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Lightning Strikes Twice: An Examination of the Political Factors Associated with State-Level Death Sentences and Executions in the United States, 1930-2012

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ABSTRACT

Over the course of the last 50 years, scholars have emphasized the role that political processes play in shaping the nature of capital punishment practices. Empirical studies that have examined the relationship between political factors and capital punishment have attributed variation in the imposition of death sentences and the execution of offenders across jurisdictions in the United States to the politicization of criminal justice policies and practices and the shift in public sentiment towards more punitive ideologies that began in the 1970s. Even though historians have argued that capital punishment practices have always been shaped by political considerations, empirical research on the social determinants of the death penalty has restricted its focus to the period following the Supreme Court's 1972 decision in *Furman v. Georgia*. Due to the restricted temporal scope used in prior empirical studies, it is unknown whether these political theories have captured historically specific factors associated only with post-*Furman* capital punishment practices (*proximate causes*) or whether they can explain the occurrence of these practices over the course of long historical periods (*ultimate causes*). In addition, it is not known whether the politicization of capital punishment practices in the last third of the 20th century changed the nature of the relationship between state-level political factors and capital punishment practices across the pre- and post-*Furman* time periods.

In order to address these gaps in the literature, this study examined whether three post-*Furman* political perspectives were able to account for the imposition of death sentences and the execution of offenders in U.S. states from 1930 to 2012. The study also examined whether factors specific to the pre- and post-*Furman* eras moderated the

relationship between state-level political factors and death penalty practices. The findings indicate that the predictive power of post-*Furman* political variables was not restricted to the last third of the 20th century. The social and political factors identified in post-*Furman* empirical studies, therefore, are not proximate manifestations particular to the time period following the politicization of criminal justice policies and practices in the 1970s. The reconfiguration of political party lines and the adoption of new ideologies regarding correctional practices in the 1970s did not significantly alter the drivers long associated with capital punishment practices in the United States.

CHAPTER ONE: INTRODUCTION

Over the course of the last 50 years, scholars have begun to place particular emphasis on the role that political processes play in shaping the nature of capital punishment practices. With this increase in interest among researchers, a number of theoretical perspectives have been offered to account for the persistent use of the death penalty in the United States and to explain variation in the use of this form of punishment across jurisdictions. These perspectives have primarily focused on how the changes in the social landscape in the 1960s and 1970s have shaped the relationship between political factors and correctional policies and practices over the last 40 years (Beckett, 1997; Edsall & Edsall, 1991; Flamm, 2005; Garland, 1993, 2001, 2011; Gottschalk, 2006). More specifically, these important social changes included the increase in anxiety regarding the rising crime rates and the perceived disruption in the traditional social hierarchies associated with the civil rights movement, the collapse in support of the liberal ideologies that provided the foundation for the *Great Society*, and the movement towards more punitive ideologies regarding the punishment of offenders within the American population. These social changes effectively resulted in the topic of the death penalty quickly moving from political obscurity to one of the most polarizing political issues used by conservative officials to gain electoral success after the Supreme Court's 1972 decision in *Furman v. Georgia* (Garland, 2011; Gottschalk, 2006). After the politicization of capital punishment practices in the 1970s, scholars have also highlighted how the discourses and purposes behind the use of the punishment underwent significant changes that have contributed to the continued support for the use of the practice up until the present day (Garland, 2011; Zimring, 2003). Empirical research that has examined

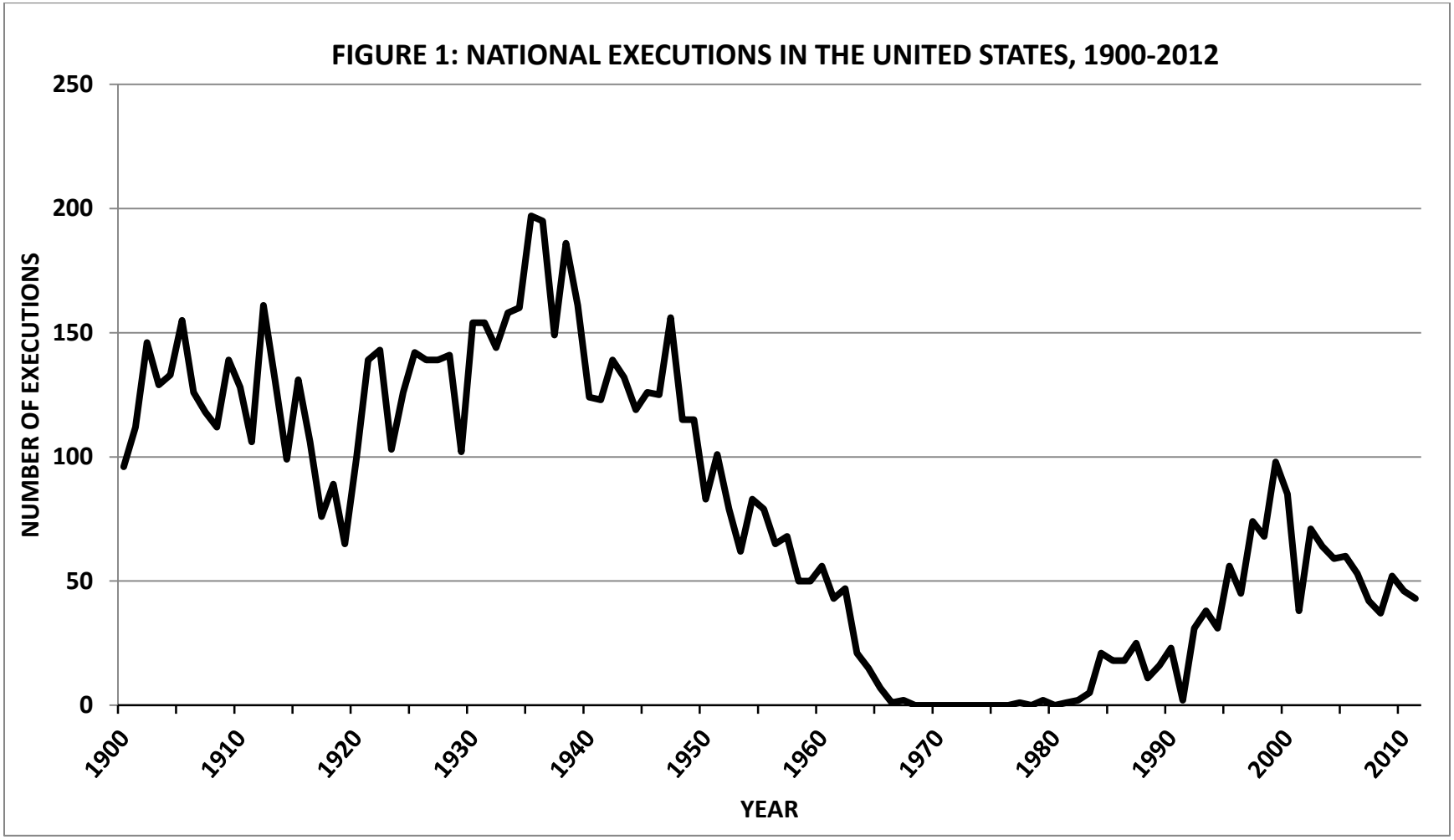
the key propositions outlined by these political historians has primarily demonstrated support for the relationship between political factors and the use of the death penalty (Jacobs & Carmichael, 2002, 2004; Jacobs, Carmichael & Kent, 2005; Jacobs & Kent, 2007; Jacobs et al., 2007; McCann, 2008).

Even though the above-mentioned studies have expanded our knowledge regarding the political factors associated with capital punishment practices in the last third of the 20th century, there are two significant limitations present in the empirical literature. The first limitation is that researchers have yet to empirically examine the relationship between state-level political factors and capital punishment practices in the pre-*Furman* United States. This limitation is particularly problematic because political historians have argued that capital punishment practices have always been shaped by the political and social landscapes in which they are immersed. As Garland (2011: 128) has noted when attempting to account for the factors that have shaped capital punishment practices across history:

> The use and character of capital punishment are-and always have been-shaped by the structure of state institutions and the decision of state officials in accordance with their perceptions of strategic governmental issues. State actors strive to maintain control and deploy power in the interest of their institutions, their allies, and their constituents.

Since scholars believe that the relationship between these concepts is not limited to the post-*Furman* time period, it is important to conduct further research in order to identify the specific political factors related to capital punishment practices in the pre-*Furman* United States.

Given the narrow temporal scope used in previous studies, a particularly noteworthy phenomenon that has yet to receive empirical attention is the substantial decline in the use of capital punishment practices that occurred in the United States from



Sources:
ESPY File: 1900-2002
Death Penalty Information Center: 2003-2012

the mid-1930s until the moratorium in the late 1960s (see Figure 1). This decline in the use of the death penalty is deserving of scholarly attention because it occurred across all jurisdictions and regions in the United States and it happened in the absence of any special attention from legislators or in the presence of a clear abolitionist movement (Bowers, 1984; Garland, 2011; Gottschalk, 2006). Based on the rather uniform nature in which this decline occurred, it is vital to empirically examine this time period in order to attain a more holistic understanding of the political factors associated with fluctuations in capital punishment practices over the course of the 20th century.

The second limitation found within previous empirical examinations of the contextual factors related to state-level capital punishment practices is that these studies have only examined the relationship between these concepts when use of the death penalty has been increasing. As Figure 1 indicates, beginning in the early portion of the 1980s, reliance on executions in the United States rose steadily through the end of the millennium. This limitation is also problematic because scholars have yet to establish whether the same political factors identified in previous studies are also able to account for these practices when their use is being restrained. Considering this limitation, an important first step in determining whether the same political factors can account for both increases and decreases in the use of capital punishment practices would be to expand the temporal scope to include the above-mentioned decline in the use of the practice in the pre-*Furman* era.

Perhaps the most important reason for attempting to expand recent theoretical contributions to investigate pre-*Furman* trends is that this analytic expansion will allow scholars to determine whether political theorists have highlighted *proximate*

manifestations associated with capital punishment practices or whether these perspectives have identified the *ultimate* causes of these practices. This distinction is particularly important because proximate causes are historically specific factors that are *associated* with capital punishment practices over short periods of time, while ultimate causes can *explain* the use of the death penalty over the course of long historical periods (Rosenfeld, 2011). As Roth (2009) highlighted when examining the social factors related to fluctuations in homicide rates from the colonial period until the present day, the popular theoretical perspectives designed to account for this phenomenon failed to explain its occurrence when the temporal scope was expanded to include historical trends. Based on Roth's (2009) theoretical contribution, which stressed the need for scholars to evaluate the overall efficacy of theoretical perspectives by broadening their temporal focus, it is important for researchers to determine whether our political perspectives are able to account for capital punishment practices when historical trends are included.

The purpose of this dissertation is to examine whether recent theoretical contributions are able to account for long-term trends in capital punishment practices when the temporal scope is expanded to include pre-*Furman* trends. In order to examine long-term trends in the use of this form of punishment, two important considerations must be taken into account when examining capital punishment practices in the United States. The first consideration is the unique nature of the political institutions in the United States. One of the most distinct factors particular to America concerns its dedication to maintaining the sovereign rights of states (Garland, 2011; Gottschalk, 2006; Zimring, 2003). With the United States favoring the dispersion of power among the states over a strong centralized government, criminal justice policies are primarily shaped by

TABLE 1: EXECUTIONS IN 20TH AND 21ST CENTURY UNITED STATES BY TIME PERIOD AND JURISDICTION

Region/State	*Pre-Furman*	*Post-Furman*	*Region/State*	*Pre-Furman*	*Post-Furman*
Northeast			**Midwest**		
Connecticut*	65	1	Illinois*	204	12
Maine*	0	0	Indiana	72	20
Massachusetts*	65	0	Iowa*	32	0
New Hampshire	3	0	Kansas	41	0
New Jersey*	187	0	Michigan*	0	0
New York*	644	0	Minnesota*	0	0
Pennsylvania	544	3	Missouri	110	64
Rhode Island*	0	0	Nebraska	20	0
Vermont*	8	0	North Dakota*	5	0
South			Ohio	308	49
Alabama	313	55	South Dakota	6	3
Arkansas	247	27	Wisconsin*	0	0
Delaware	25	16	**West**		
Florida	268	73	Alaska*	8	0
Georgia	625	47	Arizona	78	34
Kentucky	202	3	California	466	13
Louisiana	294	27	Colorado	65	1
Maryland*	112	5	Hawaii*	42	0
Mississippi	244	21	Idaho	9	3
North Carolina	408	38	Montana	39	3
Oklahoma	93	98	Nevada	41	15
South Carolina	278	42	New Mexico*	34	0
Tennessee	179	5	Oregon	68	2
Texas	493	479	Utah	31	7
Virginia	304	106	Washington	82	5
West Virginia*	91	0	Wyoming	16	1

*These states abolished the use of the death penalty by April 1, 2013.
Source: Death Penalty Information Center

the political and cultural landscapes particular to each jurisdiction. Another important aspect is that individuals who hold discretion over the power to punish are elected by citizens to these positions. Since politicians, judges, and district attorneys must seek re-election every few years, these officials must consider the demands of their constituents or face possible removal from these positions. In contrast to political systems embraced in other western nations, the political structure in the United States allows for the severity of penal punishment to be shaped by the concerns particular to each jurisdiction.

Due to the fact that each state has the power to dictate the nature of penal punishments within its borders, significant variation in the use of this form of punishment has surfaced across jurisdictions in the United States (Bowers, 1984; Garland, 2011; Jacobs & Carmichael, 2002, 2004; Jacobs et al., 2007; Zimring, 2003). Perhaps the most obvious example of this phenomenon is that 18 jurisdictions have abolished the use of this punishment in the United States, while 32 states continue to have laws allowing for its use on the books. Another example can be seen when examining the frequency of executions in the southern United States. Even though executions occur at a much higher rate in the South in comparison to the other three regions, the use of the death penalty in the South has varied considerably across jurisdictions in the post-*Furman* time period (see Table 1). To illustrate, Texas has executed more individuals than any other jurisdiction in the United States with 479, while Kentucky has only executed three people during this time period and West Virginia abolished the use of the punishment in 1965. Due to the significant variation across states in terms of their reliance on capital punishment practices, research that seeks to examine the social and political factors

related to the use of this punishment in the United States must account for these important jurisdictional differences.

Another important aspect related to the use of capital punishment practices in the United States is the significant variation within jurisdictions regarding the use of the practice over the course of the 20th and 21st centuries. As an example, California executed the largest number of offenders in the United States during the 20th century pre-*Furman* time period with 466. However, after the *Furman* decision, the state of California has only executed 13 individuals in the last 40 years, which ranks 18th among states that have conducted executions in this period. In addition to variation in the actual use of the death penalty, nine death penalty states (Connecticut, Illinois, Maryland, Massachusetts, New Jersey, New Mexico, New York, North Dakota, and Rhode Island) in the pre-*Furman* period have passed legislation outlawing the punishment after 1972. Considering how the unique nature of the political institutions in the United States has influenced variation in the use of the punishment both across and within jurisdictions over time, this study examines trends in capital punishment at the state level in order to avoid obscuring important state-level differences.

The second consideration that guides this dissertation's analysis of capital punishment trends is the need to separately examine the political factors related to the imposition of death sentences and the execution of offenders. The reason these practices require separate examination is due to the significant time delay that exists between conviction and execution in the United States today. Research that has examined the expansion in the temporal delay between these two capital punishment stages in the post-*Furman* time period indicates that the average number of months between

conviction and execution increased from 74 months in 1977 to 178 months in 2010 (Snell, 2011). Due to these significant delays resulting from the judicial review process, research indicates that only 10% of offenders sentenced to death are actually executed (Liebman et al., 2000) and the leading cause of death among death row inmates in the United States is natural causes (Garland, 2011). Because receiving a death sentence does not necessarily translate into an execution in the post-*Furman* United States, this study examines these stages individually to determine whether important political and social factors differentially impact the separate phases involved with this form of punishment.

Based on these important considerations, this dissertation examines the political factors related to state-level trends in death sentences and executions from 1930 to 2012. The three theories that guide this dissertation's analysis of death penalty trends argue that political ideologies, partisan politics, and social threat are all significant factors related to the severity of penal practices. In order to develop the empirical component of this dissertation, data from governmental publications and publically available datasets housed at the Inter-university Consortium for Political and Social Research (ICPSR) are relied upon. Since this project is interested in determining the political factors related to capital punishment practices across jurisdictions and over time, pooled time-series cross-sectional analytic procedures are employed because these procedures are able to capture variation across time and space simultaneously (Allison, 1994; Halaby, 2004). Finally, this study examines the broader theoretical and empirical implications based on the key results found in this dissertation.

The findings from this project's examination of long-term trends in capital punishment practices have a bearing on two important theoretical questions. The first

theoretical question concerns whether the propositions within the three political theories have identified proximate manifestations associated with short-term changes in capital punishment practices. If this project does, in fact, find support for these perspectives when long-term trends are incorporated, this would indicate that these theories are not mere proximate manifestations associated with capital punishment trends in the post-*Furman* era. This finding would be particularly important because research on the social determinants of penal policies before the 1960s has been relatively sparse, and scholars could potentially begin to use these indicators to examine the association between political factors and a wider variety of criminal justice practices over the course of the entire 20th century. However, if this study does not find support for the propositions within the three political theories, this would indicate that these perspectives are able to account only for short-term fluctuations in capital punishment practices in the post-*Furman* time period. Since scholars have argued that penal punishment has always been shaped by political considerations (Foucault, 1977; Garland, 2001, 2011; Mauer, 2001; Savelsberg, 1994; Whitman, 2005), the null findings would indicate the need for researchers to develop new measures designed to account for the political factors associated with long-term trends in capital punishment practices. Although the temporal scope involved with this dissertation's analysis of capital punishment trends is not wide enough to determine whether these theoretical propositions are, in fact, ultimate causes, the findings from this project would represent an important first step in assessing the overall efficacy of these perspectives.

The second important theoretical question the findings from this project will address is whether the politicization of capital punishment practices changed the nature of

the relationship between these two concepts across the pre- and post-*Furman* time periods. Since historians have never explicitly stated whether the political factors associated with the use of the death penalty after the *Furman* decision were similar or different from those in the pre-*Furman* time period, it is currently unknown whether the social and political changes in the 1960s and 1970s merely strengthened a pre-existing relationship or if these factors altogether redefined the nature of this relationship. If this dissertation were to find that the same political indicators from the post-*Furman* time period can account for capital punishment practices from 1930 to 2012, this would indicate the need for scholars to dedicate more attention towards accounting for how these important political factors shaped the use of capital punishment in the pre-*Furman* era. However, if this study were to find no support for the three political perspectives examined in this dissertation, this would signify the need for scholars to develop new variables designed to account for the political factors particular to the pre-*Furman* time period. Since no scholar to this author's knowledge has empirically examined this important gap in the theoretical literature, this study's findings would also constitute an important first step involved with determining the extent of the impact that the political shifts in the 1960s and 1970s had on the use of the death penalty in the United States.

The remainder of this dissertation proceeds in the following manner. Chapter Two begins with an examination of the three theoretical perspectives, followed by a review of the empirical literature that has examined the association between capital punishment practices and political factors. This chapter also highlights the nature of capital punishment practices over the course of the 20th and 21st centuries, and the key research question that guides the analysis of long-term trends in capital punishment practices is

articulated. Chapter Three focuses on the procedures used to collect and construct the key variables contained in this study, the research design and estimation methods that were adopted, and the analytic strategies that were used to examine the key research questions delineated in Chapter Two. In Chapters Four and Five, I present the findings from the models that examine the political factors associated with death sentences and executions from 1930 to 2012, as well as the results from supplemental analyses designed to determine the robustness of the findings from the primary models. Finally, in Chapter Six, a summary of my analyses is provided, as well as the theoretical implications associated with this study's results. The final chapter also examines potential avenues for future research, the social and political factors associated with the 20th and 21st century declines in reliance on capital punishment practices, and potential strategies abolitionist and pro-death penalty advocates could use to advance their causes.

CHAPTER TWO: LITERATURE REVIEW

This chapter begins by examining the three theoretical perspectives that have hypothesized an association between political factors and changes in capital punishment practices in the post-*Furman* time period. This chapter then highlights the empirical literature that has focused on the state-level social and political factors associated with the imposition of death sentences and the execution of offenders. Finally, this chapter concludes with an examination of the historical factors related to national and regional trends in the use of capital punishment practices in the 20th and 21st century United States, as well as stating the research question that guides this dissertation's analysis of long-term trends in the use of the death penalty.

THEORETICAL PERSPECTIVES

The following review of the theoretical literature focuses on the key propositions from political perspectives that have stressed the importance of the use of partisan politics, ideological sentiment among the public, and the perceived threat that weaker social groups pose to the dominant group within society. Although these perspectives have primarily been used to explain the adoption of punitive penal policies in the last half of the 20th century, the propositions within these theories provide the foundation for this dissertation's examination of trends in capital punishment practices from 1930 to 2012.

Partisan Politics

The first theoretical perspective proposes that there is a significant relationship between the severity of societal punishment and the incorporation of crime and punishment issues into local and national political debates. According to this perspective, scholars have proposed that political actors are autonomous agents who use calculated

rhetoric and practices to increase their electoral success (Beckett, 1994; Edsall & Edsall, 1991; Flamm, 2005). Beginning with Barry Goldwater's presidential campaign in 1964, conservative politicians began to realize that they could use law and order rhetoric to attract voters who had tired of the disruptions to the traditional social hierarchy that accompanied the civil rights movement (Beckett, 1997; Chambliss, 1997; Edsall & Edsall, 1991; Flamm, 2005). In addition, the use of law and order politics also assisted conservatives in attracting citizens who were growing increasingly uneasy about the perceived increase in crime rates in the United States, which corresponded to the increase in attention given to criminal activity and social disturbances by politicians and the media (Beckett, 1997). With the increased use of law and order politics, conservative candidates were able to use it as a wedge issue for political gain at both the local and national level. Since liberals continued their ideological commitment to the welfare principles that provided the foundation for the *New Deal* and the *Great Society* (Flamm, 2005; Garland, 2001), theorists have argued that law and order politics has primarily been associated with conservative politicians (Beckett, 1997; Flamm, 2005). However, with Bill Clinton's adoption of similar rhetoric in his first presidential campaign in 1992, which helped Democrats find their voice on the topic of law and order, the once clear connection between conservatives and tough-on-crime politics appears to have been muddied.[1] Research that has focused on the main propositions within this perspective has found a significant relationship between Republican elected officials and the adoption of punitive criminal justice policies and practices.[2]

[1] Garland, 2001, 2011; Gottschalk, 2006; Holian, 2004; Kramer & Michalowski, 1995; Mauer, 1999.

[2] Jacobs & Carmichael, 2001, 2002, 2004; Jacobs, Malone & Iles, 2012; Jacobs et al., 2007; Stucky, Heimer & Lang, 2005; Yates & Fording, 2005.

Political Ideology

The second political theory posits a strong relationship between the severity of societal punishment and the public's commitment to political ideologies. Scholars have highlighted this relationship because of the distinction between conservative and liberal sentiment regarding criminal justice practices. Conservative ideologies often stress that crime is the product of rational choice and that the best method for deterring unlawful transgressions involves the adoption of harsh punishments designed to incapacitate dangerous offenders (Flamm, 2005; Garland, 1993; Lacey, 1988; Thorne, 1990). On the opposite side, liberal ideologies stress that crime is the product of the unequal distribution of resources within society and that the best method for eliminating crime is the adoption of societal programs designed to temper inequality (Flamm, 2005; Garland, 1993; Lackoff, 1996; Thorne, 1990). Considering the argument by scholars that societal punishment is influenced by the broader social landscapes in which they are immersed (Foucault, 1977; Garland 1993, 2001, 2011; Gottschalk, 2006; Whitman, 2005), this perspective argues that the adoption of harsh penal policies, especially the use of the death penalty, is more likely to occur when there is stronger commitment to conservative ideologies among the public. To determine the presence of conservative and liberal ideologies, scholars have examined a number of measures that include membership in fundamentalist churches (Jacobs & Carmichael, 2001, 2002, 2004; Messner, Baumer & Rosenfeld, 2006), scales based on voting records and special interest group ratings (Jacobs & Carmichael, 2001, 2002, 2004; Messner, Baumer & Rosenfeld, 2006), and welfare expenditures (Beckett & Western, 2001; Greenberg & West, 2001; Stucky, Heimer & Lang, 2005). Relying on these measures, researchers have found a significant

relationship between the public's commitment to political ideologies and both imprisonment[3] and capital punishment practices (Jacobs & Carmichael, 2002, 2004; Jacobs, Carmichael & Kent, 2005; Jacobs et al., 2007).

Social Threat Theory

The final political theory examined is the social threat perspective. The basic tenet of this theory argues that groups in power adopt repressive forms of punishment when they perceive a threat to their dominant position in society. This theory contends that penal punishment is used by powerful groups within society to control the behavior of groups they deem to be a threat to the traditional social order. Whereas the partisan politics perspective argues that politicians, especially conservatives, shape public perception regarding the need for harsh punishments, this perspective argues that politicians adopt these policies based on pressure from the dominant groups within society. In order to understand the diverse nature of the social threat perspective, this review focuses on three hypotheses that have been categorized under the broader social threat umbrella.

The first hypothesis examined within the social threat theory is the racial threat perspective. This hypothesis suggests that the dominant racial group in society increases the severity of penal punishments in an attempt to control a growing minority population (Blalock, 1967; Blumer, 1958; Bobo & Hutchings, 1996). According to this perspective, groups in power initiate these policy changes because of their desire to ensure their hold over scarce societal resources and the privileges associated with their dominant position in society (Blumer, 1958; Bobo & Hutchings, 1996). However, racial threat theorists also

[3] Beckett & Western, 2001; Greenberg & West, 2001; Jacobs & Carmichael, 2001; Stucky, Heimer & Lang, 2005.

contend that the likelihood of punishment eventually begins to level off and decrease after the size of the minority population reaches a certain tipping point. After surpassing this tipping point, it is hypothesized that minority group presence has a greater impact on political affairs, thus restraining the use of harsh penal sanctions on their members. Based on these assertions, racial threat theorists argue that the relationship between the size of minority populations and the use of harsh penal punishments takes on a bell shape. Research that has focused on the association between racial threat and criminal justice practices indicates that growth in minority populations has been associated with increased spending on police (Kent & Jacobs, 2005), higher arrest rates (Liska, Chamlin & Reed, 1985), higher imprisonment rates (Jacobs & Carmichael, 2001), the likelihood of the death penalty being legal (Jacobs & Carmichael, 2002), the willingness of jurors to impose death sentences (Jacobs & Carmichael, 2004; Jacobs, Carmichael & Kent, 2005), and the execution of offenders (Jacobs & Kent, 2007; Jacobs et al., 2007). Since the social landscape in the United States has long been marked by tension between the races (Myrdal, 1944; Tocqueville, 1948), it is important to further assess the empirical connection between capital punishment practices and the perceived threat posed by racial minority groups over the course of the 20th and 21st centuries.

The second social threat hypothesis examined in this dissertation argues that there is a relationship between vigilante values and criminal justice practices. The main proposition within this perspective argues that in areas where the vigilante tradition is strong, individuals will be more inclined to support the use of both legal and extralegal forms of violence to maintain the traditional social hierarchy. In order to understand the impact that vigilante values have on capital punishment practices, it is important to first

briefly examine the historical factors that influenced the development of this cultural tradition. Beginning with Reconstruction, southern whites perceived the emancipation of African Americans as a significant threat to their dominant position in society. In an attempt to maintain the traditional social order and protect the economic and political privileges associated with their dominant position in society (Tolnay & Beck, 1992), southern whites adopted violent practices, usually in the form of lynching, as a means of prohibiting African Americans from taking full advantage of the rights that had been recently afforded to them after the Civil War. The reason social threat scholars have often made the connection between lynching and capital punishment is that both practices were designed to control the behavior of minority groups.[4] As Bowers (1984: 131) has commented when reflecting on the purposes behind the use of executions in the South:

> The evidence of racial discrimination in the administration of capital punishment suggests that the death penalty may have served as an instrument of *minority group oppression*: to keep blacks in the South in a position of subjugation and subservience.

Since scholars have argued that lynching and capital punishment both serve a complementary purpose, it is likely that the same cultural sentiment that encouraged the use of vigilante violence in the southern United States also influences support for the use of the death penalty.

In order to account for the way in which vigilante values have impacted capital punishment in the post-*Furman* era, Zimring (2003) has hypothesized that these sentiments moderate the impact that governmental distrust has on support for the death penalty. In other words, even though capital punishment is administered in state-operated facilities and is overseen by state officials, citizens who reside in areas where vigilante

[4] Black, 1983; Phillips, 1987; Senechal de la Roche, 1996, 2001; Tolnay & Beck, 1990; Turk, 1982; Wyatt-Brown, 1982.

values are strong are more inclined to view this form of punishment as the will of the community. Since research has long documented the racial disparities associated with the use of capital punishment (Bowers, 1984), especially in the southern United States, it is reasonable to believe that the dominant racial group in this region is more likely to sentence minorities to death and execute these individuals in order to control the behavior of these populations. To measure the presence of vigilante values, researchers have relied primarily on the number of lynching acts that occurred in the United States in the late 19th and early 20th centuries.[5] Studies that have examined the relationship between vigilante values and criminal justice practices have found a significant relationship between past lynchings and the imposition of death sentences (Jacobs & Kent, 2007), the execution of offenders (Zimring, 2003), and higher imprisonment rates (Jacobs, Malone & Iles, 2012).

A third hypothesis contained within the social threat perspective contends that there is a strong connection between the nature of criminal justice practices and economic considerations. The main proposition within this hypothesis argues that social elites use societal law and penal punishment to protect their hold over property and to control the behavior of the economic underclass.[6] These neo-Marxist theorists believe that social elites doubt the underclass's dedication to following the laws of society; therefore, when there is growth in this population, harsher forms of punishment must be adopted in order to deter unlawful transgressions. In order to measure growth in the economic underclass, scholars have relied on indicators designed to measure unemployment rates and the

[5] Jacobs, Carmichael & Kent, 2005; King, Messner & Baller, 2009; Messner, Baumer & Rosenfeld, 2006; Tolnay & Beck, 1990; Zimring, 2003.

[6] Chambliss & Seidman, 1980; Jankovic, 1977; Liska, 1987; Quinney, 1977; Rusche & Kirchheimer, 1939.

degree of economic stratification within society. Although this hypothesis has received extensive scholarly interest, the results from empirical studies have primarily shown mixed support for the connection between growth in the underclass and changes in the nature of penal punishment.[7] Despite the mixed results from previous studies, this dissertation seeks to test the economic threat hypothesis because it has yet to be assessed in terms of its relationship with capital punishment practices in the pre-*Furman* era. Considering the main propositions contained within the three political theories highlighted above, I now provide a more in-depth examination of the nature of the empirical support for the relationship between these political factors and capital punishment practices in the United States.

EMPIRICAL RESEARCH ON THE SOCIAL AND POLITICAL DETERMINANTS OF CAPITAL PUNISHMENT PRACTICES

This review of the empirical literature on capital punishment focuses on previous studies that have examined the relationship between political variables and the imposition of death sentences and the execution of offenders at the state level. Two of the first studies to focus on post-*Furman* trends in capital punishment practices were Jacobs and colleagues' (Jacobs & Carmichael, 2004; Jacobs, Carmichael & Kent, 2005) examination of the political factors related to state-level death sentences. In these studies, Jacobs and colleagues relied on pooled time-series analyses to assess the relationship between predictors measured in 1970, 1980, and 1990 and the number of death sentences in 1971-1972, 1981-1982, and 1991-1992. From their analyses, Jacobs and colleagues found that the likelihood of receiving a death sentence is greater in states that have a higher

[7] Chiricos & Delone, 1992; Colvin, 1990; Galster & Scaturo, 1985; Greenberg & West, 2001; Jacobs & Carmichael, 2002, 2004; Jacobs & Kent, 2007; Jankovic, 1977; Keen & Jacobs, 2009; Parker & Horwitz, 1986; Smith, 2004; Yates & Fording, 2005.

violent crime rate, a large proportion of religious fundamentalists (political ideology), stronger conservative ideologies among the public (political ideology), a large minority population (racial threat), and an interaction between the historical presence of a vigilante tradition and the presence of large minority populations (vigilante values and racial threat). Jacobs and colleagues also found that states with liberal governors (partisan politics), a small minority population (racial threat), and a stronger commitment to liberal sentiments (political ideology) were more likely to report zero death sentences within their jurisdictions for the time period analyzed. The findings from these studies are particularly pertinent to this dissertation because they stress the importance of accounting for political factors when examining capital punishment practices and they demonstrate support for the propositions within the three political theories highlighted above. A more in-depth analysis of Jacobs and Carmichael's (2004) findings will occur in Chapter Four.

A third empirical paper to focus on state-level capital punishment practices was Jacobs et al.'s (2007) study that examined the probability that death row inmates are executed. Using a discrete-time event history analysis, Jacobs et al. (2007) examined the individual and state-level factors related to execution probabilities in 16 states. In terms of their state-level results, the authors found that executions were more likely to occur in states where there were larger African American and Hispanic populations (racial threat), state populations were larger, a larger proportion of residents were born out of state, murder rates were higher, citizens embraced more conservative sentiments (political ideology), and the percentage of votes for Republican presidential candidates was higher (partisan politics). Similar to their earlier findings, Jacobs et al. (2007) provided further

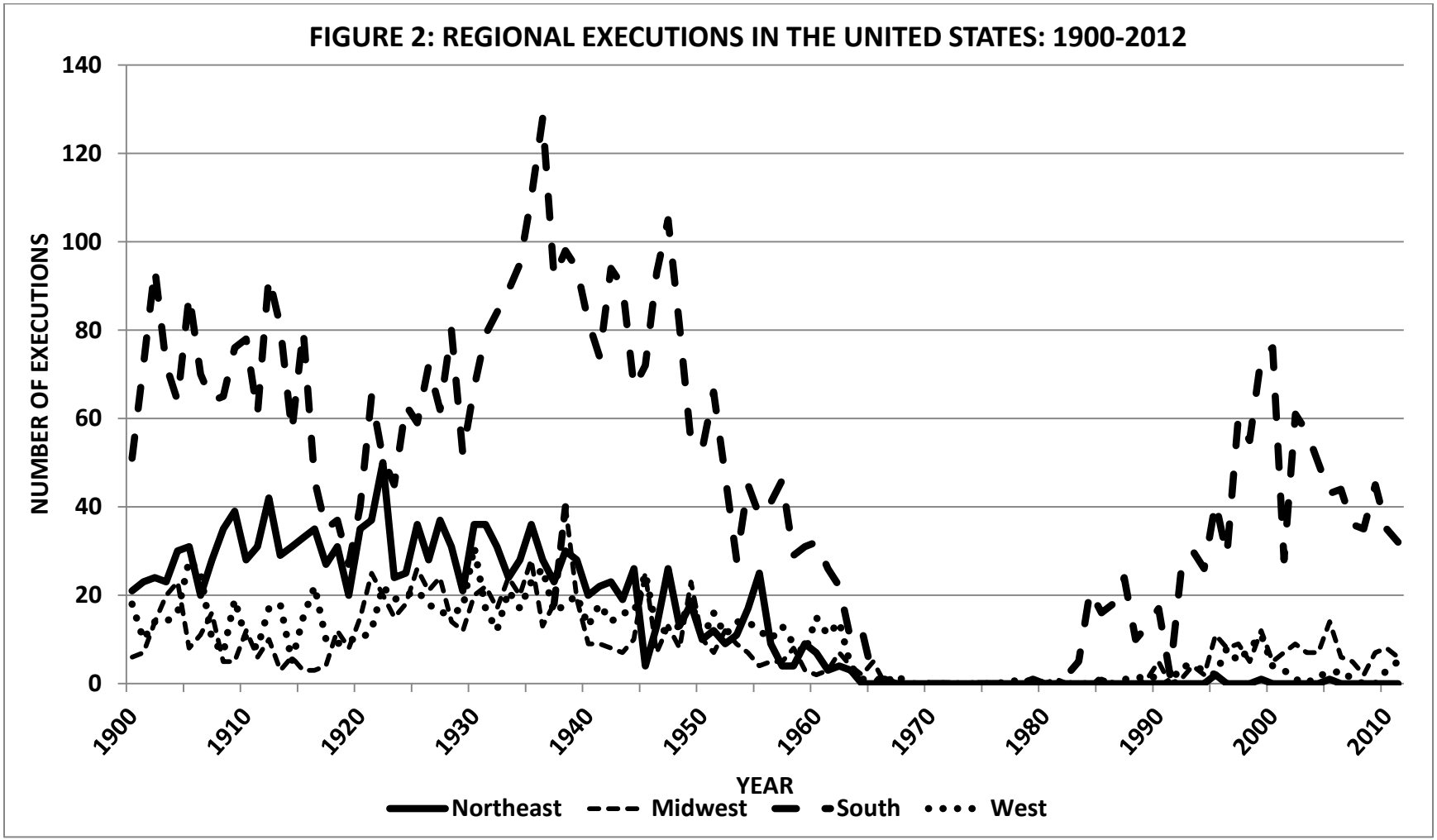
support for the important relationship between state-level political factors and capital punishment practices.

The final study that has examined the state-level political factors associated with capital punishment practices focused on this relationship from 1977 to 2004. In his study, McCann (2008) assessed the relationship between a number of political variables and aggregate death sentences and executions. From his analysis, McCann (2008) found that conservative political ideological sentiment (one measure constructed using measures for voter ideological identification, Democratic Party elite liberalism-conservatism, Republican Party elite liberalism-conservatism, composite policy liberalism, and religious fundamentalism), social threat (comprised of homicide rates, violent crime rates, and the percentage of minorities in the population), and an interaction between these two variables were all significantly related to the number of both death sentences and executions. In order to assess the temporal stability of these measures, McCann (2008) performed a split-half replication that examined the time periods from 1977 to 1990 and 1991 to 2004. The results of this replication supported the findings from the models that examined the entire time period under analysis. The findings from McCann's (2008) study provide further insight into the relationship between political factors and capital punishment practices in the post-*Furman* time period. This chapter now provides a brief historical examination of the social and political factors related to the changing nature of national and regional trends in death sentences and executions in the United States.

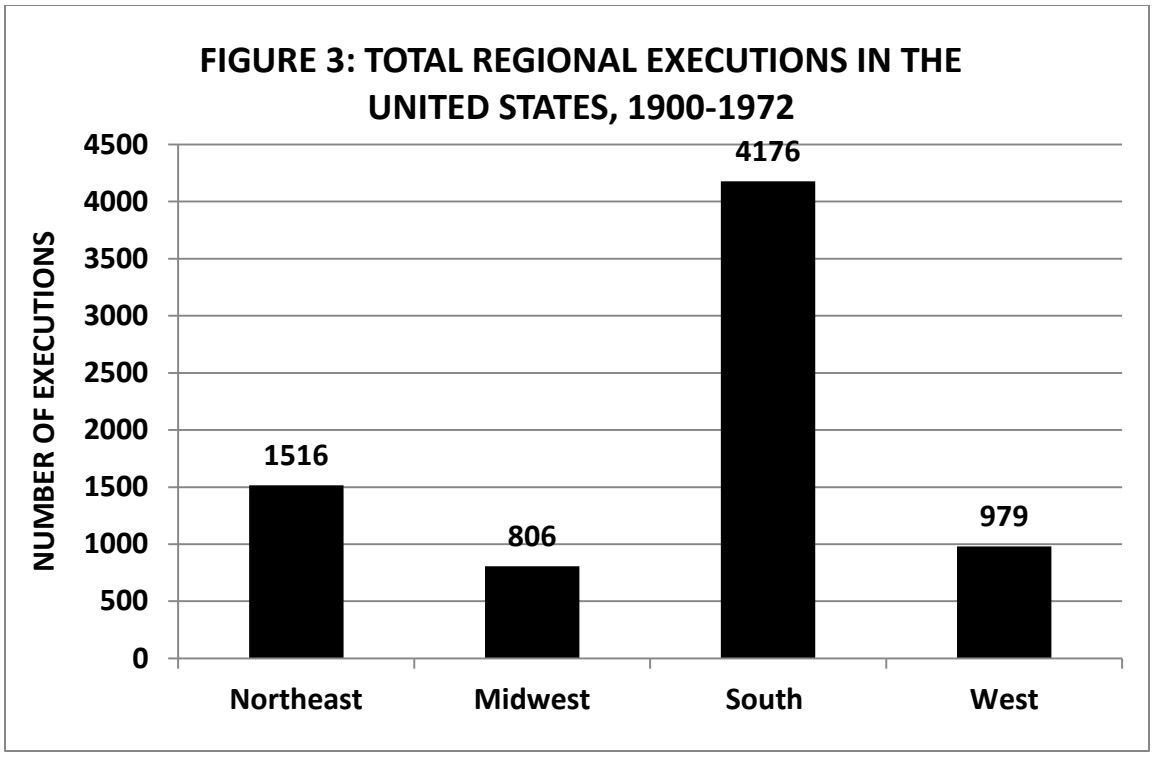
HISTORICAL OVERVIEW OF CAPITAL PUNISHMENT PRACTICES IN THE 20TH AND 21ST CENTURIES

At the beginning of the 20th century, capital punishment practices in the United States continued on the path set in the previous century that involved restraining and restricting the use of this form of penal punishment (Banner, 2003; Bowers, 1984; Garland, 2011; Gottschalk, 2006). Jurisdictions across the United States were slowly initiating a number of policies and legal reforms that changed the nature in which capital punishment practices were enacted. These reforms included the restriction of capital crimes to all but the most serious offenses in northern states, the movement away from public executions due to the unpredictability of the crowds that gathered to witness these events, a transfer in the power to execute offenders from local authorities to state officials, the introduction of new legal codes that repealed mandatory death sentences for certain crimes, and the issuance of decisions by the Supreme Court that stressed the importance of protecting defendants' rights to due process, especially in capital cases. With the general movement towards refining the use of capital punishment in the United States that began in the 19th century, executions in the United States generally declined in the first two decades of the 20th century.

Despite the adoption of legal and judicial policies designed to restrain the use of the death penalty across the United States, national-level executions began to steadily climb from 1920 until the mid-1930s, reaching a 20th century peak of 197 in 1935. A closer examination of the increase in the number of national-level executions over this decade-and-a-half period at the regional level reveals that this increase was primarily driven by the use of the punishment in the southern United States. As Figure 2 indicates, executions in the South climbed from 28 in 1919 to 128 in 1936, which signified a 450%



Sources:
ESPY File: 1900-2002.
Death Penalty Information Center: 2003-2012.



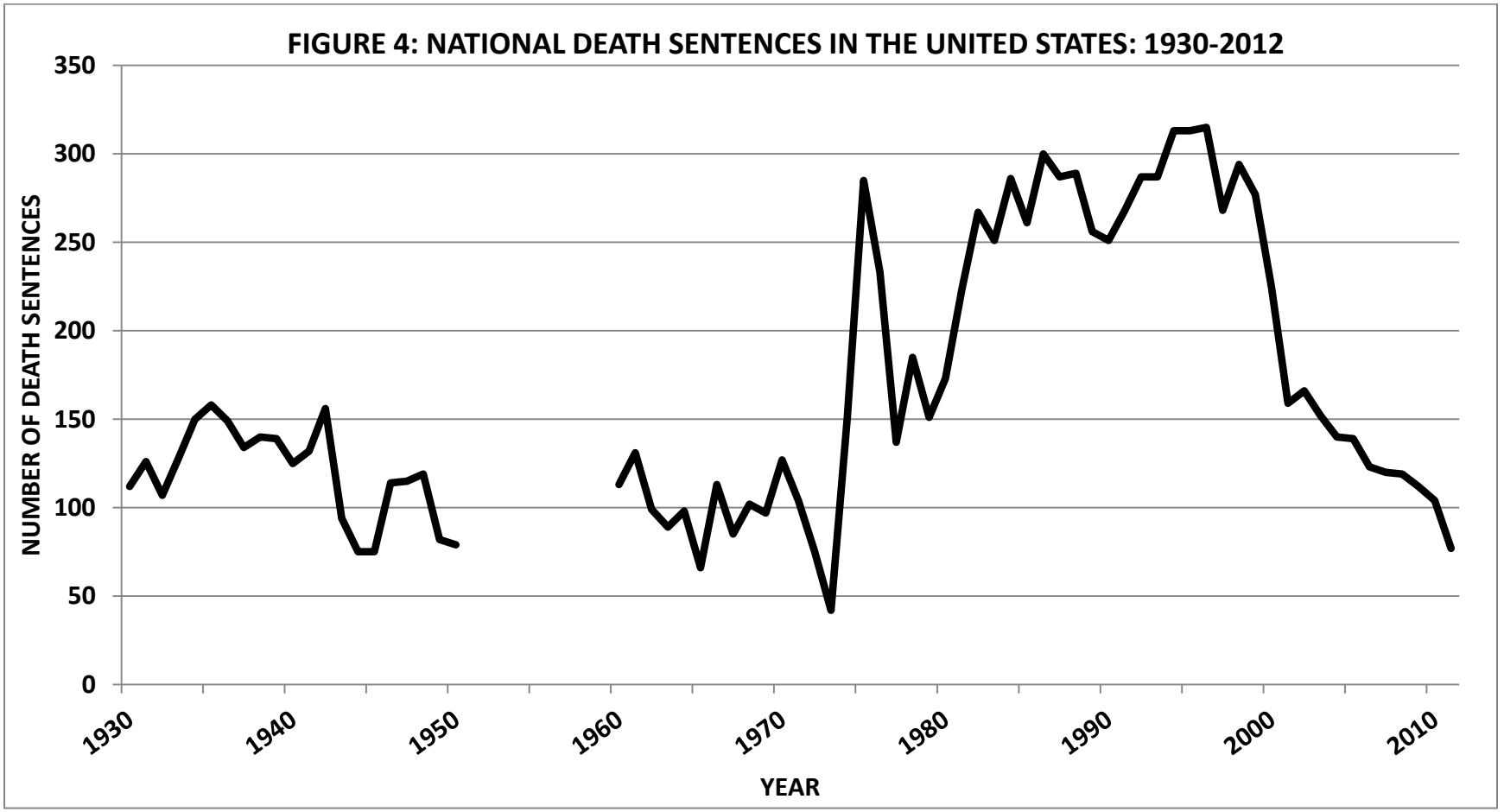
Source: ESPY File, 1900-1972

increase in the use of executions over the 17-year period. Since scholars have been slow to propose hypotheses designed to account for this dramatic increase in southern executions, the social factors related to this phenomenon are still relatively unknown today. While this dissertation is unable to account for the factors related to the increase in executions in the South at this time, it is important to note that 56% of all executions before the *Furman* decision in the 20th century occurred in the southern United States (see Figure 3). In terms of the other three regions, the number of annual executions remained fairly stable from 1920 to 1935.

After the mid-1930s, the United States began to experience a relatively steady decline in the annual number of executions. Perhaps the most important aspect related to this decline is that this phenomenon occurred in the absence of a clear abolitionist movement or any special attention from legislators (Garland, 2011; Gottschalk, 2006).

Scholars have attributed this phenomenon primarily to the erosion of public support for the death penalty, which appeared to have impacted jurors' willingness to impose death sentences (Banner, 2003; Bowers, 1984; Garland, 2011; Gottschalk, 2006) (see Figure 4). The main factors that have been hypothesized to have impacted public perception about the death penalty was the rise to prominence of sociological theories that stressed that crime was the product of biological and environmental causes, which undercut the argument for the deterrent value of the death penalty (Banner, 2003), the change in cultural sentiments in Western societies as these societies strengthened their dedication to democratic and liberal ideologies (Garland, 2011), the widespread adoption across states of legal codes that allowed lesser punishments for crimes that had carried a mandatory death sentence in the past (Banner, 2003; Bowers, 1984), and the apparent willingness of high courts to scrutinize the decisions of lower courts in order to decrease racial discrimination and to prevent abuses of offenders' rights to due process (Bowers, 1984). Due to the above-mentioned social and judicial changes, executions in all four regions in the United States continued to decline leading up to the 1960s.

With the apparent shift in public support for capital punishment in the mid-20th century, the first major anti-death penalty movement emerged in the United States during the 1960s. Perhaps one of the most important events that led to the organization of a national abolitionist movement was the Supreme Court's decision in *Rudolph v. Alabama* in 1963, which demonstrated the Court's willingness to entertain constitutional challenges to the death penalty. Due to the unique nature of political institutions in the United States, the abolitionist movement took to the courts because the distribution of power across states prevented the same top-down reforms that abolished



Sources:
U.S. Department of Commerce, Bureau of the Census. *Prisoners in State and Federal Prisons and Reformatories*: 1930-1946.
Cahalan, Margaret Werner. 1986. *Historical Corrections Statistics in the United States*, 1850-1984: 1947-1950.
U.S. Department of Justice, Bureau of Prisons. *National Prisoner Statistics Bulletin-Executions*: 1960-1971.
U.S. Department of Justice, Bureau of Justice Statistics. *Capital Punishment Series*: 1971-2011.
Death Penalty Information Center: 2012.

the use of the death penalty in other western nations beginning in the 1960s (Garland, 2011; Gottschalk, 2006; Zimring, 2003). These groups sought a judicial moratorium based on the argument that death sentences were imposed in an arbitrary and often racist manner and that public sentiment had turned against the practice. Based on these arguments, the Supreme Court concluded in the *Furman* decision that the arbitrary implementation of capital punishment practices was unconstitutional because it violated both the 8th amendment, which prohibits the use of cruel and unusual punishment, and the 14th amendment, which protects an accused's right to due process. Following *Furman*, scholars have argued that this decision effectively thrust capital punishment into the political spotlight (Garland, 2011; Gottschalk, 2006).

In order to fully understand the politicization of criminal justice policies and practices and the movement towards more punitive ideologies that occurred in the 1970s, the broader social and cultural changes that occurred in the United States during this time period must first be examined. Although scholars have identified a wide array of factors that contributed to this phenomenon, I will briefly examine three of the dominant themes that have been associated with the death of the liberal ideologies that governed the *Great Society* and the subsequent shift towards more conservative ideologies regarding punishment practices. The first factor scholars have attributed to this shift in ideologies is the perceived disruption to the traditional social hierarchy that resulted from the civil rights movement. Even though the civil rights movement was met with general support from American citizens outside the southern United States in the beginning of the 1960s, by the end of the decade, public sentiment had turned against the movement based on the violent riots that had erupted in urban areas (Flamm, 2005; Garland, 2011; Murakawa,

2008). Whereas most American citizens initially viewed African Americans as an oppressed minority in search of equal rights, by the end of the 1960s, the public began to perceive these individuals as a violent minority group that had no respect for law and order (Flamm, 2005; Garland, 2011). The anxiety that accompanied the civil rights movement was particularly heightened in the southern United States where southerners perceived that their very way of life was under attack by liberals. Due to the disturbance in the traditional social hierarchy and the violence that resulted from the civil rights movement, there was the perception among citizens, particularly in the south, that stricter punishment policies and practices needed to be adopted in order to control the actions of African Americans (Beckett, 1997; Edsall & Edsall, 1991; Flamm, 2005).

The second factor involved with the ascendancy of conservative ideologies during the 1970s was the dramatic increase in crime rates that began in the 1960s. From 1960 to 1972, the total crime rate in the United States based on Index I offenses increased by close to 110%, and the violent crime rate increased by almost 150% during this time period (Uniform Crime Report, 1960-1972). With this increase in crime came the realization among citizens, especially in the suburbs, that the risk of victimization had significantly increased and that the problem of crime was no longer contained to poor inner city neighborhoods (Garland, 2001, 2011). In combination with the riots that accompanied the civil rights movement, the increase in crime rates contributed to the sense among citizens that law and order had broken down and that more punitive responses were needed to deter offending (Marion, 1994; Page & Shapiro, 1992; Wilson, 1975). Another significant shift that partially resulted from the increase in crime rates was the eventual collapse of the rehabilitative ideal that had governed correctional

policies and practices for most of the modern era. One of the primary factors that contributed to this phenomenon concerned the attacks from both the right and the left on the practices associated with indeterminate sentencing, which increased the perception among the public that the criminal justice system was woefully inefficient and biased (Allen, 1981; Garland, 2001; Gottschalk, 2006). In addition, politicians and citizens began to embrace the perception that "nothing works" in terms of the rehabilitation of offenders and that criminals would continue to violate the law regardless of correctional interventions (Garland, 2001). Based on these two factors, there was the movement in the United States towards the idea that the only solution to the crime problem involved the removal of discretion regarding the punishment of offenders from criminal justice practitioners and the adoption of harsh correctional policies and practices designed to incapacitate dangerous offenders (Garland, 2001; Gottschalk, 2006; Marion, 1994; Wilson, 1975).

The final factor that contributed to the shift in the ideologies surrounding crime control and correctional practices was the perceived leniency of the liberal ideals that provided the foundation for the *Great Society*. These ideologies were blamed for both the social disturbances associated with the civil rights movement and the increase in crime rates (Flamm, 2005; Garland, 2011). In terms of the civil rights movement, American citizens believed that liberal officials were too lenient on the African Americans that participated in the urban riots and that these individuals were being rewarded in the form of increases in welfare expenditures for their violent disregard of the law (Flamm, 2005). Regarding the issues surrounding the increase in crime rates, the American public began to perceive that this current social ill threatening society was the result of liberal

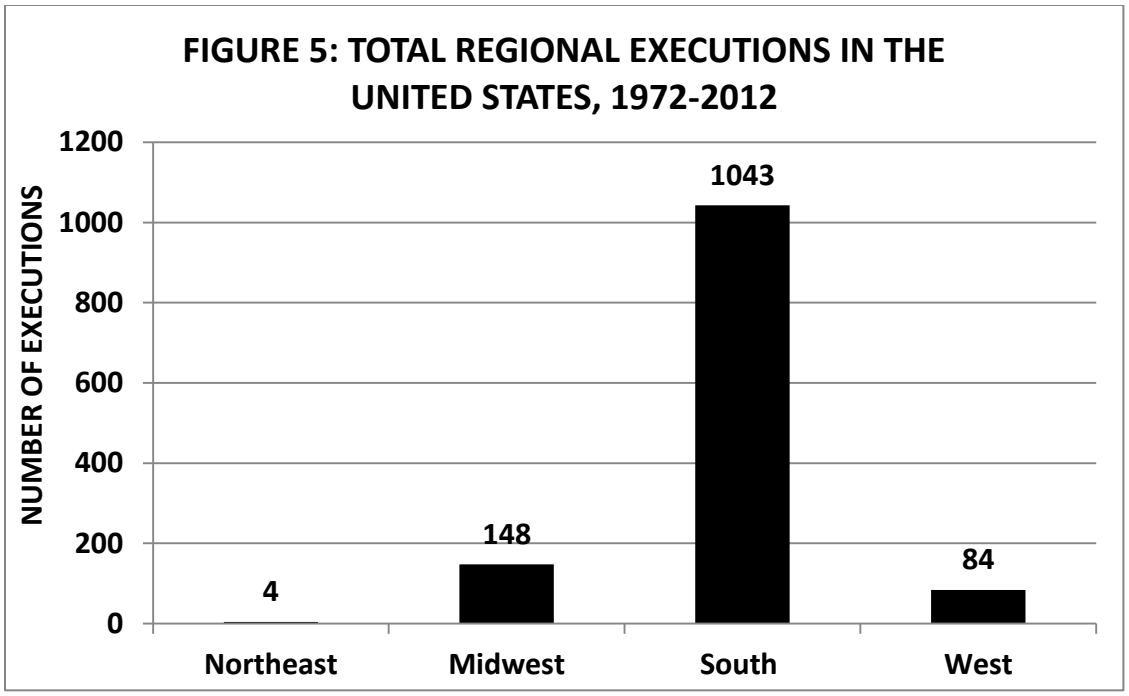
ideologies that created an atmosphere in the United States where violation of the law was considered tolerable (Flamm, 2005). Furthermore, a backlash against the progressive ideologies that guided the Warren Court's ruling in a number of cases was occurring during this time period, and citizens began to believe that the Supreme Court was not concerned with the plight of the average citizen and that the justices preferred protecting the rights of criminals over the punishment of offenders (Flamm, 2005; Garland, 2011). In addition to these perceived failures, the permissiveness of liberal ideologies was also blamed for the Vietnam War protests, the increase in the use of recreational drugs, the women's movement, and the deterioration of "traditional" moral values (Garland, 2011). The combination of these factors eventually contributed to the collapse of the *Great Society* and the movement away from the liberal ideologies that had provided its foundation. Given these three shifts in the social and cultural landscape during the 1960s and the beginning of the 1970s, conservative politicians and the American public began to perceive the retention of the death penalty as a vital instrument needed both to maintain order in society and to wage war against crime (Garland, 2011).

Almost immediately following the *Furman* decision, conservative officials quickly began to introduce reforms designed to bring their death penalty practices in line with the Supreme Court's ruling. Whereas the topic of the death penalty in the pre-*Furman* era did not receive exceptional interest from politicians, after this decision, scholars have argued that the topic became one of the most important polarizing issues used by conservatives to gain electoral success (Garland, 2001, 2011; Gottschalk, 2006). Since the primary venue for abolition in the United States was the court system, abolitionist groups proved ill equipped to contend with the politicized pro-capital

punishment movement that emerged after the *Furman* decision (Gottschalk, 2006). With these changes in the political landscape, the number of annual death sentences immediately climbed from 42 in 1973 to 285 in 1975. Following the Supreme Court's decision in *Gregg v. Georgia* in 1976, which set forth the capital sentencing procedures needed for states to comply with the Eighth Amendment, states slowly began to execute offenders again at the end of the 1970s; the United States effectively began to deviate from other western nations that were continuing their movement towards abolition (Garland, 2011; Gottschalk, 2006; Zimring, 2003).

Due to persistent use of the death penalty into the late 20th century, scholars have argued that the discourse used to rationalize the use of this punishment underwent significant transformations in this time period (Garland, 2011; Zimring, 2003). With the apparent decline in favor of the deterrence argument that had justified the use of capital punishment for much of the modern era, the perceived purpose of the death penalty began to change in accordance with the political and cultural atmosphere in the late 20th century United States (Garland, 2011; Gottschalk, 2006; Zimring, 2003). The emerging discourse in this time period began to justify the punishment as the will of the people, an instrument to bring about healing and closure for the relatives of victims, a weapon in the war against crime, and a lawful act sanctioned by the Supreme Court (Garland, 2001, 2011; Gottschalk, 2006; Zimring, 2003). Based on this change in discourse, support for capital punishment continued to increase, and the annual number of death sentences and executions climbed steadily from the 1980s until the end of the millennium.

A particularly noteworthy development in the post-*Furman* use of the death penalty is the growth in the disproportionate number of executions enacted in the



Source: ESPY File, 1972-2002.
Death Penalty Information Center: 2003-2012.

southern United States. In the post-*Furman* period, southern executions have accounted for 83% in the use of this form of punishment (see Figure 5). To explain the dominant use of the death penalty in the southern United States, scholars have proposed that southern executions have been influenced by the enduring commitment to vigilante values in the South (Zimring, 2003), that capital punishment is tightly linked to the cultural and ethnic identity of southerners (Garland, 2011), and that the death penalty is an integral part of their "traditionalist" perspective (Garland, 2011). Given the uneven distribution of executions in the post-*Furman* period, scholars have often considered the persistent reliance on capital punishment practices in the United States during the late 20th and the early 21st centuries to be primarily a southern issue (Garland, 2011; Zimring, 2003).

Despite the resurgence in the use of capital punishment practices in the post-*Furman* time period, reliance on these practices has significantly declined over the

course of the last decade. More specifically, the imposition of death sentences and the execution of offenders have declined by 65% and 49%, respectively, in the last 13 years. In addition to the marked restraint in the use of capital punishment practices, six states (Connecticut, Illinois, Maryland, New Jersey, New Mexico, and New York) have repealed their death penalty statutes since 2007, which has increased the number of abolitionist jurisdictions in the United States to 18. Furthermore, public support for the use of capital punishment in homicide cases has declined almost 20% since the mid-1990s. With the apparent waning in the willingness of jurisdictions to use capital punishment practices in the 21st century, it appears as though the United States may be returning to more of a pre-*Furman* conceptualization regarding the restraint and refinement in the use of this form of punishment.

THE CURRENT STUDY

Based on the theoretical arguments highlighted above and the previous empirical examinations of capital punishment practices, this dissertation seeks to determine whether recent political theories can account for capital punishment practices when pre-*Furman* and 21st century trends are included in the analyses. As noted above, all of the state-level studies on trends in capital punishment practices have restricted their focus primarily to the post-*Furman* era. Since the temporal focus of these studies has been fairly narrow, it is important to determine whether the variables used in recent models are sound predictors of the same practices when the time period under consideration is expanded. Due to the importance involved with assessing whether scholars' political theories on societal punishment represent proximate manifestations associated with

post-*Furman* trends in capital punishment practices, this study examines trends in death sentences and executions from 1930 to 2012.

As well as examining whether recent political theories can account for long-term trends in capital punishment practices, this study seeks to determine the impact that the politicization of capital punishment practices and the shift towards more punitive ideologies in the 1970s had on the relationship between political factors and the use of the death penalty. As mentioned in Chapter One, scholars have focused primarily on the post-*Furman* period and little is known regarding whether the political factors associated with capital punishment practices were either strengthened or redefined after the *Furman* decision. In order to attain a better understanding of how the social and political changes impacted this relationship, I will also examine whether the strength of the relationship between political factors and capital punishment practices is conditioned by the time period in which they occurred. Considering the above-mentioned gaps in the empirical literature and the importance involved with expanding the temporal scope used to examine capital punishment practices, this study seeks to answer the following question:

> ***Research question:*** Are the state-level contextual factors associated with the imposition of death sentences and executions in the post-*Furman* era robust predictors of these practices when the temporal framework is expanded to include the period from 1930 to 2012?

This dissertation now turns to the examination of the methods involved with the development of the empirical component of this project.

CHAPTER THREE: METHODOLOGY

This chapter begins with a review of the key variables examined in this study. Due to the eclectic nature of the data sources relied upon to construct the indicators, each data source is highlighted individually when examining the procedures that were adopted to create the variables. This chapter then provides the estimation procedures adopted and a description of the research design used to examine the research question articulated in the previous chapter. This chapter concludes with a review of the analytic strategies adopted to examine the social and political factors associated with long-term trends in death sentences and executions from 1930 to 2012.

DATA SOURCES AND THE CONSTRUCTION OF VARIABLES

Dependent Variables

The first dependent variable this dissertation examines is the number of offenders sentenced to death at the state level. To create this variable, numerous sources were relied upon. The first source was the Bureau of the Census' publication *Prisoners in State and Federal Prisons and Reformatories* from 1930 to 1946. The data reported in this publication were gathered on a one-time annual basis (i.e., the number of offenders under sentence of death reported in the publication represents the number of individuals that were in prison at the time the data were collected). In 1947, reporting responsibilities were transferred from the Bureau of the Census to the Justice Department. Due to this transfer, death sentences were not reported in any publically available governmental publication from 1947 until 1959 (with the exception of the Bureau of the Census' decennial report on prisoners in state institutions in 1950). Beginning in 1960, the Justice Department's *National Prisoner Statistics-Executions* publication began to report state-level death sentences again, and the data reported cover prisoners received from the

court under sentence of death for the entire reporting year. In 1971, the Justice Department began publishing death sentences in the *Capital Punishment Series*, which has continued to report this information until their latest publication in 2011. State-level death sentences for 2012 were collected from the Death Penalty Information Center website (http://www.deathpenaltyinfo.org/). Overall, there were a number of missing values for this dependent variable due to the transfer in reporting responsibilities and a number of states failing to report death sentences within their jurisdiction. In order to address these missing values, a number of procedures were implemented in an attempt to impute the data points, and more details on these imputation strategies are reported in the following section.

The second dependent variable is the annual number of state-level executions, and a number of sources were used to construct this variable. The first source is the ESPY dataset (ICPSR # 8451) for the time period from 1930 to 2002. The ESPY file was constructed using the records from each state's department of corrections, newspaper articles, county historical files, state and local court proceedings, historical societies' archives, and additional listings of executions. The second data source is the Bureau of Justice's *Capital Punishment Series* for 2003 to 2011. These yearly bulletins contain detailed information on the number of offenders executed within each state. Finally, the last source relied upon for the number of executions in 2012 was the Death Penalty Information Center.

Independent Variables

As previously mentioned, this dissertation seeks to examine the key propositions associated with three political theories. This study relies on three indicators to examine the propositions contained within the partisan politics perspective. Based on the argument

that conservative officials will adopt harsh penal practices as a wedge issue to gain political support (Beckett, 1994; Edsall & Edsall, 1991; Flamm, 2005), this study measures the presence of conservative politicians using methods similar to those reported in previous studies. The first variable is the percentage of residents in each state who voted for the Republican in a presidential election. This indicator is calculated based on the percentage of state residents who voted for a Republican candidate out of all residents who voted in the presidential election. Data for this variable were obtained from the Guide to U.S. Elections Volume II (2005) and the Atlas of U.S. Elections webpage (http://uselectionatlas.org). The final values adopted for this variable were calculated using two different procedures. First, if an election occurred in a measurement year (the turn of each decade), the percentage of the votes for a Republican candidate was directly adopted for these decades. Second, if an election did not occur in a measurement year, the average from the two closest elections was calculated to produce values for these periods.

The second partisan politics variable examines the political affiliation of state governors. The data used in the construction of this variable were obtained from the Guide to U.S. Elections Volume II (2005) and the National Governors' Association webpage (http://www.nga.org/cms/home.html). This variable was dummy coded where a 1 indicated the presence of a Republican governor.

The final variable used to determine the presence of conservative officials is the percentage of Republicans in the state legislature. Data used to construct this indicator were drawn from two sources. The first source of data for this variable came from Michael Dubin's (2007) book, "Party Affiliations in the State Legislatures: A Year by Year Summary. 1796-2006." The second data source relied upon was the Bureau of the

Census' *Statistical Abstracts of the United States* for the breakdown of party affiliation in 2010. A limitation involved with examining party affiliation across all of the jurisdictions in the United States is that Nebraska has embraced a unicameral legislative system from 1937 to the present and Minnesota used non-partisan ballots from 1913 through 1974;[8] therefore, the political affiliation of state legislators in these jurisdictions is unknown during these periods. In order to produce estimates for the missing years, the breakdown of party affiliation in both states' legislatures was estimated using the average percentage of Republicans in the state legislature from all neighboring states.[9]

This study also relies on four variables to examine the propositions within the political ideology perspective. The first variable is the percentage of individuals who indicated fundamental religious affiliations within each state. This variable was included in this study because research indicates that religious fundamentalists harbor many of the conservative ideologies that stress the need to adopt harsh penalties to deter unlawful transgressions (Curry, 1996; Erikson, Wright & McIver, 1993; Grasmick & McGill, 1994; Thorne, 1990). Data used to construct this indicator came from the *Census of*

[8] Although Minnesota embraced a non-partisan ballot until 1974, legislative candidates began running and caucusing as liberals and conservatives in the late 1940s (Dubin, 2007). Based on candidates' affiliation with the dominant political parties, Dubin (2007) was able to determine the breakdown of legislative members for the measurement periods covering the 1950s through the 1970s.

[9] In order to determine the overall accuracy of this imputation method, the average percentage of Republicans in the state legislature was calculated for all neighboring states and then compared against actual state values when available. In terms of Nebraska, the average for all neighboring states (62.69%) in 1930 was compared to Nebraska's actual value for the same year (54.89%). With regards to Minnesota, the average for all neighboring states (86.50%) was also compared to the actual value for the state (69.70%) in 1950. Although there are discrepancies between the predicted values and the actual percentage of Republicans in the state legislature for both states, the potential bias introduced using the imputed values is preferable to the potential bias involved with removing these state-years from the analyses. Due to the bias that could be introduced by including imputed values, additional models were examined where the missing state-years were excluded from the analyses. The results from the supplemental analyses indicated that there were no significant differences between the findings from the models that excluded the missing state-years for both states and those where the imputed values were included in the analyses.

Religious Bodies conducted in 1926 and 1936, *Churches and Church Membership* gathered by the National Council of Churches in 1952 and 1971, and the religion portion of the decennial Census for 1980 to 2010. Since data on religious affiliations were not reported in the 1960s, data from 1952 and 1971 were averaged to provide estimates for this decade. Using the average from the two closest data collection periods is an appropriate strategy for estimating the missing values because research indicates that religious affiliations are relatively stable in large aggregates, such as states, across time (Newport, 1979). The same procedures used in prior studies were adopted when calculating the percentage of religious fundamentalists in each state (Elazar, 1970; Johnson, 1976; Morgan & Watson, 1981), which involved dividing the total number of religious fundamentalists by the total number of adherents that reported a religious affiliation in each state. This study determined whether certain churches qualified as fundamentalist based on the religious categorizations outlined by Elazar (1970) and Morgan and Watson (1981).

In addition to the religious fundamentalist indicator, this project incorporates three new variables to measure the strength of political ideological commitments among state citizens. Whereas the religious fundamentalist variable is designed to directly measure the strength of conservative ideologies across states, the three new indicators are designed to act as proxies for the strength of political ideologies in each state. The first new variable incorporated is state-level expenditures on welfare. This measure of political ideology is included because one of the key factors associated with liberal sentiments is the desire to temper inequality with programs designed to protect citizens from the harsh nature of the free market economy (Flamm, 2005; Garland, 1993; Lackoff,

1996; Thorne, 1990). Based on this proposition, it is likely that liberal sentiments will be stronger in states that dedicate a greater proportion of their overall expenditures to welfare. Data used to construct this variable came from the Department of Commerce's publication *Financial Statistics of the States* (1930-1940) and the Bureau of the Census' yearly publication *Statistical Abstracts of the United States* (1950-2010). Due to the significant changes in the welfare system that occurred in the United States during the 1930s, it was not possible to measure this concept across the entire time period under analysis using the same procedures reported in recent studies. Therefore, this variable was examined by calculating the percentage of state expenditures allocated for charities and welfare costs to create a consistent measure across time.

The second new variable incorporated is the incarceration rate in each state. Based on the proposition that conservative sentiments stress the need to reduce crime through the incorporation of stiff penal policies designed to incapacitate offenders, it is likely that incarceration rates will be higher in states where conservative ideology is stronger. Since this study is interested in examining the political climate in which capital punishment practices occur and not the cumulative influence of this ideology over time, this indicator examines the rate at which offenders are incarcerated per 1,000 crimes. In order to construct this variable, the total number of individuals admitted to state prisons in a particular year was divided by the total number of Index I crimes reported in the Uniform Crime Report (UCR). The first sources used to gather information on the total number of individuals admitted to state penitentiaries came from the Bureau of the Census' *Prisoners in State and Federal Prisons and Reformatories* (1930-1940), Cahalan's (1986) historical corrections statistics report for the period from 1950 to1980,

and the Justice Department's publication *Correctional Populations in the United States* (1990-2010). The second data source that was used to obtain the total number of Index I crimes came from the UCR publications from 1930 to 2010.[10] Overall, there were missing data for four state-years, which comprised slightly under 1% of the total data points for this variable.[11]

The final new variable is the institutionalization rate for individuals deemed to be mentally ill. The main reason this study seeks to use mental institutionalization to measure the strength of political ideology is that this concept shares many of the same purposes behind the use of imprisonment. More specifically, institutionalization is also viewed as a form of social control designed to remove dangerous individuals from the community and to incapacitate them (Arvanites, 1992; Kaplan, 1978). As Arvanites (1992: 132) has commented when recounting the similarities between the two practices:

> As with imprisonment, the involuntary hospitalization of "threatening" individuals not only segregates them from the community, but also identifies and reinforces the parameters of behavior that social control agents find socially acceptable.

[10] It is important to note a limitation involved with using UCR data from its inception year in 1930. During this year, only a very small number of jurisdictions reported criminal activity, and there is a significant amount of missing state-level data. If the data for 1930 were adopted in this study, the number of Index I crimes would likely be seriously underestimated due to the limited number of reporting jurisdictions. To account for this missing data for 1930, this study relied on the total number of Index I crimes in 1931 for this measurement period.

[11] Initially, there were 12 missing state-years for this variable, and all of the missing information involved the number of individuals admitted to state prisons during the measurement year. In order to address the missing values, two imputation techniques were relied upon. The first method involved substituting the missing incarceration information with the number of individuals imprisoned in the year directly following the measurement year, if this data were available. This approach was able to provide values for eight of the original 12 missing state-years. The second method attempted to provide estimated values for Alabama (1930), Georgia (1930 & 1940), and Mississippi (1940). Since all three of the states with missing values were located in the southern United States, trends in the number of individuals admitted to state prisons were examined for all of the states in this region. The purpose behind the examination of state-level trends in imprisonment in the South was to determine whether these trends could assist with approximating values for the missing data. The examination of trends included the closest reported values both before and after the missing state-years, along with the states that did not have missing data for the focal year. Overall, the examination of these regional trends indicated that there were inconsistent increases and decreases in the number of individuals admitted to state prisons over the time periods examined; therefore, it was not possible to accurately impute values for these four measurement years.

Another reason to examine this concept is that Levine and Levine (1970) argue that institutionalization practices are directly shaped by political ideology. Based on these arguments and the fact that conservatives are more inclined to support the use of repressive forms of punishment to deter deviant behavior, it is likely that commitments to mental hospitals will be higher in states where there is a stronger dedication to this ideology. Although the use of yearly admissions to mental institutions would provide a more accurate portrayal of the strength of the political ideology among citizens during the measurement year, data on yearly admissions were not available for the entire period under analysis. Instead, this study examines institutionalization in terms of the total number of individuals residing in mental institutions at the end of the measurement year in order to create a consistent indicator over time.

The procedures used to calculate the total number of individuals institutionalized in mental hospitals was similar to those used by Harcourt (2011). Data on mental health patients from 1930 through 1960 came from the Bureau of the Census' *Mental Patients in State Hospitals* and the National Institute of Mental Health's *Patients in Mental Institutions*. The data gathered from these sources contained information on the number of individuals residing in private and public mental institutions, psychiatric wards located in general hospitals, psychopathic hospitals, VA hospitals, and institutions for "mental defectives" and epileptics.[12] The data used for the time period from 1970 through 2010 came from the decennial Census reports. The institutionalization rate was calculated

[12] Initially, complete data on the number of individuals residing in mental institutions at the end of the year were not available for Arizona (1940), Mississippi (1940), Montana (1940), and Virginia (1930). In order to obtain the missing values for Arizona, Mississippi, and Montana, the institutionalization rate for these states were calculated based on averages for the year before and after the measurement period. Since data on institutionalizations were not available directly before and after the measurement period for Virginia in 1930, this state-year is considered as missing.

using the total number of individuals institutionalized divided by the total population in each state and then multiplied by 100,000.

The last political theory examined is the social threat perspective. In terms of the racial threat hypothesis, this study measures the propositions in this perspective in terms of the percentage of African Americans in state populations. This indicator focuses strictly on African Americans because the Bureau of the Census did not provide separate information on Hispanic populations before 1970. Data used in the construction of this variable came from the decennial Census. In order to account for the potential tipping point at which minority populations are able to establish a greater political presence, this study also includes a quadratic term to account for the potential non-linear relationship between this variable and capital punishment practices. Before creating the quadratic term, the percentage of African Americans in a state's population variable was first centered to decrease collinearity between the two indicators.

The second social threat hypothesis this dissertation examines concerns the connection between capital punishment practices and vigilante values. Consistent with prior research that focused on vigilante values,[13] this tradition was quantified in terms of the number of lynchings that occurred in the late 19th and early 20th centuries. Data used to construct this variable were obtained from the National Association for the Advancement of Colored People's annual reports that cover the time period from 1889 to 1931. To calculate a lynching rate, the total number of lynching incidents in each state was divided by the mean population for the period from 1889 to 1931. In addition to examining the direct effects of this tradition, this study also examines Jacobs,

[13] Jacobs, Carmichael & Kent, 2005; King, Messner & Baller, 2009; Messner, Baumer & Rosenfeld, 2006; Tolnay & Beck, 1990; Zimring, 2003.

Carmichael, and Kent's (2005) hypothesis that vigilante values will have a stronger influence on capital punishment practices when there is a large minority population in the state. In order to test this hypothesis, an interaction term was calculated using the lynching rate variable and the African American minority threat variable.

The final social threat indicator included in this study examines economic threat in terms of unemployment. This indicator was constructed from decennial Census publications from 1930 to 2010, and this measure was calculated based on the percentage of working age adults in the civilian labor force who reported being unemployed.

Control Variables

In addition to the key political variables of interest, this study also incorporates nine control variables. The first control variable included is the number of homicides reported in each state. Since the number of individuals eligible to be given a death sentence is not constant across jurisdictions, this study controls for the influence that the number of homicides has on the imposition of state-level death sentences. In addition to controlling for the number of homicides in the death sentence models, the homicide rate per 100,000 is controlled for in the execution-specific models instead of the raw counts. Data used to construct the homicide counts and rates came from annual editions of the UCR from 1931 until the present.[14]

[14] Similar to the procedures used for the incarceration rate variable, the number of homicides in 1931 was adopted for the 1930 measurement period. In order to construct the homicide rate for this period, the total number of homicides from 1931 was divided by the population of all reporting jurisdictions within each state and multiplied by 100,000 to create a rate. Data used to create the total population within reporting jurisdictions came from the Bureau of the Census' 1930 decennial report. In addition to the missing values for 1930, there were four states where the number of homicides was not reported in the UCR. In order to obtain values for these states, the number of deaths by homicide reported in the U.S. Department of Health, Education, and Welfare and the National Center for Health Statistics' yearly *Vital Statistics* publication were supplemented for these four missing years.

The second control variable is the number of death sentences reported in each state. Similar to the rationale behind the inclusion of the number of homicides in the death sentence analyses, the number of state-level death sentences is included in the execution models to account for variation in the population at risk of receiving this form of punishment across states. This variable is measured in terms of the number of death sentences that occurred one year before the measurement of the executions. The data sources used to construct this variable are identical to those reported above for the death sentence dependent variable.

The third control variable is the violent crime rate in each state. This variable is included in the analyses to account for the potential influence that high levels of violent crime could have on capital punishment practices. Data used to construct this measure came from annual editions of the UCR.[15]

The fourth control variable is designed to account for feelings of solidarity among group members. This factor is controlled for because scholars have argued that when members of a group have strong feelings of solidarity, they are less likely to rely on harsh forms of penal punishment, especially the use of the death penalty (Jacobs & Carmichael, 2002). Group solidarity was measured based on the percentage of state residents who indicated that they were born in the state in which they currently reside. Data used to construct this variable came from the decennial Census.

[15] One of the limitations associated with the long-term examination of violent crime rates in the United States is that state-level rape statistics were not reported in the UCR until 1945. Based on this limitation, violent crime rates were calculated using data on homicides, robberies, and aggravated assaults in order to construct a consistent measure across the entire period examined. Another limitation involved with the construction of violent crime rates was missing values for 1930. Identical to the methods adopted for the creation of the homicide rate indicator, the violent crime rates for 1930 were constructed using the number of violent crimes reported for each state in 1931.

The fifth control variable is the total population reported in each state, and the inclusion of this variable is designed to account for the potential influence that population size may have on states' willingness to rely on capital punishment practices. Data used to construct this variable were obtained from the Bureau of the Census reports for 1930 to 2010. The values for this variable were divided by 100,000 to produce appropriately sized coefficients for reporting purposes.

The sixth control variable is the percentage of residents who resided in cities with a population greater than 50,000. Data used in the construction of this variable came from the decennial Census, and this variable is included to account for the potential influence large urban populations have on capital punishment practices.

The seventh control variable accounts for surpluses or deficits in states' yearly revenue streams. As scholars have noted with the recent economic downturn, states have begun to embrace alternative forms of punishment other than incarceration in order to decrease their expenditures on criminal justice oriented practices (Jacobson, 2005; Rengifo et al., 2010). Since research indicates that the costs associated with prosecuting capital cases exceed the costs involved with imprisoning offenders for life (Dieter, 1997; Spangenberg & Walsh, 1989), this measure controls for potential economic considerations that may influence the decision of prosecutors to seek the death penalty. This economic measure was calculated by subtracting each state's overall expenditures from the total revenue generated each year, and data used to construct this variable were obtained from the Department of Commerce's yearly publications *Financial Statistics of the States* (1930-1940) and the Bureau of the Census' *Government Finances* (1950-2000) and *Statistical Abstracts of the States* (2010). In order to account for inflation, all of the

monetary values have been converted to reflect prices in 1970. The values for this variable were divided by one billion to produce reasonably sized coefficients in the analyses.

The final indicators included are dummy variables designed to control for the potential influence of regional and time-specific factors. This study includes a set of dummy variables designed to capture whether a state was located in the South, West, or Midwest, with the Northeastern region comprising the reference group. Time period specific factors were controlled for using a dummy variable coded 1 for the post-*Furman* time period. Both sets of dummy indicators were included to control for potential differences between regions and time periods that might otherwise bias the results of this study.

RESEARCH DESIGN AND ESTIMATION PROCEDURES

This section focuses on the estimation procedures used to examine long-term trends in death sentences and executions, the structure of the data, and the results from specification tests that were relied upon to fit the models for each dependent variable. Even though the occurrence of criminal justice oriented events or counts are often converted into rates for use in an ordinary least squares (OLS) regression (Osgood, 2000), the adoption of this procedure for both dependent variables would be inappropriate for two reasons. First, as Osgood (2000) has noted, when the occurrence of the dependent variable is a rare event bounded by zero, as in the case of death sentences and executions, converting these events into rates would violate the OLS assumption regarding the normality of the distribution. Another reason for not converting the dependent variables into rates for use in an OLS regression occurs when the population at

risk is relatively small in comparison to the rates calculated for the dependent variable. Since the number of people who are executed and sentenced to death in each jurisdiction is conditioned by the number of individuals who are eligible for the punishment (i.e., individuals primarily have to commit a homicide to be eligible to receive a death sentence and only individuals sentenced to death can be executed), the population at risk for both dependent variables is relatively small in comparison to the execution and death sentence rates.[16] When this issue occurs, it also violates the OLS assumption regarding the homogeneity of variance and it biases the precision of regression estimates (Osgood, 2000).

Based on the count nature of each dependent variable, a Poisson-based approach is adopted to examine the political factors associated with capital punishment practices. A major consideration involved with selecting the appropriate Poisson-based procedure concerns whether there is overdispersion in the data. When overdispersion is present, the use of a traditional Poisson analysis would be inappropriate because the data violate the assumption that the conditional mean and the standard deviation must be roughly equivalent (Long, 1997). In order to examine whether the data violate this assumption, the results of the likelihood ratio test were consulted. The findings from this test for death sentences ($p < .001$) and executions ($p < .001$) were both significant, thus indicating that the data violate the traditional Poisson assumption. Given these findings, a negative binomial approach is adopted because this estimation procedure allows the conditional variance to exceed the conditional mean (Long, 1997).

[16] For example, in 1940, Delaware had two homicides and one death sentence, which produced a death sentence rate of 50,000 per 100,000 homicides.

Another important consideration when using a Poisson-based approach is whether to use an exposure variable to convert the count data into a rate. Due to the relatively small size of the population at risk for both forms of punishment, the addition of even one death sentence or execution could lead to large changes in the rates for both outcomes. Based on this consideration and the relatively rare occurrence of both events, this study avoids converting the counts into rates because this strategy could produce misleading results (Osgood, 2000). Instead, this study controls for the population at risk by including these populations in their count form as an independent variable in the analyses. Similar to the use of death sentence and execution rates as an outcome measure, the inclusion of the population at risk as an independent variable controls for the differences across states that result from variation in the number of people eligible for both forms of punishment (Chamlin & Cochran, 2004). In terms of the death sentence dependent variable, the number of homicides reported one year before the measurement of the outcome is included in the models to account for the population at risk. In terms of the execution models, the number of individuals sentenced to death one year before the measurement of this dependent variable is included to account for the population at risk. Due to the two different populations at risk, the occurrence of homicides within jurisdictions is controlled for by using the homicide rate in the execution models instead of using the raw counts.

In order to examine trends in death sentences and executions, this study measures predictors at the turn of each decade because most of the data used to construct the independent variables came from the decennial Bureau of the Census reports. This analytic strategy is advantageous because it introduces less error into the measurement of

predictor variables in comparison to interpolating for missing years between Bureau of the Census publications. To account for the likelihood that the predictors have a delayed impact on death penalty practices, this study pools the number of death sentences and executions for the two years following the measurement of predictor variables (for example, this study examines independent variables measured in 1930 to predict the occurrence of death sentences and executions in 1931 and 1932). By pooling both dependent variables, this strategy minimizes the potential influence of idiosyncratic events. Also, in order to make the findings from this study comparable to those conducted by Jacobs and colleagues, this project examines trends in death sentences and executions across 48 states to avoid selection bias (excluding Hawaii and Alaska).

At this time, it is important to highlight two limitations involved with the missing values for state-level death sentences. First, as mentioned, due to the transfer of data collection responsibilities from the Bureau of the Census to the Department of Justice, state-level death sentences were not reported for 1951-1959.[17] Because data on death sentences are not available for 1951-1952, this study included the number of death sentences reported in 1950 in order to avoid excluding this decade from the analyses.[18]

[17] Even though the Bureau of the Census relinquished collection responsibility to the Department of Justice in 1947, the Census continued to collect data on prisoners until 1949; however, these data were never published. The national-level data on death sentences reported in Figure 4 in Chapter Two were obtained from Cahalan (1986), who had access to the Census' unpublished reports. No state-level data on death sentences were published in Cahalan's (1986) report.

[18] In order to try to address the missing data for death sentences from 1947-1949 and 1951-1959, two different strategies were used to try to impute values for these years. The first strategy involved attempting to infer the number of death sentences for these years by examining the relationship between the imposition of death sentences and executions. More specifically, this strategy sought to determine whether there was a consistent relationship between these two variables by examining trends in ratios that were calculated by dividing the number of death sentences by executions. These trends were calculated for one and three-year periods from 1940-1946 and 1960-1966. The findings from this analysis indicated that these trends were inconsistent and sporadic in all but six states.

Based on the adoption of a contemporaneous measurement of the independent and death sentence dependent variables for 1950, a number of supplemental analyses are relied upon in Chapter Four to determine whether the inclusion of this period produces results that differ from those reported in the primary models. In addition to the missing death sentence data in the 1950s, the number of state-level death sentences was also missing for Alabama (1930-1939), California (1950), Georgia (1930-1946), Mississippi (1931-1946), Nevada (1950), and Pennsylvania (1950). Due to the same difficulties that arose when attempting to impute values for 1951-1952, the data for these state-years are considered as missing in the analyses.

Given the structure of the data, pooled time-series cross-sectional negative binomial estimation procedures are adopted to determine the political factors associated with state-level death sentences and executions. The use of panel data is advantageous because it combines cross-sectional data on fixed units (states) and repeated observations of these units over time (years). The incorporation of cross-sectional and time-series dimensions is important because it allows researchers to capture variation across both time and space simultaneously and it increases the number of observations in the dataset (Allison, 1994; Halaby, 2004). With the use of time-series data, a number of considerations must be taken into account when specifying the negative binomial models that rely on this type of data.

The second strategy used to try to impute death sentences for the missing years examined the relationship between this variable and homicide and violent crime rates. In order to examine this relationship, death sentences for the year following the measurement of homicides and violent crimes were divided by the number of homicides and violent crimes reported in the UCR for 1942-1945 and 1960-1963. After calculating death sentence rates based on violent crimes and homicides, this strategy then attempted to determine whether there was a correlation between this rate and homicide and violent crime rates. The findings indicated that there was no significant correlation between these variables over the time period analyzed.

The first consideration is whether to adopt a fixed effects or random effects estimator, which are the two main approaches to fitting models that rely on panel data (Hausman, 1978; Stock & Watson, 2003). Although the adoption of a fixed effects estimator would be preferred, this study examines long-term trends in capital punishment practices using a random effects estimator. The reason that a random effects estimator was selected for both dependent variables is this estimation procedure is able to account for the time invariant cases and variables that are present in the data, which a fixed effects estimator cannot. If a fixed effects estimator were to be selected, this would require the exclusion of eight states that had zero death sentences and executions for all of the decades under analysis (64 state-years), as well as the one-time measurement used to produce the lynching rate variable. Due to the introduction of selection bias associated with the exclusion of these states and the inability of a fixed effects estimator to handle the time invariant nature of the lynching rate variable, this study examines both dependent variables using a random effects estimator.

The second consideration when using time-series data is the possibility of autocorrelation among the error terms. To determine whether autocorrelation is present, the Durbin-Watson test was relied upon. If the results of the test produce a Durbin-Watson statistic equal to 2, this indicates that no autocorrelation is present. However, if the Durbin-Watson statistic is below 2, this indicates positive autocorrelation, whereas a Durbin-Watson statistic above 2 indicates negative autocorrelation. Using the Prais-Winsten command in Stata, the results of the Durbin-Watson test for death sentences (Durbin-Watson statistic = 1.172) and executions (Durbin-Watson statistic = .813) indicated the presence of positive autocorrelation. To

address this finding, a one-period lag in the dependent variable was incorporated in both the death sentence and execution models. With the inclusion of the one-period lag, the Durbin-Watson statistic for the death sentence model improved to 1.898, and the results of the test for the execution model improved to 1.625. The introduction of lags over multiple time periods did not improve the Durbin-Watson statistics beyond those reported for the models that used a one-period lag in the dependent variable. With the inclusion of the lagged dependent variables as an independent variable in their respective models, the first measurement period (1930) is effectively removed from the analyses.

Another consideration that must be taken into account is whether the dependent variable is stationary or non-stationary. A non-stationary dependent variable can be problematic because it could lead to the conclusion that a significant relationship between variables exists when, in fact, it does not (Long, 1997). In order to determine whether both dependent variables are stationary or non-stationary, the xtunitroot test in Stata that incorporated the Fisher test with the Dickey-Fuller command was relied upon. The Fisher test was selected because this estimation procedure is able to account for the missing data found in the death sentence dependent variable. The results from the Fisher test for death sentences ($p < .000$) and executions ($p < .000$) indicated that both dependent variables were stationary; therefore, no further manipulation of the data was required.

The final consideration regarding model specification was whether the independent variables in this study are highly correlated. In order to test for multicollinearity, the variance inflation factor (VIF) test was relied upon, and the threshold for an acceptable amount of collinearity between variables was set at a modest level of four. Due to the differences in the populations at risk of receiving both forms of

punishment, the VIF test was conducted for the models associated with both dependent variables. The results of this test for the death sentence dependent variable indicated that the following nine variables exceeded the threshold set in this study: the percentage of African Americans in the state population (VIF = 11.37), the total state population (VIF = 7.35), the dummy variable designed to account for the southern United States (VIF = 6.43), the percentage of African Americans in the state population squared (VIF = 5.68), the number of state-level murders (VIF = 5.64), the dummy variable designed to account for the post-*Furman* time period (VIF = 5.33), the institutionalization rate (VIF = 4.88), the percentage of religious fundamentalists (VIF = 4.69), and the violent crime rate (VIF = 4.03). The results of the execution model indicated that the following nine variables exceeded the threshold set by this study: the percentage of African Americans in the state population (VIF = 11.91), the dummy variable designed to account for the southern United States (VIF = 6.42), the percentage of African Americans in the state population squared (VIF = 6.10), the dummy variable designed to account for the post-*Furman* time period (VIF = 5.44), the percentage of religious fundamentalists (VIF = 4.99), the institutionalization rate (VIF = 4.86), the homicide crime rate (VIF = 4.31), the violent crime rate (VIF = 4.20), and the percentage of Republicans in the state legislature (VIF = 4.04). Based on these findings, supplemental models were run where each of these variables was removed one at a time from the analyses to determine whether the collinearity between variables produced results that differed from those when all of the variables were included in the models. The results of these supplemental analyses indicated that when each variable was removed from the models, there was only one instance where the inclusion of these variables had an impact on the relationship

between the key theoretical variables of interest and both dependent variables.[19] Given these findings, all of the variables outlined above were included in the analyses so as to avoid the bias associated with the omission of key variables.

ANALYTIC STRATEGY

This section discusses the analytic plan that is used to determine whether recent theoretical contributions can account for death sentences and executions when the time period under analysis is expanded to include pre-*Furman* trends. The first analytic strategy involves the examination of whether the key theoretical variables of interest are able to predict the occurrence of state-level capital punishment practices from 1930 to 2012. In order to examine the propositions found within the three perspectives, the variables associated with each theory are entered into the models separately. In the fourth model, all of the theoretical variables of interest are incorporated to determine whether the findings from the first three models are sustained when the perspectives are examined in tandem. Finally, the fifth model incorporates all of the independent and control variables into the analyses. Due to the need to account for variation in the population eligible to receive both forms of punishment and the presence of autocorrelation, the respective populations at risk and the lagged dependent variables are included in all of the models reported above.

After examining the direct effects of the independent variables on the dependent variables, a number of interaction terms are incorporated into the analyses. The first set of

[19] In the model that examined the execution dependent variable, the directional sign of the institutionalization rate variable switches from positive to negative when the dummy variable designed to account for periodic influences was included in the model. More details regarding the nature of the interactive relationship between these two variables is provided in Chapter Five. The only other change that resulted from the removal of the variables that exceeded the set VIF threshold was the appearance of a significant relationship between the regional dummy indicators and both dependent variables.

interaction terms examines whether the relationship between the variables in the partisan politics and the political ideology perspectives and each dependent variable are conditioned by the time period specific factors. These interaction terms are comprised of the product of each variable in the two above-mentioned perspectives and the dummy indicator coded as 1 for the post-*Furman* time period. In addition, Jacobs, Carmichael, and Kent's (2005) hypothesis is also examined. In order to examine the influence of each interaction term, these variables are introduced into the models one at a time.

In addition to the primary models, four supplemental analyses are relied upon for each dependent variable to determine the robustness of the findings reported in the primary models. The first supplemental procedure used for both dependent variables involves the removal of the data for certain state-years in which the death penalty was not legal. As previously mentioned, the primary models incorporate both death penalty and non-death penalty states-years to avoid potential selection bias; however, it could be argued that including non-death penalty states in the analyses could also potentially bias the findings as well. The potential bias involved with the inclusion of non-death penalty states is that no value other than zero is possible for both death sentences and executions in these states. Based on this argument, the same procedures adopted in the primary models outlined above are used to examine the results when non-death penalty state-years are excluded from the analyses. Since numerous states abolished the death penalty only to bring it back at a later point in time, all state-years were retained in the models if this form of punishment was legal for at least one out of the two pooled years for each dependent variable.

The state-years removed from the analyses correspond with the breakdown of the

TABLE 2: PERIOD OF ABOLITION BY JURISDICTION

Jurisdiction	Period of Abolition	Jurisdiction	Period of Abolition
Michigan	1846-	West Virginia	1965-
Wisconsin	1853-	Massachusetts*	1972-1982; 1984-
Maine	1887-	New Jersey	1972-1982; 2007-
Kansas	1907-1935	North Dakota	1973-
Minnesota	1911-	Rhode Island	1984-
South Dakota	1915-1939	New Mexico	2009-
Vermont	1964-	Illinois	2011-
Oregon	1964-1978	Connecticut	2012-
Iowa	1965-		

*In the period from 1972-1982, executions were not legal in this state because Massachusetts had yet to update their statutes in accordance with the *Furman* decision.

abolitionist years for each state contained in Table 2. In addition to abolitionist states, Table 2 also contains states that were slow to bring their death penalty statutes in line with the Supreme Court's ruling in *Furman,* thus making the use of executions illegal during this period. Furthermore, all of the state-years from 1970 to 1972 were excluded from the execution models because this stage in the capital punishment process was not permissible during the moratorium. Based on the changes in the data structure involved with the exclusion of non-death penalty state-years, the introduction of one-period lags for each dependent variable was not possible in these models.

The second supplemental set of analyses involves the use of zero-inflated negative binomial estimation procedures. Even though negative binomial procedures were used in the primary models, the use of zero-inflated negative binomial procedures would also be an appropriate estimation method to account for the excess of zeros found in both dependent variables. Zero-inflated procedures are also appropriate when the occurrence of zeros in the data can be attributed to two different factors. In other words,

the presence of zero death sentences or executions in the data could be attributed to the punishment being illegal in a state or it could be due to the failure of the state to impose a death sentence or execute an offender. Given this procedure's ability to account for the two above-mentioned factors, this method of estimation avoids the potential bias involved with the inclusion of non-death penalty states in the analyses. Further information regarding the specification of the models for both dependent variables is provided in the following two chapters.

The last set of supplemental procedures for each dependent variable focuses on alternative specifications of the primary models. In terms of the death sentence dependent variable, two supplemental analyses are adopted to determine whether alternative measurement techniques produce results that differ from those reported in the primary models. The first alternative death sentence strategy excludes the contemporaneous measurement of the independent and dependent variables in 1950. The purpose behind this strategy is to determine whether the results differ between the primary and this supplemental model when the contemporaneous measurement for this period is excluded from the analyses. The second alternative strategy involves the contemporaneous examination of the independent and dependent variables for the entire period from 1930 to 2010. This alternative specification is adopted because it allows for the examination of whether the key theoretical variables of interest have an instantaneous impact on state-level death sentences.

In terms of the execution specific supplemental analyses, two alternative specifications of the primary model are also adopted. Since the time delay between the imposition of a death sentence and the actual enactment of the punishment is not uniform

across the pre- and post-*Furman* time period, the first supplemental analysis examines the results associated with adopting a lengthier delay between the imposition of a death sentence and the execution of an offender. Recent research has indicated that the average delay between sentencing and execution is slightly over ten years during the post-*Furman* time period (Snell, 2011). In order to account for this delay, a 10-year lag in the number of death sentences is adopted in place of the one-year lag used in the primary models.[20] The second strategy involves the incorporation of both the one-year and ten-year lags in the number of death sentences as independent variables in the models. The inclusion of these variables in the same model is designed to simultaneously control for the periodic delays between the imposition of a death sentence and the execution of offenders in both the pre- and post-*Furman* eras.

This dissertation now turns to the examination of the political factors associated with state-level death sentences from 1930 to 2012.

[20]A limitation involved with adopting a 10-year lag in this variable was that death sentences were not reported in publically available governmental publications in 1920. Despite the missing values for the 1920s, this approach is still adopted because the inclusion of the lagged dependent variable to account for autocorrelation already eliminates the first measurement period (1930) from the analyses.

CHAPTER FOUR: DEATH SENTENCE RESULTS

This chapter begins with the presentation of findings from a replication project that examines Jacobs and Carmichael's (2004) article on the social and political factors associated with state-level death sentences from 1970 to 1992. This chapter then moves on to examine the descriptive statistics of the key variables used in this study and the bivariate relationship between these variables. The findings from the random effects negative binomial estimations of the political factors associated with death sentences from 1930 to 2012 are presented, along with the models that incorporate the interaction terms highlighted in the previous chapter. This chapter then concludes with the examination of the findings from the supplemental analyses that are designed to determine the robustness of the results reported in the main models.

REPLICATION OF JACOBS AND CARMICHAEL'S (2004) ARTICLE

This section highlights the findings from a replication of Jacobs and Carmichael's (2004) article. The purpose of this replication is to determine how previous studies have examined the variables within the three political perspectives and to accurately duplicate these post-*Furman* predictors. This project is important to this study because the replicated indicators provided the foundation from which the variables outlined in Chapter Three were constructed.

Similar to the procedures adopted in this dissertation to examine long-term trends in death sentences and executions, Jacobs and Carmichael (2004) measured their predictors at the turn of each decade from 1970 to 1990, and death sentences were pooled for the two years following the measurement of predictors. In this article, the authors examined the relationship between state-level death sentences and the same three theoretical perspectives that were outlined in Chapter Two. More specifically, the authors

examined the partisan politics perspective using two variables (a dummy coded variable for Republican governor and the percentage of Republicans in the state legislature), the political ideology theory using two variables (a liberalism-conservatism scale constructed by Berry et al. (1998) and the percentage of citizens who reported fundamentalist affiliations), and the social threat perspective using five variables (the percentage of unemployed individuals, the percentage of African Americans, the percentage of Hispanics, a dummy coded variable where 1 indicated that the percentage of African Americans exceeded the national median, and the violent crime rate in each state). The authors also controlled for a number of factors (the state population, the number of homicides, and dummy indicators for each decade and region). In accordance with the hypotheses associated with each of the post-*Furman* theoretical perspectives, Jacobs and Carmichael (2004) assessed these propositions by using one-tailed tests.

In order to examine the relationship between the key political variables and the number of state-level death sentences, Jacobs & Carmichael (2004) relied on zero-inflated negative binomial estimations. Due to the fact that Osgood (2000) argues against the use of rates when measuring relatively rare events and when there is an overdispersion of zeros present in the dependent variable, Jacobs and Carmichael (2004) opted to use a negative binomial estimation. In addition, since the presence of zero death sentences could be due to the death penalty being illegal in the state or due to jurors failing to impose a death sentence, the authors used a zero-inflated negative binomial estimation. In particular, this procedure relies on two equations that separately estimate the likelihood of zero death sentences and the likelihood of death sentences equal to or greater than one. Finally, Jacobs & Carmichael (2004) accounted for the likelihood that

TABLE 3: DESCRIPTIVE STATISTICS FOR JACOBS AND CARMICHAEL (2004)

	Jacobs and Carmichael				Amidon			
Indicator	**Mean**	**Overall SD**	**Cross-State Standard Deviation**	**Over-Time Standard Deviation**	**Mean**	**Overall SD**	**Cross-State Standard Deviation**	**Over-Time Standard Deviation**
Number of death sentences	8.073	15.376	12.410	9.191	7.993	14.283	12.544	6.984
Religious fundamentalism	-2.222	1.295	1.304	.000	-2.220	1.295	1.304	.000
Liberalism-conservatism	45.072	15.980	14.761	6.356	45.136	16.011	14.783	6.382
Ln violent crime rate	5.820	.692	.603	.347	5.824	.696	.607	.346
Percent unemployed	6.009	1.716	1.270	1.164	5.681	1.630	1.180	1.134
Population	4510.367	4840.705	4805.565	805.577	4509.779	4840.238	4804.950	806.356
Number of murders	410.000	595.786	570.932	182.682	410.633	596.289	571.744	181.816
1 if percent Black ≥ state median	.500	.502	.486	.095	.500	.502	.496	.095
Ln percent Black	1.488	1.433	1.435	.141	1.485	1.439	1.442	.136
Ln percent Hispanic	.716	1.161	1.125	.316	.715	1.171	1.131	.328
1 if Republican governor	.433	.497	.295	.401	.460	.500	.293	.407
Percent Republicans in legislature	40.401	19.419	17.872	7.873	39.921	19.969	18.479	7.864

measurements within states across time are not independent using a clustering procedure to adjust standard errors.

Table 3 contains descriptive statistics from both Jacobs and Carmichael's (2004) article and my replication of these variables. As Table 3 indicates, all of the values of my variables are fairly close to those used by Jacobs and Carmichael (2004), with the exception of the presence of Republican governors and the unemployment rate measures. In an effort to account for these discrepancies, a number of alternative measurement strategies were employed.[21]

Turning now to the results from the zero-inflated negative binomial estimations, Table 4 contains both of our findings from the time period spanning 1970 to 1992. Since the discrepancy between the values of our coefficients is fairly consistent across all of the models, I highlight only the discrepancies between our results for the full models in this section.[22] In terms of the results in Model 5, my findings support the conclusions reached by Jacobs and Carmichael (2004) concerning the theoretical variables of interest. However, there are a number of discrepancies between our findings in terms of whether particular control measures were significant and the degree of significance for certain

[21] In terms of accounting for the discrepancies between the Republican governor variables, two separate data sources (US Guide to Elections (2005) and the National Governors Association webpage) were examined; there were no discrepancies in the data on governors between the two sources. In addition, an attempt was made to use different procedures for measuring this variable based on whether there was a change in governors during the year this variable was gathered (i.e., a governor from a different party assumed the position during the year measured). Despite the use of two different coding techniques, I was unable to replicate Jacobs and Carmichael's (2004) values for this variable. In terms of the unemployment variable, the data used to construct this variable came directly from the unemployment rate reported in the decennial Census. In the event that a mistake was made in the values reported by the Bureau of the Census, an attempt was made to account for potential discrepancies by calculating the unemployment rate based on the raw data provided by the Bureau of the Census. The calculations using the raw data support the unemployment rates reported in the decennial reports.

[22] In order to ease the identification of discrepancies between Jacobs and Carmichael's (2004) and my results, black boxes have been placed around findings that demonstrate different levels of significance.

TABLE 4: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1971-1972, 1981-1982, AND 1991-1992 (N = 150 STATE-YEARS)

	Model 1 (J&C)		Model 1 (Amidon)		Model 2 (J&C)		Model 2 (Amidon)	
	b	**SE**	***b***	**SE**	***b***	**SE**	***b***	**SE**
1 + Death Sentences								
Ln religious fundamentalism	.5086***	.1028	.5250***	.0996	.5460***	.1142	.5678***	.1192
Liberalism-conservatism	-.0110	.0081	-.0075	.0102	-.0092	.0085	-.0052	.0102
Ln violent crime rate	.8223***	.2284	.9318***	.2715	.7239***	.2053	.8564***	.2512
Percent unemployed	.0864	.0562	.0078	.0568	.0909	.0617	.0265	.0599
Population	.0001***	.0000	.0001**	.0001	.0001***	.0000	.0001***	.0000
Number of murders	-.0003	.0003	-.0003	.0003	-.0003	.0003	-.0004	.0003
1 if 1970	-.9291***	.2570	-.3935	.3055	-.9289***	.2910	-.3463	.3333
1 if 1980	.1427	.1271	.1927	.1333	.1453	.1261	.2002	.1366
1 if percent Black ≥ state median	--	--	--	--	.1682	.4241	-.1930	.4776
Number of Blacks	--	--	--	--	--	--	--	--
Ln percent Hispanic	--	--	--	--	.1082	.1353	.0791	.1512
1 if Republican governor	--	--	--	--	--	--	--	--
Percent Republicans in legislature	--	--	--	--	--	--	--	--
1 if Midwest	-.9478*	.4133	-1.0288	.6136	-.9843*	.4281	-1.003*	.5120
1 if West	-1.1418**	.4159	-1.3740*	.6352	-1.2321*	.5027	-1.5748*	.6549
1 if South	-1.0737*	.4790	-1.2083	.6059	-1.1439*	.4834	-1.1636*	.4987
Intercept	-1.6265	1.1535	-1.8840	1.3164	-1.1498	1.1476	-1.4610	1.1815

*p = .05; **p = .01; ***p = .001

TABLE 4: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1971-1972, 1981-1982, AND 1991-1992 (N = 150 STATE-YEARS) CONT.

	Model 1 (J&C)		Model 1 (Amidon)		Model 2 (J&C)		Model 2 (Amidon)	
	b	**SE**	***b***	**SE**	***b***	**SE**	***b***	**SE**
Death Sentence Absence								
1 if percent Black ≥ state median	-1.8164***	.4638	-1.9988***	.5266	-1.7883***	.4615	-2.0184***	.5047
Ln percent Hispanic	--	--	--	--	--	--	--	--
Liberalism-conservatism	.0670*	.0292	.0670*	.0287	.0660*	.0282	.0639**	.0234
Ln religious fundamentalism	--	--	--	--	--	--	--	--
1 if Republican governor	-.7500*	.4155	-.0006	.3548	-.7571	.4265	.0196	.3196
Percent Republicans in legislature	.0116	.0199	.0091	.0210	.0104	.0200	.0072	.0179
1 if 1970	.0175	.8261	-.3713	1.1559	.0522	.8049	-.2383	.9250
1 if 1980	.6702*	.3088	.6062	.3401	.6631*	.3108	.5723	.3021
1 if Midwest	.1010	.7556	-.1077	.7130	.0872	.7571	-.1246	.6866
1 if West	-1.3476	.8141	-1.4330	1.0481	-1.3121	.7793	-1.3750	.9091
1 if South	-.9867	.9271	-.8826	.7796	-1.3121	.9797	-.8542	.7804
Intercept	-2.7138	2.3729	-2.7927	2.2944	-2.6190	2.3000	-2.5406	1.8856
Log-likelihood	-298.2		-316.8		-297.7		-316.7	
X^2	334.6***		393.65***		624.9***		724.3***	

*p = .05; **p = .01; ***p = .001

TABLE 4: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1971-1972, 1981-1982, AND 1991-1992 (N = 150 STATE-YEARS) CONT.

	Model 3 (J&C)		Model 3 (Amidon)		Model 4 (J&C)		Model 4 (Amidon)	
	b	**SE**	***b***	**SE**	***b***	**SE**	***b***	**SE**
1 + Death Sentences								
Ln religious fundamentalism	.5089***	.1111	.5417***	.1053	.5555***	.1192	.5852***	.1048
Liberalism-conservatism	-.0113	.0082	-.0075	.0100	-.0086	.0091	-.0052	.0094
Ln violent crime rate	.8327***	.2583	.9254***	.2577	.6881**	.2308	.8694***	.2358
Percent unemployed	.0728	.0577	.0159	.0578	.0766	.0630	.0289	.0588
Population	.0001***	.0000	.0001**	.0000	.0001***	.0000	.0001**	.0000
Number of murders	-.0003	.0003	-.0003	.0003	-.0003	.0003	-.0003	.0003
1 if 1970	-1.0016***	.2868	-.3711	.3071	-1.0263***	.3151	-.3167	.3112
1 if 1980	.1312	.1351	.2191	.1398	.1322	.1324	.2215	.1438
1 if percent Black ≥ state median	--	--	--	--	.1792	.4093	-.1719	.4992
Number of Blacks	--	--	--	--	--	--	--	--
Ln percent Hispanic	--	--	--	--	.1475	.1392	.0836	.1327
1 if Republican governor	.1678	.1968	.0303	.1514	.1821	.1850	.0183	.1509
Percent Republicans in legislature	-.0046	.0068	.0039	.0066	-.0066	.0070	.0026	.0062
1 if Midwest	-1.0095*	.4671	-1.0998	.6312	-1.0465*	.4589	-1.055*	.5226
1 if West	-1.1271**	.4326	-1.4719*	.6029	-1.2498	.4896	-1.633*	.6466
1 if South	-1.1570*	.4998	-1.2187	.6551	-1.2582*	.5095	-1.185*	.5177
Intercept	-1.4389	1.2584	-1.9755	1.3461	-.6321	1.2779	-1.6154	1.1526

*p = .05; **p = .01; ***p = .001

TABLE 4: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1971-1972, 1981-1982, AND 1991-1992 (N = 150 STATE-YEARS) CONT.

	Model 3 (J&C)		Model 3 (Amidon)		Model 4 (J&C)		Model 4 (Amidon)	
	b	**SE**	***b***	**SE**	***b***	**SE**	***b***	**SE**
Death Sentence Absence								
1 if percent Black ≥ state median	-1.8310***	.4701	-2.0015***	.5268	-1.7650***	.5026	-2.262***	.5891
Ln percent Hispanic	--	--	--	--	-.0504	.3073	.2533	.2681
Liberalism-conservatism	.0689*	.0300	.0664**	.0278	.0672*	.0298	.0694***	.0206
Ln religious fundamentalism	--	--	--	--	--	--	--	--
1 if Republican governor	-.7260*	.4262	.0139	.3558	-.7545*	.4483	.0740	.3299
Percent Republicans in legislature	.0106	.0204	.0103	.0187	.0085	.0214	.0102	.0139
1 if 1970	-.0712	.9616	-.3364	1.0803	-.0659	1.0891	-.0839	.6570
1 if 1980	.6791*	.3249	.6078	.3275	.6582*	.3170	.7009*	.2782
1 if Midwest	.1056	.7732	-.1288	.7133	.0670	.7561	-.0081	.6876
1 if West	-1.3841	.8553	-1.4257	1.0207	-1.2921	.8840	-1.6562	.9500
1 if South	-1.0099	.9443	-.8462	.7646	-1.1313	.9346	-.5615	.7441
Intercept	-2.7657	2.4254	-2.8213	2.1330	-2.5527	2.3270	-3.1870	1.5073
Log-likelihood	-297.3		-316.8		-296.5		-315.9	
X^2	330.0***		700.11***		752.6***		908.49***	

*p = .05; **p = .01; ***p = .001

TABLE 4: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1971-1972, 1981-1982, AND 1991-1992 (N = 150 STATE-YEARS) CONT.

	Model 5 (J&C)		Model 5 (Amidon)	
	b	**SE**	***b***	**SE**
1 + Death Sentences				
Ln religious fundamentalism	.5476***	.1491	.5771***	.1342
Liberalism-conservatism	-.0132	.0097	-.0141	.0202
Ln violent crime rate	.9185***	.2967	1.1677**	.4256
Percent unemployed	.0851	.0672	.0268	.0815
Population	.0002**	.0000	.0002	.0000
Number of murders	-.0005	.0003	-.0004	.0005
1 if 1970	-.9747***	.2769	-.3716	.5449
1 if 1980	.1188	.1437	.1514	.2207
1 if percent Black ≥ state median	-.0875	.1578	-.2678	.5280
Number of Blacks	.0000	.0000	.0000	.0000
Ln percent Hispanic	.1028	.1503	.0312	.1753
1 if Republican governor	.1832	.1848	.0012	.1550
Percent Republicans in legislature	-.0096	.0089	.0008	.0080
1 if Midwest	.9746*	.4922	-1.0116	.5554
1 if West	1.4390**	.4895	-1.8529*	.6820
1 if South	-1.1000	.5682	-.9999	.6220
Intercept	-1.5270	1.4523	-2.8422	1.5306

*p = .05; **p = .01; ***p = .001

TABLE 4: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1971-1972, 1981-1982, AND 1991-1992 (N = 150 STATE-YEARS) CONT.

	Model 5 (J&C)		Model 5 (Amidon)	
	b	**SE**	***b***	**SE**
Death Sentence Absence				
1 if percent Black ≥ state median	-.7007*	.3796	-2.9210*	1.6014
Ln percent Hispanic	-.0872	.4503	.3885	.3767
Liberalism-conservatism	.0728**	.0295	.0957*	.0473
Ln religious fundamentalism	.0569	.4688	.7101	.7770
1 if Republican governor	-.8972	.5150	.2933	.3885
Percent Republicans in legislature	.0040	.0215	.0145	.0221
1 if 1970	.0472	.6674	-.6367	2.7935
1 if 1980	.6855*	.2938	.8760*	.4355
1 if Midwest	.4909	.9143	-.6720	1.2857
1 if West	-1.1345	1.1345	-3.5776	3.6600
1 if South	-1.0508	1.0508	-1.7518	1.6682
Intercept	-2.2177	2.3597	-2.0112	2.3357
Log-likelihood	-298.8		-313.2	
X^2	626.5***		701.39***	

*p = .05; **p = .01; ***p = .001

TABLE 5: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1981-1982 AND 1991-1992 (N = 100 STATE-YEARS)

	Model 1 (J&C)		Model 1 (Amidon)		Model 2 (J&C)		Model 2 (Amidon)	
	b	**SE**	***b***	**SE**	***b***	**SE**	***b***	**SE**
1 + Death Sentences								
Ln religious fundamentalism	.5446***	.1161	.5862***	.1212	.5633***	.1063	.5858***	.1235
Liberalism-conservatism	-.0134	.0097	-.0105	.0124	-.0125	.0100	-.0116	.0128
Ln violent crime rate	.7763***	.1931	.6871***	.2063	.7308***	.2038	.7313***	.2267
Percent unemployed	.0423	.0710	.0055	.0626	.0292	.0762	.0046	.6412
Population	.0002*	.0001	.0001*	.0007	.0002	.0001	.0001*	.0001
Number of murders	-.0005	.0005	-.0006	.0006	-.0007	.0006	-.0004	.0005
1 if 1980	.1877	.1290	.1664	.1459	.2038	.1285	.1876	.1494
1 if percent Black ≥ state median	.2219	.3865	.3122	.4347	.3118	.4081	.2995	.4158
Ln percent Hispanic	.1732	.1204	.1703	.1244	.2167	.1339	.1302	.1230
1 if Republican governor	--	--	--	--	.2201	.1895	-.0928	.1899
Percent Republicans in legislature	--	--	--	--	-.0019	.0071	.0067	.0067
1 if Midwest	-.9798*	.4412	-.9494*	.4380	-1.0911**	.3882	-.9512*	.4142
1 if West	-1.3287*	.6129	-1.2564*	.5909	-1.2923*	.6096	-1.3542*	.5918
1 if South	-1.1384*	.5697	-1.1653*	.5633	-1.1609*	.5207	-1.1086*	.5236
Intercept	-1.1494	1.1967	-.5456	1.1915	-.8979	1.1190	-.9440	1.2996

*p = .05; **p = .01; ***p = .001

TABLE 5: ZERO-INFLATED NEGATIVE BINOMIAL ESTIMATIONS OF THE NUMBER OF DEATH SENTENCES IN THE STATES IN 1981-1982 AND 1991-1992 (N = 100 STATE-YEARS) CONT.

	Model 1 (J&C)		Model 1 (Amidon)		Model 2 (J&C)		Model 2 (Amidon)	
	b	**SE**	***b***	**SE**	***b***	**SE**	***b***	**SE**
Death Sentence Absence								
1 if percent Black ≥ state median	-3.0619***	.8364	-3.2851***	1.0127	-3.0681***	.8411	-3.2784***	1.0170
Ln percent Hispanic	.3427	.3890	.4717	.5066	.3598	.3937	.4645	.5110
Liberalism-conservatism	.0891**	.0321	.0998**	.0324	.0893**	.0316	.0990**	.0335
1 if Republican governor	-.2531	.3865	.3923	.4468	-.2201	.3861	.3861	.3723
Percent Republicans in legislature	-.0044	.0223	.0024	.0167	.0052	.0225	.0032	.0165
1 if 1980	.9150*	.3753	.9941	.4960	.9228*	.3690	.9915	.5071
1 if Midwest	-.4343	.8419	-.5606	.8415	-.4469	.8401	-.5661	.8302
1 if West	-2.8652*	1.1840	-3.0632*	1.4893	2.8927*	1.1871	-3.0290*	1.5296
1 if South	-1.5095	.9932	-1.2832	.8053	-1.5390	1.0057	-1.2885	.8041
Intercept	-2.6047	2.7584	-3.6087		-2.6099	2.7504	-3.7679	2.6960
Log-likelihood	-219.90		-219.30		-218.90		-218.60	
X^2	-730.8***		82.13***		1271.3***		83.15***	

*p = .05; **p = .01; ***p = .001

indicators.[23] Regarding the estimation for one or more death sentences, there are discrepancies in our degree of significance for the violent crime variable and the dummy indicator designed to measure the western region. Also, there are discrepancies regarding significance for the population measure and the degree of significance for the liberalism-conservatism scale. Although there are some differences in all of the models contained in Table 4, it is likely that these differences are due to the slight discrepancies between the unemployment and governor variables outlined above.

In addition to the models for 1970 to 1992, Jacobs and Carmichael (2004) also performed a more stringent analysis of the relationship between the key theoretical variables and jurisdictional death sentences using data from the 1980s and 1990s. Table 5 contains both of our results from these supplemental analyses. Overall, my results in Models 1 and 2 fully support the findings from Jacobs and Carmichael's (2004) article in regards to the theoretical variables of interest. The largest discrepancy between our findings in Table 5 concerns the degree of significance for our Midwest variables and the non-significant influence of the population variable in my results for Model 2. Besides the continued discrepancy in our coefficient values for certain variables, the findings from this replication project indicate that my results closely mirror Jacobs and Carmichael's (2004) in terms of the key theoretical measures.

DESCRIPTIVE STATISTICS

Based on the findings from the replication project, this study proceeded to build upon the variables used in Jacobs and Carmichael's (2004) article. Table 6 contains both the expected directional signs for each variable based on the theoretical propositions

[23] In order to try to account for the discrepancies between our results and the measurement of key variables, I reached out to Dr. Jacobs to see if he could help. Unfortunately, he was unable to assist in terms of resolving the discrepancies reported in this dissertation.

TABLE 6: DESCRIPTION OF VARIABLES IN MODELS

Variables	Expected Post-*Furman* Sign	Mean/Percent	Overall Standard Deviation	Cross-State Standard Deviation	Over-Time Standard Deviation
Death sentences (*Dependent variable*)		5.863	11.271	8.194	7.906
Executions		2.449	5.474	3.304	4.387
Percent vote for Republican presidential candidate	+	48.437	9.955	5.535	8.309
1 if Republican governor	+	46.528	49.937	20.328	45.696
Percent Republicans in state legislature	+	43.214	23.790	19.004	14.545
Percent religious fundamentalists	+	21.551	22.417	22.086	4.875
Welfare expenditures	-	14.221	7.501	3.108	6.840
Institutionalization rate	+	198.910	172.517	56.087	163.324
Incarceration rate per 1,000	+	66.175	122.788	46.001	114.050
Percent African American	+	9.554	10.695	10.467	2.617
Percent African American²	-	205.390	386.958	368.949	127.042
Percent unemployed	+	6.197	2.314	1.072	2.056
Lynching rate	+	5.146	7.450	7.520	0.00
Homicide rate	+	6.346	5.018	3.948	3.143
Violent crime rate	+	262.013	216.719	121.045	180.519
State surplus or deficits/10^9	+	3.055	24.206	9.296	22.385
Total population/10^5	+	42.554	47.980	42.552	22.913
Percent born in state	-	63.497	17.744	13.757	5.625
SMSAs	+	26.953	16.228	13.629	9.002
Number of homicides	+	255.407	424.570	314956	287.930
Death sentences (*Independent variable*)	+	3.050	5.773	4.546	3.745

examined in Chapter Two and the descriptive statistics for the dependent and independent variables used in this study. The first column of this table contains the expected sign of the coefficient for all of the variables according to post-*Furman* hypotheses. Even though most of the empirical literature examines the propositions within these theories using one-tailed tests (Jacobs & Carmichael, 2002, 2004; Jacobs, Carmichael & Kent, 2005; Jacobs et al., 2007), this study evaluates the relationship between the independent and dependent variables using two-tailed tests. This approach is preferred because scholars have yet to address the nature of the relationship between these variables and capital punishment practices in the pre-*Furman* time period. Without specific hypotheses dictating the expected direction of the relationships between variables over the course of the entire time period under analysis, this study adopts a two-tailed approach so as not to discount significant relationships that contradict post-*Furman* hypotheses.

The remainder of Table 6 focuses on the descriptive statistics for the key variables included in this study. These results indicate that the average number of death sentences and executions from 1930 to 2012 is 5.86 and 2.45, respectively. In terms of the partisan politics variables, the average percentage of the vote for Republican presidential candidates is 48.44, the average percentage of Republican governors is 46.53, and the average percentage of Republicans in state legislatures is 43.21. Turning to the political ideology variables, the average percentage of individuals that reported religious fundamentalist affiliations is 21.55, the average percentage of state expenditures dedicated to welfare is 14.22, the average incarceration rate is 66.18, and the average institutionalization rate is 198.91. Finally, the descriptive statistics for the social threat variables indicate that the average percentage of African Americans in each state is 9.55,

the average lynching rate is 5.15, and the average percentage of unemployed individuals in each state is 6.20. Overall, every dependent and independent variable in Table 6 demonstrates considerable variation over both space and time, with the exception of the lynching rate variable, which was measured on a one-time basis.

BIVARIATE CORRELATION BETWEEN VARIABLES

This section examines the bivariate relationship between the dependent variables, the key theoretical indicators, and the control variables. The findings in Table 7 indicate that there are a number of theoretical indicators significantly associated with both execution and death sentence practices. Focusing on the findings associated with the partisan politics variables, the percentage of Republicans in the state legislature was the only significant predictor of state-level death sentences. According to this finding, the number of jurisdictional death sentences decreases as the percentage of Republicans in the state legislature increases. No support is shown for the significant relationship between the number of death sentences and the percentage of the vote for Republican presidential candidates and the presence of Republican governors. With respect to the findings associated with state-level executions, all three partisan politics variables demonstrate a significant negative relationship with this dependent variable. The negative relationship between the partisan politics variables and capital punishment practices are likely attributed to the strong Democratic presence in the southern United States before the mass conversion of southerners to the Republican Party in the 1970s.

Turning to the findings associated with the four political ideology variables, the results in Table 7 demonstrate support for a number of indicators within this perspective. Consistent with prior research (Jacobs & Carmichael, 2004; Jacobs, Carmichael & Kent,

TABLE 7: CORRELATION MATRIX

		1	2	3	4	5	6	7	8
1.	Death sentences (*Dependent variable*)								
2.	Executions	.408**							
3.	Percent vote for Republican presidential candidate	-.059	-.325**						
4.	1 if Republican governor	-.041	-.116*	.290**					
5.	Percent Republicans in state legislature	-.177**	-.229**	.600**	.429**				
6.	Percent religious fundamentalists	.273**	.266**	-.235**	-.306**	-.629**			
7.	Welfare expenditures	-.038	-.140**	-.022	-.081	-.047	-.018		
8.	Institutionalization rate	-.112*	.133**	-.027	.009	.143**	-.183**	-.079	
9.	Incarceration rate per 1,000	-.064	.109*	-.188**	.026	-.030	.033	-.291**	.087
10.	Percent African American	.236**	.315**	-.496**	-.306**	-.654**	.757**	-.063	-.125**
11.	Percent unemployed	.067	.045	-.072	.034	.042	-.133**	.356**	-.038
12.	Lynching rate	.258**	.228**	-.196**	-.182**	-.448**	.639**	-.112*	-.120*
13.	Homicide rate	.352**	.308**	-.425**	-.276**	-.647**	.656**	-.268**	-.151**
14.	Violent crime rate	.424**	-.061	-.048	-.061	-.237**	.282**	.148**	-.569**
15.	Surplus/Deficits/10^9	.153**	.000	-.039	.031	.007	-.038	.126**	-.121*
16.	Total population/10^5	.556**	.235**	-.065	.034	-.034	.017	.259**	-.144**
17.	Percent born in state	-.089	.148**	-.270**	-.127**	-.293**	.355**	.010	.149**
18.	Percent living in cities of 50,000+	.287**	.145**	.067	.067	.065	-.202**	.211**	-.020
19.	1 if Post-*Furman*	.107*	-.304**	.218**	.068	-.006	.067	.258**	-.778**
20.	1 if South	.266**	.289**	-.263**	-.285**	-.645**	.824**	-.094	-.103*
21.	1 if Midwest	-.166**	-.147**	.198**	.169**	.389**	-.291**	.049	.030
22.	1 if West	-.035	-.113*	.153**	.055	.178**	-.271**	-.089	-.099*
23.	Number of homicides	.632**	.057	-.012	-.001	-.146**	.152**	.175**	-.242**
24.	Death sentences (*Independent variable*)	.867**	.376**	-.027	.035	-.129**	.240**	.006	-.117

*p = .05; **p = .01

TABLE 7: CORRELATION MATRIX CONT.

		9	10	11	12	13	14	15	16
1.	Death sentences (*Dependent variable*)								
2.	Executions								
3.	Percent vote for Republican presidential candidate								
4.	1 if Republican governor								
5.	Percent Republicans in state legislature								
6.	Percent religious fundamentalists								
7.	Welfare expenditures								
8.	Institutionalization rate								
9.	Incarceration rate per 1,000								
10.	Percent African American	.091							
11.	Percent unemployed	-.074	-.110*						
12.	Lynching rate	.119*	.601**	-.048					
13.	Homicide rate	.246**	.707**	-.146**	.537**				
14.	Violent crime rate	-.184**	.360**	.063	.178**	.411**			
15.	Surplus/Deficits/10^9	-.030	-.002	.209**	-.001	-.019	.126**		
16.	Total population/10^5	-.141**	.147**	.166**	-.050	.116*	.457**	.430**	
17.	Percent born in state	.072	.388**	-.164**	.011	.242**	-.159**	-.138**	.012
18.	Percent living in cities of 50,000+	-.281**	-.105*	.157**	-.236**	-.055	.299**	.167**	.539**
19.	1 if Post-*Furman*	-.325**	.028	.024	.000	-.035	.606**	.094	.230**
20.	1 if South	.089	.755**	-.107*	.586**	.606**	.245**	-.034	.001
21.	1 if Midwest	-.078	-.249**	-.156**	-.326**	-.256**	-.127**	-.084	.024
22.	1 if West	-.001	-.384**	.179**	-.015	-.127**	-.019	.110*	-.104*
23.	Number of homicides	-.154**	.237**	.067	.096*	.321**	.639**	.294**	.827**
24.	Death sentences (*Independent variable*)	-.029	.216**	.067	.226**	.306**	.409**	.237**	.632**

*p = .05; **p = .01

TABLE 7: CORRELATION MATRIX CONT.

	17	18	19	20	21	22	23
1. Death sentences (*Dependent variable*)							
2. Executions							
3. Percent vote for Republican presidential candidate							
4. 1 if Republican governor							
5. Percent Republicans in state legislature							
6. Percent religious fundamentalists							
7. Welfare expenditures							
8. Institutionalization rate							
9. Incarceration rate per 1,000							
10. Percent African American							
11. Percent unemployed							
12. Lynching rate							
13. Homicide rate							
14. Violent crime rate							
15. Surplus/Deficits/10^9							
16. Total population/10^5							
17. Percent born in state							
18. Percent living in cities of 50,000+	-.226**						
19. 1 if Post-*Furman*	-.150**	.148**					
20. 1 if South	.318**	-.206**	.000				
21. 1 if Midwest	.261**	.039	.000	-.408**			
22. 1 if West	-.656**	.094	.000	-.386**	-.305**		
23. Number of homicides	-.015	.411**	.327**	.138**	-.051	-.073	
24. Death sentences (*Independent variable*)	-.138**	.338**	.118*	.224**	-.159**	.012	.638**

*p = .05; **p = .01

2005; McCann, 2008), these findings denote that an increase in the percentage of religious fundamentalists within jurisdictions is associated with a larger number of state-level death sentences and executions. In addition, the findings within this table also indicate that the percentage of jurisdictional welfare expenditures is significantly and negatively associated with execution practices. Furthermore, the findings for the institutionalization rate variable denote that this indicator demonstrates a significant negative relationship with state-level death sentences and a significant positive relationship with execution practices. [24] Finally, consistent with the hypothesis outlined in the last chapter, the results indicate that state-level incarceration rates are significantly and positively associated with jurisdictional executions.

[24] In order to further examine the nature of the relationship between institutionalization rates and the two stages involved with capital punishment practices, trends in all three variables were examined. In relation to trends in institutionalization practices, these rates primarily increased in every state from the 1930s to the 1950s. Following deinstitutionalization, which began in the mid-1950s and was accelerated in the late 1960s, institutionalization rates have decreased across every jurisdiction from the 1970s into the 21st century.

With respect to trends in death sentences, Figure 4 in Chapter Two illustrates these trends over the course of the 20th and 21st centuries. According to this figure, reliance on death sentence practices decreased from the mid-1930s until the gap in the reporting of state-level death sentences from 1951 through 1959. After this gap, state-level death sentences continued to decrease until the *Furman* decision, at which point reliance on death sentences dramatically increased. Following the *Furman* decision, the imposition of state-level death sentences continued to increase until the beginning of the 21st century, at which point reliance on death sentences has primarily decreased leading up to 2012. Based on these trends, it would appear that reliance on death sentences was greater in the post-*Furman* time period in comparison to the earlier era, and the bivariate findings between the two variables support this conclusion. Given this finding, the negative relationship between institutionalization rates and death sentence practices is likely accounted for by the high number of death sentences and the lower institutionalization rates in the post-*Furman* era.

Concerning trends in executions, Figure 1 in Chapter One contains the graphical depiction of these trends over the course of the 20th and 21st centuries. According to this figure, jurisdictional executions increased from the beginning of the 1930s until the mid-point of that decade when reliance on this punishment practice then decreased substantially leading up until the moratorium in the late 1960s. After the *Gregg* decision in 1976, states slowly began to execute offenders again in the early 1980s, and trends in the use of executions increased until the turn of the millennium. After the beginning of the 21st century, jurisdictional executions have primarily decreased. In accordance with the overall trends in executions just highlighted, it would appear as though reliance on executions was greater in the pre-*Furman* time period. Again, the bivariate finding for the negative relationship between the post-*Furman* dummy indicator and the execution practices confirms this conclusion. Since both jurisdictional institutionalization rates and the use of executions were higher in the pre-*Furman* time period, it is likely that this factor accounts for the positive relationship between the two variables.

With respect to the findings associated with the social threat perspective, these results indicate that two out of the three variables within this perspective are significantly correlated with both dependent variables. Consistent with prior research (Jacobs & Carmichael, 2004; Jacobs, Carmichael & Kent, 2005; Jacobs et al., 2007; McCann, 2008), the percentage of African Americans in the state population demonstrates a significant and positive relationship with both stages involved with this form of punishment. The findings in Table 7 also indicate that as past lynching rates increase across jurisdictions, the number of death sentences and executions also increases, which appears to support Zimring's (2003) theoretical contentions. However, no support was demonstrated for the relationship between jurisdictional unemployment and both dependent variables.

Finally, the bivariate findings in Table 7 indicate that a number of the control variables are significantly associated with both stages in the punishment process. These findings indicate that the homicide rate, the total state population, the percentage of the population living in cities greater than 50,000 inhabitants, the post-*Furman* dummy indicator, the South and Midwest regions of the United States, and jurisdictional death sentences are all significantly associated with both dependent variables. In addition, these findings also denote that the violent crime rate, state surpluses and deficits in yearly spending, and the number of state-level homicides were significantly related to death sentence practices. Finally, the percentage of the population born in the state in which they currently reside and the western region of the United States are both significantly associated with state-level executions.

These findings are important to this dissertation because they indicate that there is a significant bivariate relationship between a number of the key theoretical variables and capital punishment practices, even when the temporal scope is expanded beyond the post-*Furman* time period. This chapter now turns to the examination of the findings from the primary multivariate models that are used to determine the social and political factors associated with death sentence practices from 1930 to 2012.

RANDOM EFFECTS NEGATIVE BINOMIAL RESULTS

This section focuses on the results from the random effects negative binomial estimations. Table 8 contains the findings from the models that focus on direct effects. In these analyses, the first three models contain the results when all of the variables within each theoretical perspective are examined separately. In the fourth model, all of the key theoretical variables are entered into the analysis, and the fifth model contains the findings when all of the control and theoretical indicators are included in the analysis. Due to the presence of autocorrelation and the need to account for the population at risk of receiving a death sentence, a one-period lag in the dependent variable and the number of jurisdictional homicides are included in all of these models.

In the first model in Table 8, the number of state-level death sentences was regressed on the partisan politics variables. In contrast to post-*Furman* predictions, the results from Model 1 indicate no support for the three partisan politics variables. Both the lagged dependent variable and the number of state-level homicide indicators demonstrate a positive relationship with the number of jurisdictional death sentences in this model.

TABLE 8: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 372 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	.013	.009				
1 if Republican governor	-.065	.138				
Percent Republicans in state legislature	-.005	.004				
Percent religious fundamentalists			.025***	.005		
Welfare expenditures			-.047***	.010		
Institutionalization rate			-.000	.000		
Incarceration rate per 1,000			-.002	.002		
Percent African American					.025	.026
Percent African American^2					-.002	.001
Percent unemployed					.008	.024
Lynching rate					.048**	.018
Violent crime rate						
Surplus/Deficits/10^9						
Total population/10^5						
Percent born in state						
Percent living in cities of 50,000+						
1 if Post-*Furman*						
1 if South						
1 if Midwest						
1 if West						
Number of homicides†	.027*	.131	.041**	.014	.034*	.014
Lagged death sentences	.022***	.004	.018***	.004	.015**	.004
Constant	-.704	.408	-.043	.316	-.574	.240
Log-likelihood	-834.097		-810.893		-830.460	
X^2	46.15***		91.92***		57.31***	
AIC	1684.194		1639.787		1678.919	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1940-2012.

TABLE 8: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 372 STATE-YEARS) CONT.

	Model 4		Model 5	
	b	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.018*	.008	-.015	.009
1 if Republican governor	-.129	.121	-.134	.116
Percent Republicans in state legislature	.008	.005	.005	.005
Percent religious fundamentalists	.034***	.006	.040***	.008
Welfare expenditures	-.066***	.010	-.075***	.011
Institutionalization rate	.000	.000	.000	.001
Incarceration rate per 1,000	-.003	.002	-.005*	.002
Percent African American	-.018	.026	-.004	.028
Percent African American^2	-.001	.001	-.000	.001
Percent unemployed	.107***	.028	.097**	.028
Lynching rate	.030	.020	.012	.020
Violent crime rate†			.080*	.040
Surplus/Deficits/10^9			-.008	.004
Total population/10^5			.005*	.002
Percent born in state			-.021*	.010
Percent living in cities of 50,000+			.018**	.006
1 if Post-*Furman*			-.496	.253
1 if South			.339	.450
1 if Midwest			.504	.395
1 if West			.234	.467
Number of homicides†	.050***	.013	.026	.017
Lagged death sentences	.015***	.004	.009	.005
Constant	-.104	.494	.469	.995
Log-likelihood	-798.201		-781.863	
X^2	149.57***		236.16***	
AIC	1628.401		1613.726	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1940-2012.

The second model contains the results when the number of state-level death sentences was regressed on the political ideology variables. The findings contained in this model provide support for two out of the four political ideological measures. More specifically, these findings indicate that as the percentage of religious fundamentalists within jurisdictions increases, so too does the number of death sentences. In addition, the results also denote that in states where there are higher expenditures on welfare, there are also fewer death sentences. Similar to findings in Model 1, the number of jurisdictional homicides and the lagged dependent variable are positively and significantly associated with the number of state-level death sentences.

The third model examines the relationship between the four social threat variables and the number of state-level death sentences. The results from this model indicate support for one of the four social threat variables. In particular, as state-level lynching rates increase, so too does the number of jurisdictional death sentences. This is an important finding because it indicates that lynching rates are significantly associated with death sentence practices, whereas Zimring (2003) had only hypothesized about the relationship between past lynching acts and executions. Again, the lagged dependent variable and the number of jurisdictional homicides are significantly related to death sentence practices.

In Model 4, the number of state-level death sentences was regressed on all of the theoretical indicators of interest. Consistent with the first three models, the percentage of religious fundamentalists and the percentage of a state's expenditure on welfare are still significantly related to state-level death sentences. However, with the inclusion of all of the theoretical variables, the percentage of the vote for Republican presidential candidates

and the percentage of unemployed individuals now demonstrate a significant relationship with the number of death sentences within jurisdictions, which signifies suppressor effects.[25] In contrast to the post-*Furman* partisan politics hypothesis, Model 4 indicates that when the percentage of the vote for Republican presidential candidates within states is higher, there are fewer death sentences. These findings also indicate that as the percentage of unemployed individuals within jurisdictions increases, the number of state-level death sentences also increases. The lagged death sentence variable and the number of homicides again demonstrate a significant positive relationship with the number of state-level death sentences.

Finally, the fifth model in Table 8 contains the findings when the number of state-level death sentences was regressed on all of the theoretical and control variables. Consistent with the findings from the last model, the percentage of religious fundamentalists, the percentage of state expenditures on welfare, and the percentage of unemployed individuals within jurisdictional populations still maintain a significant relationship with the number of jurisdictional death sentences. However, with the inclusion of the control variables, the percentage of the vote for Republican presidential candidates, the number of jurisdictional homicides, and the lagged dependent variable are no longer significant predictors of the number of state-level death sentences.

[25] In order to determine the third variable that increases the predictive value of the percentage of the vote for Republican presidential candidates and the unemployment measures, these indicators were included in the respective theoretical models; the alternative theoretical variables were then added one at a time. Results from these analyses (not shown) indicated that the incarceration rate variable was responsible for increasing the predictive value of the percentage of the vote for the Republican presidential candidate measure. Furthermore, these analyses also indicated that the predictive value of the unemployment measure was increased with the introduction of the percentage of state expenditures spent on welfare variable. Given these findings, additional analyses were performed to determine the nature of the relationship between both sets of variables. In these supplemental models, interaction terms were created from both sets of variables, and these interaction terms were then introduced into the full model. The results from these analyses (not shown) indicated that neither interaction term was significantly related to jurisdictional death sentence practices.

Furthermore, the incarceration rate is now a significant and negative predictor of death sentence practices in the full model, which again indicates a suppressor effect.[26] In terms of the findings for the control variables, Model 5 indicates that as the violent crime rate, the total state population, and the percentage of residents living in cities larger than 50,000 increases, so too does the number of death sentences within states. Lastly, the findings from Model 5 indicate that as the percentage of residents who are born in the state in which they currently reside increases, the number of state-level death sentences decreases. According to the Akaike Information Criterion (AIC) statistic across the five models, the full model demonstrates the lowest value, which indicates that this is the preferred model.[27]

The findings contained within Table 8 are of particular importance to this study because they demonstrate support for the propositions within two out of the three political perspectives. In regards to the propositions in the political ideology perspective, the findings in the full model indicate that the percentage of religious fundamentalists and the percentage of state-level expenditures on welfare are both significant predictors of jurisdictional death sentence practices in the 20th and 21st centuries. These findings are important because they indicate that the relationship between death sentence practices

[26] Similar to the procedures used to examine the previous suppressor effects, each control variable was entered one at a time into Model 4. The results from these supplemental analyses (not shown) indicated that the inclusion of the post-*Furman* dummy variable increased the predictive value of the incarceration rate measure. In order to further investigate the relationship between variables, an interaction term was created using the two variables; the findings from this analysis are contained in Model 7 of Table 9 in this chapter. The results from this model indicated that the relationship between jurisdictional incarceration rates and the number of state-level death sentences was moderated by time period specific factors. Figure 9 in this chapter contains the graphical representation of this interactive relationship.

[27] One restriction when using the AIC statistic to assess model fit across analytic strategies is that all of the models must rely on the same cases and the same dependent variable. Due to this limitation, model fit comparisons using the AIC statistic cannot be made across analytic procedures when there are differences in the sample analyzed. Based on this restriction, comparisons cannot be drawn between the primary model and the supplemental procedures because these analytic strategies all rely on a different number of cases or a different measurement technique for jurisdictional death sentences.

and religious fundamentalists and welfare expenditures are not mere proximate manifestations associated with the post-*Furman* time period. Furthermore, the welfare expenditure finding is also significant because researchers have yet to examine the relationship between this variable and capital punishment practices. Based on this finding, it would appear that state expenditures on welfare is also a significant predictor of capital punishment practices, in addition to other forms of societal punishment identified in previous research (Beckett & Western, 2001; Greenberg & West, 2001; Stucky, Heimer & Lang, 2005).

Focusing on the results from the social threat variables, the findings from the full model indicate support for the propositions within the economic threat hypothesis. This is an interesting finding because previous studies have failed to demonstrate a significant relationship between state-level death sentences and unemployment in the post-*Furman* time period. Despite the null findings in previous research (Jacobs & Carmichael, 2004; Jacobs, Carmichael & Kent, 2005; Jacobs et al., 2007), the results from the full model indicate that the percentage of unemployed individuals within jurisdictions is a significant predictor of death sentence practices when the temporal scope is expanded beyond the post-*Furman* time period. Finally, the findings from the full model indicate that the violent crime rate, the total state population, the percentage of residents born in the state in which they currently reside, and the percentage of state residents residing in cities larger than 50,000 are all significant predictors of death sentence practices.

There are also a number of theoretical implications associated with the null findings in Model 5. First, the findings from the full model fail to show support for all three of the variables designed to measure the presence of Republican officials. These

null findings would appear to indicate that the relationship between Republican officials and death sentence practices is a proximate manifestation associated with the post-*Furman* time period. This finding also appears to support the contention by theorists that the massive southern conversion to the Republican Party in the 1970s effectively shifted the relationship between political party and this stage in the capital punishment process (Garland, 2001, 2011; Gottschalk, 2006). Second, the findings in the full model also fail to show support for the propositions within the racial threat and the vigilante tradition hypotheses. The non-significant finding regarding the racial threat hypothesis is an important result because post-*Furman* studies have demonstrated a significant relationship between the size of minority populations and state-level death sentences. The null finding in this study would appear to indicate that the significant relationship between the two variables is a proximate manifestation associated with the last third of the 20th century. Lastly, the non-significant finding regarding the lynching rate variable in the full model affirms what Jacobs, Carmichael, and Kent (2005) found in their study, namely that the lynching rate variable failed to demonstrate a significant direct relationship with death sentence practices. This section now turns to the examination of the findings when the interaction terms highlighted in Chapter Three are introduced into the full models.

In Table 9, each of the interaction terms is entered into the models one at a time. The results contained within Models 1 through 7 examine whether the relationship between the variables in the partisan politics and the political ideology perspectives and the number of state-level death sentences is conditioned by time period specific factors. In order to produce accurate scaling on the y-axis when plotting significant interaction

TABLE 9: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 372 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.025*	.010	-.015	.009	-.015	.009
1 if Republican governor	-.105	.116	-.282	.273	-.134	.116
Percent Republicans in state legislature	.002	.005	.005	.005	.006	.007
Percent religious fundamentalists	.039***	.007	.040***	.008	.039***	.008
Welfare expenditures	-.072***	.011	-.075***	.011	-.075***	.011
Institutionalization rate	.000	.001	.000	.001	.000	.001
Incarceration rate per 1,000	-.005	.002	-.005*	.002	-.005*	.002
Percent African American	.002	.026	-.006	.028	-.002	.029
Percent African American^2	-.001	.001	-.000	.001	-.000	.001
Percent unemployed	.098***	.028	.098***	.028	.096**	.029
Lynching rate	.008	.019	.012	.020	.012	.020
Violent crime rate†	.079*	.039	.082*	.040	.079	.041
Surplus/Deficits/10^9	-.007	.004	-.008	.004	-.008	.005
Total population/10^5	.006*	.002	.005*	.002	.005*	.002
Percent born in state	-.023*	.010	-.022*	.011	-.020	.011
Percent living in cities of 50,000+	.018**	.006	.018**	.006	.018**	.006
1 if Post-*Furman*	-.548*	.257	-.447*	.266	-.534	.297
1 if South	.225	.469	.334	.480	.332	.480
1 if Midwest	.460	.382	.500	.395	.489	.398
1 if West	.140	.448	.210	.468	.242	.467
Number of homicides†	.026	.016	.026	.017	.026	.017
Lagged death sentences	.010*	.005	.009	.005	.009	.005
President*Post-*Furman*	**.031***	**.015**				
Governor*Post-*Furman*			**.178**	**.295**		
Legislature*Post-*Furman*					**-.002**	**.006**
Constant	-.272	.210	-.231	.219	-.213	.219
Log-likelihood	-779.757		-781.678		-781.834	
X^2	260.86***		237.48***		236.37***	
AIC	1611.514		1615.356		1615.668	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.
Period effects are controlled for from 1940-2012.

TABLE 9: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 372 STATE-YEARS)

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.017	.009	-.014	.009	-.015	.009
1 if Republican governor	-.150	.117	-.128	.117	-.128	.117
Percent Republicans in state legislature	.004	.005	.006	.005	.004	.005
Percent religious fundamentalists	.026**	.010	.040***	.007	.039***	.008
Welfare expenditures	-.077***	.011	-.045**	.016	-.075***	.011
Institutionalization rate	-.001	.001	-.000	.001	.001	.001
Incarceration rate per 1,000	-.004*	.002	-.004	.002	-.005*	.002
Percent African American	.011	.028	.012	.026	.001	.028
Percent African American²	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.078**	.030	.099***	.027	.091**	.030
Lynching rate	.007	.018	.001	.018	.014	.020
Violent crime rate†	.074	.041	.076	.041	.079	.041
Surplus/Deficits/10^9	-.009	.005	-.009	.005	-.008	.005
Total population/10^5	.005*	.002	.005*	.002	.004*	.002
Percent born in state	-.015	.011	-.018	.010	-.019	.011
Percent living in cities of 50,000+	.020**	.006	.018**	.006	.017**	.006
1 if Post-*Furman*	-.822**	.287	-626*	.353	-.455	.264
1 if South	.227	.471	.227	.460	.289	.483
1 if Midwest	.392	.383	.304	.370	.493	.394
1 if West	.290	.454	.167	.439	.274	.471
Number of homicides†	.026	.017	.029	.016	.027	.017
Lagged death sentences	.010*	.005	.010*	.005	.009	.005
Religious*Post-*Furman*	**.015***	**.007**				
Welfare*Post-*Furman*			**-.050***	**.020**		
Institutionalization*Post-*Furman*					**-.001**	**.002**
Constant	-.233	.207	-.249	.204	-.277	.240
Log-likelihood	-779.472		-778.866		-781.651	
X^2	247.58***		274.98***		236.09***	
AIC	1610.944		1609.733		1615.303	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1940-2012.

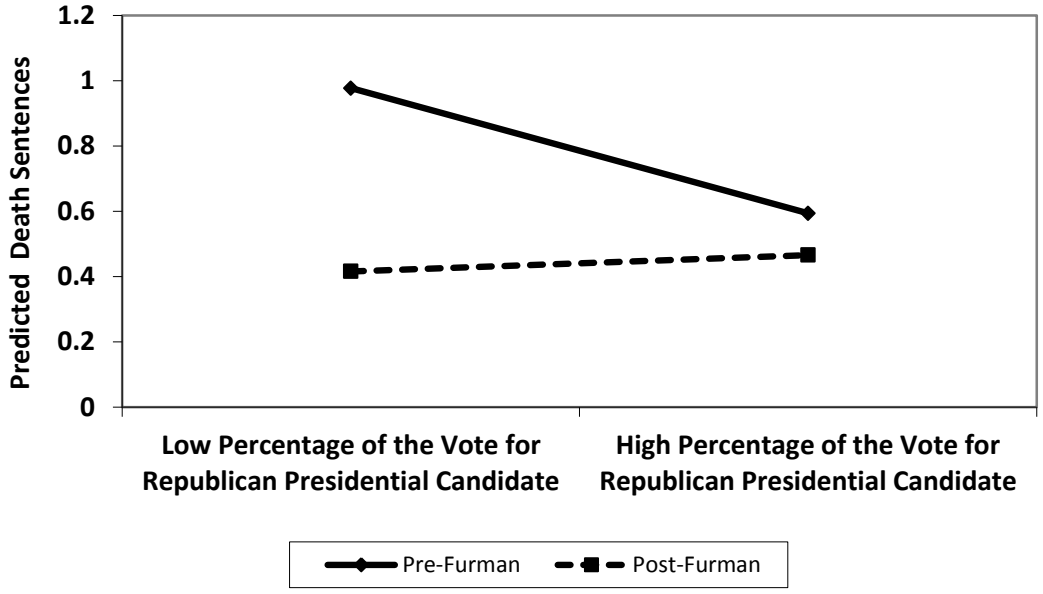
TABLE 9: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 372 STATE-YEARS)

	Model 7		Model 8	
	b	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.012	.009	-.013	.009
1 if Republican governor	-.106	.115	-.155	.117
Percent Republicans in state legislature	.004	.005	.005	.005
Percent religious fundamentalists	.045***	.008	.036***	.007
Welfare expenditures	-.072***	.010	-.074***	.011
Institutionalization rate	-.000	.001	.000	.001
Incarceration rate per 1,000	-.001	.002	-.004	.002
Percent African American	-.018	.029	.004	.029
Percent African American²	-.000	.001	-.003	.002
Percent unemployed	.107***	.028	.085**	.030
Lynching rate	.016	.021	-.012	.021
Violent crime rate†	.083*	.038	.109*	.042
Surplus/Deficits/10^9	-.007	.004	-.008	.005
Total population/10^5	.007**	.002	.005*	.002
Percent born in state	-.027*	.011	-.020	.010
Percent living in cities of 50,000+	.021**	.006	.014*	.007
1 if Post-*Furman*	-.958**	.323	-.496	.257
1 if South	.339	.491	.664	.518
1 if Midwest	.612	.406	.506	.396
1 if West	.099	.483	.474	.470
Number of homicides†	.007	.017	.023	.016
Lagged death sentences	.006	.005	.008	.005
Incarceration*Post-*Furman*	**-.011***	**.005**		
African American*Lynching			**.003***	**.001**
Constant	-.320	.225	-.181	.215
Log-likelihood	-779.101		-778.987	
X^2	244.73***		255.88***	
AIC	1610.203		1609.974	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.
Period effects are controlled for from 1940-2012.

FIGURE 6: THE RELATIONSHIP BETWEEN THE PERCENTAGE OF THE VOTE FOR REPUBLICAN PRESIDENTIAL CANDIDATE AND PREDICTED STATE-LEVEL DEATH SENTENCES BY TIME PERIOD



terms, all of the covariates in this table have been mean centered. Overall, the results from these models denote that there are five significant interaction terms, and the lower AIC statistics reported for the models containing the interaction terms indicate they are preferred to the full model in Table 8.

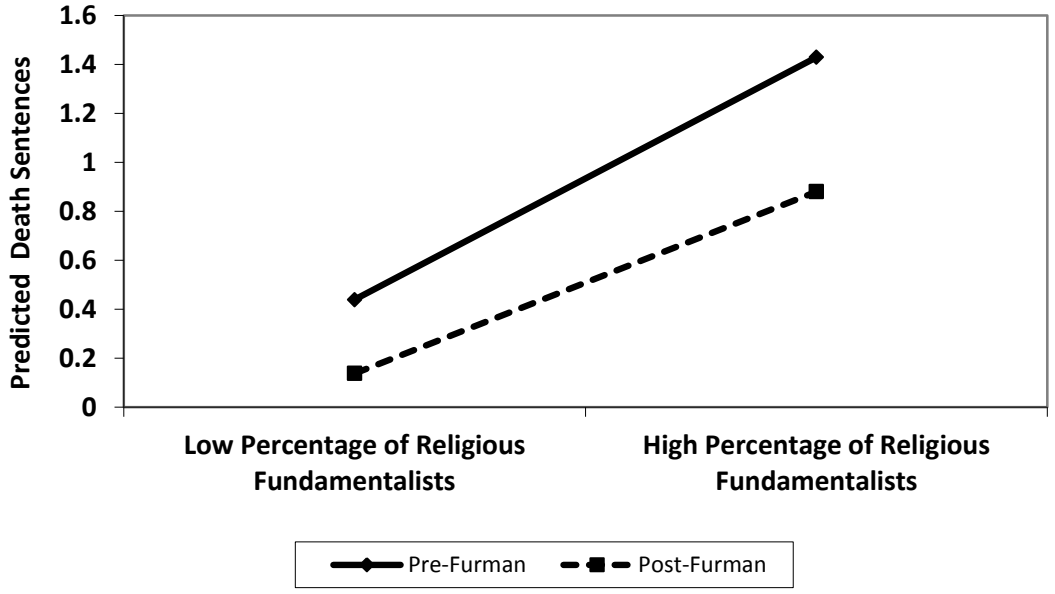
The findings in Model 1 of Table 9 indicate that the relationship between the percentage of the vote for Republican presidential candidates and death sentence practices is moderated by time period specific factors. Figure 6 graphically displays this relationship. In this figure, the solid line represents the pre-*Furman* time period, and the dashed line represents the post-*Furman* time period. In order to detect how the changing nature of Republican Party affiliation influences death sentence practices across the two time periods, this variable is set to both one standard deviation below (low) and above

(high) the mean.[28] This graph indicates that as the percentage of the vote for Republican presidential candidates increases from one standard deviation below to one standard deviation above the mean in the pre-*Furman* time period, the predicted number of death sentences within jurisdictions decreases. As mentioned in the last section, this finding is likely attributed to the strong Democratic presence in the Southern United States before the punitive turn in crime control policies that occurred in the 1970s. Conversely, the very slight upward slope in the post-*Furman* line indicates that the percentage of the vote for Republican presidential candidates had little impact on state-level death sentences during this time period. This finding is particularly interesting given that the partisan politics perspective contends that there should be a strong positive relationship between conservative candidates and the adoption of harsh punishment practices in the post-*Furman* time period.

Model 4 contains the results when the interaction term comprised of the percentage of religious fundamentalists and the post-*Furman* dummy variable is introduced into the full model. The findings from this model indicate that time period specific factors moderate the relationship between fundamentalist ideologies and the number of state-level death sentences. Figure 7 contains the graphical representation of this relationship. According to this figure, as the percentage of religious fundamentalists within states increases from one standard deviation below to one standard deviation above the mean, the predicted number of jurisdictional death sentences also increases in both the pre- and post-*Furman* time periods. In addition, this finding also indicates that the positive relationship between the percentage of religious fundamentalists in a state

[28] The same procedures are adopted for all graphical representations of interactive relationships that rely on the binary post-*Furman* dummy indicator.

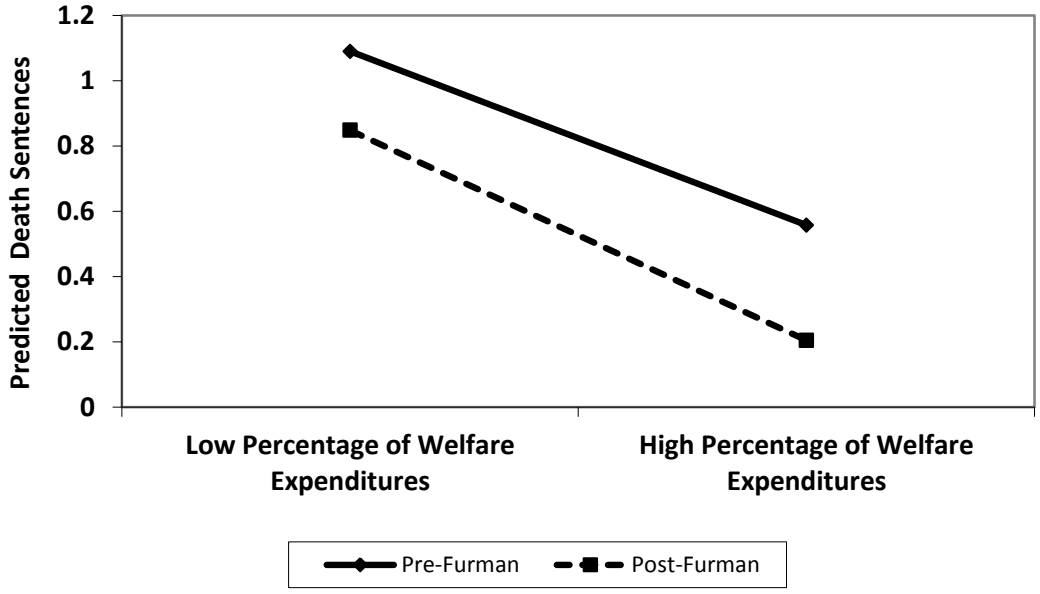
FIGURE 7: THE RELATIONSHIP BETWEEN THE PERCENTAGE OF RELIGIOUS FUNDAMENTALISTS AND PREDICTED STATE-LEVEL DEATH SENTENCES BY TIME PERIOD



and death sentence practices was stronger in the pre-*Furman* time period, regardless of the size of the fundamentalist population. This finding is interesting given the emphasis that recent scholars have placed on the importance associated with the rise to political prominence of the religious right in the post-*Furman* time period.

Model 6 contains the results when the interaction term comprised of the percentage of state expenditures spent on welfare and the post-*Furman* dummy variable was introduced into the analysis. The findings from this model indicate that there is a significant negative relationship between this interaction term and the number of state-level death sentences, and Figure 9 graphically depicts the nature of this relationship. According to this graph, as the percentage of state-level expenditures on welfare increases from one standard deviation below the mean, jurisdictional death

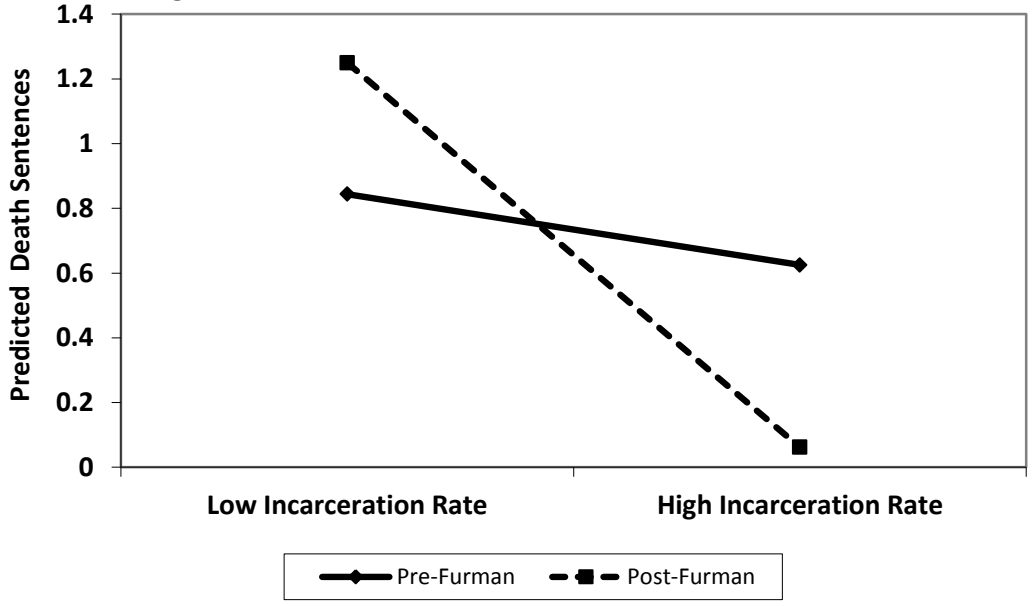
FIGURE 8: THE RELATIONSHIP BETWEEN THE PERCENTAGE OF WELFARE EXPENDITURES AND PREDICTED STATE-LEVEL DEATH SENTENCES BY TIME PERIOD



sentences decrease in both the pre- and post-*Furman* time periods. In addition, this graph also indicates that the negative relationship between welfare expenditures and death sentence practices was stronger in the post-*Furman* time period. This result is consistent with previous studies that have found that higher expenditures on welfare are associated with the adoption of less punitive penal punishments in the post-*Furman* era (Beckett & Western, 2001; Greenberg & West, 2001; Stucky, Heimer & Lang, 2005).

Model 8 contains the findings when the interaction term comprised of the incarceration rate and the post-*Furman* dummy variable was included in the analysis. The results from this model indicate that the relationship between this interaction term and jurisdictional death sentences is both significant and negative. According to the graphical representation contained in Figure 9, as jurisdictional incarceration rates in the pre-F*urman* time period increase from one standard deviation below the mean to one

FIGURE 9: THE RELATIONSHIP BETWEEN THE INCARCERATION RATE AND PREDICTED STATE-LEVEL DEATH SENTENCES BY TIME PERIOD



standard deviation above the mean, the predicted number of state-level death sentences slightly decreases. The relatively flat angle of the pre-*Furman* slope would appear to indicate that the variation in incarceration rates across jurisdictions only had a slight impact on state-level death sentence practices in this era. However in the post-*Furman* time period, as the incarceration rate increases, the predicted number of jurisdictional death sentences decreases. This finding is particularly interesting because it suggests that the punitive nature of jurisdictional punishment practices is not uniform across the correctional landscape.[29] In other words, this finding would appear to suggest that the

[29] In order to further examine the nature of the relationship between incarceration rates and death sentence practices in the post-*Furman* time period, trends in these variables were examined. In terms of incarceration rates, this variable was constructed based on the number of annual prison admissions and the total number of Index I offenses. When examining trends in admissions from 1970 to 2010, the number of individuals admitted to state prisons consistently increased in almost every state in each decade over the entire time period. When examining trends in offenses, the number of Index I crimes increased in nearly every state between 1970 and 1990, and the total number of offenses then declined in both 2000 and 2010. Due to the growing number of admissions and the declining number of offenses in the 21st century, the 50 highest

political and social factors associated with punitive death sentence practices may differ from those associated with punitive incarceration practices.

The final model in Table 9 contains the results when the interaction term comprised of the lynching rate and the percentage of African Americans in the state population was introduced into the full model. According to Jacobs, Carmichael, and Kent's (2005) hypothesis, past lynching rates moderate the relationship between the size of the African American population and death sentence practices. Based on the hypothesized curvilinear relationship between the African American population and punishment practices, Jacobs and colleagues contend that the size of the African American population must be greater in high lynching rate states before these jurisdictions reach the inflection point at which the relationship turns from positive to negative. On the opposite side, Jacobs, Carmichael, and Kent (2005) argue that a smaller percentage of African Americans in the state population is required in low lynching rate states for these jurisdictions to reach the inflection point. Since both of these are continuous variables, the two indicators were mean centered before this interaction term was created, and all of the covariates are mean centered as well.

The findings in Model 8 indicate that there is a significant positive relationship between this interaction term and the number of death sentences within jurisdictions. Due to the hypothesized non-linear relationship between the size of the African American

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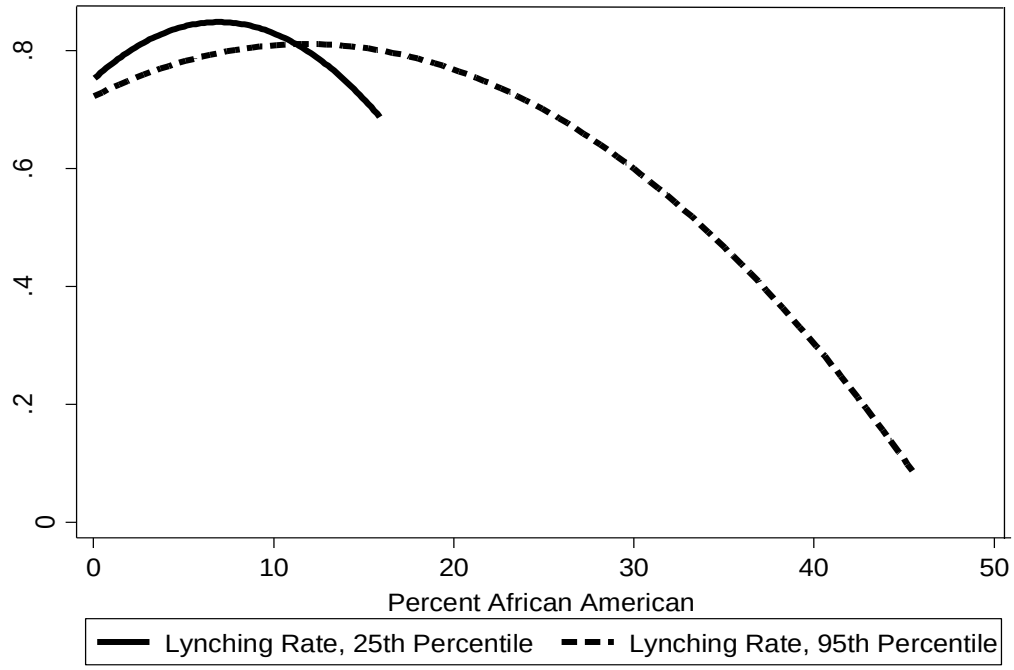
post-*Furman* incarceration rates were all reported in 2000 and 2010. In terms of post-*Furman* trends in death sentences, reliance on this capital punishment practice generally increased between 1970 and 1990 (72% of the top 50 death sentence states were from this period), and the number of jurisdictional death sentences then declined in the 21st century. This decline in capital punishment practices is likely attributed to both the increasing number of abolitionist states and the decreased reliance on the practice in death penalty states. Given the higher incarceration rates and the lower number of death sentences imposed in the 21st century, these factors appear to explain the significant negative relationship between the two variables in the post-*Furman* time period.

FIGURE 10: THE RELATIONSHIPS BETWEEN THE PERCENTAGE OF AFRICAN AMERICANS AND PREDICTED DEATH SENTENCES WHEN LYNCHINGS ARE AT THE 25TH AND 95TH PERCENTILE



population and death sentence practices, this study relies on the same procedures adopted by Jacobs, Carmichael, and Kent (2005) for investigating this relationship. First, the number of death sentences is predicted based on the coefficient for the interaction term and the coefficients for the quadratic terms using the point estimates contained within Model 8. Since Jacobs, Carmichael, and Kent's (2005) hypothesis is interactive in nature, the relationship between predicted death sentences and the size of the African American population should vary according to the lynching rate. To account for this interaction, two graphs are depicted in Figure 10. The first graph (the solid line in Figure 10) illustrates the relationship between the percentage of African Americans and predicted

death sentences when the lynching rate is set to the 25th percentile.[30] The second graph (the dotted line in Figure 10) depicts the relationship between the percentage of African Americans and predicted death sentences when the lynching rate is set at the 95th percentile. Consistent with Jacobs and colleagues' (2005) post-*Furman* predictions, these graphs indicate that there is a curvilinear relationship between the size of the African American population and jurisdictional death sentences, and the tipping point at which the relationship turns from positive to negative is slightly greater in states where lynching rates are higher. In addition, the findings from this graph also indicate that this interactive relationship is not restricted to the post-*Furman* era.

The findings from Table 9 are of particular importance to this dissertation because they indicate that the relationship between a number of the political variables and the imposition of state-level death sentences is moderated by time period specific factors. These findings are significant because they denote that the movement from the pre- to the post-*Furman* time period did have an influence on the nature of the relationship between the theoretical variables and death sentence practices. In the case of the interaction terms that examined religious fundamentalism, welfare expenditures, and incarceration rates, the findings from these models indicate that the movement across the two time periods either strengthens or weakens the preexisting nature of the relationship between these variables and jurisdictional death sentence practices.

The results from these models also indicate that the relationship between the percentage of the vote for Republican presidential candidates and state-level death sentences shifted when moving from the pre- to the post-*Furman* time period. This

[30] The truncated line for lynching rates in the 25th percentile is due to the low percentage of African Americans in states with low lynching rates.

finding is important because it indicates that there was a stronger relationship between death sentence practices and party affiliation in the pre-*Furman* time period in contrast to the post-*Furman* era. Finally, the results from Table 9 indicate that the relationship between the size of the African American population and the imposition of death sentences within jurisdictions is conditioned by past lynching rates. This finding has important theoretical implications because it provides support for Jacobs, Carmichael, and Kent's (2005) hypothesis and it demonstrates that this interactive relationship is able to account for death sentence practices beyond the post-*Furman* time period. The remainder of this chapter now focuses on the findings from four supplemental analyses that examine the robustness of the findings reported in the main models above.

RESULTS FROM SUPPLEMENTAL ANALYSES

Random Effects Negative Binomial Estimations Excluding Non-Death Penalty State-Years

The first alternative strategy examines the relationship between the key theoretical variables and the number of state-level death sentences when non-death penalty state-years are removed from the analyses. Due to the potential bias associated with including states where the punishment was not legal, this strategy determines whether the exclusion of non-death penalty states produces findings that differ from those reported in the primary models. For this alternative approach, 69 state-years where the penalty was not legal for at least one out of the two pooled years were excluded from the models. Given the structure of the data when non-death penalty state-years are removed from the analyses, the incorporation of one-period lags in the dependent variable was not possible using this analytic strategy. With the exclusion of the lagged dependent variable, the data for the 1930s are incorporated back into the sample. Consistent with the procedures

TABLE 10: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (EXCLUSION OF NON-DEATH PENALTY STATES) (N = 353 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.014	.009	-.018	.010	-.013	.009
1 if Republican governor	-.123	.115	-.113	.115	-.386	.226
Percent Republicans in state legislature	-.000	.004	-.001	.004	-.000	.004
Percent religious fundamentalists	.033***	.007	.033***	.007	.033***	.007
Welfare expenditures	-.061***	.008	-.061***	.008	-.064***	.009
Institutionalization rate	.001*	.001	.001*	.001	.001*	.001
Incarceration rate per 1,000	-.001	.001	-.001	.001	-.001	.001
Percent African American	-.024	.019	-.022	.019	-.029	.019
Percent African American²	.000	.001	.000	.001	.000	.001
Percent unemployed	.093***	.025	.094***	.025	.099***	.025
Lynching rate	.002	.014	.000	.014	.001	.014
Violent crime rate†	.115**	.036	.116**	.035	.113**	.035
Surplus/Deficits/10^9	-.010	.005	-.009	.005	-.010	.005
Total population/10^5	.007***	.002	.007***	.002	.007***	.002
Percent born in state	-.026**	.009	-.027**	.009	-.028**	.009
Percent living in cities of 50,000+	.013**	.005	.013*	.005	.013**	.005
1 if Post-*Furman*	.005	.212	-.024	.216	.054	.215
1 if South	.626	.368	.577	.371	.585	.370
1 if Midwest	.855**	.298	.835**	.298	.812**	.301
1 if West	-.033	.348	-.059	.345	-.157	.357
Number of homicides†	.022	.015	.022	.015	.024	.015
President*Post-*Furman*			**.012**	**.014**		
Governor*Post-*Furman*					**.338**	**.250**
Constant	.104	.937	-.178	.172	-.189	.175
Log-likelihood	-870.174		-869.832		-869.255	
X^2	228.66***		234.56***		232.14***	
AIC	1788.348		1789.663		1788.510	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012.

TABLE 10: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (EXCLUSION OF NON-DEATH PENALTY STATES) (N = 353 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.014	.009	-.016	.009	-.015	.009
1 if Republican governor	-.123	.115	-.139	.116	-.104	.115
Percent Republicans in state legislature	-.000	.005	-.002	.004	.002	.005
Percent religious fundamentalists	.033***	.007	.024**	.008	.033***	.007
Welfare expenditures	-.061***	.009	-.059***	.009	-.041***	.008
Institutionalization rate	.001	.001	.001	.001	.000	.001
Incarceration rate per 1,000	-.001	.001	-.001	.001	-.001	.001
Percent African American	-.024	.019	-.016	.019	-.016	.018
Percent African American^2	.000	.001	.000	.001	.000	.001
Percent unemployed	.093***	.026	.080**	.027	.100***	.025
Lynching rate	.002	.014	.001	.013	-.003	.014
Violent crime rate†	.114**	.035	.115**	.036	.109**	.036
Surplus/Deficits/10^9	-.010	.005	-.011	.006	-.012	.006
Total population/10^5	.007***	.002	.007***	.002	.008***	.002
Percent born in state	-.026**	.009	-.023**	.009	-.025**	.009
Percent living in cities of 50,000+	.013**	.005	.014**	.005	.013**	.005
1 if Post-*Furman*	-.003	.227	-.114	.223	-.229	.229
1 if South	.624	.368	.558	.359	.525	.367
1 if Midwest	.854**	.298	.834**	.290	.696	.295
1 if West	-.029	.350	.043	.343	-.148	.343
Number of homicides†	.000	.000	.021	.015	.025	.015
Legislature*Post-*Furman*	**-.001**	**.005**				
Religious*Post-*Furman*			**.010**	**.006**		
Welfare*Post-*Furman*					**-.046****	**.017**
Constant	-.170	.175	-.207	.171	-.129	.168
Log-likelihood	-870.169		-868.736		-866.695	
X^2	228.89***		242.01***		258.68***	
AIC	1790.338		1787.472		1783.39	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012.

TABLE 10: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (EXCLUSION OF NON-DEATH PENALTY STATES) (N = 353 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.014	.009	-.011	.009	-.016	.009
1 if Republican governor	-.114	.115	-.128	.114	-.143	.114
Percent Republicans in state legislature	-.002	.005	-.001	.004	.001	.004
Percent religious fundamentalists	.031***	.007	.036***	.007	.030***	.007
Welfare expenditures	-.064***	.009	-.056***	.008	-.060***	.009
Institutionalization rate	.002	.001	.001	.001	.001*	.001
Incarceration rate per 1,000	-.001	.001	-.001	.001	-.001	.001
Percent African American	-.021	.019	-.029	.018	-.024	.020
Percent African American^2	-.000	.001	.000	.001	-.001	.001
Percent unemployed	.084**	.026	.111***	.025	.084**	.026
Lynching rate	.003	.014	.001	.013	-.012	.017
Violent crime rate†	.104**	.037	.115**	.035	.139***	.037
Surplus/Deficits/10^9	-.011	.006	-.008*	.004	-.010	.006
Total population/10^5	.007***	.002	.010***	.002	.007***	.002
Percent born in state	-.025**	.009	-.028**	.009	-.025**	.009
Percent living in cities of 50,000+	.012*	.005	.016**	.005	.010	.005
1 if Post-*Furman*	-.013	.219	-.630*	.297	.007	.214
1 if South	.559	.372	.638	.361	.866*	.387
1 if Midwest	.830**	.300	.859**	.290	.858**	.301
1 if West	-.036	.348	-.118	.336	.144	.362
Number of homicides†	.025	.015	-.004	.002	.018	.015
Institutionalization*Post-*Furman*	**-.002**	**.001**				
Incarceration*Post-*Furman*			**-.012****	**.004**		
African American*Lynching					**.003***	**.001**
Constant	-.260	.192	-.432	.202	-.128	.183
Log-likelihood	-869.339		-865.437		-867.073	
X^2	229.07***		257.06***		237.16***	
AIC	1788.678		1780.873		1784.145	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012.

adopted in the primary models, all of the covariates are mean centered in models that contain interaction terms.

The results from Model 1 in Table 10 indicate support for a number of the key theoretical variables of interest. These findings indicate that three out of the four significant theoretical predictors in the primary models are also significant using this analytic strategy. Particularly, the percentage of religious fundamentalists, the percentage of states' overall expenditures spent on welfare, and the percentage of unemployed individuals are all significantly associated with jurisdictional death sentences. In terms of the control variables, the violent crime rate, the total state population, the percentage of residents born within the state in which they currently reside, and the percentage of citizens living in cities with more than 50,000 inhabitants are also still significant predictors of state-level death sentences.

However, there are also a few discrepancies between the findings from the primary model and those reported in the first model of Table 10. With the exclusion of non-death penalty state-years, there is now a significant and positive relationship between the institutionalization rate and jurisdictional death sentences. Consistent with the predictions outlined in Chapter Three, this finding denotes that reliance on death sentence practices is greater in jurisdictions with higher institutionalization rates.[31] Furthermore,

[31] There are two potential reasons why the positive relationship between institutionalization rates and death sentence practices is significant using this analytic strategy. First, with the removal of the lagged dependent variable, the time period for the 1930s is introduced back into the analyses. The reintroduction of this period likely contributes to the positive relationship between the two variables because reliance on death sentences in the pre-*Furman* time period was greatest in the early 1930s. In addition, 76 % of states during the measurement period for 1930 reported higher than average institutionalization rates based on the entire period from 1930 to 2012. Given that there were higher than average institutionalization rates and a large number of death sentences in the early 1930s, it is likely that the reintroduction of this period into the analyses is partially responsible for the significant findings using this analytic strategy.

The second reason for the significant finding pertains to the exclusion of non-death penalty state-years. Since institutionalization rates were highest in the pre-*Furman* time period, the impact

the incarceration rate is no longer a significant predictor of death sentence practices using this analytic strategy. Finally, the number of death sentences in the midwestern region is significantly higher than the number of state-level death sentences reported in the northeastern region of the United States.

Models 2 through 9 in Table 10 contain the findings when each of the interaction terms is introduced individually into the models. Consistent with the findings reported in the primary models, the results in Model 6 denote that the relationship between expenditures on welfare and the number of jurisdictional death sentences is conditioned by time period specific factors.[32] Furthermore, the findings in Model 8 also indicate that time period specific factors moderate the relationship between state-level incarceration rates and jurisdictional death sentences.[33] Finally, the findings in Model 9 indicate that past lynching rates in states moderate the relationship between the size of the African American population and state-level death sentence practices.[34] No support was shown

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associated with the removal of non-death penalty state-years for this time period is examined. Out of the 18 non-death penalty state-years removed in the pre-*Furman* time period, 66% of these states reported above average institutionalization rates based on the mean for the entire period from 1930 to 2012. Given this finding, it is likely that the removal of non-death penalty state-years also assists in clarifying the positive and significant relationship between death sentence practices and institutionalization rates.

[32] The graphical representation of this relationship (not shown) confirms that reliance on death sentences decreases in both the pre- and post-*Furman* time periods when the percentage of jurisdictional welfare expenditures is set to both one standard deviation above and below the mean. However, the gap between death sentence practices in the pre-and post-*Furman* time periods when welfare expenditures were low in this graph was more narrow than the gap reported in the previous section.

[33] The plotted interaction term (not shown) demonstrates that the pre- and post-*Furman* slopes are similar to those reported in the primary models. The only significant difference between the two graphs is that the post-*Furman* slope is steeper and more dramatic in the primary model reported in Figure 9. Since incarceration rates and the number of abolitionist states are highest in the 21st century, it is likely that the tempering of the negative slope in the post-*Furman* period was due to the exclusion of a greater number of states with high incarceration rates and zero death sentences.

[34] The nature of the relationship between variables using this alternative strategy is similar to the relationship reported in the graphical representation for the primary models. However, there are two distinct differences in the nature of the relationship between variables. First, the line representing the lynching rate at the 25th percentile is even more truncated when non-death penalty states are removed, but

for the remaining interaction terms in these models, and the models containing the three significant interaction terms reported the lowest AIC statistics, which denotes that these specifications are preferred over the remaining models within Table 10.

Overall, the findings from this supplemental strategy indicate support for most of the significant findings reported in the primary models. The results from Model 1 are particularly important because they demonstrate support for three out of the four key theoretical variables of interest that were identified in the primary models. No support was shown for the significant relationship between incarceration rates and death sentence practices. In addition, with the exclusion of non-death penalty state-years, the institutionalization rate is now a significant and positive predictor of jurisdictional death sentences. The results from Model 1 are also important because they indicate that the relationship between these variables remains significant, regardless of whether non-death penalty state-years are included in the analyses. Finally, in terms of findings from the models that examine moderating influences, this alternative strategy indicates support for three of the five significant interaction terms from the primary models.

Zero-Inflated Negative Binomial Estimations

The second analytic strategy focuses on the findings associated with the adoption of a zero-inflated negative binomial estimation procedure. As mentioned, the presence of zero death sentences in the data could result from either the penalty not being legal in a state or the failure of jurors to impose the sentence; therefore, this estimation procedure is

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the overall shape of the relationship is maintained between analytic strategies. This finding is likely due to the low number of jurisdictions with low lynching rates and a high percentage of African Americans in the population. The second difference between the graphical representations using the two strategies is that the line representing lynching rates at the 95th percentile in the non-death penalty states model takes on more of a linear shape in comparison to the representation depicted when these state-years are incorporated into the analyses.

appropriate for examining this dependent variable. This estimation procedure is also appropriate when there is an excess of zeros in the data, which is the case for this outcome measure. The adoption of this supplemental analytic strategy is designed to determine whether alternative estimation procedures produce findings that differ from those reported in the main models.

Zero-inflated negative binomial procedures rely on two separate models for estimating the number of death sentences equal to or greater than one and the absence of a death sentence within jurisdictions. The general primary equation reported below focuses on jurisdictions that reported one or more death sentences:

> **Number of Death Sentences** = b_0 + b_1Percent Republican Presidential Candidate + b_2Republican Governor + b_3Percent Republicans Legislature + b_4Percent Fundamentalists + b_5Percent Welfare Expenditures + b_6Institutionalization Rate + b_7Incarceration Rate + b_8Percent African American + b_9Percent African American^2 + b_{10}Percent Unemployed + b_{11}Lynching Rate + b_{12}Violent Crime Rate + b_{13} Surplus/Deficits + b_{14}Total Population + b_{15}Born in State + b_{16}Percent Living in Cities with 50,000+ Inhabitants + b_{17}Post-*Furman* + b_{18}South+ b_{19}Midwest + b_{20}West + b_{21}Number of Homicides

In addition to the primary equation, this procedure also estimates a secondary equation that predicts the occurrence of zero death sentences within jurisdictions. Since there is no statistical rationale behind including the same variables from the primary equation in the secondary equation (Long & Freese, 2001), this study adopts a more concise specification for the secondary equation. The secondary probit based equation that estimates the absence of a death sentence within jurisdictions is specified as follows:

> **Death Sentence Absence** = b_0 + b_1Percent Republican Presidential Candidate + b_2 Republican Governor + b_3Percent Republicans Legislature +b_4Post-*Furman* + b_5South + b_6Midwest + b_7West

In this equation, the absence in the use of this form of punishment is coded as 0 and the presence of one or more death sentences is coded as 1. In an effort to maintain the

TABLE 11: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 423 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
1 + Death Sentences						
Percent vote for Republican presidential candidate	-.018*	.008	-.021	.010	-.018*	.008
1 if Republican governor	-.131	.118	-.129	.116	-.087	.200
Percent Republicans in state legislature	-.005	.007	-.006	.007	-.006	.007
Percent religious fundamentalists	.023***	.004	.022***	.004	.022***	.004
Welfare expenditures	-.045***	.010	-.044***	.010	-.045***	.011
Institutionalization rate	-.001	.001	-.001	.001	-.001	.001
Incarceration rate per 1,000	-.001	.001	-.001	.001	-.001	.001
Percent African American	.029	.027	.030	.028	.029	.027
Percent African American^2	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.099**	.032	.099**	.032	.099**	.032
Lynching rate	.006	.009	.005	.009	.006	.009
Violent crime rate†	.180***	.039	.182***	.039	.179***	.039
Surplus/Deficits/10^9	-.019	.010	-.019*	.010	-.019	.010
Total population/10^5	.012***	.003	.012***	.003	.012***	.003
Percent born in state	-.001	.008	-.004	.008	-.004	.008
Percent living in cities of 50,000+	.023**	.008	.023**	.008	.023**	.007
1 if Post-*Furman*	-.660*	.266	-.682*	.279	-.667**	.007
1 if South	-.599	.425	-.631	.419	-.590	.427
1 if Midwest	-.250	.376	-.275	.376	-.245	.378
1 if West	-.544	.404	-.562	.394	-.545	.406
Number of homicides†	-.000	.000	-.000	.000	-.000	.000
President*Post-*Furman*			**.009**	**.019**		
Governor*Post-*Furman*					**-.069**	**.198**
Intercept	1.247	.112	1.231	.118	1.249	.113

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012.

TABLE 11: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 423 STATE-YEARS) CONT.

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Zero Death Sentences						
Percent vote for Republican Presidential candidate	-.044	.024	-.043	.024	-.044	.024
1 if Republican Governor	-.004	.297	-.005	.301	-.001	.299
Percent Republicans in state legislature	-.008	.014	-.008	.014	-.007	.013
1 if Post-*Furman*	.100	.382	.096	.705	.098	.383
1 if South	-1.774***	.476	-1.785***	.484	-1.768***	.472
1 if Midwest	.065	.498	.058	.502	.063	.498
1 if West	-1.463*	.677	-1.493*	.735	-1.465*	.676
Intercept	2.237	.951	2.237	.957	2.236	.951
Log-pseudolikelihood	-898.258		-898.095		-898.222	
X^2	591.47***		651.01***		603.71***	
AIC	1858.516		1860.189		1860.443	
McFadden's Adjusted R^2	.126		.125		.125	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-2012.

TABLE 11: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 423 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
1 + Death Sentences						
Percent vote for Republican presidential candidate	-.018*	.009	-.025**	.010	-.020*	.008
1 if Republican governor	-.130	.114	-.141	.119	-.114	.117
Percent Republicans in state legislature	-.006	.007	-.006	.007	-.005	.007
Percent religious fundamentalists	.023***	.004	.013*	.006	.022***	.004
Welfare expenditures	-.045***	.011	-.044***	.010	-.034**	.011
Institutionalization rate	-.001	.001	-.001	.001	-.001	.001
Incarceration rate per 1,000	-.001	.001	-.001	.001	-.001	.001
Percent African American	.029	.027	.026	.026	.030	.027
Percent African American²	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.100**	.032	.077*	.034	.099**	.032
Lynching rate	.006	.009	.008	.009	.005	.009
Violent crime rate†	.181***	.039	.184***	.041	.177***	.039
Surplus/Deficits/10^9	-.019	.010	-.019	.010	-.020	.012
Total population/10^5	.012	.003	.012***	.003	.013***	.003
Percent born in state	-.004	.008	-.003	.008	-.004	.008
Percent living in cities of 50,000+	.023**	.008	.023**	.007	.023**	.008
1 if Post-*Furman*	-.653*	.284	-.771**	.279	-.749*	.302
1 if South	-.605	.426	-.563	.435	-.648	.436
1 if Midwest	-.255	.382	-.206	.400	-.306	.381
1 if West	-.548	.393	-.526	.420	-.618	.418
Number of homicides	-.000	.000	-.000	.000	-.000	.000
Legislature*Post-*Furman*	**.001**	**.007**				
Religious*Post-*Furman*			**.012**	**.007**		
Welfare*Post-*Furman*					**-.027**	**.023**
Intercept	1.245	.112	1.241	.111	1.271	.111

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012.

TABLE 11: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 423 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Zero Death Sentences						
Percent vote for Republican presidential candidate	-.043	.024	-.045	.025	-.044	.024
1 if Republican governor	-.005	.300	.014	.283	.004	.295
Percent Republicans in state legislature	-.008	.014	-.006	.011	-.008	.013
1 if Post-*Furman*	.102	.386	.043	.373	.090	.382
1 if South	-1.778***	.482	-1.737***	.426	-1.776***	.466
1 if Midwest	.062	.505	.111	.494	.067	.495
1 if West	-1.466*	.676	-1.452*	.693	-1.469*	.686
Intercept	2.236	.953	2.260	.954	2.259	.927
Log-pseudolikelihood	-898.250		-896.338		-897.423	
X^2	656.78***		513.55***		633.74***	
AIC	1860.499		1856.676		1858.845	
McFadden's Adjusted R^2	.125		.127		.126	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-2012.

TABLE 11: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 423 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
1 + Death Sentences						
Percent vote for Republican presidential candidate	-.018*	.008	-.013	.008	-.022**	.008
1 if Republican governor	-.151	.108	-.091	.112	-.140	.118
Percent Republicans in state legislature	-.004	.007	-.002	.007	.004	.007
Percent religious fundamentalists	.023***	.004	.021***	.004	.023***	.004
Welfare expenditures	-.042***	.012	-.034**	.010	-.047***	.010
Institutionalization rate	-.001	.001	-.002*	.001	-.001	.001
Incarceration rate per 1,000	-.000	.001	-.000	.001	-.000	.001
Percent African American	.028	.027	.032	.027	.024	.028
Percent African American²	-.001	.001	-.001	.001	-.002	.001
Percent unemployed	.109***	.030	.117***	.033	.088**	.033
Lynching rate	.005	.009	.003	.008	.006	.011
Violent crime rate†	.190***	.041	.166***	.037	.196***	.039
Surplus/Deficits/10^9	-.019*	.008	-.015***	.004	.020	.011
Total population/10^5	.012***	.003	.014***	.003	.012***	.003
Percent born in state	-.004	.008	-.006	.007	-.005	.008
Percent living in cities of 50,000+	.024**	.008	.024**	.007	.022**	.008
1 if Post-*Furman*	-.618	.264	-1.439**	.544	-.649*	.260
1 if South	-.572	.420	-.378	.411	-.489	.445
1 if Midwest	-.261	.376	-.195	.354	-.219	.379
1 if West	-.570	.410	-.635	.384	-.500	.401
Number of homicides	-.000	.000	-.000	.000	-.000	.000
Institutionalization*Post-*Furman*	**.002**	**.002**				
Incarceration*Post-*Furman*			**-.015**	**.008**		
African American*Lynching					**.001**	**.001**
Intercept	1.353	.168	.967	.206	1.186	.108

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012.

TABLE 11: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (N = 423 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Zero Death Sentences						
Percent vote for Republican presidential candidate	-.043	.024	-.043	.022	-.045	.024
1 if Republican governor	.006	.292	.062	.275	.008	.289
Percent Republicans in state legislature	-.007	.013	-.004	.010	-.007	.012
1 if Post-*Furman*	.097	.375	.061	.345	.079	.374
1 if South	-1.747***	.460	-1.567***	.407	-1.763***	.435
1 if Midwest	.052	.499	.070	.478	.083	.492
1 if West	-1.501*	.734	-1.596	.876	-1.476*	.666
Intercept	2.197	.969	2.091	.959	2.266	.920
Log-pseudolikelihood	-897.746		-893.022		-897.204	
X^2	578.50***		661.87***		613.01***	
AIC	1859.491		1850.043		1858.408	
McFadden's Adjusted R^2	.125		.130		.126	

*p = .05; **p = .01; ***p = .001
Period effects are controlled for from 1930-2012.

parsimonious nature of the secondary equation, the interaction terms are introduced only into the primary equation. Finally, the standard errors in these models are adjusted using a clustering procedure to account for the likelihood that the measurements within states across time are not independent.

The findings in Table 13 contain the results from the zero-inflated negative binomial estimations. The results for the primary equation in Model 1 indicate support for a number of the key theoretical variables of interest. Consistent with the findings reported in the previous strategy, the results in Model 1 indicate that the percentage of religious fundamentalists, the percentage of state-level expenditures dedicated to welfare, and the percentage of unemployed individuals are all significant predictors of the number of death sentences equal to or greater than one. In terms of the control variables, the violent crime rate, the total state population, and the percentage of citizens residing in cities larger than 50,000 are also still significant predictors of the imposition of death sentences using this alternative specification.

In contrast to the main models, the incarceration rate is no longer a significant predictor of death sentences equal to or greater than one. Using this analytic technique, the percentage of the vote for Republican presidential candidates is now significantly and negatively associated with death sentence practices. In addition, there are also a number of new control variables that are now significant predictors of death sentence practices using this analytic strategy. More specifically, there is a higher likelihood that death sentences will be imposed in jurisdictions with larger yearly deficits. There were also fewer states with death sentences equal to or greater than one in the post-*Furman* era in comparison to the pre-*Furman* time period. In terms of the findings in the secondary

equation that predicts the absence of death sentences, states in the southern and western regions of the United States were less likely to report zero death sentences in comparison to those in the northeastern region. Overall, the primary and secondary equations in Model 1 account for 12.4% of the variance in jurisdictional death sentence practices.

Models 2 through 9 in Table 13 contain the results when the interaction terms are introduced into the primary equation. Similar to the procedures adopted in previous strategies, all of the covariates are mean centered in every model. The findings from all of these models indicate no support for any of the eight interaction terms. In addition, the inclusion of the interaction terms in the final eight models does little to improve the percentage of variance accounted for between the two equations.

Consistent with the findings from the first alternative strategy, the results from the zero-inflated negative binomial estimates demonstrate support for a number of the findings presented in the primary models. In particular, this alternative strategy indicates that three out of the four significant theoretical variables identified in the primary models are associated with the imposition of death sentences equal to or greater than one. No support is demonstrated for the significant relationship between death sentences and jurisdictional incarceration rates reported in the primary models; however, the percentage of the vote for Republican presidential candidates is a significant predictor of state-level death sentences using this technique. The findings from the secondary equation that predicts the occurrence of zero death sentences indicate that the only significant predictors are the dummy variables designed to account for regional differences. Finally, the findings from this alternative strategy indicate that none of the interaction terms are significantly related to jurisdictional death sentences.

Random Effects Negative Binomial Estimations Using Two-Year Pooled Data Without 1950

The third alternative strategy relies on the same negative binomial procedures used in the main models, but the data for the 1950s are removed from the analyses. This alternative specification strategy examines whether the exclusion of the contemporaneous measurement for the 1950s from the analysis influences the findings reported in the primary models. Due to the removal of the 48 state-years for 1950, the data structure does not permit for the inclusion of the one-period lag in the dependent variable to account for autocorrelation; therefore, the data for the 1930s is incorporated back into the analyses.

Model 1 in Table 12 contains the findings when the number of state-level death sentences was regressed on all of the theoretical and control variables. Similar to the findings from the primary models, the percentage of religious fundamentalist adherents, the percentage of states' overall expenditures dedicated to welfare, and the percentage of the working age population that is unemployed are all still significant theoretical predictors of the number of state-level death sentences. In contrast to the primary models, the findings in this model indicate that the incarceration rate is not a significant predictor of death sentences using this strategy. The results also indicate that state-level institutionalization rates are significantly and positively related to the number of jurisdictional death sentences.[35] In terms of the control variables, the violent crime rate,

[35] This significant finding is likely attributed to two factors specific to this analytic strategy. First, the measurement period for 1930 is reintroduced into the analyses when the lagged dependent variable is excluded from the models. As mentioned, this significant positive finding is likely partially attributed to the higher than average institutionalization rates and the large number of death sentences occurring in the measurement period for 1930. The second explanation involves the potential bias introduced when using a one-year contemporaneous measurement for the 1950s in the primary models. Since the average institutionalization rate was higher in the early 1950s than any other period in the 20th and 21st centuries and death sentences are likely underestimated for this period in comparison to the pooled measurements for the other decades, this factor also potentially contributes to the significant findings for the institutionalization rate variable using this analytic strategy.

TABLE 12: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (TWO-YEAR POOLED DATA WITHOUT 1950) (N = 378 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.015	.009	-.023*	.010	-.014	.009
1 if Republican governor	-.129	.115	-.104	.115	-.397	.247
Percent Republicans in state legislature	.004	.005	.002	.005	.004	.005
Percent religious fundamentalists	.041***	.008	.041***	.007	.041***	.008
Welfare expenditures	-.053***	.009	.053***	.009	-.057***	.010
Institutionalization rate	.002**	.001	.002**	.001	.002**	.001
Incarceration rate per 1,000	-.001	.001	-.001	.001	-.001	.001
Percent African American	-.019	.022	-.015	.021	-.023	.022
Percent African American^2	.000	.001	.000	.001	.000	.001
Percent unemployed	.058*	.029	.058*	.029	.063*	.029
Lynching rate	.006	.018	.003	.018	.005	.019
Violent crime rate†	.138***	.037	.137***	.037	.137***	.037
Surplus/Deficits/10^9	-.008	.004	-.007	.004	-.008	.004
Total population/10^5	.007***	.002	.007***	.002	.007***	.002
Percent born in state	-.032**	.009	-.034***	.010	-.034***	.010
Percent living in cities of 50,000+	.015**	.006	.015**	.005	.016**	.006
1 if Post-*Furman*	-.220	.215	-.278	.220	-.158	.220
1 if South	.743	.420	.651	.420	.715	.422
1 if Midwest	.764*	.358	.725*	.354	.727*	.362
1 if West	.514	.440	.428	.432	.388	.450
Number of homicides†	.000	.000	.000	.000	.000	.000
President*Post-*Furman*			**.023**	**.015**		
Governor*Post-*Furman*					**.329**	**.268**
Constant	-.065	.952	-.414	.185	-.396	.192
Log-likelihood	-835.081		-833.909		-834.325	
X^2	213.50***		225.11***		218.01***	
AIC	1718.162		1717.818		1718.65	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012 (minus 1950).

TABLE 12: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (TWO-YEAR POOLED DATA WITHOUT 1950) (N = 378 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.015	.009	-.016	.009	-.017	.009
1 if Republican governor	-.129	.115	-.139	.116	-.088	.114
Percent Republicans in state legislature	.003	.006	.002	.005	.007	.005
Percent religious fundamentalists	.041***	.008	.034***	.009	.042***	.007
Welfare expenditures	-.054***	.010	-.052***	.010	-.020	.013
Institutionalization rate	.002**	.001	.002*	.001	.001	.001
Incarceration rate per 1,000	-.001	.001	-.001	.001	-.001	.001
Percent African American	-.020	.022	-.012	.022	-.006	.021
Percent African American^2	.000	.001	.000	.001	.000	.001
Percent unemployed	.059*	.029	.048	.030	.057*	.028
Lynching rate	.006	.019	.004	.018	-.003	.017
Violent crime rate†	.139***	.037	.137***	.038	.130***	.037
Surplus/Deficits/10^9	-.008	.004	-.008	.004	.011	.006
Total population/10^5	.007***	.002	.007***	.002	.007***	.002
Percent born in state	-.032**	.010	-.029**	.010	-.030**	.009
Percent living in cities of 50,000+	.015**	.006	.016**	.005	.015**	.006
1 if Post-*Furman*	-.199	.232	-.347	.234	-.603*	.236
1 if South	.751	.422	.682	.417	.603	.420
1 if Midwest	.767*	.359	.720*	.352	.538	.343
1 if West	.500	.444	.565	.437	.362	.423
Number of homicides†	.000	.000	.000	.000	.000	.000
Legislature*Post-*Furman*	**.001**	**.006**				
Religious*Post-*Furman*			**.008**	**.006**		
Welfare*Post-*Furman*					**-.068*** **	**.018**
Constant	-.392	.193	-.440	.190	-.322	.175
Log-likelihood	-835.054		-834.144		-828.203	
X^2	213.67***		218.34***		248.40***	
AIC	1720.107		1718.288		1706.406	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012 (minus 1950).

TABLE 12: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2012 (TWO-YEAR POOLED DATA WITHOUT 1950) (N = 378 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.014	.009	-.013	.009	-.015	.009
1 if Republican governor	-.118	.115	-.133	.113	-.147	.116
Percent Republicans in state legislature	.002	.005	.003	.005	.004	.005
Percent religious fundamentalists	.040***	.008	.046***	.008	.039***	.008
Welfare expenditures	-.057***	.010	-.049***	.009	-.052***	.010
Institutionalization rate	.003***	.001	.001*	.001	.002**	.001
Incarceration rate per 1,000	-.001	.001	-.001**	.001	-.001	.001
Percent African American	-.015	.022	-.028	.022	-.020	.023
Percent African American²	.000	.001	.000	.001	-.001	.001
Percent unemployed	.047	.030	.077**	.028	.050	.030
Lynching rate	.008	.019	.010	.019	-.007	.020
Violent crime rate†	.127**	.038	.135***	.035	.154***	.039
Surplus/Deficits/10^9	-.008	.005	-.006	.003	-.008	.005
Total population/10^5	.006**	.002	.010***	.002	.007***	.002
Percent born in state	-.030**	.010	-.035***	.009	.031**	.010
Percent living in cities of 50,000+	.014*	.006	.018**	.006	.014*	.006
1 if Post-*Furman*	-.150	.226	-.761**	.280	-.238	.216
1 if South	.679	.422	.751	.424	.962*	.441
1 if Midwest	.734	.360	.819	.364	.753*	.355
1 if West	.517	.441	.433	.444	.620	.445
Number of homicides†	.000	.000	-.000	.000	.000	.000
Institutionalization*Post-*Furman*	**-.002**	**.001**				
Incarceration*Post-*Furman*			**-.012****	**.004**		
African American*Lynching					**.002**	**.001**
Constant	-.478	.207	-.609	.211	-.405	.197
Log-likelihood	-834.030		-830.597		-833.919	
X^2	214.52***		227.49***		222.96***	
AIC	1718.060		1711.195		1717.839	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1930-2012 (minus 1950).

the total state population, the percentage of citizens born in the state in which they currently reside, and the percentage of state inhabitants living in cities larger than 50,000 residents all demonstrate a significant relationship with jurisdictional death sentences. In addition, this model also indicates that states within the southern and midwestern regions of the United States reported a higher number of death sentences in comparison to those in the northeastern region.

Models 2 through 9 contain the findings when the interaction terms are individually entered into the models. The findings from these models indicate that there were two significant interaction terms. The first significant interaction term in Model 6 is comprised of the welfare expenditures and the post-*Furman* dummy indicators. Consistent with the results reported in the primary model, the graphical representation of this interactive relationship (not shown) indicates that the predicted number of death sentences declined in both the pre- and post-*Furman* time period as the percentage of state-level expenditures on welfare increased.

The second significant interaction term in Model 8 indicates that time period specific factors moderate the relationship between incarceration rates and jurisdictional death sentence practices. Consistent with the results reported in the primary models, the graphical representation (not shown) indicates that there was still a significant decline in predicted state-level death sentences in the post-*Furman* time period. However, with the exclusion of data from the 1950s, the pre-*Furman* line has a steeper negative slope using this alternative strategy. No support is shown for the remaining interaction terms using this alternative specification strategy, and the models containing the two significant interaction terms reported the lowest AIC statistics.

Similar to the findings reported in the previous two supplemental models, the results from this alternative strategy show support for three out of the four theoretical variables of interest that were identified in the primary models. The findings from Table 12 also denote that there was no support for the significant relationship between incarceration rates and jurisdictional death sentences. In addition, this alternative strategy also indicates that the institutionalization rate is a significant predictor of state-level death sentences when the data for 1950 is removed from the analyses. Furthermore, the findings from Model 1 also demonstrate support for all of the control variables identified in the primary models as being significantly associated with death sentence practices. The findings from this alternative strategy also demonstrate support for two out of the five significant interactive relationships that were identified as significant predictors of state-level death sentences in the main models. Particularly, this strategy indicates that time period specific factors moderate the relationship between jurisdictional death sentences and the percentage of welfare expenditures and the incarceration rate.

Random Effects Negative Binomial Estimations Using Contemporary Measurements

The final supplemental strategy focuses on the relationship between the theoretical variables and the number of jurisdictional death sentences when all of the independent and dependent variables are measured contemporaneously. This strategy is adopted to determine whether the three perspectives are able to predict contemporary death sentence practices, as opposed to the one-year lag used in the previous specifications. Since there are no gaps between the decade measurements using this strategy, the lagged dependent variable is incorporated into these models to account for autocorrelation.

TABLE 13: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2010 (CONTEMPORARY ESTIMATIONS)(N = 371 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	.001	.010	-.006	.012	.002	.010
1 if Republican governor	.178	.129	.191	.129	-.200	.297
Percent Republicans in state legislature	.000	.005	-.001	.005	.001	.005
Percent religious fundamentalists	.037***	.008	.036***	.008	.038***	.008
Welfare expenditures	-.046***	.013	-.044**	.013	-.047***	.013
Institutionalization rate	.001	.001	.001	.001	.001	.001
Incarceration rate per 1,000	.000	.002	-.000	.002	.000	.002
Percent African American	.034	.027	.034	.026	.028	.027
Percent African American^2	-.002	.001	-.002	.001	-.001	.001
Percent unemployed	.038	.031	.038	.031	.043	.030
Lynching rate	-.002	.018	-.005	.018	-.004	.018
Violent crime rate†	.060	.040	.061	.040	.060	.040
Surplus/Deficits/10^9	-.004	.003	-.004	.003	-.004	.003
Total population/10^5	.004	.002	.005*	.002	.004*	.002
Percent born in state	-.018	.011	-.019	.011	-.020	.011
Percent living in cities of 50,000+	.018**	.007	.017*	.007	.018**	.007
1 if Post-*Furman*	-.263	.271	-.280	.274	-.130	.288
1 if South	-.006	.482	.042	.477	-.056	.488
1 if Midwest	.045	.349	-.053	.345	-.092	.354
1 if West	.076	.454	.043	.447	.009	.457
Number of homicides	.000	.000	.000	.000	.000	.000
Lagged death sentences	.023	.012	.022	.012	.023	.012
President*Post-*Furman*			**.016**	**.016**		
Governor*Post-*Furman*					**.449**	**.317**
Constant	-.347	1.056	-.081	.229	-.077	.234
Log-likelihood	-626.563		-626.073		-625.543	
X^2	189.17***		198.21***		191.41***	
AIC	1303.127		1304.146		1303.087	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1940-2012.

TABLE 13: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2010 (CONTEMPORARY ESTIMATIONS)(N = 371 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.001	.010	-.002	.010	.001	.010
1 if Republican governor	.179	.129	.168	.128	.197	.128
Percent Republicans in state legislature	.005	.006	-.001	.005	.002	.005
Percent religious fundamentalists	.036***	.008	.027**	.010	.036***	.008
Welfare expenditures	-.045***	.013	-.045***	.013	-.011	.016
Institutionalization rate	.000	.001	.000	.001	.000	.001
Incarceration rate per 1,000	.000	.002	.000	.002	.001	.002
Percent African American	.038	.028	.039	.027	.045	.026
Percent African American^2	-.002	.001	-.002	.001	-.002	.001
Percent unemployed	.033	.032	.025	.033	.048	.030
Lynching rate	-.002	.018	-.003	.018	-.005	.017
Violent crime rate†	.055	.040	.056	.040	.060	.040
Surplus/Deficits/10^9	-.004	.003	-.004	.003	-.006	.004
Total population/10^5	.004	.002	.004	.002	.005	.002
Percent born in state	-.017	.011	-.015	.011	-.014	.010
Percent living in cities of 50,000+	.018**	.007	.018**	.007	.019**	.007
1 if Post-*Furman*	-.420	.314	-.474	.299	.446	.281
1 if South	.019	.484	-.048	.475	-.111	.460
1 if Midwest	-.066	.352	-.064	.347	-.216	.340
1 if West	.140	.462	.136	.451	-.043	.435
Number of homicides†	.000	.000	.000	.000	.000	.000
Lagged death sentences	.024	.012	.025*	.012	.024*	.012
Legislature*Post-*Furman*	**-.007**	**.007**				
Religious*Post-*Furman*			**.011**	**.007**		
Welfare*Post-*Furman*					**-.065****	**.022**
Constant	-.015	.236	-.040	.227	- .417	.217
Log-likelihood	-626.095		-625.367		-622.198	
X^2	185.99***		194.60***		223.18***	
AIC	1304.190		1302.734		1296.397	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1940-2012.

TABLE 13: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF DEATH SENTENCES IN JURISDICTIONS, 1930-2010 (CONTEMPORARY ESTIMATIONS)(N = 371 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	.001	.010	.004	.010	.003	.010
1 if Republican governor	.182	.128	.181	.128	.170	.130
Percent Republicans in state legislature	-.001	.006	-.000	.005	.000	.005
Percent religious fundamentalists	.036***	.008	.040***	.008	.035***	.007
Welfare expenditures	-.045***	.013	-.044**	.013	-.044**	.013
Institutionalization rate	.001	.001	.000	.001	.001	.001
Incarceration rate per 1,000	.000	.002	.002	.002	.000	.002
Percent African American	.038	.027	.030	.027	.042	.027
Percent African American²	-.002	.001	-.001	.001	-.003	.002
Percent unemployed	.029	.033	.045	.031	.029	.032
Lynching rate	.000	.018	-.005	.018	-.020	.021
Violent crime rate†	.052	.040	.058	.040	.078	.042
Surplus/Deficits/10^9	-.004	.003	-.004	.003	-.004	.003
Total population/10^5	.004	.002	.006*	.003	.005*	.002
Percent born in state	-.016	.011	-.020	.011	-.016	.010
Percent living in cities of 50,000+	.017*	.007	.020**	.007	.015*	.007
1 if Post-*Furman*	-.210	.282	-.586	.342	-.280	.273
1 if South	-.046	.480	-.047	.476	.096	.466
1 if Midwest	-.060	.350	-.024	.348	-.049	.335
1 if West	.127	.458	.000	.454	.257	.451
Number of homicides†	.000	.000	-.000	.000	-.000	.000
Lagged death sentences	.023	.012	.022	.012	.025	.013
Institutionalization*Post-*Furman*	**-.002**	**.002**				
Incarceration*Post-*Furman*			**-.007**	**.005**		
African American*Lynching					**.002**	**.002**
Constant	-.129	.250	-.178	.246	-.078	.223
Log-likelihood	-626.103		-625.313		-625.192	
X^2	187.32***		196.71***		210.94***	
AIC	1304.205		1302.626		1302.385	

*p = .05; **p = .01; ***p = .001

†The coefficients and the standard errors are multiplied by 100.

Period effects are controlled for from 1940-2012.

The findings from this supplemental analytic strategy are presented in Table 13. The results in Model 1 indicate support for two of the theoretical variables of interest. Particularly, the percentage of religious fundamentalists and the percentage of state budgets dedicated to welfare are both significant predictors of death sentence practices. This is an important finding because it indicates that both of these variables are able to predict death sentence practices, regardless of the temporal measurement strategy used to examine the relationship between the predictors and the outcome variable. In addition, the percentage of citizens residing in cities larger than 50,000 inhabitants is significantly and positively associated with jurisdictional death sentences.

Models 2 through 9 in Table 13 contain the findings when the interaction terms are introduced into the models. According to the findings contained in these models, the only significant interaction term in Model 6 indicates that the relationship between welfare expenditures and jurisdictional death sentence practices is conditioned by time period specific factors. The nature of this relationship using this alternative strategy (not shown) closely resembles the graphical depiction illustrated in Figure 8. No support is shown for the relationship between state-level death sentences and the remaining interaction terms, and the model containing the significant interaction term reported the lowest AIC statistic.

The findings in Table 13 demonstrate support for two of the three significant theoretical variables identified in the primary models. The findings from Model 1 indicate that the percentage of jurisdictional expenditures on welfare and the percentage of religious fundamentalists are both robust predictors of death sentence practices using contemporaneous measurements. The null finding for the unemployment and

incarceration rate measures denotes that the predictive power of both of these variables is limited to models that examine the delayed impact of the independent variables on death sentences. Finally, the findings from these models demonstrate support for one of the five significant interaction terms identified in the primary models. According to the results in Model 6, the relationship between welfare expenditures and jurisdictional death sentences is conditioned by time period specific factors.

CONCLUSION

This chapter examined the political and social factors associated with state-level death sentences from 1930 to 2012. The findings from the primary model that focused on direct effects indicated support for two out of the three theoretical perspectives examined in this study. More specifically, the percentage of religious fundamentalists within jurisdictions, the percentage of state budgets dedicated to welfare, the percentage of unemployed individuals within states, and the incarceration rate were all significantly associated with the number of jurisdictional death sentences. These findings are of particular importance because they demonstrate that the propositions within these theories are able to predict death sentence practices when the temporal scope is expanded beyond the post-*Furman* time period. However, no support was demonstrated for the partisan politics perspective, which appears to indicate that the direct relationship between the party affiliation of elected officials and state-level death sentences is a proximate manifestation associated with the post-*Furman* era. Finally, the violent crime rate, the total state population, the percentage of residents born in states in which they currently reside, and the percentage of state inhabitants that live in cities larger than 50,000 were also all significant predictors of death sentence practices.

The findings from the primary models also indicated that the relationship between four of the key theoretical variables of interest and jurisdictional death sentences were conditioned by time period specific factors. In the case of the interaction terms that examined the percentage of religious fundamentalists within jurisdictions, the percentage of state budgets dedicated to welfare, and the incarceration rate, the movement across the two time periods acted to either strengthen or weaken the preexisting nature of the relationship between these variables and state-level death sentences. In addition, these findings also indicated that the strength of the negative relationship between the percentage of the vote for Republican presidential candidates and death sentence practices was significantly tempered when moving from the pre- to the post-*Furman* time period. All of these findings are important to this study because they indicate that the relationship between these variables and death sentence practices remained fairly consistent, despite the social and political changes that were occurring during the last third of the 20th century. Finally, this study found that the relationship between the size of the African American population and the number of death sentences within jurisdictions was conditioned by past lynching rates.

This chapter also examined a number of alternative methods for specifying the primary models. In order to assist with the summation of these findings, Table 14 contains the results for the key theoretical variables of interest and the interaction terms across the five different analytic strategies. In this table, the first column contains the expected directional sign of the coefficients for these variables based on post-*Furman* theoretical propositions. The actual directional sign in each of the analytic strategies is then presented in the next five columns. Finally, the last column in Table 14 contains a

TABLE 14: SUMMARY OF THE FINDINGS FOR THE KEY THEORETICAL VARIABLES AND INTERACTION TERMS ACROSS DEATH SENTENCE ANALYTIC STRATEGIES

Variables	Expected Post-*Furman* *Sign*	Primary Models	Analytic Strategy #1	Analytic Strategy #2	Analytic Strategy #3	Analytic Strategy #4	Robustness
Percent vote for Republican presidential candidate	+	N.S.	N.S.	-	N.S.	N.S.	Low
1 if Republican governor	+	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
Percent Republicans in state legislature	+	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
Percent religious fundamentalists	+	+	+	+	+	+	High
Welfare expenditures	-	-	-	-	-	-	High
Institutionalization rate	+	N.S.	+	N.S.	+	N.S.	Low
Incarceration rate per 1,000	+	-	N.S.	N.S.	N.S.	N.S.	Low
Percent African American	+	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
Percent African American²	-	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
Percent unemployed	+	+	+	+	+	N.S.	High
Lynching rate	+	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
President**Post-Furman*	+	-	N.S.	N.S.	N.S.	N.S.	Low
Governor*Post-*Furman*	+	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
Legislator*Post-*Furman*	+	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
Religious*Post-*Furman*	+	+	N.S.	N.S.	N.S.	N.S.	Low
Welfare*Post-*Furman*	-	-	-	N.S.	-	-	High
Institutionalization*Post-*Furman*	+	N.S.	N.S.	N.S.	N.S.	N.S.	N.A.
Incarceration*Post-*Furman*	+	-	-	N.S.	-	N.S.	Moderate
African American*Lynching	+	+	+	N.S.	N.S.	N.S.	Low

determination of the robustness of each of the findings based on the results from the various analytic strategies. In this column, "high" denotes findings that were supported in at least three out of the four supplemental strategies, "moderate" indicates that at least two of the alternative specifications supported the findings from the primary model, and "low" represents findings from the primary model that were supported in less than two of the alternative procedures.

With respect to the findings that examined the direct relationship between the independent and dependent variables, three out of the four analytic strategies demonstrated support for the significant relationship between death sentence practices and the percentage of religious fundamentalists, the percentage of welfare expenditures, and the percentage of unemployed individuals in the state population. In addition, the findings from the contemporaneous models also indicated that the percentage of religious fundamentalists and the percentage of welfare expenditures within jurisdictions were both significant predictors of state-level death sentences. The results associated with the three theoretical variables are important because they denote that these indicators are able to predict state-level death sentences, regardless of the analytic strategy used to assess these relationships.

However, limited support was demonstrated for two of the theoretical variables in the supplemental procedures. In particular, the significant relationship between jurisdictional incarceration rates and death sentence practices in the primary models was not supported in any of the four supplemental strategies. Furthermore, two out of the four alternative specifications demonstrated support for the significant positive relationship between the institutionalization rate and state-level death sentences, which was not

significant in the primary models. Finally, one supplemental strategy indicated that there was a significant and negative relationship between death sentence practices and the percentage of the vote for Republican presidential candidates. The inconsistency in the findings reported for these three variables indicates that the predictive power of these indicators is influenced by the analytic strategy adopted.

The results from the supplemental strategies also indicated mixed support for the significant interaction terms identified in the primary models. In three out of the four alternative strategies, the results denoted that the relationship between welfare expenditures and jurisdictional death sentence practices was conditioned by time period specific factors. In terms of the relationship between the incarceration rate and state-level death sentences across periods, two out of the four alternative strategies supported the findings from the primary models. The relative consistency in these findings across analytic strategies would appear to indicate that these interactive relationships are robust predictors of death sentence practices, regardless of the analytic strategy adopted.

In addition, the supplemental procedures demonstrated limited support for three of the interactive relationships. With regards to the interactive relationship that examined the moderating influence of past lynching rates on the relationship between the size of the African American population and jurisdictional death sentences, only one of the alternative specifications demonstrated support for the findings in the primary model. Finally, the findings from all four of the alternative specifications failed to demonstrate support for two out of the five significant interaction terms contained in the primary models. The lack of consistency in the findings across analytic strategies indicates that

the relationship between these variables and death sentence practices is rather susceptible to the specification procedures adopted.

Overall, the findings from this chapter are particularly important to this study because they indicated that the propositions within the political ideology and social threat perspectives are able to account for death sentence practices across the 20th and 21st centuries. Although the time frame examined in this study is too narrow to declare these political and social factors ultimate causes, the findings associated with these variables do indicate that these factors are not mere proximate manifestations constrained to the post-*Furman* era. The results in this chapter also denoted that the movement across time periods significantly influenced the relationship between a number of the theoretical variables and death sentences, but these relationships were never completely redefined. This finding indicates that the nature of the relationship between the variables in the two perspectives and state-level death sentences primarily conformed to post-*Furman* theoretical expectations. However, the null findings associated with the partisan politics variables denote that the significant relationship between Republican elected officials and jurisdictional death sentences is likely a byproduct of the social and political changes occurring in the last third of the 20th century.

This study now turns to the examination of the political and social factors associated with the number of state-level executions from 1930 to 2012.

CHAPTER FIVE: EXECUTION RESULTS

This chapter begins with an examination of the findings from the primary models that examine the political and social factors associated with state-level executions from 1930 to 2012. This chapter also examines the results from the primary models when each of the interaction terms is introduced into the analyses. The chapter then concludes with the examination of the findings from four supplemental analytic strategies that are designed to determine the robustness of the results presented in the primary models.

RANDOM EFFECTS NEGATIVE BINOMIAL RESULTS

Consistent with the presentation of findings in the last chapter, this section first focuses on the results from the primary models that examine direct effects, followed by an examination of the findings when the interaction terms are introduced into the full model. The findings associated with the primary negative binomial models that examine direct effects are contained within Table 15. In this table, the first three models examine the results when the variables associated with each theoretical perspective are introduced separately. The fourth model presents the findings when jurisdictional executions are regressed on all of the theoretical variables, and the fifth model contains the results when all of the theoretical and control variables are introduced into the analysis. Due to the presence of autocorrelation and the need to account for the population at risk of being executed, a one-period lag in the dependent variable and a one-year lag in the number of state-level death sentences are both included in all of the models.

Model 1 in Table 15 contains the findings when the number of state-level executions was regressed on the partisan politics variables. The results within this model indicate that as the percentage of the vote for Republican presidential candidates increases, reliance on executions at the state-level decreases. As mentioned in the

TABLE 15: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 378 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.029**	.009				
1 if Republican governor	-.359	.187				
Percent Republicans in state legislature	.000	.005				
Percent religious fundamentalists			.023***	.004		
Welfare expenditures			.024	.013		
Institutionalization rate			.002***	.001		
Incarceration rate per 1,000			.004***	.001		
Percent African American					.037**	.014
Percent African American^2					.000	.001
Percent unemployed					.047	.032
Lynching rate					.007	.012
Homicide rate						
Violent crime rate						
Surplus/Deficits/10^9						
Total population/10^5						
Percent born in state						
Percent living in cities of 50,000+						
1 if Post-*Furman*						
1 if South						
1 if Midwest						
1 if West						
Number of death sentences	.041***	.010	.048***	.010	.036***	.010
Lagged executions	.095***	.007	.074***	.008	.089***	.007
Constant	-.176	.375	-3.235	.348	-2.132	.252
Log-likelihood	-492.957		-474.990		-490.157	
X^2	277.48***		252.92***		310.13	
AIC	1001.914		967.979		998.314	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

TABLE 15: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 378 STATE-YEARS) CONT.

	Model 4		Model 5	
	b	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.037**	.012	-.024*	.012
1 if Republican governor	-.222	.185	.073	.193
Percent Republicans in state legislature	.023***	.006	.034***	.008
Percent religious fundamentalists	.025**	.007	.026**	.009
Welfare expenditures	.018	.014	.011	.014
Institutionalization rate	.003***	.001	-.003*	.001
Incarceration rate per 1,000	.002*	.001	.001	.001
Percent African American	.046*	.021	.071*	.030
Percent African American²	-.002	.001	-.001	.001
Percent unemployed	.055	.032	.079*	.033
Lynching rate	.017	.016	-.006	.017
Homicide rate			-.025	.034
Violent crime rate			-.000	.001
Surplus/Deficits/10^9			.002	.005
Total population/10^5			-.002	.002
Percent born in state			-.010	.011
Percent living in cities of 50,000+			.025**	.008
1 if Post-*Furman*			-2.924***	.446
1 if South			1.083*	.515
1 if Midwest			.488	.420
1 if West			.738	.481
Number of death sentences	.046***	.011	.066***	.013
Lagged executions	.066***	.009	.057***	.011
Constant	-2.387	.631	-1.369	1.156
Log-likelihood	-462.715		-424.572	
X^2	258.61***		316.30***	
AIC	957.430		901.144	

*p = .05; **p = .01; ***p = .001

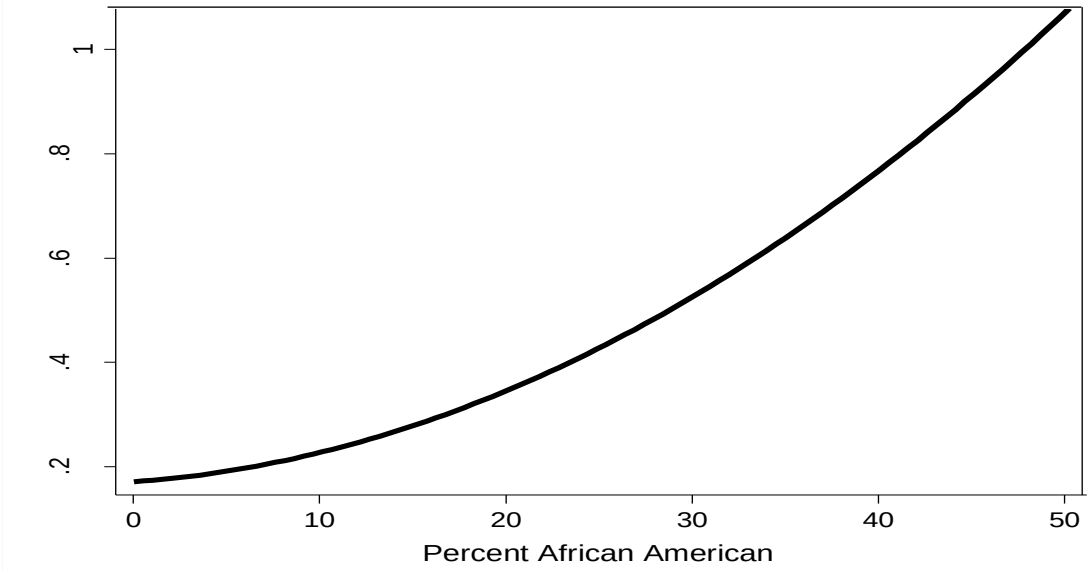
Period effects are controlled for from 1940-2012.

previous chapter, this negative relationship is likely due to the strong Democratic presence in the southern United States and the greater use of executions in the pre-*Furman* time period. No support is demonstrated for the relationship between execution practices and the presence of Republican governors and the percentage of Republicans in the state legislature. Both the number of jurisdictional death sentences and the lagged dependent variable are positively and significantly related to state-level execution practices in this model.

The second model contains the findings when the number of executions was regressed on the four variables within the political ideology perspective. In this model, the findings indicate support for three out of the four theoretical variables of interest. More specifically, as the percentage of religious fundamentalists within states increases, the number of executions also increases. In addition, as jurisdictional institutionalization rates increase, there is greater reliance on executions. Finally, these findings also indicate that there is greater reliance on executions in states that reported high incarceration rates. No support is shown for the significant relationship between jurisdictional welfare expenditures and execution practices. Again, the number of jurisdictional death sentences and the lagged outcome variables are both significant predictors of executions within jurisdictions.

Turning now to the results contained in Model 3, these findings indicate support for one out of the four social threat variables. Particularly, the findings within this model denote that there is a significant relationship between the percentage of African Americans in the state population and execution practices. In order to explore this relationship, the coefficients for the linear and quadratic terms from Model 3 were used

FIGURE 11: THE CURVILINEAR RELATIONSHIP BETWEEN THE PERCENTAGE OF AFRICAN AMERICANS AND PREDICTED STATE-LEVEL EXECUTIONS



to predict the number of state-level executions. Figure 11 contains the graphical depiction when the predicted number of executions is plotted against the percentage of African Americans within state populations. According to this graph, as the percentage of African Americans within jurisdictions increases, the predicted number of state-level executions also increases. However, in contrast to the predictions of racial threat theorists, the findings in this graph indicate no support for an inflection point at which the relationship between the two variables turns from positive to negative. The remainder of the findings in Model 3 indicate no support for the significant relationship between jurisdictional executions and the percentage of the working age population that reported being unemployed and the past lynching rate. The number of jurisdictional death sentences and the lagged outcome measure are also found to be positively and significantly related to the number of state-level executions in this model.

The fourth model examines the relationship between all of the theoretical variables within the three perspectives and state-level executions. Consistent with the findings in the first three models, the percentage of the vote for Republican presidential candidates, the percentage of religious fundamentalists, the institutionalization rate, the incarceration rate, and the percentage of African Americans in state populations are all still significantly associated with jurisdictional executions. However, with the inclusion of all of the theoretical variables, the percentage of Republicans in the state legislature now demonstrates a significant relationship with the number of state-level executions, which indicates a suppressor effect.[36] Consistent with the post-*Furman* hypotheses, as the percentage of the Republicans in the state legislature increases, so too does the number of jurisdictional executions. As mentioned, the difference between the directional signs for the two significant partisan politics variables is likely attributed to the interactive relationship between the percentage of Republicans in the state legislature and the percentage of religious fundamentalists within jurisdictions. The results from this model

[36] Similar to the procedures used to examine suppressor effects in the previous chapter, supplemental analyses were conducted where each of the alternative theoretical variables was introduced individually into Model 1. The results from this analysis (not shown) indicated that the inclusion of the religious fundamentalist variable in the model increased the predictive value of the percentage of Republicans in the state legislature. To further explore the nature of the relationship between the two variables, an interaction term comprised of the indicators was introduced into the full model. In accordance with the nature of the suppressor effect, the hypothesis behind the interactive effect was that the size of the religious fundamentalist population will moderate the relationship between Republicans in the state legislature and execution practices. The results of this analysis (not shown) demonstrated support for the relationship between the interaction term and jurisdictional executions.

In order to explore the nature of this interactive relationship, a graphical representation (not shown) of the relationship between the percentage of Republicans in the state legislature and execution practices was examined when the percentage of religious fundamentalists was set to one standard deviation both below and above the mean. This graph indicated that as the percentage of Republicans in the state legislature increased from one standard deviation below the mean, so too did the number of executions, regardless of the size of the religious fundamentalist population. This graph also indicated that the positive relationship between state-level executions and the percentage of Republicans in the state legislature became stronger when there was a larger than average percentage of religious fundamentalists in the state population. This finding is significant because it suggests that there will be greater reliance on executions within jurisdictions that report both a larger than average religious fundamentalist population and larger than average percentage of Republican officials in the state legislature.

also indicate that the lagged dependent variable and the number of state-level death sentences demonstrate a significant relationship with jurisdictional executions.

In Model 5, the number of jurisdictional executions was regressed on all of the theoretical and control variables. Similar to the findings reported in the fourth model, the percentage of the vote for Republican presidential candidates, the percentage of Republicans in the state legislature, the percentage of religious fundamentalists, and the percentage of African Americans in the state population all demonstrate a significant relationship with execution practices.[37] However, with the inclusion of the control variables, there are three discrepancies between the findings in this model and those reported in Model 4. First, the significant relationship between jurisdictional incarceration rates and execution practices is attenuated. Second, although the institutionalization rate is still a significant predictor of executions, the directional sign of this variable switches from positive to negative when the control variables are included in the model.[38] Lastly, the percentage of working age adults that are unemployed in the state

[37] The nature of the curvilinear relationship between the percentage of African Americans and predicted executions from Model 5 is almost identical to the graph illustrated in Figure 11. However, since the quadratic component turns from positive in Model 3 to negative in the full model, the graph of the relationship (not shown) using point estimates in Model 5 contains a very slight concave downward curve, as opposed to the very slight concave upward curve reported in Figure 11.

[38] In order to explore the third variable that is responsible for the change in the directional sign for the institutionalization rate variable, supplemental analyses were conducted where all of the theoretical variables were included in a model and the control variables were entered one at a time. The findings from these analyses (not shown) indicated that the inclusion of the post-*Furman* dummy indicator was responsible for the switching of the directional sign. Given this finding, additional analyses were conducted to determine whether the nature of the relationship between these variables was interactive. The findings contained within Model 6 of Table 16 in this chapter indicate that there is a significant and negative relationship between this interaction term and jurisdictional executions. The graphical representation of this relationship is contained in Figure 15 in this chapter.

population is now a significant predictor of jurisdictional executions, which again indicates a suppressor effect.[39]

In addition to the findings associated with the theoretical variables, a number of the control variables demonstrate a significant relationship with state-level executions. The findings in Model 5 indicate that as the percentage of residents living within cities containing more than 50,000 inhabitants, the number of jurisdictional death sentences, and the lagged dependent variable all increase, so too does the number of state-level executions. The results within this model also indicate that there are more executions in the pre-*Furman* time period in comparison to the post-*Furman* time period, and the number of executions in the southern United States is higher when compared to the northeastern region. According to the AIC statistic across the five models, the full model demonstrates the lowest value, which indicates that this is the preferred model.[40]

The findings from Table 15 are of particular importance to this dissertation because they demonstrate support for the propositions within all three of the theoretical perspectives. When focusing on the variables designed to examine the partisan politics perspective, the findings in the full model indicate support for two out of the three

[39] To determine the variable responsible for increasing the predictive value of the unemployment measure, supplemental analyses were conducted where each of the control variables was introduced one at a time into the model containing all of the theoretical variables. The results from these analyses (not shown) indicated that the inclusion of the post-*Furman* dummy variable was responsible for the increased predictive value of the unemployment indicator. Again, the relationship between the two variables was further examined by including an interaction term comprised of the two variables in the full model. The results from this analysis (not shown) indicated that the interaction term was not a significant predictor of state-level execution practices.

[40] As mentioned in the previous chapter, in order to assess model fit across analytic strategies using the AIC statistic, all of the models must rely on the same cases and the same dependent variable. Similar to the restrictions outlined in the last chapter, model fit comparisons using the AIC statistic cannot be made across analytic procedures when there are differences in the sample analyzed. Based on this restriction, comparisons cannot be drawn between the primary models and the first two supplemental analytic strategies used for the execution dependent variable. However, the third and fourth supplemental strategy in this chapter rely on the same cases examined in the primary model; therefore, the AIC statistic can be used to assess model fit across these analytic procedures.

theoretical variables. Interestingly, the finding associated with the relationship between the percentage of the vote for Republican presidential candidates and state-level executions is negative, while the percentage of Republicans in the state legislature demonstrates a positive relationship with execution practices. As mentioned, the difference in directional signs between the two partisan politics variable is likely attributed to the interactive relationship between Republicans in the state legislature and the size of the religious fundamentalist population. These findings are also particularly interesting given the non-significant direct relationship between the partisan politics variables and state-level death sentence practices. The findings for both dependent variables would appear to suggest that the party affiliation of public officials is more strongly associated with the actual imposition of the penalty over the course of the entire period analyzed, as opposed to the sentencing phase of the punishment. Although the direction of the relationship for both significant variables does not conform to post-*Furman* theoretical expectations, these findings do suggest that the relationship between political party affiliation and the number of jurisdictional executions is not restricted to the post-*Furman* time period.

In terms of the findings associated with the political ideology perspective, the results in the full model demonstrate support for two out of the four theoretical variables. More specifically, these findings indicate that the percentage of religious fundamentalists within jurisdictions is a significant and positive predictor of execution practices. This is an important finding because it signifies that the relationship between the size of the fundamentalist population within states and jurisdictional execution practices is not restricted to the last third of the 20th century. Furthermore, the findings for this

perspective also indicate that there is a negative relationship between jurisdictional institutionalization rates and execution practices. As mentioned, the negative relationship between institutionalization rates and executions is likely attributed to the interactive relationship between the former indicator and the post-*Furman* dummy variable. This finding is particularly interesting given the positive relationship between this variable and death sentence practices reported in two of the supplemental models in the last chapter. According to this finding, reliance on executions is greatest in states that reported lower institutionalization rates, which refutes the hypothesis stipulated in the third chapter.

Turning now to the results associated with the social threat perspective, the findings from the full model demonstrate support for two out of the four theoretical variables. Particularly, these findings indicate that there is a curvilinear relationship between the size of the African American population and execution practices. This finding is significant because it denotes that the percentage of African Americans within jurisdictions is able to account for execution practices beyond the post-*Furman* time period. Given the null findings reported in the last chapter, this is also an important finding because it suggests that the percentage of African Americans in the state population is associated with the actual imposition of the punishment, as opposed to the sentencing phase. However, no support is shown for an inflection point at which the relationship between the size of the African American population and execution practices turns from positive to negative.

The findings from the full model also indicate that there is a significant positive relationship between state-level unemployment and the number of executions. This finding is particularly interesting because scholars have yet to examine the nature of the

relationship between these variables at the state level. This finding is also important because it indicates that the percentage of unemployed individuals within states is capable of predicting both death sentence and execution practices across the 20th and 21st centuries. Finally, despite Zimring's (2003) theoretical contentions, no support is shown for the relationship between past lynchings and execution practices in any of the models contained within Table 15.

In addition to the findings associated with the key theoretical variables, there are also a number of control variables that demonstrate a significant relationship with execution practices. First, the percentage of state residents living in cities larger than 50,000 inhabitants demonstrates a significant and positive relationship with state-level executions. This finding indicates that states with a greater percentage of residents living in more urbanized areas are more likely to rely on both stages involved with the capital punishment process. Second, the findings from the full model indicate that there are a greater number of executions in the pre-*Furman* time period in comparison to the post-*Furman* era. This result denotes that reliance on execution practices differs significantly across the two time periods. Third, the findings in Model 5 indicate that there is greater reliance on executions in the southern United States in comparison to the northeastern region. Lastly, the findings from the full model denote that the number of jurisdictional death sentences one year before the pooled measurement of the dependent variable and the number of executions enacted in the previous decade are both significant and positive predictors of this punishment practice. Overall, the findings from the primary full model indicate that the predictive power of post-*Furman* political variables is not limited to the last third of the 20th century.

TABLE 16: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 378 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.035**	.012	-.022	.012	-.020	.012
1 if Republican governor	.097	.191	-.174	.265	.088	.195
Percent Republicans in state legislature	.029***	.008	.034***	.007	.028**	.008
Percent religious fundamentalists	.023**	.008	.026**	.009	.027**	.009
Welfare expenditures	.013	.014	.010	.014	.010	.014
Institutionalization rate	-.003**	.001	-.003*	.001	-.002	.001
Incarceration rate per 1,000	.001	.001	.001	.001	.001	.001
Percent African American	.073*	.030	.065*	.030	.064*	.030
Percent African American^2	-.002	.001	-.001	.001	-.001	.001
Percent unemployed	.077*	.032	.078*	.032	.084*	.032
Lynching rate	-.009	.016	-.007	.017	-.009	.017
Homicide rate	-.026	.032	-.025	.034	-.020	.034
Violent crime rate	.000	.001	-.000	.001	.000	.001
Surplus/Deficits/10^9	.002	.005	.003	.005	.002	.005
Total population/10^5	-.000	.003	-.002	.002	-.002	.002
Percent born in state	-.014	.010	-.010	.011	-.011	.011
Percent living in cities of 50,000+	.024**	.008	.025**	.008	.024**	.008
1 if Post-*Furman*	-3.185***	.460	-2.841***	.448	-2.732***	.463
1 if South	.949	.500	1.048*	.512	1.054*	.518
1 if Midwest	.450	.403	.476	.419	.537	.423
1 if West	.558	.466	.690	.476	.675	.482
Number of death sentences	.060***	.012	.063	.013	.066***	.013
Lagged executions	.047***	.011	.056***	.011	.052***	.011
President*Post-*Furman*	**.067***	**.028**				
Governor*Post-*Furman*			**.555**	**.391**		
Legislature*Post-*Furman*					**.019**	**.011**
Constant	-1.176	.250	-1.155	.249	-1.149	.247
Log-likelihood	-421.732		-423.543		-423.135	
X^2	340.39***		327.18***		320.49***	
AIC	897.464		901.085		900.270	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

TABLE 16: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 378 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.030*	.012	-.024*	.012	-.019	.012
1 if Republican governor	.067	.189	.062	.191	.115	.193
Percent Republicans in state legislature	.033***	.008	.035***	.008	.028***	.008
Percent religious fundamentalists	.017	.009	.027**	.008	.022*	.009
Welfare expenditures	.012	.014	.025	.015	.010	.015
Institutionalization rate	-.003***	.001	-.003**	.001	-.001	.001
Incarceration rate per 1,000	.001	.001	.002	.001	.001	.001
Percent African American	.071*	.031	.072*	.031	.077*	.031
Percent African American²	-.001	.001	-.001	.001	-.002	.001
Percent unemployed	.055	.035	.085*	.033	.053	.033
Lynching rate	-.005	.017	-.011	.016	-.005	.018
Homicide rate	-.014	.034	-.041	.034	.008	.035
Violent crime rate	-.000	.001	.000	.001	-.001	.001
Surplus/Deficits/10^9	.003	.005	.001	.006	.006	.007
Total population/10^5	-.002	.002	-.000	.003	-.004	.002
Percent born in state	-.009	.011	-.010	.010	-.007	.011
Percent living in cities of 50,000+	.026**	.008	.024**	.008	.018*	.008
1 if Post-*Furman*	-3.214***	.462	-2.968***	.437	-4.151***	.730
1 if South	1.020*	.508	1.186*	.522	.956	.538
1 if Midwest	.457	.415	.489	.406	.599	.443
1 if West	.770	.483	.701	.477	.912	.498
Number of death sentences	.066***	.013	.061***	.013	.077***	.014
Lagged executions	.057***	.011	.061	.011	.057***	.011
Religious*Post-*Furman*	**.020***	**.009**				
Welfare*Post-*Furman*			**-.071***	**.032**		
Institutionalization*Post-*Furman*					**-.014****	**.005**
Constant	-1.158	.254	-1.131	.249	-2.093	.457
Log-likelihood	-422.374		-422.010		-419.531	
X^2	310.87***		340.04***		304.65***	
AIC	898.748		898.019		893.061	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

TABLE 16: RANDOM EFFECTS NEGATIVE BINOMIAL ESTIMATES OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 378 STATE-YEARS) CONT.

	Model 7		Model 8	
	b	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.026*	.012	-.031*	.012
1 if Republican governor	.077	.192	.068	.192
Percent Republicans in state legislature	.035***	.008	.036***	.008
Percent religious fundamentalists	.024**	.009	.029**	.008
Welfare expenditures	.011	.015	.007	.015
Institutionalization rate	-.002	.001	-.003**	.001
Incarceration rate per 1,000	.000	.001	.001	.001
Percent African American	.075*	.030	.062*	.030
Percent African American^2	-.002	.001	-.002	.001
Percent unemployed	.063	.033	.070*	.033
Lynching rate	-.005	.018	-.037	.026
Homicide rate	-.001	.034	-.029	.034
Violent crime rate	.000	.001	.000	.001
Surplus/Deficits/10^9	.001	.007	.002	.005
Total population/10^5	-.004	.002	-.002	.002
Percent born in state	-.011	.011	-.014	.011
Percent living in cities of 50,000+	.021**	.008	.022**	.008
1 if Post-*Furman*	-2.280***	.499	-3.008***	.449
1 if South	.955	.517	1.300*	.516
1 if Midwest	.434	.426	.499	.416
1 if West	.725	.485	.702	.481
Number of death sentences	.071***	.013	.068***	.013
Lagged executions	.056***	.011	.061***	.011
Incarceration*Post-*Furman*	**.016****	**.005**		
Lynching*African American			**.003**	**.002**
Constant	-.781	.271	-1.156	.249
Log-likelihood	-420.056		-422.909	
X^2	313.12***		325.06***	
AIC	894.111		899.812	

*p = .05; **p = .01; ***p = .001

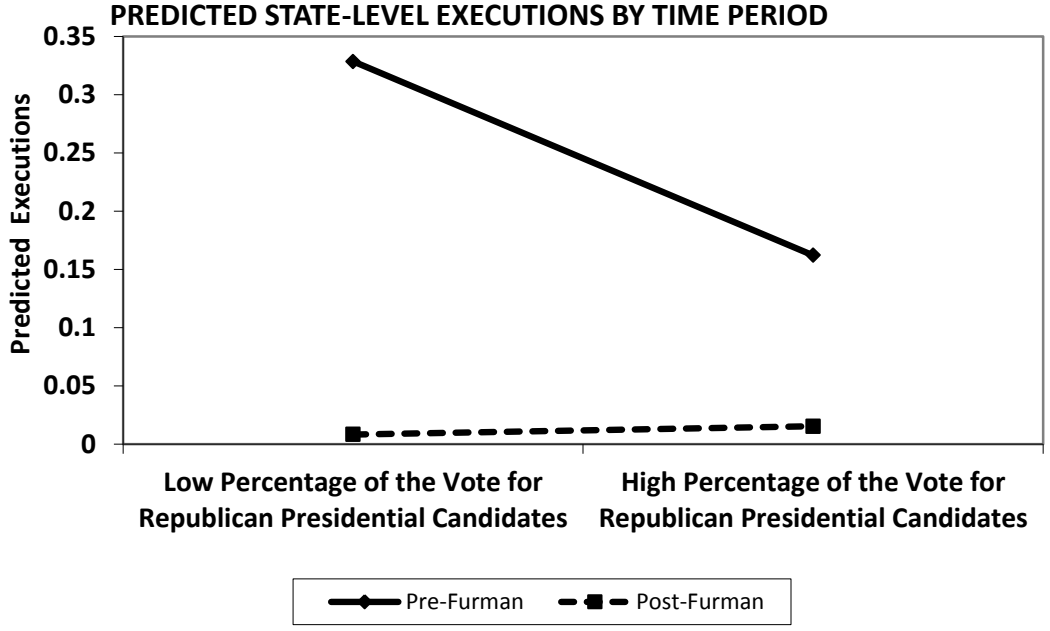
Period effects are controlled for from 1940-2012.

The remainder of this section now turns to the examination of the findings when the interaction terms are included in the analyses.

In Table 16, each of the interaction terms is entered into the full model one at a time. Similar to the procedures used in the previous chapter, all of the covariates in these models have been mean centered to ensure accurate plotting of the interactive relationships. The results in Models 1 through 7 examine whether time period specific factors moderate the relationship between execution practices and the partisan politics and the political ideology variables. Similar to the procedures adopted in the last chapter for significant interaction terms, the relationship between the theoretical indicators and predicted executions is examined across time periods when the independent variables are set to both one standard deviation below (low) and above (high) the mean. The results in Model 8 examine whether the relationship between jurisdictional executions and the size of the African American population is conditioned by past lynching rates. Overall, the findings from these models demonstrate support for five of the interactive relationships, and the lower AIC statistics reported for the models containing the interaction terms indicate they are preferred to the full model in Table 15.

The findings contained within Model 1 indicate that the relationship between the percentage of the vote for Republican presidential candidates and execution practices is conditioned by period effects. Figure 12 contains the graphical depiction of this relationship. Consistent with the findings in the last chapter, as the percentage of the vote for Republican presidential candidates increases from one standard deviation below the mean, the predicted number of executions decreases. Again, this finding is likely attributed to the strong allegiance to the Democratic Party in the southern United States

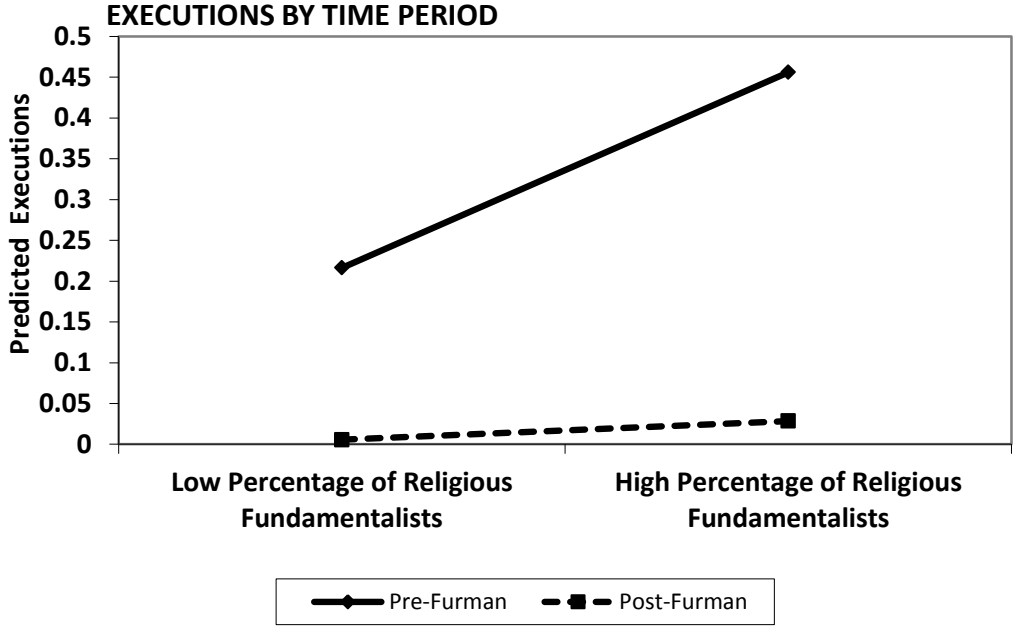
FIGURE 12: THE RELATIONSHIP BETWEEN THE PERCENTAGE OF THE VOTE FOR REPUBLICAN PRESIDENTIAL CANDIDATES AND PREDICTED STATE-LEVEL EXECUTIONS BY TIME PERIOD



during this time period. Furthermore, there is also a very slight increase in the predicted number of executions when the percentage of the vote for Republican presidential candidates increases in the post-*Furman* period. Although the strength of the positive relationship in the post-*Furman* era is negligible, it does indicate that the relationship between execution practices and the percentage of the vote for Republican presidential candidates is redefined when moving across the two time periods. This is an important finding because it indicates that shifts in the political landscape in the 1970s effectively changed the nature of the relationship between execution practices and political party affiliation.

Model 4 contains the results when the interaction term comprised of the percentage of religious fundamentalists and the post-*Furman* dummy variable is included in the analyses. The findings within this model indicate that there is a significant and

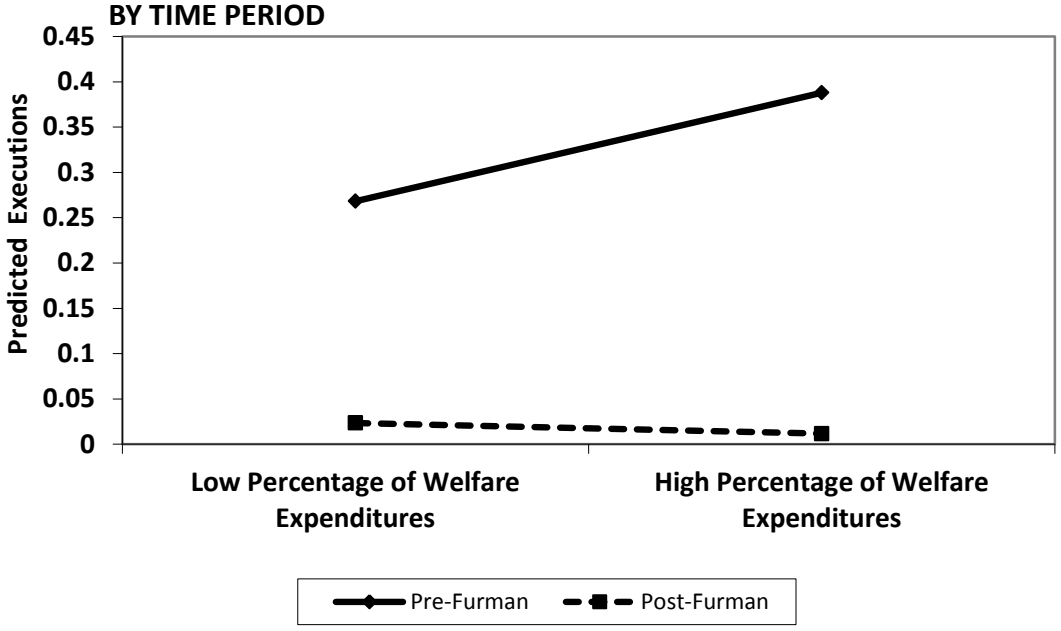
FIGURE 13: THE RELATIONSHIP BETWEEN THE PERCENTAGE OF RELIGIOUS FUNDAMENTALISTS AND PREDICTED STATE-LEVEL EXECUTIONS BY TIME PERIOD



positive relationship between this interaction term and state-level execution practices, and Figure 13 plots the nature of this interactive relationship. According to this graph, the predicted number of state-level executions in the pre-*Furman* era increases as the percentage of religious fundamentalists within jurisdictions increases from one deviation below the mean. In addition, the slight increase in the post-*Furman* slope indicates that the size of the religious fundamentalist population only has a marginal positive impact on the number of jurisdictional executions in this era. Consistent with the relationship between this interaction term and death sentence practices, the relationship between the size of the religious fundamentalist population and execution practices is stronger in the pre-*Furman* time period.

The findings in Model 5 also indicate that there is a significant and negative relationship between jurisdictional executions and the interaction term comprised of the

FIGURE 14: THE RELATIONSHIP BETWEEN THE PERCENTAGE OF WELFARE EXPENDITURES AND PREDICTED STATE-LEVEL EXECUTIONS BY TIME PERIOD



welfare expenditures and the post-*Furman* dummy variables. According to the graphical representation in Figure 14, the predicted number of state-level executions increases in the pre-*Furman* time period when the percentage of expenditures dedicated to welfare increases from one standard deviation below the mean. This is an interesting finding given that the nature of the interactive relationship between these variables and state-level death sentences is negative in the pre-*Furman* time period.[41] This graph also indicates

[41] Since the nature of the relationship between welfare expenditures and both dependent variables differs in the pre-*Furman* time period, trends in these practices were examined. With respect to trends in welfare expenditures, these practices generally decreased from the 1940s to the 1960s, though there is some variation across jurisdictions in regards to this pattern. In terms of trends in executions, reliance on this form of punishment primarily decreased from the mid-1930s until the moratorium. Based on the general decline in the trends for both executions and welfare expenditures across this time period, it is likely that this factor accounts for the positive relationship between these variables in the pre-*Furman* time period.

In regards to death sentence trends, reliance on these practices was highest in the 1940s, and the use of this form of punishment generally decreased leading up to the *Furman* decision. Since death sentence practices and welfare expenditures appear to follow the same general trend as the relationship between the latter variable and jurisdictional executions, there are two potential explanations that could account for the difference in directional signs across the two dependent variables.

that when jurisdictional expenditures on welfare increase in the post-*Furman* time period, the predicted number of executions decreases. This finding is particularly important because it indicates that the movement from the pre- to the post-*Furman* era redefines the nature of the relationship between welfare expenditures and execution practices. This finding is also important because it supports the results from post-*Furman* studies (Beckett & Western, 2001; Greenberg & West, 2001; Stucky, Heimer & Lang, 2005), which indicate that welfare expenditures are negatively associated with punishment practices during this time period.

The results associated with the inclusion of the interaction term comprised of the institutionalization rate and the post-*Furman* dummy variable are contained in Model 6. The findings in this model denote that time period specific factors moderate the relationship between jurisdictional institutionalization rates and the number of executions. Figure 15 contains the graphical representation of this relationship. According to this graph, the number of state-level executions decreases in both the

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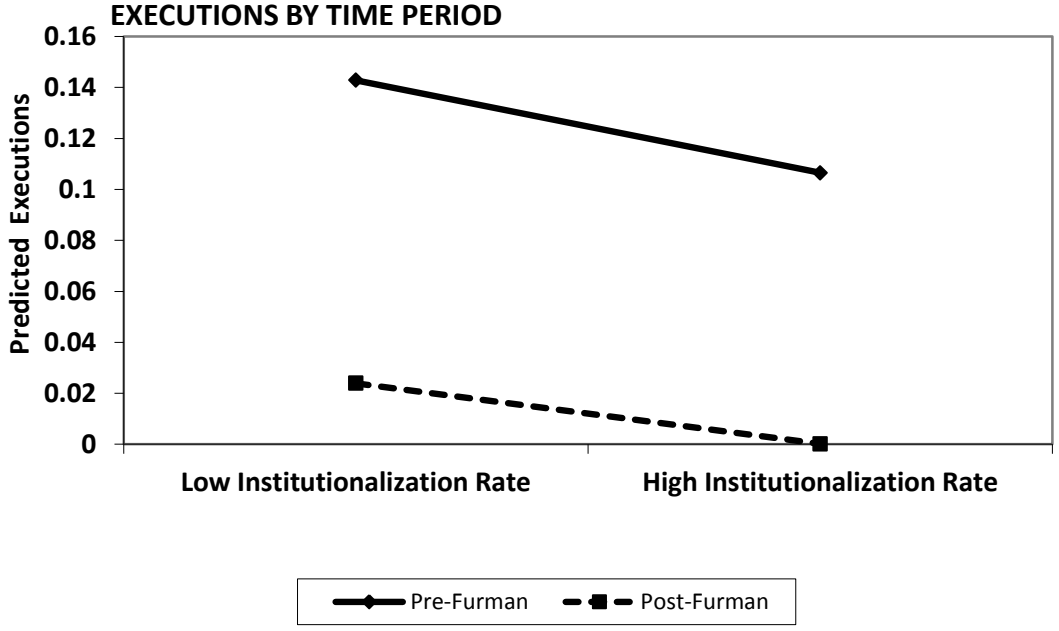
The first explanation focuses on the nature of the decline for both stages associated with this form of punishment. From 1940 until 1960, reliance on death sentences and executions in the United States declined 23% and 55%, respectively. Since the decline in death sentences was not as substantial as the decrease in executions, there are far more states in the 1960s that reported high death sentences than there are jurisdictions that reported high executions. More specifically, out of the highest 46 death sentence states in this time period, 47% are cases from 1960, whereas 22% of the 47 highest execution states are cases from 1960. Based on the low percentage of welfare expenditures and the rather large proportion of high death sentence states in the 1960s, this factor likely partially explains the negative finding for the relationship between these two variables.

The second explanation focuses on the likely underestimation of death sentences in 1950. Given the one-year measurement of state-level death sentences in this decade, the potential bias involved with adopting this strategy is not introduced when examining jurisdictional executions. In order to further explore the differences between the two dependent variables in 1950, the states with the greatest reliance on these practices across the pre-*Furman* era are examined. With respect to the 46 highest death sentence states, 11% of these cases are from 1950. When examining the 47 highest execution states, 34% of the cases are from this decade. Due to the underrepresentation of cases from the 1950s among states that reported the highest number of death sentences, it is likely that this factor contributes to the higher representation of cases from the 1960s for this dependent variable. Given the potential bias associated with the inclusion of the one-year death sentence measurement for 1950, this finding also partially accounts for the opposite pre-*Furman* findings regarding the relationship between welfare expenditures and both stages in the capital punishment process.

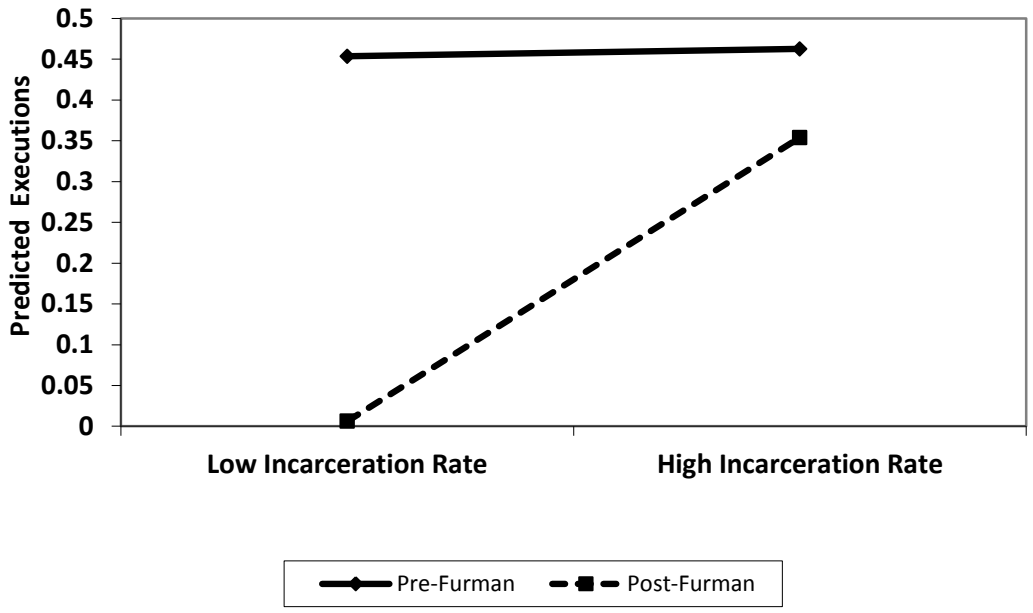
FIGURE 15: THE RELATIONSHIP BETWEEN THE INSTITUTIONALIZATION RATE AND PREDICTED STATE-LEVEL EXECUTIONS BY TIME PERIOD



pre- and the post-*Furman* time period as state-level institutionalization rates increase from one standard deviation below the mean. This graph also indicates that the negative relationship between institutionalization rates and execution practices is stronger in the post-*Furman* era, in comparison to the pre-*Furman* time period. The findings within this graph are important because they provide evidence in direct opposition to the hypothesis stipulated in Chapter Three, which postulated that high institutionalization rates should be associated with a stronger reliance on executions.[42] Based on these findings, it would appear as though reliance on executions is highest in jurisdictions with the least punitive

[42] In order to further explore the nature of the interactive relationship between institutionalization rates and the post-*Furman* dummy variable, trends in executions and institutionalization rates were examined across both eras. With respect to trends in institutionalization rates in the pre-*Furman* time period, reliance on this practice increased primarily from 1930 until the mid-1950s and then slowly began to decline up until the late 1960s. Since the number of executions within jurisdictions decreased primarily from the mid-1930s leading up to the moratorium, the oppositional nature of the trends in executions and institutionalization rates in the pre-*Furman* time period likely accounts for the negative relationship between the two variables in this era.

FIGURE 16: THE RELATIONSHIP BETWEEN THE INCARCERATION RATE AND PREDICTED STATE-LEVEL EXECUTIONS BY TIME PERIOD



institutionalization practices in both the pre- and post-*Furman* time periods.

The final significant interaction term within Model 7 is comprised of the incarceration rate and the post-*Furman* dummy variable. The results in this model indicate that there is a significant and positive relationship between this interaction term and the number of jurisdictional executions. According to the graphical representation of this interactive relationship contained in Figure 16, the relatively flat angle of the pre-*Furman* slope indicates that variation in incarceration practices have little influence on state-level executions. This graphical depiction also indicates that as incarceration

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When examining trends in institutionalization rates in the post-*Furman* time period, reliance on this practice substantially decreased from the 1970s until 2012. In terms of trends in executions, due to the moratorium and the amount of time it took jurisdictions to comply with stipulations contained within the *Gregg* decision, zero executions were reported in the 1970s. At the beginning of the 1980s, trends in executions slowly started to increase until the turn of the millennium, at which point jurisdictional executions declined. Since executions were highest in the 1990s through 2012 and institutionalization rates were at their lowest, this factor appears to account for the negative relationship between institutionalization rates and execution practices in the post-*Furman* time period.

rates increase from one standard deviation below the mean in the post-*Furman* time period, predicted jurisdictional death sentences also increase. This is an important finding because it provides partial support for the hypothesis outlined in previous chapters, which argues that high incarceration rates should be associated with greater reliance on capital punishment practices. The finding associated with this interaction term is also interesting given the negative relationship between incarceration rates and state-level death sentence practices in the post-*Furman* era.[43]

The findings in Table 16 are of particular importance to this dissertation because they indicate that the relationship between a number of the theoretical variables and execution practices is influenced by period effects. In the case of the interaction terms comprised of the post-*Furman* dummy variable and the percentage of religious fundamentalists and the institutionalization rate, the findings associated with these interactive relationships indicate that the movement across the two eras acted to either strengthen or weaken the preexisting nature of the relationship between these variables and execution practices.

The findings from these models also denote that the movement across the two time periods altered the nature of the relationship between three theoretical variables and

[43] Based on opposite directional signs for the relationship between post-*Furman* incarceration rates and the two different stages involved with the capital punishment process, trends in these relationships are examined. With respect to trends in incarceration rates in the post-*Furman* time period, reliance on this punishment generally increased from 1970 until 2012. As mentioned in the last chapter, the negative relationship between incarceration rates and death sentences is likely attributed to the high incarceration rates and the low number of death sentences in the 21st century.

When focusing on the nature of the relationship between executions and incarceration rates in the post-*Furman* time period, executions increased primarily in the 1980s until the end of the millennium, at which point reliance on this stage of the capital punishment process decreased. Although executions declined in the 21st century, reliance on this punishment is still higher in comparison to the 1970s and early 1980s. Of the 48 states that executed at least one offender in the post-*Furman* era, 67% of these jurisdictions relied on this practice in the 21st century. Given the high percentage of states that executed offenders and the high incarceration rates in the 21st century, this finding appears to account for the positive relationship in the post-*Furman* time period, as well as the opposite directional signs for the two capital punishment stages.

execution practices. Particularly, in the case of the interaction terms containing the percentage of the vote for Republican presidential candidates and the percentage of welfare expenditures, the relationship between these variables and execution practices changes direction across the pre- and post-*Furman* time periods. In addition, the findings for the interaction term containing the incarceration rate variable denote that the relationship between this indicator and jurisdictional executions is much stronger in the post-*Furman* era in comparison to the earlier time period. All three of these results are important to this study because they indicate that the social and political changes occurring in the last third of the 20th century effectively redefined the relationship between these indicators and jurisdictional executions. The remainder of this chapter now turns to the examination of the results from four supplemental strategies designed to determine the robustness of the findings presented in the primary models.

RESULTS FROM SUPPLEMENTAL ANALYSES

Random Effects Negative Binomial Estimations Excluding Non-Death Penalty State-Years

The first alternative specification examines the nature of the relationship between the theoretical variables and the jurisdictional executions when non-death penalty state-years are removed from the analyses. Consistent with the justification outlined in the last chapter, the inclusion of non-death penalty state-years in the primary models could bias the results of the analyses due to the penalty being illegal within these jurisdictions. Based on this argument, 61 individual state-years are removed from the analyses. In addition to these measurement points, the 48 state-years for the 1970s are also removed since the imposition of the penalty was not possible during the moratorium. Due to the removal of these state-years from the analyses, the data structure does not

TABLE 17: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (EXCLUSION OF NON-DEATH PENALTY STATES) (N = 313 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.012	.010	-.034**	.010	-.020	.010
1 if Republican governor	.028	.176	.059	.171	-.225	.217
Percent Republicans in state legislature	.019***	.005	.016**	.005	.020***	.005
Percent religious fundamentalists	.022**	.008	.018	.007	.022**	.008
Welfare expenditures	-.007	.011	-.003	.012	-.006	.012
Institutionalization rate	-.002*	.001	-.003**	.001	-.002**	.001
Incarceration rate per 1,000	-.001	.001	-.000	.001	.000	.001
Percent African American	-.002	.034	.042	.023	.039	.023
Percent African American²	.001	.001	-.000	.001	.000	.001
Percent unemployed	.087**	.032	.104**	.031	.108**	.031
Lynching rate	.002	.016	-.015	.015	-.013	.016
Homicide rate	.038	.027	-.008	.025	-.003	.027
Violent crime rate	.001	.001	-.001	.001	-.001	.001
Surplus/Deficits/10^9	-.018	.014	-.017	.013	-.033*	.016
Total population/10^5	.016***	.003	.008***	.002	.006*	.002
Percent born in state	-.015	.009	-.017	.013	-.014	.009
Percent living in cities of 50,000+	.026***	.006	.023***	.006	.022**	.007
1 if Post-*Furman*	-2.770***	.411	-3.233***	.435	-2.569***	.403
1 if South	1.129**	.422	.847*	.395	.863*	.427
1 if Midwest	.572	.343	.642*	.319	.644	.352
1 if West	.081	.389	-.013	.360	.111	.385
Number of death sentences	-.001**	.000	.045***	.013	.053***	.014
President*Post-*Furman*			**.108*** **	**.025**		
Governor*Post-*Furman*					**.660**	**.360**
Constant	-1.247	1.007	-.733	.216	-.699	.360
Log-likelihood	-532.373		-507.033		-513.606	
X^2	247.32***		286.44***		247.18***	
AIC	1114.746		1066.067		1079.212	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-1960 and 1980-2012.

TABLE 17: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (EXCLUSION OF NON-DEATH PENALTY STATES) (N = 313 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.016	.010	-.024*	.011	-.022*	.010
1 if Republican governor	.038	.178	-.011	.176	-.002	.177
Percent Republicans in state legislature	.013*	.006	.018**	.005	.021***	.006
Percent religious fundamentalists	.022**	.008	.015	.008	.022**	.008
Welfare expenditures	-.010	.012	-.001	.012	.001	.013
Institutionalization rate	-.002*	.001	-.003**	.001	-.003**	.001
Incarceration rate per 1,000	.000	.001	.000	.001	.000	.001
Percent African American	.033	.023	.041	.024	.044	.024
Percent African American^2	.000	.001	.000	.001	-.000	.001
Percent unemployed	.110***	.031	.096**	.032	.116***	.032
Lynching rate	-.016	.016	-.010	.016	-.013	.016
Homicide rate	-.004	.027	.002	.028	-.011	.028
Violent crime rate	-.001	.001	-.001	.001	-.001	.001
Surplus/Deficits/10^9	-.032*	.016	-.030	.016	-.034*	.015
Total population/10^5	.006*	.002	.007**	.002	.008**	.003
Percent born in state	-.012	.009	-.013	.009	-.013	.009
Percent living in cities of 50,000+	.023***	.007	.023***	.007	.022**	.007
1 if Post-*Furman*	-2.444***	.406	-2.786***	.431	-2.722***	.416
1 if South	.914*	.427	.919*	.424	.959*	.423
1 if Midwest	.736*	.350	.699*	.345	.663	.342
1 if West	.142	.384	.183	.386	.121	.385
Number of death sentences	.062***	.014	.052***	.014	.050**	.015
Legislature*Post-*Furman*	**.033****	**.010**				
Religious*Post-*Furman*			**.013**	**.009**		
Welfare*Post-*Furman*					**-.036**	**.033**
Constant	-.702	.212	-.731	.214	-.673	.209
Log-likelihood	-509.858		-514.243		-514.706	
X^2	267.40***		239.56***		245.23***	
AIC	1071.717		1080.486		1081.413	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-1960 and 1980-2012.

TABLE 17: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (EXCLUSION OF NON-DEATH PENALTY STATES) (N = 313 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.019	.010	-.021*	.010	-.022*	.011
1 if Republican governor	-.003	.180	-.029	.180	.003	.178
Percent Republicans in state legislature	.018**	.006	.020***	.006	.020***	.005
Percent religious fundamentalists	.020*	.008	.019*	.008	.021**	.008
Welfare expenditures	-.007	.013	-.005	.012	-.003	.012
Institutionalization rate	-.002*	.001	-.002*	.001	.002**	.001
Incarceration rate per 1,000	-.000	.001	-.000	.001	.000	.001
Percent African American	.040	.024	.041	.024	.041	.024
Percent African American^2	.000	.000	-.000	.001	-.000	.001
Percent unemployed	.099**	.032	.094**	.032	.107**	.032
Lynching rate	-.009	.016	-.010	.017	-.015	.019
Homicide rate	-.001	.027	.004	.027	-.006	.027
Violent crime rate	-.001	.001	-.000	.001	-.001	.001
Surplus/Deficits/10^9	-.032*	.016	-.035*	.015	-.034*	.016
Total population/10^5	.005*	.003	.005*	.002	.006**	.002
Percent born in state	-.011	.010	-.013	.010	-.013	.010
Percent living in cities of 50,000+	.021**	.007	.020**	.007	.022**	.007
1 if Post-*Furman*	-3.684***	.934	-2.064***	.457	-2.600***	.404
1 if South	.859*	.435	.858	.439	.954*	.428
1 if Midwest	.698*	.354	.648	.360	.705*	.347
1 if West	.164	.390	.097	.397	.170	.387
Number of death sentences	.059***	.015	.058***	.014	.056***	.014
Institutionalization*Post-*Furman*	**-.008**	**.006**				
Incarceration*Post-*Furman*			**.013***	**.005**		
Lynching*African American†					**.000**	**.000**
Constant	-1.239	.472	-.407	.239	-.687	.210
Log-likelihood	-514.336		-512.577		-515.249	
X^2	243.35***		245.56***		245.62***	
AIC	1080.671		1077.153		1082.498	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-1960 and 1980-2012.

permit for the inclusion of the lagged dependent variable to account for autocorrelation.

The findings in Model 1 of Table 17 demonstrate support for a number of the key theoretical variables of interest. Consistent with the results reported in the primary models, the findings from Model 1 indicate that the percentage of Republicans in the state legislature, the percentage of religious fundamentalists, institutionalization rates, and the percentage of unemployed individuals within states are all significant predictors of state-level executions using this alternative strategy. In regards to the significant control variables, the percentage of individuals living in cities with 50,000 or more inhabitants, the post-*Furman* dummy variable, and the lagged dependent variable are also significantly associated with jurisdictional executions. All of these significant findings are important to this study because they indicate support for the findings in the primary models.

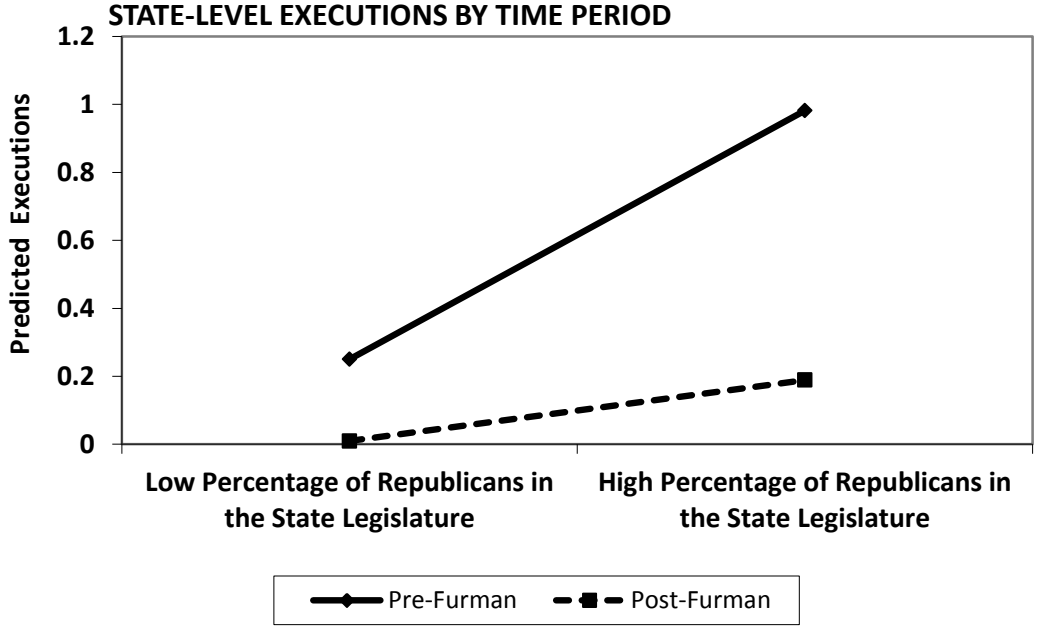
However, there are also a number of discrepancies in the results reported between the two analytic strategies. First, with the exclusion of non-death penalty state-years, the percentage of the vote for Republican presidential candidates and the percentage of African Americans within state populations are no longer significant predictors of executions. Second, the dummy variable for the southern region also fails to demonstrate a significant relationship with jurisdictional executions. Finally, there are also two new control variables that demonstrate a significant relationship with execution practices using this analytic strategy. Particularly, the findings from Model 1 indicate that as yearly revenue surpluses increase within jurisdictions, reliance on executions decreases. The findings within this model also indicate that there is a greater number of executions in jurisdictions that report a higher overall state population.

Models 2 through 9 in Table 16 contain the results when the interaction terms are introduced into the models. Overall, the findings from these models indicate that there are three significant interactive relationships. In Model 2, the findings indicate that the relationship between the percentage of the vote for Republican presidential candidates and jurisdictional execution practices is moderated by time period specific factors. Furthermore, the findings in Model 7 indicate that there is a significant positive relationship between execution practices and the interaction term comprised of jurisdictional incarceration rates and the post-*Furman* dummy variable. The graphical representations of these interactive relationships (not shown) are identical to those presented in the previous section.

In addition to the support for two of the interactive relationships identified in the primary models, there is also now a new significant interaction term using this analytic strategy that was not found in the main models. The results in Model 4 denote that the relationship between state-level executions and the percentage of Republicans in the state legislature is moderated by time period specific factors. [44] The graphical representation of this interactive relationship is contained in Figure 17. According to this graph, the predicted number of executions increases as the percentage of Republicans in the state legislature also increases in both time periods. In addition, this illustration also denotes that the relationship between the percentage of Republican legislators and execution practices is stronger in the pre-*Furman* time period. This finding is particularly

[44] Due to the non-significant findings reported in the primary models for this interactive relationship, the values for the percentage of Republicans in the state legislature variable were examined for the 61 non-death penalty state-years that were removed from the analyses. Overall, 85% of the cases removed using the current analytic strategy reported an above average percentage of Republicans in the state legislature. Given the high proportion of Republican legislators and the inability of these states to impose an execution, it is likely that the removal of these cases, as well as all of the cases in the 1970s, contributed to clarifying the significant and positive nature of this interactive relationship.

FIGURE 17: THE RELATIONSHIP BETWEEN THE PERCENTAGE OF REPUBLICANS IN THE STATE LEGISLATURE AND PREDICTED STATE-LEVEL EXECUTIONS BY TIME PERIOD



interesting given the strong Democratic presence in the southern United States in the pre-*Furman* time period.[45] Overall, the models containing the three significant interaction

[45] Since the pre-*Furman* finding for this interactive relationship appears to contradict previous results for this theoretical perspective, further analyses were conducted to examine this relationship. As mentioned in the section with the primary models, the significant relationship between the percentage of Republicans in the state legislature and execution practices is contingent upon the inclusion of the religious fundamentalist indicator in the analyses. In order to determine whether this suppressor effect is influencing the pre-*Furman* findings for the current interactive relationship, the results associated with the inclusion and exclusion of the religious fundamentalist variable were examined. To isolate the impact of the religious fundamentalist indicator, this variable was introduced into a model containing all of the partisan politics indicators, the post-*Furman* dummy variable, the number of death sentences to account for the population at risk of receiving the punishment, and the interaction term. The results when the religious fundamentalist variable was excluded from the analyses (not shown) indicated that there was a significant and positive relationship between the interaction term and jurisdictional executions. However, the conditional relationship between the percentage of Republicans in the state legislature and execution practices was not significant when the moderator was constrained to zero (or the pre-*Furman* time period). The graphical depiction of this relationship (not shown) indicated that the slope of the pre-*Furman* line was flatter than the slope of the line for this time period reported in Figure 17, which would indicate that the relationship between executions and the party affiliation of state legislators was relatively weak.

The results associated with the inclusion of the religious fundamentalist variable in the model were also examined. With the introduction of this variable into the model, there was still a positive and significant relationship between the interaction term and state-level executions. However, with the inclusion of the religious fundamentalist variable, the conditional relationship between execution practices and the percentage of Republicans in the state legislature was now both positive and significant. The

terms reported the lowest AIC statistics, which denotes that these specifications are preferred over the remaining models within Table 17.

The findings associated with this analytic strategy demonstrate support for a number of the significant relationships reported in the primary models. With respect to the results within Model 1, these findings indicate that variables within all three perspectives are significantly related to the execution of offenders at the state level. However, no support is demonstrated for the relationship between execution practices and the percentage of the vote for Republican presidential candidates and the size of the African American population. The findings from this alternative strategy also indicate support for two of the significant interactive relationships highlighted in the primary models. In addition, the results from this strategy also denote that the relationship between the percentage of the Republicans in the state legislature and state-level executions differs significantly across the pre- and post-*Furman* time period.

Zero-Inflated Negative Binomial Estimations

The second supplemental strategy in this section focuses on the results associated with the adoption of zero-inflated negative binomial estimation procedures. Similar to the rationale behind the use of this procedure in the last chapter, zero-inflated negative binomial estimations are an appropriate estimation procedure when there is an excess of zeros in the data and the occurrence of zero executions within jurisdictions can be attributed to two potential reasons. This supplemental strategy is adopted to determine

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graphical illustration (not shown) of this interactive relationship is nearly identical to the one reported in the full model. Based on these findings, it would appear that the pre-*Furman* result reported in Figure 17 is likely attributed to the nature of the interactive relationship between the percentage of Republicans in the state legislature and the percentage of religious fundamentalists within jurisdictions. An interaction term comprised of all three variables was not found to be a significant predictor of execution practices.

whether the findings reported in the main models are robust predictors across alternative estimation strategies.

Consistent with the procedures outlined in the last chapter, zero-inflated negative binomial procedures rely on two equations. The primary equation used to estimate the number of jurisdictional executions is as follows:

> **Number of Executions** = b_0 + b_1Percentage of the Vote for Republican Presidential Candidate + b_2Republican Governor + b_3Percent Republicans Legislature + b_4Percent Fundamentalists + b_5Percent Welfare Expenditures + b_6Institutionalization Rate + b_7Incarceration Rate + b_8Percent African American + b_9Percent African American^2 + b_{10}Percent Unemployed + b_{11}Lynching Rate + b_{12}Homicide Rate + b_{13}Violent Crime Rate + b_{14}Surplus/Deficits + b_{15}Total Population + b_{16}Born in State + b_{17}Percent Living in Cities with 50,000+ Inhabitants + b_{18}Post-*Furman* + b_{19}South+ b_{20}Midwest + b_{21}West + b_{22}Number of Death Sentences

In addition to the primary equation, the secondary probit based equation that predicts the absence of executions within jurisdictions is specified as follows:

> **Execution Absence** = b_0 + b_1Percentage of the Vote for Republican Presidential Candidate + b_2 Republican Governor + b_3Percent Republicans Legislature + b_4Post-*Furman* + b_5South + b_6Midwest + b_7West

In accordance with the procedures adopted for the death sentence dependent variable, all of the interaction terms are individually introduced into the primary equation in order to maintain the parsimonious nature of the secondary equation. Lastly, the likelihood that the measurements within states and across time are not independent is accounted for by adopting a clustering procedure to adjust standard errors.

The findings from both equations in Model 1 of Table 18 indicate support for a number of the key theoretical variables of interest. In the primary equation, the percentage of religious fundamentalists, state-level institutionalization rates, and the percentage of unemployed individuals within states are all significant predictors of

TABLE 18: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 421 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
+1 Executions						
Percent vote for Republican presidential candidate	-.016	.012	-.026*	.013	-.015	.012
1 if Republican governor	-.192	.177	-.167	.166	-.062	.166
Percent Republicans in state legislature	.006	.007	.003	.008	.006	.007
Percent religious fundamentalists	.030**	.010	.021*	.009	.031**	.011
Welfare expenditures	-.006	.012	-.002	.011	-.006	.013
Institutionalization rate	-.004***	.001	-.004***	.001	-.004***	.001
Incarceration rate per 1,000	.001	.001	.000	.001	.001	.001
Percent African American	.046	.030	.057*	.029	.043	.030
Percent African American^2	-.001	.001	-.001	.001	-.000	.001
Percent unemployed	.134***	.032	.113**	.037	.133***	.032
Lynching rate	-.020	.010	-.023	.012	-.018	.011
Homicide rate	-.030	.027	-.019	.032	-.028	.028
Violent crime rate	-.001	.001	-.000	.001	-.001	.001
Surplus/Deficits/10^9	-.004	.038	-.000	.038	-.006	.039
Total population/10^5	.008**	.003	.008**	.003	.009**	.003
Percent born in state	-.008	.007	-.011	.008	-.007	.007
Percent living in cities of 50,000+	.040***	.011	.033***	.009	.041***	.010
1 if Post-*Furman*	-2.279***	.422	-2.654***	.456	-2.209***	.444
1 if South	.438	.445	.093	.393	.580	.410
1 if Midwest	.191	.384	.089	.358	.226	.377
1 if West	.055	.443	-.132	.473	.226	.377
Number of death sentences	.027	.019	.029	.020	.139	.472
President*Post-*Furman*			**.109**	**.067**		
Governor*Post-*Furman*					**.028**	**.018**
Intercept	.580	1.183	.069	.217	.156	.154

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-2012.

TABLE 18: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 421 STATE-YEARS) CONT.

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Zero Executions						
Percent vote for Republican presidential candidate	.032	.032	.092	.070	.032	.030
1 if Republican Governor	-.758*	.351	-.646*	.310	-.941	.548
Percent Republicans in state legislature	-.062***	.017	-.066**	.024	-.062***	.016
1 if Post-*Furman*	3.633***	.850	3.264***	.936	3.804***	.958
1 if South	-4.207***	1.015	-4.568**	1.517	-4.184***	1.002
1 if Midwest	-2.343*	1.005	-2.244*	.899	-2.498*	1.206
1 if West	-2.382	.963	-2.262**	.851	-2.398*	.978
Intercept	.885	1.588	-1.053	.612	-1.201	.538
Log-pseudolikelihood	-531.037		-527.586		-530.536	
X^2	744.36***		562.49***		791.81***	
AIC	1126.074		1121.172		1127.072	
McFadden's Adjusted R^2	.180		.184		.179	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-2012.

TABLE 18: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 421 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
+1 Executions						
Percent vote for Republican presidential candidate	-.013	.012	-.018	.013	-.014	.012
1 if Republican governor	-.106	.164	-.217	.197	-.202	.192
Percent Republicans in state legislature	.001	.007	.005	.008	.006	.008
Percent religious fundamentalists	.032**	.010	.026**	.009	.030**	.010
Welfare expenditures	-.008	.012	-.004	.011	-.003	.011
Institutionalization rate	-.003***	.001	-.004***	.001	-.004***	.001
Incarceration rate per 1,000	.000	.001	.001	.001	.001	.001
Percent African American	.044	.029	.046	.030	.049	.029
Percent African American²	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.130***	.034	.124***	.033	.142***	.038
Lynching rate	-.019	.012	-.022*	.009	-.021*	.010
Homicide rate	-.030	.029	-.021	.026	-.029	.026
Violent crime rate	-.001	.001	-.001	.001	-.001	.001
Surplus/Deficits/10^9	-.008	.032	-.002	.038	-.006	.039
Total population/10^5	.007*	.003	.009**	.003	.009**	.003
Percent born in state	-.006	.007	-.009	.007	-.008	.007
Percent living in cities of 50,000+	.040***	.011	.039***	.010	.040***	.010
1 if Post-*Furman*	-2.301***	.380	-2.357***	.446	-2.297***	.431
1 if South	.224	.416	.439	.438	.437	.445
1 if Midwest	.108	.364	.175	.384	.209	.383
1 if West	-.069	.434	.041	.450	.072	.442
Number of death sentences	.036	.020	.026	.018	.026	.019
Legislature*Post-*Furman*	**.037***	**.016**				
Religious*Post-*Furman*			**.010**	**.014**		
Welfare*Post-*Furman*					**-.023**	**.041**
Intercept	.121	.153	.107	.183	.170	.158

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-2012.

TABLE 18: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 421 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Zero Executions						
Percent vote for Republican presidential candidate	.050	.039	.030	.032	.035	.034
1 if Republican governor	-.583	.308	-.817	.449	-.758*	.368
Percent Republicans in state legislature	-.050**	.018	-.064***	.018	-.064***	.016
1 if Post-*Furman*	3.026***	.835	3.723***	.930	3.614***	.810
1 if South	-3.986***	.979	-4.264***	1.085	-4.197***	1.006
1 if Midwest	-1.940**	.696	-2.535	1.306	-2.297*	.979
1 if West	-2.009**	.692	-2.509*	1.085	-2.302*	.928
Intercept	-.887	.464	-1.178	.520	-1.119	.420
Log-pseudolikelihood	-528.132		-530.657		-530.824	
X^2	781.63***		697.88***		873.83***	
AIC	1122.264		1127.314		1127.647	
McFadden's Adjusted R^2	.183		.179		.179	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-2012.

TABLE 18: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 421 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
+1 Executions						
Percent vote for Republican presidential candidate	-.013	.012	-.021	.012	-.016	.012
1 if Republican governor	-.141	.187	-.181	.162	-.194	.178
Percent Republicans in state legislature	.005	.007	.006	.008	.006	.007
Percent religious fundamentalists	.029**	.010	.030**	.010	.031**	.010
Welfare expenditures	-.013	.012	-.013	.012	-.006	.012
Institutionalization rate	-.003**	.001	-.003**	.001	-.004***	.001
Incarceration rate per 1,000	.000	.001	.000	.001	.000	.001
Percent African American	.045	.031	.041	.030	.046	.031
Percent African American²	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.119**	.034	.115**	.034	.132***	.034
Lynching rate	-.018	.010	-.021*	.010	-.025	.018
Homicide rate	-.014	.027	-.017	.027	-.029	.027
Violent crime rate	-.001	.001	-.000	.001	-.001	.001
Surplus/Deficits/10^9	-.008	.037	-.005	.042	-.004	.038
Total population/10^5	.008**	.003	.009**	.003	.009**	.003
Percent born in state	-.008	.007	-.008	.007	-.008	.007
Percent living in cities of 50,000+	.036**	.011	.038**	.011	.040***	.011
1 if Post-*Furman*	-4.064***	.722	-1.682***	.422	-2.279***	.426
1 if South	.445	.461	.456	.438	.458	.430
1 if Midwest	.199	.399	.098	.407	.188	.388
1 if West	.038	.440	.028	.446	.060	.443
Number of death sentences	.034	.020	.031	.018	.027	.018
Institutionalization*Post-*Furman*	**-.014****	**.005**				
Incarceration*Post-*Furman*			**.027*****	**.006**		
Lynching*African American					**.000**	**.001**
Intercept	-1.028	.470	.422	.161	.151	.154

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1930-2012.

TABLE 18: ZERO-INFLATED NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (N = 421 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Zero Executions						
Percent vote for Republican presidential candidate	.025	.037	.020	.041	.032	.032
1 if Republican governor	-.877*	.434	-.881	.609	-.756*	.350
Percent Republicans in state legislature	-.060**	.018	.066*	.027	-.063***	.017
1 if Post-*Furman*	3.677***	1.012	3.874**	1.329	3.652***	.861
1 if South	-4.266***	1.111	-4.562**	1.426	-4.224***	1.029
1 if Midwest	-2.566*	1.253	-2.954	1.714	-2.359*	1.021
1 if West	-2.447*	1.189	-2.881*	1.458	-2.401*	.972
Intercept	-1.250	.523	-1.425	.705	-1.117	.435
Log-pseudolikelihood	-527.232		-522.022		-531.004	
X^2	716.27***		946.77***		718.19***	
AIC	1120.465		1110.044		1128.013	
McFadden's Adjusted R^2	.184		.192		.179	

*p = .05; **p = .01; ***p = .001
Period effects are controlled for from 1930-2012.

executions equal to or greater than one. In addition, the results in Model 1 provide support for a number of the control variables identified as significant predictors in the primary models. According to these findings, the total state population, the percentage of individuals living in cities with more than 50,000 inhabitants, and the post-*Furman* dummy indicator are all significantly related to executions equal to or greater than one.

However, there are also a number of discrepancies between the findings reported in the primary models and those using this strategy. Particularly, no support is shown for the significant relationship between jurisdictional executions and the percentage of the vote for Republican presidential candidates, the percentage of Republicans in the state legislature, and the percentage of African Americans within jurisdictions. Finally, no support is shown for the significant relationship between the state-level executions and the southern region of the United States and the lagged number of death sentences in the primary equation.

Turning now to the findings contained within the secondary equation, these results indicate support for two of the theoretical variables of interest. In particular, the findings from the secondary equation indicate that jurisdictions with Republican governors are less likely to report zero executions in comparison to states with Democratic governors. The results in the secondary equation also indicate that jurisdictions that report having a larger percentage of Republicans in the state legislature are less likely to report zero death sentences. Both of these findings indicate support for the partisan politics perspective and they denote that the party affiliation of elected officials is more strongly associated with the absence of executions, as opposed to the actual imposition of the punishment.

In terms of the control variables, the findings in this model denote that there is a greater likelihood that jurisdictions would report zero executions in the post-*Furman* time period in comparison to the earlier era. Finally, the findings in the secondary equation indicate that states within the southern and midwestern regions of the United States were less likely to report zero executions in comparison to the northeast region. Overall, the primary and secondary equations in Model 1 account for 18% of the variance in jurisdictional execution practices.

The results in Models 2 through 9 contain the findings when the interaction terms are individually introduced into the models. The findings from all of these models indicate support for two of the significant interactive relationships identified in the primary models. The findings in Model 7 denote that the relationship between state-level executions and institutionalization rates differs significantly across the pre- and post-*Furman* time period. With the inclusion of this interactive relationship, the two equations in this model account for 18.4% of the variance in execution practices.

In addition, the results contained within Model 8 indicate that the relationship between jurisdictional executions and incarceration rates is moderated by time period specific factors. When this interaction term is included in the model, the two equations account for 19.2% of the variance in the dependent variable, which is the highest percentage accounted for across all of the models using this analytic strategy.

Finally, the results within Model 4 indicate that the relationship between the percentage of Republicans in the state legislature and execution practices differs significantly across the two eras, and the two equations in this model account for 18.3% of the variance in this outcome measure. The graphical representations that

illustrate these three significant interactive relationships (not shown) are identical to those reported in the previous two sections.

Overall, the findings from both equations contained in Table 18 demonstrate support for the variables within all three of the theoretical perspectives. In terms of the findings from the primary equation in Model 1, these results indicate that most of the key theoretical variables identified in the primary models are significant predictors of executions using this analytic strategy. However, no support is shown for the relationship between executions equal to or greater than one and the percentage of the vote for Republican presidential candidates and the percentage of Republicans in the state legislature. With respect to the findings contained in the secondary equation, these findings indicate that jurisdictions with Republican governors and a greater percentage of Republicans in the state legislature were less likely to report zero executions. Finally, the findings within Table 17 demonstrate support for two of the significant interactive relationships reported in the primary models and they also indicate that the relationship between the percentage of Republicans in the state legislature and execution practices differs significantly across the two eras.

Random Effects Negative Binomial Estimations Using a 10-Year Lag in Death Sentences

The third analytic strategy involves altering the temporal delay between the number of individuals eligible for this form of punishment within jurisdictions and the execution of offenders. In the primary models, the population at risk of being executed is accounted for by the number of death sentences one year before the pooled measurement of the dependent variable. Since the temporal delay between the sentencing phase and the actual imposition of the punishment varies significantly between the two eras, this

TABLE 19: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (10-YEAR LAG IN DEATH SENTENCES) (N = 374 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.023*	.011	-.032**	.012	-.022	.011
1 if Republican governor	.078	.199	.117	.198	-.202	.254
Percent Republicans in state legislature	.030***	.008	.026**	.008	.031***	.008
Percent religious fundamentalists	.029**	.009	.027**	.015	.030**	.009
Welfare expenditures	.004	.015	.006	.015	.004	.015
Institutionalization rate	-.001	.001	-.001	.001	-.001	.001
Incarceration rate per 1,000	.000	.002	.000	.002	.000	.002
Percent African American	.050	.029	.055	.029	.047	.029
Percent African American²	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.091**	.034	.086*	.035	.089**	.033
Lynching rate	.002	.017	-.003	.016	-.000	.017
Homicide rate	.024	.036	.017	.035	.023	.036
Violent crime rate	.000	.001	.000	.001	.000	.001
Surplus/Deficits/10^9	.001	.004	.001	.004	.001	.004
Total population/10^5	.001	.003	.003	.003	.001	.003
Percent born in state	-.017	.011	-.020	.011	-.018	.011
Percent living in cities of 50,000+	.024**	.008	.023**	.008	.023**	.008
1 if Post-*Furman*	-2.657***	.451	-2.934***	.481	-2.574***	.455
1 if South	.915	.496	.794	.490	.834	.497
1 if Midwest	.451	.393	.399	.384	.405	.395
1 if West	.603	.489	.469	.478	.582	.483
Number of death sentences (10-year lag)	.009	.019	.009	.019	.007	.019
Lagged executions	.053***	.013	.041**	.014	.053***	.013
President*Post-*Furman*			**.064***	**.029**		
Governor*Post-*Furman*					**.678**	**.382**
Constant	-1.258	.238	-1.299	.240	-1.271	.240
Log-likelihood	-426.066		-423.720		-424.456	
X^2	293.15***		306.49***		299.68***	
AIC	904.133		901.441		902.913	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

TABLE 19: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (10-YEAR LAG IN DEATH SENTENCES) (N = 374 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.019	.011	-.028*	.012	-.024*	.011
1 if Republican governor	.100	.200	.068	.195	.037	.196
Percent Republicans in state legislature	.024**	.008	.030***	.008	.032***	.008
Percent religious fundamentalists	.030**	.009	.020*	.010	.032***	.008
Welfare expenditures	.005	.015	.004	.015	.017	.015
Institutionalization rate	-.001	.001	-.002	.001	-.002*	.001
Incarceration rate per 1,000	.000	.002	.001	.002	.002	.002
Percent African American	.046	.029	.049	.030	.047	.029
Percent African American²	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.095**	.034	.071	.036	.100**	.034
Lynching rate	-.000	.017	-.000	.017	-.003	.015
Homicide rate	.030	.036	.035	.037	-.010	.038
Violent crime rate	.000	.001	.000	.001	.001	.001
Surplus/Deficits/10^9	.001	.004	.001	.004	.001	.004
Total population/10^5	.001	.003	.002	.003	.005	.003
Percent born in state	-.017	.011	-.018	.011	-.017	.010
Percent living in cities of 50,000+	.023**	.008	.025**	.008	.024**	.008
1 if Post-*Furman*	-2.422***	.473	-3.006***	.490	-2.763***	.441
1 if South	.868	.501	.849	.494	1.072*	.495
1 if Midwest	.508	.399	.401	.390	.387	.375
1 if West	.598	.488	.563	.493	.460	.474
Number of death sentences (10-year lag)	.013	.019	.010	.019	-.003	.019
Lagged executions	.049***	.013	.051***	.014	.059***	.013
Legislature*Post-*Furman*	**.019**	**.011**				
Religious*Post-*Furman*			**.018**	**.010**		
Welfare*Post-*Furman*					**-.087***	**.034**
Constant	-1.269	.236	-1.297	.245	-1.257	.230
Log-likelihood	-424.502		-424.454		-422.869	
X^2	294.86***		286.17***		314.35***	
AIC	903.004		902.908		899.738	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

TABLE 19: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (10-YEAR LAG IN DEATH SENTENCES) (N = 374 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.020	.011	-.025*	.011	-.026*	.012
1 if Republican governor	.110	.200	.075	.197	.062	.199
Percent Republicans in state legislature	.025**	.008	.031***	.008	.031***	.008
Percent religious fundamentalists	.026**	.009	.027**	.009	.030***	.009
Welfare expenditures	.003	.015	.004	.015	.002	.015
Institutionalization rate	.000	.001	-.001	.001	-.001	.001
Incarceration rate per 1,000	-.001	.001	-.002	.002	.000	.002
Percent African American	.049	.030	.051	.029	.043	.030
Percent African American²	-.001	.001	-.001	.001	-.001	.001
Percent unemployed	.070*	.035	.075*	.035	.082*	.035
Lynching rate	.004	.016	.003	.017	-.018	.024
Homicide rate	.053	.037	.049	.037	.021	.036
Violent crime rate	-.000	.001	.001	.001	.001	.001
Surplus/Deficits/10^9	.004	.004	.001	.004	.001	.004
Total population/10^5	.001	.003	-.000	.003	.001	.003
Percent born in state	-.015	.011	-.017	.011	-.019	.011
Percent living in cities of 50,000+	.018*	.008	.019*	.008	.021*	.008
1 if Post-*Furman*	-3.526***	.685	-2.002***	.512	-2.672***	.453
1 if South	.821	.505	.834	.506	1.040*	.501
1 if Midwest	.538	.407	.408	.402	.455	.392
1 if West	.708	.493	.607	.496	.612	.492
Number of death sentences (10-year lag)	.013	.020	.014	.020	.010	.019
Lagged executions	.053***	.013	.051***	.014	.055***	.014
Institutionalization*Post-*Furman*	**-.011***	**.004**				
Incarceration*Post-*Furman*			**.018****	**.006**		
Lynching*African American					**.002**	**.001**
Constant	-2.054	.436	-.935	.259	-1.283	.239
Log-likelihood	-422.573		-422.110		-425.219	
X^2	286.43***		284.98***		301.28***	
AIC	899.145		898.221		904.438	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

strategy adopts a 10-year lag in death sentences to account for the gap between the two phases of the punishment in the post-*Furman* time period. This analytic strategy is adopted to determine whether accounting for a different population at risk has an impact on the significant findings reported in the primary models; therefore, the one-year lag in death sentences is removed from the analyses for these models. With the reintroduction of non-death penalty state-years into the analyses, the lagged dependent variable is included in these models to account for autocorrelation.

The results associated with this analytic strategy are contained in Table 19. With respect to the findings from the full model, the results within Model 1 indicate support for a number of the theoretical variables. In particular, the percentage of the vote for Republican presidential candidates, the percentage of Republicans in the state legislature, the percentage of religious fundamentalist adherents, and the percentage of unemployed individuals are all significantly associated with jurisdictional executions. The results in Model 1 also indicate that the percentage of individuals living in cities with over 50,000 people and the lagged dependent variable are both significantly related to state-level executions. Furthermore, the findings within this model denote that there were more executions in the pre-*Furman* period in comparison to the later era.

However, there are also a number of discrepancies between the findings reported in the primary full model and the results reported when relying on this analytic strategy. First, the significant relationship between executions and state-level institutionalization rates and the percentage of African Americans in the state population is attenuated. Second, no support is shown for greater reliance on executions in the southern United States, as opposed to the northeastern region. Finally, whereas the 1-year lag in death

sentences is a significant predictor of executions in the primary models, the 10-year lag in the state-level death sentences is not significantly associated with this phase of the punishment. Based on the AIC statistics for both this model and the primary full model, these statistics indicate that the adoption of the one-year lag in death sentences is the preferred specification over the 10-year lag in this variable.

In Models 2 through 9, all of the interaction terms are included in the analyses one at a time. Consistent with the findings reported in the main models, the results from these analyses indicate support for four out of the five significant interactive relationships identified in the primary models. Particularly, this analytic strategy demonstrates support for the interaction terms containing the percentage of the vote for Republican presidential candidates, the percentage of expenditures dedicated to welfare, the institutionalization rate, and the incarceration rate variables. The only significant interaction term from the primary model that is not supported is the one containing the religious fundamentalist indicator. Consistent with the graphs contained in the section with the primary models, the graphical representations of these interaction terms (not shown) are nearly identical to those reported in the previous sections.[46]

The results associated with this analytic strategy demonstrate support for most of the significant findings identified in the primary models. In terms of the key theoretical variables of interest, the findings contained in Model 1 indicate support for all but two of the significant indicators identified in the primary models. With the inclusion of the 10-year lag in death sentences, the institutionalization rate and the percentage of African

[46] The most significant discrepancy between the primary graphical representations and those relying on the current analytic strategy is in regards to the interaction term containing the incarceration rate. For this interactive relationship, the pre-*Furman* slope in the incarceration rate is slightly negative using this analytic strategy, in contrast to the relatively flat pre-*Furman* slopes reported in Figure 15 for the primary models.

Americans in the state legislature are no longer significant predictors of jurisdictional executions. Furthermore, no support is shown for the significant relationship between state-level executions and the 10-year lag in death sentences. With respect to the control variables, the findings within the full model denote that the percentage of residents living in cities larger than 50,000 inhabitants, the lagged dependent variable, and the dummy variable designed to account for period effects are significantly related to execution practices. Finally, regarding the results from the models containing the interaction terms, support is shown for four out of the five significant interactive relationships identified in the primary models.

Random Effects Negative Binomial Estimations Using 1 and 10-Year Lags in Death Sentences

The final analytic strategy examines the social and political factors associated with state-level executions when 1 and 10-year lags in death sentences are both included in the models. Due to the varying temporal delays between the sentencing and execution phases of the punishment across the pre- and post-*Furman* time periods, this strategy controls for both populations at risk. The purpose of this strategy is to determine whether the findings reported in the primary model are influenced by accounting for two populations at risk of receiving the punishment simultaneously. Given the lack of gaps in the structure of the data, the lagged dependent variable is included in the analyses to account for autocorrelation.

Model 1 in Table 20 contains the findings when the number of jurisdictional executions was regressed on all of the theoretical and control variables. The results in this model indicate that all of the theoretical variables identified in the primary models are also significant predictors of executions using this analytic strategy. In particular, the

TABLE 20: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (1-YEAR AND 10-YEAR LAGS IN DEATH SENTENCES) (N = 313 STATE-YEARS)

	Model 1		Model 2		Model 3	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.028*	.012	-.037**	.012	-.027*	.012
1 if Republican governor	.143	.195	.163	.194	-.076	.266
Percent Republicans in state legislature	.037***	.008	.033***	.008	.036***	.008
Percent religious fundamentalists	.026**	.009	.024**	.009	.027**	.009
Welfare expenditures	.021	.015	.022	.015	.020	.015
Institutionalization rate	-.002*	.001	-.002*	.001	-.002*	.001
Incarceration rate per 1,000	.002	.002	.002	.002	.002	.002
Percent African American	.080*	.031	.082**	.031	.074*	.031
Percent African American^2	-.002	.001	-.002*	.001	-.002	.001
Percent unemployed	.082*	.032	.080	.032	.081*	.031
Lynching rate	.000	.018	-.004	.018	-.001	.018
Homicide rate	-.003	.035	-.004	.035	-.005	.035
Violent crime rate	-.000	.001	-.000	.001	-.000	.001
Surplus/Deficits/10^9	.004	.005	.003	.004	.004	.004
Total population/10^5	-.005	.003	-.003	.003	-.005	.003
Percent born in state	-.006	.012	-.010	.012	-.007	.012
Percent living in cities of 50,000+	.027**	.008	.025**	.008	.026**	.008
1 if Post-*Furman*	-2.704***	.464	-2.950***	.485	-2.630***	.467
1 if South	1.144*	.536	.986	.527	1.111*	.534
1 if Midwest	.585	.444	.522	.431	.589	.444
1 if West	.961	.528	.765	.518	.911	.524
Number of death sentences (1-year lag)	.073***	.013	.067***	.013	.070***	.014
Number of death sentences (10-year lag)	.007	.018	.006	.018	.006	.019
Lagged executions	.055***	.013	.047***	.013	.055***	.012
President*Post-*Furman*			**.057***	**.028**		
Governor*Post-*Furman*					**.487**	**.391**
Constant	-1.969	1.242	-1.030	.271	-1.021	.271
Log-likelihood	-404.396		-402.396		-403.608	
X^2	291.23***		307.28***		300.33***	
AIC	862.793		860.791		863.215	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

TABLE 20: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (1-YEAR AND 10-YEAR LAGS IN DEATH SENTENCES) (N = 313 STATE-YEARS) CONT.

	Model 4		Model 5		Model 6	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.024*	.012	-.034**	.012	-.029*	.012
1 if Republican governor	.165	.198	.130	.192	.013	.194
Percent Republicans in state legislature	.029**	.009	.036***	.008	.038***	.008
Percent religious fundamentalists	.028**	.009	.019	.010	.029**	.009
Welfare expenditures	.021	.015	.021	.015	.031*	.016
Institutionalization rate	-.001	.001	-.003*	.001	-.003*	.001
Incarceration rate per 1,000	.002	.002	.003	.002	.003	.002
Percent African American	.072*	.031	.079*	.032	.078*	.032
Percent African American²	-.002	.001	-.002	.001	-.002	.001
Percent unemployed	.087**	.031	.063	.034	.090**	.032
Lynching rate	.087**	.031	-.001	.018	-.005	.017
Homicide rate	.004	.035	.006	.035	-.027	.038
Violent crime rate	-.000	.001	-.000	.001	-.000	.001
Surplus/Deficits/10^9	.003	.005	.004	.005	.003	.005
Total population/10^5	-.005	.003	-.004	.003	-.002	.003
Percent born in state	-.007	.012	-.007	.012	-.008	.011
Percent living in cities of 50,000+	.026**	.008	.028**	.008	.025**	.008
1 if Post-*Furman*	-2.426***	.489	-3.014***	.497	-2.732***	.458
1 if South	1.091*	.542	1.059*	.532	1.255*	.540
1 if Midwest	.655	.452	.527	.439	.599	.432
1 if West	.909	.526	.934	.528	.910	.523
Number of death sentences (1-year lag)	.072***	.013	.073***	.013	.068***	.014
Number of death sentences (10-year lag)	.011	.019	.005	.018	-.005	.019
Lagged executions	.050***	.013	.055***	.012	.063***	.013
Legislature*Post-*Furman*	**.022**	**.011**				
Religious*Post-*Furman*			**.016**			
Welfare*Post-*Furman*					**-.065***	**.033**
Constant	-1.013	.269	-1.015	.274	-1.029	.272
Log-likelihood	-402.540		-403.057		-402.406	
X^2	296.55***		285.97***		311.69***	
AIC	861.080		862.113		860.812	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

TABLE 20: RANDOM EFFECTS NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF EXECUTIONS IN JURISDICTIONS, 1930-2012 (1-YEAR AND 10-YEAR LAGS IN DEATH SENTENCES) (N = 313 STATE-YEARS) CONT.

	Model 7		Model 8		Model 9	
	b	**SE**	***b***	**SE**	***b***	**SE**
Percent vote for Republican presidential candidate	-.024*	.012	-.033**	.012	-.034**	.012
1 if Republican governor	.197	.194	.152	.193	.132	.194
Percent Republicans in state legislature	.028***	.008	.036***	.008	.038***	.008
Percent religious fundamentalists	.022*	.009	.023*	.009	.028**	.009
Welfare expenditures	.020	.015	.021	.015	.018	.015
Institutionalization rate	.000	.001	-.001	.001	-.002*	.001
Incarceration rate per 1,000	.001	.002	-.000	.002	.002	.002
Percent African American	.084**	.032	.084**	.031	.070*	.031
Percent African American²	-.002*	.001	-.002*	.001	-.003*	.001
Percent unemployed	.051	.032	.062	.032	.071*	.032
Lynching rate	.004	.019	.001	.019	-.028	.027
Homicide rate	.027	.035	.016	.036	-.005	.035
Violent crime rate	-.001	.001	-.000	.001	-.000	.001
Surplus/Deficits/10^9	.009	.005	.004	.005	.004	.004
Total population/10^5	-.006*	.003	-.006*	.003	-.005	.003
Percent born in state	.002	.012	-.006	.012	-.010	.012
Percent living in cities of 50,000+	.018*	.009	.021*	.008	.024**	.009
1 if Post-*Furman*	-3.959***	.743	-1.958***	.520	-2.787***	.470
1 if South	1.100	.560	1.098*	.538	1.348*	.541
1 if Midwest	.815	.477	.572	.450	.584	.442
1 if West	1.262*	.542	1.022	.526	.937	.534
Number of death sentences (1-year lag)	.085***	.014	.077***	.013	.075***	.013
Number of death sentences (10-year lag)	.009	.019	.009	.019	.008	.018
Lagged executions	.058***	.012	.056***	.013	.059***	.013
Institutionalization*Post-*Furman*	**-.016****	**.005**				
Incarceration*Post-*Furman*			**.018****	**.005**		
Lynching*African American†					**.003**	**.002**
Constant	-2.128	.492	-.639	.287	-1.018	.273
Log-likelihood	-398.345		-399.363		-402.982	
X^2	288.24***		295.00***		296.80***	
AIC	852.690		854.725		861.964	

*p = .05; **p = .01; ***p = .001

Period effects are controlled for from 1940-2012.

percentage of the vote for Republican presidential candidates, the percentage of Republicans in the state legislature, the percentage of religious fundamentalists, the percentage of African Americans in the state population, and the percent unemployed are all found to be significantly associated with jurisdictional execution practices. In addition, all of the control variables identified in the primary model as significant predictors of executions are also significantly associated with the punishment using this analytic strategy. The significant control variables consist of the percentage of individuals living in cities with more than 50,000 inhabitants, the post-*Furman* dummy indicator, the southern dummy variable, the number of death sentences measured one year before executions, and the lagged dependent variable. No discrepancies were found between the findings in Model 1 using this analytic strategy and the results reported in the primary full model. Finally, according to the AIC statistic for this model, this specification is preferred to the previous strategies that included the two death sentence variables separately in the models.

Turning now to the findings associated with the interaction terms, Models 2 through 9 in Table 20 contain the results when these variables are introduced into the models one at a time. Overall, the results in these models indicate support for four out of the five significant interactive relationships identified in the primary models. More specifically, support is shown for the relationship between execution practices and the interaction terms containing the percentage of the vote for Republican presidential candidates, the percentage of state expenditures spent on welfare, the institutionalization rate, and jurisdictional incarceration rates. The graphical representations (not shown)

containing these findings are nearly identical to those reported in the previous sections.[47] Similar to the findings from the last section, the interaction term containing the religious fundamentalist variable is the only significant interactive relationship in the primary models that is not supported in Table 20.

The findings using this analytic strategy demonstrate support for almost every significant relationship identified in the primary models. Particularly, the findings from the full model indicate support for all of the theoretical and control variables that were identified as significant predictors of executions in the primary models. Furthermore, the models containing the interaction terms indicate that four out of the five significant interactive relationships in the primary models are also significant. The only discrepancy between the results reported for both strategies is the null findings regarding the interaction term comprised of the religious fundamentalist variable and the post-*Furman* dummy indicator using the current strategy.

CONCLUSION

This chapter focused on the contextual factors associated with jurisdictional executions from 1930 to 2012, and the results for this dependent variable demonstrated support for all three of the theoretical perspectives. With respect to the findings from the primary full model, these findings indicated that two of the three partisan politics variables were significantly associated with execution practices. In particular, the percentage of the vote for Republican presidential candidates demonstrated a significant

[47] The only discrepancy between the graphical representations for this analytic strategy and those reported for the primary models is in regards to the interaction term containing the incarceration rate variable. Similar to the last analytic strategy, the slope of the pre-*Furman* incarceration line is slightly negative, in comparison to the relatively flat slope reported in the primary models.

negative relationship with state-level executions, while the percentage of the Republicans in the state legislature demonstrated a positive relationship with jurisdictional executions. In addition, the results in the full model indicated support for the significant relationship between execution practices and the percentage of religious fundamentalists and state-level institutionalization rates. In regards to the findings from the social threat perspective, the results in the full model indicated that the percentage of African Americans in the state population and the percentage of unemployed individuals were both significantly related to the execution of offenders. All of these findings regarding the key theoretical variables are important to this study because they indicated that their relationship with jurisdictional executions is not restricted to the post-*Furman* time period. Lastly, the results in the full model denoted that the percentage of residents living in cities larger than 50,000, the post-*Furman* dummy variable, the dummy indicator for the southern United States, the number of jurisdictional death sentences, and the lagged dependent variable were all significantly associated with the number of jurisdictional executions.

The findings from the primary models also indicated that the relationship between five of the theoretical variables of interest and execution practices differed across the pre- and post-*Furman* time periods. With respect to the interactive relationships comprised of the percentage of religious fundamentalists and the institutionalization rate, the movement across the two eras acted to either strengthen or weaken the preexisting nature of the relationship between these two variables and execution practices. With regards to the interaction terms comprised of the percentage of the vote for Republican presidential candidates, the percentage of state expenditures spent on welfare, and

TABLE 21: SUMMARY OF THE FINDINGS FOR THE KEY THEORETICAL VARIABLES AND INTERACTION TERMS ACROSS EXECUTION ANALYTIC STRATEGIES

Variables	Expected Post-*Furman* *Sign*	Primary Models	Analytic Strategy #1	Analytic Strategy #2	Analytic Strategy #3	Analytic Strategy #4	Robustness
Percent vote for Republican presidential candidates	+	-	N.S	N.S	-	-	Moderate
1 if Republican governor	+	N.S	N.S	+	N.S	N.S	Low
Percent Republicans in state legislature	+	+	+	+	+	+	High
Percent religious fundamentalist	+	+	+	+	+	+	High
Welfare expenditures	-	N.S	N.S	N.S	N.S	N.S	N.A.
Institutionalization rate	+	-	-	-	N.S	-	High
Incarceration rate per 1,000	+	N.S	N.S	N.S	N.S	N.S	N.A.
Percent African American	+	+	N.S	N.S	N.S	+	Low
Percent African American^2	-	N.S	N.S	N.S	N.S	N.S	N.A.
Percent unemployed	+	+	+	+	+	+	High
Lynching rate	+	N.S	N.S	N.S	N.S	N.S	N.A.
President**Post-Furman*	+	+	+	N.S	+	+	High
Governor*Post-*Furman*	+	N.S	N.S	N.S	N.S	N.S	N.A.
Legislator*Post-*Furman*	+	N.S	+	+	N.S	N.S	Low
Religious*Post-*Furman*	+	+	N.S	N.S	N.S	N.S	Low
Welfare*Post-*Furman*	-	-	N.S	N.S	-	-	Moderate
Institutionalization*Post-*Furman*	+	-	N.S	-	-	-	High
Incarceration*Post-*Furman*	+	+	+	+	+	+	High
African American*Lynching	+	N.S	N.S	N.S	N.S	N.S	N.A.

state-level incarceration rates, the movement from the pre- to the post-*Furman* time period effectively redefined the nature of the relationship between these indicators and the number of jurisdictional executions. All of the findings associated with these interaction terms are important to this study because they denote that the changes in the social and political landscape in the 1970s significantly altered the nature of these relationships.

This chapter also examined four alternative strategies for examining the relationship between state-level contextual factors and execution practices. Consistent with the presentation of the robustness of the findings across analytic strategies in the last chapter, Table 21 contains all of the results for the key theoretical variables and the interaction terms for each of the strategies adopted in this chapter. Similar to the specifications used to determine robustness in the last chapter, "high" denotes findings that were supported in at least three out of the four supplemental strategies, "moderate" indicates that at least two of the alternative specifications supported the findings from the primary model, and "low" represents findings from the primary model that were supported in less than two of the alternative procedures.

With respect to the findings from models that examined direct effects, all four supplemental strategies provided support for the significant relationship between execution practices and the percentage of Republicans in the state legislature, the percentage of religious fundamentalists, and the percentage of unemployed individuals within states found in the primary model. Furthermore, three out of the four supplemental strategies indicated support for the relationship between institutionalization rates and jurisdictional executions. The consistency in these findings across analytic strategies

indicates that the results from the primary model for these variables are highly robust and that the relationship between these indicators and execution practices is not susceptible to the analytic strategy adopted.

In addition, the findings from the supplemental strategies indicated moderate to limited support for a few of the significant relationships identified in the primary models. In particular, two of the supplemental models indicated support for the relationship between execution practices and the percentage of the vote for Republican presidential candidates, while none of the alternative strategies denoted support for the relationship between the size of the African American population within states and the use of the death penalty. The relative inconsistency in the support shown for the relationship between these variables and execution practices indicates that these findings are rather susceptible to the analytic procedures relied upon.

The findings from the supplemental models also indicated support for a number of the significant interaction terms identified in the primary models. In all four of the supplemental strategies, the results indicated that the relationship between state-level incarceration rates and execution practices were moderated by time period specific factors. In addition, the findings from three out of the four alternative strategies denoted that the relationship between jurisdictional executions and the percentage of the vote for Republican presidential candidates and state-level institutionalization rates differed significantly across the pre- and post-*Furman* time periods. The results for these interactive relationships in the supplemental strategies indicated that the findings in the primary models are highly robust across analytic strategies.

However, mixed support was also demonstrated for a few of the significant interaction terms identified in the primary models. The results from two out of the four supplemental strategies indicated support for the interaction term comprised of the welfare expenditure indicator and the post-*Furman* dummy variable. Furthermore, the findings from two of the supplemental strategies indicated that the relationship between the percentage of Republicans in the state legislature and execution practices differed significantly across the two eras. Finally, the results from all four of the supplemental strategies failed to support the significant finding in the primary model for the interaction term comprised of the post-*Furman* dummy indicator and the percentage of religious fundamentalist adherents. The inconsistency in the support demonstrated for these interactive relationships across the supplemental strategies indicates that the predictive power of these variables is particularly susceptible to the analytic techniques relied upon.

The findings highlighted in this chapter are of particular importance to this study because they demonstrate that variables within all three theoretical perspectives are able to account for execution practices from 1930 to 2012. As mentioned, although the temporal scope of this study is not broad enough to declare these social and political factors as ultimate causes, these findings do indicate that these factors are not proximate manifestations associated with the last third of the 20th century. In addition, the findings from the models containing the interaction terms indicated that the movement from the pre- to the post-*Furman* time period had a significant influence on the relationship between theoretical variables and execution practices. However, in contrast to the findings for the death sentence dependent variable, the results associated with jurisdictional executions indicated that the movement across the two eras assisted in

redefining the relationship between this outcome and three of the theoretical variables of interest. This is an important finding because it denotes that social and political changes in the 1970s were significant enough to either completely alter the preexisting nature of the relationship between these variables and state-level executions or to create new significant relationships in the post-*Furman* time period.

This study now turns to the examination of the theoretical implications associated with the findings reported for both death sentences and executions.

CHAPTER SIX: DISCUSSION AND CONCLUSION

Historians and social theorists have argued that capital punishment practices across history have been shaped by the broader social and political landscapes in which they are immersed (Foucault, 1977; Garland, 2001, 2011; Gottschalk, 2006; Mauer, 2001; Savelsberg, 1994; Whitman, 2005). Despite this theoretical contention, empirical researchers have primarily restricted their examination of this relationship to the last third of the 20th century in the United States (Jacobs & Carmichael, 2002, 2004; Jacobs, Carmichael & Kent, 2005; Jacobs & Kent, 2007; Jacobs et al., 2007; McCann, 2008). Due to this limitation, it was relatively unknown whether the same social and political factors identified in post-*Furman* studies were able to account for capital punishment practices when the temporal scope is expanded to include pre-*Furman* and 21st century trends. Furthermore, it was also relatively unknown whether the politicization of capital punishment practices in the last third of the 20th century changed the nature of this relationship across the pre- and post-*Furman* time periods. In order to address these gaps in the literature, this study examined three post-*Furman* political perspectives that posit that partisan politics, political ideologies, and social threat are all factors related to jurisdictional capital punishment practices from 1930 to 2012.

The first section in this chapter provides a brief summary of the robust findings associated with each of the three theoretical perspectives for both death sentences and executions. In the second section, the broader theoretical implications associated with this study's findings are presented. The third section in this chapter highlights potential avenues for future research based on the findings from this dissertation. The fourth section examines a number of potential factors associated with the decline in reliance on capital punishment practices in both the 20th and 21st centuries. In addition, this section

also examines a number of potential factors particular to the more recent decline, and this section concludes by speculating as to whether the decreasing reliance on death penalty practices will continue into the future. Finally, the last section in this chapter explores potential strategies that abolitionist and pro-death penalty groups could use to potentially influence lawmakers' and the public's support for capital punishment practices.

SUMMARY OF THE ROBUST FINDINGS

Due to the significant number of findings from the primary and supplemental models for both dependent variables, this section briefly highlights the findings deemed to be highly robust for each of the three theoretical perspectives. The first theoretical perspective examined in this study argues that the use of partisan politics is associated with capital punishment practices in the last third of the 20th century. In terms of the findings for the death sentence dependent variable, the results in Chapter Four indicated that all three of the variables used to examine this theory were not significantly related to the death penalty practice from 1930 to 2012. These null findings suggest that the relationship between political party affiliation and death sentences is a byproduct of the time period following the politicization of criminal justice policies and practices and the realignment of political ideologies in the 1970s.

In terms of the execution dependent variable, the findings for this perspective in Chapter Five indicated that the percentage of Republicans in the state legislature was significantly associated with this stage of the death penalty over the entire time period analyzed. This finding indicates that the political affiliation of elected officials was significantly related to executions before the ideological realignment of the two political parties in the last third of the 20th century. Furthermore, the findings from supplemental

analyses indicated that the positive relationship between these two variables was conditioned by the inclusion of the religious fundamentalist variable in the full model. In other words, this result indicates that reliance on executions is greatest in jurisdictions that contain both a high percentage of Republicans in the state legislature and a high proportion of religious fundamentalists. Finally, the results from the analyses that examined conditional effects indicated that the relationship between the percentage of the vote for Republican presidential candidates and jurisdictional executions was conditioned by period effects. This finding denotes that the relationship between the two concepts shifted from negative in the pre-*Furman* time period to slightly positive in the post-*Furman* era. This finding indicates that shifts in the political landscape in the 1970s effectively changed the nature of the relationship between execution practices and political party affiliation. Overall, the findings for the partisan politics perspective appear to suggest that the party affiliation of public officials is more strongly associated with the actual imposition of the penalty over the course of the entire period analyzed rather than with the sentencing phase of the punishment.

The second theoretical perspective examined argues that the strength of political ideologies embraced among the public influences reliance on capital punishment practices. In terms of the findings for the religious fundamentalist variable, the findings for both dependent variables indicated that this contextual factor was positively and significantly related to both stages of the death penalty process in the 20th and 21st centuries. In addition, these results also support the findings from prior research that indicate that religious fundamentalist values play a significant role in shaping

jurisdictional reliance on capital punishment practices (Jacobs & Carmichael, 2001, 2002, 2004).

When examining the findings related to state-level expenditures on welfare, these results indicated that the percentage of jurisdictional expenditures on public welfare programs was significantly related to the imposition of death sentences. This finding is especially significant because scholars had yet to examine the relationship between welfare expenditures and capital punishment practices, and it indicated that this variable successfully predicts death sentences over an 80-year period. In addition, the analyses that examined the moderating influence of period effects indicated that the negative relationship between welfare expenditures and death sentences became stronger when moving from the pre- to the post-*Furman* era. This finding is consistent with previous studies that have found that higher expenditures on welfare are associated with the adoption of less punitive penal practices in the post-*Furman* era (Beckett & Western, 2001; Greenberg & West, 2001; Stucky, Heimer & Lang, 2005).

The third variable within the political ideology perspective that was found to be a robust predictor of executions is jurisdictional institutionalization rates. The findings in the fifth chapter indicate that there was a negative and significant relationship between state-level institutionalization rates and executions. This is a particularly significant finding because scholars also had yet to examine the relationship between this variable and capital punishment practices, and it directly refutes the hypothesis outlined in Chapter Three, which stipulated that its relationship with capital punishment practices should be positive. This discrepancy might be attributed to the public's perception of institutionalization as a practice designed to help individuals who suffer from mental

disorders instead of a practice designed to punish individuals deemed to pose a danger to society. Furthermore, the conditional findings for this variable indicate that the strength of the negative relationship became stronger when moving from the pre- to the post-*Furman* time period. Since the conditional findings suggest that the negative relationship between institutionalization and executions remained constant over the two eras, it might appear as though citizens within states with greater reliance on institutionalization are more supportive of rehabilitation, as opposed to being more punitive. However, more research is needed in order to determine the state-level social and political factors associated with institutionalization practices.

The final variable within the political ideology perspective examined in this study was jurisdictional incarceration rates. Although this indicator was not found to be directly associated with death sentences and executions, the results in Chapter Five indicate that there is a conditional relationship between incarceration rates and executions. In particular, this finding indicated that the relationship between incarceration rates and executions was negligible in the pre-*Furman* period, but this relationship became positive in the post-*Furman* era. This finding indicates that the social and political changes occurring in the last third of the 20th century did have an influence on the nature of the relationship between the two variables. In addition, this finding provides partial support for the hypothesis outlined in Chapter Three, which argued that high incarceration rates should be associated with greater reliance on capital punishment practices.

The last theoretical perspective examined in this study posits that the perceived threats to the dominant social and racial groups within society are significantly related to capital punishment practices. Based on the findings for the four variables used to examine

this perspective, the only indicator that was found to be a significant predictor of capital punishment practices was the unemployment rate. More specifically, jurisdictional unemployment rates were found to predict both death sentences and executions over the entire period analyzed. These are particularly interesting findings because previous studies have failed to demonstrate a significant relationship between state-level death sentences and unemployment in the post-*Furman* time period. Although previous post-*Furman* empirical examinations of state-level capital punishment practices have failed to find a significant relationship between these two variables (Jacobs & Carmichael, 2004; Jacobs, Carmichael & Kent, 2005; Jacobs et al., 2007), the results from this study indicate that unemployment is a significant predictor when the temporal scope is expanded to include the pre-*Furman* time period.

THEORETICAL IMPLICATIONS

The findings from this dissertation have a bearing on two theoretical questions regarding the relationship between state-level political factors and capital punishment practices over the course of the 20th and 21st centuries. The first theoretical question the findings within this dissertation are able to address is whether the contextual factors identified in post-*Furman* studies represent the proximate or the ultimate causes of jurisdictional death sentences and executions. Based on the key findings from this study, it is apparent that the predictive power of the post-*Furman* variables identified in prior research are not limited to the last third of the 20th century. This finding indicates that the social and political factors examined in post-*Furman* studies are not proximate manifestations associated with a particular point in United States history. Instead, the findings from this study indicate that these state-level contextual factors were associated

with capital punishment practices for at least 40 years before the politicization of criminal justice policies and practices in the 1970s. In addition, the findings from this dissertation indicate that post-*Furman* theoretical perspectives are also able to account for both increases and decreases in jurisdictional reliance on capital punishment practices across the 20th and 21st centuries. This finding is also especially important because the post-*Furman* theoretical propositions examined in this dissertation were articulated to account for increased reliance on capital punishment practices in the last third of the 20th century, and prior research had yet to examine whether these propositions could also account for decreasing state-level reliance on the death penalty. Even though the temporal scope of this study is not wide enough to declare these social and political factors as the ultimate causes of state-level use of the death penalty, this study does represent a first step in beginning to explain the underlying contextual factors related to jurisdictional capital punishment practices across history in the United States.

The second theoretical question the findings from this dissertation address is whether the politicization of criminal justice policies and practices in the 1970s redefined the nature of the relationship between political factors and capital punishment practices. Since historians have never explicitly stated whether the political factors associated with the use of the death penalty after the *Furman* decision were similar or different from those in the pre-*Furman* time period, it was unknown whether the social and political changes in the 1960s and 1970s merely strengthened a pre-existing relationship or if these factors altogether redefined the nature of this relationship. The findings from this study primarily demonstrate that the relationship between the significant predictors of capital punishment practices across the 80-year period and the use of these practices

remained relatively consistent when moving from the pre- to the post-*Furman* time period. These findings indicate that the reconfiguration of political party lines and new ideologies in the 1960s and 1970s regarding correctional practices did not significantly alter the social and political drivers associated with jurisdictional reliance on capital punishment practices.

In addition to the theoretical implications highlighted above, the findings from this study also provide potential avenues for future theorizing. Perhaps the most significant avenue for further theoretical development concerns the articulation of how the social and political factors identified in post-*Furman* studies influenced jurisdictional reliance on death sentences and executions in the pre-*Furman* time period. As noted above, the findings from this study indicate that the contextual factors identified in post-*Furman* studies are also robust predictors of capital punishment practices across the 20th and 21st centuries. This is a particularly fruitful avenue for theorizing because scholars have argued that penal punishment has always been shaped by political considerations (Foucault, 1977; Garland, 2001, 2011; Mauer, 2001; Savelsberg, 1994; Whitman, 2005); however, the relationship between these concepts has not been well fleshed out in the pre-*Furman* 20th century. In particular, scholars have primarily concluded that the topic of capital punishment was not especially salient in political rhetoric in the pre-*Furman* time period and that the decline in the use of these practices was essentially linked to decreased support among the public (Banner, 2003; Bowers, 1984; Garland, 2011; Gottschalk, 2006). Although the impact that these contextual factors have on capital punishment practices may not be as evident in the pre-*Furman* time period, historians should pay particular attention to developing a more nuanced

understanding of how these predictors influenced capital punishment practices over the entirety of the 20th and the early 21st centuries.

AVENUES FOR FUTURE RESEARCH

Based on the major findings from this study and the theoretical implications covered in the last section, there are a number of potential avenues for future research on the political factors associated with state-level correctional practices. The first potential avenue for future research is the examination of whether the social and political factors associated with state-level death sentences and executions vary based on the race of the offenders convicted of capital offenses. Although Jacobs, Carmichael, and Kent (2005) have examined whether there are differences in the political factors associated with all state-level offenders sentenced to death and African American death sentences, this study examined the topic only in the last third of the 20th century. Similar to the rationale adopted in this dissertation to examine long-term trends in death sentences and executions, more research is needed to examine whether Jacobs and colleagues' (2005) findings hold up when the temporal scope is expanded to include pre-*Furman* trends. It is especially important to expand the temporal scope used to examine this topic because research has indicated that the factors surrounding the likelihood of conviction based on race have changed over the course of the 20th and 21st centuries. As an example, in the pre-*Furman* time period, scholars have identified that the race of those accused of committing a capital offense played a significant role in whether offenders were sentenced to death and were executed (Bowers, 1984; Wolfgang & Riedel, 1973, 1975). However, recent studies have found that the race of the victim plays a much more significant role in the likelihood of conviction in capital cases in the post-*Furman* era

(Baldus, Pulaski & Woodworth, 1983; Bowers & Pierce, 1980; Jacoby & Paternoster, 1982; Paternoster, 1983, 1984; Radelet, 1981). Given these differences across the two eras, future research should include pre-*Furman* death penalty trends when examining the social and political factors associated with these practices based on the race of those accused and convicted of capital offenses.

The second potential avenue for future research involves reexamining the contextual factors associated with post-*Furman* use of the death penalty based on yearly measurements. Similar to the methodological approach adopted by Jacobs and colleagues (Jacobs & Carmichael, 2002, 2004; Jacobs, Carmichael & Kent, 2005) in their post-*Furman* studies, this dissertation examined the independent variables at the turn of each decade, and the two dependent variables were pooled for the two years following the measurement of predictors. Although this strategy decreases the potential error introduced by imputing yearly values for independent variables, this strategy also excludes a significant amount of available data for each of the dependent variables. The adoption of yearly measurements to examine post-*Furman* capital punishment trends is advantageous because only one study has utilized this methodological approach. Even though McCann's (2008) study examined capital punishment practices based on yearly measurements, his examination of the social and political factors associated with death sentences and executions is not nearly as methodologically rigorous as Jacobs and colleagues' post-*Furman* studies (Jacobs & Carmichael, 2002, 2004; Jacobs, Carmichael & Kent, 2005). To illustrate, McCann (2008) used only one variable to examine social threat and two indicators to examine political ideology. In addition, McCann (2008) controlled only for state population in his analyses. Due to the limited number of

independent variables used to examine key theoretical propositions and McCann's (2008) failure to control for a number of jurisdictional characteristics that could impact the use of capital punishment practices, more research is needed to further examine the relationship between political factors and state-level capital punishment practices using yearly measurements. Furthermore, future research could also focus on whether the findings reported in this dissertation hold up when yearly death sentence and execution trends are examined as well.

The final potential avenue for future research involves the expansion of the temporal scope used to examine incarceration practices over the course of the 20th and 21st centuries. Perhaps the main reason for examining this relationship is that historical scholars have argued that the same social and political factors responsible for the increasing post-*Furman* reliance on capital punishment practices are also responsible for the increasing use of incarceration in the United States during the same time period. In addition, post-*Furman* empirical research has also identified that partisan politics, political ideologies, and social threat are all factors related to fluctuations in state-level incarceration rates (Beckett & Western, 2001; Greenberg & West, 2001; Jacobs & Carmichael, 2001; Jacobs, Malone & Iles, 2012; Stucky, Heimer & Lang, 2005). Similar to the limitations involved with empirical research on capital punishment practices, another reason for the expansion of the temporal scope used to examine the relationship between political factors and long-term incarceration trends is that prior research has primarily focused on this relationship during the post-*Furman* time period. Since the findings from this dissertation demonstrate that the predictive power of post-*Furman* political variables is not restricted to the last third of the 20th century, more research is

needed in order to determine whether these contextual factors are also able to account for long-term historical trends in incarceration practices.

20th AND 21ST CENTURY DECLINES IN CAPITAL PUNISHMENT PRACTICES

An interesting development in the 21st century United States that has yet to receive much scholarly attention is the significant decline in the use of capital punishment practices. As mentioned in the second chapter, the national number of death sentences and executions has declined by 65% and 49%, respectively, since the turn of the millennium. In addition, public support for the use of the death penalty in homicide cases has dropped almost 20% from the mid-1990s (Gallup Poll, 2012), and six states have abolished the use of the death penalty in the last six years. Given the lack of attention to the social and political factors related to this phenomenon, this section briefly examines a number of potential reasons for the waning reliance on the death penalty over the course of the last 13 years. The first portion of this section highlights similarities between the 20th and 21st century declines in the use of death penalty practices, and the second part of this section identifies two factors that are specific to the more recent decline. This section concludes with an examination of whether the current decline will potentially continue or whether this phenomenon is subject to reversal.

Perhaps the most significant similarity between the 20th and 21st century declines in the use of capital punishment practices concerns decreasing public support for these practices. As highlighted in Chapter Two, declining public support for the death penalty has coincided with decreasing use of these practices in both the middle of the 20th century and the beginning of the 21st century. Figure 18 contains a graph that illustrates the percentage of the American population that responded that they were in favor of the death

FIGURE 18: PERCENTAGE OF THE AMERICAN POPULATION IN FAVOR OF THE DEATH PENALTY FOR MURDER CASES AND THE NATIONAL NUMBER OF DEATH SENTENCES, 1936-2012

Sources:
Jones, Jeff & Lydia Saad. *USA Today/Gallup Poll Results: Support for Capital Punishment*: 1936-2012.
U.S. Department of Commerce, Bureau of the Census. *Prisoners in State and Federal Prisons and Reformatories*: 1936-1946.
Cahalan, Margaret Werner. 1986. *Historical Corrections Statistics in the United States, 1850-1984*: 1947-1950.
U.S. Department of Justice, Bureau of Prisons. *National Prisoner Statistics Bulletin-Executions*: 1960-1971.
U.S. Department of Justice, Bureau of Justice Statistics. *Capital Punishment Series*: 1971-2011.
Death Penalty Information Center: 2010-2012.

penalty for persons convicted of murder from 1936 to 2012 on the primary y-axis, as well as the national number of death sentences on the secondary y-axis. According to this graph, support for capital punishment generally increased from 1936 to 1953,[48] at which point support for the imposition of death sentences in homicide cases generally declined from a pre-*Furman* high of 67.5% in 1953 to 49% in 1971. Following the *Furman* decision, support for the use of the death penalty in murder cases climbed to a 20th century high of 80% in 1994. After the mid-1990s, the percentage of Americans indicating that they were in favor of the use of the death penalty in homicide cases generally declined to a near 40-year low of 61% in 2011. Since public support and the actual imposition of death sentences appears to be related over the course of the 20th and 21st centuries, the remainder of this section focuses on how a number of social and political factors have likely influenced public support for capital punishment practices during both declines.

Overall, there are two potential factors that appear to have impacted public support for the death penalty over the course of the last 100 years. The first similarity is the saliency of the topic of capital punishment practices in political rhetoric. As Beckett (1997) noted, increased attention to matters of law and order by politicians and the media has corresponded with how important American citizens view the issue of crime in the United States. This factor is particularly relevant when examining public support for the death penalty because the topic in political rhetoric was greatest during the period of

[48]From 1937 to 1953, the Gallup Poll did not collect information regarding the American public's support for the use of the death penalty in homicide cases. Consistent with the graphical representations used to present this data by the Gallup Poll (2012), values for missing years were imputed to avoid significant gaps in the graphs. Due to the use of imputation techniques, it is unclear whether support for the use of the death penalty in murder cases consistently increased over this 16-year period. The same imputation techniques were used in all cases where there was a gap in reporting years.

increased support (1970s through mid-1990s) and lowest during periods of declining support (1930s through 1960s and mid-1990s through the present).

As scholars noted in the middle of the 20th century, capital punishment was not a particularly prevalent political topic and politicians were able to comment publically regarding their perceptions of the practice without fear of losing constituents (Banner, 2003; Garland, 2011; Gottschalk, 2006). Immediately following the *Furman* decision, capital punishment practices were thrust into the local and national spotlight. In addition, conservative politicians quickly incorporated the topic into their law and order rhetoric, which was used as a wedge issue for political gain. From the *Furman* decision until the beginning of the 1990s, politicians' stance on the death penalty was used as a litmus test for their views on law and order policies and practices, and politicians who opposed the death penalty were unable to speak publically regarding their views without fear of reprisal at the next election (Garland, 2011; Gottschalk, 2006). Beginning with Bill Clinton's adoption of similar rhetoric in his first presidential campaign in 1992, which helped Democrats to find their voice on the topic of law and order, the once clear connection between conservatives and tough-on-crime politics was muddied (Garland, 2001, 2011; Gottschalk, 2006; Holian, 2004; Kramer & Michalowski, 1995; Mauer, 1999). After Democrats began adopting law and order rhetoric at the local and national level, the once polarizing wedge issue was effectively neutralized, and the topic slowly began to fade from the political forefront (Holian, 2004). Based on these shifts in the political landscapes, it would appear as though public support for the death penalty is strongest when the saliency of topic in political rhetoric is greatest and that support weakens when the topic is no longer at the forefront of political concerns.

The second factor that appears to be linked to public support for the death penalty is crime rates. Recent research that has examined the link between crime rates and public support for the death penalty has found that support is greatest when respondents are aware of high rates of violent crime (Baumer, Messner, and Rosenfeld, 2003; Rankin, 1979). This factor is also particularly relevant to understanding public support for the death penalty because support for capital punishment in homicide cases was highest when crime rates were increasing (1960s through mid-1990s) and lowest when crime rates were declining (mid-1930s through 1960s and mid-1990s through the present). As numerous scholars have noted, crime rates began declining in the mid-1930s and reached a 20th century low during the 1950s (Eckberg, 1995; LaFree, 1998; Roth, 2009), which corresponds with both the decline in the use of capital punishment practices and decreasing support for the use of these practices among citizens. However, beginning in the 1960s, crime rates began to steadily increase until the mid-1990s. During this period, the increase in crime rates contributed to the sense among citizens that law and order had broken down and that the threat of violent victimization had increased (Garland, 2001, 2011). With the perceived breakdown in law and order among the public and the increased saliency of the topic of crime among politicians and the media, the death penalty was viewed as a necessary tool in the war against crime (Garland, 2001, 2011). Near the middle of the 1990s, crime rates began to decline in almost every jurisdiction in the United States (Zimring, 2006), and this decrease has continued up until the present day. Based on prior research on the topic and the apparent relationship between crime rates and public support for capital punishment, it would appear as though these factors contributed to the decline in the use of the death penalty in the 20th and 21st centuries.

In addition to the common factors outlined above, there are also two factors that are specific to the waning reliance on capital punishment practices in the 21st century. The first factor involves the highly publicized fallibility associated with prosecuting capital cases. As an example, due to the highly complex statutes and procedures involved with prosecuting capital crimes, 66% of cases where offenders are sentenced to death are reversed to lower courts before these individuals are executed (Liebman et al., 2000). In addition, the advent of DNA evidence and advocacy by special interest groups, such as the Innocence Project and the ACLU, have led to the exoneration of 142 offenders who have been sentenced to death since 1973 (Death Penalty Information Center, 2013). Given the finality involved with the execution of offenders, Illinois Governor Ryan highlighted the potential for error in capital cases when he announced a moratorium on executions within his jurisdiction in 2000:[49]

> I now favor a moratorium, because I have grave concerns about our state's shameful record of convicting innocent people and putting them on death row. I believe many Illinois residents now feel that same deep reservation. I cannot support a system, which, in its administration, has proven to be so fraught with error and has come so close to the ultimate nightmare, the state's taking of innocent life. Thirteen people have been found to have been wrongfully convicted.

With the high proportion of capital cases containing procedural errors and the publicity surrounding the eventual exoneration of wrongfully convicted individuals, it is likely these instances have raised questions among the public and lawmakers regarding whether the procedural safeguards adopted after the *Gregg* decision are, in fact, working properly.

The second factor concerns the low proportion of death row inmates that are actually executed and the high costs associated with prosecuting capital cases. Due to the significant delays that have resulted from the judicial review process, research indicates

[49] Illinois Governor News Network, retrieved August 30, 2013, from http://www3.illinois.gov/PressReleases/showpressrelease.cfm?subjectid=3&recnum=359.

that only 10% of offenders sentenced to death are actually executed (Liebman et al., 2000) and the leading cause of death among death row inmates in the United States is natural causes (Garland, 2011). Furthermore, research indicates that the costs associated with prosecuting capital cases exceed the costs involved with imprisoning offenders for life (Dieter, 1997; Spangenberg & Walsh, 1989). This is particularly important to the topic of capital punishment practices because recent research has indicated that jurisdictions across the United States are currently attempting to mitigate the impact of the recession by exploring alternative policies to traditional correctional practices (Jacobson, 2005; Rengifo et al., 2010). An example of more frugal thinking by lawmakers concerning the use of capital punishment can be seen in a statement released by the Maryland Governor's office after the state repealed the death penalty in 2013:[50]

> Maryland has effectively eliminated a policy that is proven not to work. Evidence shows that the death penalty is not a deterrent, it cannot be administered without racial bias, and it costs three times as much as life in prison without parole.

Based on the recent economic downturn and the costs associated with prosecuting capital cases, it appears as though these concerns have influenced both the public's and lawmakers' support for the continued use of inefficient death penalty practices.

Despite declining reliance on capital punishment practices and the growing number of abolitionist states over the last decade, 20th century history would appear to indicate that these factors are subject to reversal based on the changing nature of social and political landscapes. As was the case in the increase in death sentences in the 1970s and the eventual increase in executions with the 1980s, the movement towards abolition could easily change according to public perception of death penalty practices. To

[50] CNN, retrieved on August 30, 2013, from http://www.cnn.com/2013/05/02/us/maryland-death-penalty/index.html.

illustrate, in the future, it is possible that rising crime rates and increasing attention given by politicians to the topic of capital punishment could influence the public's perception regarding the necessity of the death penalty. Similar to the increased reliance on these practices from the 1970s until the turn of the millennium, climbing crime rates and greater attention dedicated to the topic in political rhetoric may revitalize the perceived need for the death penalty to combat crime. In addition, although it is unlikely that society will ever be able to quash questions of innocence among death row inmates, it is, however, likely that a rebound from the economic downturn could lead to less resistance to the use of capital punishment practices from a fiscal standpoint. Overall, as long as criminal justice policies and practices are supported and enacted based on the dominant social and political landscape particular to a specific point in history, it is unlikely that any abolitionist advances are secure until the United States embraces a national moratorium on capital punishment. Even though this section attempts to link a number of social and political factors to the 21st century decline in the use of capital punishment practices, more research is needed in order to fully understand how these potential relationships have operated both individually and in combination with one another.

POTENTIAL STRATEGIES BASED ON PERCEPTIONS OF THE DEATH PENALTY

Due to the historical nature of this study's analysis of capital punishment practices, the findings from this dissertation do not lend themselves to producing policy implications that could be implemented today. However, based on prior research and the findings within this dissertation, this study is able to provide a number of potential avenues that abolitionists and death penalty supporters could use to strengthen their causes. Since scholars have yet to dedicate much attention to the 21st century decline in

the use of the death penalty practices, this section situates a number of long-standing arguments used by both groups within the social, political, and economic climate particular to the 21st century United States.

The first strategy abolitionist groups could use to strengthen their cause in the eyes of the public involves highlighting how the United States is apparently once again turning away from the use of the death penalty. As mentioned in the last section, public support for the death penalty in homicide cases has declined by almost 20% in the last two decades, and numerous jurisdictions have recently abolished the use of the practice within their borders. One reason why highlighting the lower level of public support for the practice could act as a potent strategy concerns the relative success that abolitionist groups had using the same argument before the *Furman* decision (Garland, 2011; Gottschalk, 2006). Even though this argument eventually succumbed to the newly politicized movement to maintain the death penalty and the increasing support among the public for its retention in murder cases in the 1970s and 1980s, there is one main advantage that current abolitionist groups have today over those who preceded them 40 years ago. Leading up to the *Furman* decision, activists had focused primarily on building legal arguments for abolition; therefore, activist groups were not well prepared to contend with the strength of the pro-death penalty movement outside the courthouse (Garland, 2011; Gottschalk, 2006). However, after four decades of debate between the two groups, it would appear as though abolitionist groups are better prepared to present their case to the public using this argument today. Although it is unlikely that highlighting declining public support for the death penalty and the increasing number of abolitionist states would hold much sway in the southern United States, these arguments

could influence the decision of lawmakers to retain the punishment in states where reliance on capital punishment practices is weak to moderate.

Another strategy for strengthening public support for the abolition of capital punishment concerns stressing the inefficiencies and costs associated with prosecuting capital cases. Due to the current economic climate, it would appear as though this would be an optimal time to continue to publically highlight the low proportion of death row inmates who are actually executed and the fact that sentencing offenders to life in prison is a more fiscally sound alternative to an ineffective and costly practice. The reason why this argument is likely to hold more sway today than it might have in the past is that jurisdictions have been severely impacted by the recent recession, and correctional expenditures make up a significant proportion of states' overall budgets (Jacobson, 2005; Rengifo et al., 2010). Given the dwindled nature of state-level resources, it is likely that lawmakers, prosecutors, and the public will be less likely to tolerate the financial burdens associated with prosecuting capital cases, especially when it is unlikely that death row inmates will be executed in jurisdictions outside of the southern United States.

Based on the ever-changing nature of social and political landscapes within jurisdictions, the final suggested strategy for abolitionist groups involves taking advantage of the current climate within the United States before circumstances change. As mentioned earlier in this chapter, public support for the death penalty appears to be linked with rising crime rates as well as increased attention given to the topic by politicians and the media. Although crime rates have declined recently and the topic of the death penalty is not as salient in political rhetoric today as it was two decades ago (Holian, 2004), these factors could easily change in the near future. Given the inefficient

nature of capital punishment practices, the high costs associated with prosecuting capital cases, and the recent economic downturn, the declining support among the public for use of the punishment in murder cases, and the ever-increasing number of death row inmates who have been exonerated, abolitionist groups are more likely to make headway in today's current social and political climate by increasing public awareness of the drawbacks involved with capital punishment practices. In order to draw more attention to the above-listed factors, abolitionist groups could educate the public about the drawbacks of capital punishment practices, and they could increase pressure on lawmakers to rethink retention policies in jurisdictions where the use of the death penalty is infrequent to moderate. Since it is rather difficult to predict the nature of the social and political landscapes in the future, abolitionist groups may want to consider expending more time and resources than otherwise planned in order to take advantage of the current circumstances that appear to be in their favor.

On the opposite side, one potential strategy pro-death penalty advocates could use to increase public support for capital punishment practices is to stress the punitive scriptures in the Old Testament among religious fundamentalist adherents. Although this study finds that jurisdictions with a greater proportion of religious fundamentalists are more likely to impose death sentences and to execute offenders, individual-level research that has examined the association between religious fundamentalism and support for the death penalty has been mixed.[51] These mixed findings appear to suggest that subscribing to fundamentalist beliefs in and of itself does not automatically translate into support for punitive responses to criminal activity. Since research indicates that fundamentalists are

[51]Applegate et al., 2000; Evans & Adams, 2003; Grasmick, Bursik & Blackwell, 1993; Grasmick et al., 1993; Grasmick & McGill, 1994; Sandys & McGarrell, 1997; Unnever, Cullen & Bartkowski, 2006; Unnever, Cullen & Fisher, 2005.

more likely to hold conservative values and embrace a literal translation of the Bible (Curry, 1996; Erikson, Wright & McIver, 1993; Grasmick & McGill, 1994; Thorne, 1990), pro-death penalty activists could potentially stress the "eye for an eye" doctrine articulated in the Old Testament as a means of building support for capital punishment. One reason this strategy may be effective is that current research finds that individuals who believe in forgiving offenders who have transgressed against God and others are less likely to support the use of capital punishment practices (Applegate et al., 2000). If pro-death penalty advocates were to stress among fundamentalists that individuals who violate God's law are deserving of punishment in proportion to the crime they committed and they should not be forgiven for their sins, this group could possibly build support among fundamentalist adherents who do not already support the death penalty.

Another potential strategy pro-death penalty advocates could use to increase support for the practice is to wait until the social and political landscape shifts in a direction favorable to their cause. As mentioned above, the saliency of the topic of capital punishment practices among politicians and rising crime rates both appear to be associated with increases and decreases in public support for capital punishment practices. Although both of these factors have been decreasing over the last decade-and-a-half, if crime rates were to begin to rise again in the future, the argument for the necessity of the death penalty to combat crime could potentially hold more sway again. Another possible strategy related to rising crime rates is for conservative politicians to try to recreate the divide between parties on the issue of capital punishment. Although liberal politicians appeared to have neutralized the saliency of the topic in the mid-1990s when crime rates were declining, conservatives could potentially revitalize the

issue if they were to quickly separate themselves from liberals in the face of growing anxiety among the public regarding increasing crime rates. Similar to the suggested strategy for abolitionists to take advantage of the atmosphere particular to the 21st century, pro-death penalty advocates could possibly gain support for the death penalty if they were to capitalize on future shifts in the social and political landscapes that produce circumstances favorable to their cause.

Overall, the current social, economic, and political landscapes in the United States appear to be favorable to abolitionist arguments for repealing capital punishment statutes. Even though it would appear that jurisdictional reliance on the death penalty has been dwindling for the last 13 years, 20th century history would indicate that abolitionist advances are susceptible to the changing nature of the state-level climates in which they are immersed. Despite the changing nature of the social and political atmosphere within jurisdictions, this study has identified a number of contextual factors associated with the use of capital punishment practices over the course of the 20th and 21st centuries. More specifically, the findings from these analyses indicated that the social and political factors identified in post-*Furman* studies were able to account for capital punishment practices from 1930 to 2012 and that these political factors are not proximate manifestations associated with the last third of the 20th century. Although the scope of this study precludes the declaration of these factors as being the ultimate causes of capital punishment practices across history, this study does represent an important first step in developing a more nuanced understanding of the jurisdictional contextual factors related to long-term trends in the use of the death penalty.

REFERENCES

Allen, Francis A. 1981. *Decline of the Rehabilitative Ideal: Penal Policy and Social Purpose*. New Haven: Yale University Press.

Allison, Paul D. 1994. Using Panel Data to Estimate the Effects of Events. *Sociological Methods & Research* 23:174-99.

Applegate, Brandon K., Francis T. Cullen, Bonnie S. Fisher, and Thomas Vander Ven. 2000. Forgiveness and Fundamentalist: Reconsidering the Relationship between Correctional Attitudes and Religion. *Criminology* 38:719-54.

Arvanites, Thomas M. 1992. The Mental Health and Criminal Justice Systems: Complementary Forms of Social Control. In *Social Threat and Social Control*, ed., Allen E. Liska. Albany: State University of New York Press.

Baldus, David C., Charles Pulaski, and George Woodworth. 1983. Comparative Review of Death Sentences: An Empirical Study of the Georgia Experience. *The Journal of Criminal Law & Criminology* 74:661-753.

Banner, Stuart. 2003. *The Death Penalty: An American History.* Cambridge: Harvard University Press.

Baumer, Eric P., Steven F. Messner, and Richard Rosenfeld. 2003. Explaining Spatial Variation in Support for Capital Punishment: A Multilevel Analysis. *American Journal of Sociology* 108:844-75.

Beckett, Katherine. 1994. Setting the Public Agenda: 'Street Crime' and Drug Use in American Politics. *Social Problems* 41:425-47.

Beckett, Katherine. 1997. *Making Crime Pay: The Politics of Law and Order in Contemporary United States*. New York: Oxford University Press.

Beckett, Katherine and Bruce Western. 2001. Governing Social Marginality: Welfare, Incarceration, and the Transformation of State Policy. *Punishment & Society* 3:43-59.

Berry, William D., Evan R. Ringquist, Richard C. Fording, and Russell L. Hanson. 1998. Measuring Citizen and Government Ideology in the States. *American Journal of Political Science* 42:327-48.

Black, Donald. 1983. Crime as Social Control. *American Sociological Review* 48:34-45.

Blalock, Hubert M. 1967. *Towards a Theory of Minority Group Relations*. New York: Capricorn Books.

Blumer, Herbert. 1958. Race Prejudice as a Sense of Group Position. *Pacific Sociological Review* 1:3-7.

Bobo, Lawrence and Vincent Hutchings. 1996. Perceptions of Racial Group Competition: Extending Blumer's Theory of Group Position in a Multiracial Social Context. *American Sociological Review* 61:951-72.

Bowers, William J. 1984. *Legal Homicide: Death as Punishment in America, 1964-1982*. Boston: Northeastern University Press.

Bowers, William J. and Glen L. Pierce. 1980. Arbitrariness and Discrimination under Post-Furman Capital Statutes. *Crime & Delinquency* 26:563-632.

Cahalan, Margaret Werner. 1986. *Historical Corrections Statistics in the United States, 1850-1984*. Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics.

Chambliss, William J. 1997. Generating Fear: The Politics of Crime Reporting. *Crime, Law and Social Change* 27:87-107.

Chambliss, William J. and R. Seidman. 1980. *Law, Order, and Power*. Boston: Addison-Wesley.

Chamlin, Mitchell B. and John K. Cochran. 2004. An Excursus on the Population Size-Crime Relationship. *Western Criminology Review* 5: 119-30.

Chiricos, Teodore G. and Miriam A. Delone. 1992. Labor Surplus and Punishment: A Review and Assessment of Theory and Evidence. *Social Problems* 39:421-46.

Colvin, Mark. 1990. Labor Market, Monopolization, Welfare and Imprisonment: Evidence from a Cross Section of Unites States Counties. *Sociological Quarterly* 31:441-57.

Curry, Theodore R. 1996. Conservative Protestantism and the Perceived Wrongfulness of Crimes: A Research Note. *Criminology* 34:453-64.

Dieter, Richard C. 1997. Millions Misspent: What Politicians Don't Say about the High Costs of the Death Penalty. In *The Death Penalty in America: Current Controversies*, ed., Hugo Adam Bedau. New York: Oxford University Press.

Dubin, Michael. 2007. *Party Affiliations in the State Legislatures: A Year by Year Summary: 1796-2006*. Jefferson, NC: McFarland.

Eckberg, Douglas Lee. 1995. Estimates of Early Twentieth-Century Homicide Rates: An Econometric Forecasting Approach. *Demography* 32:1-16.

Edsall, Thomas and Mary Edsall. 1991. *Chain Reaction: The Impact of Race, Rights, and Taxes on American Politics*. New York: Norton.

Elazar, Daniel J. 1970. *Cities of the Prairie: The Metropolitan Frontier and American Politics*. New York: Basic Books.

Erickson, Robert S., Gerald C. Wright, and John P. McIver. 1993. *Statehouse Democracy: Public Opinion and Policy in American States.* New York: Cambridge University Press.

Evans, David T. and Mike Adams. 2003. Salvation or Damnation? Religion and Correctional Ideology. *American Journal of Criminal Justice* 28:15-35.

Federal Bureau of Investigation. 1931-2010. *Uniform Crime Reports*. Federal Bureau of Investigation: Washington, D.C.

Flamm, Michael W. 2005. *Law and Order: Street Crime, Civil Unrest, and the Crisis of Liberalism in the 1960s*. New York: Columbia University Press.

Foucault, Michael. 1977. *Discipline and Modern Society: The Birth of the Prison*. London: Vintage.

Galster, George C. and Laura A. Scaturo. 1985. The U.S. Criminal Justice System: Unemployment and the Severity of Punishment. *Journal of Research in Crime and Delinquency* 22:163-89.

Garland, David. 1993. *Punishment and Modern Society: A Study in Social Theory*. Chicago: University of Chicago Press.

Garland, David. 2001. *The Culture of Control: Crime and Social Order in Contemporary Society*. Chicago: University of Chicago Press.

Garland, David. 2011. *Peculiar Institution: America's Death Penalty in an Age of Abolition*. New York: Oxford University Press.

Gottschalk, Marie. 2006. *The Prison and the Gallows: The Politics of Mass Incarceration in America*. Cambridge: Cambridge University Press.

Grasmick, Harold G., Robert J. Bursik, Jr. and Brenda Sims Blackwell. 1993. Religious Beliefs and Public Support for the Death Penalty for Juveniles and Adults. *Journal of Crime and Justice* 16:59-86.

Grasmick, Harold G., John K. Cochran, Robert J. Bursik, Jr. and M'Lou Kimel. 1993. Religion, Punitive Justice, and Support for the Death Penalty. *Justice Quarterly* 10:289-314.

Grasmick, Harold G. and Ann McGill. 1994. Religion, Attribution Style, and Punitiveness towards Juvenile Offenders. *Criminology* 32:23-46.

Greenberg, David F. and Valerie West. 2001. State Prison Populations and their Growth, 1971-1991. *Criminology* 39:615-53.

Halaby, Charles N. 2004. Panel Models in Sociological Research: Theory into Practice. *Annual Review of Sociology* 30:507-44.

Harcourt, Bernard E. 2011. An Institutionalization Effect: The Impact of Mental Hospitalization and Imprisonment in the United States, 1934-2001. *The Journal of Legal Studies* 40:39-83.

Hausman, J. A. 1978. Specification Tests in Econometrics. *Econometrica* 46:1251-71.

Holian, David B. 2004. He's Stealing My Issue! Clinton's Crime Rhetoric and the Dynamics of Issue Ownership. *Political Behavior* 26:95-124.

Jacobs, David and Jason T. Carmichael. 2001. The Politics of Punishment across Time and Space: A Pooled Time Series Analysis of Imprisonment Rates. *Social Forces* 80:61-89.

Jacobs, David and Jason T. Carmichael. 2002. The Political Sociology of the Death Penalty: A Pooled Time-Series Analysis. *American Sociological Review* 67:109-31.

Jacobs, David and Jason T. Carmichael. 2004. Ideology, Social Threat, and the Death Sentence: Capital Sentences across Time and Space. *Social Forces* 83:249-78.

Jacobs, David, Jason T. Carmichael, and Stephanie Kent. 2005. Vigilantism, Current Racial Threat, and Death Sentences. *American Sociological Review* 70:656-77.

Jacobs, David and Stephanie Kent. 2007. The Determinants of Executions since 1951: How Politics, Protests, Public Opinion, and Social Division Shape Capital Punishment. *Social Problems* 54:297-318.

Jacobs, David, Chad Malone, and Gale Iles. 2012. RACE AND IMPRISONMENT: Vigilante Violence, Minority Threat, and Racial Politics. *The Sociological Quarterly* 53:166-87.

Jacobs, David, Zhenchao Qian, Jason T. Carmichael, and Stephanie L. Kent. 2007. Who Survives on Death Row? An Individual and Contextual Analysis. *American Sociological Review* 72:610-32.

Jacobson, Michael. 2005. *Downsizing Prisons: How to Reduce Crime and End Mass Incarceration.* New York: New York University Press.

Jacoby, Joseph E. and Raymond Paternoster. 1982. Sentencing Disparity and Jury Packing: Further Challenges to the Death Penalty. *Criminal Law and Criminology* 73:379-87.

Jankovic, Ivan. 1977. Labor Market and Imprisonment. *Crime and Social Justice* 8:17-31.

Johnson, Charles A. 1976. Political Cultures in American States: Elazar's Formulation Examined. *American Journal of Political* Science 20:491-509.

Jones, Jeff and Lydia Saad. 2012. *USA Today/Gallup Poll Results: Support for Capital Punishment.* The Gallup Poll: Washington, D.C.

Kaplan, Leonard V. 1978. State Control and Deviant Behavior: A Critical Essay of Scull's Critique of Community Treatment and Deinstitutionalization. *Arizona Law Review* 20:189-212.

Keen, Bradley and David Jacobs. 2009. Racial Threat, Partisan Politics, and Racial Disparities in Prison Admissions: A Panel Analysis. *Criminology* 47:209-38.

Kent, Stephanie L. and David Jacobs. 2005. Minority Threat and Police Strength from 1980 to 2000: A Fixed-Effects Analysis of Nonlinear and Interactive Effects in Large U.S. Cities. *Criminology* 43:731-60.

King, Ryan D., Steven F. Messner and Robert D. Baller. 2009. Contemporary Hate Crimes, Law Enforcement, and the Legacy of Racial Violence. *American Sociological Review* 74:291-315.

Kramer, Ronald and Raymond Michalowski. 1995. The Iron Fist and the Velvet Tongue: Crime Control Policies in the Clinton Administration. *Social Justice* 22:87-100.

Lacey, Nicola. 1988. *State Punishment*. London: Rutledge.

Lackoff, George, 1996. *Moral Politics*. Chicago: University of Chicago Press.

LaFree, Gary. 1998. *Losing Legitimacy: Street Crime and the Decline of Social Institutions in America*. Boulder: Westview Press.

Levine, Murray and A. Levine. 1970. A Social History of the Helping Professions: Clinic, Court, School, and Community. New York: Appleton-Century-Crofts.

Liebman, James S., Jeffrey Fagan, Valerie West, and Jonathan Lloyd. 2000. Capital Attrition: Error Rates in Capital Cases, 1973-1995. *Texas Law Review* 78:1839-65.

Liska, Allen E. 1987. A Critical Examination of Macro Perspectives on Crime Control. *Annual Review of Sociology* 13:67-88.

Liska, Allen E., Mitchell B. Chamlin and Mark D. Reed. 1985. Testing the Economic Production and Conflict Models and Crime Control. *Social Forces* 64:119-38.

Long, J. Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks: Sage Publications.

Long, J. Scott and Jeremy Freese. 2001. *Regression Models for Categorical Dependent Variables Using Stata*. Thousand Oaks: Sage Publications.

Marion, Nancy. 1994. Symbolism and Federal Crime Control Legislation. *Journal of Crime and Justice* 17:69-91.

Mauer, Marc. 1999. Why Are Tough on Crime Policies So Popular. *Stanford Law & Policy Review* 11:9-22.

.

Mauer, Marc. 2001. The Causes and Consequences of Prison Growth in the United States. *Punishment & Society* 3:9-20.

McCann, Stewart J. H. 2008. Social Threat, Authoritarianism, Conservatism, and U.S. State Death Penalty Sentencing (1977-2004). *Journal of Personality and Social Psychology* 5:913-23.

Messner, Steven F., Eric P. Baumer, and Richard Rosenfeld. 2006. Distrust of Government, the Vigilante Tradition, and Support for Capital Punishment. *Law & Society Review* 40:559-90.

Moore, John L., Jon P. Preimesberger, and David R. Tarr, eds. 2005. *Guide to US Elections*. Washington, D.C.: Congressional Quarterly.

Morgan, David R. and Sheilah S. Watson. 1981. Political Culture, Political System Characteristics, and Public Policies among the American States. *Publius* 21:31-48.

Murakwa, Naomi. 2008. The Origins of the Carceral Crisis: Racial Order as "Law and Order" in Postwar American Politics. In *Race and American Political Development,* eds., Joseph E. Lowndes, Julie Novkov, and Dorian T. Warren. New York: Routledge.

Myrdal, Gunnar. 1944. An American Dilemma: The Negro Problem and Modern Democracy. New York: Harper and Brothers.

National Association for the Advancement of Colored People. 1889-1931. *Annual Report.* National Association for the Advancement of Colored People: Baltimore, MD.

National Council of Churches. *Churches and Church Membership*. National Council of Churches: Washington, D.C.

National Institute of Mental Health. 1950-1960. *Patients in Mental Institutions.* National Institute of Mental Health: Rockville, MD.

Newport, Frank. 1979. The Religious Switcher in the United States. *American Sociological Review* 44:528-52.

Osgood, Wayne D. 2000. Poisson-Based Regression Analyses of Aggregate Crime Rates. *Journal of Quantitative Criminology* 16:21-43.

Page, Benjamin and Robert Shapiro. 1992. *The Rational Public: Fifty Years of Trends in Americans' Policy Preference*. Chicago: University of Chicago Press.

Parker, Robert Nash and Allan V. Horwitz. 1986. Unemployment, Crime, and Imprisonment: A Panel Approach. *Criminology* 24:751-73.

Paternoster, Raymond. 1983. Race of Victim and Location of Crime: The Decision to Seek the Death Penalty in South Carolina. *Journal of Criminal Law and Criminology* 74: 754-85.

Paternoster, Raymond. 1984. Prosecutorial Discretion in Requesting the Death Penalty: A Case of Victim-Based Racial Discrimination. *Law & Society Review* 18:437-78.

Phillips, Charles D. 1987. Exploring Relations among Forms of Social Control: The Lynching and Execution of Blacks in North Carolina. *Law and Society Review* 21:361-74.

Quinney, Richard. 1977. *Class, State, and Crime*. New York: McKay Publications.

Radelet, Michael L. 1981. Racial Characteristics and the Imposition of the Death Penalty. *American Sociological Review* 46:918-27.

Rankin, Joseph H. 1979. Changing Attitudes towards Capital Punishment. *Social Forces* 58:194-211.

Rengifo, Andres F., Donald Stemen, Brendan Dooley, Ethan Amidon, and Amanda Gendon. 2010. Cents and Sensibility: A Case Study of Corrections Reform in Kansas and Michigan. *Journal of Criminal Justice* 38:419-29.

Rosenfeld, Richard. 2011. The Big Picture: 2010 Presidential Address to the American Society of Criminology. *Criminology* 49:1-26.

Roth, Randolph. 2009. *American Homicide*. Cambridge: Belknap Press of Harvard University Press.

Rusche, George and Otto Kirchheimer. 1939. *Punishment and Social Structure*. New York: Russell and Russell.

Sandys, Maria and Edmund F. McGarrell. 1997. Beyond the Bible Belt: The Influence (Or Lack Thereof) of Religion on Attitudes Toward the Death Penalty. *Journal of Crime and Justice* 20:179-90.

Savelsberg, Joachim J. 1994. Knowledge, Domination, and Criminal Punishment. *American Journal of Sociology* 99:911-43.

Senechal de la Roche, Roberta. 1996. Collective Violence as Social Control. *Sociological Forum* 11:97-128.

Senechal de la Roche, Roberta. 2001. Why is Collective Violence Collective? *Sociological Theory* 19:126-44.

Smith, Kevin B. 2004. The Politics of Punishment: Evaluating Political Explanations of Incarceration Rates. *Journal of Politics* 66:925-38.

Snell, Tracy L. 2011. *Capital Punishment, 2010: Statistical Tables*. Washington, D.C.: United States Department of Justice.

Spangenberg, Robert L. and Elizabeth R. Walsh. 1989. Capital Punishment or Life Imprisonment: Some Cost Considerations. *Loyola of Los Angeles Law Review* 23:45-58.

Stock, James H. and Mark W. Watson. 2003. *Introduction to Econometrics*. Boston: Addison-Wesley

Stucky, Thomas D., Karen Heimer, and Joseph Lang. 2005. Partisan Politics, Electoral Competition and Imprisonment: An Analysis of States Over Time. *Criminology* 43:211-47.

Thorne, Melvin J. 1990. *American Conservative Thought Since World War II*. New York: Greenwood.

Tocqueville, Alexis de. 1948 (1835). *Democracy in America*. New York: Knopf.

Tolnay, Stewart E. and E. M. Beck. 1990. *A Festival of Violence*. Chicago: University of Illinois Press.

Tolnay, Stewart E. and E. M. Beck. 1992. Toward a Threat Model of Southern Black Lynching. In *Social Threat and Social Control,* ed., Allen E. Liska. Albany: State University of New York Press.

Turk, Austen. 1982. Social Control and Social Conflict. In *Social Control: Views from the Social Sciences,* ed., Jack Gibbs. Beverly Hills: Sage Publications.

United States Bureau of the Census. 1926 & 1936. *Census of Religious Bodies*. United States Bureau of the Census: Washington, D.C.

United States Department of Commerce. 1930-1940. *Financial Statistics of the States*. United States Department of Commerce: Washington, D.C.

United States Bureau of the Census. 1930-1940. *Mental Patients in State Hospitals*. United States Bureau of the Census: Washington, D.C.

United States Bureau of the Census. 1930-1946. *Prisoners in State and Federal Prisons and Reformatories*. United States Bureau of the Census: Washington, D.C.

United States Bureau of the Census. 1930-2010. *Decennial Census*. United States Bureau of the Census: Washington, D.C.

United States Bureau of the Census. 1930-2012. *Statistical Abstracts of the United States*. United States Bureau of the Census: Washington, D.C.

United States Bureau of the Census. 1950-2000. *Government Finances*. United States Bureau of the Census: Washington, D.C.

United States Department of Justice. 1960-1971. *National Prisoner Statistics-Executions.* United States Department of Justice: Rockville, MD.

United States Department of Justice. 1960-2010. *Correctional Populations in the United States.* United States Department of Justice: Rockville, MD.

United States Department of Justice. 1971-2011. *Capital Punishment Series.* United States Department of Justice: Rockville, MD.

Unnever, James D., Francis T. Cullen, and John P. Bartkowski. 2006. Images of God and Public Support for Capital Punishment: Does a Close Relationship with a Loving God Matter? *Criminology* 44:835-66.

Unnever, James D., Francis T. Cullen, and Bonnie S. Fischer. 2005. Empathy and Public Support for Capital Punishment. *Journal of Crime and Justice* 28:1-34.

Whitman, James. 2005. The Comparative Study of Criminal Punishment. *Annual Review of Law and Social* Science 1:17-34.

Wilson, James Q. 1975. *Thinking about Crime*. New York: Vintage Books.

Wolfgang, Marvin E. and Marc Riedel. 1973. Race, Judicial Discretion, and the Death Penalty. *The Annals of the American Academy of Political and Social Science*. 407:119-33.

Wolfgang, Marvin E. and Marc Riedel. 1975. Rape, Race, and the Death Penalty in Georgia. *American Journal of Orthopsychiatry* 45:658-68.

Wyatt-Brown, Bertram. 1982. Southern *Honor: Ethics and Behavior in the Old South*. Oxford: Oxford University Press.

Yates, Jeff and Richard Fording. 2005. Politics and State Punitiveness in Black and White. The *Journal of Politics* 67:1099-121.

Zimring, Franklin. 2003. *The Contradictions in American Capital Punishment*. New York: Oxford University Press.

Zimring, Franklin. 2006. *The Great Crime Decline*. New York: Oxford University Press.