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Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers

Eric F. Bush

STRESS AND RECENT ELECTORAL REFORMS:

A QUANTITATIVE STUDY OF POLL WORKERS

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Eric F. Bush

Indiana University of Pennsylvania

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Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of Sociology

We hereby approve the dissertation of

Eric F. Bush

Candidate for the degree of Doctor of Philosophy

June 8, 2017 — Signature on File
Alex Heckert, Ph.D.
Professor of Sociology, Chair

June 8, 2017 — Signature on File
John A. Anderson, Ph.D.
Professor of Sociology

June 8, 2017 — Signature on File
J. Beth Mabry, Ph.D.
Associate Professor of Sociology

ACCEPTED

Randy L. Martin, Ph.D.
Dean
School of Graduate Studies and Research

Title: Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers

Author: Eric F. Bush

Dissertation Chair: Dr. Alex Heckert

Dissertation Committee Members: Dr. John A. Anderson
Dr. J. Beth Mabry

This study sought to assess how poll workers are affected by recent electoral reforms at the polling place, including voter identification, early voting, and Election Day registration. A political behavior theory, bureaucratic theory, and stress and coping theory provided a theoretical framework for the study. Quantitative methodology was used to explore secondary data collected by the United States Election Assistance Commission and primary data collected using a questionnaire administered to poll workers in Pennsylvania, New Jersey, Maryland, and Virginia.

This study has both theoretical and practical implications. Few scholarly studies have focused specifically on poll workers. This study gives a more complete understanding of public engagement and extended bureaucratic and stress and coping theories to the election administration context.

This study finds a strong relationship exists between more training and the recent electoral reforms at the polling place. The study also finds that poll workers have less sense of control in states having an electoral reform. Among the strongest findings from this study is that poll workers in states having an electoral reform experience more burnout. Applying this study's findings can help election administrators in their efforts to recruit and retain enough poll workers to meet the needs of modern elections, and the findings provide beneficial insights for policy makers.

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CHAPTER I

INTRODUCTION

Many state legislatures across the United States either enacted or are considering enacting electoral reforms at the polling place. These reforms include in-person early voting (IPEV), voter identification, and Election Day registration (EDR). Many support these reforms as a way to increase voter turnout or deter voter fraud (Rigby & Springer, 2011; Williams, 2008). Previous scholarly work has sought to assess the impact of these reforms on voters (Hershey, 2009; Barreto, Nuno, & Sanchez, 2009). But, few have considered whether such requirements have a significant impact on election administration. This study examined whether unintended consequences of these reforms are harmful to election administration.

The United States uses about 1.4 million poll workers for an election (U.S. Election Assistance Commission [EAC], 2007). Poll workers are central to the success of elections. Such workers are street-level bureaucrats with the ability to exercise their own discretion in how they implement rules and treat voters (Claassen, Magleby, Monson, & Patterson, 2008). Poll workers are often responsible for preparing, maintaining, and closing polling places. In addition, poll workers guide voters through the Election Day process and make the initial determination whether a voter is eligible to cast a ballot (Hall, Monson, & Patterson, 2007; Hall, Monson, & Patterson, 2009).

In modern times, poll workers are expected to do more (EAC, 2007). For example, pursuant to the Voting Rights Act of 1965 many jurisdictions are required to have bilingual poll workers. In addition, after the Help America Vote Act of 2002 (HAVA) increased demand exists for poll workers skilled in the use of computers (2007). But the average age of poll workers is 72

(Drinkard, 2004), resulting in concern over whether current poll workers can meet the needs of modern elections.

Putnam (2000) highlighted the modern decline in social capital, trust, and participation. Putnam argued trust peaked in 1964 and since decreased. In the 1960s, the nation experienced the Vietnam War, Watergate, and the assassinations of President Kennedy and Reverend Martin Luther King, Jr. Putnam argued such events increased distrust in American institutions resulting in less involvement in public life (2000). The loss of political trust, political interest, and political efficacy causes disenchantment in citizens (Christensen, 2012).

In addition to the political participation literature and its theories of political behavior, insights from stress and coping theory and bureaucratic theory informed many of this study's key variables. Stress and coping theory explained the stress process and its health and work outcomes suffered by poll workers (Lazarus, 1990; Pearlin, 1989). Bureaucratic theory described the nature of a poll worker's work environment, identified the stressors experienced by poll workers, and highlighted the coping strategies likely to be employed by poll workers (Lipsky, 2010).

An increase in stress and disenchantment impacts elections by making it more difficult to recruit and retain enough qualified, skilled poll workers. For example, according to a 2006 survey, 56 percent of jurisdictions were unable to find enough poll workers for the 2004 presidential election (EAC, 2007).

Problem Statement

At a time of less political participation (Putnam, 2000), increases in stress and disenchantment make the recruitment and retention of poll workers more difficult for election administrators. Consequently, an increase in stress and disenchantment caused by recent

electoral reforms at the polling place results in fewer skilled poll workers, longer lines, and poorer service to voters.

Purpose Statement

This study shows how poll workers are affected by recent electoral reforms at the polling place. A better understanding of poll workers and their experiences at the street-level where they deal directly with citizens improves our understanding of modern election administration.

Significance of the Study

Few scholarly studies have focused specifically on poll workers. But poll workers hold an important position interacting directly with citizens and deciding in the first instance whether citizens may exercise their right to vote (Hall et al., 2007). Given the important role of poll workers in the election process, this study garnered more information about poll workers and their experiences.

This study can help election administrators better understand the factors influencing their difficulty in recruiting a sufficient number of quality poll workers and why a disparity exists across different jurisdictions. This study can also help election administrators to become more sensitive to the unintended consequences to public administration of recent electoral reforms and encourage them to devise implementation strategies reducing the effect of such consequences. Moreover, improving our understanding of whether recent electoral reforms impact poll workers provides beneficial insights for policy makers. Most prior research considered only the impact of these reforms on voting behavior. This study contributes to the ongoing debate over recent electoral reforms in a different but important way by assessing the impact of these reforms on election administration.

Research Questions and Hypotheses

Researchers found that street-level bureaucrats such as poll workers value having discretion and adequate resources, and such workers often operate independently with little direct supervision by election administrators (Lipsky, 2010; Kelly, 1994). However, recent electoral reforms at the polling place imposed new requirements increasing the demands on poll workers, including longer hours at the polling place, new technology, more training, and more stress from polling place operations.

Stress results from situations that are less than ideal (Edwards, 1992). Bureaucratic theory posits street-level bureaucrats give priority toward meeting client demands rather than responding to political or policy demands. However, the regulatory burdens associated with the recent electoral reforms reduce autonomy (Frederickson et al., 2012), and diminish the ideal situation for poll workers.

As noted previously, research found that the loss of political trust, political interest, and political efficacy causes disenchantment in citizens (Christensen, 2012). Stress and disenchantment change individual political behavior, resulting in more difficulty in recruiting and retaining enough skilled poll workers.

Within this context, this study used quantitative methods to examine the claim that recent electoral reforms at the polling place, even as an unintended consequence of laws intended to increase voter turnout or reduce voter fraud, are harmful to election administration. To establish empirical support for this claim, the following research questions were addressed:

RQ 1: Do recent electoral reforms at the polling place increase poll worker stress?

RQ 2: Do recent electoral reforms at the polling place increase poll worker disenchantment?

RQ 3: Do recent electoral reforms at the polling place make it more difficult to recruit poll workers?

I tested hypotheses to answer the research questions. These hypotheses, including the theoretical framework influencing them, are discussed more in Chapter Two.

H1: Poll workers in states with a recent electoral reform at the polling place have more conflicts with voters than poll workers in states without a recent electoral reform.

H2: Poll workers in states with a recent electoral reform at the polling place undergo a greater number of hours of training than poll workers in states without a recent electoral reform.

H3: Poll workers in states with a recent electoral reform at the polling place are required to use more technology than poll workers in states without a recent electoral reform.

H4: Poll workers in states with a recent electoral reform at the polling place disagree more with their supervisor's views than poll workers in states without a recent electoral reform.

H5: Poll workers in states with a recent electoral reform at the polling place experience less sense of control than poll workers in states without a recent electoral reform.

H6: Poll workers in states with a recent electoral reform at the polling place use more referrals than poll workers in states without a recent electoral reform.

H7: Poll workers in states with a recent electoral reform at the polling place have higher perceived overall stress as measured by the Perceived Stress Scale than poll workers in states without a recent electoral reform.

H8: Poll workers in states with a recent electoral reform at the polling place have a higher anxiety score as measured by the Spielberger State Anxiety Inventory than poll workers in states without a recent electoral reform.

H9: Poll workers in states with a recent electoral reform at the polling place have a higher

burnout score as measured by the Maslach Burnout Inventory than poll workers in states without a recent electoral reform.

H10: Poll workers in states with a recent electoral reform at the polling place have lower political interest than poll workers in states without a recent electoral reform.

H11: Poll workers in states with a recent electoral reform at the polling place have lower political efficacy than poll workers in states without a recent electoral reform.

H12: Election administrators in states with a recent electoral reform at the polling place perceive more difficulty in recruiting poll workers than election administrators in states without a recent electoral reform.

Assumptions

For the purposes of this study, a climate of declining political participation was taken as well established (e.g., Putnam, 2000). Also, a review of the political participation literature suggested individuals willing to serve as poll workers would probably have stronger attitudes favoring political participation than would the general public (Corey & Garand, 2002). This study also assumed poll workers will maintain their satisfaction with democracy (Christensen, 2012). In other words, this study did not expect poll workers in general would become dissatisfied with the entire system due to recent electoral reforms.

Nonetheless, consistent with Putnam (2000), this study also assumed trust in institutions had declined for poll workers as it had for the general public. Given these assumptions, this study focused instead on the attitudes of political interest and political efficacy, which were the most likely attitudes to produce disenchantment in poll workers solely due to the burdens imposed by the recent electoral reforms.

This study also assumed election administration practices have grown more consistent

among states. Prior to the 2000 presidential election, states exercised nearly complete control over their elections. After the problems associated with the 2000 election, the federal government increased its regulation over federal elections, which standardized many election administration practices among the individual states. State law continues to govern the conduct of elections, but increased federal requirements have required states to change many of their electoral practices (Griffith, 2008).

Definition of Terms

This section includes definitions for key terms used in this study. Precise, clear definitions are important for scientific work (Creswell, 2014).

Anxiety

Feelings of a future feared outcome, often including physical and mental symptoms (Creamer, Foran, & Bell, 1995; Court, Greenland, & Margrain, 2010).

Burnout

Feelings of being exhausted or drained caused by prolonged stress at work (Brenninkmeijer & Van Yperen, 2003).

Coping

Strategies used by individuals to avoid or reduce the harm caused by stressors. Coping may include removal of stressors, avoidance of stressors, changing the interpretation of the situation, or employing ways to control the feelings of arousal (Aneshensel, 1992).

Disenchantment

The loss of the requisite attitudes needed for political participation. These attitudes include satisfaction with democracy, political trust, political interest, and internal political efficacy (Christensen, 2012).

Disenfranchised

A voter or group of voters becomes disenfranchised when provisions of a law or a public official acting pursuant to a law revoke their right to vote or prevent the exercise of their right to vote (Wang, 2012).

Election Administrator

Election administrators are supervisory-level (managerial) members of a local government's bureaucracy usually answering either to local elected officials or an election commission (Griffith, 2008). Election administrators usually implement the state's election law, ensure voting machines are working properly, and choose suitable locations for polling places. Such administrators are also usually responsible for recruiting, training, and supervising poll workers (Claassen et al., 2008).

EDR

An election law permitting eligible citizens to register to vote at the polling place the same day they cast a ballot. Some refer to this law as same day registration (Hanmer, 2009).

IPEV

An election law permitting eligible citizens to vote in person at a designated polling place prior to Election Day (Rigby & Springer, 2011).

Political Participation

Political participation refers to the active involvement of individuals in politics and government, which are both found in the public sphere. Such involvement includes voting, working for a political party, serving as a poll worker, running for an office, and attending a town meeting (Putnam, 2000).

Polling Place

A location, often within a geographic area known as a precinct, where voters may legally cast a ballot (Griffith, 2008).

Poll Worker

Poll workers are individuals responsible for guiding voters through the Election Day process and making the initial determination whether a voter is eligible to cast a ballot. Poll workers are often responsible for preparing, maintaining, and closing polling places (Hall et al., 2007). Such workers are street-level bureaucrats with the ability to exercise their own discretion in how they implement rules and treat voters (Claassen et al., 2008).

Social Capital

Social capital refers to the ties between individuals in a community (Putnam, 2000). Such ties include "social networks and the norms of reciprocity and trustworthiness that arise from them" (p. 19).

Street-level Bureaucrat

Street-level bureaucrats are public workers "who interact directly with citizens in the course of their jobs, and who have substantial discretion in the execution of their work" (Lipsky, 2010, p. 3).

Stress

Stress refers to a "physiological or emotional arousal" (Thoits, 1995, p. 54). Stress results from the difference between a worker's current situation and their ideal situation (Edwards, 1992).

Stressors

Stressors are anything diminishing ideal situations (Spector, 2002). Stressors are external to the individual (Aneshensel, 1992).

Voter Fraud

Voter fraud refers to an impersonation of another voter for the purpose of impacting an election outcome (Hasen, 2012).

Voter Identification

An election law providing the acceptable proofs of voter identity, which are required to be presented at the polling place at the time the voter intends to cast a ballot (Hershey, 2009).

Researcher Position

I serve as a licensed attorney. As such, I seek, as required by oath, to uphold and defend the United States Constitution. The United States Constitution guarantees a republican form of government with ultimate authority resting with the people (U.S. Const., art. IV, § 4). I believe accessible and transparent elections are essential to the fulfillment of the United States Constitution's guarantee.

I find civic republicanism a compelling political theory and worthy ideology for guiding political life. Republican traditions can be traced to Cicero and Aristotle, especially the belief that justice equals "the common good of the people" (Sellers, 2009, p. 187).

As civic republicanism evolved it became known for many key political concepts including the rule of law, an independent judiciary, representative government, and checks and balances to constrain power (Sellers, 2009). Civic republicanism was distinguished from liberalism by its advancement of freedom as non-domination guaranteed by structures derived from civic discourse and not from liberalism's notion of natural rights (Pettit, 2012; Pettit, 1997).

Many important works of civic republican political theory also emphasize the importance of civic participation and engagement. Machiavelli (1531/1979) called for an active citizenry willing to defend and maintain their government. Hannah Arendt (1958/2000) famously promoted the *vita activa*, or the active life in the public realm. Thus, consistent with this long tradition, I oppose restrictions on the citizenry's ability to fully engage in the public realm, including laws placing direct or indirect limitations on the right to vote.

I have concerns regarding the unintended consequences resulting from recent electoral reforms. Such concerns include the barrier to voting resulting from the increase in costs needed to participate and the burdens which reduce citizen willingness to serve as poll workers, thereby further eroding participation in the electoral process.

As a political scientist, I desired to learn more about these phenomena in a careful, unbiased, and objective manner. Only after such an analysis could my concerns related to recent electoral reforms be properly assessed.

Summary

This chapter described the problems associated with recent electoral reforms at the polling place. I emphasized the potential harm to election administration. This chapter also explained the study's purpose and significance. In addition, the study's research questions and associated hypotheses, which are further explained in Chapter Two, were provided. Moreover, this chapter defined the key terms used in this study.

Also described were the assumptions underlying this work. This chapter noted the decline in civic participation was well established in previous scholarly work, and election administration practices have grown more consistent among states since the 2000 presidential

election due to the increasing involvement of the federal government. Lastly, I shared my position with the reader.

CHAPTER II

LITERATURE REVIEW

This study provides an improved understanding of how poll workers are affected by recent electoral reforms at the polling place. Unintended consequences resulting from recent electoral reforms harm election administration, which in recent times has seen more jurisdictions having greater difficulty in recruiting and retaining enough poll workers. This literature review explains the role of the poll worker and describes the recent electoral reforms. Further, this review describes the relevant literature and theories informing this study.

Literature Review Introduction

This literature review has five sections. First, this literature review begins with the context behind the research problem. This section provides the limited information currently known about poll workers in the United States. The section also discusses vote-by-mail systems and explains why these systems are unlikely to replace the need for poll workers in most jurisdictions. Next, this section describes the recent electoral reforms, emphasizing the policy objectives their supporters had for the reforms and some of the concerns expressed about each reform.

The second section provides information on the method used to prepare this literature review. This section includes information on how journal articles were selected for inclusion in this review. Also, the number of articles used in this review can be found in this section.

The third section provides the results from a systematic review of the relevant literature. This section shares major works from the public participation literature. Included are significant works related to key attitudes found to motivate individuals to engage in political activity.

This section also describes bureaucratic theory, which informs many aspects of this

study, including how to understand the important job of a poll worker. More specifically, given their relevance to the nature of a poll worker's duties, this section focuses on the political control of bureaucracy theories, which include client responsiveness theory and principal-agent theory (Frederickson, Smith, Larimer, & Licari, 2012).

This section also addresses stress and coping theory, including the related concepts of anxiety and burnout. Here, a definition of each concept as used in the relevant literature can be found. This section explains the health outcomes identified in the related literature. Further, popular stress models are described. Moreover, this section provides a justification for applying stress and coping theory to a public administration context, which includes election administration.

After the results of the literature review, the fourth section applies the relevant literature and theories included in this review to the research problem. More specifically, this section provides a discussion and conceptual framework, which synthesizes the many concepts from the separate literature areas into a new way of looking at the relationship between recent electoral reforms at the polling place and poll workers. This section also includes a list of the hypotheses tested in this study, which were first introduced in Chapter One, Introduction, but this chapter takes an extra step by explaining how the relevant literature and theories informed them. Lastly, the fifth section makes the case for this study's contribution to the field, with academic, practice, and policy implications.

Context for Research Problem

Poll Workers

The United States utilizes about 1.4 million poll workers for an election (EAC, 2007). Poll workers are important to election administration. Poll workers are often responsible for

preparing, maintaining, and closing polling places. In addition, poll workers guide voters through the Election Day process and make the initial determination as to whether a voter is eligible to cast a ballot. Poll workers also usually decide whether a voter must instead use a provisional ballot. How these responsibilities are executed could change election outcomes or voters' experiences (Hall et al., 2007).

Poll workers are typically recruited by election administrators, which are supervisory-level (managerial) members of a local government's bureaucracy usually answering to local elected officials or an election commission (Griffith, 2008). Weber (1922/1998) recognized bureaucratic organization embodies rationality and efficiency. Weber viewed the individual bureaucrat as "only a single cog" in the endeavor (p. 228). But, poll workers tend to be very different from Weber's view of the individual bureaucrat. Instead, poll workers are heavily influenced by their own values, abilities, and views about the role of elections. Since they work directly with voters at the street-level and at locations with little supervision, they tend to enjoy more freedom to make use of their own preferences (Maupin, 1993). Later in this review, the theories related to street-level bureaucrats informing this study will be discussed more fully.

In modern times poll workers are expected to do more than in the past (EAC, 2007). For example, under the Voting Rights Act of 1965 many jurisdictions are required to have bilingual poll workers. In addition, after the Help America Vote Act of 2002 (HAVA) increased demand exists for poll workers skilled in the use of computers (2007). But, the average age of poll workers is 72 (Drinkard, 2004), resulting in concern over whether current poll workers can meet the needs of contemporary elections.

In a 2006 survey, 72 percent of jurisdictions indicated they pay their poll workers. But, the survey found the average pay was just 57 dollars a day (EAC, 2007).

Vote-by-Mail Systems

A small number of states, most famously Washington and Oregon, have turned to all mail elections known as voting-by-mail systems (Berinsky, 2005). These systems remove the need for poll workers and thereby reduce costs. Further, proponents of vote-by-mail systems argue voter turnout will be improved if voting is made easier (2005). But, research demonstrated these well-intentioned reforms actually increased "the existing socioeconomic biases in the composition of the electorate" (p. 472). For example, one study using aggregate level data from three Oregon counties found voting by mail failed to increase turnout among minority and rural voters (2005). Given such reported unintended consequences, all mail electoral reform has yet to become a preferred solution to improving voter turnout, and the need for poll workers will continue to exist in most states.

Recent Electoral Reforms

After the 2000 presidential election, the United States Congress reformed federal elections by passing HAVA. HAVA modernized federal elections by providing funding for new voting systems, establishing the EAC, and mandating reform of state election processes (Herrnson et al., 2008). HAVA, however, did not preempt the field, allowing states to impose other electoral reforms (Griffith, 2008).

Voter identification. HAVA required first-time voters who register by mail to provide identification before they cast a ballot in elections involving candidates for federal office. HAVA provided a broad list of acceptable identification, including a current and valid photo identification or a copy of a current utility bill, bank statement, paycheck, or a government document with the voter's name and address. But, as noted previously, HAVA did not preempt

the field. As such, many states imposed even stricter identification requirements on voters at the polling place (Griffith, 2008).

State proliferation. The stringency of voter identification requirements for all voters at the polling place varies by state. Some states do not require any voter identification at the polling place, others require non-photo identification, and others require photo identification (Wang, 2012). Indiana seized the opportunity afforded by HAVA, and in 2005 its legislature passed a law requiring any voter to present valid, unexpired photo identification at the polling place (Griffith, 2008). Indiana's statute became the strictest in the country (Williams, 2008).

Requiring photo identification appears to many to be a reasonable way to prevent voter fraud (Williams, 2008). During federal litigation, however, Indiana was "unable to point to a single instance of in-person voter fraud in Indiana's history" (p. 383). Rather than prevent fraud, the Republican dominated Indiana legislature passed the law merely to discourage Democrats from voting (2008). Williams explained, "Elections are sometimes won by a margin of only a few votes. If the law keeps even a few Democratic voters from voting, it might swing a few elections to the Republicans" (p. 384).

As of July 1, 2014, Virginia (VA) has a strict photo identification law requiring every voter to provide an acceptable identification having a photograph (National Conference of State Legislatures [NCSL], 2015a). However, a similar effort to impose voter identification requirements failed in Pennsylvania (PA). PA enacted a voter identification law (Act 18) (PA Election Code – Omnibus Amendments, 2012). But, in January 2014 the PA Commonwealth Court struck down Act 18, noting the law constituted a "substantial threat" to voting (*Applewhite et al. v. Commonwealth of PA*, 2014).

Partisanship. Empirical evidence by political scientists supports the argument

partisanship was the motive behind the expansion of voter identification laws. Bentele and O'Brien (2013) found states with Republican Party control passed more restrictive voting requirements. For the study, dependent variables reflected proposed and passed voter restriction legislation by state legislatures between 2006 and 2011. A key independent variable was related to Republican Party control. In assessing the amount of control in a state, the researchers determined whether the Republican Party had a majority in the state legislature, held the Governorship, and whether a divided government existed. Other independent variables related to national electoral competitiveness, minority turnout, perceptions of voter fraud, and demographics (percent of African Americans, percent of non-citizens, and percent over age 65). The study also controlled for per capita state revenues (2013).

The study revealed a state with Republican Party control was even more likely to enact restrictive voting requirements when its population of African-American residents was high and its competitiveness in national elections was high (Bentele & O'Brien, 2013). The inclusion of additional control variables related to education, income, and gender would reduce the risk of spuriousness. Even so, the study makes a significant contribution toward our understanding of the causes for the rapid expansion of voter identification requirements across the nation. The evidence shows "the emergence and passage of restrictive voter access legislation is unambiguously a highly partisan affair" (p. 1103).

High Court approval. In *Crawford v. Marion County Election Board*, 553 U.S. 181 (2008), the United States Supreme Court upheld Indiana's voter identification law by a six to three vote. In determining the constitutionality of the law, the Court weighed the evidence to determine if the burden on the voter was greater than the state interest. But, since neither side presented much persuasive evidence, the majority chose to presume the state statute was

constitutional (Williams, 2008). Justice Souter's dissenting opinion noted studies existed demonstrating the burdens of the voter identification requirement would be greater on racial minorities. Nonetheless, the majority did not consider such studies as persuasive evidence sufficient to meet the challenger's burden (*Crawford v. Marion County Election Board*, 2008).

After *Crawford*, the number of states enacting voter identification requirements greatly increased. By 2014 the number of states having some form of voter identification requirement at the polling place expanded to 32 states, with 16 states requiring photo identification. As stated previously, the VA legislature strengthened their existing voter identification law by requiring photo identification for all voters (NCSL, 2015a).

Concerns. There are many known problems with voter identification requirements. If such requirements continue to expand across the nation, it was estimated some 20 million Americans could be disenfranchised (Overton, 2007). Strong evidence shows a strict voter identification requirement substantially affects lower income, minority, and elderly voters (Barreto et al., 2009). Such requirements were also found to negatively impact the lesser educated (Hershey, 2009).

Implementation of voter identification requirements by poll workers has an impact on voters' experiences at the polls. Claassen et al. (2008) used exit poll data to study voter reactions to poll workers in Summit and Franklin Counties, Ohio in November 2006. The study assessed voter experience with variables classified into four categories: physical condition of polling place, interaction with poll workers, circumstances at the polling place, and demographic information to control for prior expectations voters may bring with them to the polling place. The circumstances at the polling place include the time it took to vote, whether the voter reported any problems with the ballot, whether the voter had problems with the ballot counter, whether the

voter thought the machine was confusing, and the existence or absence of privacy. Demographic controls included sex, race, party identification, age, education, income, and marital status. Also, knowing the poll worker and the frequency of internet usage were included as they could be expected to affect a voter's experience. In the category of interaction with poll workers were questions regarding whether a voter was asked for identification, whether the voter's identification was rejected, and whether the voter requested any assistance (2008).

With respect to voter identification, Claassen et al. (2008) found voters who interacted with a poll worker and had their identification accepted responded more favorably than those voters who did not interact with a poll worker. It was noted, however, negative effects were found when a poll worker rejected a voter's identification (2008).

Shortcomings in the study with respect to the impact of voter identification are significant. For example, there exists a need to learn if the negative effects also adversely impact the poll worker or could deter potential poll workers from serving. In addition, Claassen et al.'s findings with respect to voter identification would benefit from additional testing. First, more states are adopting more stringent forms of voter identification, including photo identification. Second, Claassen et al.'s study was limited to only two counties in Ohio.

Many poll workers are quite simply ill prepared to implement the voter identification requirements. Voter identification requirements require poll workers to undergo additional training with respect to what constitutes acceptable identification, how to determine its validity, and how to operate any necessary equipment (Agraharkar, Weiser, & Skaggs, 2011). But, Hall et al. (2007) noted wide variation in training opportunities for poll workers exists between jurisdictions. Further, Hall et al. observed, "older poll workers are more likely to have concerns about the training and the new technology" (p. 648).

Voter identification requirements also put poll workers into a quasi-law enforcement role, which is not a good fit with their work. The false identification problem must be considered. Mark Kleiman (2002) pointed out the availability of fake driver's licenses on the internet, and the common use of fake driver's license by college students. The average poll worker lacks the training needed to detect a well-made fake identification. Further, legal authority exists to support an argument that demanding identification constitutes a search invoking constitutional questions under the Fourth Amendment (Smith & Sobel, 2009).

Voter identification requirements also increase costs for state and local governments, which are responsible for financing elections. Since many voters will be disenfranchised, litigation costs are likely to grow (Sobel, 2014). Also, outreach programs to educate the public about the requirements are costly. In VA, the State Board of Elections set aside $200,000 per year for outreach efforts (Schmidt, 2013).

Another serious problem with the implementation of the voter identification requirement are unsupportive election administrators. Many election administrators opposed the voter identification requirement when it was first introduced in HAVA because it would place them at odds with some voters, which was expected to create unwanted potential conflicts (Palazzolo & McCarthy, 2005).

Political and legal opposition. For those seeking relief from the burdens imposed by the voter identification requirements, there are some rays of hope. On the political front, civil rights groups are encouraging the United States Congress to expand suffrage. On the legal front, the United States Department of Justice actively challenged the states imposing new voting restrictions (Seidenberg, 2014). Moreover, there are indications views may be changing in the federal judiciary.

While not expressly stated in the United States Supreme Court's majority opinion in *Crawford*, the Court likely afforded great deference to the views of Judge Richard Posner of the United States Circuit Court of Appeals, 7th Circuit (in Chicago), who in 2007 decided to uphold the Indiana law (Weiss, 2013). Judge Posner can be described as a legal giant, with a solid reputation as a jurist and legal scholar (Bodine, 2012). But, recently, Posner expressed some doubt regarding his 2007 decision given the lack of evidence available at the time and his lack of expertise in election matters, which are predominately state controlled (Posner, 2013). Posner explained, ". . . I could not be confident [the 2007 decision] was right, since I am one of the judges who doesn't understand the electoral process sufficiently well to be able to gauge the consequences of decisions dealing with that process" (2013). With increasing statements in opposition to voter identification requirements from influential federal jurists and legal scholars, such as the esteemed Judge Posner, the High Court may become more receptive to future challenges that are well-argued and present a strong factual record of disparate treatment of voters.

National data. An analysis of the EAC's 2008 and 2010 Election Administration and Voting Surveys suggests a relationship exists between voter identification requirements and poll worker stress. Figure 1 shows in the 2008 EAC survey, of those election administrators responding it was very difficult to recruit poll workers, twice as many were from states having voter identification laws. Figure 2 shows that in the 2010 EAC survey, of those election administrators responding it was very difficult to recruit poll workers, all but one state (Maine) had voter identification laws. While the EAC survey data does not establish causality, it suggests further study of the relationship between voter identification requirements and poll workers would be helpful to our understanding of election administration.

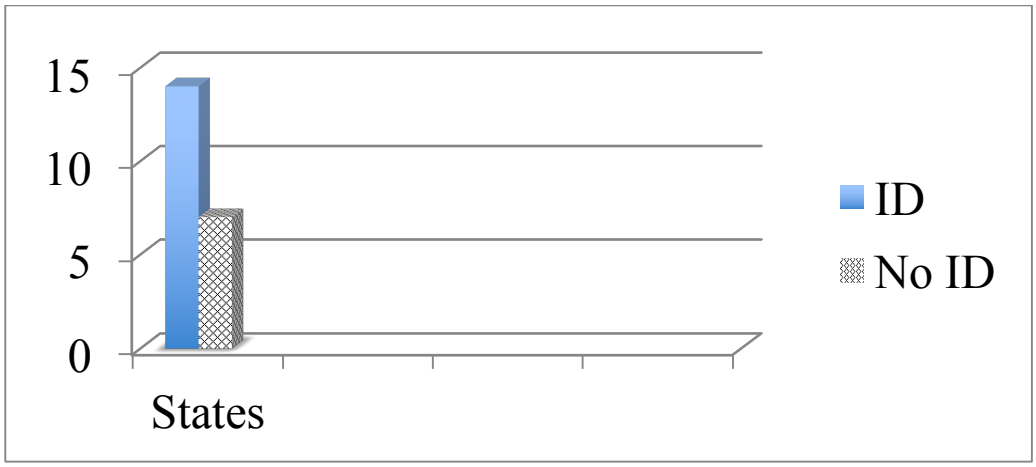

Figure 1. 2008 EAC Election Administration and Voting Survey. Of all 50 states, states indicating it was very difficult to recruit poll workers.

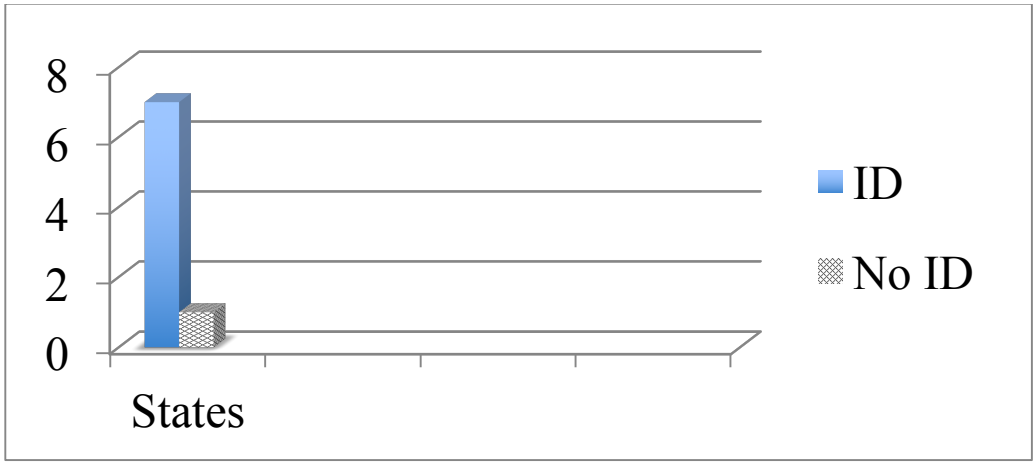

Figure 2. 2010 EAC Election Administration and Voting Survey. Of all 50 states, states indicating it was very difficult to recruit poll workers.

IPEV. Following voting models based on rational choice theory, which posit a reduction in the cost of voting can improve turnout (e.g., Downs, 1957; Riker & Ordeshook, 1968), supporters of this reform had high hopes for improving turnout by making voting more convenient by offering opportunities to vote prior to Election Day (Rigby & Springer, 2011). These opportunities often take the form of early voting centers, which are usually placed in convenient locations "such as supermarkets and post offices" (Berinsky, 2005, p. 474).

Early voting proved to be a popular reform. In total, 33 states and the District of

Columbia (DC) have adopted this reform (NCSL, 2015a). In 1987, Texas was the first state to allow voters to cast their ballots in-person prior to Election Day. After the enactment of HAVA, many other states took advantage of a favorable political climate to implement their own early voting reforms (Griffith, 2008).

In 2010, Maryland (MD) implemented IPEV. In 2013, MD expanded the required number of early voting centers and increased the number of days prior to an election in which local election officials could conduct early voting operations ("Early voting," 2015).

In 2013, the New Jersey (NJ) legislature passed a bill that would have provided for early voting two weeks prior to Election Day. However, Governor Christie vetoed the bill, expressing concern over the increased costs of early voting (Whitaker, 2013).

Registered voters tend to look upon early voting positively (Griffith, 2008). After the reform, many states saw at least 10 to 20 percent of the voters taking advantage of the opportunity to cast their ballots early. The greater convenience afforded by early voting has led major interest groups, including Common Cause and the American Association of Retired Persons (AARP), to publicly support the reform (2008).

But, while this reform may have improved the convenience of voting for those citizens already politically engaged, evidence shows it has not significantly increased new voters (Berinsky, 2005). Nonetheless, election administrators must still staff the early voting centers with either additional poll workers or extend the days and hours worked by existing poll workers.

EDR. This reform is also known as same day registration. Similar to IPEV, in an effort to increase voter turnout by reducing the costs of voting for individuals by making voting more convenient some states now permit eligible citizens to register to vote at the polling place the same day they cast a ballot (Hanmer, 2009). "Though few expected to jump to the top,

expectations were high that registration reforms could remove the United States from its status as a bottom dweller in the international [voter] turnout rankings" (p. 15).

In 1973, Minnesota was the first state to adopt EDR (Hanmer, 2009). Maine and Wisconsin soon followed. The evidence suggests these states were primarily motivated to adopt the reform by a desire to increase participation. There were, however, some states that chose to adopt EDR to primarily achieve an exemption from the federal National Voter Registration Act of 1993 and its more burdensome paperwork. These states included Wyoming, New Hampshire, and Idaho. Although local officials expressed satisfaction with avoiding the federal law's more onerous administrative requirements, evidence demonstrated the political context for EDR's adoption did not result in any diminished effort in their implementation of EDR (2009).

In MD, as of January 2016, individuals that provide proof of residency may register and vote on the same day during the early voting period. However, the MD same day registration reform is not applicable on Election Day (Same Day Registration, 2016). MD Governor Martin O'Malley supported the reform to improve voter turnout and "as a counterpoint to voter-identification laws passed in more conservative states" (Hill, 2013).

This reform produced little benefit in making voting easier. Unlike in other countries, this reform continues to place the burden to register on the citizen rather than the state. In addition, the evidence shows this reform has failed to produce substantial improvement in the voter turnout rate (Hanmer, 2009).

Despite the reform's marginal benefit, poll workers are still either tasked with completing the necessary process or directing voters to other staff. Also, in some jurisdictions additional voting places are established to reduce wait times for those voters already registered (Griffith,

2008). In these cases, election administrators are burdened by the need for even more skilled poll workers.

Literature Review Method

This literature review employs a narrative synthesis. A narrative synthesis describes the literature in thematic groupings rather than presenting each individual study. This approach can be the best choice when reviewing studies having quantitative data and using survey methodology (Booth, Papaioannou, & Sutton, 2012).

Each thematic grouping in the literature review's results includes the important works and the relevant, known information about the topic. Moreover, related articles from academic journals were systematically examined to assess the quality of each body of literature under each thematic grouping.

Each journal article used in this review was subjected to a quality assessment. Articles were published in peer-reviewed journals. Also, articles were assessed to see if research questions or hypotheses were clearly stated; strong literature reviews were provided; study designs were adequately explained; sample sizes were acceptable; variables were explained; rival causal factors were controlled; and data analysis methods and results were adequately reported. Moreover, articles were viewed more favorably during the assessment when they included measures of key theoretical concepts. The systematic assessment revealed significant shortcomings and gaps in the literature (Booth et al., 2012). These problems are reported within each thematic grouping in this literature review's results.

In total, this literature review systematically assessed 286 journal articles. More specifically, these journal articles included 54 articles related to political participation, 61 articles related to client responsiveness theory, 53 articles related to principal-agent theory, and 118

articles related to stress and coping theory. The journal articles related to stress and coping theory included 46 stress articles, 18 anxiety articles, and 54 burnout articles.

Literature Review Results

Political Participation

Scholars have extensively studied political participation in its many forms advancing many theories of political behavior. Some of these forms include voting, lobbying, volunteering for campaigns, running for public office, protesting, boycotting, and, in more recent times, using the internet and social media to further political objectives (e.g., Schlozman, Verba, & Brady, 2010; Lipsky, 1968).

An active citizenry maintains the health of a democracy (Almond & Verba, 1965). Engaged citizens prevent abuses by elected representatives (Christensen, 2012).

In a seminal work, Campbell, Converse, Miller, and Stokes (1960) argued legal limitations restrict the scope of political participation. The authors accepted V.O. Key's concern that election laws are often "…intended for no other purpose than to insure the supremacy of the temporary dominant party" (p. 267). Even if such laws fail to achieve such a purpose, Campbell et al.'s work demonstrated such limitations on participation makes a difference in election outcomes (1960).

Rosenstone and Hansen (1993) famously used cross-sectional and time-series data to show the importance of mobilization in understanding political participation. The authors also concluded less public participation goes along with more political inequality. Political participation tells us more about a particular political system and the priorities of its leaders than it does about the typical citizen (1993).

In another seminal work, Verba, Schlozman, and Brady (1995) introduced the Civic

Voluntarism Model, which posits resources such as time, money, and skills are required for political participation. The origins of such resources were traced back to the involvement of individuals in major social institutions such as the family, school, workplace, voluntary associations, and religious institutions (1995). "[S]ocially structured circumstances and the constrained choices . . . affect the stockpile of time, money, and civic skills available for politics" (p. 271). A concern then arises if individuals choose or can only access other activities, either alone or in non-traditional organizations and groups, then they may not obtain the resources necessary for political engagement (1995).

Attitudes. Christensen (2012) theorized four attitudes were required for political participation by individuals: satisfaction with democracy, political trust, political interest, and internal political efficacy. Government bureaucrats were found to generally have higher levels of each of these attitudes than private citizens (Corey & Garand, 2002). A critical citizen who questions particular policy decisions or processes continues to have relatively adequate levels of these attitudes despite desiring some change and will continue to participate in the process. But, a disenchanted citizen has lost the requisite attitudes and may be more likely to avoid all political activities (2012).

Satisfaction with democracy. The measure for this attitude typically seeks to capture the individual's sense of satisfaction with how their democracy functions (Craig, Martinez, Gainous, & Kane, 2006). Participation scholars, however, have expressed concern with the usual single-item measure, which "can mean different things to different people" (Canache, Mondak, & Seligson, 2001, p. 525). For example, some see it as a positive feeling about the institutions currently administering elections (Bowler & Donovan, 2007). Others view it as an indication of the performance of the current government or regime (Bratton & Mattes, 2001).

Despite the measurement challenge, the literature has reported interesting findings related to this attitude. For example, a statistically significant relationship exists between economic factors and citizen satisfaction with democracy (Bratton & Mattes, 2001; Crow, 2010; Fails & Pierce, 2010; Kotzian, 2011). Also, a close relationship exists among satisfaction with democracy, social trust, and public confidence (Zmerli & Newton, 2008).

Political trust. Craig (1979) defined political trust as a perception government activity furthers the common good. Putnam (2000) argued trust peaked in 1964 and had since decreased. In the 1960s, the nation experienced the Vietnam War, Watergate, and the assassinations of President Kennedy and the Reverend Martin Luther King, Jr. Putnam argued such events increased distrust in American institutions resulting in less involvement in public life (2000).

The participation literature, however, shows political trust has a lower independent effect on political participation than might be expected. For example, Niemi, Craig, and Mattei (1991) found only a .15 correlation between political trust and political participation. Rosenstone and Hansen (1993) confirmed trust in government has declined, but the researchers found no evidence such feelings have had any impact on participation. Similarly, Teixeira (1992) rejected the claim a loss in political trust has resulted in declining voter turnout, stating such feelings "have *no significant, independent effect* on an individual's likelihood of voting" (p. 33) (emphasis in original).

Political interest. Christensen (2012) explained political interest involves awareness about politics. The literature shows individuals with lower political interest also tend to have less political efficacy and trust (Blasius & Thiessen, 2001).

Campbell et al. (1960) found interest to be a strong predictor of voting ($r = .77$). The researchers noted the public's greater interest in presidential races helps to explain why the

turnout is so much greater than in mid-term elections (1960). Verba et al. (1995) also found political interest to be important for predicting overall participation (r = .50), even more so than civic skills (r = .11), education (r = .13), family income (r = .05), or political information (r = .11).

Internal political efficacy. Wu (2003) described internal political efficacy as a subjective feeling an individual has about being able to make a difference in a political system. Feelings of efficacy influence a person's motivation to take some action (Eckstein, Noack, & Gniewosz, 2013). Bandura (1995) suggests having positive political experiences can improve one's internal political efficacy.

The literature provides some support for the claim efficacy can influence motivation. For example, Niemi et al. (1991) found a .40 correlation between internal political efficacy and political participation. Similarly, Vecchione and Caprara (2009) found a .46 correlation between political efficacy beliefs and political participation. While these correlations with participation are not as high as with political interest, they do show internal political efficacy is important to any model seeking to explain political participation.

Morrell (2003) expressed disappointment with the many measures for internal political efficacy used by contemporary political participation researchers, declaring there was "little coherence in the field" (p. 589). To promote better comparisons across studies, Morrell encouraged future researchers to use the four-item measure for internal political efficacy created by Niemi et al. (1991), which was first used in the 1987 American National Election Studies (ANES) Pilot Study (2003). Niemi et al. (1991) previously established the validity and reliability of the measure. Morrell confirmed Niemi et al.'s conclusions about the validity and reliability of the measure using an analysis of data from both the 1992 and 2000 ANES and an experiment

involving undergraduates who were given pretest and posttest surveys (2003). Morrell concluded the measure's consistency using different methods "indicates just how good the measure is" (p. 589). More information about this measure will be provided in Chapter 3, Methodology.

Assessment. The participation literature rarely involved street-level bureaucrats. Only four percent of the journal articles reviewed made any mention of them. Instead, the literature predominantly focused on citizens' attitudes and behaviors. But, given the significant problems in election administration, a need exists for more study of street-level bureaucrats such as poll workers (e.g., Hall et al., 2007; Hall et al., 2009; EAC, 2004-2014).

Also, despite the importance of political interest and internal political efficacy to the motivation of individuals to participate in the political system, only 43 percent of the journal articles reviewed made any attempt to measure these attitudes. Only 13 percent of the journal articles reviewed included a conceptual or causal model. Moreover, only 61 percent of the journal articles reviewed controlled for rival causal factors.

As noted above, the participation literature has provided some helpful findings with respect to the attitudes motivating individuals to participate in the political system. There are, however, some significant shortcomings in the literature, but future work to overcome these weaknesses could produce some extremely valuable insights with respect to understanding political participation.

Bureaucratic Theory

Theories relating to the political control of bureaucracy are concerned with the bureaucracy following the law or elected officials (Frederickson et al., 2012). The dichotomy between politics and administration, which was formally expressed by Woodrow Wilson, is a central assumption of these theories. The dichotomy expects a difference to exist in the

objectives of elected officials and administrators (2012). Existing theories related to the political control of bureaucracy applying in a local government setting where poll workers operate include client responsiveness theory and principal-agent theory.

Client responsiveness theory. Bureaucrats who directly serve clients are expected to be service oriented (Frederickson et al., 2012). The priority tends to be meeting client needs rather than responding to political or policy demands. Naturally, such workers dislike any management acts perceived to be reducing their autonomy (2012).

Lipsky (2010) made a seminal contribution to this theory by more fully exploring how street-level bureaucrats respond to clients. Lipsky explained street-level bureaucrats often face work conditions having "ambiguous, vague, or conflicting" agency expectations (p. 27). Further, these work conditions regularly have inadequate resources. Under these conditions, street-level bureaucrats develop practices for saving resources. Practices such as screening, rubber-stamping, and referrals are commonly used (2010).

Lipsky (2010) also argued some street-level bureaucrats suffer alienation from their work because: (1) they only see a portion of the entire work product; (2) they lack control over outcomes; (3) they lack control over resources; and (4) they lack control over the work's pace. Lipsky warned such problems could lead to job dissatisfaction, harming the bureaucrat's desire to serve clients well (2010).

Justice norms also matter. Maynard-Moody, Musheno, and Kelly found street-level bureaucrats are more likely to use justice norms to resolve problems when three conditions exist: (1) they have enough control to resolve the dilemma; (2) the exercise of such discretion is encouraged; and (3) clients are viewed similarly by the work culture. Maynard-Moody et al.

claim when street-level bureaucrats are granted adequate discretion, acts resulting in greater fairness and justice for the citizen will be preferred (Frederickson et al., 2012).[1]

Despite the clear importance of adequate discretion, amount of resources, and the application of justice norms to this theory, only 15 percent of the articles reviewed made any attempt to measure these concepts. Also, the literature reviewed was predominately focused on the responsiveness of federal agencies, with only 15 percent of the articles reviewed having an interest in street-level bureaucrats. This was surprising given the theory's most prominent works mentioned earlier focused on the street-level bureaucrat. But, a reason for the preference toward studying federal agencies may be the increased availability of secondary data.

In any event, a clear need exists for more study of street-level bureaucrats. Such research should include the development and application of measures for the concepts central to the client responsiveness theory.

Principal-agent theory. The theory posits bureaucracies are a challenge to control as bureaucrats have an advantage over politicians both in the information available and their level of expertise (Frederickson et al., 2012). Pursuant to this theory, it is expected "the bureaucracy hoards information (information asymmetry), seeks autonomy, and shirks" (p. 35).

Principal-agent problems are common in election administration. At the street-level, election administrators need to recruit candidates willing to obey their guidance. Alvarez and Hall (2006) found a large number of willing individuals were needed to avoid the adverse selection problem. Garnering a large number of individuals for selection as poll workers can be difficult. In fact, over 50 percent of jurisdictions nationwide had significant trouble recruiting

[1] Maynard-Moody, Musheno, and Kelly completed this National Science Foundation-funded study in 1995. These researchers' findings were unpublished but described by Frederickson et al. in 2012. However, the finding of where street-level bureaucrats have significant discretion, their individual views of justice effect the implementation of public policies was previously published (Kelly, 1994).

enough poll workers (2006). At a time of declining civic engagement and social capital, obtaining an adequate pool of potential workers will likely continue to be difficult (Putnam, 2000).

The principal-agent literature gave even less attention to street-level bureaucrats than did the client responsiveness literature. In fact, no study reviewed for this literature review used a street-level bureaucrat as an agent. Instead, most of the literature, like other bureaucratic theory literature, focused more on the federal government, especially on federal executive agencies and the United States Congress. The lack of attention on local government and street-level bureaucrats represents a gap in this literature.

The principal-agent literature was highly theory-driven, and there was limited use of statistical procedures to test relationships. Only 29 percent of the studies reviewed used any statistical procedure to test relationships. Thus, additional testing of the theoretical concepts related to the principal-agent relationship would be beneficial.

Stress and Coping Theory

Life can be difficult, and difficulties can sometimes overwhelm an individual. Scholars sought an explanation for this troubling problem. Selye (1956) conducted experiments studying changes in laboratory animals. Afterwards, greater scholarly interest in understanding stress processes in humans developed. Holmes and Rahe (1967) highlighted the role of major life events. Thereafter, even more researchers began to explore stress and its impact on individuals.

Defining stress. Thoits (1995) described stress as a "physiological or emotional arousal" (p. 54). An individual experiences stress from within; it is an internal phenomenon (Aneshensel, 1992). Importantly, stress results from the difference between the current situation and an ideal

situation (Edwards, 1992). Further, stress can be described as a process involving stressors (inputs), coping, and outcomes (Pearlin, 1989).

Some stress can be positive such as when it motivates the individual to accomplish good objectives. But, stress can also be negative if it stems from a toxic encounter. The literature refers to this latter type of stress as distress (Sarros, 1988).

Stressors. An important component of the stress process, stressors are defined as anything diminishing ideal situations (Spector, 2002). Aneshensel (1992) notes stressors are external to the individual. Much of the stress research focuses on significant events changing individuals' lives, but more researchers are increasingly considering the effect of ongoing problems in everyday living (1992).

Eighty percent of the examined studies related to stressors used survey methodology, but 40 percent of those studies used inadequate sample sizes. One study, however, used data from interviews conducted at three different times with a large sample (more than 1,000 respondents) (Lin & Ensel, 1989).

Surprisingly, only 49 percent of the examined studies made any attempt to control for rival causal factors. The existence of potential spuriousness prevents causal claims, diminishing confidence in the true impact of the identified stressors in many of the studies.

Representativeness appears to be an issue in some of the studies related to stressors. For example, Marotz-Baden and Mattheis (1994) intended to study daughters-in-law in farm families. But, the researchers' sample included only 64 percent of respondents being raised on a farm, and only 77 percent were actually living on a farm when the study was conducted (1994). In another example, Peters et al. (2010) were concerned about the effect of lead and stress on

older men. However, the study used a cohort established by the Veterans Administration, which did not include lower socio-economic or non-veteran individuals (2010).

Moreover, funding bias should not be overlooked in Lin and Ensel's study. The study was funded with a grant from the National Institute of Mental Health (Lin & Ensel, 1989). During analysis, the researchers discovered social support, a buffer against stressors, was not directly affecting physical health, but they chose not to explore this finding any further. Instead, the researchers reported and greatly emphasized a positive finding of social support's ability to minimize mental harm (1989). This emphasis appeared influenced by the funding source.

Coping. Seventy percent of the stress studies reviewed included some notion of coping. According to Aneshensel (1992), to head off the harm caused by stressors, individuals use coping strategies. Coping may include removal of stressors, avoidance of stressors, changing the interpretation of the situation, or employing ways to control the feelings of arousal (1992). Ineffective coping, however, will not alleviate the stress (Weber & Laux, 1990). In fact, Lazarus (1990) argued, "it is artificial to measure stress independent of coping" (p. 11). But, despite its importance to understanding the true impact of stress, only two studies reviewed included a variable related to coping in the data analysis.

Replication of findings appears to be a shortcoming in the literature related to coping. Early studies established coping as an important element in the stress process (Thoits, 1995). But, the more recent studies reviewed involved a variety of different contexts, which provided an ideal opportunity to test whether earlier findings hold with different times and populations. These recent studies, however, failed to take advantage of that opportunity.

Another concern involves the unclear meaning of an outlier result in the study conducted by Littman et al. (2006). The only variable related to coping was called *ability to handle stress*,

and it did not correlate well with their comparison stress measures for life changing events. Although this finding appears much worse than what can be found in the rest of the coping literature, there was no explanation provided by the researchers other than an acknowledgement their sample of mostly college graduates may not be representative of other populations (2006).

Like the literature on stressors, the coping literature exhibited representativeness problems. The two studies actually using a coping variable had samples comprised mostly of higher income individuals. However, an important theme throughout much of the coping literature highlights the fewer coping resources available to lower socio-economic individuals (Thoits, 1995; Aneshensel, 1992). As such, an impaired ability to generalize the reviewed studies to wider populations exists.

Sense of control. Many studies noted having a feeling of control over a situation helps tremendously. These studies consistently found a sense of control diminishes the harmful effects of stress. When a sense of control exists, the individual is less likely to see a condition as a stressor. Also, when a sense of control exists, the individual will be more likely to choose a positive coping strategy (Spector, 2002; Aneshensel, 1992). "Individuals who perceive they have control over job stressors are likely to see the situation as a challenge to be overcome" (Spector, 2002, p. 135). The majority of studies related to sense of control used telephone surveys. All the surveys reviewed used an adequate sample size.

A concern with the sense of control literature involves researcher effects, which may exist when the researcher applies personal preferences (Booth et al., 2012). Ross (1991) concluded married females have a lower sense of control over their lives than non-married females or males of any status. But, in the discussion the researcher acknowledged marriage could result in higher household incomes, which can greatly increase a sense of control. Only

after income was controlled did the data reveal non-married females had a higher sense of control (1991). Moreover, the researcher effect seems most pronounced in the study's literature review. Ross's inclusion in the literature review of marriage as a resource involved only one paragraph, citing only one scholarly work as support. In contrast, the section in the literature review on marriage as unequal power extended over seven paragraphs, citing 14 scholarly sources.

Like the other stress literature, the sense of control literature suffers from a lack of representativeness. King and Schafer (1992) sought to determine whether a relationship existed between religiosity and perceived stress. The researchers collected data using telephone interviews with a good sample size of 698 adults from northern California, but they found their sample was not as religious as data for the nation showed (1992). Although not mentioned by the researchers, this finding, and limitation on the study's ability to generalize to other populations, seems obvious considering the study did not include any respondents from the South, a well-known highly religious region of the country.

Finally, an apparent area of weakness involves measurement of the sense of control. Most of the studies reviewed used a similar index of questions. The Cronbach's alpha for the index in one study was as low as .51. Two other studies had a better alpha of .68, but none of the studies had an alpha higher than a mere acceptable range. As such, a clear need for developing better measures exists, but also the literature would benefit from finding new approaches, besides a similar index of questions, for accurately assessing sense of control.

Burnout. Prolonged stress at work can cause feelings of being exhausted (Brenninkmeijer & Van Yperen, 2003). Burnout differs from stress generally since distress in the

workplace produces it (Sarros, 1988). “[B]urnout destroys and debilitates both the individual and the organisation [sic]” (p. 177).

Singh, Goolsby, and Rhoads (1994) explained workplace stressors associated with the felt distress act together to exceed a person’s coping resources and cause burnout, resulting in negative job outcomes (such as loss of performance and lower job satisfaction). But, an individual workplace stressor can also directly produce a negative job outcome. Burnout, however, was declared a better predictor than individual stressors for job outcomes since it was the product of multiple stressors. Thus, burnout mediates the relationship between multiple workplace stressors and job outcomes (1994).

Researchers noticed burnout commonly occurs in workers who deal directly with people and their problems. Specifically, burnout often plagues street-level bureaucrats such as teachers, police officers, social workers, and health care workers (Sarros, 1988; Cordes & Dougherty, 1993).

Leiter and Maslach (1988) found a moderate positive relationship (.58) between unpleasant contacts with supervisors and an employee’s emotional exhaustion. The authors further found such a relationship significantly reduces organizational commitment (1988). This study shows the importance of assessing for stress and burnout as a product of principal-agent relationships.

The burnout literature has notable strengths. First, the articles reviewed related to burnout included more longitudinal studies than the other stress literature. Second, a higher percentage of articles related to burnout included conceptual or causal models than were found in the other stress literature.

But, like the other stress literature, not enough effort was directed at controlling for rival

causal factors. Only 17 percent of the burnout articles reviewed included any attempt to control for rival causal factors. Also, 30 percent of the burnout articles reviewed failed to use an adequate sample size. A burnout article also used a sample selected for convenience, and another burnout article had a non-randomized sample.

Outcomes. Health studies have often found stressors and illnesses are linked by feelings of distress, comprised of depression and anxiety (Thoits, 1995).[2] When an individual finds the difference between their current situation and their ideal situation meaningful mental and physical harm could result (Edwards, 1992).

Thoits (2010) explained sociological work contributed to the study of stress by demonstrating a disparity in outcomes between social groups. Such work has shown those persons having lower socioeconomic status are more likely to experience distress and mental disorders and are exposed to greater disability and higher death rates (2010). Further, Pearlin (1989) encouraged researchers to consider the impact of social structures on individuals' mental and physical health.

Anxiety can be described as feelings of a future feared outcome (Creamer et al., 1995). Significant symptoms include impaired mental abilities, including poor memory, short attention, and lower satisfaction (Court et al., 2010). Other symptoms may include odd physical motions such as walking back and forth or repetitively squeezing one's hand or fist. Physical problems could also appear, which commonly include an upset stomach, perspiring, heart palpitations, and tense muscles (1995).

Researchers identified two kinds of anxiety known as trait anxiety and state anxiety

[2] The stress literature identifies depression as one of the dimensions of distress, with anxiety being the other dimension (Thoits, 1995). But, given the personal and environmental variables found in the context where poll workers serve the public, I expect anxiety to be a far more common outcome of the stress process than depression. Future research, however, could also assess the prevalence of depression among street-level bureaucrats.

(Creamer et al., 1995). Trait anxiety can be found in individuals who commonly suffer symptoms in many non-threatening experiences. Distributed among the population, this condition can be quite challenging to treat (1995). In contrast, state anxiety results from a particular experience and more often tends to be temporary (Gros, Simms, Antony, & McCabe, 2007).

Like the other stress literature, the anxiety journal articles reviewed rarely controlled for rival causal factors. Only 11 percent of the anxiety studies reviewed did so. Another problem was a lack of clear research questions or hypotheses, with only 11 percent of the anxiety studies providing them. Moreover, none of the anxiety articles reviewed included a conceptual or causal model.

Stress models. Stress researchers developed a number of stress models useful in an organizational context. Most of the stress models potentially helpful to this study rely on the appraisal or perception of stress by the individual worker. These models include: the cognitive psychological model (transactional model); outcome model; person-environment fit model; and the cybernetic model. In contrast, the demand/control model recognizes objectively real conditions in the workplace environment have an effect on outcomes, which can promote their correction regardless of worker appraisals or perceptions. The extent these models influenced this study will be addressed in the discussion and conceptual framework section at the end of this literature review.

Transactional model. Lazarus (1990) provided a model depicting the stress process. In its simplest form, the model shows a causal antecedent influenced by a mediating process having an immediate effect, which is then followed by a long-term effect (1990).

The causal antecedents included a number of personal and environmental variables. The

personal variables included the individual's values, beliefs, self-esteem, and sense of control. The environmental variables included demands, resources available, and constraints. According to the model, these variables are impacted by the person's appraisal and the coping techniques employed (Lazarus, 1990).

The immediate effect on the person includes a feeling of being impacted, physiological changes, and an encounter of poor quality. The long-term effects include psychological harm, physical illness, and diminished social function (Lazarus, 1990).

Outcome model. Pearlin, Aneshensel, and Leblanc (1997) produced a model showing how stress spreads until it results in depression. The model shows how a particular context will produce primary stressors, either objective in the form of demands or subjective in the form of feelings of overload. Primary stressors will then either lead directly to the outcome of depression or spread to secondary stressors, which include work strain and limitations on social or leisure time. Secondary stressors also will result in the outcome of depression (1997). The authors conceptualized stressors as "pathways to depression" (p. 233). In many respects, this model has much in common with the transactional model except it has a stronger emphasis on an outcome of the stress process.

The person-environment fit model. This model posits a good match between the person and the environment will help to reduce stress (Harrison, 1978). Many studies using this model attempt to measure a person's fit to their environment based upon only a small number of factors, which often fails to adequately capture the sources of stress (Edwards & Cooper, 1990).

Cybernetic model. This model emphasizes control and a feedback loop (Edwards, 1992). The typical cybernetic model posits inputs from the work environment will be received and assessed by the worker based upon a set of standards. Any difference between a worker's

perceived status and their preferred status will result in outputs intended to ameliorate the difference. The effect of outputs may result in organizational change (1992).

Demand/control model. Developed by Karasek (1979), this model posits a high degree of control combined with a high amount of demands will result in learning and motivation to change behavior, but a worker having low levels of control faced with a high amount of demands will experience higher strain and risk physical illness (Karasek, 2011). A worker's perceived amount of control was found to be more important than the objective reality (Perrewe & Ganster, 1989).

Landsbergis (1988) found only partial support for the model. The researcher found worker accomplishment was significantly related with control but not with job demands. This study, however, did find associations between work factors, worker accomplishment, and burnout (1988).

Stress measures. Stress researchers sometimes feel frustration at the challenge in locating accurate stress measures (Shirom & Mayer, 1993; Lazarus, 1990). Much of the literature has sought to quantify the amount of stressors (such as the number of major life changing events) or sought to measure the outcomes (Littman et al., 2006). But, measuring the existence of stress and its potential causes could actually prove more beneficial for administrators and policy makers.

***Stress variables*.** Some researchers have approached the challenge of measuring stress by creating variables meant to capture its existence. While such variables do not capture all aspects of the stress felt by individuals, the presence of many of them gives a strong indication of the stress an individual may be experiencing. These variables are typically drawn from concepts in

the literature or taken from the study's context (e.g., Shirom & Mayer, 1993; Mapp & Hudson, 1997).

Shirom and Mayer (1993) studied the stress experienced by high school teachers. Given the lack of available stress measures related to the environment and demands experienced by teachers, the researchers carefully constructed stress variables. The variables included *heterogeneity of classes*, *disciplining students*, *home-work conflict*, *physical conditions*, *extracurricular activities*, *parent-teacher conflict*, *teacher-principal conflict*, and *overload*. A survey questionnaire was prepared with most of the variables measured using Likert scales. All the variables except *overload* were constructed after receiving input from high school teachers. In contrast, *overload* was a variable found in the stress literature, which the researchers felt was relevant to the education context (1993).

Mapp and Hudson (1997) also used stress variables to quantify the stress among parents of deaf children. The variables chosen from the context included *parent or family problems*, *child characteristics*, and *physical incapacitation* (1997).

Perceived Stress Scale. The Perceived Stress Scale was designed to assess how stressed an individual feels overall. Rather than assess feelings of stress immediately after a stressful life event, the Scale gives a measure of an individual's feelings of total stress (Cohen, Kamarck, & Mermelstein, 1983). Unlike other efforts to capture stress levels over longer periods (Lazarus, 1990), the Scale assesses the individual's stress experience in only the past month (1983). This attribute of the Scale makes it an ideal objective measure in a limited context such as this study's execution around a single election. After all, the experiences associated with the election would likely be the most stressful events during the past month for many of the participating poll workers. Using a measure sensitive to a longer time frame would risk greater influences from

other stressful events. More information regarding the Scale, including its reported reliability and validity, will be discussed in the next chapter regarding the study's methodology.

A variety of studies have effectively used the Perceived Stress Scale as a measure of individuals' overall sense of stress. Cohen, one of the Scale's creators, and Williamson (1988) sought to assess the Scale's quality in relation to other measures. The researchers used data from a probability sample of adults within the United States, which was collected using telephone interviews conducted by Louis Harris and Associates. The large sample included 2,387 respondents. In addition to the Scale, respondents were asked questions related to their illnesses, use of health services, health behaviors, life satisfaction, desire to seek help, and demographic questions, including questions about household composition, income, marital status, and employment. The Scale was a good predictor of overall stress. The Scale was correlated with other stress measures and health behaviors expected to cause poor health, including lack of sleep; not eating breakfast; increase in use of cigarettes, drugs, and alcohol; and lack of exercise (1988).

Wilson, Larson, and Stone (1993) used the Scale as a measure of their dependent variable *overall perceived stress*. The researchers were interested in assessing stress felt by job insecure workers and their spouses. It was hypothesized perceived stress was the outcome of personal, well-being, and problem influences. Personal influences included one's spouse and age; well-being influences involved emotional well-being and physical health; and problem influences included job stress and marriage or family problems. The researchers surveyed a random sample of 150 faculty and staff at a university. A few weeks prior to the study, the university had announced significant budget cuts would be forthcoming. Using multiple regression, the researchers found each of the independent variables except a worker's spouse were statistically significant sources of stress in those facing job insecurity (1993).

Hoge, Shields, and Soroka (1993) used the Scale to assess the overall levels of stress felt by Catholic priests. The Scale was included in an 11-page questionnaire mailed to a random sample of 50 priests in each of the 18 dioceses located in the United States. Two dioceses were used from each of the nine census regions, with one diocese having the highest percentage of Catholics in the total population of the region and one diocese having the lowest percentage of Catholics in the total population of that region. The survey return rate was good at 57 percent. Using a regression analysis, the study found younger priests were subject to greater stress levels. The authors noted older priests seemed to employ more effective coping strategies to deal with stress. Nonetheless, the study found work overload, more responsibility, and time constraints were real stressors for priests (1993).

More recently, the Scale was used as a measure of overall stress in cross sectional studies involving a farm family (Marotz-Baden & Mattheis, 1994), South African adults (Hamad, Fernald, Karlan, & Zinman, 2008), and early adolescents (Carlozzi et al., 2010). The Scale was also used in a longitudinal study of older men (Peters et al., 2010).

The Scale was also used in an economic study. Cattaneo, Galiani, Gertler, Martinez, and Titiunik (2009) used the Scale to assess the stress levels of mothers with young children less than six years in age. This assessment was part of a larger study directed at determining whether a Mexican program upgrading dirt floors with cement floors resulted in greater health and happiness. The study employed both treatment and control groups, with similar demographic and housing characteristics prior to the program's application in the treatment group. Using regression analysis, the study found stress scores were significantly less in the treatment group after the program's application (2009).

I did not find a study using the Scale in a public administration context involving street-

level bureaucrats. But, the variety of contexts in which the Scale was successfully used as a measure of overall stress provides confidence in its effectiveness and validity.

State Anxiety Inventory. Spielberger (1983) developed a measure of state and trait anxiety. The original full-size measure consisted of 20 questions designed to assess state anxiety and 20 questions to assess trait anxiety. The measure proved extremely popular, appearing in thousands of studies and being translated into many languages (Gros et al., 2007).

The length of the original measure, however, was found to be burdensome for some respondents (Court et al., 2010). Even Spielberger suggested using only a 10-item state scale when time constraints exist (Abed & Hall, 2011). Marteau and Bekker (1992) produced an even shorter six-item version of the state anxiety scale. More information regarding the six-item state anxiety scale, including its reported reliability and validity, will be discussed in the next chapter regarding the study's methodology.

Maslach Burnout Inventory. The Maslach Burnout Inventory was developed as a measure of worker burnout (Golembiewski, Boudreau, Sun, & Luo, 1998). The complete inventory consists of subscales related to three dimensions. The subscales' three dimensions are depersonalization, personal accomplishment, and emotional exhaustion. The depersonalization subscale measures the worker's detachment from people and the viewing of people as something less than human. The personal accomplishment subscale assesses the worker's perception of their value and performance. The emotional exhaustion subscale measures the worker's feelings of being emotionally drained (1998). More information regarding the Scale, including its reported reliability and validity, will be discussed in the next chapter regarding the study's methodology.

This burnout measure was proven to be a useful predictor of a worker's desire to leave

their job (Maslach & Jackson, 1981). In a study of police officers, the measure was found to predict an officer's desire to leave the police force. Similarly, in a study of Social Security workers, higher burnout scores on the measure were correlated with a worker's expectation of leaving the agency within the near future (1981). As such, this measure has proven effective in assessing burnout among workers in street-level bureaucracies.

Importance to public administration. Much of the work related to stress and coping theory were developed by psychologists and occupational stress theorists. However, the importance of stress was not overlooked by Herbert Simon, a noted public administration scholar. Simon (1997) wrote stress was "a powerful emotional force that can divert behavior from the urgings of reason" (p. 138).

Also, the client responsiveness theory has much in common with stress and coping theory. The client responsiveness theory highlights the ideal situations for street-level bureaucrats. The client responsiveness theory posits that ideal situations for street-level bureaucrats such as poll workers are working in unambiguous work conditions, having adequate job resources, and having control over their work and the resolution of disputes (Lipsky 2010; Frederickson et al., 2012). Moreover, the client responsiveness theory identifies coping strategies used by street-level bureaucrats. Some of the coping strategies used by street-level bureaucrats are screening, rubber-stamping, and referrals (2010).

A lack of autonomy, such as results from a loss of control, represents a primary reason individuals choose to end their work (Wilson, 2000). For this reason, too much stress could make the recruitment and retention of poll workers more difficult for election administrators. Therefore, identifying the causes of stress for poll workers has importance for understanding both individual choice and how those choices impact public administration.

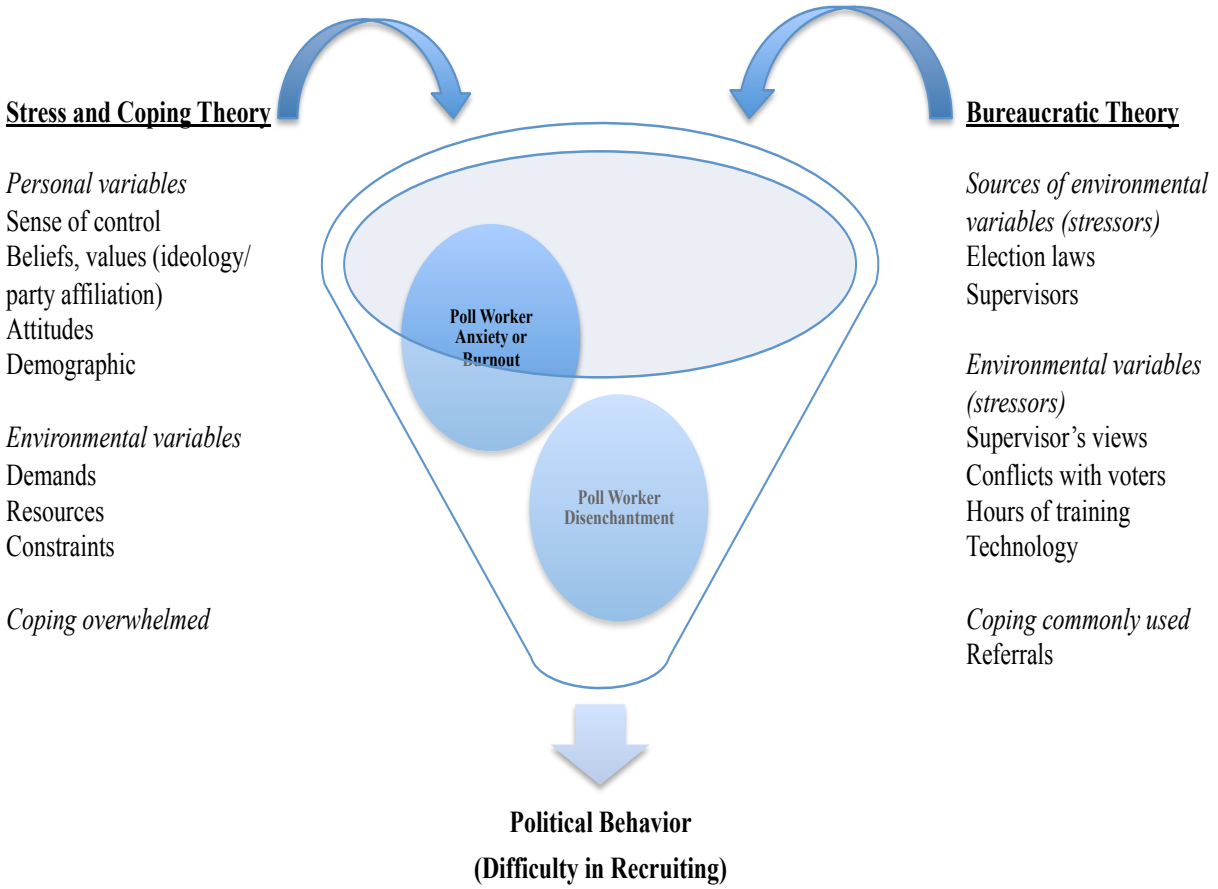

Figure 3. Theoretical framework.

Theories Applied to Research Problem

Discussion and Conceptual Framework

Theories related to political behavior, stress and coping theory, and bureaucratic theory provide a theoretical framework for understanding how recent electoral reforms may affect election administration outcomes related to poll workers. These theories inform this study's key variables and the measures for those variables.

Applying bureaucratic theory, the poll worker's status as a street-level bureaucrat becomes clear. With this status, the poll worker becomes capable of exercising greater control over the work environment and having the ability to apply both discretion and personal preferences because of the difficulty for election administrators to closely supervise their work.

Because election administrators are unable to closely supervise, some poll workers may initially be able to avoid some of the bad effects of the electoral reforms. But, since administrators are required to implement the state's election laws, their professional views may soon become at odds with their poll workers' views and more conflict may ensue.

Using stress and coping theory, the transactional model has significant advantages for establishing a framework for addressing this study's research questions. First, this model embraces a causal antecedent as necessary for the formation of stress. Second, this model presents a parsimonious approach to the study of stress, with just three important stages: causal antecedent, mediating process, and the effect (Lazarus, 1990). Third, concepts from a bureaucratic context can easily be integrated into this model. For example, the model would recognize the bureaucrat's values and preferences during the appraisal of potential stressors and recognize the importance of the coping strategies used by a street-level bureaucrat. Given these advantages, it was not surprising the model was used in another study assessing occupational stress with street-level bureaucrats (e.g., Beehr, Johnson, & Nieva, 1995).

The other stress models have helpful elements but are not as good of a fit for this research problem. The person-environment fit model tends to be more popular among organizational stress researchers than the transactional model, but it can be challenging to determine the attributes of a worker's personality (Karasek, 2011). Notably, existing bureaucratic theory provides little insight on the personality of street-level bureaucrats focusing instead on their work conditions and the coping mechanisms used. In addition, the more complex cybernetic model includes additional variables such as the opinions and beliefs of others in the workplace. These additional variables, however, do not fit well with the image of the street-level bureaucrat presented by bureaucratic theory, which posits street-level bureaucrats favor autonomy and are

more heavily influenced by their own preferences, not the preferences of others (Maupin, 1993). Moreover, while the demand/control model's recognition of objective problematic work conditions has appeal, the demand/control model requires the worker to have control over the stressor (2011). In contrast, this study expects the electoral reforms to establish work conditions poll workers cannot control. Thus, for the reasons stated above, the transactional model best informs this study.

Ultimately, stress and coping theory shows how electoral reforms diminish the ideal polling place situation for poll workers (Spector, 2002). The increase in stress, anxiety, and burnout resulting from recent electoral reforms comes at a time when citizen participation is lower (Putnam, 2000). Increasing stress and greater disenchantment makes the recruitment and retention of poll workers more difficult for election administrators. Figure 4 demonstrates the theorized relationship between recent electoral reforms at the polling place and election administration outcomes related to poll workers.

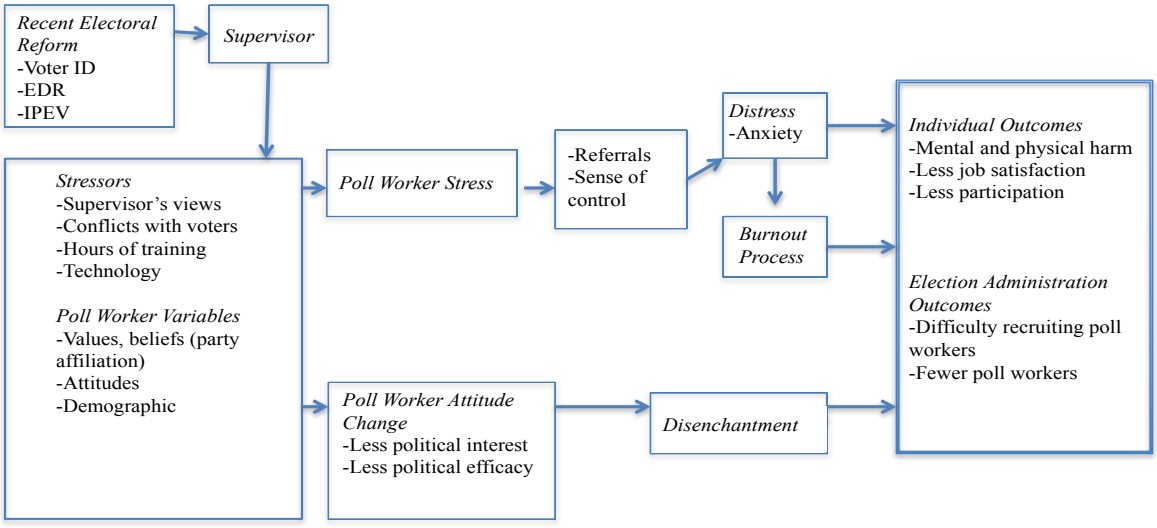

Figure 4. Conceptual framework.

Hypotheses

I assessed poll worker stress using stress variables identified from the relevant literature and theories. Poll workers in a state having recent electoral reforms at the polling place were expected to have a greater number of conflicts with voters; be required to undergo more training; be required to use more technologies; have less sense of control; and have views increasingly different from their supervisors. I also assessed poll worker stress using a measure of their overall perception of stress and the presence of the burnout process. The outcomes matter too as increased anxiety combined with growing disenchantment result in reduced participation. Thus, this study tested the following hypotheses:

Hypothesis 1: Poll workers in states with a recent electoral reform at the polling place have more conflicts with voters than poll workers in states without a recent electoral reform.

This hypothesis was inspired by Claassen et al.'s (2008) finding of negative effects when a poll worker rejected a voter's identification. Also, the stress literature used conflict as a stress variable (Shirom & Mayer, 1993). More conflicts with voters are expected in a state having a recent electoral reform at the polling place.

Hypothesis 2: Poll workers in states with a recent electoral reform at the polling place undergo a greater number of hours of training than poll workers in states without a recent electoral reform.

The dependent variable in this hypothesis was developed from the observation of increased poll worker training in the voter identification literature (e.g., Agraharkar et al., 2011). Also, given such training would likely be mandatory and beyond the control of the poll worker, stress and coping theory would suggest such training could be perceived by the poll worker as a

stressor. More hours of training for poll workers would be expected in a state having a recent electoral reform at the polling place.

Hypothesis 3: Poll workers in states with a recent electoral reform at the polling place are required to use more technology than poll workers in states without a recent electoral reform.

The dependent variable in this hypothesis was developed from the observation for the need to expand the use of new technologies in the voter identification literature (e.g., Agraharkar et al., 2011). Also, given the use of new equipment would likely be mandatory and beyond the control of the poll worker, stress and coping theory would suggest such new technologies could be perceived by the poll worker as a stressor. This may especially be true for older poll workers and less-educated poll workers who may not be as comfortable with computers. Similarly, under the client responsiveness theory poll workers may feel they have less control over their interaction with voters because of the mandatory use of new technologies. An increase in the use of new equipment by poll workers can be expected in a state having a recent electoral reform at the polling place.

Hypothesis 4: Poll workers in states with a recent electoral reform at the polling place disagree more with their supervisor's views than poll workers in states without a recent electoral reform.

This hypothesis was inspired by client responsiveness theory, stress and coping theory, and principal-agent theory. Specifically, Maynard-Moody et al.'s work found street-level bureaucrats tend toward the application of justice norms when their views are consistent with their supervisor's views (Frederickson et al., 2012). Both client responsiveness theory and stress and coping theory suggest poll workers will be negatively affected by a loss of control should

their supervisors have different views on the application of recent electoral reforms. Moreover, it is important for supervisors to have poll workers willing to obey their commands; should the intensity of difference be too great supervisors will need to recruit a larger amount of workers to overcome the adverse selection problem (Alvarez & Hall, 2006). It can be expected poll workers' views will differ more from their supervisors' views in a state having a recent electoral reform at the polling place.

Hypothesis 5: Poll workers in states with a recent electoral reform at the polling place experience less sense of control than poll workers in states without a recent electoral reform.

Stress and coping theory and principal-agent theory inspired this hypothesis. When a sense of control exists, an individual will be more likely to choose a positive coping strategy reducing the harmful effects of stressors (Spector, 2002; Aneshensel, 1992). Also, the transactional stress model includes sense of control as a personal variable (Lazarus, 1990). Principal-agent theory expects poll workers, as street-level bureaucrats, would desire autonomy. But, election administrators would be expected to seek greater control in their effort to carry out their responsibility to implement a new reform, and therefore workers willing to obey their guidance are needed (Frederickson et al. 2012).

An increased regulatory burden from a recent electoral reform and the associated implementation efforts by election administrators will likely reduce poll workers' sense of control. Thus, it can be expected poll workers will experience a decrease in their sense of control in states with a recent electoral reform.

Hypothesis 6: Poll workers in states with a recent electoral reform at the polling place use more referrals than poll workers in states without a recent electoral reform.

Client responsiveness theory inspired this hypothesis. When faced with more stressors,

less control, and diminishing resources, poll workers will likely turn to bureaucratic coping strategies, which will include the use of referrals (Lipsky, 2010). In a state with a recent electoral reform at the polling place it can be expected poll workers will use more referrals.

Hypothesis 7: Poll workers in states with a recent electoral reform at the polling place have a higher overall stress score as measured by the Perceived Stress Scale than poll workers in states without a recent electoral reform.

Stress and coping theory inspired this hypothesis. The dependent variable provides a global sense of the poll worker's feelings of stress within the past 30 days (Cohen et al., 1983). It can be expected poll workers will experience a higher feeling of overall stress in a state having a recent electoral reform at the polling place.

Hypothesis 8: Poll workers in states with a recent electoral reform at the polling place have a higher anxiety score as measured by the Spielberger State Anxiety Inventory than poll workers in states without a recent electoral reform.

The anxiety literature inspired this hypothesis. State anxiety arises from particular experiences such as the activities associated with an election (Gros et al., 2007). It can be expected poll workers will suffer from more state anxiety in a state having a recent electoral reform at the polling place.

Hypothesis 9: Poll workers in states with a recent electoral reform at the polling place have a higher burnout score as measured by the Maslach Burnout Inventory than poll workers in states without a recent electoral reform.

The burnout literature inspired this hypothesis. A high potential for burnout exists since poll workers are exposed to multiple stressors and work directly with people (Sarros, 1988). It

can be expected poll workers will experience more burnout in a state having a recent electoral reform at the polling place.

Hypothesis 10: Poll workers in states with a recent electoral reform at the polling place have lower political interest than poll workers in states without a recent electoral reform.

The political participation literature inspired this hypothesis. The dependent variable for this hypothesis was one of the four attitudes required for political participation (Christensen, 2012). Poll workers experiencing excessive burdens on their time, resources, and skills may lose interest in further service (Verba et al., 1995). It can be expected poll workers in a state with a recent electoral reform at the polling place will have lower political interest.

Hypothesis 11: Poll workers in states with a recent electoral reform at the polling place have lower political efficacy than poll workers in states without a recent electoral reform.

The political participation literature inspired this hypothesis. The dependent variable for this hypothesis was one of the four attitudes required for political participation (Christensen, 2012). Too many negative experiences could harm a poll worker's political efficacy (Bandura, 1995). It can be expected poll workers in a state with a recent electoral reform at the polling place will have lower political efficacy.

Hypothesis 12: *Election administrators in states with a recent electoral reform at the polling place perceive more difficulty in recruiting poll workers than election administrators in states without a recent electoral reform.*

The political participation literature, principal-agent theory, and the national data collected by the EAC inspired this hypothesis. Participation has declined in recent times (Putnam, 2000). Yet, election administrators must recruit enough poll workers to adequately meet the requirements imposed by state and federal law and to overcome the adverse selection

problem (Alvarez & Hall, 2006). Election administrators in a state with a recent electoral reform at the polling place will perceive more difficulty in recruiting poll workers.

Contribution to the Field

This study uses stress and coping theory and bureaucratic theory to better understand street-level bureaucratic workers providing services directly to citizens. While the bureaucratic literature recognizes the importance of coping for street-level bureaucrats, rarely have bureaucratic scholars sought to measure the concept. In addition, this study also applies measurement strategies used by stress researchers to a local government environment. Doing so shows the effectiveness of those strategies in an additional context.

This study also extends previous research on street-level bureaucrats to election administration. Prior research on street-level bureaucrats focused mostly on police officers and teachers. This study deepens understanding of how local government works and encourages other scholars to look at the consequences of implementing electoral policy. Scholars should look more at what actually happens at the ground level where citizens receive services and not focus only on what was intended by policy makers (Brodkin, 2014).

This study also helps to fill a gap in the bureaucratic theory literature by further extending principal-agent concepts to a street-level bureaucratic context. Alvarez and Hall (2006) identified how pervasive principal-agent problems were in election administration, but none of the principal-agent literature reviewed for this study used a street-level bureaucrat as an agent. Given the influence supervisors have on poll workers and the ability of poll workers to act contrary to supervisors' preferences, principal-agent theory can help to improve our understanding of street-level electoral experiences.

This study also contributes to our understanding of political participation. The political

participation literature identified the attitudes and resources needed for an engaged citizenry. But despite the inclusion of these attitudes and resources, the participation literature has not provided a complete explanation for political engagement. This study contributes to the explanation by showing the importance of including stress in future participation models.

Summary

This section explained the role of the poll worker in the United States electoral process and described the recent electoral reforms that harm election administration. Further, this section provided a systematic review of the literature related to the relevant theories informing this study. This section also applied the relevant literature and theories to this study's research problem and explained how the relevant literature and theories informed this study's hypotheses. Moreover, this section described this study's contribution to the stress, bureaucracy, and political participation literatures.

CHAPTER III

METHODOLOGY

Introduction

This study's research questions were best studied using a quantitative method pursuant to a post-positivist research paradigm. Post-positivist work can be characterized as generally stressing cause and effect relationships, use of carefully selected variables, precise observations and measurement of the selected variables, and concern for the continual testing and refinement of theories (Creswell & Plano Clark, 2011). Further, quantitative research tends to be deductive and uses survey research (Monette, Sullivan, & DeJong, 2011).

Research Design

The research design can best be described as a static group comparison design. Such design compares one group that is exposed to a variable of interest with another group that is not exposed (Monette et al., 2011). The design, however, does not use any pretests (Johnson, 2002).

	treatment	posttest
Group 1:	X	O
Group 2:		O

Figure 5. Static group comparison design. Adapted from Monette et al. (2011) and Johnson (2002).

Pretesting, which is common with experimental designs, is not practical given the researcher's lack of control over the issuance of the treatment (recent electoral reforms) (Monette et al., 2011). But, the design takes advantage of the fact the treatment is legally mandated in some states while it is not in other states. A causal relationship between an independent variable and dependent variable requires co-variation, non-spuriousness, time order, and good theory (Meier & Brudney, 1993). Typically, without the benefit of a pretest establishing the independent

variable preceded the dependent variable, assessing time order can be challenging (2011). Here, however, logic establishes time order, which improves this design's ability to permit tentative causal claims.

Internal validity exists when changes in the dependent variable are confidently the result of variation in the independent variable (Monette et al., 2011). Given the absence of a pretest, attrition does not threaten internal validity with this research design. Also, the collection of all data at one time reduces concerns over history, maturation, or instrumentation. But selection remains a serious concern (2011). I, however, mitigated selection bias by using the sample design described in the next section. For these reasons, the use of a static group comparison design was useful in examining the relationship between recent electoral reforms and election administration outcomes related to poll workers.

Data Collection

To address the hypotheses related to the first and second research questions, primary data was collected from poll workers using a survey questionnaire. The design and method are discussed below. For the hypothesis related to the third research question, secondary data from a question on the EAC Election Administration and Voting Survey was used. The secondary data will be discussed later in this section.

Primary Data

I used a self-administered questionnaire to collect data for the study (McNabb, 2004). "[T]here is no extant literature on surveying poll workers" (Hall et al., 2007, p. 648). Therefore, the survey instrument was developed based upon social science principles, with practices used in the field of public administration. The survey questionnaire was tested prior to use to ensure all

wording was clear and to assess the amount of time respondents could be expected to spend in completing the instrument (2004).

Sample design. A sample of poll workers was obtained from randomly selected jurisdictions (i.e., counties, cities) within four states from the Mid-Atlantic region of the United States (e.g., Hall et al., 2007). The selected states included PA, NJ, MD, and VA. Table 1 shows each recent electoral reform and indicates which of the selected states have the reform, along with the year the reform became effective.

Table 1

Selected States

Recent Electoral Reforms	**Has Reform and Year Effective**	**Does Not Have Reform**
IPEV (early voting)	MD (2010)	PA NJ VA
voter identification	VA (2010)	PA NJ MD
EDR (same day registration)	MD (2016)	PA NJ VA

States can vary significantly in their political and social cultures, with the differences especially noticeable between the different regions of the United States (Elazar, 1984). Thus, the selected states were close to one another to control for such differences (Hanmer, 2009). This also improved the feasibility of the study by making it possible to more efficiently administer the

survey questionnaire. In total, the selected states had within them 246 jurisdictions and more than 80,000 poll workers (EAC, 2014). This combination of states also allowed for about the same number of poll workers in the group of states having an electoral reform as in the group of states not having any electoral reforms.

Sampling. As the primary data collected for the first and second research questions was from poll workers and was used to better understand them, the unit of analysis was at the individual level. Moreover, the study used probability sampling. Each poll worker in the population consisting of the pre-selected states had a known chance of inclusion in the sample (Fowler, 2009). Poll workers, however, were only invited to participate if they served within a jurisdiction randomly selected from within the selected states. An attempt was made to survey every poll worker within each randomly selected jurisdiction. Therefore, I used a cluster sample in this study.

Area probability sampling (specifically cluster sample in this case) can be an effective sampling strategy when lists are unavailable and sampling will be done over larger geographic areas (Monette et al., 2011; Fowler, 2009). Further, just one stage of random sampling reduces the potential for sampling error. A minimum of 383 responses from poll workers was needed to achieve, with a 95 percent confidence level, a sampling error within plus or minus five percent. Using a sampling interval of 226, the minimum number of poll workers sampled from each state was calculated based upon their respective population of poll workers as reported to the EAC. But, I sought a larger sample to counter non-response bias as survey response rates range widely (2011).

Method. Few scholars have attempted to collect data directly from poll workers. I avoided surveying poll workers on Election Day given their other important priorities that day,

the excessive manpower required to reach enough polling places in a short amount of time, and the potential to run afoul of state election laws. Also, it was expected that many jurisdictions would not be willing to provide poll worker contact information given concerns over privacy. The method used for this study avoided these difficulties.

I used a two-method approach to administer the questionnaire. For the first method, once jurisdictions were randomly selected, election administrators were contacted and permission secured to distribute the questionnaire to poll workers at a training session or pre-election meeting of poll workers. The distribution of questionnaires at a poll worker training session was a successful method used in a prior dissertation at Florida State University (McAuliffe, 2009). The physical distribution of the questionnaire by myself allowed participant questions to be answered, and the response rate was greater than with the second method alone (Monette et al., 2011).

The second method involved a mail and online survey created using Qualtrics. For randomly selected jurisdictions not having a poll worker training session or pre-election meeting or where the attendance at such a session or meeting was not possible, election administrators were asked to distribute to all poll workers a cover letter and a copy of the questionnaire with a pre-stamped, pre-addressed envelope. The letter also provided a web address for an online version of the survey for greater convenience. The mail and online survey were the same survey instrument used in the first method. The letter asked participants to complete the questionnaire and return it within ten days (Monette et al., 2011).

The use of an online survey to supplement the mail-in surveys provided the participants with greater convenience, but there were some participants who did not use the internet. Internet users tend to have more money and education, and they tend to be male and younger (Monette et

al., 2011). Given the tendency for poll workers to be older in age, this skew was taken into account (Drinkard, 2004). Consequently, the use of pre-stamped, pre-addressed mail survey questionnaires improved the turnout rate and representativeness of the sample over the use of the online survey alone (2011).

External validity refers to the generalizability of the study's findings (Monette et al., 2011). The use of a probability sample justifies generalizing the study's findings to at least the states from which the findings originated (Johnson, 2002). It may be argued the selected states had unique features, but the study's research design used a natural setting and a probability sample. These design features provide for statistical inferences to a broader population and application of findings to real environments, greatly improving the study's external validity (Frankfort-Nachmias & Nachmias, 1996).

Surely, the study's findings will not be generalizable to the rare state relying solely on vote-by-mail without any poll workers. But, most states using poll workers have common administrative practices, with the number of uniform practices increasing since the establishment of the EAC in 2002 (Herrnson et al., 2008). Thus, the movement toward uniform practices make a broader generalizability plausible.

Secondary Data

I used secondary data to test hypothesis 12, which is associated with the third research question. The EAC surveyed election administrators from jurisdictions across the nation resulting in a unit of analysis at the meso-level. The EAC study included 50 states, DC, and four territories (American Samoa, Puerto Rico, Guam, and the Virgin Islands), with the data providing 6,447 observations. The four states used in this study participated in the EAC study, providing 240 observations (EAC, 2014).

As discussed previously, the United States Congress created the EAC, an independent and bipartisan commission, following the electoral issues that arose in the 2000 presidential election. Since 2004, the EAC has collected data related to voting and election administration nationwide using the Election Assistance and Voting Survey (EAC, 2015).

The 2014 survey included 65 questions. Respondents also were given a guidance manual to assist them in answering the questions. Some state election officials completed the survey based upon previously collected information in their state-wide databases. The states that do not collect much information from their local jurisdictions answered the questions with the assistance of local election officials. Either way, the EAC required each state's chief election official to sign a certification page, which was returned with the state's survey submission (EAC, 2015).

Measurement

Measurement error exists when measurement scores result from anything other than a real difference (Frankfort-Nachmias & Nachmias, 1996). Operational validity directly addresses this concern by assessing the measures' accuracy. Each of the dependent variables was assessed for face validity to ensure a logical connection exists between the variable and its measure (Monette et al., 2011). I also assessed content validity by sharing the survey instrument with an experienced poll worker prior to the data collection stage of the study, and the feedback, especially the input related to the measures, was taken into account. Moreover, as the measures for the dependent variables are deduced from either the literature or theory, construct validity of the measures should be strong (2011).

Reliability represents another concern. Measures must be accurate and produce the same results whenever they are used (Monette et al., 2011). I used an internal consistency approach to

assess the reliability of the scales. More specifically, the reliability of the measures were established by computing Cronbach's alpha scores using statistical software (2011). Similarly, factor analysis also was used to determine which variables are most meaningful. Factor analysis helped to improve parsimony and avoid multicollinearity (Hamilton, 1992).

Chapter Two, Literature Review, provided this study's research hypotheses, along with the relevant literature and theories supporting their development. In this chapter, I explain how the concepts in these hypotheses are operationalized. The survey questions for measuring each variable are also provided. This study includes variables measured at one of three levels. I measured some variables at the individual (micro) level capturing effects at the street-level. In addition, I measured another variable at the jurisdiction at the (meso) level. Further, I measured another variable at the state (macro) level.

Independent Variables

Group membership. The primary independent variable used in this study was *group membership*, which assesses whether the state had a recent electoral reform. This independent variable was measured as a dichotomous variable (0 = no recent electoral reform and 1 = having a recent electoral reform). The variable was coded 0 for respondents who resided in Pennsylvania and New Jersey and 1 for respondents who resided in Maryland and Virginia.

The variable *group membership* indicates whether the respondent served in a state with a recent electoral reform. I created this dummy variable to use in each test of the hypotheses, and it was measured with survey question 1: *In which state or district do you serve as a poll worker?* The survey I used is shown in Appendix C.

State. This variable represents the state or district where the poll worker serves. I coded this variable as 1 = MD, 2 = VA, 3 = NJ, and 4 = PA. The variable was measured using an item I

created and at survey question 1: *In which state or district do you serve as a poll worker?* This variable was used in the random intercepts models, which will be explained later in this chapter in the data analysis section.

Precinct. This variable represents the jurisdiction where the poll worker serves. Each jurisdiction randomly selected for the study was given a numeric code. This variable was measured with an item I created and at survey question 2: *In what county or precinct do you serve?* This variable was used in the random intercepts models, which will be explained later in this chapter in the data analysis section.

Mediating Variables

My reading of the literature suggested these variables might have influenced the relationship between the recent electoral reforms and the feelings of distress and burnout. As such, it was important to test for a mediating effect between these variables and the dependent variables of *anxiety* and *burnout* (Heeringa, West, & Berglund, 2010).

Sense of control. This serves as the variable tested in hypothesis 5. The transactional stress model treats sense of control as a personal variable that influences an individual's appraisal of the nature of the stressors (Lazarus, 1990). In this sense, this variable is predicted to mediate the relationship between felt stress related to the recent electoral reforms and becoming distress or burnout.

To assess the level of sense of control, respondents were asked whether they strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the following statement, "*During the most recent election, I had enough control to effectively resolve problems*" (see question 10 on the survey in Appendix C). Each response was given a value between one and five, therefore the item is measured at the ordinal level. Nevertheless, ordinal

data are commonly treated as being interval-level (McNabb, 2004), which I do in this study. I created this item for the survey, so it has face validity but an unknown level of reliability.

Referrals. Referrals are a bureaucratic coping strategy used by poll workers (Lipsky, 2010). Coping strategies, such as referrals, are predicted to mediate the relationship between felt stress related to the recent electoral reforms and the feelings of distress or burnout (Aneshensel, 1992). As shown in Appendix C, this variable was measured with an item I created at survey question 11: *During the most recent election, how often did you refer voters to others (including workers, supervisors, election judges, etc.)?* Responses were coded one through five, thus it is an ordinal level variable.

Dependent Variables

For each hypothesis, a different dependent variable was tested. The dependent variables in hypotheses 1 through 4 are stress variables. Stress variables are used as measures of stress in the stress and coping literature (e.g., Shirom & Mayer, 1993). An advantage of this approach to measuring stress includes the use of variables making sense in the election administration context as informed by the relevant literature. The stress variables used in this study were *conflicts, training*, *technology*, and *supervisor's views*. *Overall stress*, which represents the poll worker's perception of their overall stress, serves as the dependent variable in hypothesis 7. Hypothesis 8 uses *anxiety*, which represents an anxiety score, as the dependent variable. Hypothesis 9 uses *burnout*, which represents a burnout score, as its dependent variable. *Political interest*, which represents an important attitude for participation, serves as the dependent variable for hypothesis 10. *Political efficacy*, which represents another important attitude needed for participation, was selected as the dependent variable for hypothesis 11. Lastly, hypothesis 12 has *difficulty recruiting*, which represents the difficulty in recruiting poll workers, as the dependent

variable. Each dependent variable for the first eleven hypotheses was associated with its own question(s) on the survey instrument. The dependent variable for hypothesis 12 was measured using a question on the EAC survey, which was discussed previously in this chapter. I will now discuss how each of these dependent variables was operationalized.

Conflicts. The amount of conflicts was measured with survey question 6: *During the most recent election, how many conflicts of any kind did you experience with voters?* Respondents provided the actual number of conflicts, therefore, it is a ratio level variable. I constructed this item for the survey, and it has face validity, though an unknown level of reliability.

Training. The amount of training was measured with survey question 7: *How many hours of poll worker training were required before the most recent election?* Respondents provided the actual number of hours of training, therefore, it is a ratio level variable. I constructed this item for the survey, and it has face validity, though an unknown level of reliability.

Technology. The amount of technology was measured with survey question 8: *During the most recent election, how many pieces of equipment did you use in the polling place?* Since respondents provided the actual number of pieces of technology used at the polling place, it is a ratio level variable. I constructed this item for the survey, and it has face validity, though an unknown level of reliability.

Supervisor's views. This serves as the dependent variable for hypothesis 4. To assess the level of agreement with supervisor's views, respondents were asked whether they strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the following statement, "*During the most recent election, my views related to operating the polling place were the same*

as my supervisor's views" (see question 9 on the survey in Appendix C). Each response was given a value between one and five, therefore the item is measured at the ordinal level. Nevertheless, ordinal data are commonly treated as being interval-level (McNabb, 2004), which I do in this study. I created this item for the survey, so it has face validity but an unknown level of reliability.

Overall stress. This serves as the dependent variable for hypothesis 7. I measured this variable in two ways. First, I asked poll workers that served in the past election to recollect their perceived overall stress during the most recent election. Second, I asked both new and experienced poll workers to assess their present perceived overall stress, by asking them how they felt on a variety of indicators in the last month. Overall stress was measured using modified questions from the 14-item Perceived Stress Scale (Cohen et al., 1983). For each question, I asked the respondent to indicate how often they felt a given way by choosing always, most of the time, about half the time, sometimes, or never. I summed the items for each scale (most recent election and past month) which resulted in an ordinal level of measurement for both scales. The items used to measure overall stress during the most recent election are shown in Appendix C and are as follows:

Survey question 12: *During the most recent election, how often were you upset because of something that happened unexpectedly?*

Survey question 13. *During the most recent election, how often did you feel nervous or "stressed"?*

Survey question 14. *During the most recent election, how often did you feel that things were going your way?*

Survey question 15. *During the most recent election, how often did you feel that you could not cope with all the things that you had to do?*

Survey question 16. *During the most recent election, how often did you find yourself thinking about things that you had to accomplish?*

Survey question 17. *During the most recent election, how often did you feel that difficulties were piling up so high that you could not overcome them?*

The items used to assess overall stress during the last month are also shown in Appendix C and are as follows:

Survey question 18: *In the last month, how often have you dealt successfully with irritating hassles?*

Survey question 19: *In the last month, how often have you felt that you were effectively coping with important changes that were occurring?*

Survey question 20: *In the last month, how often have you felt confident about your ability to handle problems?*

Survey question 21: *In the last month, how often have you been able to control irritations?*

Survey question 22: *In the last month, how often have you been angered because of things that happened that were outside of your control?*

Survey question 23: *In the last month, how often have you been able to control the way you spend your time?*

Cohen et al. (1983) analyzed the reliability of the Perceived Stress Scale using three samples. The Cronbach's alphas were calculated as .84, .85, and .86 across the samples. The Scale was also shown to have stable reliability over time, with a test-retest reliability of .85

(1983). In a later study, Hoge et al. (1993) calculated a Cronbach's alpha of .87 for the Perceived Stress Scale. Moreover, Wilson et al. (1993) calculated a Cronbach's alpha of .90 for their sample. For this study, I conducted my own exploratory factor analysis and reliability analysis for each scale, the items assessing stress during the most recent election and stress during the last month. The exploratory factor and reliability analyses are reported in Chapter Four, Results.

Anxiety. This serves as the dependent variable for hypothesis 8. I measured this variable using the six-item Spielberger State Anxiety Inventory. This dependent variable was measured with survey question 24, which included the six items.

Marteau and Bekker (1992) reported good internal reliability with their six-item scale, with a Cronbach's alpha of .82. In addition, the six-item version had a high correlation (r = .95) with the full 20-item Spielberger State-Trait Anxiety Inventory, demonstrating excellent concurrent validity. The researchers further established the concurrent validity of the six-item version by conducting paired t-tests, finding the mean scores did not differ between the 20-item state anxiety scale and the six-item version (1992). Court et al. (2010) established the six-item version's construct validity (known groups) by finding the state anxiety scores were higher among emergency patients than other patients, as hypothesized. In Chapter Four, I report the results from an exploratory factor analysis and reliability analysis conducted on the sample in this study.

Burnout. This serves as the dependent variable for hypothesis 9, and was measured using the Maslach Burnout Inventory. The seven items used in the current study are shown in survey question 25 in Appendix C.

The original measure was comprised of three subscales measuring three dimensions of the burnout syndrome known as emotional exhaustion, personal accomplishment, and

depersonalization (Maslach & Jackson, 1981). To keep the questionnaire less burdensome for respondents, I used only the emotional exhaustion subscale in this study. Further, studies have repeatedly found the emotional exhaustion dimension to be the greatest contributor to burnout (e.g., Friesen & Sarros, 1989; Golembiewski et al., 1998).

Maslach and Jackson (1981) found the internal reliability for the emotional exhaustion subscale to be very good, with a Cronbach's alpha of .89. Also, the test-retest reliability for the emotional exhaustion subscale was strong at .82. In addition, the researchers established the measure's convergent validity by correlating with outcomes expected from burnout. The researchers also confirmed the measure's discriminant validity by showing a moderately negative correlation with job dissatisfaction, showing the two constructs are not the same (1981). In Chapter Four I present the results of an exploratory factor analysis and reliability analysis using the data from this study.

Political interest. This serves as the dependent variable for hypothesis 10. The single-item measure for this variable was used in the ANES (University of Michigan, n.d.), and is shown in Appendix C (question 4). The item asks, "*How often would you say you follow what is going on in government and public affairs?*" There are four responses ranging from most of the time (4) to hardly at all (1). Therefore, *political interest* is measured at the ordinal level in this study.

Political efficacy. This attitude serves as the dependent variable for hypothesis 11. This variable was measured using Niemi et al.'s four-item scale. Niemi and colleagues reported the scale had good internal reliability, with a Cronbach's alpha of .80 (Niemi et al., 1991). Survey question 26, which included the four items, is shown in Appendix C. In Chapter Four I present the results of an exploratory factor analysis and reliability analysis using the data from this study.

Difficulty recruiting. This serves as the dependent variable for hypothesis 12. It also serves as the outcome variable for the mixed model, which will be explained in the data analysis section later in this chapter. The EAC survey measured this variable by asking election administrators question D5 on the EAC Election Administration and Voting Survey: *How difficult or easy was it for your jurisdiction to obtain a sufficient number of poll workers for the general election?*

The responses available included very difficult, somewhat difficult, neither difficult nor easy, somewhat easy, very easy, or not enough information to answer. This response set has much in common with items from a Likert scale, with a neutral mid-point (Frankfort-Nachmias & Nachmias, 1996). Therefore, it is measured at the ordinal level. In addition, it has face validity, although its reliability is unknown.

Disenchantment. I constructed this variable to capture the interaction between the scores for *political interest* and *political efficacy*. This variable was computed as a multiplicative term (*political interest* * *political efficacy*) and was used as the dependent variable in the testing of research question two, which will be explained later in this chapter in the data analysis section. Further, I explained how each of the main effects terms (*political interest* and *political efficacy*) were measured earlier in this section.

Control Variables (Primary Data Analysis)

The study also uses important control variables. The use of control variables helps to rule out rival causal factors and reduced the possibility of a spurious relationship (Monette et al., 2011). Control variables in this study's primary data analysis included *age*, *sex*, *race*, *education*, and *party affiliation*. Each of these variables could conceivably influence the stress experienced by a poll worker. The stress and coping literature recognizes age, sex, race, and education as

having a role in social structures; stress can exist for an individual simply by virtue of their reduced status in those structures (Pearlin, 1989). In addition, they may be related to the areas where the poll worker serves. For example, some communities are known to have more election administration problems because of resource constraints (e.g., Chevigny, 2007).

Moreover, controlling for party affiliation accounts for another personal variable identified in the transactional stress model (Lazarus, 1990). Party affiliation represents an easily measured approximation for the poll worker's own political values and ideology. An individual's values and ideology could impact their appraisal of whether a stressor is threatening (1990). Each control variable had its own question on the survey instrument. The primary data analysis related to the first eleven hypotheses will be discussed later in this chapter.

Age. This was measured as a ratio level variable, and was computed by subtracting the year of birth from the year the survey was administered (2016). The survey question was asked as follows (question 27 in the survey in Appendix C), "*What year were you born?*"

Sex. This was measured as a dichotomous variable (0 = male and 1 = female), and it resulted in a nominal level of measurement (Ritchey, 2008). This control variable was measured with survey question 28: *What is your sex or gender?*

Race. This was measured as a nominal level variable (Ritchey, 2008). Respondents were given five categories for selection: White/Caucasian, African American, Hispanic, Asian, or other. However, prior to data analysis, this variable was recoded to be dichotomous (0 = white and 1 = non-white). This control variable was measured with survey question 29: *How would you describe your race?*

Education. The amount of education was measured at the ratio level by asking the

question (question 30 in the survey in Appendix C): *How many years of education have you completed? Please include K-12, technical, college, and graduate levels.*

Party affiliation. Party affiliation was measured by asking the respondents (question 31 in the survey in Appendix C), "*Generally speaking, how would you describe your party affiliation?*" The respondents were given a set of mutually exclusive categories which include the most popular party affiliations: Strong Republican; weak Republican; independent; weak Democrat, strong Democrat, other, or do not know (Campbell et al., 1960), resulting in a nominal level of measurement (Monette et al., 2011).

Control Variables (Secondary Data Analysis)

The secondary data analysis also uses control variables. These variables include *polling place hours*, *state gross domestic product (GDP)*, and *state party control*. Each of these variables could impact the dependent variable in hypothesis 12, *difficulty recruiting*. The secondary data analysis related to hypothesis 12 will be discussed later in this chapter.

Polling place hours. This was determined by the state in which the poll worker served. State election law mandates the hours (Teixeira, 1992). Polling places in MD are required to be open for 13 hours on Election Day and for 76 hours to accommodate early voting (7 days x 10 hours per day and one Sunday for 6 hours). As such, MD requires polling places to be open for a total of 89 hours (Hours of Voting, 2014; Early Voting and Early Voting Centers, 2014). In VA polling places are required to be open for 13 hours on Election Day (Hours Polls to be Open; Closing the Polls, 2013). Similarly, in PA polling places are required to be open for 13 hours on Election Day (PA Election Code, 1937). In NJ, polling places are open for 14 hours (NJ Permanent Statutes (Elections), 2015).

The hours worked by poll workers varies, but each state's election law requires polling

places to be open between certain times (Teixeira, 1992). In states that have polling places open for a single day it is not uncommon for a poll worker to work the entire time the polling place is open. However, this becomes less common in states that have early voting, where election administrators must staff a polling place over multiple days. I created an item to determine this control variable, which was asked at survey question 1: *In which state or district do you serve as a poll worker?* I used this control variable in the secondary data analysis testing hypothesis 12. Controlling for the legally required hours for keeping the polling place open increases confidence that the outcome resulted from the recent electoral reforms and not from the legal requirement for keeping open the polling place.

State GDP. This represents the 2014 real state gross domestic product (GDP). The United States Bureau of Economic Analysis made this data available to the public (U.S. Department of Commerce, 2015). I used this control variable in the secondary data analysis testing hypothesis 12.

State party control. This represents the political party control in a state. I coded states as having Republican Party control of both the state legislature and governorship, Democratic Party control of both the state legislature and governorship, or a mixed party control (NCSL, 2015d). This control variable was used in the secondary data analysis testing hypothesis 12.

Data Analysis

I analyzed the data using descriptive and inferential statistics. The analysis primarily used Stata statistical software, but Systat's excellent graphical tools provided an enhancement. I used univariate analysis to explore the nature of the data, reporting the mean, median, standard deviation (SD), and pseudo-standard deviation (PSD). Also, I examined the data for the existence of a normal distribution and identified any skew. If necessary, I transformed the data to

approximate a normal distribution curve. This represents a critical step for the study's use of inferential statistics having as an underlying assumption the existence of a normal distribution (Monette et al., 2011).

Primary Data

The primary data analysis sought to assess the relationship between having a recent electoral reform at the polling place and the outcomes related to stress and disenchantment. I conducted a series of multivariate analyses. Ordinary Least Squares (OLS) multiple regression was used to assess the extent of the relationships between the primary independent variable, *group membership*, which was coded as a dummy variable, and the dependent variables listed in the first eleven hypotheses, controlling for the potential sources of spuriousness such as age, sex, education, race, and party affiliation. By controlling rival causal factors, pre-existing population differences had less influence on the outcome, and confidence any measured outcomes were solely due to the recent electoral reforms at the polling place was greater. Also, I sought to determine whether the mediating variables, *sense of control* and *referrals*, mediated the relationship between *group membership* and the dependent variables of *anxiety* and *burnout* (Heeringa et al., 2010).

The outcome variables measured by Likert-like items were assessed using two approaches. First, I treated the items as having an interval level of measurement and used OLS regression, and second, I treated the items as having an ordinal level of measurement and used ordinal regression. Doing so increased confidence in the OLS results. This method follows the suggestion by Long & Freese (2014) that researchers "always compare the results from ordinal models with those from a model that does not assume ordinality" (p. 310). But, I do not provide the results for the ordinal regressions that had a statistically significant coefficient for *group*

membership if the standard error significantly increased. Significantly larger standard errors suggest that the sample estimate will be less representative of the overall population parameter (Hamilton, 1992). In other words, larger standard errors result in less precision in the estimation of the coefficient of interest (Long & Freese, 2014).

These fixed effects models, however, failed to account for the existence of individuals within jurisdictions and states and the effects from these other levels. In contrast, random intercept models accounted for both fixed effects at the individual level and the random effects from the other levels (Heeringa et al., 2010). "One of the unique features of multilevel models is the ability to study cross-level interactions. . ." (Mitchell, 2012, p. 393). Consequently, to improve the analysis of the data used in this study, I also employed random intercept models.

The random intercept models used in the primary data analysis were structured like the fixed effect models except these models also accounted for the random effects of being in a state and jurisdiction (e.g., counties, cities). These random effects were accounted for by using the variables *state* and *precinct*, which were described in the measurement section located earlier in this chapter. Like the fixed effects models, the models with ordinal outcome variables were compared at two levels of measurement. These models resulted in a more reliable test of the first eleven hypotheses.

Secondary Data

The secondary data analysis sought to assess the relationship between having a recent electoral reform at the polling place and difficulty in recruiting poll workers. I performed multivariate analyses with the secondary data from the same four states used in the primary data analysis. A fixed effects model included meso-level and macro-level control variables, including *polling place hours*, *state GDP*, and *state party control*.

A random intercept model was also used because the respondents to the EAC survey used jurisdiction-specific election data (meso-level) nested within a state (macro-level). The random effects of being in a state were accounted for by using the variable *state*, which was described in the measurement section located earlier in this chapter.

Since *difficulty recruiting* was measured by the EAC with Likert-like items, the multivariate analyses were compared at two levels of measurement. Again, when the results were similar, I provided the simpler model.

This analysis of the secondary data served as a check on the individual-level findings related to the relationship between *group membership* and the presence of stress and disenchantment from the four states in the primary data analysis. In other words, given this study's theoretical framework, I expected that if significant relationships exist between having a recent electoral reform and stress and disenchantment, then significant relationships between having a recent electoral reform and difficulty in recruiting should also exist. Furthermore, another check was done using the entire secondary data set to see if a similar relationship between having an electoral reform at the polling place and difficulty recruiting poll workers holds nationally.

Ethical Considerations

I strived to conduct this research project in accordance with ethical principles. The ethical principles related to human behavioral research have become more standardized and more widely accepted since the adoption of the National Research Act (Pub. L. 93-348), and the issuance of the *Belmont Report* (U.S. Department of Health & Human Services, 1979). Further, pursuant to federal regulation, human subjects are now protected through an institutional process (Protection of human subjects, 2009).

In exercising a strong desire to remain ethical and to exercise good judgment in accordance with the expectations of the relevant scholarly disciplines, I carefully reviewed and followed the ethical guidelines of the American Political Science Association and the American Society for Public Administration (American Political Science Association [APSA], 1991; American Society for Public Administration [ASPA], 2013). Also, I completed training on the protection of human subjects and ethical obligations in research. A course entitled "Protecting Human Research Participants" by the National Institutes of Health (NIH) Office of Extramural Research was completed. In addition, I completed a course entitled "Social and Behavioral Responsible Conduct of Research" by the Collaborative Institutional Training Initiative (CITI). Moreover, for even greater protection, prior to any data collection this research underwent review by the Institutional Review Board (IRB) at Indiana University of Pennsylvania (IUP) (see Appendix D).

As this research included the use of survey methodology, I remained sensitive to ethical considerations related to the use of surveys. Such considerations included fully disclosing information about the study to permit a fully informed choice to participate, protecting participants from harm, and providing a benefit to participants, which included the intrinsic benefit of feeling a contribution was made (Fowler, 2009). Included with every survey instrument was a cover letter informing each participant of the purpose of the study, explaining how the data collected would be used, guaranteeing their individual participation and responses would remain confidential, and thanking each participant for their participation (see Appendix C).

Summary

This chapter described the research design and its justification. Also, I identified the

population and explained the nature of the random probability sampling. Moreover, I identified the threats to internal validity and external validity and explained how the study's research design minimizes their impact.

This chapter detailed how I produced data for the study. In addition, I described the measures for the variables, along with their validity and reliability. Further, I explained the method for analyzing the data. Moreover, this chapter emphasized ethical considerations, which were an important part of this study.

CHAPTER IV

RESULTS

Introduction

In this chapter, I describe the nature of the sample used for the study. This analysis includes the number of respondents and the survey instrument response rate. I also provide information on the demographic characteristics of the sample. In addition, this chapter includes my analysis of the scales used in the survey instrument. Further, this chapter provides the results from the data analysis using the methods discussed in the previous chapter. This includes my findings related to the primary data collected using my survey instrument and the secondary data collected by the EAC.

Nature of the Sample

The sample for the study included 453 respondents. As noted in the previous chapter, a minimum of 383 responses was needed to achieve, with a 95 percent confidence level, a sampling error within plus or minus five percent. While only 383 respondents were needed, I included additional respondents to reduce non-response bias.

There are 237 respondents in the comparison group (NJ & PA) and 216 respondents in the treatment group (MD & VA). This division between groups mirrors the division in the total population, with slightly more poll workers serving in the comparison group states than in the treatment group states. Figure 6 shows the distribution of respondents between the comparison group and the treatment group. The descriptive statistics for the variable *group membership* are provided later in this chapter in the univariate analysis section.

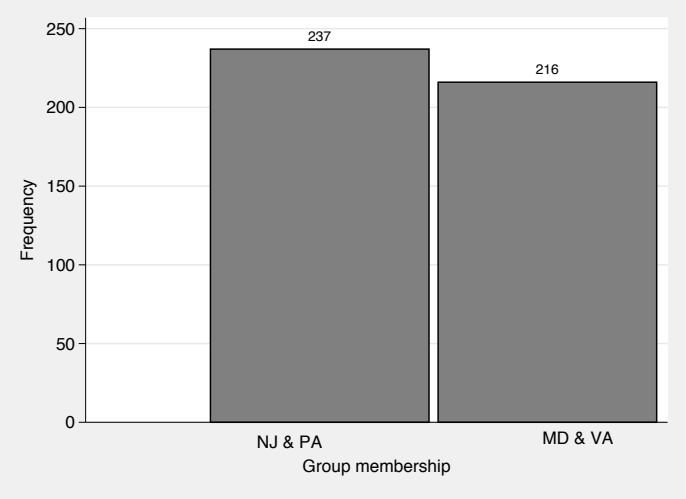

Figure 6. Respondents in the comparison and treatment groups.

Table 2 shows the number of respondents from each state included in the study. In terms of the treatment group, the number of respondents for both states exceeded the desired amount for a representative sample that reflected a similar distribution among the total population of those states.

Table 2

Number of Respondents

State	Number of Respondents Desired for Representative Sample	Number of Respondents	Percent of Total Sample
MD	100	121	26.71
VA	81	95	20.97
NJ	93	72	15.89
PA	109	165	36.42

With respect to the comparison group, the study includes 21 fewer respondents from NJ than desired, but PA included 56 more respondents than desired. Taken together, enough respondents were obtained from both states to achieve a representative sample for the comparison group as well.

Survey response rates varied by jurisdiction and by mode of questionnaire distribution. Table 3 provides information on the number of questionnaires distributed in each participating jurisdiction, the mode of questionnaire distribution, the number of questionnaires returned, the percent of the total returned, and the response rate for that particular jurisdiction, if known.

Table 3

Response Rate

Jurisdiction	Distributed	Mode	Returned	Percent of Total Returned	Response Rate
Sussex County, NJ	40	Researcher Present	26	5.74	65%
Hunterdon County, NJ	150	Administrator	41	9.05	27%
Monmouth County, NJ	16	Administrator	5	1.10	31%
Columbia County, PA	124	Administrator	46	10.15	37%
Washington County, PA	Online Only	Administrator	21	4.64	Unknown
Lycoming County, PA	500	Administrator	98	21.63	20%
Allegany County, MD	250	Administrator	44	9.71	18%
Montgomery County, MD	200	Administrator	55	12.14	28%
Calvert County, MD	50	Researcher Present	22	4.86	44%
Fairfax County, VA	175	Researcher Present	67	14.79	38%
Chesapeake City, VA	Online Only	Administrator	20	4.42	Unknown
Floyd County, VA	Online Only	Administrator	8	1.77	Unknown

As expected, survey response rates were higher when I was present at the poll worker training sessions. In Sussex County, I had the opportunity to attend two poll worker training sessions. In Fairfax County, I attended seven poll worker training sessions, with two sessions for

new poll workers and five sessions for experienced poll workers. In Calvert County, I attended one poll worker training session. In the other jurisdictions, election administrators facilitated the distribution of the questionnaires to their poll workers. Election administrators facilitated the distribution of questionnaires in different ways, with some distributing them at training sessions, using postal mail, using election day packets, or referral to the online version of the survey instrument. The administrators that preferred to refer their poll workers to the online version of the survey instrument either included the web address in a newsletter or in a mass email distribution. These jurisdictions are identified in Table 3 as using the online only mode of distribution.

The respondents included both new and experienced poll workers. The most experienced poll worker had 52 years of service. But, 17 percent of the sample, the largest group of poll workers, had only one year of service. Figure 7 shows the distribution of the years of service in the sample. The descriptive statistics for the variable *years of service* are provided later in this chapter in the univariate analysis section.

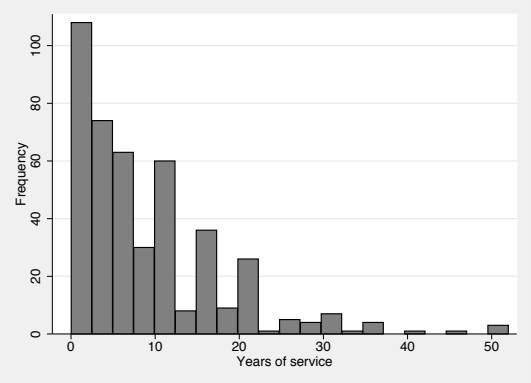

Figure 7. Years of service.

Respondents ranged in age from 18 to 92. The average age of the respondents was 62. As such, the sample was younger than the average age of poll workers found in the literature (Drinkard, 2004). But, the largest age grouping in the sample, at four percent of the total sample,

was 71 year olds. This study's data, therefore, would support the claim that poll workers tend to be over the age of 60. Figure 8 shows the distribution of the ages of the poll workers in the sample. The descriptive statistics for the variable *age* are provided later in this chapter in the univariate analysis section.

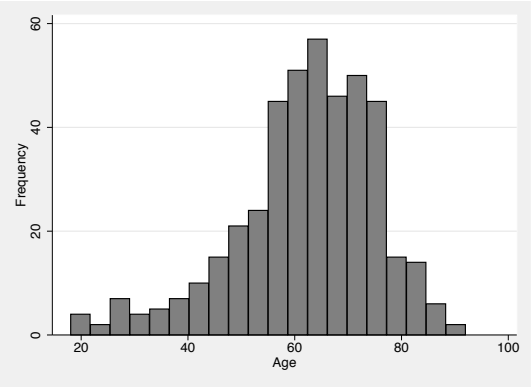

Figure 8. Age.

In terms of sex, almost 70 percent of the sample was female. Figure 9 shows the distribution of the sex of the poll workers in the sample. The descriptive statistics for the variable *sex* are provided later in this chapter in the univariate analysis section.

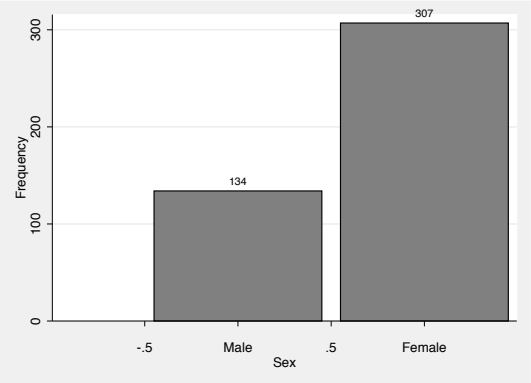

Figure 9. Sex.

With respect to race, 90 percent of the sample was White or Caucasian. About six percent of the sample was African American. A little over one percent of respondents were Hispanic, but less than one percent were Asian. Figure 10 shows the distribution of the race of the poll workers

in the sample. The descriptive statistics for the variable *race* are provided later in this chapter in the univariate analysis section.

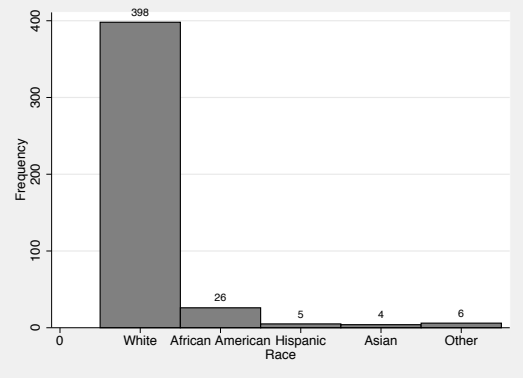

Figure 10. Race.

Poll workers in the sample were generally well educated. Figure 11 shows the distribution of the levels of education of the poll workers in the sample.

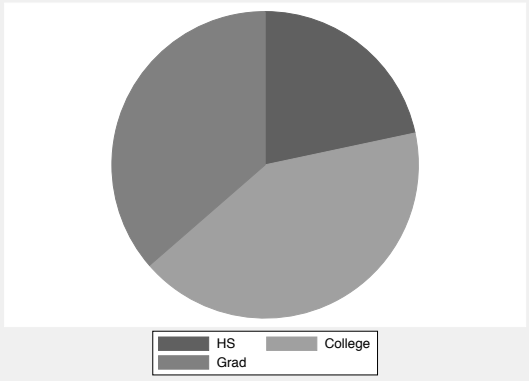

Figure 11. Education.

The average education of the poll workers in the sample was college (16 years of education). There were three respondents having less than a high school education (less than 12 years of education), and 12 respondents had more than 20 years of education. The descriptive statistics for the variable *education* are provided later in this chapter in the univariate analysis section.

As seen in Figure 12, the respondents were divided almost equally between affiliation

with the Republican Party and Democratic Party. Strong Republicans made up 18 percent of the total sample and Strong Democrats made up 21 percent of the total sample. Independents comprised about 12 percent of the total sample. The descriptive statistics for the variable *party affiliation* are provided later in this chapter in the univariate analysis section.

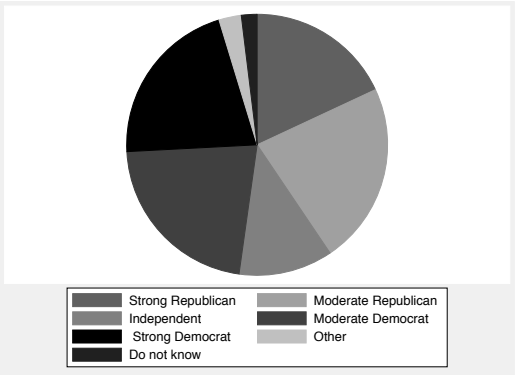

Figure 12. Party affiliation.

Figure 13 shows that the states having a reform had a higher count of poll workers in the Democratic Party. In Figure 13, party affiliation is represented by numbers that correspond to the responses to survey question 31 (see Appendix C).

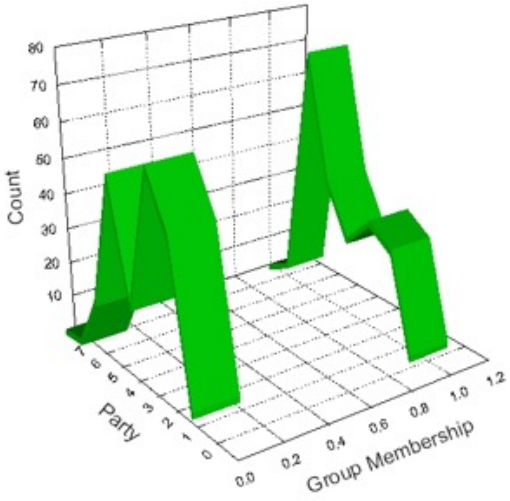

Figure 13. Party affiliation 3D ribbon. (0 = states with no reform; 1 = states with a reform).

Most poll workers expressed an interest in serving again in future elections. Figure 14

shows the distribution of the interest in serving in future elections of the poll workers in the sample.

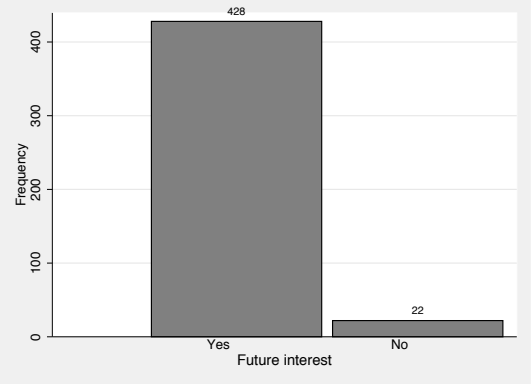

Figure 14. Interest in serving in future elections.

Only 22 respondents indicated they were not interested in serving again. Four of these respondents stated their age or health prevented them from serving again. Seven respondents expressed concern about the long hours for too little pay. One respondent from Virginia exclaimed there were too many voters in their precinct and not enough poll workers available to assist them. The descriptive statistics for the variable *future interest* are provided later in this chapter in the univariate analysis section.

Scales Analyses

I performed assessments of the scales used as measures in this study, which included factor and reliability analyses for each scale. Factor analysis, a statistical procedure, can be useful in assessing which dimensions are being captured by the measures and even lead to simpler measures. Assessing reliability increases confidence in the internal consistency of each variable's items (Monette et al., 2011).

Overall Stress (Past Election)

This scale was constructed using items found in the Perceived Stress Scale and sought to

measure overall perceived stress at the time of the past election. This six-item scale can be found in the survey instrument at questions 12 through 17.

I conducted an exploratory factor analysis, calculating the principal axis factors and loadings. Only the first factor had an eigenvalue greater than one. Table 4 presents the initial results, which shows one retained factor explains 100 percent of the variance.

Table 4

Eigenvalues for Overall Stress (Past Election)

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	1.70583	1.63096	1.2199	1.2199

Figure 15 shows a scree graph which supports the use of one factor. Therefore, I retained the first factor and considered the remaining factors less important (see Hamilton, 2013).

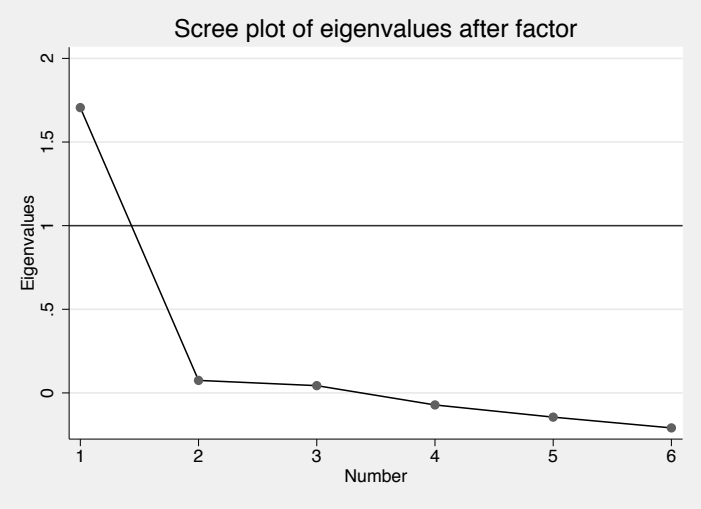

Figure 15. Scree graph of eigenvalues for *overall stress (past election)*.

The full-scale reliability analysis resulted in a Cronbach's alpha of .45. The result was the same using the "item" option in Stata. However, using just the first two scale items resulted in a Cronbach's alpha of .70. My analysis produced an alpha level lower than the values found in

previous research for the Perceived Stress Scale (Cohen et al., 1983; Hoge et al., 1993; Wilson et al., 1993). I note, however, that I only selected six items from the original scale, and I modified the items to capture effects from the past election.

The results of the factor analysis and reliability analysis suggest the first factor is the most important for this measure. My data analysis included this factor with all six items, despite the low reliability.

Overall Stress (Present)

This scale was constructed using items found in the Perceived Stress Scale and sought to measure overall perceived stress within the month prior to completion of the survey instrument. This six-item scale can be found in the survey instrument at questions 18 through 23.

I conducted an exploratory factor analysis by calculating the principal factors and loadings. Only the first factor had an eigenvalue greater than one, although the first three factors were positive. Table 5 presents the initial results, which shows one retained factor explains 100 percent of the variance.

Table 5

Eigenvalues for Overall Stress (Present)

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	1.80370	1.50429	1.0960	1.0960

Figure 16 shows a scree graph which supports the use of one factor. Therefore, I retained the first factor and considered the remaining factors less important (see Hamilton, 2013).

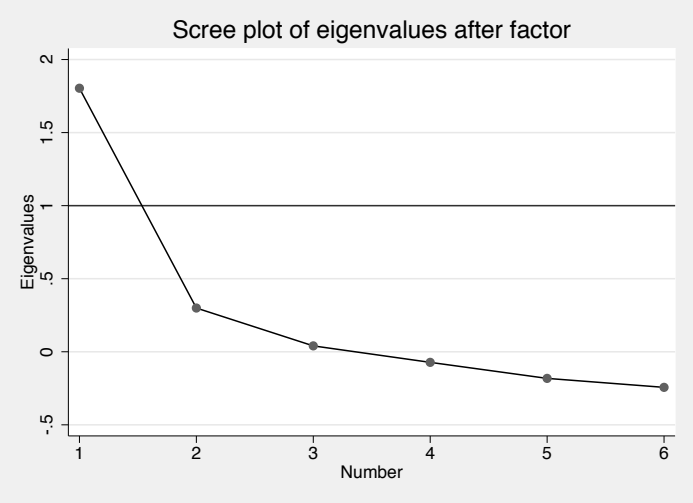

Figure 16. Scree graph of eigenvalues for *overall stress (present)*.

The full-scale reliability analysis resulted in a Cronbach's alpha of .66. However, dropping the last item resulted in a Cronbach's alpha of .68, which is still only at a marginally acceptable level. My analysis produced an alpha level lower than the values found in previous research for the Perceived Stress Scale (Cohen et al., 1983; Hoge et al., 1993; Wilson et al., 1993). I note, however, that fewer items were included in my scale than in the original scale.

The results of the factor analysis and reliability analysis suggest the first factor is the most important. My data analysis included this factor with all six items.

Anxiety

This scale is known as the Spielberger State Anxiety Inventory (STAI). This six-item scale can be found in the survey instrument at question 24.

I conducted an exploratory factor analysis using principal axis extraction. Only the first factor had an eigenvalue greater than one. Table 6 presents the initial results, which shows one retained factor explains 100 percent of the variance.

Table 6

Eigenvalues for Anxiety

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	2.55132	2.10726	1.0184	1.0184

Figure 17 shows a scree graph which supports the use of one factor. Therefore, I retained only one factor (see Hamilton, 2013).

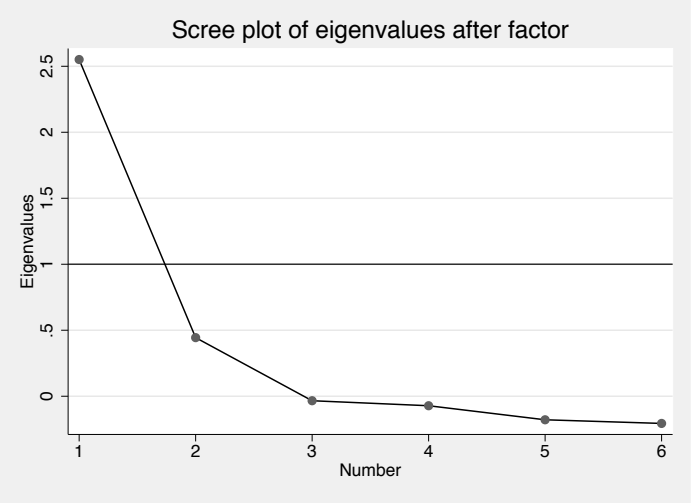

Figure 17. Scree graph of eigenvalues for *anxiety*.

The full-scale reliability analysis resulted in a Cronbach's alpha of .81. Dropping items and an "item" analysis using Stata did not provide any improvement. My reliability analysis did not differ much from previous research (Marteau & Bekker, 1992). The results supported using all six items from the original scale.

Burnout

This seven-item scale is known as the Maslach Burnout Inventory (survey instrument at question 25). I conducted an exploratory factor analysis. Table 7 presents the initial results, which shows two retained factors explains 100 percent of the variance.

Table 7

Eigenvalues for Burnout

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	3.70339	3.17243	0.9569	0.9569
2	0.53096	0.48293	0.1372	1.0941

Figure 18 shows a scree graph that supports only one factor. I retained the first factor and considered the remaining factors less important (see Hamilton, 2013).

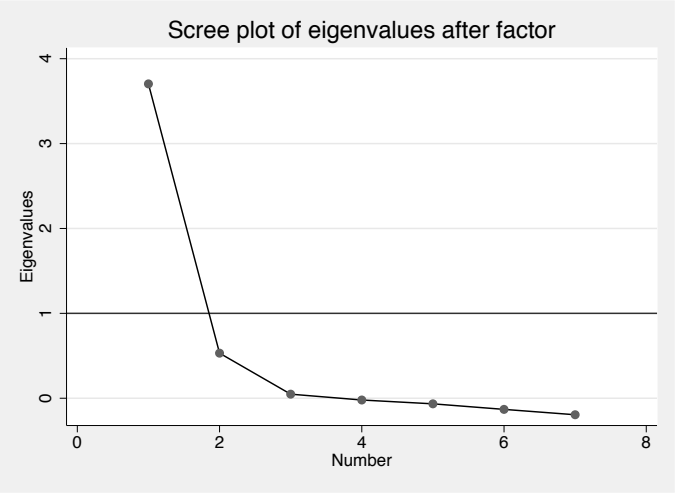

Figure 18. Scree graph of eigenvalues for *burnout*.

The full-scale reliability analysis resulted in a Cronbach's alpha of .87. Dropping items and an "item" analysis using Stata did not provide improvement. My reliability analysis did not differ much from previous research (Maslach & Jackson, 1981). The results suggest the first factor was the most important for this measure, and use of the entire scale provided very good reliability. Therefore, I used the entire scale in my data analysis.

Political Efficacy

This four-item scale derives from Niemi et al.'s work (survey instrument at question 26). Table 8 presents the initial results of an exploratory factor analysis.

Table 8

Eigenvalues for Political Efficacy

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	1.98410	1.79260	1.0441	1.0441

Figure 19 shows a scree graph which supports use of one factor. Therefore, I retained the first factor and considered the remaining factors less important (see Hamilton, 2013).

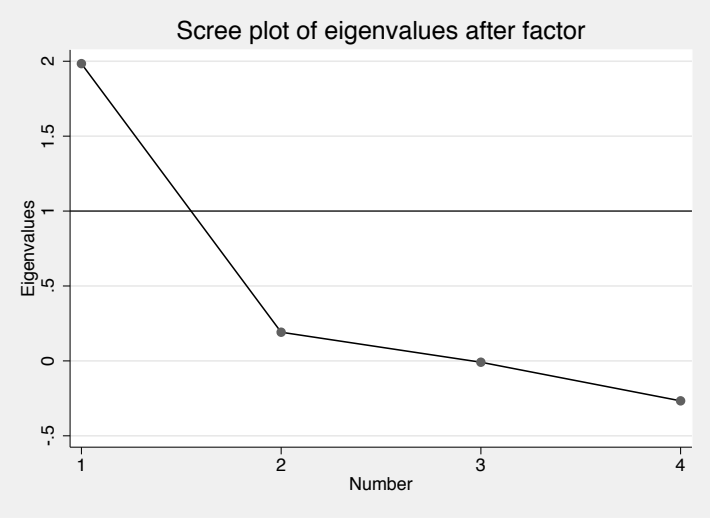

Figure 19. Scree graph of eigenvalues for *political efficacy*.

The full-scale reliability analysis resulted in a Cronbach's alpha of .79. Item analysis revealed that dropping any item did not improve the robustness of the alpha. Therefore, I used the entire scale in my data analysis.

Univariate Analysis

Parts I and VII of the questionnaire includes items that sought to learn more about the poll workers and their service (see Appendix C). Table 9 provides the number of responses, frequencies, and percentages for variables used in this study. The univariate analyses reveal that the majority of poll workers who responded were female (70%), white (91%), and expressed

interest in continuing as poll workers (95%). The sample was almost evenly divided across the political spectrum, with 45% Republican and 43% Democrat. The slight majority were from the comparison state (52%).

Table 9

Frequencies and Percentages for Variables

	Frequency	Percent	*N*
Control/Other Variables			
Sex			441
Male	134	30.4	
Female	307	69.6	
Race			439
White	398	90.7	
Non-white	41	9.3	
Party affiliation			442
Strong Republican	80	18.1	
Moderate Republican	99	22.4	
Independent	52	11.8	
Moderate Democrat	97	22.0	
Strong Democrat	93	21.0	
Other	13	2.9	
Do not know	8	1.8	
Future interest			450
Yes	428	95.1	
No	22	4.9	
Polling place hours			453
13	260	57.4	
14	72	15.9	
89	121	26.7	
State GDP (millions of dollars)			453
321	121	26.7	
427	95	21.0	
504	72	15.9	
609	165	36.4	
State party control			453
Republican	0	0.0	
Democrat	0	0.0	
Mixed government	453	100.0	

	Frequency	Percent	*N*
Independent Variable			
Group membership			453
PA and NJ (comparison)	237	52.3	
MD and VA (treatment)	216	47.7	

Table 10 provides descriptive statistics for additional variables used in this study. The table includes the number of responses, mean, median, SD, and PSD. I used these descriptive statistics to assess skewness, and I made the appropriate transformations prior to conducting regressions, the outcomes of which are discussed later in this chapter.

Table 10

Summary Statistics for Variables

	N	Mean	Median	SD	PSD
Control/Other Variables					
Age	430	62.12	64	13.16	11.86
Education	442	15.55	16	2.79	3.71
Years of service	441	8.81	6	8.58	6.67
Race	439	.09	0	.29	0.00
Sex	441	.70	1	.46	.74
Mediating Variables					
Sense of control	398	3.26	3	.80	.74
Referrals	396	1.10	1	1.03	0.00
Dependent Variables					
Conflicts	391	1.23	0	2.56	1.48
Training	393	2.39	2	2.04	1.48
Technology	390	3.35	3	5.30	1.48
Supervisor's views	400	1.67	2	.78	.74
Overall stress					
Past election	401	.28	0	.57	0.00
Present	434	2.68	2	1.81	1.48
Anxiety	448	9.22	8	3.31	4.08
Burnout	439	4.02	2	5.19	5.19
Political interest	451	2.68	3	.58	.74
Political efficacy	444	8.56	8	3.50	3.71

	N	Mean	Median	SD	PSD
Disenchantment	443	57.90	59	9.10	8.90
Difficulty recruiting (four states)	240	1.80	1	1.06	1.48
Difficulty recruiting (all states)	6447	2.38	3	1.20	.74

As Table 10 reveals, the average age of poll workers was 62, and the average age of education was just under 16 years. On average, the respondents had served as poll workers for nearly nine years, and 91% were white. On average, their sense of control was moderate (mean = 3.26), and the number of referrals was relatively low (mean = 1.10). The number of conflicts was also relatively low (mean = 1.23) and the number of hours of training moderate (mean = 2.39). The use of technology was moderate (mean = 3.35), and the respondents' views were highly congruent with their supervisors (mean = 1.67). The level of perceived stress was low for the past election (mean = .28) and moderate for the present election (mean = 2.68). The level of anxiety and burnout was moderate as well.

Primary Data Analysis

The analyses in this section relate to the first eleven hypotheses, which are associated with the first two research questions. This section describes the findings from the multivariate analyses for each of the first eleven hypotheses. The analyses also included random intercept models to account for the random effects of serving in a state and jurisdiction (e.g., counties, cities). For each hypothesis, I included a summary table of the statistical findings.

As discussed previously, for each hypothesis I performed a univariate analysis, and I identified any skewness in the data. I transformed the data as appropriate to reduce any skewness. In addition, for each regression, I checked for multicollinearity, heteroscedasticity, and the existence of outliers and report where they had any impact on the results.

Hypothesis 1: Conflicts

The variable *conflicts* served as the dependent variable for hypothesis 1. As shown in Table 10, the variable had a mean of 1.23, median of 0, SD of 2.56, and PSD of 1.48. These statistics revealed the variable's distribution had a positive skew, which I reduced by transforming the variable using the log.

The OLS multivariate regression resulted in a small positive unstandardized coefficient (.03) for *group membership* and a weak standardized regression coefficient of .07, with an overall model was not statistically significant at the .05 level ($p = .51$). The random intercept model produced a small positive coefficient (.03) for *group membership*, and the overall model was not statistically significant ($p = .47$). The random intercept model did not contribute to the analysis over the simpler OLS model. The likelihood-ratio test confirmed that there was no significant difference ($p = 1.00$) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 11 the OLS results for ease of interpretation. Based on the analyses, I conclude that hypothesis 1 is not supported.

Table 11

Summary of Regression Analyses for H1 - Conflicts

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.03	.04	.07
Age	-.00	.00	-.06
Sex	-.02	.41	-.04
Race	.10	.07	.12
Education	.05	.06	.08
Party affiliation	-.01	.01	-.10
R^2		**.04**	
F		**.90**	

a = unstandardized regression coefficient; b = standardized regression coefficient
* $p < .05$, one-tailed

Hypothesis 2: Training

The variable *training* served as the dependent variable for hypothesis 2. As shown in Table 10, the variable had a mean of 2.39, median of 2, SD of 2.04, and PSD of 1.48. These statistics revealed the variable's distribution had a positive skew. In addition, these statistics show the variable's distribution had a heavier than normal tail. I transformed the variable using the log, which reduced the positive skew. The transformation also brought the tails to near normal (kurtosis = 3.29 versus 12.97).

The OLS multivariate regression produced a statistically significant unstandardized coefficient (.70) for *group membership*. The regression also produced a very strong standardized regression coefficient of .64. Furthermore, the overall model was statistically significant at the .05 level (p = .00). This represents a strong relationship between having an electoral reform at the polling place and more training. Regression criticism determined that a simpler model could be produced by dropping *age* and *sex*. After this change, I found no evidence of multicollinearity, and a test for heteroscedasticity found no reason to reject the null hypothesis of constant variance.

The random intercept model produced a statistically significant coefficient (.56) for *group membership*. However, the overall model was not statistically significant (p = .06). The random intercept model did not contribute to the analysis over the simpler OLS model. The likelihood-ratio test confirmed that there was no significant difference (p = .94) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 12 the OLS results for ease of interpretation. Based on the analyses, I conclude that hypothesis 2 is strongly supported.

Table 12

Summary of Regression Analyses for H2 - Training

Variable	OLS Model		
	b^a	*SE*	b^b
Group membership	.70*	.05	.64
Race	.12	.09	.06
Education	.06	.07	.04
Party affiliation	-.03*	.02	-.08
R^2		**.41**	
F		**44.20***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Hypothesis 3: Technology

The variable *technology* served as the dependent variable for hypothesis 3. As shown in Table 10, the variable had a mean of 3.35, median of 3, SD of 5.30, and PSD of 1.48. These statistics revealed the variable's distribution had a positive skew. The distribution also had a heavier than normal tail. I transformed the variable using the log, which reduced the positive skew.

My initial OLS multivariate regression produced evidence of heteroscedasticity even after a transformation using the log. It appeared the positive skew remained too great. Therefore, I transformed the dependent variable again, but this time I used the negative reciprocal root. This change improved the kurtosis (3.19) and removed the evidence of heteroscedasticity. After the change, the model yielded a statistically significant positive unstandardized coefficient (.04) for *group membership* (p = .05), a standardized regression coefficient of .10, and the overall model also had statistical significance (p = .05). This represents a negligible relationship between electoral reforms at the polling place and the use of more technology.

The random intercept model produced a negative coefficient (-.11) for *group membership* that was not statistically significant ($p = .09$). The overall model also was not statistically significant ($p = .47$). The random intercept model did not contribute to the analysis over the simpler OLS model. The likelihood-ratio test confirmed that there was no contribution ($p = 1.00$) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 13 the OLS results. Based on the analyses, I conclude that hypothesis 3 is weakly supported.

Table 13

Summary of Regression Analyses for H3 - Technology

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.04*	.02	.10
Age	-.00	.00	-.04
Race	.03	.04	.04
Education	.03	.03	.07
Party affiliation	-.00	.01	-.04
R^2		**.03**	
F		**1.91***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Hypothesis 4: Supervisor's Views

The variable *supervisor's views* served as the dependent variable for hypothesis 4. As shown in Table 10, the variable had a mean of 1.67, median of 2, SD of .78, and PSD of .74. These statistics revealed the variable's distribution had a negative skew. The distribution also had a heavier than normal tail. However, transformations using the square and cube failed to improve normality, with the kurtosis from the square at 9.94 and from the cube at 24.56. Models using these transformations also produced evidence of heteroscedasticity. Despite the negative skew, ladder suggested transforming the variable using the square root, which resulted in a

kurtosis of 2.56. However, this transformation also resulted in models with evidence of heteroscedasticity. Therefore, I transformed the variable using the log. This change removed the heteroscedasticity in the models, and there was no evidence of multicollinearity.

The OLS multivariate regression produced a positive unstandardized coefficient (.01) for *group membership* that was not statistically significant ($p = .39$). This regression also produced a negligible standardized regression coefficient of .02. However, the overall model was statistically significant ($p = .01$).

An ordered logistic regression also produced a small positive coefficient (.07) for *group membership* that was not statistically significant ($p = .38$), with a statistically significant overall model ($p = .01$). However, the standard error increased (.23 versus .05), reducing precision (Long & Freese, 2014). Therefore, I provided the simpler OLS model.

The random intercept model also produced a small positive coefficient (.02) for *group membership* that was not statistically significant ($p = 38$). However, the overall model had statistical significance ($p = .01$).

The mixed effects logistic regression produced a small positive coefficient (.01) for *group membership* that was not statistically significant ($p = .49$), and the overall model was not statistically significant ($p = .06$). However, the standard error increased (.24 versus .05).

The multilevel models did not contribute to the analysis over the simpler OLS model. The likelihood-ratio tests confirmed that there was no contribution ($p = 1.00$) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 14 the OLS results. Based on the analyses, I conclude that hypothesis 4 is not supported.

Table 14

Summary of Regression Analyses for H4 – Supervisor's Views

Variable	OLS Model		
	b^a	*SE*	b^b
Group membership	.01	.05	.02
Age	-.01*	.00	-.17
Race	.11	.08	.07
Education	-.11	.07	-.09
Party affiliation	-.01	.01	-.03
R^2		**.04**	
F		**3.12***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Hypothesis 5: Sense of Control

The variable *sense of control* served as the dependent variable for hypothesis 5. This variable had to be recoded prior to its use. The survey instrument originally measured this variable such that a lower value represented a greater sense of control. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented a higher value of the dependent variable.

As shown in Table 10, the variable had a mean of 3.26, median of 3, SD of .80, and PSD of .74. These statistics revealed the variable's distribution had a positive skew, with a heavier than normal tail. However, the skewness was mildly negative (-1.32). Despite the mild negative skew, a transformation using the square improved normality (kurtosis = 2.26 versus 5.39).

The OLS multivariate regression produced a negative unstandardized coefficient (-1.25) for *group membership* that was statistically significant ($p = .01$), with a statistically significant overall model ($p = .03$). However, an ordered logistic regression also resulted in a statistically significant negative coefficient (-.54) for *group membership* ($p = .01$), with a statistically

significant overall model (p = .02). The standard error for *group membership* improved with the latter model suggesting greater precision than the OLS model (.23 versus .52). The analyses show a strong relationship between having an electoral reform at the polling place and the sense of control. Given that the unstandardized coefficient for *group membership* is in the expected negative direction, the treatment group (having an electoral reform) had less sense of control than the comparison group. This result is consistent with hypothesis 5.

The random intercept model also produced a statistically significant negative coefficient (-1.25) for *group membership* (p = .01), with a statistically significant overall model (p = .05). The mixed effects logistic regression also produced a negative coefficient (-18.19) for *group membership* that was not statistically significant (p = .50), with an overall model that was not statistically significant (p = .46). The multilevel models did not contribute to the analysis. The likelihood-ratio tests confirmed that there was no contribution (p = 1.00) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 15 the ordered logistic regression results for ease of interpretation. Based on the analyses, I conclude that hypothesis 5 is modestly supported.

Table 15

Summary of Regression Analyses for H5 – Sense of Control

	Ordered Logistic Model	
Variable	***b*[a]**	***SE***
Group membership	-.54*	.23
Age	-.01	.01
Sex	-.30	.23
Education	.69*	.30
Party affiliation	.01	.06
R^2	**.02**	
F	**12.07***	

a = unstandardized regression coefficient
* p < .05, one-tailed

Hypothesis 6: Referrals

The variable *referrals* served as the dependent variable for hypothesis 6. This variable had to be recoded prior to its use. The survey instrument originally measured this variable such that a lower value represented more referrals. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented a higher value of the dependent variable.

As shown in Table 10, the variable had a mean of 1.10, median of 1, SD of 1.03, and PSD of 0. These statistics revealed the variable's distribution had a positive skew. The distribution also had a heavier than normal tail. Consistent with the recommendation from the ladder command, I transformed the variable using the square root, resulting in improved normality (kurtosis = 2.53 versus 4.58).

The OLS multivariate regression produced a small positive unstandardized coefficient (.03) for *group membership* that was not statistically significant (p = .31) and a very low standardized regression coefficient of .03, although the overall model was statistically significant at the .05 level (p = .04). An ordered logistic regression also produced a small positive coefficient (.14) for *group membership* that was not statistically significant (p = .28), with an overall model that was statistically significant (p = .05). Given a similar result, I provided the simpler OLS model.

The random intercept model also produced a small positive coefficient (.05) for *group membership* that was not statistically significant (p = .23). The overall model also was not statistically significant (p = .07). The mixed effects logistic regression also produced a positive coefficient (.36) for *group membership* that was not statistically significant (p = .11), with an overall model that was not statistically significant (p = .11). The multilevel models did not

contribute to the analysis over the simpler OLS model. The likelihood-ratio tests confirmed that there was no contribution (p = 1.00) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 16 the simpler OLS results for ease of interpretation. Based on the analyses, I conclude that hypothesis 6 is not supported.

Table 16

Summary of Regression Analyses for H6 - Referrals

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.03	.07	.03
Age	.01*	.00	.16
Sex	-.03	.07	-.02
Education	-.04	.09	-.02
Party affiliation	.00	.02	.00
R^2		**.03**	
F		**1.99***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Hypothesis 7: Overall Stress

Overall stress (past election). The variable *overall stress (past election)* served as a dependent variable for hypothesis 7, assessing perceived overall stress during the past election. This variable had to be recoded prior to its use. The survey instrument originally measured this variable such that a lower value represented more perceived stress. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented a higher value of the dependent variable.

As shown in Table 10, the variable had a mean of .28, median of 0, SD of .57, and PSD of 0. These statistics revealed the variable's distribution had a positive skew. The distribution

also had a heavier than normal tail. I transformed the variable using the square root, resulting in a distribution closer to normality (kurtosis = 3.71 versus 17.33).

The OLS multivariate regression, after regression criticism, produced a positive unstandardized coefficient (.04) for *group membership* that was not statistically significant (p = .25), a very low standardized regression coefficient of .04, and an overall model that was not statistically significant at the .05 level (p = .22). The random intercept model also produced a positive coefficient (.05) for *group membership* that was not statistically significant (p = .19), and the overall model was not statistically significant (p = .13). The random intercept model did not contribute to the analysis. The likelihood-ratio test confirmed that there was no contribution (p = 1.00) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 17 the simpler OLS results. Based on the analyses, I conclude that hypothesis 7 is not supported as it relates to the overall stress in the most recent election.

Table 17

Summary of Regression Analyses for H7 – Overall Stress (Past Election)

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.04	.05	.04
Age	.00	.00	.04
Education	.07	.08	.06
R^2		**.01**	
F		**.90**	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Overall stress (present). The variable *overall stress (present)* served as another dependent variable for hypothesis 7, assessing the perceived overall stress during the present (within the month prior to completing the questionnaire). The survey instrument originally

measured this variable such that a lower value represented more perceived stress. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented a higher level of overall stress in the last month.

As shown in Table 10, the variable had a mean of 2.68, median of 2, SD of 1.81, and PSD of 1.48. These statistics revealed a positive skew. I transformed the variable using the square root, resulting in improved normality.

The OLS multivariate regression produced a small positive unstandardized coefficient (.03) for *group membership* that was not statistically significant (p = .34), a very low standardized regression coefficient of .02, and an overall model that was not statistically significant (p = .09). The random intercept model also produced a very small positive coefficient (.03) for *group membership* that was not statistically significant (p = .34). The random intercept model did not contribute to the analysis. The likelihood-ratio test confirmed that there was no contribution (p = 1.00) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 18 the simpler OLS results. Based on the analyses, I conclude that hypothesis 7 is not supported as it relates to the overall stress in the last month.

Table 18

Summary of Regression Analyses for H7 – Overall Stress (Present)

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.03	.07	.02
Age	-.00*	.00	-.09
Race	-.19*	.11	-.09
Education	-.09	.10	-.05
R^2		**.02**	
F		**1.57**	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Hypothesis 8: Anxiety

The variable *anxiety* served as a dependent variable for hypothesis 8. As shown in Table 10, the variable had a mean of 9.22, median of 8, SD of 3.31, and PSD of 4.08. These statistics revealed the variable's distribution had a positive skew. I transformed the variable using the square root, with a result closer to normality.

The multivariate regression produced a statistically significant unstandardized coefficient (.10) for *group membership* ($p = .05$), a weak standardized regression coefficient of .09, and a statistically significant overall model at the .05 level ($p = .01$). This represents a weak relationship between having an electoral reform at the polling place and more anxiety. The random intercept model also produced a statistically significant coefficient (.10) for *group membership* ($p = .05$), with a statistically significant overall model ($p = .01$). The random intercept model did not contribute to the analysis. The likelihood-ratio test confirmed that there was no contribution ($p = 1.00$) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 19 the simpler OLS results. Based on the analyses, I conclude that hypothesis 8 is weakly supported.

Table 19

Summary of Regression Analyses for H8 - Anxiety

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.10*	.06	.09
Age	-.00*	.00	-.10
Sex	.11*	.06	.09
Race	-.21*	.09	-.11
Education	.07	.08	.04
Party affiliation	.02	.02	.05
R^2	**.04**		
F	**2.73***		

a = unstandardized regression coefficient; b = standardized regression coefficient
* $p < .05$, one-tailed

I also analyzed the effect of the mediating variables. With respect to the effect of *sense of control*, Pearson's correlations showed weak positive relationships between *group membership* and *anxiety* (.10), *group membership* and *sense of control* (.06), and *sense of control* and *anxiety* (.07). I tested for mediation using three regressions (Baron & Kenny, 1986; Kim, Kaye, & Wright, 2001). While the coefficient was reduced in the third regression (.08 versus .09), the first regression did not produce a statistically significant relationship between the independent variable and the mediating variable ($p = .25$). Therefore, I conclude that a mediating effect was not established.

With respect to the effect of *referrals*, Pearson's correlations showed weak positive relationships between *group membership* and *anxiety* (.10) and *referrals* and *anxiety* (.01), with no linear relationship between *group membership* and *referrals* (.00). I tested for mediation using three regressions (Baron & Kenny, 1986; Kim et al., 2001). The coefficient in the third equation was reduced (.004 versus .09), but the first regression did not produce a statistically significant relationship between the independent variable and the mediating variable ($p = 1.0$). Therefore, I conclude that a mediating effect was not established.

Hypothesis 9: Burnout

The variable *burnout* (emotional exhaustion) served as a dependent variable for hypothesis 9. I recoded this variable prior to its use. The survey instrument originally measured this variable such that a lower value represented more burnout. But by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented a higher level of emotional exhaustion.

As shown in Table 10, the variable had a mean of 4.02, median of 2, SD of 5.19, and PSD of 5.19. These statistics revealed the variable's distribution had a positive skew. The

distribution also had a normal tail. I transformed the variable using the square root to reduce the positive skew and come closer to normality.

The OLS multivariate regression, after regression criticism, produced a statistically significant coefficient (.64) for *group membership* ($p = .00$), a moderately strong standardized regression coefficient of .23, and a statistically significant overall model at the .05 level ($p = .00$). This represents a moderately strong relationship between having an electoral reform at the polling place and more burnout.

The random intercept model also produced a positive coefficient (.35) for *group membership*, but it was not statistically significant ($p = .25$). This overall model also had statistical significance ($p = .00$). The random intercept model did not contribute to the analysis over the simpler OLS model. The likelihood-ratio test confirmed that there was no contribution ($p = 1.00$) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 20 the OLS results. Overall, the analyses show that hypothesis 9 is moderately supported.

Table 20

Summary of Regression Analyses for H9 – Burnout

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.64*	.15	.23
Age	-.02*	.01	-.14
Sex	.16	.15	.05
Race	-.88*	.26	-.18
Education	.15	.21	.04
Party affiliation	.03	.04	.03
R^2		**.09**	
F		**7.00***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

I also analyzed the effect of the mediating variables. With respect to the effect of *sense of control*, Pearson's correlations showed weak relationships between *group membership* and *burnout* (.20), *group membership* and *sense of control* (.06), and *sense of control* and *burnout* (.10). I tested for mediation using three regressions (Baron & Kenny, 1986; Kim et al., 2001). The coefficient in the third equation was reduced (.08 versus .09), but the first regression did not produce a statistically significant relationship between the independent variable and the mediating variable ($p = .25$). Therefore, I conclude that a mediating effect was not established.

With respect to the effect of *referrals*, Pearson's correlations showed weak relationships between *group membership* and *burnout* (.20) and *referrals* and *burnout* (.04), with no linear relationship between *group membership* and *referrals* (.00). I tested for mediation using three regressions (Baron & Kenny, 1986; Kim et al., 2001). The coefficient in the third equation was reduced (.06 versus .07), but the first regression did not produce a statistically significant relationship between the independent variable and the mediating variable ($p = 1.0$). Therefore, I conclude that a mediating effect was not established.

Hypothesis 10: Political Interest

The variable *political interest* served as a dependent variable for hypothesis 10. The survey instrument originally measured this variable such that a lower value represented more political interest. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented a higher level of political interest.

As shown in Table 10, the variable had a mean of 2.68, median of 3, SD of .58, and PSD of .74. These statistics revealed the variable's distribution had a negative skew. The distribution also had a lighter tail than normal. After viewing the ladder and gladder, I chose to transform the variable using the square, which resulted in improved normality (kurtosis = 3.20 versus 6.31).

The OLS multivariate regression, after regression criticism, produced a positive unstandardized coefficient (.32) for *group membership* that was not statistically significant (p = .12) and a weak standardized regression coefficient of .06, although the overall model was statistically significant at the .05 level (p = .00). The ordered logistic regression also produced a positive coefficient (.35) for *group membership* that was not statistically significant (p = .09), with a statistically significant overall model (p = .00). Given a similar result, I provided the simpler OLS model.

The random intercept model produced a positive coefficient (.32) for *group membership* that was not statistically significant (p = .12)., with an overall model that had statistical significance (p = .00). The mixed effects logistic regression also produced a positive coefficient (.33) for *group membership* that was not statistically significant (p = .41), but with an overall model that was not statistically significant (p = .25). The multilevel models did not contribute to the analysis over the simpler OLS model. The likelihood-ratio tests confirmed that there was no contribution (p = 1.00) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 21 the simpler OLS results. Based on the analyses, I conclude that hypothesis 10 is not supported.

Table 21

Summary of Regression Analyses for H10 – Political Interest

	OLS Model		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.32	.27	.06
Age	.04*	.01	.21
Education	1.10*	.37	.15
Party affiliation	.01	.08	.00
R^2		**.07**	
F		**7.93***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Hypothesis 11: Political Efficacy

The variable *political efficacy* served as a dependent variable for hypothesis 11. I recoded this variable prior to its use. The survey instrument originally measured this variable such that a lower value represented more political efficacy. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented a higher level of political efficacy.

As shown in Table 10, the variable had a mean of 8.56, median of 8, SD of 3.50, and PSD of 3.71. These statistics revealed the variable's distribution had a positive skew. The distribution also had lighter than normal tail. After assessing normality, I chose to not transform this variable, as it had a good kurtosis of 2.90.

The OLS multivariate regression, after regression criticism, produced a negative unstandardized coefficient (-.54) for *group membership* that was not statistically significant (p = .08) and a weak standardized regression coefficient of -.08. In addition, the regression produced an overall model that was statistically significant at the .05 level (p = .00).

The random intercept model also produced a negative coefficient (-.54) for *group membership* that was not statistically significant (p = .08). In addition, the random intercept model produced an overall model that had statistical significance (p = .00).

The random intercept model did not contribute to the analysis over the simpler OLS model. The likelihood-ratio test confirmed that there was no contribution (p = 1.00) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 22 the OLS results for ease of interpretation. Overall, the analyses show that hypothesis 11 is not supported.

Table 22

Summary of Regression Analyses for H11 – Political Efficacy

Variable	OLS Model		
	b^a	*SE*	b^b
Group membership	-.54	.38	-.08
Age	.01	.01	.02
Race	-.58	.60	-.05
Education	-1.70*	.52	-.17
Party affiliation	-.05	.11	-.02
R^2		.06	
F		4.93*	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Disenchantment

This constructed variable served as the dependent variable associated with the second research question. I constructed the variable from the interaction between *political interest* and *political efficacy*.

As shown in Table 10, the variable had a mean of 57.90, median of 59, SD of 9.10, and PSD of 8.90. These statistics revealed the variable's distribution had a negative skew. The distribution also had a heavier than normal tail. However, transformations using the square and cube produced models with excessively high standard errors, suggesting less accuracy. The ladder and gladder assessment showed that the use of the square root improved normality, and my assessment showed these models had an improved precision.

The original multivariate regression model using no transformed variables produced a positive coefficient (1.52) for *group membership* that was statistically significant ($p = .05$), with a statistically significant overall model ($p = .00$). The residuals versus fitted values from this model are shown in Figure 20.

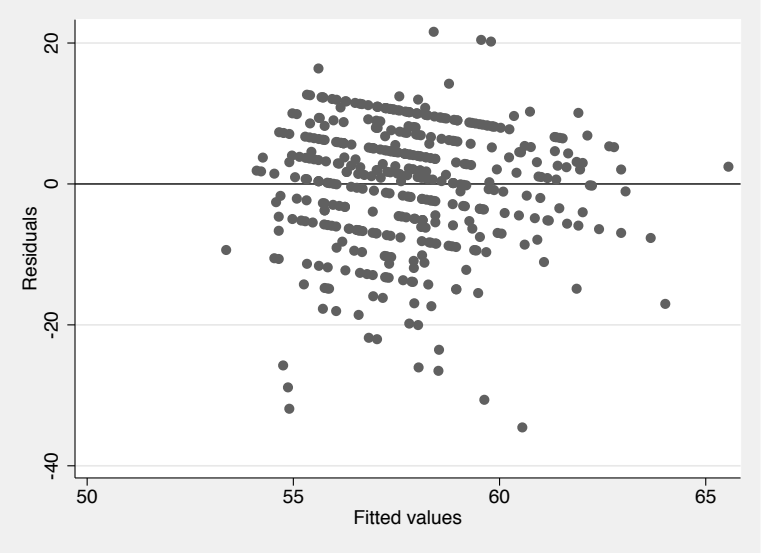

Figure 20. Residuals versus fitted values for *disenchantment*.

I then used the transformed variable. The OLS multivariate regression, after regression criticism, also produced a statistically significant coefficient (.10) for *group membership* (p = .05), a very modest standardized regression coefficient of .08, and a statistically significant overall model at the .05 level (p = .00). This represents a weak relationship between having an electoral reform at the polling place and more disenchantment.

The random intercept model also produced a statistically significant coefficient (.10) for *group membership* (p = .05). In addition, the random intercept model produced an overall model that also had statistical significance (p = .00).

The random intercept model did not contribute to the analysis over the simpler OLS model. The likelihood-ratio test confirmed that there was no contribution (p = 1.00) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 23 the OLS results for ease of interpretation. Overall, the analyses show that the second research question is weakly supported.

Table 23

Summary of Regression Analyses for Disenchantment

Variable	OLS Model		
	b^a	*SE*	b^b
Group membership	.10*	.06	.08
Age	-.01*	.00	-.15
Race	.16	.18	.07
Party affiliation	.01	.02	.03
R^2		**.04**	
F		**4.83***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* p < .05, one-tailed

Secondary Data Analysis

Hypothesis 12: Difficulty Recruiting

Difficulty in four states. The variable *difficulty (four states)* served as a dependent variable for hypothesis 12, which relates to research question three. I recoded this variable prior to its use. The EAC survey instrument originally measured this variable such that a lower value represented more difficulty in recruiting. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented greater difficulty in recruiting poll workers.

As shown in Table 10, the variable had a mean of 1.80, median of 1, SD of 1.06, and PSD of 1.48. These statistics revealed the variable's distribution had a positive skew. The distribution also had a lighter than normal tail. After a ladder and gladder assessment, I transformed the variable using the square root, resulting in a distribution closer to normality (kurtosis = 3.81 versus 1.99).

Figure 21 graphically displays the data prior to transformation in a 3D format. In the figure, higher values on the y-axis (Difficulty Recruiting) represent more difficulty in recruiting

poll workers. This graphic suggests the states having an electoral reform at the polling place had greater difficulty recruiting poll workers.

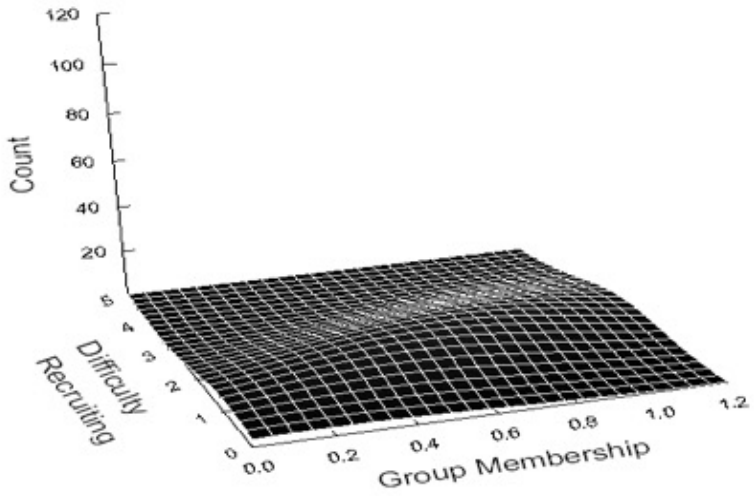

Figure 21. Difficulty recruiting 3D (four states). (0 = states with no reform; 1 = states with a reform).

The OLS multivariate regression, after regression criticism, produced a statistically significant unstandardized coefficient (.21) for *group membership* ($p = .00$). This regression also produced a moderately strong standardized regression coefficient of .22. The overall model was statistically significant at the .05 level ($p = .00$). This represents a modest relationship between having an electoral reform at the polling place and difficulty recruiting poll workers as it relates to just the four states used in this study.

The ordered logistic regression also produced a statistically significant coefficient (1.39) for *group membership* ($p = .00$). The overall model also was statistically significant ($p = .00$). Although the effect size increased, the standard error also became larger (.32 versus .07). Given the increase in the standard error results in less precision (Long & Freese, 2014), I provided the OLS model.

The random intercept model produced a statistically significant coefficient (.21) for *group membership* ($p = .00$). The overall model had statistical significance ($p = .00$).

The mixed effects logistic regression produced a negative coefficient (-1.27) for *group membership* that was not statistically significant ($p = .06$). The overall model was not statistically significant ($p = .13$).

The multilevel models did not contribute to the analysis over the simpler OLS model. The likelihood-ratio tests confirmed that there was no contribution ($p = 1.00$) (Rabe-Hesketh & Skrondal, 2012). Therefore, I show in Table 24 the OLS results for ease of interpretation. Overall, the analyses show modest support for hypothesis 12 when using data from just the four states used in this study.

Table 24

Summary of Regression Analyses for H12 – Difficulty (Four States)

	Model 1		
Variable	***b*[a]**	***SE***	***b*[b]**
Group membership	.21*	.07	.22
Age	.00	.00	.05
Race	.21*	.11	.13
Education	-.07	.10	-.05
Party affiliation	.02	.02	.06
R^2		**.08**	
F		**3.69***	

a = unstandardized regression coefficient; b = standardized regression coefficient
* $p < .05$, one-tailed

Difficulty in all states. The variable *difficulty (all states)* served as another dependent variable for hypothesis 12, which relates to research question three. I intended this analysis to serve as a check on the findings from the primary data analyses, using the entire secondary data set to see if a relationship between having an electoral reform at the polling place and difficulty

recruiting poll workers also holds nationally. I recoded this variable prior to its use. The EAC survey instrument originally measured this variable such that a lower value represented more difficulty in recruiting. But, by re-defining the variable as the total possible value minus the value chosen, a higher measured value represented greater difficulty in recruiting poll workers.

As shown in Table 10, the variable had a mean of 2.38, median of 3, SD of 1.20, and PSD of .74. These statistics revealed the variable's distribution had a negative skew. The distribution also had a heavier than normal tail. However, I transformed the variable using the negative reciprocal root, with a result closer to normality (kurtosis = 3.41).

Figure 22 graphically displays the data prior to transformation in a 3D format. In the figure, higher values on the y-axis (Difficulty Recruiting) represent more difficulty in recruiting poll workers. The graphic shows the states having a reform had greater difficulty recruiting poll workers.

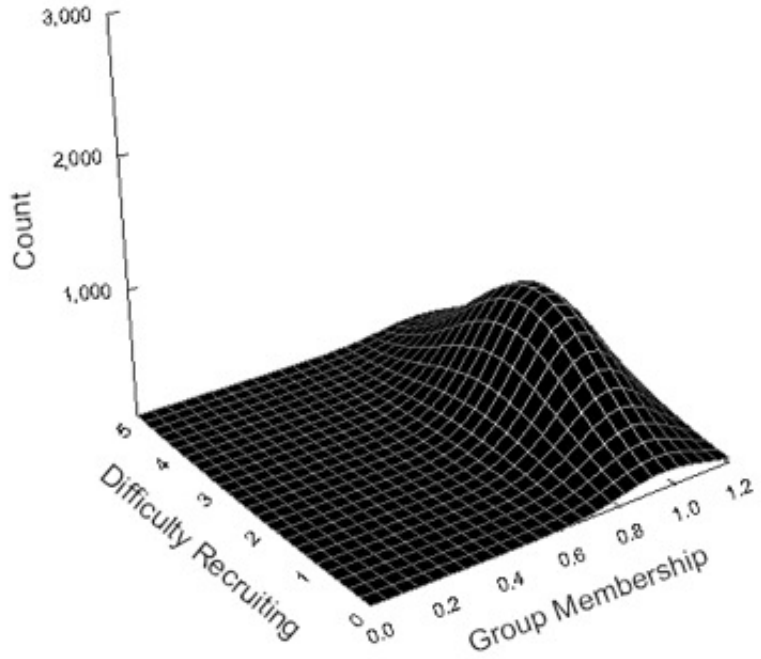

Figure 22. Difficulty recruiting 3D (all states). (0 = states with no reform; 1 = states with a reform).

A simple regression resulted in a statistically significant coefficient (.17) for *group membership* ($p = .00$), with a small standard error (.01), with an overall model that was statistically significant at the .05 level ($p = .00$). This represents a modest relationship nationwide between states having an electoral reform at the polling place and more difficulty recruiting poll workers.

Since the EAC's measure used a Likert-type scale, I checked the results with an ordinal logistic regression, which also produced a statistically significant coefficient (1.76) for *group membership* ($p = .00$), with a statistically significant overall model ($p = .00$). However, this model also increased the standard error (.17 versus .01), reducing precision (Long & Freese, 2014). The analyses show that when using all the states, hypothesis 12 receives modest support. My overall conclusion, given the data from this study and the EAC data, is that hypothesis 12 is modestly supported.

Summary

In this chapter, I described the nature of the sample used for the study, including the number of respondents and the survey instrument response rate. This chapter also included information on the sample's demographic characteristics. In addition, this chapter included my analyses of the scales used in the survey instrument. Furthermore, this chapter provided the results from the data analysis using the methods discussed in the previous chapter.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Introduction

This chapter primarily provides my interpretation of the findings from the data analysis described in the previous chapter. I also provide the conclusions supported by my findings. Given this study's findings, I also offer some suggestions for future research. Furthermore, I reiterate the larger context in which this study is situated and stress the importance of electoral reform that will encourage civic participation.

Summary of Results

As shown in Table 25, six of 12 hypotheses had at least some support. Overall, the data analyses in the previous chapter provide at least some support for each of the three research questions.

Table 25

Support for Hypotheses

Hypotheses	**Supported**	**Modestly Supported**	**Weakly Supported**	**Not Supported**
1. More conflicts with voters.				X
2. More training required.	X			
3. More technology required.			X	
4. Disagree more with supervisor's views.				X
5. Less sense of control.		X		
6. More referrals.				X
7. More perceived overall stress.				X

Hypotheses	Supported	Modestly Supported	Weakly Supported	Not Supported
8. More anxiety.			X	
9. More burnout.	X			
10. Lower political interest.				X
11. Lower political efficacy.				X
12. More difficulty in recruiting.		X		

Hypothesis 1, which is associated with the first research question, expected more conflicts to exist in the states having an electoral reform. My analysis produced a positive outcome in the expected direction, but neither the coefficients for *group membership* nor the overall models were statistically significant. A problem may have existed in the measure for conflict used in my survey instrument. The question did not provide a definition for conflict. Perhaps a more precisely worded question would have solicited different responses. In addition, despite the anonymous nature of the survey instrument, some degree of social desirability bias may have influenced the responses.

Hypotheses 2 and 3 related to more training and an increase in the use of technology, with positive statistically significant outcomes in the expected directions. My visits to a jurisdiction within a state having an electoral reform strengthened my expectation of these outcomes. The trainers in that jurisdiction spent most of the training sessions familiarizing their poll workers with the new technology and addressing the requirements of a recent electoral reform. This jurisdiction devoted little time in the training session to dealing with other

important election issues such as helping handicapped and elderly voters, ballot security, and provisional voting.

Hypotheses 4 related to agreement with supervisor's views. I expected poll workers in a state having a recent electoral reform at the polling place would disagree more with their supervisor's views. However, the model did not produce a statistically significant coefficient for *group membership*. Therefore, I conclude that poll workers in states having an electoral reform do not disagree more with their supervisor's views.

Hypothesis 5 related to sense of control. I expected poll workers in a state having a recent electoral reform at the polling place would have less sense of control. As expected, the model produced a statistically significant coefficient for *group membership* in the expected direction. This finding supports the conclusion that poll workers in states having an electoral reform have less sense of control.

Hypothesis 6 involved the use of referrals. I found positive coefficients for *group membership*, but they were not statistically significant. These findings support the conclusion poll workers in states having an electoral reform at the polling place did not use more referrals as a bureaucratic coping strategy than poll workers in states having no electoral reform.

Hypothesis 7 posited that poll workers serving in a state having an electoral reform at the polling place would perceive more overall stress. I measured the perception based upon the respondents' recall of the past election (past election) and within the month prior to completing the questionnaire (present). Although I found positive coefficients for *group membership* in the expected direction, the stress models produced quite small coefficients that were not statistically significant. This finding supports the conclusion that poll workers in a state having a reform did not perceive any greater stress than poll workers in states not having a reform.

Despite not finding a significant difference in perceived stress between the comparison group (having no electoral reform) and the treatment group (having an electoral reform), my analyses for hypotheses 8 and 9, which relate to anxiety and burnout, mostly produced coefficients for *group membership* that were statistically significant and each were in the expected direction. These findings increase my confidence that the burdens caused by the recent electoral reforms have an individual-level effect. These findings support the conclusion poll workers serving in a state having an electoral reform at the polling place experience more anxiety and burnout than poll workers serving in a state that does not have an electoral reform.

Hypothesis 10 relates to political interest. The analyses resulted in a coefficient for *group membership* that was not statistically significant. This result suggests poll workers in both the comparison group (having no electoral reform) and the treatment group (having an electoral reform) have strong political interest.

Hypothesis 11 relates to political efficacy. The coefficient for *group membership* was not statistically significant. This finding supports the conclusion that poll workers serving in a state having an electoral reform at the polling place do not have lower political efficacy than poll workers serving in a state without an electoral reform.

The second research question addressed the problem of disenchantment. My models resulted in statistically significant coefficients for *group membership*. My findings support the conclusion that poll workers serving in a state having an electoral reform at the polling place experience more disenchantment than poll workers serving in a state without an electoral reform.

Hypothesis 12, which is associated with the third research question, addressed the difficulty in recruiting poll workers. My analysis using the data just from the four states in this study found a statistically significant positive coefficient for *group membership*, indicating

election administrators in the treatment group (having an electoral reform) perceived more difficulty in recruiting poll workers. The nation-wide analysis showed a similar outcome. These findings support the conclusion election administrators in states having an electoral reform at the polling place have more difficulty recruiting poll workers.

Implications for Theory and Policy

Among the strongest findings in this study reveal that sense of control and burnout are important considerations when assessing the impact of recent electoral reforms at the polling place. These findings show the viability of using stress and coping theory within a local government context, including in studying individuals that work within street-level bureaucracies.

The study also showed the importance of considering concepts from stress and coping theory when assessing political engagement. While this study's results agree that favorable attitudes are needed for an engaged citizenry, it also demonstrates that including stress concepts in future participation models will give a more complete understanding of political participation.

The study also has practical implications for election administrators. Election administrators should take account of the additional burdens caused by more training and technology and require only what is necessary. For example, one jurisdiction I visited supplemented their poll worker training with less burdensome online videos that could be viewed at any time and in the convenience of a poll worker's home. In addition, election administrators should adopt procedures that improve a sense of control and reduce stress in the polling place. For example, dividing responsibilities in the polling place can help to reduce the burdens caused by the many demands of Election Day. Moreover, election administrators should seek a balance between implementing electoral reforms and meeting the needs of voters. For example, election

administrators should not neglect other important topics in poll worker training by focusing excessively on the recent electoral reforms. Lastly, election administrators should encourage lawmakers to oppose public policies that scholarly research has shown not to improve public participation.

The variables used in this study are not the only reasons that election administrators may have difficulty recruiting enough qualified poll workers. For example, as discussed in Chapter One, Putnam noted the modern decline in participation (2000). In addition, as discussed in the previous chapter, I learned some current poll workers would no longer serve because of concerns with age, health, long hours, low pay, and a shortage of other poll workers available to assist.

Although the effect sizes in this study are not large, the findings support the conclusion the recent electoral reforms at the polling place produce some harm to election administration. Given the effect sizes, I do not expect the recent electoral reforms at the polling place will cause the electoral process to grind to a halt. To the contrary, many hard-working election administrators and their staff are putting forth much effort to meet the imposed legal requirements. For example, I visited one jurisdiction that made a substantial investment in computer tablets capable of syncing information from a voter's identification with data in an electronic polling book. But, as this example reflects, these efforts result in significant expenditure of resources.

I conducted this study during the 2016 presidential election cycle. Historically, presidential election years are times when political participation is at its highest (Rosenstone & Hansen, 1993). National data continues to support the existence of this trend, with 60.2 percent of the voting eligible population (VEP) voting in the presidential election in November 2016 compared to only 36.7 percent of the VEP voting in the mid-term election in November 2014

(U.S. Elections Project, 2017). This resulted in a higher workload for poll workers and election administrators in November 2016. In addition, some evidence exists that the 2016 election represents the beginning of an upswing in political mobilization (Sydell, 2017). But, as pointed out by Verba et al. (1995), the nature of the political activity will be important. Some individuals may prefer to engage in contemporary forms of non-electoral political activity, choosing not to vote. However, evidence exists that government tends to be more responsive to the needs of voters (Griffin & Newman, 2005). These circumstances gave me an opportunity to assess the impact of the recent electoral reforms in a rich political and administrative context.

This study's findings do not provide a complete understanding of the impact of electoral reforms. The harms to election administration found in this study must also be considered along with the other problems found to be associated with these electoral reforms, which were discussed previously in Chapter Two. For example, previous research established voter identification requirements at the polling place had served as a mechanism to suppress access to voting (Overton, 2007; Barreto et al., 2009). In addition, IPEV had not expanded the electorate, and EDR had not improved voter turnout (Berinsky, 2005; Hanmer, 2009). Reducing the challenges to good election administration will promote the vitality of our electoral process. If doing so will also encourage civic participation through greater access to voting, the collective good will be furthered by a step toward an even more glorious republic.

Limitations

The use of a static group comparison design represents a limitation on this study's ability to understand the true impact of recent electoral reforms on election administration. This study collects data from only a portion of the population during a single election cycle. Effects of the treatment over time or the impact of other variables at a subsequent time cannot be discovered

using this research design (Monette et al., 2011). Despite these limitations, however, this research design makes sense given the time and resources available for this study. But, future research addressing these limitations would be needed to improve our confidence in any significant results. In this respect, this study represents a first step to identify significant relationships to encourage future work having important scholarly and policy implications.

Another concern with this design relates to the common difficulty with manipulating independent variables, which usually can be more easily done with experimental designs. Often with non-experimental designs, causation must be inferred either from logic or theory (Frankfort-Nachmias & Nachmias, 1996). Here, as noted earlier, an advantage in drawing tentative causal claims exists because a clear time order results from states having laws providing for the recent electoral reforms. This fact helps to reduce the usual concern over this design's limitation.

Another limitation of this study relates to external validity and the ability of this study to generalize to the wider election administration population. This study only focuses on poll workers in four states due to time and resource constraints. Given the limited literature related to poll workers, this study involves a larger population than most past work. Nonetheless, the study remains more limited than the ideal as other regions of the United States do have different political cultures (e.g., Elazar, 1984), which could influence outcomes. But, with respect to election administration itself, increased federal involvement in elections since 2000 has brought greater uniformity to state and local administrative practices. Also, an advantage of this study's design includes conducting the study in a natural environment with actual poll workers (Frankfort-Nachmias & Nachmias, 1996). These factors help to improve the study's external validity, thereby reducing the concern about this limitation.

An additional limitation of this study involves the use of self-administered survey

instruments. Self-administered survey instruments have known problems including potential difficulties with comprehension of survey questions, social desirability effects, and non-response bias (Monette et al., 2011; Fowler, 2009). An experienced poll worker provided feedback prior to the use of the survey instrument, which improved the quality of the survey questions. The study reduces social desirability effects by being anonymous and by the careful omission of questions that might have prompted this effect such as questions regarding the respondents' thoughts about their supervisor or the reforms themselves. This study addresses non-response bias by keeping the survey instrument as short in length and as easy to complete as possible, by providing more than one way the survey could be completed, and by keeping the costs of responding low. The availability of secondary data also helped to support the analysis and limited the potential harm from non-responses.

The study's design and method actively included steps to mitigate each of these limitations. But, no solution can be expected to fully eliminate the impact of these limitations on the study. Readers are cautioned to take these limitations into account when assessing this study's results, and other researchers are encouraged to develop new strategies to better overcome these limitations to increase confidence in understanding the relationship between recent electoral reforms and their impact on election administration.

Future Research

As discussed above, many factors may influence poll worker recruitment and retention, including age, health, long hours, low pay, and a shortage of other poll workers available to assist. I encourage future research to further expand our understanding of the difficulty in recruiting enough, qualified poll workers to meet the needs of modern elections. An important finding in this study related to the existence of more burnout in states having an electoral reform

at the polling place. Future research should more closely examine the causes of this phenomena by treating burnout as the dependent variable.

Although this study did not find a meaningful difference in the conflicts experienced by poll workers, I encourage future research to explore the nature of conflicts in states having an electoral reform. This is especially important given some election administrators withheld their support for voter identification requirements in HAVA due to their expectation such requirements would increase conflicts with some voters (Palazzolo & McCarthy, 2005).

This study placed the states used in the study into groups based on whether those states had any of the recent electoral reforms. However, it could be insightful if future research assessed each of the states individually.

Political participation and bureaucratic theory scholars should conduct more research at the local level, including the street-level where bureaucrats provide direct services to the public. No doubt there are challenges associated with access to data. As seen in this study, overcoming such challenges can yield informative insights about political phenomena having far reaching interest to both theorists and practitioners.

I also note future study of poll workers at the street-level where they interact directly with voters is ideal for qualitative research. Poll workers I met during my visits to poll worker training sessions expressed interest in sharing their experiences. Given their higher than average political interest and strong commitment to serving others, the voice of the poll worker can tell us much about the health of our electoral system.

Summary

This chapter provided my interpretation of this study's findings. I also gave my conclusions supported by this study's findings. I noted the larger context in which this study is

situated and encouraged any assessment of these electoral reforms to take into consideration the relevant research and the public good. This chapter identified some limitations with this study and explained how they were mitigated. Lastly, I offered some recommendations for future research.

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Appendix A

Work Plan

Task/Action	Expected Date	Completed
Committee Organized	April 2014	July 7, 2014
Comprehensive Exam	October 2014	October 7, 2014
Dissertation Seminar (Literature Review)	January – May 2014	May 9, 2014
Dissertation Credits (Chapters 1-3)	August 2014 – December 2015	June 2015
Proposal to Committee	November 2015	November 24, 2015
Revisions	December 2015	December 31, 2015
Set Defense Date	December 2015 (3 Weeks Prior to Defense)	December 31, 2015
Submit Application to Defend	December 2015 (3 Weeks Prior to Defense)	December 31, 2015
RTAF Draft for Approval	December 2015 (1 Week Prior to Defense)	December 15, 2015
Defend Proposal	January 2016	January 28, 2016
Submit Signed RTAF	At Proposal Defense	January 28, 2016
Submit Signed IRB Protocol	At Proposal Defense for 2/8 meeting	January 28, 2016
Data Collection	March 2016 – June 2016	November 30, 2016
Data Analysis	July – September 2016	December 29, 2016
First Draft of Dissertation	November 2016	January 7, 2017
Revisions	November 2016	April 12, 2017
Second Draft of Dissertation	December 2016	April 14, 2017
Revisions	December 2016	April 30, 2017
Set Defense Date	January 2017	May 2017
Application to Defend	January 2017	May 6, 2017
Submit Final Version of Dissertation (PDF)	January 2017	June 2017
Submit Application for Graduation; Pay Fees	January 2017	July 2017
Public Dissertation Defense	January 2017	June 8, 2017
Revisions	February – March 2017	July 2017
Acquire Committee Signatures	March 2017	June 2017
Review and Approval of Dissertation Format/Style by IUP Graduate School	April 2017	July 2017

Submit Final Dissertation/Fees to IUP Graduate School	April 2017	July 2017
Submit Electronic Dissertation to ProQuest	April 2017	July 2017
Graduation	May 2017	August 2017

Dissertation Action Plan: Eric Franklin Bush

Specified Actions		Sub-Actions	Feb. 2016	Mar. 2016	Apr. 2016	May 2016	June 2016	July 2016	Aug. 2016	Sep. 2016	Oct. 2016	Nov. 2016	Dec. 2016	Jan. 2017
1	IRB Approval													
2	Collect Data	Contact election administrators												
		Present survey at poll worker training or meeting												
		Mail survey, if needed												
		Have survey available on internet												
		Second survey mailing, if needed												
3	Data Analysis	Review data												
		Develop models												
		Outline results												
4	Results Chapter													
5	Discussion Chapter													
6	Appendices													
7	Preparation for Defense													
8	Dissertation Defense													

Gantt Chart of Dissertation Activity

Appendix B

Final Expenses

Data Collection

Survey duplication	$2,207
Postage	$1,952
Shipping (UPS)	$46
Envelopes	$351
Paper, fine business	$61
Fuel	$375
Car rental	$386
Tolls	$15
Meals	$15
Hotel	$140
License fee (MBI)	$495
ASA permission fee	$50
PO Box fee	$232

Final Presentation

Fuel	$30
Meals	$15
Duplication	$100

Other Materials, Supplies

Other duplication	$30
Shipping box	$14
Shipping tape	$4
Shipping labels	$26
Total Cost	$6,544

Appendix C

Survey Instrument

Indiana University of Pennsylvania
Administration & Leadership Studies (ALS) in the Nonprofit & Public Sectors
Department of Sociology

Dixon University Center, Richards Hall 3rd Floor
2986 North Second Street
Harrisburg, Pennsylvania 17110-1201

Phone: 717-720-4064
Fax: 717-720-4062
Internet: www.iup.edu/alsphd

Informed Consent

You are invited to participate in a research project I am conducting as a doctoral candidate at Indiana University of Pennsylvania (IUP). This information can help you make an informed decision as to whether to participate. If you have any questions about the study, please feel free to ask me.

This study seeks to better understand the impact of recent electoral reforms on election administration. The questions asked are primarily focused on your experiences related to your service as a poll worker, and completion of the survey questionnaire should take about 15 minutes. I know your time is valuable, but your participation in this study could help to improve future elections. By participating you will obtain the intrinsic benefit of potentially helping to improve the electoral process.

All individual responses will be anonymous. Please do not place your name on the survey questionnaire. None of your responses can be traced back to you. The information you provide will only be used as aggregate data. The risks of participating in this study are no different than what you typically experience in daily life.

Your participation in this study is voluntary. Your decision whether to participate will not affect your relationship with the researcher or IUP. Completion of the attached questionnaire or its online version indicates you are at least 18 years of age and consent to participate in this study. Please note that after submission of the questionnaire you can not withdraw from the study as the researcher will not know which data came from you.

Please complete the survey within ten (10) days and return it to: Eric Bush, P.O. Box 1728, Rockville, MD 20849. For your convenience, an online version is available at: https://iup.co1.qualtrics.com/SE/?SID=SV_0BeKKgRgLI26tUN

Thank you for your participation in this important study! This research project was approved by the IUP Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730).

Eric Bush, Doctoral Candidate
Administration and Leadership Studies
e.f.bush@iup.edu
443-498-3005

Faculty advisor:
Alex Heckert, Ph.D.
aheckert@iup.edu
724-357-2731

Poll Worker Survey 2016

Part I: We would like to know about your service.

Q1. In which state or district do you serve as a poll worker?

- ❍ Maryland
- ❍ Virginia
- ❍ New Jersey
- ❍ Pennsylvania
- ❍ District of Columbia

Q2. In what county or precinct do you serve? _____

Q3. How many years have you served as a poll worker? _____

Q4. How often would you say you follow what is going on in government and public affairs?

- ❍ most of the time
- ❍ some of the time
- ❍ only now and then
- ❍ hardly at all

Q5. Would you like to be a poll worker in future elections?

- ❍ Yes
- ❍ No

If no, what influenced your decision? _____

Did you participate in the past election?

- ❍ Yes (please complete Part II next)
- ❍ No (please complete Part III next)

Part II: We would like to learn about your experiences during the past election.

Q6. During the most recent election, how many conflicts of any kind did you experience with voters?

_____

Q7. How many hours of poll worker training were required before the most recent election? _____

Q8. During the most recent election, how many pieces of equipment did you use in the polling place?

_____

Q9. During the most recent election, my views related to operating the polling place were the same as my supervisor's views.

- ❍ Strongly agree
- ❍ Agree
- ❍ Neither agree nor disagree
- ❍ Disagree
- ❍ Strongly disagree

Q10. During the most recent election, I had enough control to effectively resolve problems.
- ○ Strongly agree
- ○ Agree
- ○ Neither agree nor disagree
- ○ Disagree
- ○ Strongly disagree

Q11. During the most recent election, how often did you refer voters to others (including workers, supervisors, election judges, etc.)?
- ○ Always
- ○ Most of the time
- ○ About half the time
- ○ Sometimes
- ○ Never

Q12. During the most recent election, how often were you upset because of something that happened unexpectedly?
- ○ Always
- ○ Most of the time
- ○ About half the time
- ○ Sometimes
- ○ Never

Q13. During the most recent election, how often did you feel nervous or "stressed"?
- ○ Always
- ○ Most of the time
- ○ About half the time
- ○ Sometimes
- ○ Never

Q14. During the most recent election, how often did you feel things were going your way?
- ○ Always
- ○ Most of the time
- ○ About half the time
- ○ Sometimes
- ○ Never

Q15. During the most recent election, how often did you feel that you could not cope with all the things that you had to do?
- ○ Always
- ○ Most of the time
- ○ About half the time
- ○ Sometimes
- ○ Never

Q16. During the most recent election, how often did you find yourself thinking about things that you had to accomplish?

- Always
- Most of the time
- About half the time
- Sometimes
- Never

Q17. During the most recent election, how often did you feel that difficulties were piling up so high that you could not overcome them?

- Always
- Most of the time
- About half the time
- Sometimes
- Never

Part III: The following questions ask you about your feelings and thoughts during the last month. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the choice that seems like a reasonable estimate. Again, all answers are totally anonymous.

Q18. In the last month, how often have you dealt successfully with irritating hassles?

- Always
- Most of the time
- About half the time
- Sometimes
- Never

Q19. In the last month, how often have you felt that you were effectively coping with important changes that were occurring?

- Always
- Most of the time
- About half the time
- Sometimes
- Never

Q20. In the last month, how often have you felt confident about your ability to handle problems?

- Always
- Most of the time
- About half the time
- Sometimes
- Never

Q21. In the last month, how often have you been able to control irritations?

- ❍ Always
- ❍ Most of the time
- ❍ About half the time
- ❍ Sometimes
- ❍ Never

Q22. In the last month, how often have you been angered because of things that happened that were outside of your control?

- ❍ Always
- ❍ Most of the time
- ❍ About half the time
- ❍ Sometimes
- ❍ Never

Q23. In the last month, how often have you been able to control the way you spend your time?

- ❍ Always
- ❍ Most of the time
- ❍ About half the time
- ❍ Sometimes
- ❍ Never

Part IV: Please read each statement and then mark the most appropriate category to the right of the statement to indicate how you feel right now, at this moment. There are no right or wrong answers. Do not spend much time on any one statement, but give the answer which seems to describe your present feelings best.

Q24. Please mark the category for *all* of the following statements.

	Not at all	Somewhat	Moderately	Very much
I feel calm	❍	❍	❍	❍
I am tense	❍	❍	❍	❍
I feel upset	❍	❍	❍	❍
I am relaxed	❍	❍	❍	❍
I feel content	❍	❍	❍	❍
I am worried	❍	❍	❍	❍

Part V: Please read each statement carefully and decide if you ever feel this way *about your job as a poll worker.*

Q25. Please mark one for each statement.

	Agree strongly	Agree somewhat	Neither agree nor disagree	Disagree somewhat	Disagree strongly
I feel emotionally drained	○	○	○	○	○
I feel used up	○	○	○	○	○
Working with people is really a strain for me	○	○	○	○	○
I feel frustrated	○	○	○	○	○
I feel I'm working too hard	○	○	○	○	○
Working with people puts too much stress on me	○	○	○	○	○
I'm at the end of my rope	○	○	○	○	○

Part VI.

Q26. Please mark one for each statement.

	Agree strongly	Agree somewhat	Neither agree nor disagree	Disagree somewhat	Disagree strongly
I am well qualified to participate in politics.	○	○	○	○	○
I have a good understanding of important political issues.	○	○	○	○	○
I could do as good a job in public office as most other people.	○	○	○	○	○
I am better informed about politics and government than most people.	○	○	○	○	○

Part VII: We would like to gather some basic information to learn more about participants in the election process. Again, all answers are totally anonymous.

Q27. What year were you born? _____

Q28. What is your sex or gender? _____

Q29. How would you describe your race?

- ❍ White / Caucasian
- ❍ African American
- ❍ Hispanic
- ❍ Asian
- ❍ Other

Q30. How many years of education have you completed? Please include K-12, technical, college, and graduate levels. _____

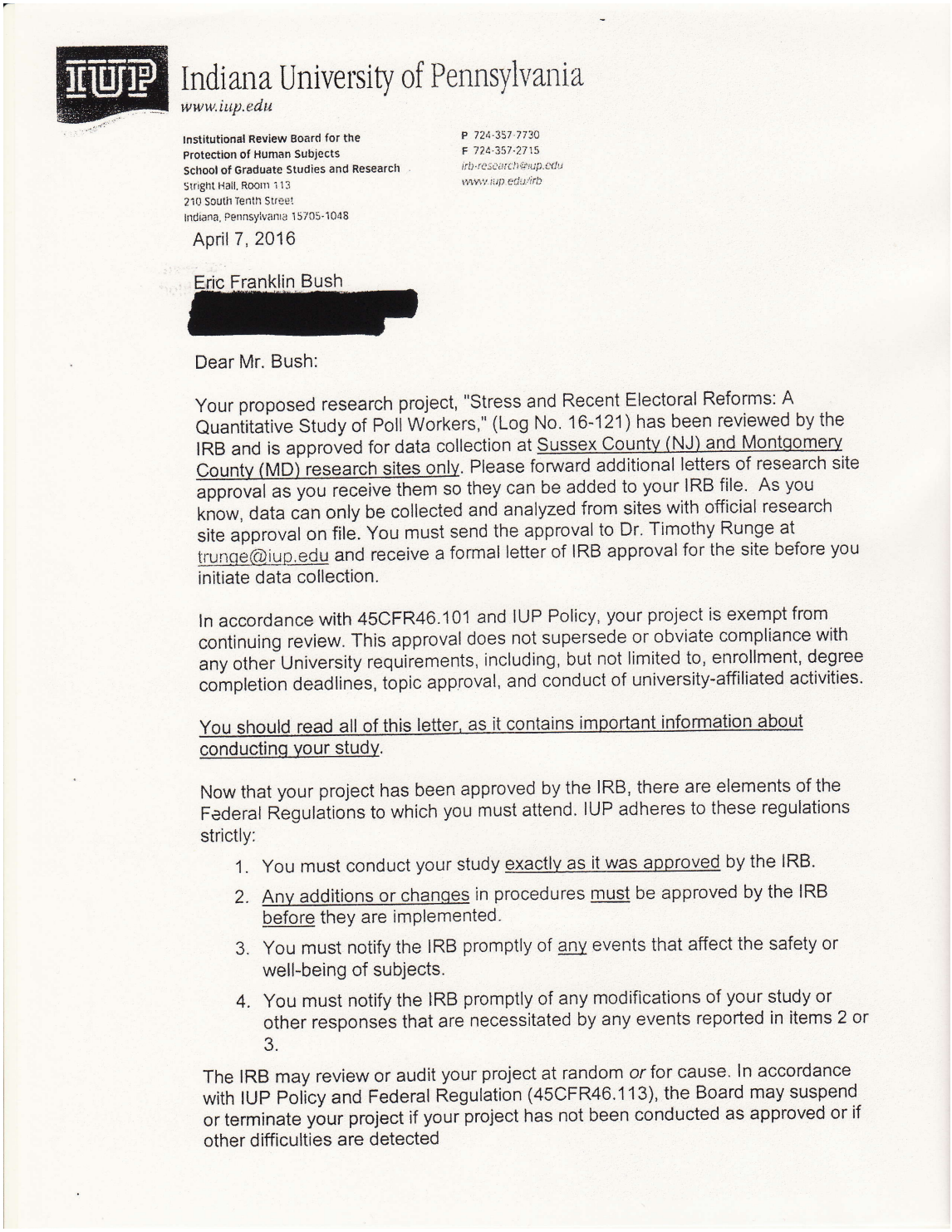
Q31. Generally speaking, how would you describe your party affiliation?

- ❍ Strong Republican
- ❍ Moderate Republican
- ❍ Independent
- ❍ Moderate Democrat
- ❍ Strong Democrat
- ❍ Other
- ❍ Do not know

Thank you for your participation!

Appendix D

IRB & RTAF Forms



Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

April 7, 2016

Eric Franklin Bush
[redacted]

Dear Mr. Bush:

Your proposed research project, "Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121) has been reviewed by the IRB and is approved for data collection at Sussex County (NJ) and Montgomery County (MD) research sites only. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approval to Dr. Timothy Runge at trunge@iup.edu and receive a formal letter of IRB approval for the site before you initiate data collection.

In accordance with 45CFR46.101 and IUP Policy, your project is exempt from continuing review. This approval does not supersede or obviate compliance with any other University requirements, including, but not limited to, enrollment, degree completion deadlines, topic approval, and conduct of university-affiliated activities.

You should read all of this letter, as it contains important information about conducting your study.

Now that your project has been approved by the IRB, there are elements of the Federal Regulations to which you must attend. IUP adheres to these regulations strictly:

1. You must conduct your study exactly as it was approved by the IRB.
2. Any additions or changes in procedures must be approved by the IRB before they are implemented.
3. You must notify the IRB promptly of any events that affect the safety or well-being of subjects.
4. You must notify the IRB promptly of any modifications of your study or other responses that are necessitated by any events reported in items 2 or 3.

The IRB may review or audit your project at random *or* for cause. In accordance with IUP Policy and Federal Regulation (45CFR46.113), the Board may suspend or terminate your project if your project has not been conducted as approved or if other difficulties are detected

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www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

June 7, 2016

Eric Bush
[redacted]

Dear Mr. Bush:

The IRB office received research site approvals from Anne Arundel County, Maryland, County of Fairfax, Virginia, and Columbia County, Pennsylvania for your proposed research project, "Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121). These research sites are approved. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approvals to Dr. Timothy Runge at trunge@iup.edu and receive a formal letter of IRB approval for each site before you initiate data collection.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Criminology

JLR:jeb

Cc: Dr. Alex Heckert, Dissertation Advisor

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

June 8, 2016

Eric Bush
[redacted]

Dear Mr. Bush:

The IRB office received research site approval from Washington County (PA) and Lehigh County (PA) for your proposed research project, "Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121). On behalf of the IRB, I have approved the research site. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approvals to the IRB office and receive a formal letter of IRB approval for each site before you initiate data collection.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Criminology

JLR:jeb

Cc: Dr. Alex Heckert, Dissertation Advisor

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

June 21, 2016

Eric Bush
[redacted]

Dear Mr. Bush:

The IRB office received research site approval from Lycoming County (PA) and Calvert County (MD) for your proposed research project, "Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121). These research sites are approved. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approvals to the IRB office and receive a formal letter of IRB approval for each site before you initiate data collection.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Criminology

JLR:jeb

Cc: Dr. Alex Heckert, Dissertation Advisor

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

June 28, 2016

Eric Bush
[redacted]

Dear Mr. Bush:

The IRB office received research site approval from Floyd County (VA) for your proposed research project, "Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121). These research sites are approved. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approvals to the IRB office and receive a formal letter of IRB approval for each site before you initiate data collection.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Criminology

JLR:jeb

Cc: Dr. Alex Heckert, Dissertation Advisor

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

August 22, 2016

Eric Bush
[redacted]

Dear Mr. Bush:

The IRB office received research site approval from County of Hunterdon, New Jersey and City of Chesapeake, Virginia for your proposed research project, "Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121). On behalf of the IRB, I have approved the research site. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approvals to the IRB office and receive a formal letter of IRB approval for each site before you initiate data collection.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Criminology

JLR:jeb

Cc: Dr. Alex Heckert, Dissertation Advisor

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

August 29, 2016

Eric Bush
[redacted]

Dear Mr. Bush:

The IRB office received research site approval from Monmouth County Board of Elections, New Jersey for your proposed research project, "Stress and Recent Electroal Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121) and the research site has been approved. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approvals to Dr. Timothy Runge at trunge@iup.edu and receive a formal letter of IRB approval for each site before you initiate data collection.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Criminology

JLR:jeb

Cc: Dr. Alex Heckert, Dissertation Advisor

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

September 6, 2016

Eric Bush
[redacted]

Dear Mr. Bush:

The IRB office received research site approval from Allegany County Election Board for your proposed research project, "Stress and Recent Electoral Reforms: A Quantitative Study of Poll Workers," (Log No. 16-121) and the research site has been approved. Please forward additional letters of research site approval as you receive them so they can be added to your IRB file. As you know, data can only be collected and analyzed from sites with official research site approval on file. You must send the approvals to Dr. Timothy Runge at trunge@iup.edu and receive a formal letter of IRB approval for each site before you initiate data collection.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Criminology

JLR:jeb

Cc: Dr. Alex Heckert, Dissertation Advisor

Indiana University of Pennsylvania
www.iup.edu

Office of Assistant Dean for Research
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
www.iup.edu/research

April 18, 2016

Eric F. Bush
[redacted]

Dear Mr. Bush:

Now that your research project has been approved by the Institutional Review Board for the Protection of Human Subjects, I have reviewed and approved your Research Topic Approval Form.

The Thesis/Dissertation Manual, additional resources, and information to help you start writing can be found at http://www.iup.edu/graduatestudies/thesis/default.aspx.

Based on the information you have provided on your RTAF, your anticipated graduation date is the earlier of May 2017 or your time-to-degree deadline. This means that you must defend by no later than April 1, 2017 and all necessary documents are due by this date. A description of the required documents can be accessed at http://www.iup.edu/page.aspx?id=116439. Your dissertation must be submitted to the School of Graduate Studies & Research by April 15, 2017 if you desire to graduate by your anticipated date. You must apply for graduation by May 1, 2017. For deadlines for subsequent graduation dates, please access http://www.iup.edu/page.aspx?id=16683.

Finally, if you change your topic, the scope or methodology of your project, or your committee, a new Research Topic Approval Form must be completed.

I wish you well and hope you find this experience to be rewarding.

Sincerely,

Hilliary E. Creely, J.D., Ph.D.
Assistant Dean for Research

HEC/bb

xc: Dr. Yaw Asamoah, Dean
Dr. John Anderson, Graduate Coordinator
Dr. Alex Heckert, Dissertation Committee Chairperson
Ms. Julie Bassaro, Secretary

Appendix E

Permissions

March 1, 2014

Eric Bush
[redacted]

Dear Dr. Cohen:

I am working on a doctoral dissertation at Indiana University of Pennsylvania with a working title "Stress and Voter Identification: A Quantitative Study Comparing Poll Workers" with Dr. Alex Heckert serving as my dissertation committee chair. I would like your permission to use the 14-item Perceived Stress Scale (PSS) for my research and to reprint it as part of my survey instrument in my dissertation.

The PSS will only be used for nonprofit academic research. The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by UMI (ProQuest) for on demand availability for the academic community. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you own the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope. Thank you very much.

Sincerely,

E. Bush

Eric Bush

Permission granted for the use requested above:

See Attached Letter

Dr. Sheldon Cohen
Department of Psychology
Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213

Conditions, if any: You also need permission from ASA (see attached instructions)

Date: 3/26/2014

Carnegie Mellon

Department of Psychology
Carnegie Mellon University
Pittsburgh, PA 15213-3890
Phone: (412) 268-3133
Email: conser@andrew.cmu.edu

March 26, 2014

Eric Bush
[redacted]

Dear Mr. Bush:

This letter is in regard to your request (March 1, 2014) for permission to use the Perceived Stress Scale in your academic research study (dissertation). For not-for-profit research purposes, permission is not necessary and does not require fees. We grant you permission to use the PSS in your research project.

If you wish to reprint the scale, items from it, or a translation in a publication (including a dissertation) or online, you should also acquire permission from the American Sociological Association (ASA):

The American Sociological Association's (ASA) website is http://www.asanet.org and their copyright request page is: http://www.asanet.org/journals/reprint_permissions.cfm
There is an online form (pdf) available through a link on that page, which you may complete and submit to ASA. ASA may/may not later ask for Dr. Cohen's signature on their form; if so, you may e-mail it to me (conser@andrew.cmu.edu).

The appropriate reference for the 10-item scale is:
Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), The social psychology of health: Claremont Symposium on applied social psychology. Newbury Park, CA: Sage.

The appropriate reference for both the 4- and 14-item scales is:
Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.

Scoring information is available at our website, http://www.psy.cmu.edu/~scohen/ Once there, click on 'Scales'. Thank you for your interest in the Perceived Stress Scale. I wish you the best of luck with your project.

Sincerely,

Ellen Conser
Assistant to Dr. Sheldon Cohen, Robert E. Doherty Professor of Psychology

AMERICAN SOCIOLOGICAL ASSOCIATION

Permission No. 006604

Date: August 30, 2016

1430 K Street NW, Suite 600
Washington, DC 20005
(202) 383-9005 • fax (202) 638-0882
permissions@asanet.org

Requestor's Name: Eric Bush
Address: [redacted]
e.f.bush@iup.edu

PERMISSION GRANTED
Rachel Rinks
1/3/17

Your Ref.:

Author(s) of original work: Sheldon Cohen, Tom Kamarck, and Robin Mermelstein
Title & Journal Citation: "A Global Measure of Perceived Stress"
A Global Measure of Perceived Stress, Journal of Health and Social Behavior, Vol. 24, No. 4 (Dec., 1983), Appendix A.

Material will Appear In: *Stress and Recent Electoral Reforms: A Quantatative Study of Poll Workers* Author(s): Eric Bush
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Re: 6-Item STAI - Permission for Use

Thursday, November 27, 2014 1:00 AM

From: "Theresa Marteau" <tm388@medschl.cam.ac.uk>

To: "Eric Bush" [redacted]

Dear Eric

This measure is in the public domain for use by researchers. You do to need my permission to use.

With kind regards

Theresa Marteau

On 27-Nov-2014, at 1:16, Eric Bush [redacted] rote:

> Dr. Marteau,
>
> Attached please find a letter requesting permission to use your shortened version of the STAI in research for my dissertation. If the arrangements in the letter meet with your approval, please sign the letter and return it to me either at the address at the top of the letter or to this email address. Thank you kindly for considering my request.
>
> Sincerely,
>
> Eric Bush
> Doctoral Candidate (ABD)
> Indiana University of Pennsylvania
>
> <Bush.Permission.STAI-6.pdf>

Professor Theresa M Marteau PhD FMedSci
Director
Behaviour and Health Research Unit
University of Cambridge
Institute of Public Health
Cambridge CB2 0SR

http://www.bhru.iph.cam.ac.uk

ANES
American National Election Studies

ANES Policy on Use of its Survey Questions

October 27, 2006

On many occasions, we are contacted by scholars who ask if they can use ANES questions on their own surveys. In general, the answer is yes, but there is an important exception. As ANES is devoted to the production of public goods, *anyone for any purpose may use any ANES question that is in the public domain*. By public domain, we mean any question that has appeared on a previous ANES production study. For the complete list of these surveys, please visit the ANES Data Center at: www.electionstudies.org

On occasion, ANES is also asked about the content of questionnaires for surveys that are "in the field" and have not yet been completed. For example, a scholar may know that ANES is going to field a study in the month of November and she may want to use some of the same questions on a survey that she is running. We encourage such coordination. However, there are important restrictions on how we can respond.

One restriction is that ANES is devoted to helping scholars explain vote choice and turnout *after elections have taken place*. To protect our scientific integrity, *we do not release data to anyone for any reason about elections that have not yet occurred*. For example, we will collect different kinds of data from citizens in the months leading up to the 2008 general election, but we will not release any of this date to anyone until after the election has commenced.

We also do not release the content of the questionnaire before the election to the public. We do show the questionnaire to scholars, such as Board Members, who are helping us to develop the questionnaire. However, to facilitate coordination with other election studies, ANES will respond to inquiries about whether or not specific questions will appear on a study that is not yet in the public domain. Such requests must be made about specific questions (rather than the questionnaire as a whole) and the requestor must sign an agreement not to publicize in any way the fact that ANES is the source of the questions until after the full questionnaire has been publicly posted on the ANES website (www.electionstudies.org).

To make such requests, please send an e-mail to "anes@electionstudies.org". As always, ANES encourages use of its products and looks forward to opportunities to help scholars conduct more effective research.

Jon A. Krosnick and Arthur Lupia, Principal Investigators

ANES is funded by the

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