Christopher Thomas Altmann (2021) *Signaling Minorities: A Novel Theoretical Proposition for Voter Identification Laws and Minority Suppression*, London School of Economics Undergraduate Political Review, 4(2), 3-18

Signaling Minorities: A Novel Theoretical Proposition for Voter Identification Laws and Minority Suppression

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Abstract

The effects of voter identification laws on minorities are understood. Generally, the passage of strict voter identification laws negatively impacts racial minority turnout in both primary and general elections. Nevertheless, a critical question remains: how are these laws suppressing minority turnout? The literature has failed to deliver a convincing argument. Thus, I develop a signaling game to model how a minority individual responds to the racialized type of a state legislature that has preferences for the enfranchisement of the minority. I then empirically test the game's implications to determine minority confidence in their vote after the passage of voter identification laws. The model's results show that as an increasing number of states pass these laws, minorities are more likely to be signaled they are unwanted at the ballot box. The empirical analysis provides evidence for the theory.

Keywords: game theory, voter identification laws, minorities

Democracy dies at the ballot box. Through elections and the policies that govern them, citizens in democracies can help shape their country's future. Thus, state policies that govern elections are critical for American citizens as they influence who turns out to vote and who *can* vote. Controversy and attention swirl around these policies, and over the past two decades, one has been at the forefront of the American political discourse: voter identification laws.

Following the 2000 presidential election recount in Florida and 2002 Help America Vote Act (HAVA), states began to pass a series of legislative acts aimed at reforming elections and restoring public confidence (National Commission on Federal Election Reform 2001). Voter identification laws became the more controversial reform following the 2000 presidential election; Republican state legislatures across the United States (U.S.) began passing restrictive voting laws that required varying degrees of identification.

The two major American parties offer differing explanations to why these laws have been passed on the state level. For Republicans, the dominant message is rampant, unmitigated

voter fraud in elections across the country. This fraud erodes the legitimacy and integrity of elections and subsequently turnout of voters according to the GOP; thus, they claim that these laws instead aim at *increasing* voter turnout by reducing voter fraud and restoring confidence in elections (*Crawford v. Marion County Election Board* 2008). Recently, election fraud cries have intensified from former President Donald Trump and right-leaning think tanks such as the Heritage Foundation. Despite the data showing voter fraud to be an extraordinarily rare phenomenon (Spakovsky 2020), it remains an important Republican talking point for the passage of voter identification legislation (Lopez 2021).

Opposingly, liberals and the Democratic Party instead argue that Republicans pass these laws to restrict minority access to the ballot box and shift political power to the right. The Democrat-led Senate Judiciary Subcommittee on Constitutional Civil Rights and Human Rights along with the Congressional Black Caucus, Congressional Hispanic Caucus, and Congressional Asian Pacific American Caucus all joined together in testimony and activism against voter identification legislation (National Commission on Federal Election Reform 2001). Under the Obama Administration, the Department of Justice sought to abrogate legislation in Florida, Texas, and South Carolina.

However, the present study does not aim to assess how these laws affect voter turnout or partisan balancing of power but instead addresses a question that's poorly understood in the germane literature: the mechanism of action. This mechanism of action is *why* voter identification laws decrease minority voter turnout. Theoretical explanations are needed to provide a framework for future research and policies. Scholars have proposed three explanations: there is a lack of access to identification for minorities, the costs are too high for identification, and passage of these laws signals to minorities they are unwanted at the ballot box (Hajnal, Lajevardi, and Nielson 2017). I focus on the third explanation as the first two lack convincing or sufficient explanatory power, as shown convincingly by Carpenter and Foos (2016). From this explanation, I posit that as more state legislatures pass voter identification legislation across the country, minorities will lose confidence in elections and feel unwelcome at the ballot box. To develop the theory, I use a game theory signaling model to examine the theoretical interactions between a minority individual and state legislature. I then assess this model with empirical analysis of minority confidence in their elections interacted with voter identification laws. The totality of the analysis cumulates into a proposed *signaling theory of suppression* to serve as a framework for future scholars analyzing voter identification laws.

Previous Research

Significant scholarly discourse has sought to ascertain if strict voter identification laws such as photo-ID requirements decrease turnout. Initial studies that became prominent within the literature found no significant effect on overall turnout (Ansolabehere 2009; Mycoff, Wagner, and Wilson 2009; Citrin, Green, and Levy 2014), with the finding 'voter ID does not appear to present a significant barrier to voting' (Ansolabehere 2009, 129) dominating the literature. However, the initial studies' tests were done directly proceeding the first passage of legislation by states and failed to incorporate the harshest identification laws with strict photo requirements, which scholars hypothesized to have the most significant effect on turnout (Highton 2017).

New research has aimed to mitigate the timing issue and found that voter identification laws decrease turnout differentially (Alvarez, Bailey, and Katz 2008; GAO 2014; Vercellotti and Anderson 2009) and what is the most relevant, significantly among racial and ethnic minorities (Hajnal, Lajevardi, and Nielson 2017; Kuk, Hajnal, Lajevardi 2020). Specifically, Hajnal, Lajevardi, and Nielson reviewed the initial studies and found three methodological issues. First, the aforementioned timing problem from the strictest laws resulted in the studies missing

when the laws took effect. Second, many previous studies used self-reported data, which are problematic since self-reported turnout is higher than the actual turnout (Ansolabehere and Hersh 2012; Silver, Anderson, and Abramson 1986), especially among minorities (Abramson and Clagget 1992; Shaw, de la Garza, and Lee 2000). Third, there has been no analysis of the political consequences of strict voter identification laws.

However, the debate is not over on overall turnout. Grimmer et al (2018) found several methodological issues in the modeling conducted by Hajnal, Lajevardi, and Nielson (2017) and instead concluded that there is no discernable effect on turnout. The original authors responded and resoundingly affirmed: 'The key test is not whether turnout is lower in strict voter ID states but instead whether there is a differential impact of these laws on racial and ethnic minorities. This point is not in dispute' (Hajnal, Kuk, and Lajevardi 2018, 1052). Very recent studies using extremely large-*N* datasets are still examining the effects on voter turnout (Cantoni and Pons 2019), yet the literature is clear. When scholars use proper research design, voter identification laws differentially decrease voter turnout among racial and ethnic minorities (Henninger, Meredith, and Morse 2018). However, the literature has remained bereft of research on *how* voter identification laws decrease turnout among minorities. Thus, scholars have little in causal explanations for a decrease in minority turnout. We need to understand why affected minorities are not participating in democracy.

A mechanism of action

Hajnal, Lajevardi, and Nielson (2017) suggest three ways that voter identification laws decrease turnout: minorities lack the requisite ID, the costs are too high for minorities to obtain the ID, and passage of these laws signals to minorities that they are unwanted at the ballot box. Upon examination, the literature has simply concluded without proposing rigorous casual explanations that a lack of access explains the decreased turnout for minorities. The literature has failed to consider other factors explaining minorities deciding not to show up at the ballot box.

Scholars have found that when controlling for other relevant covariates, racial and ethnic minorities are less likely to have access to *any* type of ID required by voter identification laws (Barreto et al. 2018; Barreto and Sanchez 2014; GAO 2014), quantified to being five times more likely to lack access compared to their White counterparts (Henninger, Meredith, and Morse 2018). This lack of identification is acute among several classes such as minorities, the young, and the poor (Barreto, Nun, and Sanchez 2009). The lack of access is especially problematic since even if individuals lack any ID and subsequently gain a non-photo ID, they would still be barred from the ballot box in states with the strictest requirements.

However, the consensus that millions of Americans lack access to identification fails to explain all the decreased turnout convincingly or adequately for four reasons. First, in American society, access to identification remains essential for many areas of daily life, such as purchasing alcohol or nicotine products, obtaining a job, and conducting financial operations like opening a bank account. Identification simply becomes necessary or strongly incentivized at some point for the other 1,459 days in the presidential election cycle. Second, the explanation lacks its own reasoning. We know that some minorities do not have IDs, but we do not know *why* they do not. Is it because of financial restrictions? Or are there time restrictions to obtaining access? The literature simply does not have a definite answer. Third, this lack of reasoning precludes a formal theory used as a framework or causal explanation for research on decreased minority turnout. Fourth and most importantly, some scholars have hypothesized that there are minorities who possess identification but still feel targeted by these laws and subsequently decide not to show up at the ballot box (Carpenter and Foos 2016).

The lack of access theory fails to capture these disaffected voters. Thus, a more robust and novel explanation is needed.

Let us return to the third proposition by Hajnal, Lajevardi, and Nielson. They hypothesize, 'where and when these laws are passed, members of certain groups might feel unwelcome at the polls. This is especially true for racial minorities, who have been subject of election-related violence at different points in American history' (Hajnal, Lajevardi, and Nielson 2017, 366). Historically and structurally, racial minorities have endured centuries of disenfranchisement in the United States with the acquisition of voting rights still not stopping the physical violence that occurred when minorities showed up at the ballot box. Therefore, the phrase 'Jim Crow 2.0.' (Bentele and O'Brien 2013) used by some academics is not overtly expressive, as there is a very salient signal of racism being sent by voter identification laws. In an attempt to locate a specific form of the signal sent to minority voters, it is relevant to consider the manner in which voter identification laws are passed.

A significant amount of research has found that these laws are passed in states where Republicans face stiff electoral competition, the legislature switches to Republican control, and racial minorities make up a large part of the electorate (Bentele and O'Brien 2013; Hicks et al. 2014; Biggers and Hanmer 2017; Keyssar 2000; Wilson and Brewer 2013). Subsequently, after the passage of these laws, minorities are then disproportionately asked by poll workers for identification at the ballot box compared to White voters (Ansolabehere 2009; Atkeson et al. 2010; Cobb, Greiner, and Quinn 2012; Rogowski and Cohen 2014; White, Nathan, and Faller 2015), with the ID hurdles introduced being detrimental to turnout (Leighly and Nagler 2014; Brady, Verba, and Scholzman, 1995). Moreover, an overwhelming number of voters are cognizant of the partisan and racialized passage of ID laws and their subsequent effect (Pew 2012) with the "image" of the laws being racialized in the minds of voters (Wilson and Brewer 2013). Thus, affected minorities can oftentimes feel targeted at passage of these laws due to their partisan and racial manner and then at the ballot box when they are disproportionately asked for their identification as compared to White voters.

The message is clear to minorities: Republican legislatures seek to take away voter enfranchisement from them because of the color of their skin.

Game-Theoretic Model

Consider a game-theoretic model in which a minority individual (*i*) is considering voting in the upcoming general election, and a state legislature (*g*) is considering passing voter identification legislation that they likely know will limit minority turnout in the upcoming election. However, the minority individual has the requisite ID to vote and chooses between voting and not voting. For the sake of the model, assume that the state legislature is a unitary actor and that both the individual and legislature are rational actors.

The state legislature, *g*, can be one of two types: suppressive (t_s) or neutral (t_n), $g \in \{t_s,\ t_n\}$. The suppressive type of legislature seeks to repress minority turnout and thus always prefers to pass voter identification legislation. The neutral legislature is not concerned about minorities and mixes strategies between passing voter identification legislation and not passing it. Assume the minority individual has incomplete information about the legislature's type while the legislature possesses complete private information.

The sequence of moves in the sequential game is as follows. In the first move, Nature determines the type of state legislature. The probability that the legislature is type t_s is represented by γ, where $0 \leq \gamma \leq 1$, and the corresponding probability of the legislature being type t_n is $1 - \gamma$. The legislature can then pass voter identification legislation (*P*) or not pass it

(P_d). The minority then decides whether to vote (*V)* in the next election or not vote (V_d). The t_n legislature does not pass legislation with probability σ_p and passes with probability $1 - \sigma_p$. The minority if the legislature is t_n type votes with probability σ_v and does not vote with probability $1 - \sigma_v$. Appendix A contains an extensive form of the game tree.

Table 1: Payoff Matrix for Minority and Legislature

Outcome	*i if* $g \in t_s$	*i if* $g \in t_n$	$g \in t_s$	$g \in t_n$
P; V	3	1	-3	-1
P_d; *V*	2	1	-5	0
P; V_d	-5	-1	5	2
P_d; V_d	-1	0	2	1

Equilibrium conditions

To derive a semi-separating type of a perfect Bayesian equilibrium for the game, consider the mixed strategy for the neutral type of legislature. The indifference point between *P* and P_d is as follows:

$$\sigma_v(0) + (1 - \sigma_v)(1) = \sigma_v(-1) + (1 - \sigma_v)(2)$$
$$\sigma_v = 1/2$$

For the minority to mix strategies, they must be indifferent between their two pure strategies, and the minority's belief depends on the mixed strategy of t_n. Thus, let this belief that the minority is facing t_s be δ:

$$\delta(2) + (1 - \delta)(1) = \delta(-1) + (1 - \delta)(0)$$
$$\delta = 1/2$$

Then use Bayes' rule to find the t_s mixed strategy that creates a δ value precisely equal to ½. This is as follows:

$$\frac{1}{2} = \frac{(\gamma)(2)}{(\gamma)(2) + (1 - \gamma)(\sigma_P)}$$
$$\sigma_p = -\frac{2\gamma}{\gamma - 1}$$

Thus, the semi-separating equilibrium is as follows: t_n passes legislation that they know will limit turnout in the next election with probability $\frac{3\gamma-1}{\gamma-1}$, the minority's posterior belief that the legislature is repressive has the probability ½, the minority votes with the probability ½. Accordingly, as the probability that the legislature is type t_n increases, the probability that they pass legislation decreases. This inverse relationship means that as it is more and more likely that a state legislature is not seeking to suppress minorities, they are less likely to commit the costly signaling to allow a minority to update its beliefs about the legislature's type. Thus, as legislatures become more suppressive than neutral, it becomes easier for a minority to see what kind they are and vote accordingly.

Hypothesis

The game-theoretic model shows that minorities can identify if a state legislature seeks to suppress their vote when an increasing number of legislatures pass voter identification laws. Moreover, this analysis could hold true across state lines that as more and more states pass these laws, it becomes increasingly probable that a minority in a novel state also has a legislature that is the suppressive type. Thus, it becomes hard for minorities to differentiate between types correctly and choose not to vote even if their legislature actually is of the neutral type when few identification laws exist. Carpenter and Foos (2016) find that when some voters see targeted public policies such as these laws, minorities might perceive themselves as "outsiders" in national politics and enter *learned disengagement*. Upon entering, voters see social strata proscribed by policy and then use them to assign self-worth (Schneider and Ingram 2005). This learned disengagement might have the effects of voters losing confidence

in their elections and unwilling to participate at the polls. Therefore, under a proposed *signaling theory of suppression*, I hypothesize that minorities become less confident in elections and feel unwelcome after receiving costly signaling from state legislatures anywhere in the country.

Estimating confidence in state elections

The hypothesis is tested with data from the Survey of the Performance of American Elections (SPAE) in 2014 administered online and conducted by the MIT Election Data and Science Lab. The SPAE surveyed 200 registered voters in each of the 50 states (including Washington, DC), recording a total of 10,200 observations, the morning directly following Election Day. The survey recruited respondents to match the resulting sample on the national demographic characteristics of education, income, race, and partisanship. Of respondents who reported race, 81% were White, 8% Black, 4% Asian, and 0.79% Native American. The data are also weighted for national representation. Appendix B contains a descriptive statistics table for the data.

Two dependent variables are included along theoretical lines. The first dependent variable measures a respondent's confidence in their general election vote. This variable is used to assess overall confidence when being asked for identification. The second dependent variable used is confidence in state election vote for state ID laws, as an association between state voting confidence and state laws would be predicted. Both the variables are ordinal, and responses are ranked 1-4 from "very confident" coded 1, "somewhat confident" coded 2, "not too confident" coded 3, to "not at all confident" coded 4. Higher values indicate less confidence while lower indicate more confidence in the respective election. Responses of "I don't know" are omitted from the models. Moreover, no publicly available survey of large enough scope contains items asking minorities about whether they feel unwelcome at the ballot box; thus, the variables measuring confidence are used as an imperfect proxy for the feelings of unwelcomeness that a minority might harbor. We can conceptualize this proxy as feelings of unwelcomeness garnered at the ballot box inducing a lowered sense of confidence in a person's vote in an election. Thus, I operationalize a person's feelings of unwelcomeness as the resulting measure of confidence from this link. If a person feels unwelcome at the ballot box due to voter identification laws, then there likely has been an electoral policy change and a shift in confidence.

The first independent variable of interest measures a binary relationship of whether the respondent was asked for voter identification. The variable is binary and constructed from one item in the SPAE that asked respondents how they identified themselves at the polling site if required by their state. Responses where the respondent showed a passport, military ID card, voter registration card, driver's license or state-issued photo ID, or some other form of identification are coded 1. Responses where the respondent gave no form of identification or showed something with their name and address on it but not an identification card are coded 0. The second independent variable of interest measures the type and strictness of voter identification legislation in each state. The National Conference of State Legislature's (NCSL) 2014 data on the laws were used with the NCSL's ordinal 1-5 scale. The state is coded 1 if they had no requirement, 2 for non-strict and non-photo ID requirements, 3 for non-strict photo ID requirements, 4 for non-photo ID requirements, and 5 for strict photo ID requirements. Ordering for the variable indicates strictness of requirement. The following states had a strict photo ID requirement: Georgia, Indiana, Kansas, Mississippi, Tennessee, Texas, North Carolina, and Virginia. The control variables of race and political party are included in the models. More control variables are not included as the purpose of this study is to propose theoretical explanations, not to rigorously show causality. The non-game theoretical analysis below serves the purpose of statistical motivation for subsequent analysis.

I include an interaction term with constituent terms of the main independent variables and race across the following racial classes of the respondents: White, Black, Hispanic, Asian, Native American, Mixed, Middle Eastern, and Other. This interaction term enables examination of how groups of minorities respond differently to being asked for voter identification, and the strictness of voter identification laws interacted with their confidence in their state election. The data are modeled with an ordered logistic regression (proportional odds model) weighted by national representation. More specifically, cumulative link models are used with the logit link to account for the response variables being ordinal.

Results

The first three columns in Table 2 show the regression results of confidence in the general election when the respondent was asked for voter identification at the polls. The next three columns show results of confidence in the state election for the respondent regressed on the strength of state ID laws. Predicted probabilities are used for interpretation since direct interpretation of proportional odds coefficients in an interaction term is rather difficult and nonintuitive.

Table 2. Ordered Logistic Regression Results

	Dependent Variables:					
	General Election Vote			State Election Vote		
	(1)	(2)	(3)	(4)	(5)	(6)
Asked ID	0.253***	0.254***	0.113			
	(0.067)	(0.067)	(0.105)			
Democrat = 1		0.029			-0.115***	
		(0.062)			(0.042)	
Race			0.071			0.045
			(0.053)			(0.028)
Asked ID X Race			0.082			
			(0.059)			
State ID Law X Race						0.010
						(0.012)
State ID Law				0.037***	0.035***	0.024
				(0.013)	(0.013)	(0.022)
Observations	6,287	6,287	6,287	9,396	9,396	9,396
Log Likelihood	-4,263	-4,262	-4,244	-9,956	-9,952	-9,947
Note:	*p<0.1; **p<0.05; ***p<0.01					

Model 1 serves as a baseline analysis for respondent's who were asked for identification; Figure 4 in Appendix C shows prediction results generated from the model that support the hypothesis. Results for Figure 4 further show statistical significance. Model 2 presents analysis that controls for political party, however the results in Figure 5 in the appendix section show no noticeable change in probability for being a Democrat or some other party.

Concerningly, a cursory glance at Table 2 reveals no significance for the two interaction terms. However, upon separate analysis, regressing the dependent variables on being asked for ID and race as separate covariates reveals significance along with significance found in the Black, Hispanic, and White racial groups for the interaction term. Parsing the data reveals that these groups contain the most observations while the remaining racial groups have limited sample sizes. Clearly, the small *n* sizes and lack of variance appear to be limiting statistical significance, especially when considering the effect turns significant when regressed on the whole of race. More data in future research would be needed to properly assess whether these

relationships lack true significance. Overall, the regressions for the interaction terms can still provide insight into the type of effect on the dependent variable, particularly when generating predictions from the estimation albeit with generalization limitations.

Thus, we turn to prediction using Model 3 for the primary results of the first independent variable.

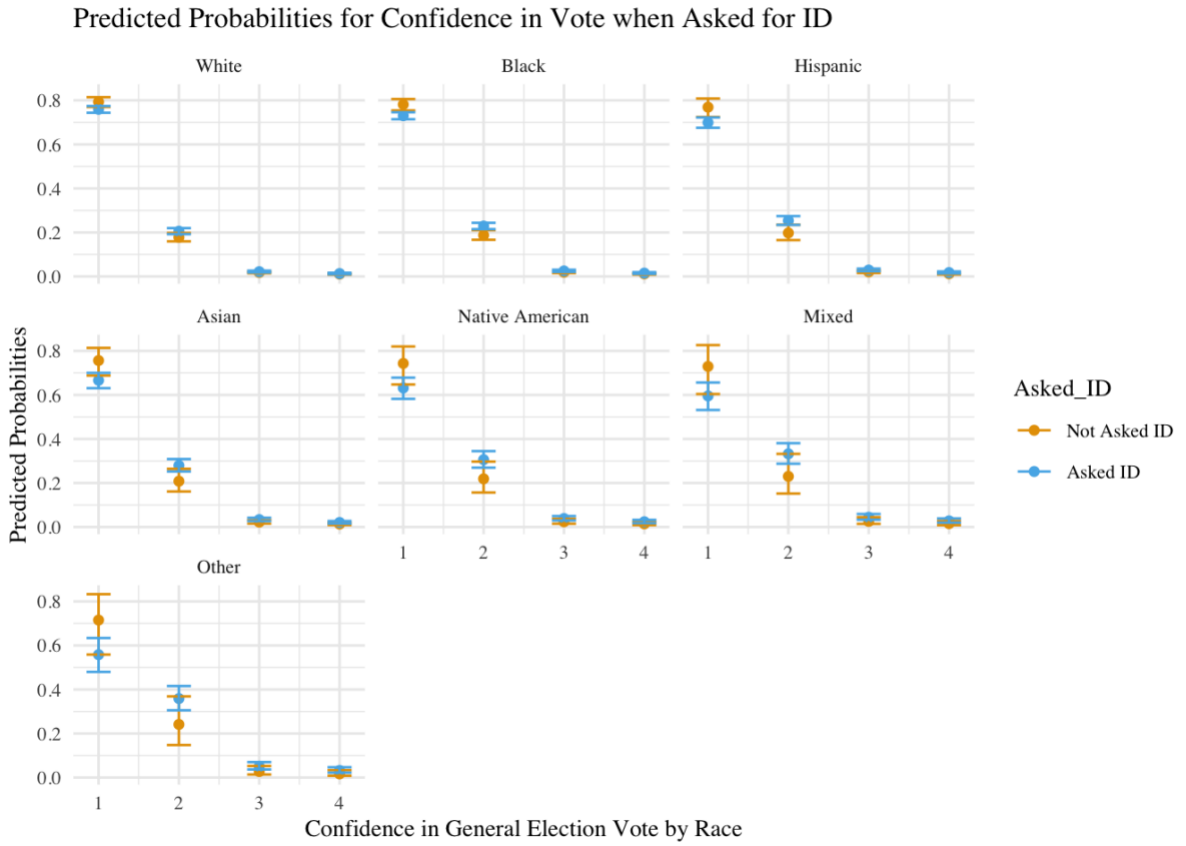

Figure 1.

Figure 1 presents predicted probabilities using estimation from Model 3 for the interaction term. White voters show no noticeable change in probability of being in the “very confident” category when shifting from being asked for ID to not. However, that switches as we move to minority voters. The effect is weak for Black voters yet begins to emerge; the effect is strong moving to the remaining racial groups. Hispanic, Asian, Native American, and Mixed voters show a strong, noticeable effect on predicted probability. Quantifying the results, Hispanic voters are 5.5% less likely to be very confident, Asian voters 9.5%, Native American voters 10%, and Mixed voters 15.5%. However, the probabilities fall within the margins of error and the coefficients don’t present statistical significance. More data would be needed to properly make generalizable claims as mentioned above. Moreover, the effect virtually disappears when moving to probabilities for the remaining categories. This disappearance makes sense as a vast majority of the data is contained within the first two dependent variable categories, where the model would detect the most variation. Overall, theoretical hypothesis expectations are met from the results of Hispanic and Black voters. Interestingly, the effect switches when moving to the second category of the dependent variable. This change could be seen as voters who are the surest of their vote, feeling the most disaffection when asked for identification.

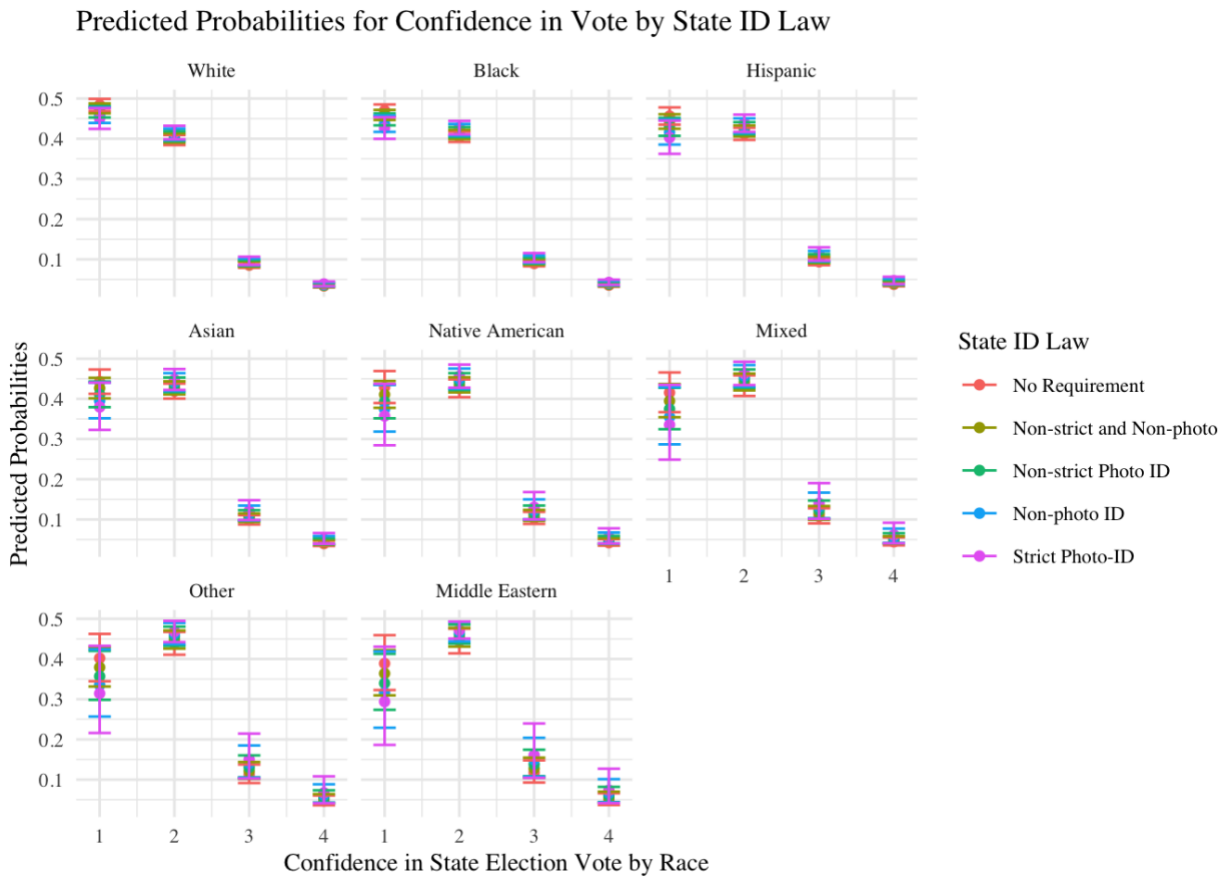

Figure 2.

Figure 2 presents predicted probabilities for the second independent and dependent variables using estimation for the interaction term. Here the constituent terms are race and the state ID law. In Appendix C, Figure 6 shows a baseline again for the analysis with the estimation indicating results consistent with hypothesis expectations. Respondents in states having strict photo-ID requirements are less likely to fall into the “very confident” category of confidence in their state election vote. Again, in the appendix section, when making a controlled comparison, a differential effect is seen for Democrat voters against non-Democrat voters. The probability of falling into the “very confident” category exceeds that of non-Democrat voters. Potential explanations might include more awareness of state ID laws among Democrats. Yet the hypothesized effect still holds; the probability for voters in states with strict voter ID laws is lower compared to no requirement. The results translate to the interaction term probabilities. Among Hispanic, Asian, and Native American, Mixed, and Middle Eastern voters, an effect of voter ID laws can be seen. Black voters show not as strong of an effect. This difference demonstrates that minorities respond to voter ID signaling in differing ways.

From both the analyses combined, an interesting story emerges that minorities care about voter identification laws in differing ways across analyses. This result has a couple of implications. First, the hypothesis and theory are supported by the results. Second, the costly signaling occurs specifically at the ballot box for Hispanics in the form of the poll worker verbally asking for identification instead of the intermediate time between elections as shown by the difference in Figures 1 and 2. This implication makes sense in the context of poll workers disproportionately asking minorities for identification (Ansolabehere 2009; Atkeson et al. 2010; Cobb, Greiner, and Quinn 2012; Rogowski and Cohen 2014; White, Nathan, and Faller 2015). Third, minorities respond to the costly signaling in different ways that deserve independent analyses.

Conclusion

Attitudes are necessary in examining state identification laws; these laws affect how a minority individual feels at the ballot box. The present study used game theory to model how minorities respond to the costly signaling by state legislatures to reveal their type, either neutral or suppressive, to the minority individual. This signaling allows minorities to update their beliefs and vote accordingly. The model provides the implication that as the probability increases that a state legislature is type neutral, a repressive legislature is less likely to commit the costly signaling to reveal their type. Thus, it is hard for a minority to decipher whether their legislature is seeking to suppress them and vote accordingly. The empirical evidence shows that minorities update their beliefs at the ballot box sometime following passage; thus, if a minority does not know the legislature's type, they will not even show up at the ballot box to vote. While statistical significance is lacking in some models, the effect is still present and demonstrates the theory. Furthermore, the empirical evidence suggests that researchers must disentangle the nebulous “minority” grouping and instead examine succinct racial groups and individual signaling.

However, it must be said clearly that this paper does not equate or conflate confidence with turnout. The measure of confidence in the empirical models is being used as a proxy for feelings of mistrust or unwelcomeness to help provide evidence for the signaling theory presented. The theory is simply being used to provide a rationale and explanation as to *why* minorities are not turning out after the passage of voter identification legislation. It is theorized that if a minority feels unwelcome at the ballot box, they will be less likely to turnout.
Ultimately, this paper accomplished what it sought out to do. A signaling theory of suppression and framework of analysis have been presented to answer the question of why minorities do not turn out to vote following the passage of voter identification legislation. When a state legislature takes away a minority’s right to vote in a racialized manner, it signals that they are unwanted at the ballot box.

Limitations

The methods of game theory inherently assume that actors are rational, which sometimes may not be the case. When faced with incomplete information and assuming voting is rational, minorities might make irrational decisions, along with a lack of communication leading legislatures to make irrational decisions. Indeed, game theory makes many assumptions for the sake of the model, some of which may be limited in real-world applications. Moreover, the theory presented does not seek to prove causality, and significant further research needs to be done to properly link a signaling theory of suppression to decreased turnout among minority groups. While the SPAE dataset is large, with over ten thousand observations, smaller minority groups' models only proffer smaller *N* sizes. This limitation of sample size is represented in a lack of statistical significance for some models. When supplied with more data, the effects might emerge as significant. Thus, further research on the theory must make use of larger datasets to allow for variation to be detected among racial groups and to provide generalizable claims.

Implications

This paper has several implications for how researchers think about voter identification laws affecting minorities. First, the mechanism of action. A costly signal is being sent by Republican legislatures that minorities are unwelcome at the ballot box. The reverse logic also holds; a Democratic legislature could remove these barriers to voting to signal to minorities they are not seeking to suppress turnout. However, an information issue arises. A suppressive

legislature might engage in an international relations concept known as cheap talk to hide that they seek to suppress turnout and make it difficult for a minority to differentiate between types correctly.

Potential solutions for Democratic legislatures to solve this incomplete information problem might be more costly signaling, such as removing the laws, making policy positions transparent, and performing ground campaigns informing minorities about the policy differences. Second, further research is needed on how other groups might be signaled. Researchers have found that voter identification laws also affect the young and the poor (Alvarez, Bailey, and Katz 2008; GAO 2014; Vercellotti and Anderson 2009) and, therefore, might also feel unwelcome at the ballot box. Third, resolving a timing issue. Hajnal, Lajevardi, and Nielson (2017) find that many studies examining turnout fail to correctly time the effect of the laws properly, and the results of this study support the existence of the problem. Some minorities do not update their belief until being asked for identification; thus, effects on turnout might not show up until the next election after the passage of legislation. Fourth, more research needs to be done on how different minority groups respond to voter identification laws uniquely. Fifth, voter identification legislation is harmful to confidence in our elections for minorities and needs to be repealed to restore participation and confidence.

ACKNOWLEDGMENTS

I would like to thank my UNC professors Andreas Jozwiak and Lucy Britt for their helpful comments and revisions made on this paper that I originally submitted for their insightful course on the intersection of race and U.S. voting rights.

REPRODUCITBILITY STATEMENT

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APPENDIX A

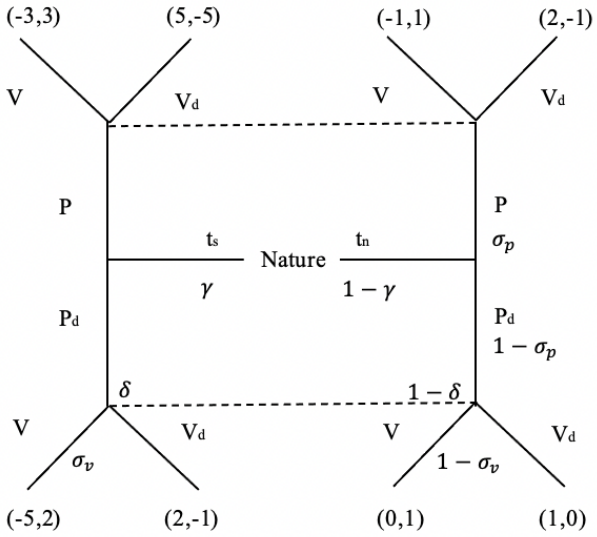

Figure 3. Extensive form Game Tree

APPENDIX B

Table 3. Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	25th Percentile	Median	75th Percentile	Max
Confidence in General Vote	8,149	1.302	0.580	1	1	1	2	4
Confidence in State Vote	9,459	1.693	0.782	1	1	2	2	4
Asked ID	6,532	0.708	0.455	0	0	1	1	1
State ID Law	9,462	2.094	1.493	1	1	1	3	5
Democrat = 1	9,462	0.344	0.475	0	0	0	1	1
Race	9,462	1.430	1.186	1	1	1	1	8

APPENDIX C

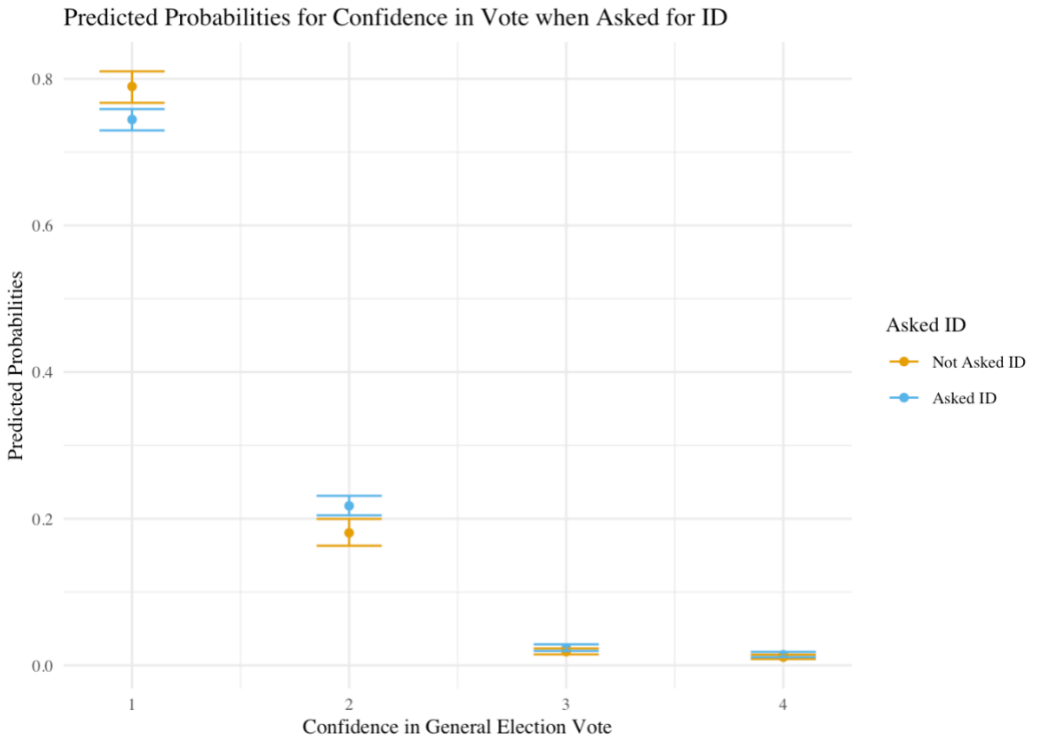

Figure 4.

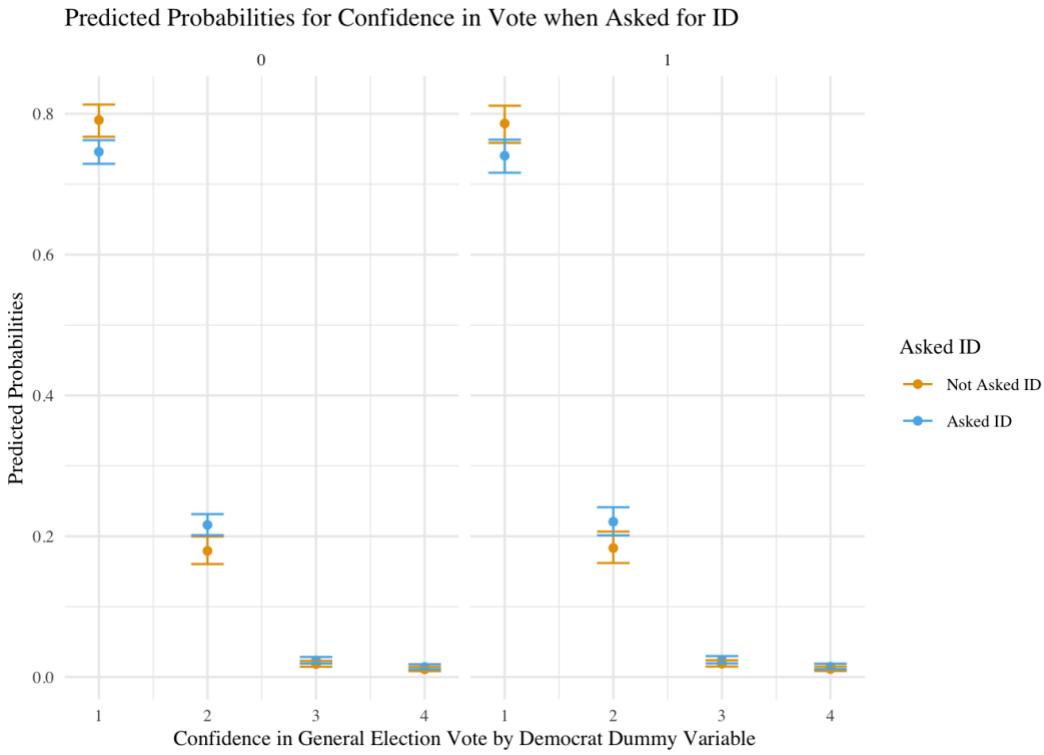

Figure 5.

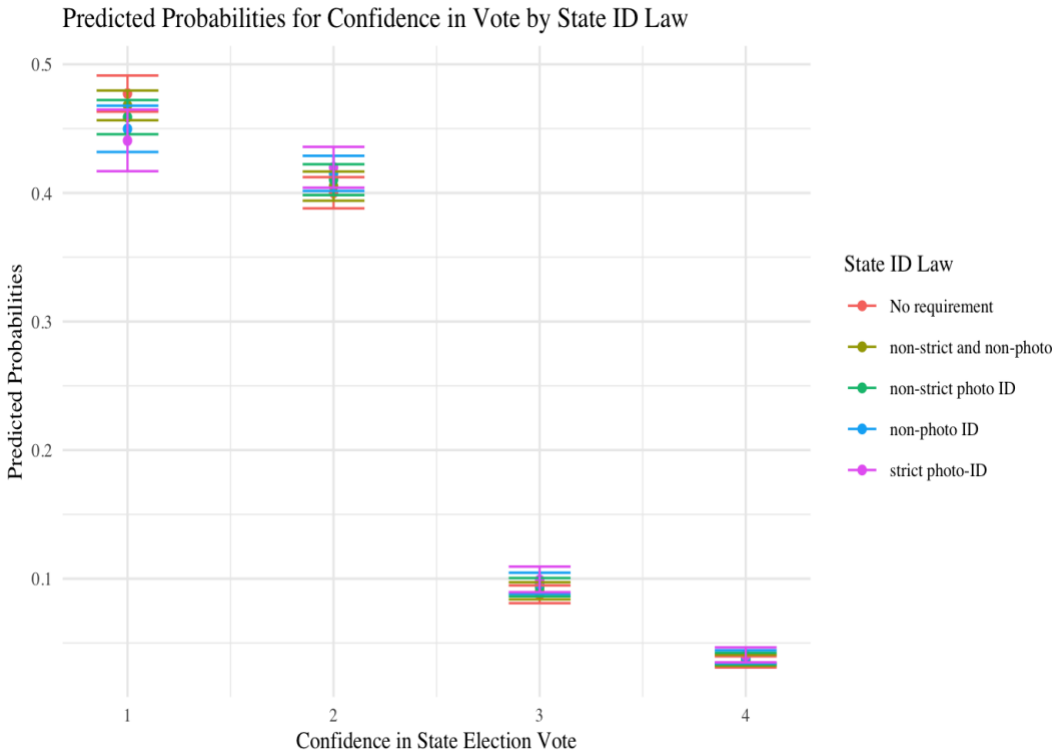

Figure 6.

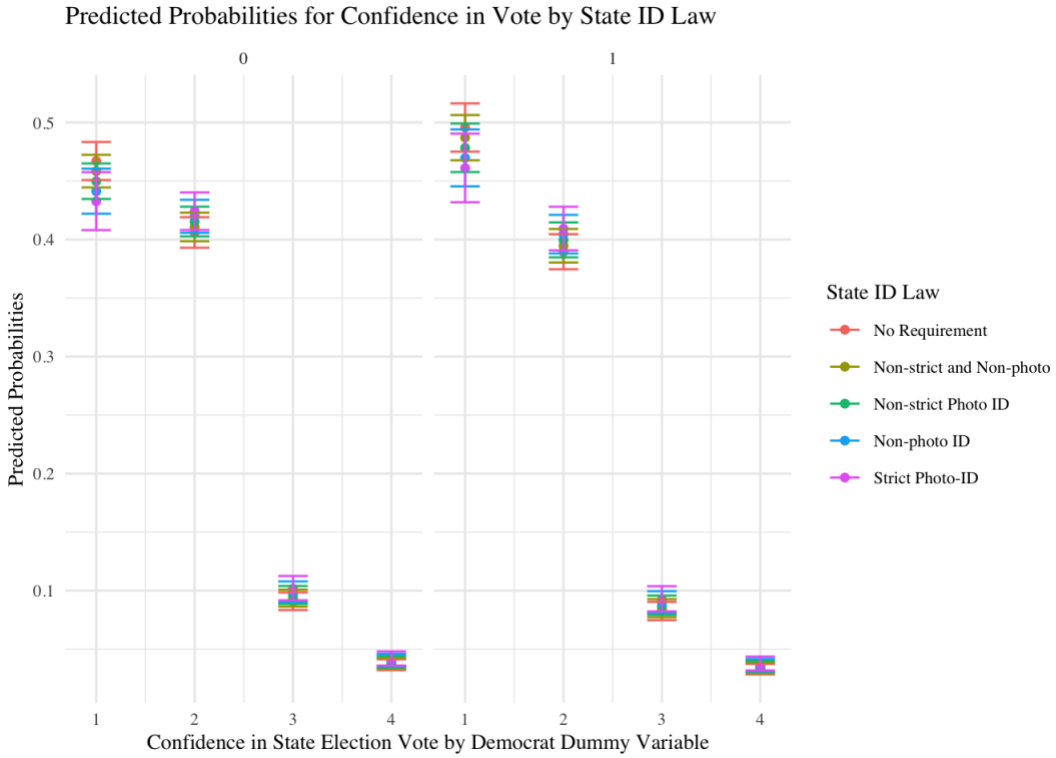

Figure 7.