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Do Changes to Early Voting Affect Turnout?

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Departmental Honors Thesis

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I. Introduction

In the United States, a country that prides itself on upholding the principles of representative democracy, there has been a dark history of discriminatory and unethical voting practices that go against the concept of free and fair elections. An administrative policy that has received significant attention in the media and state legislatures across the nation is early voting. In recent years, many states have passed laws decreasing the number of days individuals can vote in person prior to election day. This has led to significant backlash, with opponents of these policies arguing that they are a violation of voting rights due to their discriminatory nature. The goal of this paper is to take a deeper look into the topic of early-in-person voting, and analyze how changes to early voting policies affect voter turnout, with a specific emphasis on how changes to Sunday voting affect turnout. This study utilizes large voter files from multiple general and midterm elections in the state of Ohio from 2008-2014 to compare which demographic groups are most affected by decreases in the number of early voting days. Following *Shelby County v. Holder* (2013), where the Supreme Court ruled that states were no longer required to preclear voting laws with the federal government, many changes to voting laws have been appearing in states across the US. Looking at categories such as race, education level, and age, the goal of this research is to uncover which groups are disproportionately affected by these administrative policies. This paper is intended to provide insight into whether changes to early voting laws should be contextualized as part of the broader debate regarding voting rights and if these policies are discriminatory in nature.

Scholars widely regard elections as the central aspect of a democracy, and the US Constitution consists of five separate amendments that each protect the rights of individuals to vote regardless of their race or gender, among other provisions. In fact, after the Bill of Rights

was ratified, almost a third of amendments added to the Constitution are related to voting rights (“Voting Rights in America”). The Fifteenth Amendment extended the right to vote to citizens regardless of race or previous condition of servitude. The Nineteenth amendment granted the right to vote to women. The Twenty-Fourth amendment prohibited the use of poll taxes, and the Twenty-Sixth Amendment granted the right to vote to citizens 18 years of age and older. These Amendments all demonstrate that there has been a strong push over the course of American history to grant voting access to more individuals and make the process of participating in Democratic elections easier for American citizens.

Presently, a variety of voting controversies rest on the fundamental debate between voter access and safeguards to prevent fraud. A strong movement exists amongst progressive policymakers and voting rights activists advocating for measures that are intended to ensure every citizen has an equal and fair opportunity to vote. Election administrators have thus turned their attention to policies that will increase turnout amongst voters, specifically of racial and ethnic minorities. Two prevalent administrative options have been increasingly implemented in recent years and have garnered significant attention from state legislatures. The first of these is early-in-person (EIP) voting. Early voting gives voters the opportunity to cast ballots in person prior to election day, a practice that many argue makes voting more convenient and therefore increases turnout while adding more diversity to the electorate. As of April 2021, 39 states and the District of Columbia allow no-excuse early voting, meaning that individuals do not have to provide a reason for why they are unable to vote on election day (Ballotpedia).

Another form of convenience voting being implemented is mail voting (“Early Voting and Mail Voting: Overview & Issues for Congress”). There are distinct differences between mail voting and early voting, revolving around both how citizens receive their ballots and how votes

are cast. According to the Congressional Research Service, voters who receive ballots by mail return them by mail or in a drop box. In some states, voters can also return their ballots to polls or even have them collected and submitted by a third party (“Early Voting and Mail Voting: Overview & Issues for Congress”). On the other hand, early-in-person voters cast their ballots in person at polling locations. In some states, mail voting and early voting are eligible to voters with no excuse required, such as having a disability that prevents one from accessing polling locations on election day. This is commonly referred to as no-excuse absentee voting or no-excuse early voting. Other states will require an excuse such as an illness in order to engage in these convenient forms of voting.

Significant state variation exists in regards to how the mail in voting process is administered. For example, certain states provide prepaid return envelopes while others do not. Most importantly, the timetable for requesting mail in ballots, and when they must be submitted is determined by states and localities. Some will allow ballots to be returned up until Election Day, while some will only accept them by a specified date. According to the National Conference of State Legislatures, eight states (California, Colorado, Nevada, Utah, Hawaii, Vermont, and Washington) allow all elections to be conducted using vote by mail. In Nebraska and North Dakota, counties are permitted to conduct elections by mail (“Summary Table 18: States with All-Mail Elections”). Nine other states allow certain small elections to be conducted by mail. In total, all states allow some form of vote by mail and 33 states offer no-excuse mail voting.

The prevalence of both early-in-person voting and mail voting has been increasing steadily for decades. However, an exponential increase in both the implementation of administrative rules regarding the expansion of these measures and also voters taking advantage

of these convenience voting reforms was caused by the COVID-19 pandemic. According to the Pew Research Center, “Mail-in ballots accounted for just over half of this year’s primary votes cast in the 37 states (plus the District of Columbia) for which data is available. That was roughly double the mail-in share of the vote in those same jurisdictions in the 2018 and 2016 general elections” (DeSilver 2020). The fact that mail-in ballots have doubled in popularity in only a single election cycle is an incredibly dramatic increase, and a deeper dive into the statistics brings even more light to just how significantly the way citizens are voting in American elections is changing. For example, In Nevada “98.4% of the more than 491,600 votes cast in the June 9 state primary were mail ballots, compared with less than 9% in the 2018 general election”(DeSilver 2020). There is no doubt that the sweeping changes in the way Americans participate in elections, the cornerstone of a constitutional republic, will have implications in a variety of areas.

Recent Supreme Court cases regarding restrictions to early voting demonstrate the necessity for understanding the effects this policy has on the electorate. In *Shelby County v. Holder* (2013), the Supreme Court ruled that states were no longer required to preclear voting laws with the federal government. This led to sweeping changes within a matter of days to administrative voting laws across many states that originally required preclearance. In *NAACP v. Husted* (2015), the US Court of Appeals for the 6th Circuit ruled an Ohio law that eliminated early voting days was legal. This resulted in the removal of “Golden Week” in Ohio, which was a week-long period where citizens could register and vote at the same time. Many argued that having “Golden Week” positively influenced voter turnout and that this was a huge blow to the thousands who took advantage of the opportunity to register and vote at the same time. While the NAACP argued that the elimination of these voting dates was in violation of the Voting

Rights Act of 1965, the Supreme Court ultimately denied the request to hear the case, thereby upholding the decision of the appeals court. States across the US, including Ohio, Florida, and Texas, continue to pass voting laws that many argue target minorities and therefore are discriminatory and counter to democratic principles. Whether early-in-person voting directly correlates with increases in voter turnout, and that these increases in turnout are disproportionately experienced by African American voters, are highly pertinent questions.

These notable changes have led John C. Fortier, a former Professor at Harvard University and senior fellow at the American Enterprise Institute, to conclude that “The United States is in the midst of a revolution in voting”(Fortier 2006). He explains that “Without great fanfare, our nation is steadily moving away from voting on election day”(Fortier 2006). Although this realization was made over a decade prior to the outbreak of the COVID-19 pandemic, his analysis properly addresses a seemingly overlooked aspect of American democracy: election administration. In the 1980 presidential election, 95 percent of Americans cast their votes on election day (Fortier 2006). In 2023, there are millions of people voting across different days leading up to elections, both by mail and in person. In order to properly understand the effect early voting has on the electorate, it is necessary to analyze the history of convenience voting in the United States. This will provide both an understanding of the reasons for implementation of convenience voting measures, as well as an understanding for the present day debate between the advantages and disadvantages of certain proposals.

II. Voting Rights in the United States

Convenience voting reforms are frequently debated in state legislatures across the United States and are an issue at the forefront of American politics. Advocates of proposals to increase

early-in-person voting and absentee voting tend to argue that legislative measures which limit or restrict such practices are a violation of voting rights. Convenience voting thus has fallen into the modern political arena as an issue of voting rights. It is therefore important to examine the history of voting rights in the United States along with the present day issues presented to determine where these convenience voting reforms can properly be categorized amongst the complex realm of voting rights topics.

The idealistic view of American democracy leads to the assumption that the right to vote is widely available to Americans and universal suffrage is a staple of US elections. As Alexander Keyssar notes in *The Right to Vote*, universal suffrage is only a recent development in American elections and an ideal that is still not fully realized. He writes:

“Until the 1960s most African Americans could not vote in the South. Women were barred from voting in a majority of jurisdictions until 1920. For many years, Asian immigrants were disenfranchised because they could not become citizens, and Native Americans lacked the right to vote far more often than they possessed it”(Keyssar 2009).

The historic disenfranchisement of marginalized groups in America dates back centuries. In fact, in America’s Constitution written in 1787, it was specifically dictated that states could only allow white males over the age of 21 to vote. Since the Constitution left the decision of who could vote largely to state legislatures, many passed laws that limited voting to property owning males (Yang and Gaines 2008). However, during the early 1800s, state legislatures began removing property requirements for voting (Carnegie Corporation of New York 2019).

The biggest overhaul to voting rights since the founding of America came during and shortly following the Civil War. A large push by northern states to abolish slavery followed by their subsequent Civil War victory led to a series of Amendments that altered the landscape of

voting rights. Nathan Newman, Professor at American University's School of Public Affairs, and J.J. Gass, counsel at the Brennan Center for Justice, write extensively about the impact Civil War era amendments had on voting rights. They explain that prior to the end of the war, "both houses of Congress passed the 13th Amendment, which banned slavery"(Gass and Newman 2004). More importantly, rather "than merely ending slavery, the amendment was understood to make blacks citizens of the United States (overruling Dred Scott on that point), with the federal government there to guarantee the rights of citizenship"(Gass and Newman 2004). The 14th Amendment was also passed during this period, "granting citizenship to all people born or naturalized in the United States and equal protection under the laws"(Kennedy 2021).

The 13th and 14th Amendments were met with fierce opposition by southern states and they refused to ratify them initially. Congress thus chose to institute military reconstruction in 1867, which required the deployment of federal troops in southern states (Gass and Newman 2004). This form of military reconstruction mandated that southern states would be readmitted to the Union "only if their state constitutions permitted blacks to vote "(Gass and Newman 2004). Despite these measures, private organizations in the south engaged in violent efforts to restrict black citizens from voting. The "Klu Klux Klan, organized in Tennessee in 1866, became the model for paramilitary units across the south"(Gass and Newman 2004), and "in the 1868 election, the Klan's suppression of turnout led to Democratic victories in Georgia and Louisiana"(Gass and Newman 2004). The federal government came to the ultimate realization that more explicitly legislation was needed to truly protect the civil rights of black Americans. In 1870, the 15th Amendment was ratified, which stated the following:

“Section 1: The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

Section 2: The Congress shall have power to enforce this article by appropriate legislation” (“The 15th Amendment of the U.S. Constitution”).

Passage of this amendment meant that citizens could no longer be “denied the right to vote because of their race”(Carnegie Corporation of New York 2019). Yet in the next roughly 150 years that followed, southern states instituted a variety of laws, including “poll taxes and literacy tests, to deliberately reduce voting among African American men”(Carnegie Corporation of New York 2019).

After years fighting for the right to vote, women won a big victory in 1920 when the 19th amendment was ratified. The amendment guarantees women the right to vote, and was a massive step in the continued fight for equality over voting rights. Despite this massive victory in the voting rights realm, Jim Crow laws persisted in the south that disenfranchised millions of voters based on race. Nevertheless, other notable voting rights victories slowly were won, including in 1924 when Native Americans gained the right to vote through the Indian Citizenship Act, and in 1943 when the Chinese Exclusion Act was repealed, granting the ability for Chinese immigrants and their families to become citizens and vote (Kennedy 2021). After a grueling battle for civil rights, African Americans succeeded in achieving equal protection in the 1960s. Poll taxes were officially banned in 1964 in the 24th Amendment, followed by the Voting Rights Act of 1965 which is widely viewed as one of the most significant forms of civil rights legislation in US history. The Voting Rights Act of 1965 banned literacy tests and provided federal oversight of voter registration in places where less than half of non-white residents were

registered to vote (“Voting Rights Act of 1965”). The Voting Rights Act of 1965 had major implications on African American voter turnout. For example, “In Mississippi alone, voter turnout among Black people increased from 6 percent in 1964 to 59 percent in 1969” (“Voting Rights Act of 1965”). Despite these massive gains in voting rights, the Voting Rights Act of 1965 faced a significant blow in 2013.

III. *Shelby County v. Holder*

The Supreme Court decision in the case *Shelby County v. Holder* altered the modern landscape of election administration in the United States in an unprecedented manner. The case rested on a “Constitutional challenge to Section 5” (Persily and Mann 2013) of the Voting Rights Act (VRA) of 1965. Section 5 of the VRA mandated that specific jurisdictions receive federal preclearance for any voting law change or administrative procedure alteration (Persily and Mann 2013). A formula was implemented to determine which jurisdictions were covered by this requirement, originally including “all jurisdictions that had operated a test or device (such as a literacy test) and had voter turnout below 50% in the 1964 election” (Persily and Mann 2013). These provisions were later restructured in the 1970s to better target districts that posed threats to voting rights, and have not been modified since 1975 (Persily and Mann 2013). When Shelby County, Alabama, filed a lawsuit in 2010, their argument rested on the constitutionality of this formula given how “temporal and geographic changes” (Persily and Mann 2013) have resulted in changes to what the specific threats to minority voting rights are. However, the counterarguments to these claims were quite strong, as the defense fundamentally rested on two key points. First, Congress unanimously voted in 2006 to re-authorize the VRA under its previous coverage formula. Secondly, there were “15,000 pages of testimony concerning the

scope and locations of threats to minority voting rights,”(Persily and Mann 2013), and this was certainly substantial proof that the VRA was still relevant and necessary to be upheld.

The Supreme Court ultimately ruled 5-4 in favor of Shelby County, striking down the preclearance statute. While frequently improperly articulated by journalists and media outlets, the majority opinion rested on a very specific argument. Essentially, Chief Justice Roberts explained that the original coverage formula that relied on literacy tests and turnout rates from the 1964 through 1972 elections is not related to the current situation in which jurisdictions covered by the formula pose what the defense argued as a higher threat to minority voting rights. A lawyer for Shelby County explained this argument candidly with this analogy: “if Congress had picked jurisdictions out of a hat, the fact that they may have gotten the ‘right’ jurisdictions by luck would not immunize the process by which those states were chosen”(Persily and Mann 2013). Ultimately, the majority believed that this outdated coverage formula did not line up with the current issues related to voting rights. The provisions in place due to the coverage formula were no longer relevant, they argued.

The dissent countered this by arguing that the data and records provided substantial evidence of the necessity for the currently covered jurisdictions to remain targeted by the preclearance statute. There was sufficient evidence of discrimination that could be specifically referenced by looking at Department of Justice preclearance denials (Persily and Mann 2013). Racial gerrymandering was a major aspect of this argument, for which there is a plethora of evidence. Furthermore, the outdated nature of the VRA that was emphasized by prosecutors was an even greater illusion when looking at the “flexibility”(Persily and Mann 2013) of the VRA. The VRA permitted jurisdictions to be removed from preclearance requirements if they demonstrated a strong record of voter participation for a sufficient period of years, and mandated

uncovered states to be added to the coverage formula if they demonstrated a clear pattern of discrimination. Justice Sonia Sotomayor, in her dissent of the decision, expressed the following:

“The Court errs in ignoring this history and distorting the statutory text to arrive at a conclusion that not only is contrary to the plain language of the NVRA but also contradicts the essential purposes of the statute..., entirely ignores the history of voter suppression against which the NVRA was enacted and upholds a program that appears to further the very disenfranchisement of minority and low-income voters that Congress set out to eradicate”(Newkirk 2018).

The decision in *Shelby County v. Holder* has since allowed states that were previously subject to preclearance to now pass legislation with limited federal oversight. Within one day of the Shelby County ruling, Texas already “announced that it would implement a strict photo ID law”(“The Effects of Shelby County v. Holder”). This trend spiraled until many “states previously covered by the preclearance requirement”(“The Effects of Shelby County v. Holder”) implemented significant changes to voting administration. The Voting Rights Act had an incredibly influential effect on black voter registration, decreasing the gap between white and black registration significantly. According to the Brennan Center, “previously covered states have purged voters off their rolls at a significantly higher rate than non-covered jurisdictions”(“The Effects of Shelby County v. Holder”).

A further blow to voting rights occurred in the case *Brnovich v. Democratic National Committee* in 2021. In this case, two Arizona voting policies were challenged on the basis that they were discriminatory. The policies included a requisite that all out-of-precinct ballots were disposed of, and that only a family member or caregiver could return a ballot for someone else (“Brnovich v. Democratic National Committee”). Section 2 of the Voting Rights Act, that

prevents states from implementing a procedure that denies the right to vote based on race, was invoked, and the 9th Circuit Court of Appeals ruled that these two laws violated Section 2 of the VRA. There was substantial evidence that minority voters were specifically discriminated against by these two laws, but the Supreme Court reversed this decision on appeal. This ruling had major implications, such as entrenching the ability for states to “raise concerns about voter fraud to justify their election changes”(Johnson 2021).

These two recent Supreme Court decisions regarding voting rights have opened the door to new legislation about election administration appearing in states across the US. These two cases thus provide a backdrop for the importance in understanding how new voting policies being enacted by state legislatures impact the electorate. Protecting the right to vote for each American, regardless of race, religion, gender, and ethnicity is tantamount to a functioning Democracy and is a constitutional principle that should be continuously strived for. Opponents of these recent policies protest that they are discriminatory and must be revoked by federal oversight. Providing comprehensive evidence for how these policies are discriminatory would thus be a valuable resource in this fight. But first, it is important to answer the following question: what are the voting administration policies that states are implementing and or revoking in recent years in response to the altered landscape of the Voting Rights Act? The resounding majority of these policies surround convenience voting. Specifically, they encompass early-in-person voting, absentee voting, and voter identification laws. In the following sections, a brief historical background of convenience voting will be provided, followed by an analysis of the theory behind convenience voting along with the benefits and downsides observed by such practices. This will lead into a more focused literature review that will provide background for the analysis and conclusion of this paper.

IV. Convenience Voting

Convenience voting is defined as “any mode of balloting other than precinct-place voting” (Gronke 2007). Marc Meredith and Neil Malhotra, Professors of Political Science at the University of Pennsylvania, explain that vote-by-mail (VBM) and early-in-person (EIP) voting are the most common forms of convenience voting (Meredith and Malhotra 2011). As previously mentioned, these two forms of voting are becoming increasingly utilized by voters across the country. In California, for example, Meredith and Malohtra note that “the percent of mail voters in the presidential primary increased from less than ten percent in 1988 to 23.4, 34.3, and 41.7 percent in 2000, 2004, and 2008, respectively”(Meredith and Malhotra 2011). Understanding the history of convenience voting will provide a valuable framework for recognizing both its purpose and pitfalls. This section of the paper will analyze the history of convenience voting in the United States leading up to the present day, which will set the stage for an analysis of both the observed benefits and downsides of these administrative voting measures.

John C. Fortier outlines multiple periods throughout the development of convenience voting reforms in the United States, beginning in the Civil War era. Given the extreme tension that existed in the federal government during the Civil War and the large number of soldiers that were eligible to vote both in the Union and the Confederacy, there were intense debates in state legislatures over whether soldiers should be allowed to vote away from home. Leading up to the 1984 presidential election, 20 northern states passed laws that altered the mandatory in-person voting laws in order to grant exceptions for deployed soldiers and allow them to vote (Strochlic 2022). These were passed specifically by northern states for political reasons, as the potential vote of these soldiers would largely support Lincoln. Expansion of absentee-voting for soldiers

was ultimately widespread. In Ohio, for example, military personnel were granted the right to vote through absentee ballots if stationed outside of their home district (Heidelbaugh). Lynn Heidelbaugh, curator at the Smithsonian museum, notes that “between 1861 and 1862, six of eleven Confederate states granted absentee balloting for the military”(Heidelbaugh). Ballots were cast in envelopes marked “presidential election” that could be delivered by the post office. According to *Voting in the Field*, author Josiah Beaton explains that in the 1864 election for president Lincoln, 12 percent of all ballots cast in the state of Ohio were done by absentee military voters (Benton 2010). Overall, “an estimated 230,000 ballots were cast away from traditional polling places in the 1864 presidential election”(Fortier 2006).

While convenience voting has strong roots in American democracy dating back to the Civil War period, there was limited attention given to convenience voting measures until the Australian ballot was introduced, providing “four improvements to voting”(Fortier 2006). Prior to the introduction of the “secret-ballot”, U.S. elections were open to significant corruption. “Buying votes was a common mechanism for electoral fraud”(Guenther 2017), and political operatives had the full discretion to see which candidates individuals voted for. Following the introduction of the Australian ballot, elections were revolutionized. According to Professor Donald A. DeBats of the University of Virginia, Australian ballots privatized and sanitized what was at one point a “dramatic public event”(Debats). The Australian ballot individualized voting by requiring elections to be conducted “indoors”, where voters would “mark the ballot in a private booth and deposit it with no identifying marks”(Debats). Most importantly, rather than multiple ballots that political parties would provide, “there would be a single state-produced ballot”(Debats) that could only be accessed inside a polling station. When absentee balloting was brought back into the forefront due to the “needs of a mobile populace and the experience of

soldiers in World War 1”(Fortier 2006), the necessity to protect the vote and ensure privacy was tantamount. Almost all states adopted a form of absentee voting for civilians, although eligibility tended to be limited. Some statutes, for example, limited absentee voting only to military voters. Others limited absentee voting to railroad workers (Fortier 2006). However, “by 1948, twenty-seven states had absentee voting laws for the sick” (Fortier 2006). This expansion of absentee voting was accelerated following the ratification of the 26th Amendment. Allowing citizens 18 years of age and older the right to vote meant that thousands of college students who attended school out of state were now eligible to vote. The usage of absentee voting by students became prevalent, and states continued to adopt measures to expand the eligibility requirements for absentee voters (Fortier 2006).

The present day system of absentee voting came into the picture following the push for “no-excuse” absentee voting. At the forefront of this movement was the state of California, which adopted “no-excuse” absentee voting into law in 1978 (Fortier 2006). Previously, an excuse was required by voters to receive a mail in ballot, such as a sickness or being out of the state for travel. The trend caught on to other states, and by the “2004 election, twenty-six states”(Debats) had some form of no excuse absentee voting.

The state of Oregon was pivotal in normalizing vote by mail, as in the 1980s the state began to use absentee voting for elections. All voters were mailed absentee ballots to return via mail or drop off in person (Fortier 2006). In 1998, Oregon residents officially voted in favor of a referendum that required all elections to be conducted through a vote by mail system (Fortier 2006).

Wendy Underhill, the Director for Elections and Redistricting at the National Conference of State Legislatures, notes that early voting can be traced back to when Louisiana permitted

“in-person absentee voting”(Waxman 2020) in 1921. Absentee voting essentially can be viewed as a “precursor”(Waxman 2020) to early-in-person voting. Unlike absentee voting, early-in-person voting had a more recent development into mainstream election administrative policy. An important distinction is that in some states, early voting and absentee voting are connected. Voters can be given an absentee ballot at an election center and cast their vote in person there. This form of voting is commonly referred to by the same name Louisiana coined in 1921, in-person absentee voting. However, many people lump this into the same category as early-in-person voting. Multiple states began to adopt official early voting policies in the early 1990s, including Nevada, Tennessee, and Texas. A large surge in early voting legislation being passed at the state level occurred after the 2000 general election. The presidential election came down to just “537 votes out of six million cast”(Waxman 2020), as the electoral college votes were so tight that whoever won the state of Florida was going to win the election.

A variety of issues began to arise after the state of Florida was originally declared to have been won by George W. Bush. Certain “punch-card ballots” had “only succeeded in detaching a portion of the perforated paper”[14]. These were known as hanging chads, and this controversy resulted in significant turmoil over the results of the election. Ultimately, the situation led “a wave of states”(Waxman 2020) to adopt “early voting because they were worried election officials were too rushed on Election day”(Waxman 2020). This sweeping adoption of early voting policy demonstrates how there are many reasons for the adoption of convenience voting reforms. In this instance, the idea was that early voting would decrease the pressure on election officials on the day of the election, and also limit long lines at election centers and polling locations (Waxman 2020).

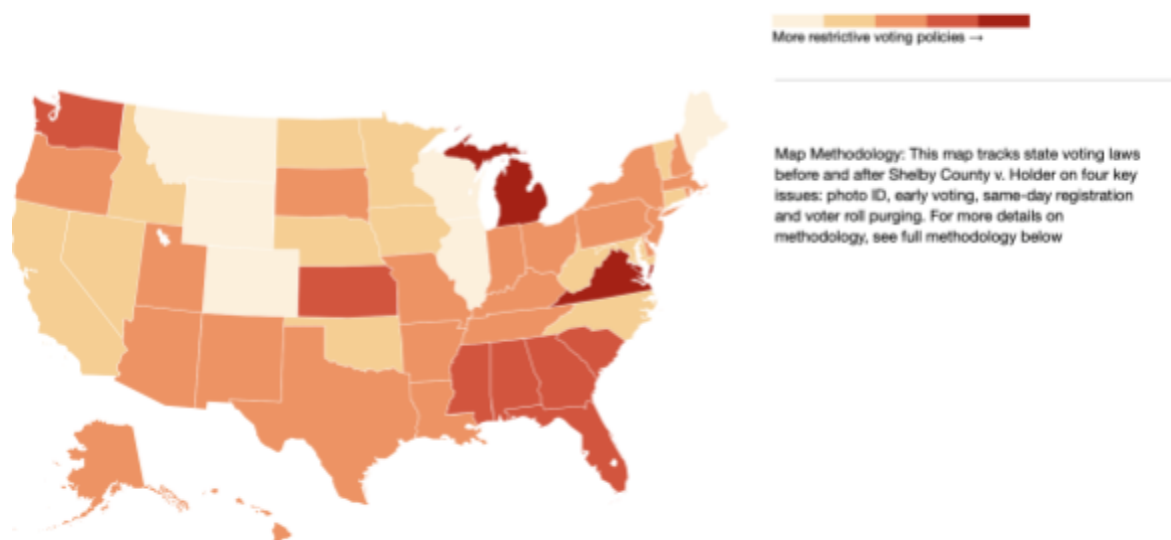
While commonly considered a method to make voting more convenient for the voter, early voting provides benefits to election administrators and election officials as well. Overall, both absentee voting and early-in-person voting were adopted both in response to political necessity— whether that be due to wars, the passage of new Amendments, or election controversies. Yet, they were also passed to improve the voting experience for Americans and in many cases to allow more people the chance to vote, thus allowing more citizens to participate in the most basic aspect of American democracy. This paper will begin to narrow in with a direct focus on early-in-person (EIP) voting, but the previous discussion illustrates the necessity for further research into other forms of convenience voting and their effects on the electorate.

V. Early Voting in the United States Today

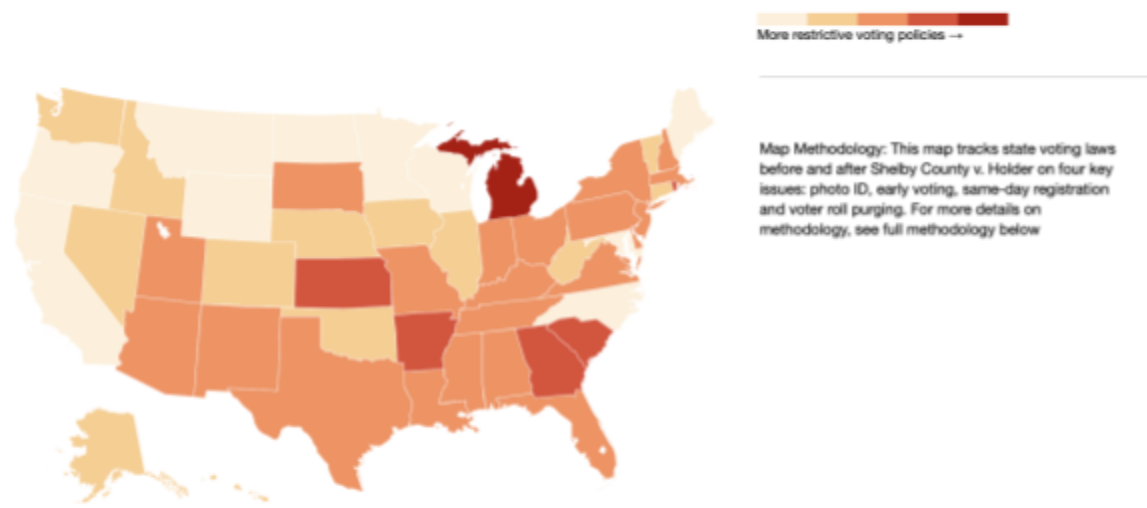
As emphasized by the previous discussion about *Shelby County v. Holder* and in the historical analysis of convenience voting, voting policies that are being implemented by state legislatures across the country are the result of trends in governance that have opened the door to a new debate over voting rights. Today, a variety of states are implementing laws that alter how early voting and absentee ballots have been utilized for years. In North Carolina, for example, shortly after the *Shelby County v. Holder* decision, the state legislature implemented the bill HB 589. This bill “instituted a strict photo ID requirement, curtailed early voting, eliminated same day registration..., and eliminated the authority of the county board of elections to keep polls open for an additional hour”(“The Effects of Shelby County v. Holder”). This law was considered by many to be “the most reactive bill passed after the collapse of Section 5 protections due to *Shelby County*”(“The Effects of Shelby County v. Holder”). Laws like this one are being legislated in other states across the country, and the ramifications are striking. For

example, the aforementioned HB 589 law passed in North Carolina was taken down by the Fourth Circuit Court of Appeals for targeting “African Americans with almost surgical precision”(“The Effects of Shelby County v. Holder”). The fact that this law was deemed by court to have discriminatory ramifications demonstrates the clear relationship between convenience voting restrictions and race-based voter suppression. Below is a visual depiction of how voting rights have been affected since *Shelby County v. Holder* decision courtesy of ProPublica.

Map of Voting Restriction Policies After *Shelby County v. Holder*

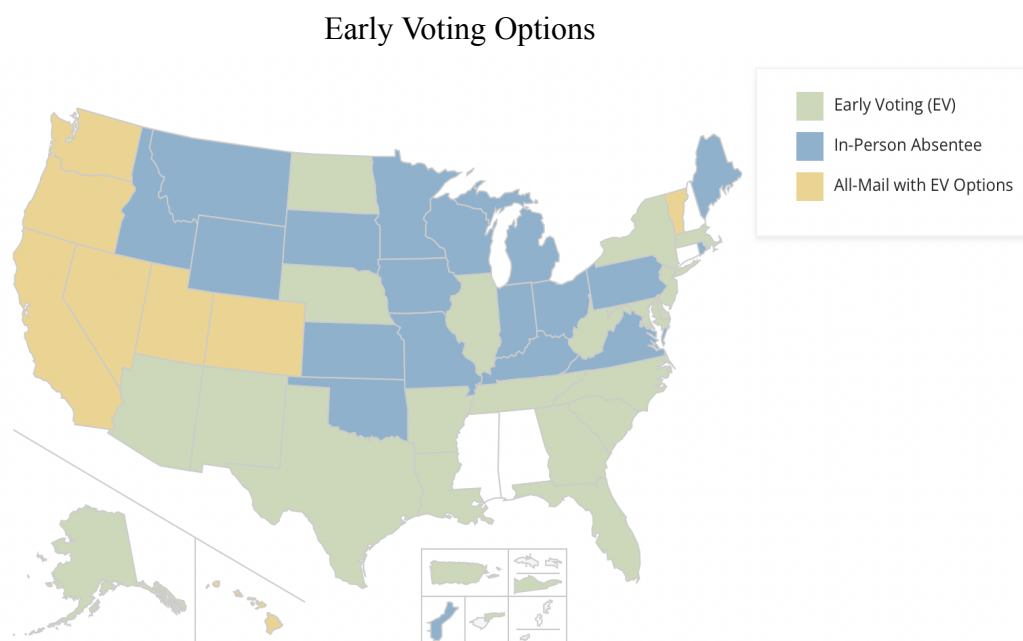


Map of Voting Restrictions Policies Before *Shelby County v. Holder*



Source: ProPublica Voting Laws Project

As demonstrated by the graphic above, after the *Shelby County v. Holder* ruling, many states have begun implementing more restrictive voting policies. This is especially notable in southern states, who for the most part were previously under preclearance regulation through the VRA coverage formula that *Shelby County* made obsolete. A more comprehensive understanding over how early voting operates in the United States is provided by the National Conference of State Legislatures (NCSL), which analyzes early voting patterns across all 50 states. Overall, the NCSL found that early voting periods can be as little as “three to 46 days” (“Early In-Person Voting”) with an average of 23 voting days. 23 states also offer some form of weekend voting, with 19 offering Saturday voting. Only six states allow for Sunday voting, including Ohio and New York, and seven other states allow county clerks to optionally choose to open polls on Sundays (“Early In-Person Voting”). Below is a graphic provided by the NCSL that depicts early voting patterns across the United States.



Source: National Conference of State Legislatures

As can be observed from the graphic, all states offer some form of early voting, whether that is via early-in-person voting, in-person absentee, and all-mail voting that includes early voting options. This demonstrates that early voting is a widespread aspect of American elections, but it is important to remember the variation that exists from state to state regarding how many early voting days are offered and what days of the week these early voting dates fall on. It is thus important to understand the theories behind how early voting impacts turnout to analyze whether these variations in early voting days are truly meaningful. An analysis of the theory regarding early voting and turnout will be followed by a statistical examination of the effects early voting has on voter turnout across demographic groups.

VI. Theoretical Understanding of Early Voting: The Rational Choice Theory

Prior to introducing empirical research, it is important to note the theoretical basis underlying early voting arguments. Outlined in Gronke (2007), the “rational choice tradition” contends a favorable approach to early voting, asserting that early voting should logically increase turnout. The rational choice theory is articulated in John H. Aldrich’s *Rational Choice and Turnout*, in which he provides a detailed explanation of how this theoretical approach works. The rational choice theory fundamentally rests on the concept of utility— that is, “the value of having the preferred candidate win”(Aldrich 1993). The concept of “expected utility”(Aldrich 1993) is achieved by “multiplying the probability of an outcome happening by the utility obtained from that outcome...”(Aldrich 1993). Expected utility is important because it is the fundamental basis for rational choice theory. The theory rests on how the expected utility of a candidate being elected “induces preferences for the particular actions at hand”(Aldrich 1993). In essence, the value one gains from voting is quantified in relation to how that value influences

one to turnout and vote in the given election. The vote, in other words, is an instrument “to achieve outcomes”(Aldrich 1993), which is known as the “investment theory of turnout” because “the vote is invested to achieve desired outcomes”(Aldrich 1993).

The institution of early voting as a form of convenience voting within the rational choice tradition is arrived at through an understanding of costs. According to Aldrich, costs “include the costs of obtaining information, processing it, and deciding what to do and the direct costs of registering and going to the polls”(Aldrich 1993). Convenience voting, and particularly early voting, thus falls under the umbrella of these “direct costs” of “going to the polls”. Aldrich explains how costs affect turnout under the rational choice model, writing that “as costs of voting increase, turnout should decline, *ceteris paribus*”(Aldrich 1993). The idea that higher costs of voting result in lower turnout is logically sound, and consistent with historical trends. As Aldrich notes, “When registration laws were passed, poll taxes were raised, or residency requirements were enacted, turnout fell”(Aldrich 1993). The influence of costs on turnout, according to Aldrich, becomes even more impactful when “citizens become more indifferent to who wins”(Aldrich 1993). If citizens are disconnected and largely apathetic to the results of an election, “even low costs become a larger and larger barrier to voting”(Aldrich 1993).

Trends in American politics indicate that there is a growing apathy and indifference towards civic duty that would, under Aldrich’s theoretical framework, suggest an increasing effect of a change in costs on turnout. The fate that Robert Putnam describes in “Bowling Alone: America's Declining Social Capital” has become reality. Putnam explains the large decline in turnout in national elections is characterized by “a relative high point in the early 1960s,”(Putnam 1995), but “voter turnout had by 1990 declined by nearly a quarter; tens of millions of Americans had forsaken their parents' habitual readiness to engage in the simplest act

of citizenship. Broadly similar trends also characterize participation in state and local elections”(Putnam 1995). Putnam’s overall argument involves a declining sense of civic duty in America that has led to increasing levels of indifference amongst voters. A variety of factors, such as a decrease in community organizations and increase in the mobility of families have resulted in Americans becoming “disengaged psychologically from politics and government over this era”(Putnam 1995). In fact, “The proportion of Americans who reply that they "trust the government in Washington" only "some of the time" or "almost never" has risen steadily from 30 percent in 1966 to 75 percent in 1992”(Putnam 1995). Perhaps the most notable recent event that exemplifies the erosion of American civil society is the presidential election of 2016. According to Pew Research, “Tens of millions of registered voters did not cast a ballot in the 2016 presidential election”(Lopez and Flores 2017). Most notably, a top reason for not voting “included a lack of interest or a feeling that their vote wouldn’t make a difference”(Lopez and Flores 2017). A declining level of participation in the 2016 election as the result of apathy would indicate that costs associated with voting become more significant. Pew Research points out “minorities made up a third (34%) of all nonvoters, up from a quarter in 2012”(Lopez and Flores 2017). This increasing rate of minority nonvoters brings up important questions regarding turnout, specifically whether recent changes to election administration play a factor in this declining rate of turnout. Rational choice theory can be operationalized as a framework to determine how costs of voting play a significant role in voter turnout.

But how significant are voting costs in the decision to vote? The rational choice theory fails to answer this question, and presents a rather troubling issue that Timothy J. Feddersen describes as the “Paradox of Not Voting” in his paper titled “Rational Choice Theory and the Paradox of Not Voting”. Feddersen explains that “In a large election, the probability that an

individual vote might change the election outcome is vanishingly small. If each person only votes for the purpose of influencing the election outcome, then even a small cost to vote—like a minor schedule conflict or mildly bad weather—should dissuade anyone from voting”(Feddersen 2004). Feddersen’s reasoning is in line with rational choice theory. He argues that given the size of national elections, an individual will likely see little ability to impact the result of an election through their one vote. However, if this were properly factored into models of turnout based on the commonly understood rational choice tradition, it would be assumed that nobody turns out to vote. Nevertheless, as Feddersen writes, “it seems that many people will put up with long lines, daunting registration requirements and even the threat of physical violence or arrest in order to vote. Given the central place of voting within political economy, the lack of an adequate rational choice model of large elections with costly voting presents an obvious problem”(Feddersen 2004). The fundamental problem is that despite a very low perceived value an individual may place on their vote having any influence on the result of a major election, millions of Americans still make it to the polls. This predicament led William H. Riker and Peter C. Ordeshook to develop a revised Calculus of Voting Equation, which is what this paper will use as the basis for understanding how early voting affects turnout.

The Calculus of Voting Equation is a “decision-theoretic model”(Aldrich 1993) that can be used to determine the likelihood of individual turnout in a given election. The fundamental Calculus of Voting model is known as the “expected utility hypothesis”(Riker and Ordeshook, 1968), which expresses the calculus as:

$$(1). R = (BP) - C$$

The variables above are best represented by the following descriptions. R refers to the reward “an individual receives from his act of voting”(Riker and Ordeshook, 1968). Therefore, if R is

positive, “it is reasonable to vote”(Riker and Ordeshook, 1968). B is the “differential benefit a voter receives from the success of his more preferred candidate”(Riker and Ordeshook, 1968). In other words, B refers to utility gains an individual attains from the candidate of their choice being elected. B is multiplied by P , which is the probability that the individual’s vote will “bring about the benefit, B ”(Riker and Ordeshook, 1968). P , therefore, refers to the likelihood an individual’s vote will have a significant effect on the election, a number that would clearly be extremely small in a very large, national election. Riker and Ordeshook are aware that “ P is a very small number”(Riker and Ordeshook, 1968), and since the costs of voting are always greater than zero, “ B must be a very large number”(Riker and Ordeshook, 1968), a number so large that it is reasonable to conclude that “ R is typically negative, even when the citizen votes, which is of course irrational”(Riker and Ordeshook, 1968).

Riker and Ordeshook solve this problem by the introduction of the D variable, which has a variety of positive benefits the authors elaborate on. The D term encompasses all other benefits associated with voting that are not specifically implicated under the C variable. A major aspect of this is civic duty, which the authors consider consists of “satisfaction from compliance with the ethic of voting..., satisfaction of affirming a partisan preference..., social satisfactions out of going to the polling booth..., [and] the satisfaction of affirming one’s efficacy in the political system”(Riker and Ordeshook, 1968). The authors note that “there are other satisfactions that do not occur to us at the moment”(Riker and Ordeshook, 1968), indicating that the D variable has the ability to encompass other benefits of voting not outlined in the paper. Ultimately, the introduction of the D term allows the following equation to be constructed:

$$(2). R = (BP) - C + D$$

The paper provides compelling evidence through tested inferences that “people actually behaved as the theory predicts”(Riker and Ordeshook, 1968). The authors thus assert that they have “described the rational calculus that does in fact occur in the act of deciding whether or not to vote”(Riker and Ordeshook, 1968). The general validity applied to utilizing Riker and Ordeshook’s calculus of voting model allows me to apply this formula to a discussion of early voting and turnout.

Model 1, pictured below, demonstrates how administrative changes are factored into the Calculus of Voting Equation to change costs of voting and thus affect turnout.

Model 1

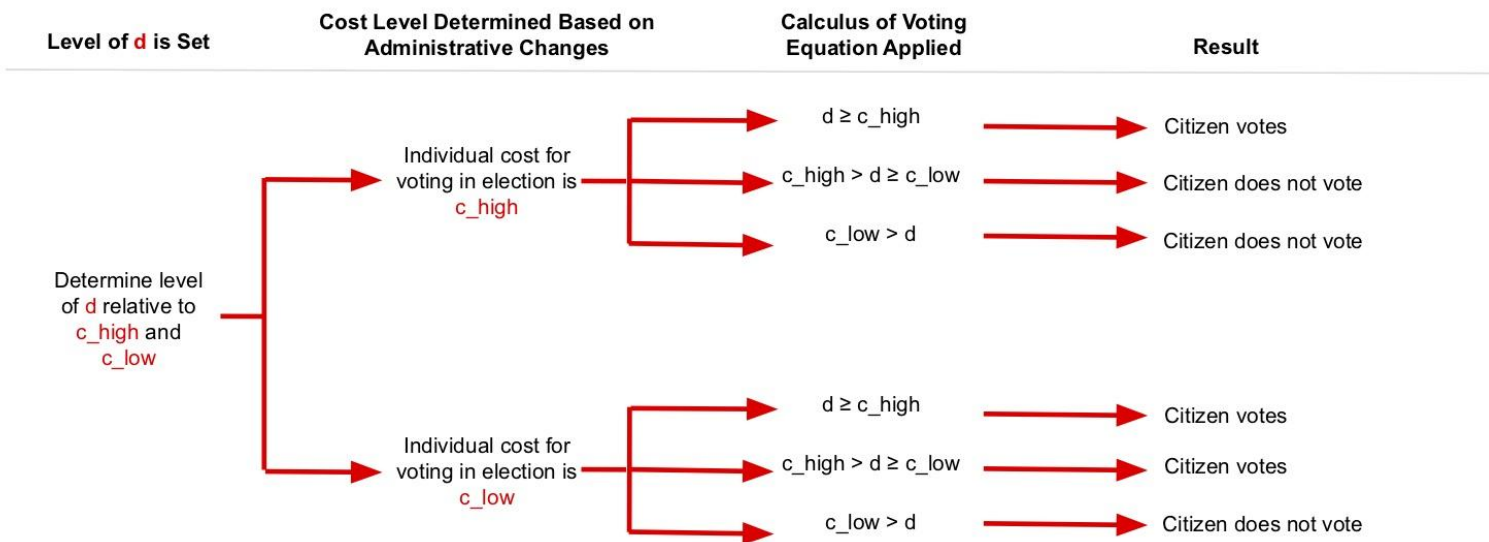
The Calculus of Voting Equation

$$r = b \cdot p - c + d$$

- r = turnout
- b = benefit of your candidate beating opponent
- p = probability your vote is pivotal (ie, produces the win)
- c = cost of voting
- d = other benefits of voting (i.e. civic duty)

Variables

- c_high = costs of voting for individual are high
- c_low = costs of voting for individual are low
- d = other benefits of voting (i.e. civic duty)



The calculus of voting equation can be operationalized by applying two general situations in which the cost of voting differs. The setup of this flow chart demonstrates these two situations, separating costs of voting into two variables for simplicity: “c_high”, when the costs of voting are high, and “c_low” for when the costs of voting are low. The flow chart explains that the level of d , which as previously discussed refers to other benefits of voting such as civic duty, is set prior to when the administrative change is experienced during the voting period. Thus, there are three different possible permutations for the relationship between the d variable and “c_high” and “c_low” variables, each which will result in the individual citizen either voting or not voting.

By separating these two groups, understanding the relationship between cost and “other benefits of voting” can help determine whether, in fact, the change in cost is indeed what caused the change in turnout. Based on a the rational choice model, it would be the logical predication that when the costs of voting are high (c_high) there is a meaningful difference in turnout as compared to when the costs of voting are low (c_low), and increases in early voting periods result in a decrease in cost (c_low).

There are multiple likely arguments that can be presented in response to this claim. The first of which is that the administrative changes that increase the number of early voting days offered do not actually change the costs associated with voting. In essence, the variables “c_h” and “c_l” (Model 1) are not actually meaningfully different values despite administrative changes to the number of early voting days offered before an election. For example, the costs of participation may not be very different when early voting is available compared to when it is not. This argument is best outlined in Gronke (2007), in which he explains that according to a summary of the rational choice literature on turnout by John Aldrich (1993), voting is a decision made at the margin. Gronke concludes that “We view early voting as a minor change in the costs

of voting, making it more convenient to be sure, but piling in significance to such effects as feelings of citizen empowerment, interest in and concern about the election, and political mobilization...” (Gronke 2007). Gronke, therefore, believes that there is, at best, a marginal change in c associated with increases in early voting periods. A further argument, apart from changing costs, is that early voting may even decrease d (other benefits of voting), such as lowering the civic duty associated with voting by waning the importance of election day. Ultimately, one might argue that early voting may not contribute to a change in turnout, because costs are only marginally changed and D is either constant or decreased.

While these arguments hold merit, there are important reasons why these critics are likely to be wrong. First, it is already known that “ c_h ” and “ c_l ” (Model 1) are different. This is because early voting does not close down other options, it just gives people more choices. Although the difference has potential to be marginal, as the critics would argue, there is nonetheless a difference that exists. A difference in cost inherently results in a change in R (Model 1) in the Calculus of Voting Equation, thus indicating that turnout is likely to be changed even if C is marginally decreased. Furthermore, arguments in regards to a potential decrease in D associated with early voting are fairly weak. It is more likely for an extension of the early voting period to correspond with social pressure, civic duty, and awareness about the election given the elongated dates of voting and extension of political party mobilization efforts. Examples of these include strong mobilization efforts to promote voting after Sunday church services, commonly referred to as “souls to the polls”, which is a tradition African American communities have had for decades. Therefore, despite that an increase in D corresponding with a decrease in cost will conflate which variable was directly impacted by the administrative change, it does imply a strong likelihood of increased turnout associated with the change.

The rational choice theory provides a framework for understanding the relationship between altered costs of voting and turnout. As illustrated with previous discussions regarding voting rights and discrimination in election practices, it will be important to not only focus on the general population when analyzing these variables, but also on specific demographic groups. Feddersen explains that group based models of turnout are useful in determining voter turnout, a concept that further emphasizes the value in dissecting early voting behavior across demographic groups such as race and age. Feddersen notes that “the literature appears to be converging toward a ‘group-based’ model of turnout, in which...because they believe themselves to be ethically obliged to act in a manner that is consistent with the group’s interest”(Feddersen 2004). In essence, there is reason to speculate that a large portion of turnout can be attributed to group-based factors. Groups can therefore be disproportionately influenced by alterations in variable values within the calculus of voting equation. For example, if an election administration law is implemented that decreases costs, thus lowering the value of the C variable, it is probable that the extent to which the C variable decreases varies across demographic groups.

It is quite likely that if low turnout groups are given greater opportunity to vote, this lower cost increases their turnout. Comparatively, higher voter turnout groups may experience a smaller reduction in cost and therefore would be less impacted by the administrative change. The analysis conducted in this paper examines the impact of changes to early voting days on specific subgroups. These subgroups include age, race, and education level. Given the understood decrease in cost associated with early voting, it is possible to view differences in turnout across these subgroups as an effect of the change to early voting. Model 2, pictured below, explains the differences between the groups, showing that there are two possible scenarios that result in a change in turnout.

Model 2

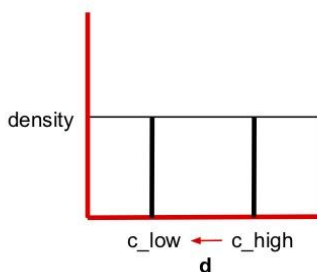
Variables

c_{high} = costs of voting for individual are high

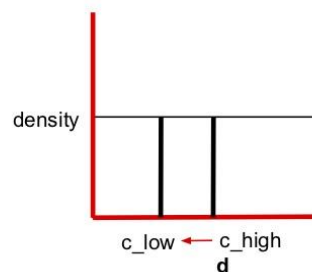
c_{low} = costs of voting for individual are low

d = other benefits of voting (i.e. civic duty)

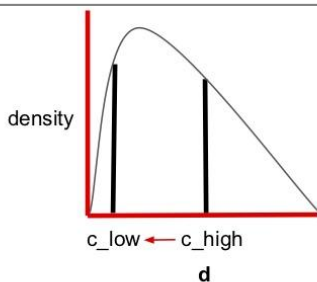
Individuals with Disproportionate Increase in Turnout (i.e. younger people)



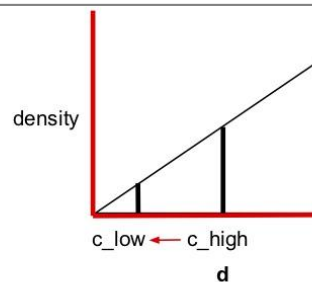
Individuals with Lower Increase in Turnout (i.e. older people)



Scenario A: “d” is distributed the same across groups, but “c_h” is different across groups



Scenario B: “d” is distributed differently across groups, but “c_h” is the same across groups



The first scenario is when the “d” value, for other benefits of voting, is distributed the same amongst the two groups, but the “c_h” value is different. This therefore causes a disproportionate increase in turnout when “c_h” is shifted to “c_l”, and the costs are changed. Scenario B demonstrates the other possibility, where the “d” value varies between groups but “c_h” and “c_l” are the same. When the costs are shifted from “c_h” to “c_l”, the different levels of “d” results in disproportionate turnout between the two groups. As explained earlier, it is unlikely for the value of “d” to vary significantly amongst demographic groups as the result of an administrative voting policy change. Therefore, it is more probable that a change in early voting policy will result in a change in cost that would best be explained by a variation in the extent to which that policy impacted the specific groups being analyzed. This implies that across

different subgroups utilized for this study (race, age, and education level), changes to the number of early voting days can cause different levels of change to the cost of voting. For some groups, an increase in early voting days may more significantly impact the cost than for others. This would, as demonstrated by Model 2, result in differential changes to turnout as a result. Overall, this explanation hopes to provide an understanding that disproportionate turnout can result from the implementation of an early voting policy that alters the cost of voting in a given election. With this methodology in place, a comprehensive study that analyzes the effects of changes to early voting policy across demographic groups can be theoretically substantiated.

VII. Theoretical Understanding of Early Voting: The Downsides of Early Voting

While this paper hopes to advocate for the validity of early voting reforms that increase access to the ballot box by providing more days to vote prior to an election, it is important to recognize the theoretical and empirical arguments against elongating the voting period. There are a variety of normative concerns surrounding early voting that relate to the impact both on democratic values and civic culture. In “Voting Matters: A Critical Examination and Defense of Democracy’s Central Practice,” Emily Booth Chapman argues for the importance of election day. She explains that “voting plays a unique role in contemporary democratic practice as a form of participation in which *all* citizens are expected to participate”(Chapman 2016). The concept that election day resembles a form of mass participation holds value in the democratic process. It helps “manifest the equal political authority of all citizens in democracy”(Chapman 2016), a concept that reinforces the electoral process as a “collective undertaking”(Chapman 2016). In “Election Time: Normative Implications of Temporal Properties of the Electoral Process in the United States”, author Dennis F. Thompson argues that certain temporal properties of elections are diminished through early voting measures, which has the ultimate effect of eroding the

concept of popular sovereignty. Thompson explains, for example, that in the election of 2000 it is quite possible that election projections indicating that George W. Bush had won Florida and widespread reports of Al Gore's concession may have resulted in people not voting before polls closed (Thompson 2004). The continued expansion of early voting opens the door for more situations like this one. Thompson believes that in "ordinary elections"(Thompson 2004), citizens have the same access to information and nobody knows how the other person voted. The "constitutional requirement that all states hold elections on the same day (art. II, sec. 1) may read as an expression of the idea that as far as possible the electoral experience should be the same for everyone. No more than 24 hours elapse from the casting of the first vote...to the closing of the polls..."(Thompson 2004). The idea that an election should take place on the same day is not a mere tradition.

According to Thompson, there is a "normative rationale"(Thompson 2004) as to why election day exists. In fact, he believes that voting on the same day rests on two key democratic values: popular sovereignty and fairness. In regards to popular sovereignty, Thompson explains that as voting is more "concentrated in time"(Thompson 2004), the election "expresses the will of a determinate majority (or plurality)"(Thompson 2004). If voting is done on different days over a long period of time, the result of an election is primarily a decision made by many "different majorities"(Thompson 2004) that are all voting with access to different information, different conditions, and a different temporal context. In regards to fairness, when citizens are voting at the same time they have access to the same information and therefore each citizen's vote has the same value as everyone else's from a strategic standpoint. If people vote over 20 days apart, they are going to be voting with different information about the candidates. They may not be able to see how certain candidates handle major events or how they answer critical

questions from the media. Furthermore, election projections and other relevant data can influence a voter by making their choice more valuable in the context of the election. This creates a discontinuity that disrupts the democratic process of an election by eliminating the “equal political authority” that Booth is adamant about maintaining.

Understanding how informational changes over the course of an early voting period affect election outcomes is a question that Professors of Political Science at the University of Pennsylvania Marc Meredith and Neil Malhotra attempt to answer in their paper “Convenience Voting Can Affect Election Outcomes”. The paper responds to concerns that voting prior to an election day, and therefore before the end of campaigning, could result in citizens casting premature votes that could have gone to a different candidate had they voted at a later date. The paper recounts former 2010 Maine gubernatorial candidate Eliot Cutler, who wrote in an op-ed in the *Wall Street Journal* that “early voting diminishes the already scant attention voters pay to the issues in an election campaign...”(Meredith and Malhotra 2011). He explains that while campaigning, he met a woman that was highly supportive of his platform, but already voted and said “I think I made a mistake”(Cutler 2010) to him. With empirical research, the authors attempt to determine whether convenience voters are affected by information towards the end of campaigns, and if these effects could impact election results.

There is a slew of information that can be released late in campaign cycles: “Candidate withdrawals, election results in other states, debate performances, campaign advertisements, endorsements from newspapers and public figures, polls, and election coverage by the mass media” are a few examples provided by the authors (Meredith and Malhotra 2011). The potential onslaught of vital information that has the capability of altering public perception could no doubt influence some voters. It is widely argued, for example, that the results of the 2016

election were profoundly influenced by the letter James Comey, the FBI Director at the time, sent to Congress on October 28. The letter stated that the FBI “learned of the existence of emails that appear to be pertinent to the investigation”(Silver 2017) regarding Hillary Clinton’s use of a private email server. Nate Silver of FiveThirtyEight believes that “because Clinton lost Michigan, Pennsylvania and Wisconsin by less than 1 point, the letter was probably enough to change the outcome of the Electoral College”(Silver 2017). The fact that this information was released only ten days prior to the election but quite possibly lost Hillary Clinton the 2016 election points towards the impact news at the end of a campaign cycle can have. Early voters that cast their ballots prior to this bombshell were operating with different information and facts when voting.

In Meredith and Malhotra’s study, they examine how the use of convenience voting in the 2008 California presidential primary affects candidate vote shares over the early voting period. Their findings conclude that voting early affected the “relative performance of candidates remaining in the race and increases the probability of selecting withdrawn candidates”(Meredith and Malhotra 2011). These findings indicate that there is empirical evidence to support the idea that voting early has differential impacts on election results due to the elongated voting period. The authors recommend that “election officials should consider waiting until closer to Election Day to send out mail ballots, or instruct people on ballots to make sure to wait until they are ready to make a decision before voting”(Meredith and Malhotra 2011). Ultimately, this study provides valuable insight into how the theorized detrimental effects early voting can have on democratic values, such as popular sovereignty and fairness, play out empirically.

Elections are a fundamental aspect of American democracy that reinforce civic values of equality and self governance. Threatening the sacred practice of voting thus is a delicate matter

and the costs and benefits of doing so must be weighed carefully. Politicians must ensure that the democratic benefits that come with a longer voting period, namely increased turnout, are significant enough to account for the downsides that exist with the erosion of election day voting. As will now be explained, previous literature on early voting is decidedly mixed on this topic and therefore the impacts of early voting on turnout deserve further analytical attention.

VIII. Literature Review: How Early Voting Affects Turnout

There is a plethora of research in the political science community regarding early voting in the United States. The most prevalent debate within early voting research looks at whether changes to early voting only make voting more convenient for voters that would have otherwise voted regardless of whether the early voting reforms were in place. Prior to my discussion of the empirical research, it is important to take into account the previously discussed theoretical basis for early voting arguments. Outlined in Gronke (2007), the “rational choice tradition” contends a favorable approach to early voting, asserting that early voting should logically increase turnout. The rational choice tradition is applied in practice to the Calculus of Voting Equation (Riker and Ordeshook, 1968) outlined in Model 1 above, which explains that early voting logically correlates to an increase in turnout based on a decrease in costs. Election reformers thus turn to early voting as a practical solution when implementing policy that maximizes voter turnout. As Gronke explains, however, the “empirical literature has found decidedly mixed results”(Gronke 2007).

While the public sphere commonly associates convenience voting measures with an increase in turnout, the scholarly community finds mixed results, with early research indicating that early voters are older, have higher education levels, and higher incomes— people who would

likely have voted regardless of whether the convenience reform was in place (Barreto, Streb, Marks, and Guerra 2006). Early voting reforms advocated for presumably fall into the trap that Schattschneider labels as the “heavenly choir”(Schattschneider 1975). This term comes from Scattnscheider’s notable quote that “the flaw in the pluralist heaven is that the heavenly choir sings with a strong upper-class accent”(Schattschneider 1975). In context, early voters tend to fall into this demographic– consisting of largely older, white, and affluent Americans. In fact, “Berinsky et. al. (2001) use a duration model to argue that those mostly likely to vote after a convenience voting reform are those already interested and engaged in the political process”(Gronke 2007). If those that are already likely voters are the ones taking advantage of early voting, it would seem improbable that a significant difference in turnout would be associated with an increase in early voting days. However, there is no guarantee this is the case, and systematic studies regarding early voting and turnout have been produced to account for this research gap.

An early example of research on this topic comes from Robert M. Stein of Rice University in his article titled *Voting Early but Not Often*. Stein uses data from the 1992 Presidential Election in Texas, which he explains has allowed up to 17 days of early voting for all registered voters since 1991. At this time, Texas was one of only a handful of states to offer early voting. Stein explains in his literature review that literature on early voting at the time is sparse because of how uncommon the practice is and that states with early voting implemented tend to rely on the expectation “that increasing the length of the voting period stimulates voter turnout by increasing the opportunity to vote”(Stein 1998). The most analogous previous literature are studies by Patterson and Caldeira (1985) and Oliver (1996) which looked at absentee voting and concluded that there is a negligible effect of absentee voting on voter turnout

unless political parties make strong efforts to mobilize their partisan supporters. Stein concludes from his data that early voting has a “very marginal” effect on turnout, as a 1 percentage increase in votes cast early increases turnout by .07 percent. This marginal difference, along with the confounding variables, raises questions that Stein points out in his conclusion and that were previously mentioned above. This localized sample of Texas voters from only the 1992 election is insufficient in properly concluding the effects of early voting. Because the research only analyzes early voting’s effects on one election during one year (1992) for his study, it does not allow for a sufficient determination of how changes in early voting policy may have affected turnout, as it is possible turnout simply increased from the previous election. Furthermore, the study does not look at which days early voting took place—specifically focusing on Sunday voting. Finally, the study does not analyze demographic data to look at who was specifically affected by the early voting reforms. My research will look to focus on a difference-in-difference analysis over a six year period beginning in the 2008 presidential election to study the effects of early voting over time and how changes in the amount of days early voting is offered, along with the amount of days Sunday voting is offered, effects demographic groups based on race, ethnicity, age, and education level. Despite the setbacks within Stein’s study, his research is indicative of a camp within early voting research. He concluded that early voting does affect turnout and thus serves an important role in administrative policy for election outcomes.

Other scholars have concluded that the effects of early voting are negligent. This is best outlined in Gronke (2007), whose article, which provides a more intermediate distance and relationship to the analysis I will be conducting, comes after over a decade of early voting policy implementations across the United States, allowing his study to be contextually relevant in its

response to previous literature on the topic. Gronke explains that his data concludes “only one early voting reform - voting by mail - has a positive impact on turnout”(Gronke 2007). This corresponds with previous literature that indicates campaigns and mobilization efforts, along with an individual’s political predispositions, are the “primary determinants of turnout” (Gronke 2007). Gronke proceeds to explain two key primary research gaps in previous convenience voting research. First, he notes that “the performance of electoral reforms on changing who votes, however, is decidedly mixed”(Gronke 2007). He notes the previous three research articles mentioned above: EIP (Stein 1998) and absentee balloting (Patterson and Caldeira 1985; Oliver 1996), along with VBM (vote by mail) studies, have all concluded that convenience voting systems are more commonly used by politically active segments of the population. These studies are unable to provide any conclusive evidence that early-in-person voting recruits new voters into the system. Even more significantly, Gronke notes that “many of these studies are ancient history from the perspective of early voting”(Gronke 2007). Stein (1998) was based on a single election in Texas, where early voting rates have increased dramatically, and Patterson and Calderia (1985) along with Oliver (1996) include absentee ballot rates that are less than half of current rates. Gronke’s comprehensive model from 1980-2004 shows modest results that do not support the idea that early voting has a significant impact on turnout. While Gronke’s study properly refutes the results in Stein (1998), it analogously fails to address the gaps previously mentioned. Since Gronke was able to conclude there were still modest impacts on turnout as the result of early voting, it is highly important to see what groups of people were impacted, based on the demographic breakdown. It is also important to note that Gronke’s study focuses on 1980-2004 data. There have been sweeping changes to early voting, particularly Sunday voting, since 2004. A study that takes these changes into account by looking at more recent data is vital

to understand the overall impact of early voting. The study also disregards specifically looking at Sunday voting.

While the previous studies provide a more general framework for early voting research, a more recent study, Herron and Smith (2012), takes a more detailed approach by comparing Florida general election data from 2008 and 2012 to determine whether a 2011 House Bill that truncated the number of early voting days had effects on turnout and specific demographic groups, specifically taking into account Sunday voting. This research article has the closest, most proximate relationship to my research. The author's literature review spent time discussing how current politicians expressed the intentions of the bill— namely how the Republican legislature that passed these laws effectively achieved their goal of lower Democratic turnout. While this study built on previous literature on early voting by analyzing demographic data and specifically looking at Sunday voting, the results are inconclusive. The study only compares the 2008 and 2012 elections, and thus the results conflate the effect of the law and the effect of changes in the election. Across the country, citizens had lower turnout in 2012 than in 2008, particularly amongst black voters who were highly motivated to vote for the first black president in 2008. This was also true amongst other groups mentioned in the study, such as Democrats. Ultimately, not much can be learned by this comparison as there would need to be a control group that did not change election administration or at least changed it in a different way.

In summary, there are a variety of gaps within early voting research. Firstly, both Stein (1998) and Herron and Smith (2012) do not analyze changes in turnout over time. This leads to the possibility that the changes in turnout noted in their respective studies were due to factors outside of the early voting administrative policy change, such as the increased turnout in 2008 amongst African Americans and Democrats inspired by the opportunity to vote for the first Black

president. Both Stein (1998) and Gronke (2007) failed to provide a specific analysis of Sunday voting, which is highly important given the strong mobilization efforts to promote voting after Sunday church services, commonly referred to as “souls to the polls”, which is a tradition African American communities have had for decades. Stein (1998) and Gronke (2007) also do not specifically look at demographic data, which is important for understanding which groups are affected by the early voting policies. Finally, the majority of studies do not include recent election data, which means that they do not take into account the variety of new voting reforms, specifically after the *Shelby County v. Holder* (2013) decision that caused many early-in-person voting policies to be altered.

IX. Research Question and Case Study

As outlined by these previous academic studies, understanding the relationship between early voting and turnout is vital in discussions about the importance of early voting reforms. This inquiry led me to my research question, which can be summarized as the following: Do changes in the number of days, specifically the number of Sundays, people have access to vote early prior to an election affect turnout, and does this potential change in turnout impact specific demographics at different rates? In order to discuss how I will operationalize variables for this analysis it is important to note that my study will be focusing on the state of Ohio. This is because Ohio has implemented separate reforms that have both increased and decreased the early voting period for midterm and general elections over the course of the past two decades.

Ohio has had a unique history with early voting legislation that provides a valuable case study for this analysis. Early voting in Ohio has been prevalent for decades, and grew in popularity when early voting “was instituted in 2005”(Bliss 2010). Early voting in Ohio,

sometimes referred to as no fault absentee voting, allowed voters to cast in person absentee ballots without requiring an excuse, such as a disability. This significantly increased the proportion of early voters in Ohio. In 2004, there were about 607,000 early voters in Ohio. However, by 2008 there were 1,717,000 early voters (Bliss 2010). In the 2008 election, early voters made up 29.7% of votes cast (Bliss 2010), a staggering percentage and one that demonstrates how widely utilized early voting is in Ohio. For the 2008 election, counties in Ohio had the discretion to determine the number of early voting days they offered, including the number of Saturday and Sunday voting days offered within boundaries set by the Ohio Secretary of State. This meant that various counties in Ohio offered different numbers of early voting days, leading to unique experiences for voters within each jurisdiction.

The variation amongst counties displayed a notable contrast based on the demographic makeup and geographic location of them. As noted in the study “Early Voting Laws, Voter Turnout, and Partisan Vote Composition: Evidence from Ohio” by Ethan Kaplan and Hashan Yuan, “urban, Democratic areas expanded early voting at a faster rate than rural, Republican ones”(Kaplan and Yuan 2020). The authors note that the largely urban Franklin County was open for 340 hours of early voting over a 35 day period that included 10 days of weekend voting, five of which were Sundays (Kaplan and Yuan 2020). Contrast this with the rural Pickaway County, which was open for only 109 hours of early voting over an eleven day period that included only one day of weekend voting. These stark differences in early voting periods offered between Ohio counties led to a variety of questions. Were the differences in turnout observed across these counties a result of the variance in early voting days offered? Was it fair that residents of certain counties had significantly less days and options to choose from when voting than fellow residents of Ohio that lived in nearby jurisdictions?

When John Kasich won the 2010 Ohio gubernatorial election, he was able to institute a variety of reforms immediately due to both the state senate and House of Representatives being controlled by a Republican majority (Kaplan and Yuan 2020). Republicans were concerned not only about the inconsistencies in voting policies across counties, but also framed their platform regarding early voting to cover issues of voter fraud and election integrity. The Ohio state legislature ultimately passed State Bill 295 to address Republican concerns, which required all Ohio counties to offer 26 early voting days, including no Sunday days and only two days of Saturday voting. This law changed early voting in Ohio drastically by homogenizing early voting dates and times across all 88 Ohio counties. All Ohio counties were thus required to offer the same number of early voting days prior to midterm and general elections (Kaplan and Yuan 2020). The law went further by eliminating early voting during the three days leading up to an election, which meant that there would be no weekend voting prior to an election day, something that hundreds of thousands of Ohio residents took advantage of in previous elections.

The impacts of this homogenization law were staggering and demonstrated the urban and rural divide in early voting that largely fell along party lines. Counties such as Franklin County and Cuyahoga County, which were majority Democrat and mostly urban, experienced cutbacks, losing 9 days of early voting (Kaplan and Yuan 2020). 8 of the 9 days these counties lost were weekend days (Kaplan and Yuan 2020). This contrasts with conservative counties, such as Pickaway County, which added a day of weekend voting and increased early voting by 15 days (Kaplan and Yuan 2020). The urban counties that experienced reductions in early voting also have much higher populations than counties such as Pickaway County, and thus more people were affected by declines in early voting options as opposed to increased access. These counties also have higher proportions of African American residents compared to counties that had

increases to early voting, a demographic factor that aligns with Democrat concerns over voting rights violations. Analyzing the elections of 2008, 2010, 2012, and 2014, I hope to extrapolate data that targets the years in which this homogenization law was in effect to reach a meaningful conclusion about the changes to early voting days impact on turnout.

It is important to note that the homogenization law passed by Governor Kasich experienced intense opposition and a variety of challenges in court. On top of State Bill 295, in 2014, Ohio passed Senate Bill 238 that eliminated six early voting days that were known as “Golden Week”. This was because people were able to register to vote and cast in person absentee ballots at the same time during this week (Borchardt, 2014). This law went through various legal battles, was reinstated, then overturned on appeal, before making its way to the Supreme Court where in 2016 it upheld Senate Bill 238 and thus Ohio’s “golden week” was not reinstated (Hurley, 2016). Ohio’s homogenization law is therefore still in effect and “golden week” is no longer a staple of Ohio elections.

My analysis utilizes data from the Ohio Secretary of State and individual Ohio county board of elections. The first data set includes policy data, which will indicate the early voting days available within each Ohio county polling location by date and time. The next data set consists of voter files, which includes the turnout numbers in Ohio counties. This data includes census demographic data such as distance to polling site in miles, race, age, and education level, among other information. This data is extrapolated from the census block level, which is small subgroups of 500-3,000 people that can be used to make demographic and economic estimates of each voter.

The main variable measured in terms of policy is the number of early voting days offered prior to the election within each individual Ohio county. This will be further separated into the

number of weekend days and number of Sundays in which early in person voting is offered. Turnout will be measured using voter files from the Ohio Board of Elections, which not only will provide turnout, but important demographic data that is used in the differences in differences analysis. Given the causal relationship expected between the number of early voting days offered and voter turnout, I developed three hypotheses regarding the effect of early voting on turnout. The first is that increases in the number of early voting days offered by counties in Ohio over the course of the 2008, 2010, 2012, and 2014 elections have resulted in increases in turnout. For this hypothesis to be confirmed, the differences in differences analysis must show a significant difference in turnout between all Ohio counties over the time span when days of early voting are higher. If this is categorically proven, then further analysis of demographic data will provide information on whether specific demographic groups had higher turnout as early voting days were increased. My hypothesis in regards to this topic is that these increases in turnout were disproportionately experienced by African American voters and younger voters. This leads to my third hypothesis, which is that increases in the number of early Sunday voting days offered will show a disproportionate, positive impact on African American voter turnout.

The research design involves comparing all Ohio counties, of which there are 88 in total, using a differences in differences analysis. The reason why this is the method of investigation is because it allows for the comparison of groups that are changing over time and holds certain aspects of the study fixed. This includes invariant traits, which are any other reasons why the county would have higher or lower voter turnout. For example, the study will account for time invariant traits, which are situations in which over a specific period of time it is expected that an individual county will have stable and predictive turnout due to factors such as age. If there is a county that is disproportionately populated with old voters and one that is highly populated with

young people, who in general turn out less, stable comparisons of turnout between these counties can be made. Therefore, observed changes in turnout can be more accurately attributed to changes to early voting days because the differences in differences analysis, by comparing across counties over time, can mitigate this invariant variation between counties to isolate the effects of early voting. The differences in differences analysis requires a control group, which are the Ohio counties in which the number of early voting days are the same as the previous election. The treatment groups are the Ohio counties in which the number of early voting days has changed since the previous election.

Another aspect accounted for in this study is variables that change over time but at similar rates. For example, changes in voting caused by who is on the ballot or whether it is an important presidential election are accounted for. In 2008, likely motivated by an election that had the potential for leading to the first black president in US history, African Americans turned out at exceptionally high rates. In fact, according to Pew Research, their voter turnout rate increased 4.9 percentage points from 60.3% in 2005 to 65.2% in 2008 (Pew Research Center). In Herron and Smith (2012), the researchers did not account for this likely reason for increased turnout and only compared 2008 general election data with 2012 general election data to generate their conclusion. By comparing data across counties for the same elections and then expanding this analysis on a year to year basis to include the 2010 election, my data will be able to eliminate issues caused by these statistical variations.

X. Analysis

I employ an empirical strategy to estimate the effects of increases in the number of early voting days on turnout. The data for this empirical study comes from the state of Ohio voter

registration database. This information includes individual voter history from the 2008, 2010, 2012, and 2014 elections, including the name and age for each voter in the state of Ohio. This data thus allows for precise data for each voter based on age. Census data is used to estimate the demographic information of each voter from a census block level. Census block levels are “statistical divisions of census tracts” that are “generally defined to contain between 600 and 3,000 people, and are used to present data and control block numbering”(US Census Bureau 2022). This census block level information allows for each voter to have a census block level estimate regarding percent white, percent black, percent college graduates and higher degrees, and percent high school dropouts. This data is extrapolated from raw data files used in “Early Voting Laws, Voter Turnout, and Partisan Vote Composition: Evidence from Ohio” by Ethan Kaplan and Hashan Yuan (2020). This raw data set also includes the number of early voting days offered in the midterm and general elections from 2008-2014 within each of Ohio’s 88 counties. This data was acquired for Kaplan and Yuan (2020) from the Secretary of State offices in the respective Ohio counties, which is the only place this detailed early voting data is available.

My model utilizes the *fixest* package in the “R” programming environment to generate a linear model for estimations with multiple fixed effects. The goal was to create a differences-in-differences design that compares changes in early voting days across Ohio counties holding the county and time as fixed effects. The fixed-effects estimation is useful because it allows for a comparison to be made amongst individuals with numerous observations. It ensures that the only information being measured is based on the data that changes across these variables and holds the other variables fixed.

I combine the aforementioned data files in order to produce a regression that utilizes the number of days of early voting as the independent treatment variable. This independent variable is further separated into subgroups that are implemented into two other regressions which specifically estimate changes involving the number of weekend days of early voting offered and the number of Sunday early voting days offered, respectively. The *feols* function is utilized for the purpose of a fixed-effect differences-in-differences linear model. Each individual regression estimates for the independent variable (all early voting days, weekend early voting days, or Sunday early voting days) along with a demographic variable (age, race [white], race [black], college education level and up, and high school dropout) to determine how each subgroup is impacted by these changes to early voting. The differences-in-differences regression formula being used can be summarized as follows:

$$(1)y_{it} - y_{it-1} = \alpha + \beta(d_{it} - d_{it-1}) + \varepsilon_i$$

In this equation, $(y_{it} - y_{it-1})$ refers to the turnout difference in individual Ohio county i before and after each election. The alpha regression constant, α , is the change in turnout within Ohio counties that did not change the number of early voting days between each election. The beta variable, β , is the treatment group specific effect. Substantively, this is the estimate of the effect one more day of early voting has on voter turnout. The second difference in the regression is $(d_{it} - d_{it-1})$, which refers to the difference in days of early voting in individual Ohio county, i , between each election, which is subgrouped into three categories described previously: the total number of early voting days offered, the total number of weekend early voting days offered, and the total number of Sunday early voting days offered. Lastly, the variable ε is the regression residual for each Ohio county, i .

In this study, I utilize the following census block level percentages to separate subgroups: For census block level based on race (white), I implement a block level percentage of 80%. For census block level race (black), the block level used is 25%. The census block level for college education and up along with the census block level percentage for high school dropout is 20%. These block level separations allow a comparison between white, non-white, black, and non-black census block level groups. The standard errors are clustered based on county. This is done because estimations will be similar for the observations within the county clusters, and therefore more accurate standard error determinations can be achieved through clustering by county.

XI. Results

The results from this study are organized in Table 1 below. The table shows the percentage increase in turnout based on an additional day of early voting on all days, weekends, and Sundays. The “Group” column separates these changes based on the demographic information into 12 different subgroups. The “Non-Black” group refers to census block level percent race (black) under 25%, while the “Black” group is over 25%. Likewise, the “Non-White” group refers to census block level percent under 80%, while the “White” group refers to census block level percent over 80%. “High School Dropout Share (High)” and “College Educated Share (High)” both refer to respective census block level percents above 20%, while “High School Dropout Share (Low)” and “College Educated Share (Low)” refer to respective census block level percents below 20% for these subgroups. The results are ultimately consistent with existing work, which finds that the effects caused by changes in early voting days are relatively small. However, the regression model I use is able to pick up very

small effects and therefore differences across subgroups can be observed where effects are notable but not large.

Table 1

| Group | All days | Weekends | Sundays |
|----------------------------------|-----------------|-----------------|----------------|
| All | 0.137% | 0.14% | 0.301% |
| 18 - 29 | 0.187% | 0.189% | 0.359% |
| 30 - 42 | 0.117% | 0.118% | 0.293% |
| 43 - 54 | 0.073% | 0.072% | 0.185% |
| 55 + | 0.072% | 0.069% | 0.16% |
| Non-Black | 0.107% | 0.108% | 0.247% |
| Black | 0.225% | 0.225% | 0.375% |
| Non-White | 0.098% | 0.097% | 0.149% |
| White | 0.087% | 0.088% | 0.217% |
| High School Dropout Share (High) | 0.222% | 0.399% | 0.864% |
| High School Dropout Share (Low) | 0.143% | 0.141% | 0.297% |
| College Educated Share (High) | 0.148% | 0.148% | 0.302% |
| College Educated Share (Low) | 0.177% | 0.206% | 0.48% |

I hypothesized that increases to early voting days would result in notable increases in turnout amongst black voters. As mentioned, differential effects across subgroups exist but are relatively small. There is a .375% observed increase in turnout among black voters for an additional day of Sunday voting, which is larger than the .225% increase for an additional day of early voting. Furthermore, white voters experience a .217% increase in turnout for an additional day of Sunday voting, indicating that an additional day of Sunday voting results in a lower impact on white voters as opposed to black voters.

Table 2:
Change in Turnout Caused by Additional Day of Sunday Voting, Based on Age

| | Δ Voted | |
|---|-------------------|-------------------|
| | (1) | (2) |
| Δ Days of Weekend Voting | 0.301 (0.0813) | 0.359 (0.311) |
| Δ Days of Weekend Voting x Age 30-42 | | -0.066 (0.141) |
| Δ Days of Weekend Voting x Age 43-54 | | -0.174 (0.284) |
| Δ Days of Weekend Voting x Age 55+ | | -0.199 (0.289) |

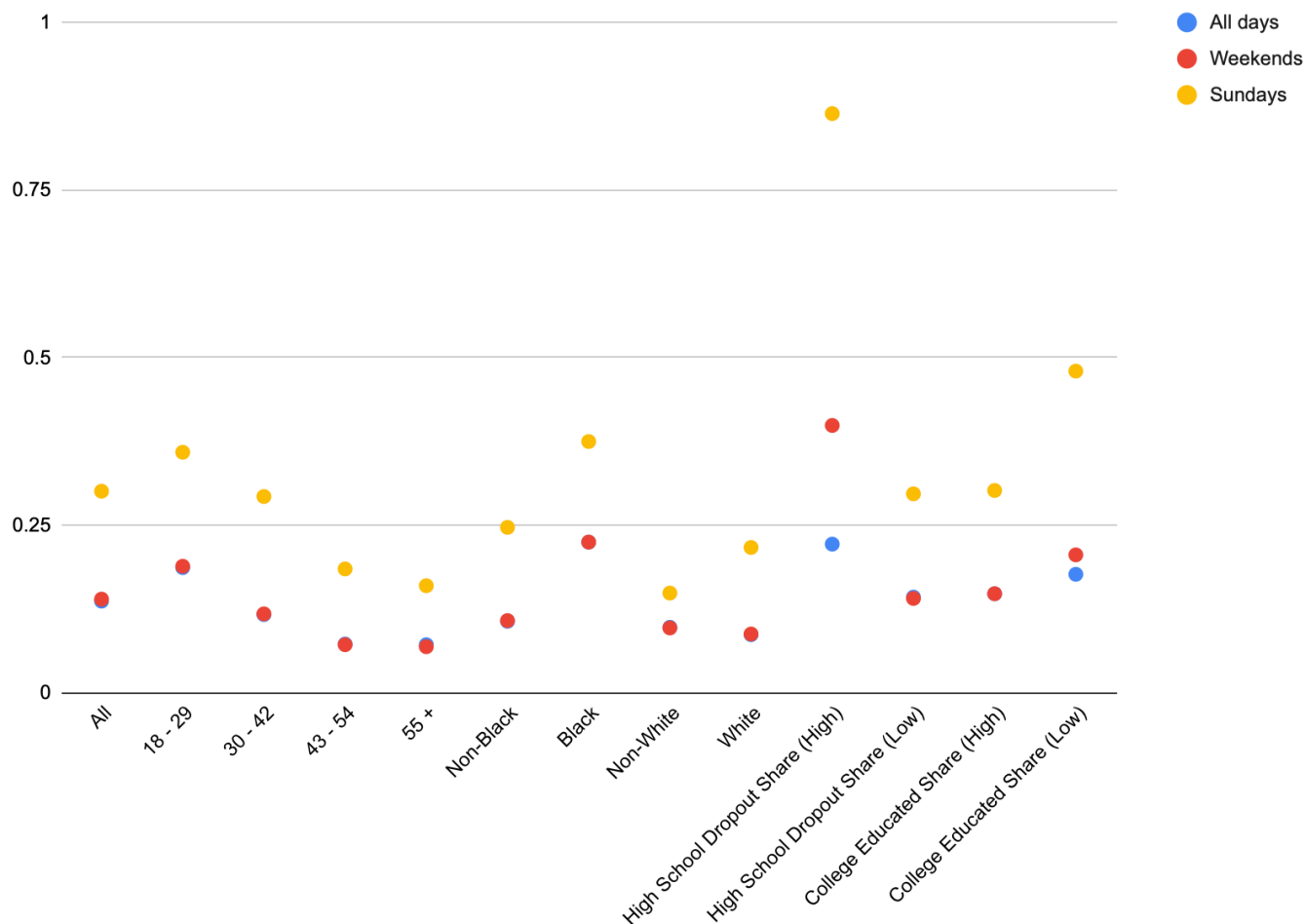
Table 2 demonstrates these small differential effects for voters based on age for an additional day of Sunday voting. The standard error for each value is shown underneath in parentheses. A full list of all tables with corresponding subgroup information can be found in the Appendix. As can be observed, the effect of an additional day of Sunday early voting on turnout is greater for younger voters. For all voters, the change in turnout for an additional day of early voting is .301%, whereas for voters under 30 that change is .359%. The -.066 value for voters between the ages of 30-42 indicates that the change in turnout is only .293% for these voters. For voters over the age of 55, the -.199 value indicates that there is only a .16% increase in turnout amongst this group as a result of an additional day of Sunday voting. These differences across age groups also exist when all early voting days are used as the independent variable. The youngest voting block of voters age 18-29 experience a .187% increase in turnout for each additional voting day, larger than the .117% increase in turnout amongst voters age 30-42 and significantly greater than the .072% increase in turnout amongst voters age 55+.

Perhaps the most notable difference that can be observed is within the high school dropout subgroup. High school dropout voters experience a .864% increase in turnout for an additional Sunday of early voting, and .222% increase in turnout for an additional day of overall voting. This differs from college educated voters, who experience a .302% increase in turnout for an additional day of Sunday voting and a .148% increase in turnout for an additional day of early voting. There are multiple theories that could potentially explain why high school dropouts are more affected by increases in early voting dates. One theory is that higher education provides more exposure to civic values that includes voting. John Marshall, Professor at Columbia University, writes that “civic education and social science classes generally encourage political engagement and trust in the political system (Niemi and Junn 1998), and they seek to instill liberal values of tolerance (Dee 2004; Hillygus 2005). Such classes typically start in late high school”(Marshall 2019). He also notes that “enhanced high school civics classes increase political knowledge...”(Marshall 2019). The strong correlation between high school dropout levels and income also could play a factor in why more days of early voting lead to increases in turnout for this subgroup. The National Center for Education Statistics notes that “Dropping out of high school is related to a number of negative outcomes. According to data from the Census Bureau’s 2017 Current Population Survey (CPS), the median earnings of adults ages 25 through 34 who worked full time, year round and who had not completed high school were lower than the earnings of those with higher levels of educational attainment”(“Trends in High School Dropout and Completion Rates in the United States”). In “How Do Hours Worked Vary with Income? Cross-Country Evidence and Implications,” authors Alexander Bick, Nicola Fuchs-Schündeln, and David Lagakos found that “low individual wage correlates significantly with high hours worked per worker”(Bick, Fuchs-Schündeln, and Lagakos 2018). While limited

data exists about the effect of long work hours on voter turnout, Li, Giebler, Wetter, Lair, and Ellingwood conclude that “Women's political participation suffers...from long hours and nonstandard working schedules...For men, the negative association between working long or unsociable hours and voting...holds true for men with the lowest occupational status, such as operators, assemblers, and elementary workers”(“Long Working Hours and Voter Turnout” 2022). It is therefore quite possible that high school dropouts correlate with lower voter turnout, largely due to a disproportionate rate of longer work hours that results in less convenience in accessing the polls. Increases to early voting, then, could potentially increase access to the ballot box for this group.

Graph 1 below demonstrates the different percentage changes to turnout based on alterations to the number of days of early voting. The data points are color coordinated based on the different independent variables utilized. As discussed, there is a notably high percentage change in turnout for high school dropouts with an additional day of Sunday voting. It is important to note that while the observed changes are small, the differences can be distinguished. The list of tables provided in the Appendix demonstrates standard errors for the data points, which show that the values observed are significant and above zero. These findings fall in line with previous literature that indicates changes to early voting dates have a very small, but significant impact on turnout.

Graph 1



Gronke’s conclusion perfectly describes this data, as he states that “We view early voting as a minor change in the costs of voting, making it more convenient to be sure, but paling in significance to such effects as feelings of citizen empowerment, interest in and concern about the election, and political mobilization...” (Gronke 2007). This is also consistent with Stein (1998), who, as previously discussed, concludes from his data that early voting has a “very marginal” effect on turnout. While our initial hypothesis worried that effects would be large for black voters and young voters, differences do exist but they are very minimal. The only dramatic

observed difference comes from high school dropouts with additional days of Sunday voting, and even this change is less than one percentage point.

XII. Conclusion

The data analysis conducted in this study produced results that are consistent with previous literature on the subject of how early voting affects turnout. However, this study provides new insight into the important caveat that the differential effects to voter turnout based on changes to early voting among specific subgroups of people are more distinct. The results outlined in this paper indicate valuable distinctions in turnout effects on groups such as black voters, young voters, and less educated voters. I also demonstrate that there is disproportionate value in Sunday voting on increasing turnout amongst these subgroup populations, indicating the importance of additional Sunday early voting days. However, while these differences do exist, they are quite modest. As discussed previously, all changes to turnout remain less than one percentage point, which is very marginal in the big picture of election administration. This paper, therefore, provides further support to democratic theorists who advocate for shorter election periods in the name of fairness and popular sovereignty. It also provides some skepticism towards claims that legislation resulting in a reduction in early voting dates violates the VRA due their discriminatory nature.

Ultimately, I hope this research encourages further academic inquiry into the question of how convenience voting policies affect turnout. As the format of how the United States conducts elections continues to undergo massive changes due to technological advancements and changing social values, it is important for our government to strive for elections that properly uphold a commitment towards democratic principles, including equality and fairness. While increasing

convenience voting is commonly assumed to honor such a commitment, these policies must be properly examined to their fullest extent in order to determine whether they do more harm than good. My research demonstrates that there is a small differential effect on early voting changes to subgroups such as young voters and black voters. A study that expands the scope from the state of Ohio to all states that offer early voting and increases the number of elections could provide an even more conclusive determination of the effects changes to early voting days have on these subgroups.

Other questions in regards to the effect of early-in-person voting will also be useful to further validate the conclusion of this study. Most importantly, it will be valuable to learn the motivations and underlying reasons that guide the decisions of policymakers to implement early voting policy. Are policymakers implementing policies that increase the number of early voting days prior to an election to cater to higher predicted turnout for that election? Or, are policymakers implementing early voting policy with the goal of increasing turnout in that election as a result of the increase in early voting days? Having this information would allow for a better understanding of the actual effects early voting policy has on the electorate, namely providing further substantiation that any observed changes in turnout after the implementation of an early voting policy are due to that policy.

In summary, this study provides a new analysis regarding the effects of early-in-person voting by demonstrating that the differences in turnout for an additional day of early voting across demographic subgroups are marginal. Further research is recommended on how convenience voting affects turnout, with a specific emphasis on expanding the scope of the study and increasing the number of elections analyzed. Other questions involving early voting, such as

the motivations for why policymakers implement such policies, are also useful in validating the results of this study and future early voting research.

Appendix:**Full Tables List**

Includes Sunday, Weekend, and Total Early Voting Days

Sorted by Age, Race (Black), Race (White), College Education Level, and High School Dropout

Age - Sundays

| | Δ Voted | |
|---|-------------------|-------------------|
| | (1) | (2) |
| Δ Days of Weekend Voting | 0.301 (0.0813) | 0.359 (0.311) |
| Δ Days of Weekend Voting x Age 30-42 | | -0.066 (0.141) |
| Δ Days of Weekend Voting x Age 43-54 | | -0.174 (0.284) |
| Δ Days of Weekend Voting x Age 55+ | | -0.199 (0.289) |

Age - Weekend

| | Δ Voted | |
|---|------------------|-------------------|
| | (1) | (2) |
| Δ Days of Weekend Voting | 0.140 (0.044) | 0.189 (0.169) |
| Δ Days of Weekend Voting x Age 30-42 | | -0.071 (0.084) |
| Δ Days of Weekend Voting x Age 43-54 | | -0.117 (0.157) |
| Δ Days of Weekend Voting x Age 55+ | | -0.120 (0.158) |

Age - All

| | Δ Voted | |
|--|----------------|-----|
| | (1) | (2) |

| | | |
|--|------------------|-------------------|
| Δ Days of Total Early Voting Days | 0.137 (0.039) | 0.187 (0.15) |
| Δ Days of Total Early Voting Days x Age 30-42 | | -0.070 (0.077) |
| Δ Days of Total Early Voting Days x Age 43-54 | | -0.114 (0.142) |
| Δ Days of Total Early Voting Days x Age 55+ | | -0.115 (0.144) |

Race (Black) - Sunday

| | Δ Voted | |
|---|------------------|------------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.309 (0.081) | 0.247 (0.090) |
| Δ Days of Total Early Voting Days x Census Block African American Greater than 25% | | 0.128 (0.272) |

Race (Black) - Weekend

| | Δ Voted | |
|---|------------------|-----------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.140 (0.044) | 0.108 (0.05) |
| Δ Days of Total Early Voting Days x Census Block African American Greater than 25% | | 0.117 (0.15) |

Race (Black) - All

| | Δ Voted | |
|---|------------------|-----------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.137 (0.039) | 0.107 (.05) |
| Δ Days of Total Early Voting Days x Census Block African American Greater than 25% | | 0.118 (0.15) |

Race (White) - Sunday

| | Δ Voted | |
|---|------------------|------------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.301 (0.081) | 0.149 (0.212) |
| Δ Days of Total Early Voting Days x Census Block African American Greater than 80% | | 0.068 (0.196) |

Race (White) - Weekend

| | Δ Voted | |
|---|--------------------|-------------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.1403 (0.0441) | 0.097 (0.122) |
| Δ Days of Total Early Voting Days x Census Block African American Greater than 80% | | -0.009 (0.115) |

Race (White) - All

| | Δ Voted | |
|--|----------------|-----|
| | (1) | (2) |

| | | |
|---|------------------|-------------------|
| Δ Days of Total Early Voting Days | 0.137 (0.039) | 0.098 (0.121) |
| Δ Days of Total Early Voting Days x Census Block African American Greater than 80% | | -0.011 (0.114) |

College Up - Sunday

| | Δ Voted | |
|--|--------------------|-------------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.3009 (0.0813) | 0.480 (0.129) |
| Δ Days of Total Early Voting Days x Census Block College Degree and Up Greater than 20% | | -0.178 (0.135) |

College Up - Weekend

| | Δ Voted | |
|--|--------------------|-------------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.1403 (0.0441) | 0.206 (.064) |
| Δ Days of Total Early Voting Days x Census Block College Degree and Up Greater than 20% | | -0.058 (0.061) |

College Up - All

| | Δ Voted | |
|--|----------------|-----|
| | (1) | (2) |

| | | |
|---|-------------------|-------------------|
| Δ Days of Total Early Voting Days | 0.1365 (0.039) | 0.177 (0.049) |
| Δ Days of Total Early Voting Days x Census Block College Degree and Up Greater than 20% | | -0.029 (0.057) |

High School Dropout - Sunday

| | Δ Voted | |
|---|------------------|------------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.301 (0.081) | 0.297 (0.085) |
| Δ Days of Total Early Voting Days x Census Block High School Dropout Greater than 20% | | 0.567 (0.268) |

High School Dropout - Weekend

| | Δ Voted | |
|---|------------------|------------------|
| | (1) | (2) |
| Δ Days of Total Early Voting Days | 0.140 (0.044) | 0.141 (.047) |
| Δ Days of Total Early Voting Days x Census Block High School Dropout Greater than 20% | | 0.258 (0.124) |

High School Dropout - All

| | Δ Voted |
|--|---------|
| | |

| | (1) | (2) |
|--|------------------|------------------|
| Δ Days of Total Early Voting Days | 0.137 (0.039) | 0.143 (0.043) |
| Δ Days of Total Early Voting Days x Census Block High School Dropout Greater than 20% | | 0.079 (0.112) |

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