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ABSTRACT

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Title	The economics of minority voter suppression in the United States: A difference-in-difference econometric analysis on the effects of voter ID legislation on minority turn-out in congressional elections		
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Abstract

The topic of voter ID laws in the United States of America has been a hotly debated one. In the first two decades of the 21st century, the number of states that have some form of voter ID law in effect has gone from 14 to 34. There has been a particular concern that voter ID laws may have disproportionate negative effects on racial and ethnic minorities. Voter ID laws are perceived as part of a long history of minority voter suppression that has roots from since before the Civil War, and continues to this day.

This thesis uses econometric analysis to answer the question of whether or not racial and ethnic minorities, specifically Black and Hispanic voters, are disproportionately affected by voter ID laws, compared to White voters. It uses data from the U.S. Census Bureau's Current Population Surveys for midterm elections from 1998 to 2018.

Previous studies have found that there is reason to believe that voter ID laws are politically motivated and intended to suppress Democratic turnout. Studies show that Black and Hispanic voters are less likely to have the voter ID documents needed to vote. However, studies have, with few exceptions, found little evidence that voter ID laws decrease voter turnout for Black or Hispanic voters. Difference-in-difference studies have also found little evidence that Hispanic and Black voter turnout is affected more or less by ID laws than White turnout.

The result of the econometric analysis is that the data does not support the view that voter ID laws decrease voter turnout for Black or Hispanic voters. The difference-in-difference analysis comparing the effects of voter ID laws on the change in Black and Hispanic voter turnout to the change in White voter turnout does not show a difference in these changes either. Overall, no evidence is found to support that Black or Hispanic voter turnout suffers from ID laws, or that Black or Hispanic voter turnout suffers disproportionately compared to White voters.

Key words	Voter ID laws, voting rights, race, ethnicity

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TURUN YLIOPISTO

TIIVISTELMÄ

Tiivistelmä

Yhdysvalloissa äänestäjien henkilöllisyystodistuslait ovat kiistelty puheenaihe. 2000-luvun kahdella ensimmäisellä vuosikymmenellä henkilöllisyystodistuslakien määrä on noussut 14:sta 34:ään. Erityisenä huolenaiheena on ollut se, että henkilöllisyystodistuslakien vaikutus voi olla suhteettoman suuri rotuvähemmistöille ja etnisille vähemmistöille. Henkilöllisyystodistuslait ovat osa pitkää vähemmistöjen äänestysoikeuksien rajoittamisen historiaa, joka on jatkunut ajasta ennen sisällissotaa nykypäivään saakka.

Tämä tutkielma käyttää menetelmänään ekonometrista analyysiä vastatakseen kysymykseen, vaikuttavatko henkilöllisyystodistuslait mustien ja latinoamerikkalaisten äänestysaktiivisuuteen enemmän kuin valkoisten. Lähteenään tutkielma käyttää U.S. Census Bureaun Current Population Survey -tutkimuksia vuosien 1998–2018 välivaaleista.

Aikaisemmissa tutkimuksissa on löydetty viitteitä siihen, että henkilöllisyystodistuslaeilla on tavoiteltu poliittisia päämääriä, ja niiden säätämisellä on ollut tarkoitus vaikuttaa demokraattisen puolueen kannattajien äänestysmahdollisuuksiin. Tutkimuksissa on todettu, että mustilla ja latinoamerikkalaisilla äänestäjillä on pienemmällä todennäköisyydellä lain vaatima äänestämiseen vaadittava henkilöllisyystodistus. Tästä huolimatta tutkimukset ovat harvoja poikkeuksia lukuun ottamatta todenneet, että henkilöllisyystodistuslait eivät vähennä mustien tai latinoamerikkalaisten äänestysaktiivisuutta. Difference-in-difference-analyysiä hyödyntäneet tutkimukset eivät myöskään ole havainneet henkilöllisyystodistuslakien vaikuttavan mustien ja latinoamerikkalaisten äänestysaktivisuuden muutokseen enemmän tai vähemmän kuin valkoisten äänestysaktiivisuuteen.

Tutkielman ekonometrinen analyysi päätyy tulokseen, että data ei tue väitettä, että henkilöllisyystodistuslait vähentäisivät mustien tai latinoamerikkalaisten äänestäjien äänestysaktiivisuutta. Difference-in-difference-analyysi ei myöskään tue väitettä, että henkilöllisyystodistusten aiheuttama muutos mustien ja latinoamerikkalaisten äänestysaktiivisuudessa olisi erisuuruinen kuin muutos valkoisten äänestysaktiivisuudessa.

Avainsanat	Äänestyslait, äänestysoikeus, rotu, etnisyys

THE ECONOMICS OF MINORITY VOTER SUPRESSION IN THE UNITED STATES

A difference-in-difference econometric analysis on the effects of voter ID legislation on minority turn-out in congressional elections

Master's Thesis
in Economics

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1   INTRODUCTION

This thesis is both an overview of the history, and economic theory, of racial and ethnic minority voter suppression in the United States of America in general, and an econometric examination of how voter identification document (ID) legislation has affected racial and ethnic minority voter turnout, specifically for Black and Hispanic voters.

Various forms of voter suppression legislation have existed in the United States since its inception. Voter identification legislation has been a growing concern in politics in the 21st century. Before 2000, there were 14 states with voter identification legislation; by 2020, that number has risen to 34. (National Conference of State Legislatures 2017). Therefore, it is important to understand how this legislation affects elections in the United States.

This thesis begins in chapter two with an examination of the history of voter suppression and the fight for voting rights in the United States of America, to give context and perspective to the current political climate, and voter identification document laws in particular. First, this chapter examines voting rights from a historical perspective, beginning with the Civil War and the first Reconstruction, followed by the period after the first Reconstruction leading to the Voting Rights Act of 1965, and then beyond. Second, this chapter looks at the history of voter ID laws in the United States.

The third chapter examines current voter identification document legislation, dividing voter ID laws by four categories, and examining how voter ID legislation varies from state to state.

The fourth chapter is an overview of the economic theory related to voting. The chapter begins with an examination of the microeconomic theory of the individual voter, examining the economic paradox of why anyone votes. The chapter continues with an examination of the effects of various forms of voter suppression, focusing on gerrymandering, and particularly on voter ID laws.

The fifth chapter examines prior studies on voter identification document legislation. It begins with a review of the studies on the political history of voter ID legislation, examining political motivations behind voter ID laws such as attempting to supress the vote of the opposing party or racial and ethnic minorities. The chapter continues with a review of studies on whether Black and Hispanic voters are less likely to possess eligible

ID needed to vote. The chapter concludes with an overview of studies on whether voter ID laws have a disproportionate effect on minority voter turnout.

The sixth chapter is an econometric analysis of the effect of voter identification laws on Black and Hispanic voters. It begins by presenting and reviewing the data from the U.S. Census Bureau's Current Population Survey and the National Conference of State Legislature. Then, the data is analysed with a difference-in-difference regression model. First, regressions are performed to examine the effect of voter ID laws on overall turnout, then on turnout for Black and Hispanic voters. Second, a difference-in-difference analysis is performed examining whether or not voter ID laws disproportionately affect the voter turnout for Black and Hispanic voters compared to White voters. The chapter concludes with a consideration of the possible flaws of the used specifications.

The seventh chapter is an overview of the results, concluding this thesis with a deliberation on how the results should be interpreted, and what they mean for the broader discussion on the fiercely debated topic of voter ID laws.

2 HISTORY OF VOTER SUPRESSION

2.1 History of minority suffrage in the United States

Understanding the current obstacles to voting faced by ethnic and racial minorities in the United States of America requires an understanding of the historical perspective of suffrage. This history is a long and complicated one, where even the definitions of concepts such as ethnicity and race, which, on their surface, may seem simple and unambiguous, have historically and contemporarily been fluid and often debated (Winker 2004). Some natural scientists have even made the case that the categorisation of people by commonly used ethnic labels is an inaccurate description of human genetic structure (Wilson *et al.* 2001, 266). This thesis will refrain from engaging in the debate regarding any strict definition of race and ethnicity, instead taking the view that while race and ethnicity may be difficult to define, their validity and importance as descriptors in the social sciences cannot be denied. As an obvious example of this in the context of politics and legislation in the United States is the Constitution itself, which in Article 15 states:

> *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.*

(U.S. Const. Article 15)

For the purposes of this and the following chapters, race and ethnicity will be referred to as they are in the source material, other than unifying capitalisation for ease of reading comprehension. Therefore, as in the U.S. Census Bureau's Voting and Registration supplement (U.S. Census Bureau 2019), White and Black will be treated as racial categories, and Hispanic as an ethnic category that may encompass any race, or several races.

When referring to the North or the South, or to the Northern or Southern states, the divide will not be drawn strictly geographically, but by where it was in the American Civil War: the Northern states include California, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont, West Virginia and Wisconsin; the Southern states include the seven Lower Southern states of Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina,

and Texas, which were first to secede from the Union, forming the unrecognised republic of the Confederate States of America, as well as the Upper Southern states of Arkansas, Kentucky, Missouri, North Carolina, Tennessee, and Virginia. (Sutherland 2013, xi–xiv).

It must also be noted that the American two-party system where the Democratic and Republican parties essentially dominate national politics has been the norm only since approximately the late-mid-19th century, with the last Congress with more than 10% members of other parties in the House of Representatives being the 37th Congress from 1861-1863 with 31 Unionists out of a total of 182 seats (Carson *et al.* 2001, 887–891), and the last president from a third party being Andrew Johnson in 1865 (Dunning 1906, 574). The political priorities of the two main parties have also shifted considerably in their long histories, particularly regarding minority rights, as the following sub-chapters demonstrate.

2.1.1 The Civil War and the first Reconstruction

The early history of minority voting rights since the founding of the United States in 1776 is almost exclusively the history of Black voting rights, as other races and ethnic groups, including Hispanics, Asians, and Native Americans, were historically a very small minority until the late 20th century (Gibson – Jung 2005, 3–6).

A complete history would begin with the debarkation of the first slaves brought over from Africa in Jamestown, Virginia, in 1619. However, as until the American Civil War the vast majority of the American Black population were enslaved, Black suffrage was limited to only brief historical periods and limited in geographical scope before its end. On the cusp of the Civil War in 1861, only the free Blacks of Maine, Massachusetts, New Hampshire, New York, Rhode Island and Vermont were granted suffrage. (Davidson 1992, 7).

Male Black voters were finally granted full suffrage by the Republican Congress' Reconstruction Act of 1867. As part of the Act, Congress required as a condition for readmission into the United States, that the states that had rebelled call conventions to which Black Americans could be elected as delegates, so that new state constitutions could be devised that would guarantee Black citizens the right to vote. (Davidson 1992, 8). Voter registration in 1867 added 700,000 new Black voters to the voter rolls in former Confederate states, under the supervision of federal troops (Grofman *et al.* 1992, 5).

The three Articles of the Constitution passed after the Civil War between 6 December 1865 and 3 February 1870, Articles 13, 14 and 15, commonly referred to as amendments,

also guaranteed Black citizens certain rights and protections, including the abolishment of slavery in Article 13, and citizenship to all born or naturalised in the United States in Article 14. However, it was Article 15 that finally guaranteed the unabridged right to the vote for all citizens; even this, though, was a compromise that failed to include provisions that would have prevented individual states from imposing measures such as nativity, property or literacy tests intended to make it more difficult primarily for Black citizens to vote. Also failing was the Radical Republicans' demand for provisions guaranteeing the right to hold office for Blacks. (Davidson 1992, 9).

During the following period, the North came to accept the right for Black citizens to vote as the norm, and even in the South Black citizens were able to vote, held various public offices in all Southern states, even occupying a majority of the seats in the lower house of South Carolina. (Grofman *et al.* 1992, 5). The South also elected twenty Black members of the United States House of Representatives, and two members of the Senate (Franklin 1967, 319–320).

The right to vote guaranteed to Black citizens by Article 15 was, however, strongly opposed by violent Southern White resistance. This resistance coincided with the rise in prominence of the newly formed Ku Klux Klan, which, at the 1867 Nashville Klan convention, established White supremacy as its fundamental creed. This was in direct response to the federal policies of Reconstruction, turning it into a violent terrorist organisation opposed to Black rights, including voting. (Bullard 1998, 10–11). This violent resistance in the South led to Enforcement Acts being passed in 1870 and 1871, with little result, however, as their ultimate enforcement was left to the war-devastated forces of the Southern states. These numbers were further weakened by an informal arrangement among Congressmen, known as the Compromise of 1877, in which all federal troops were withdrawn from the three Southern states where there were any remaining, effectively leaving the question of how to deal with Blacks in the South to the Southern states themselves. Even the 1875 House of Representatives' "Force Bill" expanding the range of violent offenses to fall under federal jurisdiction failed to have a major impact on the post-Civil War decline in Black rights. (Kousser 1992, 139). This spelled the end of the era of the first Reconstruction. (Davidson 1992, 10).

2.1.2   Post first Reconstruction

After the first Reconstruction, Southern states began a concerted and multi-faceted counterrevolution to disenfranchise Black voters. Kousser identifies a predictable

developmental sequence of five measures taken by the Southern states, all working together, none sufficient by itself, to limit the Black vote: violence, fraud, structural discrimination, statutory suffrage restriction, and constitutional disenfranchisement. (Kousser 1992, 141).

The first measure, violence, and its political nature, was an important factor in the attempted disenfranchisement of those championing the rights of Black citizens, as Southern Republican leaders were killed and scared off by it, and because it also had a chilling effect on Northern Republicans. In the few months between the gubernatorial election of April 1868, and the presidential election in November of the same year, a congressional investigation found that Louisiana Democrats had killed 1,081 people, most of them Black. (Kousser 1992, 141). Hundreds more were massacred between 1866 and 1874. The violence from this systematic political terrorism was on a scale never before or since seen in the United States, utterly dwarfing the 40 deaths of Civil Rights martyrs during the modern Civil Rights Movement from 1954 to 1968 (Southern Poverty Law Center 2020). (Kousser 1992, 142).

Despite these hundreds upon hundreds of killings, and great legislative attention being devoted by Republicans to the topic, violence was ultimately only successful when used in conjunction with other strategies; even after these killings, the Republican share of the vote remained largely in line with the percentage of Black voters in most Southern counties (Kousser 1992, 143). It was also a dangerous tactic to utilise for the Southern Democrats, a group dominated by the property-owning upper class, who faced the possibility of the labour force either abandoning their work, or outright sabotaging property. Furthermore, establishment violence inevitably fuelled campaigns demanding intervention on a national level from outside the regions controlled by Southern Whites. (Kousser 1992, 142).

The second measure, fraud, probably had a greater effect on Black votes being counted in the South than violence ever did. This extensive Southern electoral fraud was often centrally directed. Election boards also generally had a majority of Democratic officers, and in some instances no officers from other parties at all. Ballots cast for Republicans would be counted for Democrats, ballots cast by Black voters were "counted out", and false ballots for Democrats, stuffed into the ballot box, would be "counted in". Ballot boxes from Black districts could also be stolen and destroyed by a party of armed men. (Valelly 2009, 51). Election results in the South thus became an elaborate official fiction, where making excuses for lost ballots evolved into its own art form; in at least

once instance, donkeys and mules were blamed as having "acquired a taste for ballots". (Kousser 1992, 143).

The third measure, structural discrimination, included several tactics aimed at reducing the number of offices non-Democratic candidates could even compete for in a fair election: diluting the Black vote with annexations of electoral districts, where Black voters were in the majority, into districts with a majority of White voters; substitutions of at-large elections for single-member-district elections; substitutions of elections for direct appointment by officials, usually the governor; and non-statutory Democratic party White primaries, where only White candidates were allowed to vote, and stand as candidates, in primaries for the Democratic party. (Valelly 2009, 50). Structural discrimination, however, is best exemplified by the still-ongoing (Friedman – Holden 2008, 113–114) practice of gerrymandering of electoral districts (Kousser 1992, 144—145).

Gerrymandering, claimed to have been used in the United States as early as 1788 (Labunski 2006, 139–140), consists of redrawing the borders between electoral districts to gain an advantage in the number of seats held by a party. The theory is discussed in chapter 4.2.1.

After the First Reconstruction, Southern states began gerrymandering their electoral districts in ways that would disenfranchise Black voters (Kousser 1992, 145). As an example, in the 1860s and early 1870s, Radical Republicans drew mostly districts that were roughly equal in population, with no particular concentrations of White voters; Democrats, however, drew districts such as South Carolina's 7th district so as to pierce county borders to unite into it the houses of two Republican incumbents, packing as many Black voters into the district as possible, as seen in Figure 1.
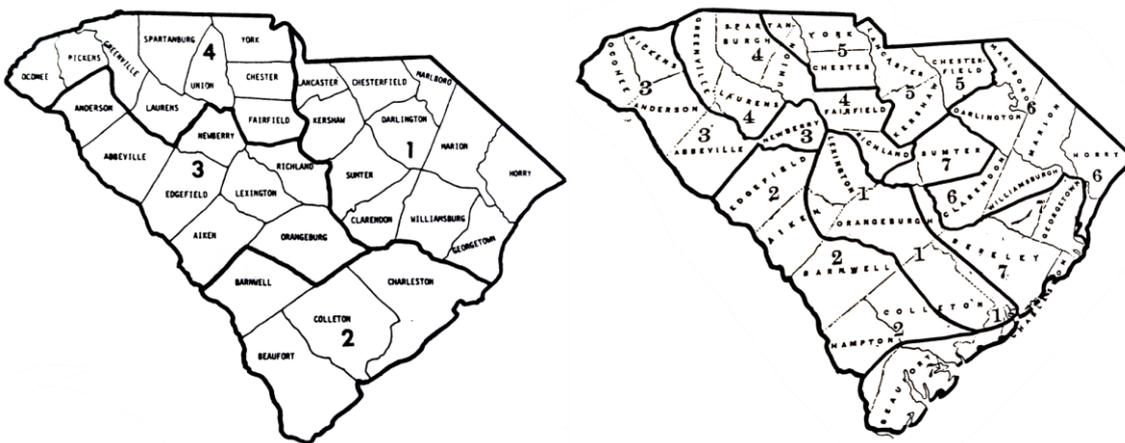
Figure 1. South Carolina's electoral districts, 1867-1873, left, and 1885-1893, right (Kousser 1992, 146)

Similarly, as seen in Figure 2, Mississippi's districts were briefly drawn from 1873 to 1877 in such a way as make the infamous "shoestring" 6th district, which had its border following the Mississippi river, trapping within it almost the entirety of the state's Black population, making it easy for Democrats to carry the remaining districts with only a modicum of violence and fraud. (Kousser 1992, 144–145).
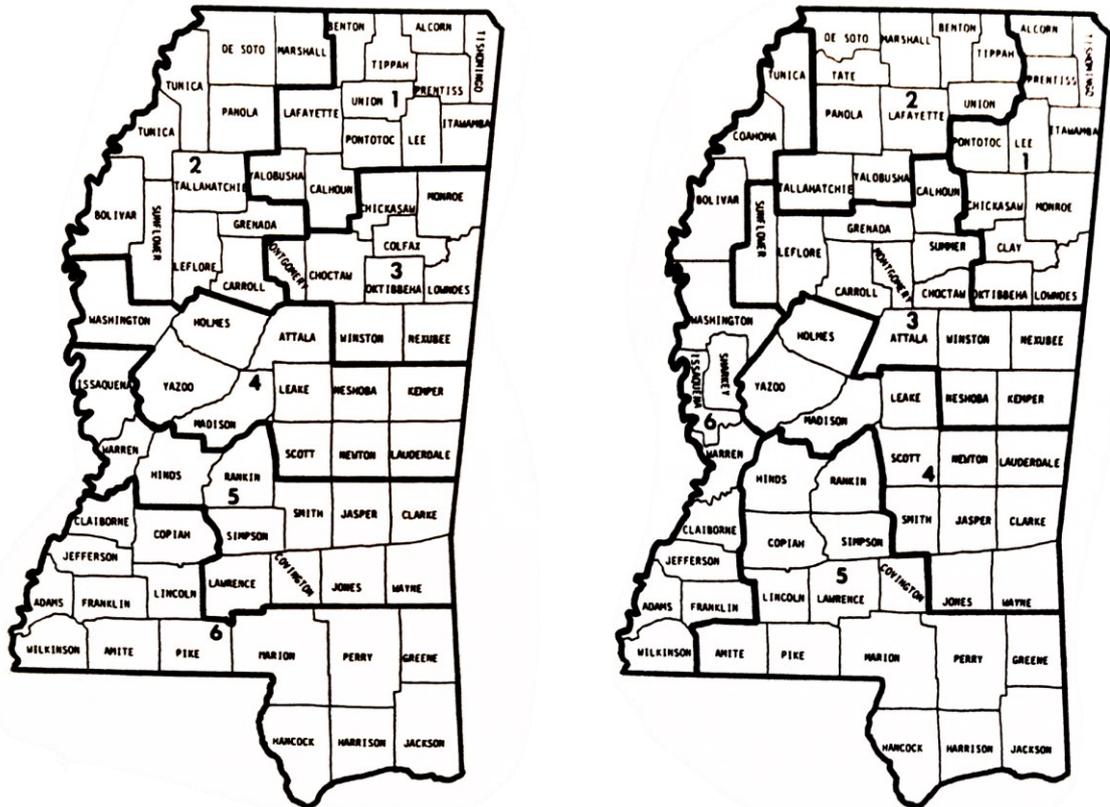
Figure 2. Mississippi Congressional districts, 1873–1877, left, and 1877–1873, right (Kousser 1992, 147)

Violence, fraud, and redistricting that targeted Black voters, and candidates sympathetic to them, were usually enough to keep political dissent in check. Democrats still feared though, and with good reason, that if national anti-violence and anticorruption bills were to pass, they could force a "free ballot and a fair count". Thus, they enacted the fourth and fifth measures, statutory suffrage restriction, and constitutional discrimination. (Kousser 1992, 145). These two measures both aimed to establish disenfranchisement via legislative means, the former via statutes, and the latter via rewriting state constitutions. States typically chose one approach or the other, creating a dividing line between Southern states in which approach to disenfranchisement they chose, statutory or constitutional. (Valelly 2009, 123).

Statutory suffrage restriction consisted of statutes such as the adoption of the Australian ballot, which consisted of a ballot with the names of the candidates printed on it, filled out in secret by the voter, with no help given by poll workers. The ballot thus served as a de facto literacy test at a time when approximately half of the Black population in the former Confederacy was illiterate. (Valelly 2009, 127). Another measure, allowed by some state constitutions such as Tennessee's, was requiring a poll tax to be allowed to vote. Though often a seemingly small sum such as $1, it was nevertheless a regressive tax, and considering a Black labourer's annual income in the South at the time, would have been equivalent to $135 in 2001. (Valelly 2009, 125).

Those states that could not simply use statutory means to deny voting rights to Black citizens, had to utilise constitutional discrimination by rewriting their state constitutions in order to do so. This involved the appearance of democracy, by going through a formal democratic process, usually by holding a referendum on whether a new constitution should be written, electing a constitutional convention, and then ratifying the new constitution. However, as representatives were chosen based on the newly-gerrymandered voting districts, in truth there was little political opposition possible from those opposed to the new state constitutions. Thus, constitutions were written with little input from the Republican opposition, and ratified without popular approval. (Valelly 2009, 123–125).

Southern states began convening constitutional conventions for the purpose of constitutional discrimination beginning with Mississippi in 1890, creating the "Mississippi Plan" followed by many other former Confederate states (Valelly 2009, 123). Mississippi was followed by South Carolina in 1895, Louisiana in 1898, North Carolina in 1900, Alabama in 1901, Virginia in 1902, and ending with Georgia in 1908 (Grofman *et al.* 1992, 8–9).

Measures written into these constitutions included literacy tests, which required a voter registrant to demonstrate that they were able to read and write (Valelly 2009, 127), and often would also include a third test such as Mississippi's "understanding clause", which required a potential voter to read, or interpret a section read to him, of the state constitution. The "understanding clause", though nominally not a racist measure in and of itself, its administration gave a White registrar sufficient discretion to interpret a White voter's answers more favourably than a Black voter's. (Key 1949, 537; Grofman *et al.* 1992, 8). State, county, or city or town, residency requirements served as another kind of de facto literacy test, as proving residence required competent record-keeping by voters

(Valelly 2009, 127). White voters, however, were often exempt from these literacy tests via grandfather clauses, which guaranteed voting rights to anybody who had been allowed to vote before a certain time, such as 1 January 1866 in the case of Oklahoma, and their direct descendants (Valelly 2009, 141).

Another way to limit the Black vote was to require voters to possess property, typically land, above a certain value. As prior to Reconstruction Black citizens themselves had been considered property, this was obviously a difficult hurdle to overcome for most Black voters. (Valelly 2009, 132). Most Southern states also rewrote their constitution to allow poll taxes comparable to Tennessee's (Valelly 2009, 125–126).

The result of all of these five measures, working in conjunction with one another, is clear: in the 1880 presidential election, three years after the Compromise of 1877 confining American troops in the South to their barracks, it is estimated that ⅔ of the adult Black males voted, and that of those, ⅔ managed to have their votes recorded as being for the Republican candidate James Garfield. This fell to only nearly half of all adult Black males voting in gubernatorial contests in the 1890s. (Kousser 1992, 141). Likewise, the number of Blacks elected to state legislatures and Congress in former Confederate states fell from the high of 324 in 1872 to only 74 in 1878, and dwindled further to a mere 5 in 1900 (Kousser 1992, 140).

2.1.3   The path to the Voting Rights Act of 1965

By the turn of the 20th century, Black citizens had been all but completely disenfranchised in the South (Grofman *et al*. 1992, 10). The regaining of voting rights for Blacks and other minorities was a slow process, and one of the primary causes due to which, in 1910, the National Association for the Advancement of Colored People (NAACP) was founded (Davidson 1992, 10).

The United States Supreme Court did little to help, as they still upheld as constitutional the White primary in 1935, a poll tax in 1937, and a literacy test as late as 1959. This, despite women being granted suffrage in 1920. (Grofman *et al.* 1992, 10).

The United States Supreme Court did however have a role in the process, as beginning in 1915, they held Oklahoma's "grandfather clause" to be unconstitutional, as it administered a literacy test on transparently racist grounds, since Black citizens were obviously unable to have antecedents able to vote before 1866. This 1915 decision was important not as much in practice, but as a symbol, as it was the first time that the Supreme

Court was willing to consider the law as discriminating *de facto*, if not *de jure*. (Grofman *et al.* 1992, 11).

The United States Supreme Court also struck down White primaries as unconstitutional, but only after four separate Texas court cases between 1927 and 1944. This decision, however, did little to grant Black citizens the vote, leaving Black voter registration rates at below 3% in Alabama, Louisiana, and Mississippi. (Grofman *et al.* 1992, 11–12).

Political action started coming about when beginning during his first term in 1933, Democratic President Franklin D. Roosevelt not only appointed several Blacks to high positions within the federal government, but gave them direct economic aid. This led to Roosevelt gaining popularity among Black voters, and the shift of the Black vote from the Republican Party more to the Democrats, becoming particularly noticeable beginning with Roosevelt's re-election bid in 1936. Black veterans of the Second World War returning home to the South finding that their ability to vote, which had been granted during wartime, having been stripped from them also lead to pressure for political change. (Grofman *et al.* 1992, 12).

This pressure resulted in the Republican administration of President Dwight Eisenhower attempting to resecure the, by now significant, Black voting bloc in the North by introducing civil rights legislation in Congress, beginning with the Justice Department drafting what would become the Civil Rights Act of 1957, thus passing the first civil rights legislation since 1875. The Act, like its successor, the 1960 Civil Rights Act, was a fairly weak piece of legislation that essentially gave greater authority to federal courts to intervene in racial discrimination in elections. Arguably its most important section, the fourth, gave the United States attorney general the authority to seek injunctive relief in cases where the 15th Amendment of the United States Constitution had been violated. However, in the three years that followed before the 1960 act, the attorney general only filed four suits, and not a single Black citizen who had not qualified to register to vote before the signing of the act, qualified so during that period. (Grofman *et al.* 1992, 12–13).

The 1960 act authorised a federal district court judge to appoint federal referees to replace state registration officials if a "pattern or practice" of voter discrimination was found in the state, effectively forcing states to use the same standards for registering to vote for White and Black citizens. This referee provision, however, was hardly used by the courts. It also did little to stem voter registration discrimination in Mississippi,

Louisiana, and Alabama, the districts in which sat the most unyielding of federal judges. States merely used other strategies for discrimination, or most blatantly, simply defied or evaded orders by courts. (Grofman *et al*. 1992, 14).

All this came at the same period of time as the freedom summer of 1963, during which Black churches were bombed in Alabama, and the summer of 1964, during which three civil rights workers were killed in Mississippi. This led to even conservative Republicans joining the coalition to pass the 1964 Civil Rights Act. The Act, though primarily focused on other civil rights issues such as housing, federal school funding and equal employment, included provisions on limiting voter discrimination in the South, such as limiting how literacy tests could be used. However, it also relied on a strategy of litigation, bringing with it little change. (Grofman *et al*. 1992, 14–15).

These three acts preceding the 1965 Voting Rights Act, despite enormous effort and political capital spent on both passing and enforcing them, did little to actually help eligible Black voters. Ultimately, only 36,000 new Black voters were registered as a result of the Acts in the counties where suits were brought, with Chief Justice of the United States Supreme Court Earl Warren pointing to Alabama, Louisiana, and Mississippi as particular problem states. The three Acts, however, did provide an important bridge towards more comprehensive legislation, as their more stringent remedies were upheld by courts, signalling that the United States Supreme Court would no longer be an impedance for Congress to exercise its power to enforce the 14th and 15th Amendments. (Grofman *et al*. 1992, 15).

2.1.4 The Voting Rights Act of 1965

The battle for voting rights in the Southern states with entrenched cultures of repressing the Black vote lead to intensive grass-root campaigning in the early 1960s with organisations such as the Voter Education Project and the Congress of Racial Equality. The greatest effort came with door-to-door voter canvassing efforts by Black and White college students in 1964, with the Mississippi Freedom Summer, largely organised by the Student Nonviolent Coordination Committee (SNCC). This action was met with violence, resulting in tremendous bodily sacrifices suffered by both Black and White citizens. These dozens of injuries against persons as well as property included shootings, burnings and bombings of homes, churches and other buildings, beatings, and six murders. (Davidson 1992).

In November of 1964, after the landslide election of president Lyndon B. Johnson, the Southern Christian Leadership Conference (SCLC), led by its president, Dr. Martin Luther King, Jr., met in Birmingham, Alabama, to discuss strategy and decided on "a rallying point around which we can stir the whole nation". The decision was made to begin a voting drive in Selma, Alabama, where in the fall of 1964, despite the intense efforts of the SNCC, SCLC, and Justice Department, only 335 Black voters were registered, as compared to 9,542 White voters, despite more than half of the 30,000 citizens of voting age being Black. Selma was also chosen because its sheriff James Gardner Clark, Jr. was judged to be highly likely to overreact to peaceful demonstrations with violence. (Davidson 1992, 14–15).

The efforts of the voter drive culminated in a march, led by Hosea Williams and John Lewis, to the state capital of Montgomery, which was cut short at the Edmund Pettis bridge with Sheriff Clark reacting as expected, unleashing his forces wielding teargas and clubs, on the peaceful protestors who knelt in prayer, cutting the first march short. This led to injuries for over 90 protestors, some severe. A second march led by Dr. King was settled on, with the National Guard assuring the safety of the marchers. (Davidson 1992, 16–17).s

The national attention paid to Selma led to action from the White House, including a meeting between Dr. King and president Lyndon B. Johnson. Dr. King argued for Johnson to enact comprehensive civil rights legislation that would guarantee every Black citizen not only the right, but more importantly the ability, to vote. Johnson subsequently told his attorney general Nicholas deBelleville Katzenbach to draft the "goddamnedest toughest" voting rights bill he could, and the resulting legislation easily passed in both the House of Representatives and the Senate, sealing the 1965 Voting Rights Act into law. (Davidson 1992, 15–17).

The 1965 Voting Rights Act finally gave the federal government the necessary power and authority to truly guarantee every citizen's right to vote across the country, remedying cases where state and local officials had acted to obstruct voting rights, for racial and political reasons, for certain voter blocks, primarily Black voters. This was achieved in the general provisions of the act by several means, the most important of which were the ability of federal courts to appoint federal examiners and observers, suspend any literacy, competency, or other tests, as well as requiring preclearance for measures of any kind relating to voting, effectively curtailing the ability of local officials and legislatures to deny the vote to anyone without proper cause. (Grofman *et al.* 1992, 16).

The 1965 Act also contained special provisions that gave the Justice Department authority to take direct action, bypassing the Southern judiciary. These provisions were intended to be temporary, triggered automatically if a jurisdiction – either an entire state, or individual jurisdictions within the state – met one of two criteria: 1. the jurisdiction maintained a test or device as a precondition to voting, or 2. less than 50% of the population of voting age were either registered to vote in November 1964, or voted in the 1964 presidential election. This allowed Congress to target the Southern states with a history of electoral racial discrimination, initially covering Alabama, Georgia, Louisiana, Mississippi, South Carolina, Virginia, and certain jurisdictions in North Carolina. (Grofman *et al.* 1992, 16–17).

The special provisions suspended for five years the use of all "tests and devices" as voting prerequisites in the covered jurisdictions, and required these jurisdictions to submit changes in any legislation regarding voting rights for preclearance, by either the attorney general, or the United States District Court for the District of Columbia, chosen to prevent local Southern district courts from hindering Black voting. This meant the jurisdictions that triggered these provisions had to show that any changes they made to legislation did not deny or abridge the right to vote on account of race or colour. The 1965 Act also provided for the appointment of federal examiners and election observers, as local registrars in Southern states had often abused the broad discretion at their disposal. (Grofman *et al,* 1992, 17–18).

2.2   The struggle for voting rights after the 1965 Voting Rights Act

The special provisions of the 1965 Act, originally intended to be a temporary measure, were scheduled to expire on August 6 1970 but were extended for a further five years, until August 1975 during Richard M. Nixon's presidency. The coverage of the special provisions was also extended to capture any jurisdiction where any tests or devices as a prerequisite for voting were in use, or less than half of the voting-age population were either registered to vote as of November 7, 1968, or actually voted in the 1968 presidential election. The first time the Supreme Court was asked to consider the 1970 amendments to the Voting Rights Act, the Court upheld the power of Congress to ban literacy tests. (Grofman *et al.* 1992, 19–20).

Before the 1970 amendment of the Voting Rights Act was set to expire in 1975, there was broad approval for extending the act once more. This time, however, not only Black citizens were campaigning for their right to vote, as the fast-growing Hispanic population

of the United States and the development of the Chicano political movement were demanding that rights be granted to other minorities as well. Some NAACP leaders initially feared this might dilute the bill or threaten its constitutionality, but ultimately, such a provision was included and the bill was signed into law by president Gerald R. Ford the day the 1970 legislation lapsed. The special provisions were also extended and literacy tests were permanently eliminated. (Grofman *et al.* 1992, 20–21).

In 1975 these special provisions were once again extended, this time revising the formula in such a way as to expand its reach beyond the original geographic target of the Southern states. This was done by provisions that included jurisdictions that had any test or device as well as having less than half of its population of voting age registered to vote. (Grofman *et al.* 1992, 20–21).

The 1965 Act as well as its extensions saw Black voter registration rise significantly particularly in the South. States such as Mississippi saw its gap between the proportion of Black and White voters registered decrease from 63.2 percentage points down to 31.7 percentage points, a difference of 31.5 percentage points. (Grofman *et al.* 1992, 23).

Section 203 of the Voting Rights Act of 1964, regarding the requirement of bilinguality in elections, was reauthorised again in 1982 for seven years, was then expanded again and reauthorised in 1992 for fifteen years despite Congressional Republicans filing dissenting views, and again in 2006, once more despite objections from Republicans, who were divided on whether bilingual elections should continue. (Tucker 2006, 205, 215, 223).

Efforts to dilute the vote of non-White voters, however, continued well past the passage of the Voting Rights Act and its extensions and continue to this day. The earliest strategies to do so, after the VRA, were ones that had mostly already been used far before the Voting Rights Act of 1965: at-large elections, decreasing the size of legislative bodies, gerrymandering districts by race, and changing offices from elective to appointive. Other strategies included anti-single-shot laws that would encourage a voter to vote against their sincere favourite in favour of a strategic vote. (Grofman *et al.* 1992, 24).

However, a newer strategy, voter identification document legislation, saw its first implementation even before the Voting Rights Act.

2.3   The history of voter identification document legislation

The first state to begin requesting that voters present some form of identification was South Carolina in 1950. This requirement was only for any document bearing the voter's

name. It took another 20 years, until 1970, for Hawaii to become the second state to ask voters for identification at polling places, followed by Texas in 1971, Florida with the first law requiring an identification document with a photograph in 1977, and Alaska in 1980. All of these states allowed a voter to cast a provisional ballot if they did not have identification on them at the polling place. (National Conference of State Legislatures 2017).

By the national election of 2000, 14 states required some form of identification document to vote. Following the national presidential election in which almost two million ballots were disqualified, president George W. Bush signed the Help America Vote Act of 2002 (HAVA) into law. The law set minimum requirements for election administration, including requiring voters who have previously not voted in a federal election and registered by mail, to present an appropriate form of identification to an election official before election day. HAVA also gave states the authority to enact further identification requirements at their discretion. HAVA, however, also guaranteed that even states that enacted strict voter identification document laws had to allow voters to cast a provisional ballot. (Congressional Digest 2004, 229–230).

In 2005 the bipartisan Commission on Federal Election Reform, led by former president Jimmy Carter, and James A. Baker, III, made the recommendation for uniform voter registration and identification in all states to protect the integrity of the ballot and to ensure access to all citizens, hoping to end the debate on access versus integrity among Democrats and Republicans (Federal Commission on Election Reform 2005, 9).

One of the most important developments regarding voter identification document legislation came about from the United States Supreme Court case Shelby County v. Holder (2013). In a 5-4 decision, the Court ruled that section 4(b) of the 1965 Voting Rights Act, which required preclearance of any voting laws by jurisdictions that met several criteria, to be unconstitutional due to the fact that the formula that decided these criteria more than 50 years old. This effectively removed any barriers for any states, but most importantly Alabama, Alaska, Arizona, Georgia, Louisiana, Mississippi, South Carolina, Texas, and Virginia were free to pass any voting legislation free of the preclearance requirement (The United States Department of Justice 2013).

The aftermath of Shelby County v. Holder was immediate. The decision was followed by new voter identification document laws either being passed, or previously passed laws coming into effect, in states that prior to the decision would have required preclearance, as well as states that had no such previous burden. Alabama's attorney

general declared that the state's 2011 non-strict photographic identification document law could be implemented for the 2014 election (Chandler 2020). Texas' voter ID law, which had passed in 2011 but had been rejected by the United States Justice Department for placing an undue burden disproportionately on minority voters, was enacted after the Shelby ruling (Vasilogambros 2013). Arizona, North Carolina, North Dakota, Ohio, and Wisconsin also passed more stringent voter ID laws, all of them in the NCSL strict category, Arizona's and North Carolina's being strict photographic identification document laws. (National Conference of State Legislatures 2017).
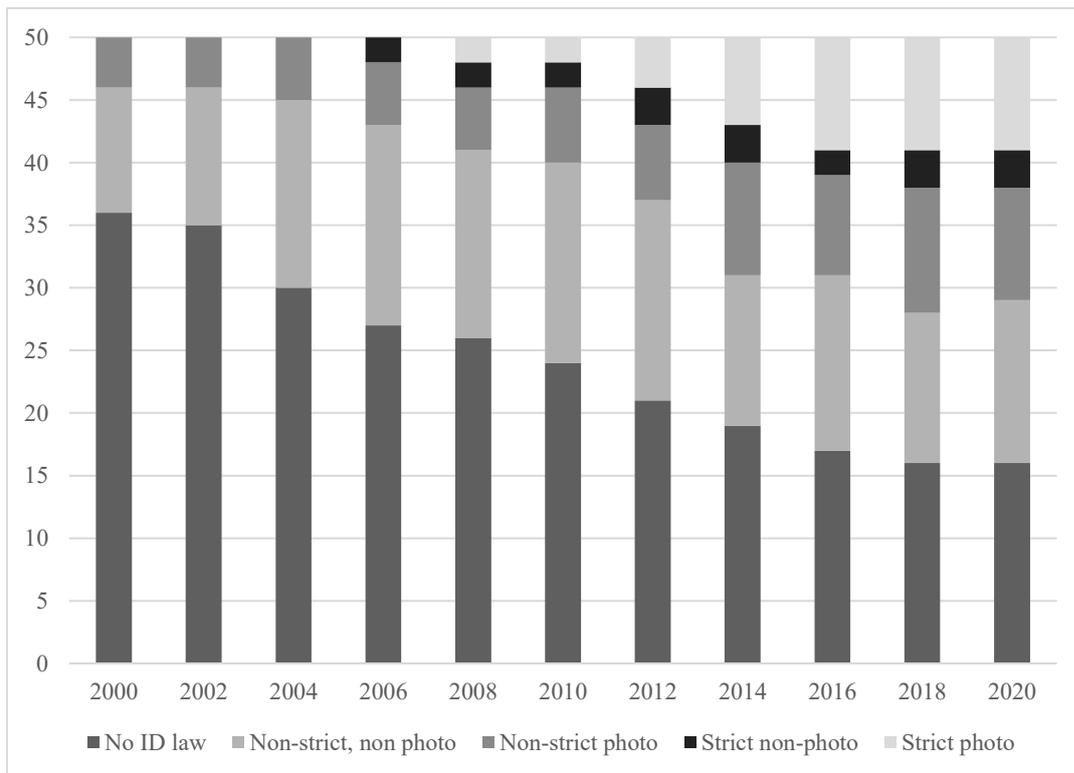
Figure 3. Voter identification document laws 2000–2020 (National Conference of State Legislatures 2017, 2020a)

Figure 3 lists the progression over time of voter identification document laws for every national election, up to the presidential election held on 3 November 2020. The chart clearly shows that states have become more aggressive in their legislation, with only approximately a third of states allowing voters to cast a ballot without an identification document in the November 2020 election, a clear contrast to the over two thirds of states that allowed it in the election of November 2000. The next chapter goes into further detail on the specifics of the current state of legislation.

3   CURRENT LEGISLATION

As the practical arrangement of elections, including national congressional elections, fall under the purview of the individual states, states are free to enact their own voter identification document legislation, and voter identification laws thus differ from state to state.

The National Conference of State Legislatures (NCSL) (2020a) categorises voter identification document laws by two measures: whether they are strict or non-strict, and whether they require the voter to present an identification document with a photograph of the voter, or without. States with a strict voter identification document law require that a voter present an identification document to be able to vote. If they are unable to do so, they may cast a provisional ballot which will only be counted if they return to an election office, and verify their identity using the required identification, soon after the election. Non-strict laws allow voters in some states to cast a vote without the need for further action after casting their ballot, such as by signing an affidavit of identity or poll workers vouching for their identity. In other states with non-strict laws, the voter may cast a provisional ballot on election day, and election officials will verify that the voter was both registered and eligible, typically by checking their signature against one on file, without further action needed on the voter's part. (National Conference of State Legislatures 2020a).

These two categories, however, only characterise the general features of the law; states differ widely in what form of identification document they will allow. A U.S. passport is accepted in all states that require photographic identification and a driver's license will typically be accepted, though several states only allow licenses from their own states. Some states have, however, faced criticism for the forms of identification document they allow. Alaska, for example, allows hunting licenses and Texas allows a license to carry a handgun, but neither allow student IDs. The concern is that Republican voters are more likely to have these forms of identification document than Democrats. (National Conference of State Legislatures 2020; Pastor *et al.* 2010, 469).

Table 1. Voter laws in effect as of the election of November 2020

	Photo ID	Non-photo ID
Strict	Georgia Indiana Kansas Mississippi Tennessee Wisconsin	Arizona North Dakota Ohio
Non-strict	Arkansas Alabama Florida Hawaii Idaho Louisiana Michigan North Carolina Rhode Island South Carolina South Dakota Texas	Alaska Colorado Connecticut Delaware Iowa Kentucky Missouri Montana New Hampshire Oklahoma Utah Virginia Washington West Virginia
No ID law	California Illinois Maine Maryland Massachusetts Minnesota Nebraska Nevada New Jersey	New Mexico New York Oregon Pennsylvania Vermont Virginia Wyoming Washington D.C.

(National Conference of State Legislatures 2020a)

As can be seen in Table 1, during the 2020 election, there were six states with strict photographic identification document laws, three with strict non-photographic identification document laws, 12 with non-strict photographic identification document laws, 14 with non-strict non-photographic identification document laws, and 14 states as well as the District of Columbia that require no identification document to vote. (National Conference of State Legislatures 2020a).

4 MICROECONOMIC THEORY OF VOTING AND DISENCFRANCHISEMENT

This chapter utilises, and expands on, work previously published in my bachelor's thesis (Varumo 2015, 9–12).

4.1 General microeconomic theory of voting and accounting for the voter's paradox

When considering an individual voter's behaviour from an economic perspective, a natural way is to utilize the theory of expected utility. In this theoretical approach, a voter maximizes their expected utility with respect to either voting, or abstaining from voting, when facing a cost to vote. For the purposes of this theoretical examination, all costs entailed in successfully casting a ballot will be notated with C; these costs include the monetary and temporal costs included in registering to vote, obtaining transportation to the polling place, queuing at a polling place, the opportunity cost of missing work to vote instead, as well as all other associated costs. Though voters have always faced costs to voting in the United States, voter identification document legislation adds an additional cost for voters who are not already in possession of the prerequisite identification. This thesis focuses, crucially, on all the costs of obtaining the identification document needed for voting.

For the sake of simplicity, this thesis will refer to any individual, with the franchise to vote, as a voter, regardless of whether or not the individual chooses to exercise their right to vote or not.

The expected utility of the voter can be represented by a simple utility function:

$$E(u) = PB - C \tag{1}$$

The voter's utility produced by voting is B, which is the difference between the utility gained from the desired outcome of the election, and the utility gained from the undesired result (Mueller 2003, 303). Utility is here used to encompass the broad array of advantages that the voter can achieve by voting, and conversely, the disadvantages from not voting. These including both objectively measurable financial advantages, such as a lightening of the voter's personal tax burden if their preferred candidate is chosen, but also the more subjective advantages, such as the satisfaction from a desired election result.

The probability that the voter casts the deciding vote is *P*. Voting only affects the voter's utility if their vote is the deciding vote, that is, when their vote changes the outcome of the election. Thus the calculation relevant to the voter is, how likely it is that their vote is the deciding vote. (Mueller 2003, 304).

When the number of votes cast is large enough, vote totals can be assumed to be normally distributed amongst candidates, based on the central limit theorem (Dougherty 2007, 36). Probability *P* can then be estimated using a model, where every voter chooses a candidate at random with a certain predetermined probability *p* the voter's preferred candidate, and with probability *1-p*, another candidate. The probability that a single observed voter's vote will be decisive when there are *N* voters, is:

$$P = \frac{3e^{-2(N-1)(p-\frac{1}{2})^2}}{2\sqrt{2\pi(N-1)}} \tag{2}$$

In a model with two electoral candidates, P is the probability that the voter's preferred candidate wins if, and only if, the voter casts their ballot (Mueller 2003, 304, adapted).

The value of P diminishes as the value of p deviates away from ½ and as the value of N increases (Mueller 2003, 304). In elections such as the United States congressional election, where there are thousands of voters in every electoral district, the value of P is very small. In the United States congressional elections, the number of ballots cast in Rhode Island's 1st district, the smallest U.S. congressional district by population, the number of ballots cast in the 2018 midterm election was 174,083 in Rhode Island's 1st Congressional District (State of Rhode Island Board of Elections 2020). Using this as the value of N, even if the value of p were 0.5, P would be 0.001434 meaning that the probability that a single vote would have been decisive would have been 0.1434%.

A rational voter who maximises their expected utility will only vote when their expected utility E (u) is positive:

$$E(u) = PB - C > 0 \tag{3}$$

As the Rhode Island example shows, even with a relatively small number of voters N, P will have very small values. Thus, even a small cost to voting C will turn the expected utility negative.

Despite this, voter turnout has rarely been as low as could be expected. This deviation from the theory of expected utility is called the paradox of voting, or the Downs paradox,

according to Anthony Downs who first formulated it. Simply stated, the paradox is: why does anyone vote, when the expected utility is almost universally less than zero? (Mueller 2003, 304). The next subchapters will present theories to account for the paradox.

4.1.1 Voting as mentally satisfying

The theory of maximising expected utility assumes that the act of voting as a means to an end, where the purpose of voting is to achieve the desired election result (Mueller 2003, 304). One way of accounting for the higher than expected voter turnout is to add the parameter D to measure the mental satisfaction, what Mueller (2003, 306) terms psychic income, gained by the voter by voting. The equation is thus written as:

$$E(u) = PB + D - C \tag{4}$$

D includes positive effects of voting, such as the feeling of having fulfilled a citizen's feeling of obligation to society by participating in the democratic process (Riker – Ordeshook 1968), but also the negative effects, such as disapproval from the community for not voting.

The theory weakens the explanatory power of the expected utility theory by adding a difficult to measure parameter, the value of which, when arbitrarily chosen, can be used in ex post analysis to explain any deficiencies in a given model (Mueller 2003, 206).

Support for this hypothesis was found in a study that found that when a sample of registered voters were sent either no mailing, a mailing that encouraged them to vote, or a mailing that encouraged them to vote and indicated whether they had voted in the previous election or not, that those who were told of their prior voting behaviour had higher turnout, and turnout was even higher if the mailing indicated that they had failed to vote in the previous election. (Gerber *et al.* 2010, 409)

4.1.2 The voter as regret avoider

One way of explaining the voter's paradox is to assume, that instead of the voter estimating a complex probability *P*, they assume all outcomes as equally probable. The voter's equation thus takes the form:

$$E(u) = B - C \tag{5}$$

In this model, the voter's utility can be presented as a simple utility matrix with two possible world states, S_I where their vote is not the deciding vote, and S_D where their vote is the deciding vote. The voter is left with two alternative strategies, voting or not voting (Mueller 2003, 309). Thus, their decision can be represented with the following matrix:

Table 2. The voter's outcomes in different world states

		World states	
		S_I	S_D
Strategies	**Votes**	$-C$	$B - C$
	Refrain from voting	0	0

(Mueller 2003, 308, adapted)

Because the voter assumes both states to be equally probable, their expected utility from voting is:

$$\frac{1}{2} * (-C) + \frac{1}{2} * (B - C) = -C + \frac{1}{2}B \qquad (6)$$

And thus, it is trivial to calculate that their expected utility from refraining from voting is correspondingly:

$$\frac{1}{2} * 0 + \frac{1}{2} * 0 = 0 \qquad (7)$$

For the voter's rational strategy to be to vote, their expected utility from voting has to be greater than the expected utility of refraining to vote. This can be expressed with the inequality where voting is beneficial, when:

$$-C + \frac{1}{2}B > 0 \qquad (8)$$

$$\leftrightarrow$$

$$B > 2C \qquad (9)$$

Now if the voter's utility from their candidate winning, B, is more than twice as great as the cost of voting C, their expected utility from voting is positive. (Mueller 2003, 309).

The problem with the theory is that finding evidence of use of an equivalent model in everyday life is difficult. As a solution to this, it has been suggested that people use different decision-making models in different situations. (Ferejohn – Fiorina 1974).

4.1.3 Strategic voting

The analysis of strategic voting is an attempt to understand the voter's behaviour in attempting to select a candidate to vote for. Strategic voting can be observed when a voter does not want to vote, for a party that has a low probability of winning a seat in their district, or a low probability of winning a majority of seats or being a member of the government coalition, depending on the parliamentary system. (Mueller 2003, 296.)

When viewing the voter as a strategic actor, they are assumed to have, at the time of casting their ballot, a preconception of what the given vote totals of all parties are going to be. The voter is also assumed to maximise their utility $E(u)$ as before. As a part of strategic analysis, the voter is however assumed to be satisfied with a smaller value of B than the maximum possible value, and instead prefers a higher value of probability P. A strategic voter is therefore willing to vote for a candidate who has a higher probability of being elected, than their otherwise preferred candidate, if this candidate's values are sufficiently closer to their preferred candidate's than those of the opposing candidate. (Mueller 2003, 296.)

4.2 Applying economic theory to disenfranchisement

4.2.1 Gerrymandering

Gerrymandering is one of the oldest strategies for gaining electoral advantage, and has been used, or at least James Madison claimed Patrick Henry of it, as early as 1788 in the United States, though the term itself was only coined in 1812 (Hunter 2011, 781).

Gerrymandering involves drawing the boundaries of electoral districts in ways intended to favour the party redrawing boundaries over the other party, when it is known for which party voters in a given geographical area are likely to vote. There are two methods used to achieve this. The first is "packing", where the party in charge of redrawing district boundaries "packs" as many of those voters likely to vote for the opposing party into as few districts as possible, giving the opposing party fewer seats overall. The second is "cracking", where districts are drawn in such a way as to give the party redrawing the boundaries as many districts as possible where they have a narrow margin of victory. The desired result of these two strategies is that the opposing party will achieve electoral victory in as few districts as possible, all with large margins, and that the party redrawing the boundaries wins as many districts as possible with electoral

victory margins as narrow as possible, resulting in more seats for the redrawing party. (Friedman – Holden 2008, 113).

The easiest way to demonstrate how gerrymandering works in practice is with a simple graphical example:
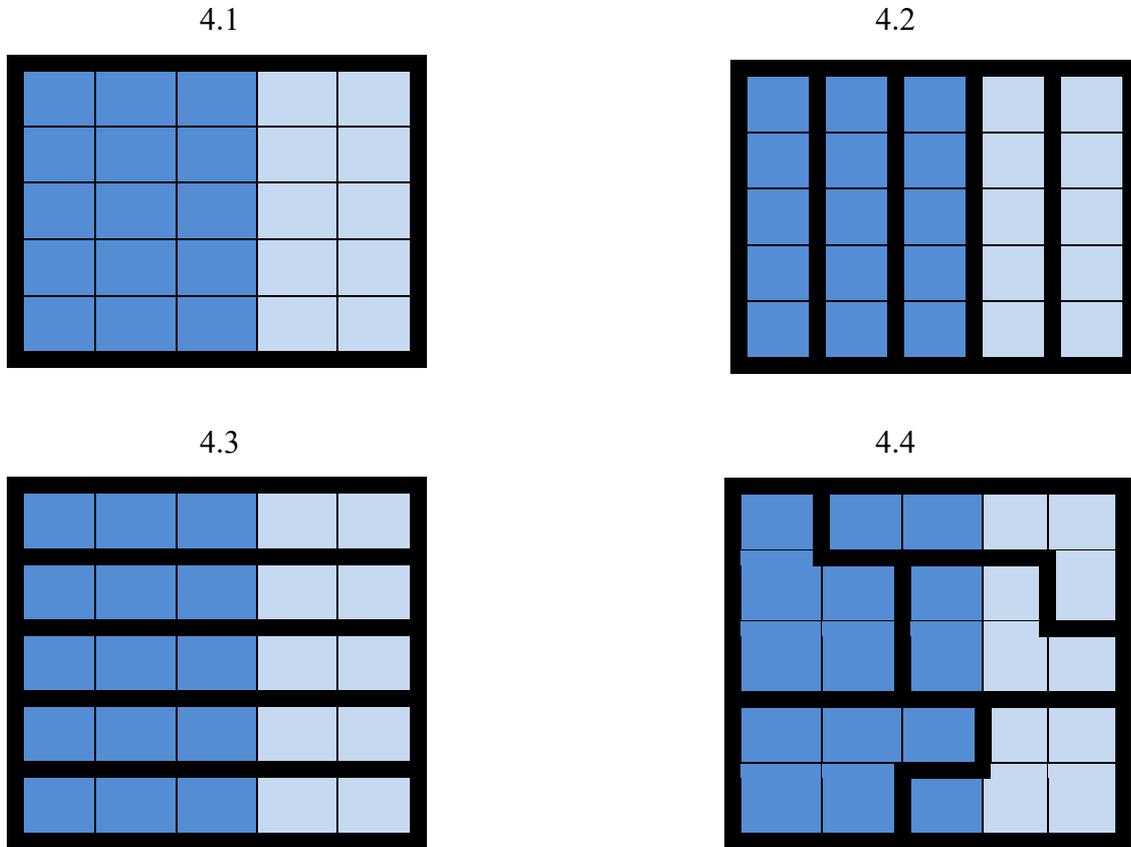
Figure 4. Possible ways to divide 25 voters into five equally populated districts

Figure 4.1 shows a map with a total of 25 voters from two parties, each dark blue and light blue square representing one voter from one party. In this simplified example, there are 15 dark blue voters representing 60% of the total electorate, and 10 light blue voters, representing 40% of the total electorate. Figures 4.2, 4.3, and 4.4 show ways in which the map can be districted into five districts of equal size, in this case with five voters each. Each district receives one representative in the legislative body for which they are drawn. An example of such districting is the House of Representatives of the United States. The districts are also contiguous, as this is the requirement for Congressional districts in the United States of America. Figure 4.2 shows what could be considered the fairest way of drawing a district map, where each party gets control of districts in proportion to their support; three, or 60%, of districts for dark blue, and two, or 40%, for light blue. Figure

4.3 represents one type of less equitable district map where the party with more voters receives control of all five districts. This is the method most states use to apportion electoral college votes in the presidential election. (National Conference of State Legislatures 2020b).

Figure 4.4, on the other hand, presents a gerrymandered district map, where the party with only 40% of voters receives control of 60% of districts and their votes, granting them electoral power that is disproportionate to the proportion of the voters that they represent.

An example of how gerrymandering can deny the majority their due representation can be seen in a U.S. Supreme Court (Gill v. Whitford 2018). At issue was the fact that efforts by the Republicans' Redistricting Majority Project (REDMAP) creating a map in Wisconsin that lead to 60 of the 99 seats in Wisconsin's State Assembly being won by Republicans, despite Democrats winning a majority of the total vote, very much like our fictitious example. In this case the Supreme Court decided unanimously that the Wisconsin district map was unconstitutional. (Gill v. Whitford 2018).

4.2.2 Voter identification document laws and other methods that increase the cost of voting

The microeconomic theory of voter identification document laws can be applied fairly directly to most other forms of voting laws that make it more difficult to vote by considering the added effort, time, identification document, or other added new impediment to voting required as a cost in economic terms. Examples of this would include the added time spent waiting in line to vote if the number of polling places is reduced, or the

To consider how the microeconomic theory of voting relates to the impact of voter identification document legislation on Congressional election participation among racial and ethnic minorities in the United States, the first step is to examine the voter's utility function formulated in equation (1): $E(u) = PB - C$. Here, it is component C, the cost of voting, that is of interest. It is clear that any additional burden placed on the voter beyond the existing cost to voting, which we will call C_0, in this case the new demand for a voter to possess a particular type of identification document, is going to raise that cost from the initial level of C_0 to a higher level C_1. Thus, initially the voter is faced with the following equation:

$$E(u) = PB - C_0 \qquad (10)$$

And naturally, after enacting a voter ID law, the voter is faced with the new equation:

$$E(u) = PB - C_1 \qquad (11)$$

Crucially, there is a difference in equivalencies in equations (10) and (11) for voters who already possess the required identification document, and those who do not. For a voter who already possesses the required identification document, C_0 equals C_1. If, however, the voter does not already possess the required identification document, they face the additional cost of acquiring it, and for them, $C_1 > C_0$. Thus, essentially, a voter without the needed identification, who will be labelled j, now faces a different equation of expected utility, compared to a voter who already possesses it, who will be labelled i:

$$E(u)_i = PB - C_0 > E(u)_j = PB - C_1 \qquad (12)$$

Though both have the same initial cost for voting C_0, as stated previously, for voter i, C_0 and C_1 are identical. From this it can be seen that, all other factors being equal, adding the additional cost of obtaining the correct identification document means a lower expected utility from voting, if the voter is not already in possession of the required identification document, or no change, if the voter is already in possession of the required identification document. From this it can be concluded that a voter identification document requirement should theoretically never raise the voter participation rate.

This theory is also the basis for the analysis in this thesis. The study of the question of whether or not voter identification document legislation leads to lower voter participation among non-White voters makes the assumption that non-White voters are less likely to possess the needed identification document to vote, and that White voters are more likely to have a value C_Δ equal to 0, whereas non-White voters are more likely to be faced with a cost C_Δ that is greater than 0. The following chapter will examine whether the empirical evidence supports this assumption.

5   PRIOR STUDIES

5.1   The political history of voter identification document legislation

The effort to pass voter identification document legislation is often considered primarily a Republican electoral strategy to influence minority voter turnout. Support for this view comes not only from studies (Hicks *et al.* 2015, 1) but can also be inferred from support for such legislation in polling where voters who affiliate with the Republican party are far more likely at 91% to be in favour, than those who affiliate with the Democratic party, at 63% (Pew Research Center 2018a, 3).

When studying the context of where and in what electoral circumstances, Hicks *et al.* (2015, 1) found that not only were voter identification document laws more likely to be passed by state legislatures with a Republican majority, they were also less likely to be passed when the seat in question was not competitive, that is, that the Republican candidate was unlikely to be unseated in an election. This strongly implies that even if Republican legislators were in general more concerned about the integrity of elections than Democrats and thus more likely to be in favour of voter ID laws, that at least in some cases there is a political motivation for passing voter ID laws, as otherwise Republicans could be expected to be more active in pursuing voter ID laws in states where they have less to gain politically.

That Republicans in particular would benefit if racial and ethnic minorities the right to vote can be inferred from the overwhelming tendency of voters of racial and ethnic minorities to favour the Democratic party, as has been seen in every election in the 21st century. Black and Hispanic voters, the race and ethnicity, respectively, that this thesis examines, in particular, almost universally affiliate with the Democratic party; when in polls given a choice between the two major parties, in 2017 Black voters chose the Democratic party over the Republican party with an overwhelming margin of 84% to 8%, and Hispanics with a margin of 63% to 28%. Though the popularity of both parties has varied slightly, the ratios have remained close to these throughout the beginning of the 21st century. (Pew Research Center 2018, 7).

There is also other evidence that not just voter identification document laws, but other laws restricting voting, are favourable to Republicans. In one study for example, Herron and Smith found (2014, 657) that reducing the time window for early voting in Florida, that early voting participation fell particularly among Democrats and minorities. In their

study, they found that both Hispanic and Black voters were more likely to vote early at a later date than White voters (Herron – Smith 2014, 657) which would favour Republicans. The restriction of early voting can be considered as an additional cost to voting from a microeconomic perspective, as described in the previous chapter, since having less choice in when to vote can increase the opportunity cost of voting if the voter has to give up labour or other opportunities to vote on a less favourable day.

When talking about such a charged issue as whether or not certain voting laws can be observed to discriminate against certain sections of the voter population based on race or ethnicity, mentioning the issue of racism is inevitable. Indeed, there is certainly evidence that implicit, unconscious racism plays a role in support for voter identification document legislation (Banks – Hicks 2016, 650).

Further evidence that voter identification document laws are politically motivated can also be found in studies of in-person voter fraud. Voter ID laws only combat one form of election fraud, in-person voting, where the voter shows up in person at the polling place, or in the case of in-person voter fraud, impersonates a registered voter to cast a ballot in their name. Any law that attempts to justify stricter identification requirements for voters with in-person voter fraud prevention should have some evidence that voter impersonation is at least somewhat common. However, evidence of in-person voter fraud is practically nonexistent. Lott (2006, 1) asserts that there is evidence of voter fraud, but offers only evidence of a decline in voter participation in six designated counties named as voter fraud hot spots, as compared to other counties. Lott, however, admits that this only implies voter fraud, rather than actually proving it (Lott 2006, 12). Though there exists a perception of voter impersonation, entirely uncorrelated with whether or not a state has a voter ID law enacted, (Ansolabehere – Persily 2008, 1758), peer-reviewed studies that found evidence of persistent in-person voter fraud published in credible scientific publications were impossible to find for this thesis. The best study available was one that found, that out of over 2,068 cases of alleged in-person voter fraud over a 10-year-period, 10 were actual cases of voter impersonation. (News21 2012).

This thesis, however, will be limited to evaluating the observable effects of voter identification document laws on turnout for Black and Hispanic voters, not on whether or not voter ID laws are justified to prevent election fraud, or whether their motivations are motivated politically or racially, as these are largely unquantifiable factors and outside the purview of an econometric study.

However, from an economic perspective, it must be argued that even if voter participation among racial and ethnic minorities did not decrease as a result of voter identification document legislation, that to enact such legislation should require at the very least some evidence that voter fraud is a real problem in US elections. Legislation that merely increases the cost of voting without actually reducing fraud is, from an economic perspective, wasted opportunity cost. Overton (2007, 681) argues that policymakers should look at empirical data and perform an analysis of costs versus benefits, as photographic identification document requirements have the potential to disenfranchise as many as 20 million American voters, despite practically no evidence of election fraud being a factor of any significance in elections.

5.2 Differences in rates of possession of voter identification documents between races and ethnicities and whether voters are asked to provide ID

To determine whether or not voter identification document legislation is likely to disproportionately disenfranchise racial and ethnic minorities, a natural first question is whether racial and ethnic minorities are less likely than White voters to be in possession of the identification document they would need to be able to vote in their state. In the largest study of voter identification document availability conducted to date, leveraging six datasets collected between 2008 and 2014, Barreto *et al.* conclude that they are less likely to do so (Barreto *et al.* 2019, 238, 241).

Using six datasets collected between the years of 2008 and 2014, with a combined 18,186 respondents, Barreto *et al.* found that in all datasets, Black and Latino voters were less likely to possess valid identification documents, with White voters possessing valid ID at a rate of 89.7% on average, Black voters at a rate of 81.4% on average, and Latino voters at a rate of 80.3% on average, an average difference of 8.3 percentage points between Black and White voters, and a difference of 9.4 percentage points between White and Latino overs. The highest difference was in Indiana, with a difference of 12.2 percentage points for White and Black voters and a difference of 13.1 percentage points between White and Latino voters. (Barreto *et al.* 2019, 243)

Barreto *et al.* also make the case that voter laws are in some instances clearly politically motivated, pointing to cases such as Texas', where voter identification document legislation has been crafted in such a way as to clearly favour White voters by allowing hunting and gun permits, which they are more likely to possess than racial and ethnic minorities, but not allowing social service cards, more likely held by Black and

Hispanic voters. They also point to Alabama, where the passage of a voter identification document bill into law coincided with the closing of Department of Motor Vehicles locations primarily in counties with disproportionately poor and Black populations. (Barreto *et al.* 2019, 240).

In another study based on the 2012 Survey of the Performance of American Elections with 10,200 registered voters as participants, Stewart found that of those surveyed, White participants were more considerably more likely to have a valid driver's license than Black or Hispanic voters, with the rates being 84%, 63%, and 73%, respectively. Stewart also found that White voters were more likely to have a valid passport at rates of 35% and 25% respectively, but that Hispanic participants had the highest rate at 42%. (Stewart 2013, 41). These results are to be expected given that Hispanic citizens are more likely to be immigrants or first-generation American-born citizens (Frey 2020). However, they still point to White voters having far higher rates of acceptable forms of identification documents.

Pastor *et al.* found that in a survey of 2,000 registered voters in Indiana, Maryland, and Mississippi, Black voters lacked a state-issued identification document at a rate of 2.2%, which is more than twice that of the rate for White voters at 0.9% (Pastor *et al.* 2010, 469). In a study of voters in Georgia, Hood and Bullock found that Hispanic and Black voters were less likely to be in possession of a driver's license, but also that those without a driver's license were less likely to vote in the elections of 2002 and 2006 (Hood – Bullock 2008, 566).

A potentially more insidious problem than simply lacking identification documents can be that even if voters were equally likely to possess the required ID to vote, regardless of race or ethnicity, all laws still have to be applied by individual poll workers. Thus, even if the law does not *de jure* discriminate based on race or ethnicity, it can still be applied in a manner dependent on race or ethnicity. Alarmingly, in the study cited in the previous subchapter, Stewart (2013, 48) also found that Black and Hispanic voters were far more likely than White voters to be asked for an identification document at a polling place when attempting to vote in states with no voter ID law in effect. In these states, 10.8% of White voters were asked for an ID, with 17.3% of Black and 27.9% of Hispanic voters being asked for an ID. (Stewart 2013, 48). Cobb *et al.* (2012, 22) found similar results, with Black and Hispanic voters being asked for ID at a rate of 10 and 13 percentage points, respectively, more often than White voters. Results such as these not only directly affect minority voter turnout, but they also complicate the measurement of

the effects of voter ID laws on minority turnout. If a state without an ID law in effect already asks for ID from minority voters at a disproportionate rate, Black and Hispanic voters may actually see an increase in the difference-in-difference in voter turnout compared to White voters, if following the enactment of a voter ID law the proportion of voters being asked for ID at the polls evens out to the levels seen in states with ID laws currently in effect, where there is no significant difference between races and ethnicities (Stewart 2013, 48).

5.3   Effects of voter identification document laws on voter participation

In the past two decades since voter identification document laws have become more common, as seen in the previous chapter, there have been numerous studies on whether or not voter ID laws have an effect on voter turnout as a whole, and on voter turnout for racial and ethnic minorities in particular. Several have also taken a difference-in-difference approach, similar to the one used in this thesis, that examines whether or not the change in voter turnout for minorities is different to the change observed in the turnout for White voters.

In 2005 Indiana became the first state to implement a strict law requiring a government-issued photographic identification document to vote, or otherwise only be allowed to cast a provisional ballot that would require the voter to return to the polling place at a later time to verify their identity using the correct document. In a study of the 2008 Indiana general election, Pitts and Neumann (2019) found that of the 1,039 voters who did not have the proper identification when arriving at the polls and who the cast a provisional ballot, only 137, or 13%, ultimately had their ballot counted. Though this is only a fraction of the approximately 2,8 million ballots cast in the Indiana election (Pitts – Neumann 2009, 330), this is still evidence of reduced voter turnout.

As a more recent example, a difference-in-difference study by Hood and Buchanan (2019) looked at a single voter identification document law, South Carolina's 2011 strict voter identification document statute requiring photographic ID to vote. They compared the total turnout, as well as the difference in turnout for Black voters, in the midterm elections of 2010 and 2014 for South Carolina. Overall, they found a difference of -0.19 percentage points for overall turnout attributable to the ID law, and a -0.25 percentage point difference for Black voters (Hood – Buchanan 2019, 9). They did not, however, find a marked difference-in-difference in turnout for Black voters as compared to White voters (Hood – Buchanan 2019, 10). The study's scope is quite limited, their stated reason

for examining only a single state being that voter ID laws differ in content from state to state, and that when the differences in turnout are likely to be small, using a cross-state comparison, as this thesis does, may be inadequate as a tool without proper data (Hood – Buchanan 2019, 1). It must be stated, however, that comparing the results of only two elections in a single state will only give a picture of the effects of this single voter ID law, and even then, the results of such a limited comparison can suffer from factors such as a difference in voter turnout for the elections nationwide, which is difficult to isolate from the change caused by voter identification document legislation. Indeed, when comparing the turnout for the elections of 2010 and 2014, we see a considerable drop in voter turnout from 45.5% in 2010 to 41.9% in 2014 nationwide (U.S. Census Bureau 2012, 2015).

Several other studies have a similarly very limited timeframe, and thus miss the opportunity of using several elections, both prior and subsequent to voter identity document law enactment, to form a baseline trend of voter participation. The choice of narrowing the examination to a single state with h a change in its voter identification document legislation results in also missing out on the opportunity of using the nationwide trend, similarly to the temporal trend, as a frame of reference for comparison.

An example of another study that finds little to no difference-in-difference reduction in voter participation rates among Black and Hispanic voters when compared to White voters is the one performed by Hood and Bullock (2012, 408), which compares the 2004 and 2008 election participation rates in Georgia before and after a controversial strict photographic voter identification document. However, their choice of comparing an election with two White candidates in 2004, to one with Barack Obama, the first Black presidential candidate for a major party in 2008, is hardly a reasonable comparison. Fraga found that voter turnout for Black and Latino voters increases when there is a candidate of their own race on the ballot, with Black voter turnout increasing by 5.1 percentage points and Latino turnout by 0.4 percentage points in the general elections of 2010 (Fraga 2016, 105–106). This tendency for minority voters to prefer candidates of their own race, could alone account for any lack of difference in voter participation rates.

Another more comprehensive study of Black voters in Georgia, using a longer timeframe from 2000 to 2014 (Gillespie 2015, 43), found that Black voter turnout did decrease directly after the enactment of the strict photographic voter identification document law, but that it did increase in later elections (Gillespie 2015, 52). However, this may, again, be partially due to the effect of president Obama. This suggests that any decrease in voter turnout may be temporary, as voters adjust to new legislation and

acquire the required identification document. However, no difference-in-difference comparison is made in the study.

In an examination of 18 voter identification document laws passed between 1977 and 2004, Vercellotti and Andersen (2009, 1–3) posit a similar learning curve effect for voter ID laws; that is, that voter turnout may initially decline as voters do not have the required ID necessary to vote, but that over time these differences decrease. Using the same source of data as this thesis, the Current Population Survey, they find that directly after ID laws were passed in 2004, Hispanic voter turnout did diminish in these states as compared to Hispanic turnout in states with no voter ID law in effect.

One of the few studies that found a difference-in-difference effect for Black and Hispanic voter turnout compared to White voter turnout is a recent study by Hajnal *et al.* (2017). Using the validated voting data from the Cooperative Congressional Election Study, they find that when a strict photographic voter identification document law is in effect in a state, Latino turnout is 10.3 percentage points lower than in other states in general elections, and in primarily elections they find an expected 6.3 point drop in voter turnout for Latinos and 1.6 points for Black voters. Their most important finding, however, was that the drop was even more stark when compared to the change in voter turnout for White voters. In general elections, the predicted gap between Latino and White voters rose from 5.3 points in states that didn't have a strict photographic ID law to 11.9 points in states that did, whereas the results for Black voters were a rise from 4.8 points to 8.5 points in primary elections. (Hajnal *et al.* 2017, 12). They also find that politically, voter ID laws worked mostly against Democratic voters and those on the left, while having little impact on Republican voters, supporting the argument that voter ID laws are politically motivated (Hajnal *et al.* 2017, 26).

Pryor *et al.* (2019) however, found that replicating the analysis performed by Hajnal *et al.* (2017) using a different data set, in this case the Current Population Survey, produced negative results. They did, however, find that opt-in internet panels did find that strict voter identification document laws did negatively impact Hispanic voter turnout as compared to White voter turnout. (Pryor *et al.* 2019, 81).

In one of the most current studies, utilising the largest individual-level dataset out of all the studies reviewed with 1.6 billion observations, examining elections between 2008 and 2018, Cantoni and Pons (2019) find no effect of strict voter identification document laws on total voter turnout (Cantoni – Pons 2019, 23). They also find no difference-in-difference effect on voter turnout for Black or Hispanic voters compared to White voters

(Cantoni – Pons 2019, 24). Likewise, there is no difference-in-difference effect regardless of whether the focus is presidential elections or midterm elections (Cantoni – Pons 2019, 15). Their study is perhaps the one that most closely resembles the methodology used in this thesis, as they utilise a difference-in-difference model that clusters standard errors by state, although this thesis studies whether any ID law has an effect, as opposed to the study's use of only strict laws. (Cantoni – Pons 2019, 10).

6 ECONOMETRIC ANALYSIS

6.1 Data

The first primary source of data for the econometric analysis in this thesis is the U.S. Census Bureau, specifically the Census Bureau's bi-annual Voting and Registration Supplements to the Current Population Survey from 2000, 2004, 2008, 2012, 2015, and 2019. These reports, each compiled just under two years after a given election has taken place, contain survey data on voting and registration in the national Congressional elections of November 1998, 2002, 2006, 2010, 2014, and 2018, respectively. The data collected for the Current Population Survey is collected from approximately 60,000 respondent households from all 50 states and commonwealths as well as Washington D.C. (U.S. Census Bureau 2000, 2004, 2008, 2012, 2015, 2019a, 2019b).

From the data, this thesis uses the data from the following three groups: those whose race is White and who are of non-Hispanic origin; those whose race is Black alone, that is, those who have Black as their only race; and those of Hispanic ethnicity and of any race. The three categories were chosen to minimise any possible overlap between participants. The data used from these three groups is their voter participation rate, that is, what percentage of the group voted in a given election. For the years 2006, 2010, 2014, and 2018, the Voting and Registration Supplements also differentiates the voter participation rate data into the categories of all U.S. residents, and only those with U.S. citizenship. This thesis will make use of both of these datasets, primarily using the more limited dataset of only citizens for analyses of Hispanic voters, as the initial examination of the data shows no difference in the trends in voter participation rates between all U.S. residents, and citizens only, for those of the Black and White races, but shows a noticeable difference for those of Hispanic ethnicity. (U.S. Census Bureau 2000, 2004, 2008, 2012, 2015, 2019a).

The second primary source of data is the list of voter identification document laws by state and category, as well as the history of voter identification document laws by state, compiled by the National Conference of State Legislatures. Laws are categorised either as strict or non-strict, and as requiring an identification document with a photograph or not, as explained in chapter 3. (2017, 2020a). A simple categorisation of whether or not a state has any identification document law enacted during a given election year is derived for use in this thesis as well.

The full data set used for the analysis has been attained by combining the two primary data sources to get a full table that includes the following data for the elections being analysed:

- The state or district
- The year of the election
- The race or ethnicity of the voter
- The voter participation rate for all U.S. residents
- The voter participation rate for only U.S. citizens
- Whether or not the state has a voter identification document law in effect during the election
- Whether the state has a strict or non-strict voter identification document law in effect during the election
- Whether the state has a photographic or non-photographic identification document law enacted during the election

Data is not available for all combinations of race or ethnicity, state, and election year, as in some states the population of either Black or Hispanic residents sampled is too small. All in all, the data amounts to 1,211 separate datapoints, 737 from all residents and 474 from citizens.

The data has been limited to only midterm elections, that is, national elections in which only members of Congress and senators, but not the president, are elected. This selection has been made to avoid any spikes in the trend, as voter turnout rates are, on average, significantly higher and more volatile in Presidential elections.

6.2 Simple data analysis
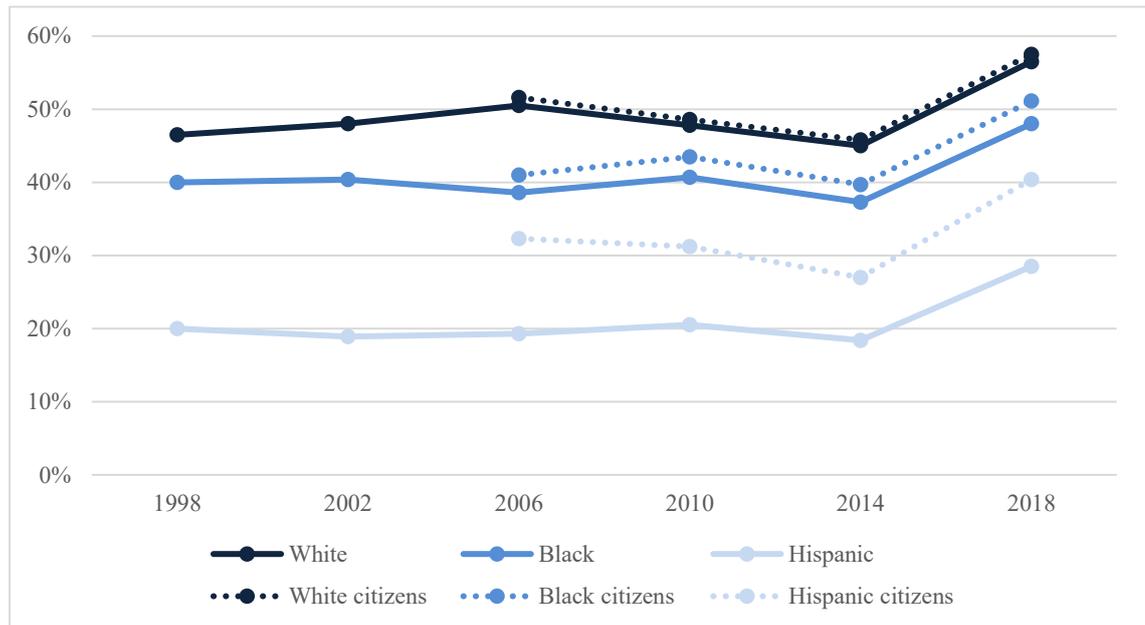
Figure 5. Voter participation by race and ethnicity 1998-2018 (U.S. Census Bureau 2000, 2004, 2008, 2012, 2015, 2019b)

Upon first examination of the data, it is immediately apparent that White voters are more likely to vote than Black voters, who are in turn more likely to vote than Hispanic voters. It can also be seen that the data for the participation rate that includes all Hispanic residents shows a far lower rate of voter participation than the Hispanic voter participation for citizens only, which is to be expected given that the data shows Hispanics are less likely to be citizens (U.S. Census Bureau 2000, 2004, 2008, 2012, 2015, 2019a, 2019b). As far as voter participation over time, there is a fairly unchanging trend across races and ethnicities, but a sharp rise in participation for all three groups in 2018, the first national election after Donald Trump was elected as president in 2016. This lack of any discernible trend, or at least any trend that runs counter to those of other racial and ethnic groups, allows a difference-in-difference analysis to be performed.
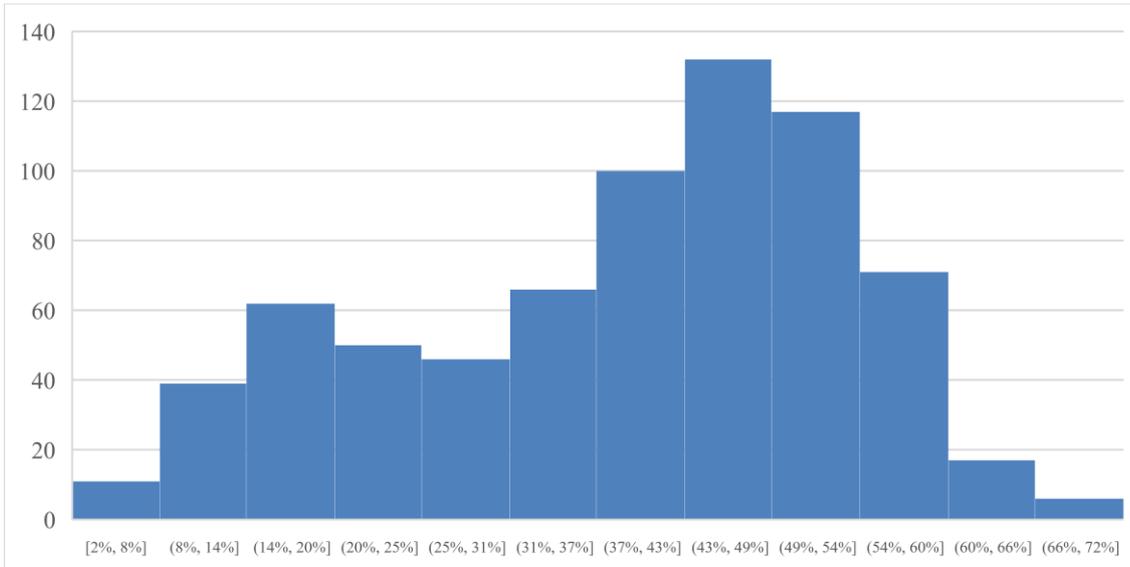
Figure 6. Distribution of voter participation rates for the data of all U.S. residents
(U.S. Census Bureau 2000, 2004, 2008, 2012, 2015, 2019b)
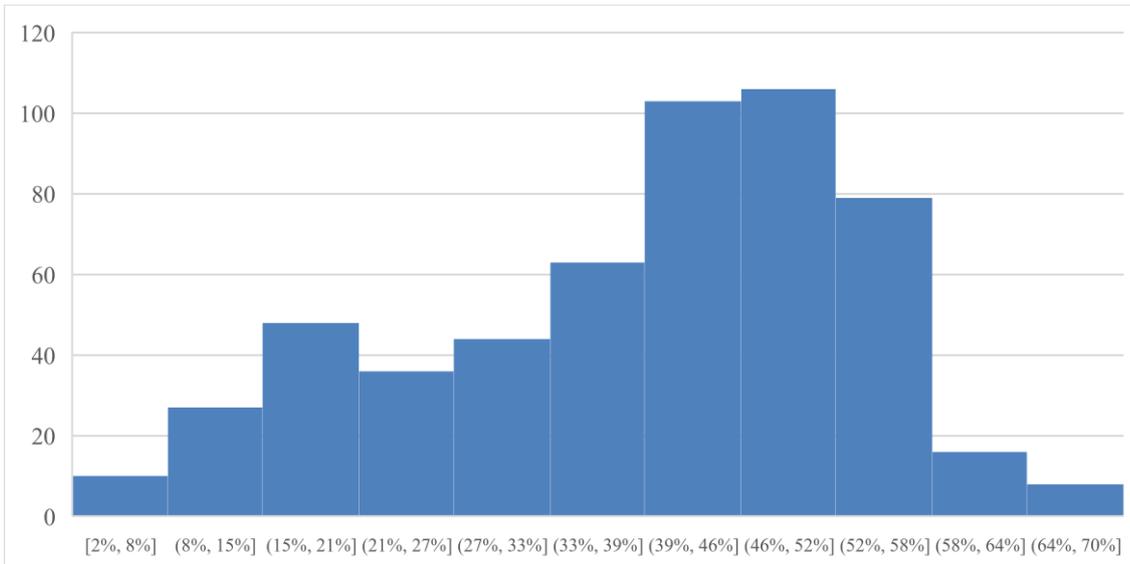
Figure 7. Distribution of voter participation rates for the data of U.S. citizens only
(U.S. Census Bureau 2000, 2004, 2008, 2012, 2015, 2019b)

The distribution histograms, Figure 6 and Figure 7, also show that voter participation rates appear to be fairly normally distributed, though the data for all residents has a small peak in the lower range due to low voter participation of Hispanics, who are less likely to be citizens.

6.3   Variables

For all the models used in the analysis the following variables will be used:

V_{cit}	Voter participation rate. V_0 indicates that the sample includes all residents, V_1 indicates that the sample includes only U.S. citizens. The indicator i is the indicator for the unit, that is, the state being examined, and t is the indicator for the period being examined, that is, the year.
β_n	Coefficients for the variables. β_0 is the constant, or intercept.
L_{it}	Treatment effect; voter ID law in effect. A dummy variable that has a value of 0 or 1 for a given state and period, with 1 indicating that there is a voter identification document law in effect, 0 indicating that there is no voter identification document law in effect. The indicator i is the indicator for the state, and t is the indicator for the period.
h	Hispanic ethnicity. Dummy variable indicating Hispanic ethnicity, 1 indicating the voter is of Hispanic ethnicity, 0 indicating the voter is not.
b	Black race. Dummy variable indicating race, 1 indicating the voter is Black, 0 indicating the voter is not.
ε_{it}	Error term. The indicator i is the indicator for the state, and t is the indicator for the period.

6.4   Econometric analysis

The fact that different states have enacted their voter identification document laws at different times gives us the opportunity to examine the effects of these laws on the population as a natural experiment. In all models, standard errors are clustered by state, the same as in studies by Keele *et al*. (2019, 14) and Cantoni and Pons (2019, 10). This is because treatment varies at the state-to-year level, as noted by Cantoni and Pons (2019, 10). In evaluating the statistical significance of results, an α level of 0.05 is used to consider whether or not the null hypothesis that any given coefficient β_i of interest is 0 can be rejected.

6.4.1   Initial difference-in-difference analysis

The first analyses use an ordinary least squares linear regression difference-in-difference approach. Difference-in-difference analysis is typically the most common for such statistical analysis, and has been used in several of the studies examined in the previous chapter, including Hood and Buchanan (2020, 4). To examine whether or not having

identification document laws have any effect on voter participation using the following regression equation in several forms:

$$V_{it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it} \tag{13}$$

The first analysis is performed with the larger dataset containing residents, $V_{1it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$, and the results can be seen in full in Appendix 1. This regression yields a value of 38.570 for the intercept β_0 and a value of 0.294 for β_1, the coefficient for treatment effect L_{it}, but with a p-value of 0.789. A p-value this high indicates that voter identification document laws have a statistically insignificant effect at an α level of 0.05, and the null hypothesis that the value of β_1 is 0 can therefore not be dismissed.

Performing the same analysis, but using the data for citizens, $V_{1it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$, yields an intercept value of 43.913 and a value of -1.062 for the coefficient β_1 of the treatment effect L_{it}, but with a p-value of 0.324, indicating a negative effect, but again, not one that is statistically significant. The full results are in Appendix 2.

The second analysis is a linear regression model performed first using only the Black population of our sample, and second only the Hispanic citizen population. The results for the Black sample, $V_{0it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$, shown in full in Appendix 3, show a small positive coefficient β_1 for the treatment, L_{it}, but not at a statistically significant level with a p-value of 0.371.

Performing the same analysis with Hispanic citizens, $V_{1it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$, the results of which are in Appendix 4, results in a negative coefficient β_1 of -2.740, which would indicate that voter ID laws result in a decrease of 2.740 percentage points in Hispanic voter participation for citizens, but again, with a p-value of 0.183, it is not statistically significant as a result and the null hypothesis that β_1 is 0 cannot be rejected.

In none of these regressions can the null hypothesis that the coefficients for the terms of interest are 0 be rejected at an α level of 0.05. Therefore, the results of these regressions present no indication that having a voter ID law in effect lowers turnout for Black or Hispanic voters. This holds true even if the same regressions are performed, one by one, using only the data from the control group of states without a voter identification document law, and the group of states with either non-strict non-photographic laws, non-strict photographic laws, strict non-photographic laws, or strict photographic laws, individually.

6.4.2 Difference-in-difference-in-difference analysis

In the absence of statistically significant evidence that voter identification document laws lower turnout for racial and ethnic minorities, a reasonable second question is whether laws lower turnout for Hispanic and Black voters relative to White voters. To perform this analysis, an ordinary least squares linear regression difference-in-difference approach will be used. Given that this approach is essentially the same as the one used previously, with the addition of a component examining the comparative difference between turnout for White, and Black or Hispanic voters, it may be considered a difference-in-difference-in-difference model. In this model, citizens eligible to vote in states that have not enacted a voter identification document law during the periods being examined serve as a control group. The equations for the models are the following:

$$V_{0it} = \beta_0 + \beta_1 * L_{it} + \beta_2 * b + \beta_3 * L_{it} * b + \varepsilon_{it} \tag{14}$$

and

$$V_{1it} = \beta_0 + \beta_1 * L_{it} + \beta_2 * h + \beta_3 * L_{it} * h + \varepsilon_{it} \tag{15}$$

Here, $L_{it} * b$ or $L_{it} * h$ is the interaction between the treatment variable, and the race and ethnicity variable, respectively, and forms the difference-in-difference variable that is of interest. It gives a statistical estimate of the difference in the change of voter participation rates for Black and Hispanic voters compared to the change in voter participation rates for White voters. For the most accurate analysis, Black voter participation rates will be compared to those of White voters, and Hispanic voter participation rates will be compared to those of White voters, in separate analyses.

The regression performed with Black and White voters, $V_{0it} = \beta_0 + \beta_1 * L_{it} + \beta_2 * b + \beta_3 * L_{it} * b + \varepsilon_{it}$, with the full results of which can be found in Appendix 5, does not suggest that voter identification document laws affect the voter participation rates of Black and White voters differently. The value 0.675 of β_3, the coefficient of the interaction term, or difference-in-difference term, indicates that voter identification document laws slightly increase voter participation rates for Black voters compared to White voters, but the p-value of 0.759 indicates that this is not statistically significant.

The regression performed with White and Hispanic citizens, $V_{1it} = \beta_0 + \beta_1 * L_{it} + \beta_2 * h + \beta_3 * L_{it} * h + \varepsilon_{it}$, shows contrary results, with a coefficient β_3 of -2.231 for β_3,

indicating that Hispanic voter turnout suffers more than White turnout by 2.2 percentage points when voter identification laws are in effect, with a more significant, however still not statistically significant, *p*-value of 0.275. The full results of this regression are in Appendix 6.

In neither of these two regressions can the null hypothesis, that the coefficient of interest, β_3, for the interaction term $L_{it}*b$ or $L_{it}*h$, is 0, be rejected at an α level of 0.05. Therefore, the results of these regressions present no evidence that having a voter identification document law in effect lowers turnout more for Black or Hispanic voters than it does for White voters. This holds true even if the regressions are performed, one by one, using only the data from the control group of states without a voter identification document law, and the group of states with either non-strict non-photographic laws, non-strict photographic laws, strict non-photographic laws, or strict photographic laws, individually.

6.4.3 Possible flaws in the model

As in any analysis of a large population – in this case over 200 million eligible U.S. voters – based on only a representative sampling, there is always a limit to what deductions we can confidently make. Even the 60,000 representative households that the U.S. Census Bureau surveys after every election are only a small fraction of this huge population, which means that the data used in this thesis cannot possibly be completely accurate. There is, however, no reason to assume that it is not accurate enough to make reasonable statistical inferences from the data.

Another possible flaw is that the models make certain assumptions that may or may not be accurate. There is an implicit *ceteris paribus* assumption in the model, that is, that the only change from one period to another is the enactment of a voter identification document law. This leads to an endogeneity concern that there are differences between states, such as a less participatory culture, that would lead a state to enact a voter identification document law when other states have not done so, or why a particular state would enact a particular category of voter ID law (Erikson – Minnite 2009, 92).

Demographic change between elections may also lead to inaccuracy in the results, as the Hispanic population in particular grew by over 10 million between the years 2010 and 2019, whereas during the same time frame, the White population actually decreased by approximately 16,000 (Frey 2020). The growth of the Hispanic population is primarily

from immigration, and immigrants may have different voter turnout characteristics than other demographics. An attempt to correct for this has been made by restricting analyses of the Hispanic population to citizens only, as using data from all Hispanic U.S. residents could lead to a lower turnout simply because recent immigrants are less likely to be citizens due to naturalisation requirements (U.S. Citizenship and Immigration Services 2020).

7 CONCLUSIONS

7.1 Conclusions of the econometric analysis

Based on the results of the regressions in the previous chapter, there is no evidence that overall voter turnout decreases when there is a voter identification document law in effect. Likewise, there is no evidence that voter turnout decreases for Black or Hispanic voters specifically. The difference-in-difference analysis, comparing the difference in the change of voter turnout for White voters compared to Black and Hispanic voters, also showed no greater, or lesser, decrease in turnout for Black and Hispanic voters than White voters.

Though most studies reviewed in Chapter 5 found similar results (Cantoni – Pons 2019; Hood – Buchanan 2019; Hood – Bullock 2012), with only Hajnal *et al.* (2017) finding a negative difference-in-difference in turnout for both Black and Hispanic voters, this result can still be considered somewhat unexpected, given the studies (Barreto *et al.* 2019; Stewart 2013) that showed that Black and Hispanic voters were less likely to have the identification document required by voter ID laws.

There are several factors that could explain the discrepancy between the observed lower possession rates of voter identification documents and lack of comparative decrease in turnout for Black and Hispanic voters. Cantoni and Pons (2019, 18) found that voter ID laws lead to an increase of 5.4 percentage points in the fraction of non-White voters who were contacted by a political party. Similarly, Valentino and Neuner (2017, 347) found that Democratic voters are more likely to be mobilised to vote by the perceived disenfranchisement of voters. Such voter mobilisation efforts by political parties as well as the increased voter motivation fuelled by the perception of disenfranchisement could be one large factor that explains this lack of decrease in turnout.

The learning curve effect suggested by Vercellotti and Anderson (2009) also implies that any decrease in relative minority voter turnout caused by voter identification document laws may also be temporary, as voters adjust to the new law and acquire the needed ID to vote. This kind of temporary effect would not be visible with the specifications used for the regressions in this thesis.

The far higher rates at which Black and Hispanic voters are asked to show an identification document to vote, compared to White voters, in states with no ID law in effect, may also explain why a voter ID law may not lead to a comparative change in

voter turnout rates for minorities, if a voter ID law merely leads to the comparative rate of White voters being asked for ID at a polling place rising (Stewart 2013, 48).

7.2   Discussion

Though this thesis finds no evidence that voter identification document laws negatively affect voter turnout for Black and Hispanic voters, it must be once again stated that any restrictions to the right of the individual to vote, guaranteed by the U.S. Constitution, must be justified with the preponderance of evidence in its favour. As Overton (2007, 681) argues, policymakers should look at empirical data and perform an analysis of costs versus benefits, as photographic identification document laws have the potential to disenfranchise as many as 20 million American voters.

Given how rare voter impersonation, the only kind of election fraud that voter identification document laws can hope to eliminate, factually is, any voter ID law is difficult to justify, particularly given the possible inequitable results of such laws based on race or ethnicity. Any law that denies any citizen their rightful vote should only be passed if there is, on balance, a greater necessity to prevent in-person fraud, as demonstrated by reliable evidence. At present, there is no such evidence available, and thus, despite voter ID laws seemingly not disproportionately affecting minorities, any additional costs to voting can still be considered a loss for the democratic process.

There will certainly be more studies of voter identification document laws to be written, using data from elections yet to be held, and subject to voter ID laws not yet written. Every election and every new voter ID law gives us new data, and broadens our understanding of how voter ID laws affect the electoral process.

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APPENDICES

Appendix 1. Effect of voter ID laws on voter participation rates overall, all residents

$$V_{0it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$$

Observations	699
F(1, 50)	0.07
Prob. > F	0.7892
R^2	0.0001
Root mean square error	14.812

V_{0it}	Coefficient	Robust standard error	t	P>|t|	95% confidence interval	
β_0	38.56976	0.8931286	43.19	0.000	36.77586	40.36366
L_{it}	0.2940374	1.093829	0.27	0.789	-1.902982	2.491057

Appendix 2. Effect of voter ID laws on voter participation rates overall, only citizens

$$V_{1it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$$

Observations	474
F(1, 50)	0.80
Prob. > F	0.3742
R^2	0.0021
Root mean square error	11.707

V_{1it}	Coefficient	Robust standard error	t	P>|t|	95% confidence interval	
β_0	43.91325	0.8748226	50.20	0.000	42.15611	45.67038
L_{it}	-1.061998	1.184282	-0.90	0.374	-3.440697	1.316702

Appendix 3. Effect of voter ID laws on voter participation rates, only Black residents

$$V_{0it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$$
$$observations\ limited\ to\ b = 1$$

Observations	200
F(1, 35)	0.38
Prob. > F	0.5398
R^2	0.0040
Root mean square error	8.0542

V_{0it}	Coefficient	Robust standard error	t	P>|t|	95% confidence interval	
β_0	39.65128	1.120867	35.38	0.000	37.3758	41.92676
L_{it}	1.035465	1.672119	0.62	0.540	-2.359118	4.430048

Appendix 4. Effect of voter ID laws on voter participation rates, only Hispanic citizens

$$V_{1it} = \beta_0 + \beta_1 * L_{it} + \varepsilon_{it}$$
$$observations\ limited\ to\ h = 1$$

Observations	133
F(1, 38)	1.83
Prob. > F	0.1840
R^2	0.0201
Root mean square error	9.6313

V_{1it}	Coefficient	Robust standard error	t	P>|t|	95% confidence interval	
β_0	32.74091	1.139822	28.72	0.000	30.43346	35.04836
L_{it}	-2.740909	2.025429	-1.35	0.184	-6.841177	1.359359

Appendix 5. Difference-in-difference of effect of voter ID laws on voter participation rates, only White and Black residents

$$V_{0it} = \beta_0 + \beta_1 * L_{it} + \beta_2 * b + \beta_3 * L_{it} * b + \varepsilon_{it}$$

observations limited to $h = 0$

Observations	506
F(3, 50)	22.15
Prob. > F	0.0000
R^2	0.2997
Root mean square error	7.4685

V_{0it}	Coefficient	Robust standard error	t	P>|t|	95% confidence interval	
β_0	49.86915	0.9138221	54.57	0.000	48.03368	51.70461
L_{it}	0.3605121	1.120472	0.32	0.749	-1.890021	2.611045
b	-10.21787	1.433441	-7.13	0.000	-13.09702	-7.338716
$b * L_{it}$	0.6749529	2.187857	0.31	0.759	-3.719488	5.069394

Appendix 6. Difference-in-difference of effect of voter ID laws on voter participation rates, only White and Hispanic citizens

$$V_{1it} = \beta_0 + \beta_1 * L_{it} + \beta_2 * h + \beta_3 * L_{it} * h + \varepsilon_{it}$$

observations limited to $b = 0$

Observations	337
F(3, 50)	152.11
Prob. > F	0.0000
R^2	0.5895
Root mean square error	8.3157

V_{1it}	Coefficient	Robust standard error	t	P>|t|	95% confidence interval	
β_0	51.80098	1.030756	50.26	0.000	49.73065	53.87132
L_{it}	-0.5098039	1.321977	-0.39	0.701	-3.165074	2.145466
h	-19.06007	1.268745	-15.02	0.000	-21.60842	-16.51172
$h * L_{it}$	-2.231105	2.020138	-1.10	0.275	-6.288672	1.826462