seems somewhat out of place: this is the location of Miami University of Ohio. Ultimately, by looking at percentage only, there is a pattern of concentric rings starting with a center that is less likely to vote to ban same-sex marriage and, as you move from the center, voters are more likely to vote to ban same-sex marriage. The map in Figure 6.1 shows that there is a pattern to ideological beliefs, measured by support or non-support of the same-sex marriage referendums.
To further test if the pattern holds up to spatial statistical analysis, Ord-Getis $G_i^*$ or Hot Spot analysis is used to see if a clear pattern occurs when used to see if there is clustering as well as low (cold) and high (hot) spots of voting for and against the referendum. The Hot Spot analysis in Figure 6.2 indicates a much stronger pattern. There is a clear concentric circle or “bull’s eye” pattern that is evident. Precincts in and around the central city were “cold” spots indicating that these precincts cluster and voted lower than the other precincts within the analysis. There is a band of precincts that are within the average standard deviation of the overall percentage of the vote followed by “hot” spots that surround the central city on both the Ohio and Kentucky side. The hot spot analysis provides a clear pattern of ideological voting on the same-sex marriage amendments on the ballot. There is a clear pattern existing on the proxy ideological test of voting for and against same-sex marriage, however, the next key question is to find if that pattern matches partisan voting.

In order to find if there is a relationship between the ideological vote on same-sex marriage and partisanship a correlation is used to examine the precinct voting patterns. The two variables used to measure the relationship between partisanship and ideology are the percentage of votes for the Republican presidential candidate in 2004 and the percentage of voters who voted in favor of banning same-sex marriage in Ohio and Kentucky. The correlation 0.689 ($p < .01$) indicating that there is a strong positive, statistically significant relationship between the percent voting for Bush and those voting to ban same-sex marriages. Although not a perfect correlation, the strength of the correlation would indicate that in the 2004 presidential election there is a strong tie between ideologically conservative voters and those who voted Republican in the
presidential race. In his book, *Party Images in the American Electorate*, Brewer finds that party images are remarkably stable over time. The image that is particularly telling for this analysis are that respondents rated “conservativism” as the top image liked about the Republican Party from 1964 to 2004 (Brewer, 2009). The findings in this analysis support the evidence presented in survey data throughout the literature that argues that there is a strong relationship between party and ideology.

**Conclusion**

Based on the findings of the spatial analysis conducted here on the same-sex marriage vote and partisan voting patterns, the ideas put forth by Fiorina that “positions and choices” are separate is not supported. There is a clear ideological pattern of voting for and against the ban on same-sex marriage within the Cincinnati MSA and positive, statistically significant correlation between voting Republican and voting to ban same-sex marriage. It could be argued that the area examined here is the exception, not the rule; however the pattern seen here closely mirrors the findings of Brown et al., in their analysis of Tacoma, Washington’s vote to repeal a gay rights amendment. I would argue that the pattern in this analysis would be applicable to most MSAs in the United States, with some variation depending on the size and layout of the city and surrounding area.

In revisiting the two hypotheses put forth earlier in this chapter, the results would indicate that in both cases the research hypothesis is accepted. First, there is a clear spatial pattern that exists, indicating that the vote on same-sex marriage is not random but clustered, indicating that there is a clear divide between the location of ideologically liberal and conservative voters. This pattern would also indicate a clear, conscious choice on the part of voters to support or oppose the referendum. Second, the correlation
indicates that there is a clear relationship between partisan voting and ideological issues. Although it cannot be determined here whether this is a stronger or weaker relationship than in past elections, what is clear is that in the 2004 presidential election ideology and partisanship are closely related.

Despite the strong relationship between voting for the Republican presidential candidate and voting to ban same-sex marriage, the correlation is not perfect. Looking at the raw data of precinct votes, there is a discrepancy in that, overall, the vast majority of voters in the Cincinnati MSA (minus the three Indiana counties) voted to ban same-sex marriage. Figure 6.3, using “Hot Spot” analysis indicates where the discrepancy was greatest. Areas that are “hot” (red) in figure 6.3 indicate precincts where the more voters voted for the Republican presidential candidate than to ban same-sex marriage. These precincts are in suburban areas closest to the central city. The “cold” (blue) spots indicate areas where voters voted in higher percentage for the Democratic presidential candidate than to oppose banning same-sex marriage. Interestingly, these areas are largely the same areas that were the most likely to oppose banning same-sex marriage in comparison to the overall vote. In several precincts in urban core of Cincinnati, voters in these precincts voted 90 to 80 percent for Kerry yet voted to ban same-sex marriage. Some of these precincts voted in favor of the ban by about 50 percent, leaving a large gap between ideology and partisanship.

Based on research presented in Chapter 2, in particular Figure 2.11 and other research, some speculation can be made as to which voters were likely to break with their party on the ideological issue of same-sex marriage. The ANES data on suburban voters and the feeling thermometer on gays and lesbians indicated no statistically significant
relationship. Hence, I would speculate that Republican suburban voters are less likely to support banning same-sex marriage. On the Democratic side, minorities particularly African-Americans are more religious and although a strong Democratic voting bloc, less apt to support same-sex marriage. This is supported by the contextual analysis conducted by Brown et al., and Calhoun-Brown’s (2002) article, “This Side of Jordan: Black Churches and Partisan Political Attitudes,” which both indicate a conservative, religious streak in black voters.

In conclusion, this analysis indicates that voters in the Cincinnati region exhibit spatial patterns of ideological clarity in their vote on same-sex marriage and that ideological voters have sorted into parties that match their ideology.
Figure 6.1: 2004 Same-Sex Marriage Vote by Percent

Legend
2004
Percent Voting to Ban Same-Sex Marriage
- Red: 50 Percent and Below
- Orange: 51 Percent to 60 Percent
- Yellow: 61 Percent to 70 Percent
- Green: 71 Percent to 80 Percent
- Light Green: 80 Percent and Above

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 6.2: Clustering of Ideological Voters, Same-Sex Marriage Vote, 2004

Legend
Same-Sex Marriage Vote
GIZ Score
- < -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.66 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.50 Std. Dev.
> 2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Figure 6.3: Clustering of Precincts with Difference Between Party Vote and Vote for Same-Sex Marriage

Legend
Party vs. Ideology
GI2 Score
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - -1.68 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.50 Std. Dev.
>2.58 Std. Dev.

Data Source: Election Results from each of the fifteen counties within the Cincinnati Metropolitan Statistical Area
Chapter 7

Conclusion: Summary of Findings, Their Applicability to Political Science, and a Geographic Theory on Voting

One of the most important findings of this dissertation is to demonstrate that political mapping, particularly the use of precinct level election data, has reached a threshold where the data and analysis provide critical new methods for studying political science. First, there are several statistical methods that analyze patterns within maps and clustering effects that are available in GIS and have not yet been broadly applied to political analyses. These statistics can bring new ways to answer several contemporary political questions, in this case, polarization, ideological sorting, and the sorting of politically like-minded individuals into similar areas.

Second, several political scientists and other researchers are beginning to examine spatial relationships to draw political conclusions. Many of these works are major sources of inspirations for this dissertation; however I would argue that their conclusions rest on tenuous ground. Works by Bishop, Gelman, Oppenheimer, and Gimpel, to name some of the more notable contributions, rely solely on state and county level election data for their conclusions. Data aggregated at this level, even at the county level, will be prone toward committing an ecological fallacy and missing the true pattern occurring within many states and counties. Precinct-level data is the smallest unit level outside of the individual voter in which an analysis can be conducted and is therefore less likely to commit an ecological fallacy than data from states and counties. However, the benefits
of precinct data, particularly in analyzing voting change over time, are tenuous because of the administration of precincts, which brings me to the final point about Chapter 3.

Third, because precincts change frequently they are difficult to use for any type of analysis and have largely been ignored likely for this reason. Overcoming precinct changes that occur frequently are is challenging, but the methods discussed in Chapter 3 offer a starting point to resolving this methodological difficulty. Documentation of when and how precincts were split provides the best way to mold election results to fit current precinct boundaries. By splitting or merging election data based on documentation and maps a close representation of vote can be displayed. The methods are by no means perfect, but provide a reasonable and accurate portrayal of election results that took place in years past.

Political scientists rely heavily on survey data to provide critical analysis of voting behavior and trends over time. Surveys such as the American National Election Study and the General Social Survey provide, overall, reliable and valid survey results to examine the United States electorate and their behaviors. It seemed fitting to use data from these two highly reputable sources to lay the foundations for the spatial analysis conducted in later chapters. Chapter 2 examines the “Urbanism” variables within ANES dataset and the proxy urban variable, county population of respondents, available in the GSS. A pooled time series analysis of voting trends within different residential areas shows that respondents’ voting behavior varies depending upon the location in which they live. Furthermore, logistic regression examines respondent voting behavior by residential location and how it compares to other key demographic variables. Residential location holds up as statistically significant in this analysis in both the cumulative ANES
dataset and within the pseudo-urban variable created (using past work by Gimpel and Karnes to create a working definition of the concept) in the GSS. Finally, using feeling thermometers in the ANES dataset, residential area has statistically significant correlations with several partisan and ideological concepts. Again, this chapter provides a solid foundation for several of the findings observed in the spatial analysis in later chapters.

Using precincts within the counties of the Cincinnati Metropolitan Statistical Area as a case study, an empirical analysis of the historical spatial data offers an in depth examination of polarization and whether the sorting of politically like-minded individuals is occurring. To date, several different spatial analyses offer conclusions about voting patterns based solely on county-level data. These analyses, however, miss the true pattern that occurs within metropolitan areas and, especially in the case of Bishop’s “The Big Sort,” make erroneous conclusions via the aggregation of data at the county level, also known as an ecological fallacy. The findings in Chapter 4 show that there is a high degree of variation of voting behaviors within each county and that there is a clear spatial pattern that develops when one observes all of the precincts within a metropolitan statistical area over time. The pattern that emerges and becomes clearer each year after 1976 is that there are concentric circles within the presidential voting patterns in the precincts observed, with the most intensely Democratic voters in the center, surrounded by a core group of Republican voters, finally followed by an outer ring of precincts that support the Republican candidate over time but provide only a modest amount of support, making them distinguishable from the inner circle of Republican supporters. The other key result from Chapter 4 is that, over time, the level of geographic sorting increases, as
predicted by Bishop in his book “The Big Sort.” It can be surmised from these findings that like does attract like and that this phenomenon has increased over time.

The results are largely consistent with contextual theory and the neighborhood effect, in the sense that contextual theory would predict the kind of clustering found in the dissertation. However, at this point I do not have the data needed to make any definitive conclusions about causality. It could be that local context influences voting behavior, or it could be that prior political predispositions lead people to move to areas where they will be surrounded by like-minded neighbors, but that this context does not further shape behavior. Making these kinds of causal determinations could be the subject of future research. At a minimum, this dissertation leaves the door open for continued investigations of contextual effects.

Recent work within the field of political science and social psychology indicates that polarization should have certain effects on individual voters. Examinations of survey data indicate that those who are the most polarized are the most active partisans. Furthermore, individuals who are around other like-minded individuals and isolated from other viewpoints are driven to extremes and action. Chapter 5 tests these assertions by examining relationships between turnout and the most polarized precincts, which are determined by the percent of the vote a Democratic or Republican presidential candidates received in each election. The results of the analysis were inconclusive, finding no discernable statistical relationship and no pattern from election to election. Generally, the precincts that Republican presidential candidates won by the largest margin had a positive correlation with turnout while the most Democratic precincts had a negative or, in some cases, a weak positive correlation with turnout. The likely culprit for these
findings is the individual demographic variables that explain the likelihood of turnout such as income, education, and age. This analysis does not provide a way to control for these variables and they are likely significant intervening variables. It is highly likely that levels of polarization do play a role in voter turnout, however the limited amount of data in this analysis prohibits conclusive findings.

The final chapter examines an old debate with new methods. There is a long, distinguished line of political analysis that examines the link between partisanship and ideology. Despite early findings that link between consistent ideology and partisanship was left to the elites, mounting evidence indicates that the mass public is increasingly making the link between ideological political beliefs and partisanship. Although the bulk of the research in this area relies on longitudinal analyses of survey data Chapter 6 examines the vote on same-sex marriage that occurred in Ohio and Kentucky, specifically the precincts within the twelve counties of the Cincinnati MSA. In this chapter, the vote to ban or not to ban same-sex marriage is used as proxy for ideology and a vote for the Republican or Democratic presidential candidate serves as the proxy for partisanship. The results indicate a strong geographic pattern, with area studies showing distinctive concentric circles with those who voted not to ban same-sex marriage concentrated in the center circle with an outer ring of those who voted to ban same-sex marriage separated by a smaller ring of those in between. A simple correlation between the variables indicated a strong, statistically significant relationship. The findings indicate that, at least in the 2004, there is a strong relationship between ideology and partisanship.
Implications for the Study of American Politics and Future Studies

There are several implications of this dissertation’s finding for the study of American politics and future research within the field. In my mind, the first and foremost goal of this dissertation is to introduce new methods for exploring election results, particularly precinct election results. To date, the few spatial analyses within the field of political science rely solely on county level data. These analyses are extremely helpful and yield key results; however they frequently either miss or mischaracterize several important outcomes because of the aggregation of election results, particularly in larger counties. It is likely not lost on many, if not all, of the authors who use county level data that the aggregation of election results dilutes the detail. However this sacrifice is small because counties do not shift and are stable, geographically, once they are created. Precincts, on the other hand, display greater levels of detail but are much more difficult to analyze historically because of frequent changes that occur in their boundaries.

This dissertation takes up the challenge of using precincts to analyze election data. Using statistical tests available in GIS, clustering and pattern analysis can be used to provide answers to several political questions. In the book, The Future of Political Science, an article written by Gary King advocates for social sciences to use new forms of evidence in their research. He argues that over the last half-century social scientists have successfully relied upon sample surveys, government statistics, and in depth analyses of people, places, and events. King goes on to argue that surveys produce only occasional snapshots of random individuals of unknown geographic locations and are becoming increasingly unreliable because cell phone use and non-response. He further argues government statistics offers aggregate data that may obscure important data while
in depth analysis lack scale, representation, and miss long-term change (King, 2009).

This dissertation, particularly the methods and unit of analyses used represent an attempt to take up King’s call for the use of a new evidence base.

Although this represents a new evidence base, that base still is problematic. To overcome the changing nature of precincts it requires a historical analysis of local government documents that document the changes over time and the use of older maps to see the changes that occurred. It is impossible to fully know how the people in changed precincts voted and how to perfectly distribute them, but every effort was made to maintain the voting proportion extremely well. Ultimately, the methods provided here may be replicated in other historical analyses and yield, what I would argue, are substantial and useful results.

The second contribution this dissertation makes is to understanding the state of polarization in the country today. As discussed throughout the dissertation, there are essentially two camps that exist within the field of political science, one that argues that polarization is a myth or overstated while the other argues that it is real and reaching historic levels. Based on the evidence presented here, I fall squarely in the camp that argues that the electorate is polarized. Bishop and Gimpel, in particular, have analyzed voting records by county and found that politically like-minded people have sorted into areas with others like themselves. The analysis presented here indicates that the sorting of like-minded people is actually occurring at much more minute level than what county election data indicates. However, there is not yet sufficient evidence to definitively conclude that people are making a conscious choice to live around those that have like political views; rather it could be a matter of living around other people who have similar
backgrounds and interests. The analysis of census data pointing toward continued ethnic segregation by Logan and Stults indicates that for the last several decades ethnic groups have persisted to live separate and isolated from one another. Florida’s analysis of urban indices showing that urban areas thrive on attracting people with alternative lifestyles indicates that gays and lesbians and other alternative populations reside in inner cities where they find more acceptance and others “like them.” The Impressa report finds that young, educated whites that do not have families are flocking to urban areas. The concentration of certain demographics is not isolated to urban areas. Gimpel and Karnes as well as Frank argue that certain demographics of people who have a shared political culture live in rural areas. McGirr’s analysis of suburbia further indicates that there is a certain demographic that lives in suburban areas. Politically like-minded people are living nearer to one another and further from those who think differently. The parties have also done their part to ensure that the politically like-minded are also voting in like parties.

For decades, politicians, pundits, and political scientist argued that the two major parties offered no discernable choice to the public regarding policy differences. Governor Wallace famously stated that there was “not a dimes worth of difference” between the two parties and a committee of leading political scientists authored a call for the parties to give the public a clearer policy choice in their report, “Toward a More Responsible Two-Party System.” Since that time studies indicate that the parties have offered choices and the electorate has acted accordingly by voting for and aligning with the parties that offer their overall ideological preference.
Geographic clustering within the electorate is one of the best indicators of polarization because it represents the convergence of two factors. First, the two major parties have been able to mobilize ideologues to sort into their camps. Since the mid-twentieth century the two parties have been able to reorder the party system along ideological lines. This reordering does not fit the classic definition of realignment as defined by Key and Sundquist because there was no major event that triggered a major shakeup of the party system nor does there seem to be one dominant party. The reordering of the party system does not fit the classic sense of dealignment because there has not been a party decline. In his article, “Partisanship and Voting Behavior, 1952-1996,” Bartels (2000) points out that party identification and the link between partisanship and voting have increased substantially over the period of his study. This same article points to a reordering of the old New Deal alliance system which is reaching its pinnacle. This brings me to the second point, since this party system is now reaching its zenith, the ideological and demographic characteristics of the party faithful are readily apparent, as displayed by exit polling of the last several presidential elections, current polling data, and a host of academic works that examine party and candidate support. This makes geographic analysis an ideal method to test the polarization and the strength of the party system. Those who are similar in ideology, demography, or in lifestyle preferences live in close proximity and also have extremely similar partisan preferences.

A third implication of this dissertation to political science is that the findings here add significant discussion to the political communication. It is important to consider what it means for a democracy to have people of like and dissimilar opinions discussing policy preferences and what happens if only like-minded individuals communicate versus
what happens when there is a diversity of opinions. According to the findings in this dissertation there is a strong indication that politically like-minded people are becoming increasingly isolated with each other and less likely to have contact on daily basis with someone who thinks differently from themselves. Geographic isolation, in combination with political communications literature that indicates that partisans exist in an echo chamber (as it pertains to the radio shows, internet websites, and television news they prefer), must have consequences for the way people think about politics and perceive themselves and others.

In her book, *Hearing the Other Side*, Diana Mutz discusses the current state of political information networks and communication and, more specifically, deliberative versus participatory democracy. Mutz focuses her research on whether people with diverging political views are communicating and, depending on whether they are or are not, what the effects are for political communication and thought. She also contrasts participatory democracy with deliberative democracy. Participatory democracy, according to Mutz, involves people working together for a shared political goal or purpose such as people stuffing envelopes for a candidate or party. Political discussion in this case rallies the people to volunteer and give to a common cause, no matter how dreary the outlook. Mutz indicates that there is political dialogue within participatory democracy but, when it occurs within a homogenous group, it does not qualify as deliberative democracy. Mutz defines deliberative democracy as cross-cutting political communication. This political communication between those with different political views can occur at dinner parties, work, neighborhoods, or at meetings to name a few locations where this should occur. Ultimately, it is a calm, rational exchange of political
views (Mutz, 2006). Mutz explores whether these two forms of democracy can coexist or if they are mutually exclusive.

In her analysis, Mutz finds that there are several benefits to cross-cutting political discussions. Using evidence from a host of political philosophers, she holds that exposure to views that are dissimilar from those held by an individual is a key element to maintain a democratic citizenry. This is especially important given the findings in this dissertation, which Mutz refers to as “residential Balkanization.” Cross-cutting political discussions familiarize a person about other rationales for opposing viewpoints, which takes on even more importance when a candidate or policy of the opposing side wins. It is important because this deliberative political discussion results in political tolerance. Mutz finds that those exposed to arguments of groups that they disagree with a great deal are more likely to want to extend civil liberties to that group (Mutz, 2006).

Mutz concludes with the acknowledgment that the demand for citizens to be informed and participatory is inherently contradictory. Like Abramowitz, she finds that the most polarized citizens are those most likely to participate. Mutz also argues that the idea of a community where people of divergent viewpoints coming together may be an overblown, unrealistic fantasy and, given that like attracts like, communities are places of politically like-minded. She concludes by stating that political communication among those whom agree with one another can be either a source of change or a source of intolerance and extremism (Mutz, 2006).

This dissertation finds that voters are polarized and live in close proximity to others that vote like themselves, backing the claim that like attracts like. In fact, the degree of like-minded segregation found in this analysis is greater than that found via
analyses of county level voting data. The findings of this dissertation, in combination with the preponderance of studies on political communication, indicate that the echo chamber of political ideas for most of the electorate is monotone and loud. Although this study does not attempt to explore ramifications of what happens when members of the electorate do not hear the other side, it is something that needs much more exploration, given the findings.

The fourth implication that this dissertation has on the field of political science is that of representation. Much debate has occurred, similar to a chicken or egg argument, as to who was polarized first, the electorate or the elites. Regardless of which came first, the electorate is polarized and, in order to remain in office, elected officials are much like those they represent: polarized. Also, as the parties have gradually come to rely upon certain demographics of people as their foundation of support, many of those who represent the parties are also demographically similar to those they represent. Hence, today’s elected officials fall under one or both of two theories of representation: descriptive representation, in which elected officials reflect their constituents (Pitkin, 1967) or ideological representation in which elected officials mirror the ideological makeup of their constituency.

With the advent of complex computer programs, especially GIS, spatial data regarding election results is more readily available and visualized. These programs make it easier to use election and demographic data, particularly within the realm of politics and drawing of congressional districts, to create “pushbutton gerrymanders” (Altman et al., in Mann and Cain, 2005). Several new computer programs specifically created to assist in redistricting and gerrymandering became available with the promise of drawing
districts to meet partisan aims and meeting a host of court-ordered requirements. Politicians, parties, and interest groups commit large amounts of time and money toward using these programs to manipulate district boundaries in an attempt to create a permanent advantage in legislative elections. Despite the House changing hands three times since 1994, there is still evidence that indicates that the number of competitive congressional districts has decreased. In their article, “Voters, Candidates, and Issues in Congressional Elections,” Erikson and Wright argue that one of top reasons incumbents have an advantage in congressional elections is because districts are increasingly drawn to favor one party over another and offer constituents ideological representation. Furthermore, Oppenheimer in his article, “Deep Red and Blue Congressional Districts,” argues that there are three alternative explanations to incumbency advantage in congressional elections. First, improved data and computer technology available to those conducting the redistricting and the incentives they have to create noncompetitive districts make districts less competitive. Second, the creation of an increasing number of majority-minority districts makes incumbents more secure. Finally, the increasing ability of Americans to select where they reside, and their tendency to do so on the bases that are strongly correlated with political party preferences, as demonstrated by this dissertation, make congressional elections less competitive.

Although the discussion and research applies mostly to congressional districts, there is ample evidence that suggests that state and local government elected offices are dominated by one party and one ideology. This argument would even apply to non-partisan elections such mayoral, city council, and other races where party identification is not available on the ballot but made clear by candidates themselves or simply by
inference because of a candidate’s demographic characteristics. It may also occur because of the lack of one party within a specific geographic area to organize and field candidates, leaving one party in control of state, county, or city government.

**Toward a Geographic Theory of Voting**

The evidence in this dissertation relies mostly on election data and subsequent spatial analysis of the Cincinnati Metropolitan Statistical Area as a case study. Ultimately, the proverbial elephant in the room is whether the data and analysis of this fifteen county metropolitan statistical area in the Midwest can be extrapolated to other metropolitan areas in the United States or if it is only applicable to this one area. I will argue that this case study is applicable to all other major metropolitan areas, particularly in the Northeast, Midwest, and West. The only location where a similar voting pattern will not be observed is in the South, particularly the Deep South.

I argue this first because the survey data studied in Chapter 2 indicates that there is a statistical difference in voting and ideology between urban, suburban, and rural areas. Key, in his analysis of southern states, found that there were liberal Republican bastions throughout the South, giving historical precedent to the claim. Furthermore, as the parties have increasingly coalesced and become dependent on certain demographics, the spatial pattern becomes more pronounced. As argued in the chapters throughout the dissertation, like attracts like, and people of similar ideologies, ethnicity, wealth, and lifestyle preference strongly tend to live in areas with others “like themselves.” Although the degree of partisanship and ideology will vary from area to area, the spatial pattern observed in the Cincinnati MSA will be observed in other MSA’s across the nation. This claim can only be proven with future research, however if you use only race as a
predictor of this spatial pattern, the Cincinnati MSA ranks eighth in the Black-White segregation statistic of the fifty highest metro areas with black populations in the 2005-2009 census report prepared by Brown University in coordination with the US 2010 Project. Other, larger metro areas such as Chicago, New York, and even Cleveland rank higher, which I would argue is a strong indication of a similar voting pattern. Other cities in the south and west have similar segregation patterns with Hispanic and, to a lesser degree, Asian populations.

Why do the findings not apply to the Deep South? Interestingly and somewhat ironically, MSAs in the Deep South have much lower rates of segregation (however, they have high rates of what the Brown/US 2010 Project refer to as Black-White isolation) with Charleston, SC ranking at the fiftieth out of fifty in black-white segregation in the Brown/US 2010 Project ranking of segregation in the fifty highest metro areas with black populations in the 2005-2009 census report. Figures 7.1 and 7.3 along with Table 7.1 show that the three county area that comprises the Charleston MSA in the 2008 presidential election has a drastically different spatial pattern and clustering than what is observed in Cincinnati MSA during the same election. There are no concentric circles radiating from the central city out to the suburbs and rural areas. A spatial analysis of the area indicates that the pattern is random according the Moran I Index (See Table 7.1).

However, when examining the Greenville-Spartanburg MSA you begin to see a spatial pattern and clustering of votes similar to what is observed in the Cincinnati MSA. This area ranks forty-sixth in the rate of black-white segregation, just a few spots ahead of Charleston and within the same state. Although this area has several smaller cities that make up this area, you can see a similar pattern emerge in the 2008 presidential election
(Figures 7.3 and 7.4), however the Moran $I$ Index still indicates that pattern is random (Table 7.2). Each individual central city is more apparent in the spatial pattern and clustering analysis although not as clearly defined as what is expected in the Midwest, West, and Northeast.

Ultimately, the pattern and clustering that is expected, given the current state of the party system and the strong tendency of like to attract like, is what is observed in the case study of the Cincinnati MSA. With the noted exception of the Deep South, other metro areas will exhibit almost identical spatial patterns with concentrations of Democratic voters in the central city of the main metro area and central city of smaller cities in the area. Not only does this apply to partisan voting but on issue voting as well, with voters with liberal tendencies concentrated in the central city and more conservative voters in the surrounding suburbs and rural areas.

In conclusion, the advances in spatial analysis offer a new avenue for political research. Despite the difficulties of precinct analysis, it offers the best and most accurate portrayal of voting patterns. The spatial analysis of voting patterns and clustering offer a great opportunity for political scientists to expand into new research areas and provide innovative answers to several lingering questions such as polarization, ideological clustering, and the clustering of politically like-minded people as demonstrated within this dissertation. More research and methodological development is required but the applications offer limitless research opportunities and the ability to shed new light into some of the long-standing and most often debated issues within the field.
Figure 7.1: 2008 Landslide Precincts in Charleston, SC

Legend
Charleston, SC MSA
2008
- No Landslide
- Republican Landslide (McCain)
- Democrat Landslide (Obama)

Data Source: Election Results from South Carolina State Election Commission
Table 7.1: Spatial Autocorrelation, Charleston, SC, 2008

Moran's I Index = 0
Z Score = 0.61 standard deviations

The pattern is neither clustered nor dispersed.
Figure 7.2: Clustering of Polarized Precincts, 2008 Charleston, SC

Legend
Charleston, SC 2008
GIZ Score
- < -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - -1.25 Std. Dev.
1.25 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

Data Source: Election Results from South Carolina State Election Commission
Figure 7.3: Landslide Precincts, 2008
Greenville-Spartanburg, SC

Legend
Greenville-Spartanburg MSA 2008
- No Landslide
- Republican Landslide (McCain)
- Democrat Landslide (Obama)

Data Source: Election Results from South Carolina State Election Commission
Table 7.2: Spatial Autocorrelation, Greenville-Spartanburg, SC, 2008

Moran's I Index = 0.007
Expected Index = -0.002
Z Score = 0.729

The pattern is neither clustered nor dispersed.

<table>
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<th>Moran's Index</th>
<th>Expected Index</th>
<th>Z Score</th>
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<td>0.007</td>
<td>-0.002</td>
<td>0.729</td>
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</table>
Figure 7.4: Clustering of Polarized Precincts, 2008
Greenville-Spartanburg, SC

Legend
Greenville-Spartanburg MSA
GiZ Score
- < -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - 1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

Data Source: Election Results from South Carolina State Election Commission
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