

**Protecting the franchise, or restricting it?
The effects of voter identification requirements on turnout¹**

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Abstract

The literature on procedural barriers to voting has focused on registration deadlines, hours of poll operations, and even the physical characteristics of polling places to explain why voters do or do not show up on Election Day. Less is known, however, about the effects of voter identification requirements on turnout. These requirements have taken on heightened importance since the presidential election of 2000, with many states tightening their requirements to combat vote fraud since then. Forty-one states now require proof ranging from voter signatures to photo identification at the polling place. In this paper we examine the effects of these varying requirements on voter turnout. Drawing on previous research, we hypothesize that as the level of proof becomes more costly to the voter, turnout declines. We test our hypotheses using aggregate measures of turnout at the state and county levels in the 2004 presidential election, as well as individual-level data drawn from the Voter Supplement to the November 2004 Current Population Survey. This research has significant normative importance, in that it speaks to the difficulty of balancing the potentially competing aims of election integrity and access to voting.

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Introduction

Democratic norms regarding ballot access and the legitimacy of elections collide at the polling place on Election Day. A representative democracy ought to make voting accessible to as many qualified citizens as possible. But, at the same time, it is important to prevent vote fraud that could lead to an inaccurate outcome and illegitimate results. Conducting elections, therefore, becomes a balancing act between allowing maximum access to the ballot and preventing fraud in the casting of those ballots.

How to achieve this balance has sparked considerable debate in American politics. Supporters of strict voter identification requirements argue that the requirements are necessary to not only combat vote fraud, but also to safeguard the integrity of the electoral process and engender faith in the process among citizens (Young 2006). Opponents of strict voter identification requirements, however, contend that such rules represent an institutional barrier to voting, particularly for specific groups, including the poor, African-Americans, Hispanics, the elderly and people with disabilities (Baxter and Galloway 2005, Electionline.org 2002, Jacobs 2005, Young 2006). This argument holds that voter identification requirements create an extra demand on citizens, and thus may discourage some of them from participating in elections. Further, critics of voter identification requirements contend that the effect is greater based on specific forms of identification. Voting rights advocates argue that requiring voters to produce some form of government-issued photo identification on Election Day is more demanding than requiring, for example, that voters state their names at the polling place because of the various steps needed to procure a photo identification card, such as a driver's license.

This paper examines the potential variation in turnout rates based on the type of voter identification requirement in place in each state on Election Day 2004. We draw from two sets of data – aggregate turnout data at the county level for each state, and individual-level survey data included in the November 2004 Current Population Survey conducted by the U.S. Census Bureau. Classification of voter identification requirements comes from a review of state statutes that were in effect during the November 2004 election.² Controlling for demographic factors and contextual predictors of voter turnout, we examine whether the varying identification requirements affect turnout. We also focus on the potential variation in effect by race or ethnicity, one of the most intense points of disagreement in the current debate over voter identification requirements.

The paper proceeds as follows. We review the literature on institutional, contextual, and individual-level influences on voter turnout, and discuss the array of requirements that were in place in the states and the District of Columbia in November 2004. We then examine the relationship between voter identification requirements and turnout in 2004 using aggregate data collected at the county level and individual-level survey data. We conclude with a discussion of our findings and an enumeration of topics for future research in this area.

² We are indebted to the Moritz College of Law at The Ohio State University and the Eagleton Institute of Politics at Rutgers University for giving us access to the classification data. The data were compiled as part of a joint research project between Moritz and Eagleton under a contract with the U.S. Election Assistance Commission.

Literature Review

The rate at which citizens vote is one of the most basic and objective of democratic measures. For students of democratic theory and governance, voter turnout is often looked upon as one of the simplest measures of civic engagement. The key challenge in examining turnout is accounting for the factors that influence whether citizens vote. Previous research has examined a host of individual/demographic factors (Kleppner 1982, Chaney, Alvarez and Nagler 1998), environmental/contextual and social impacts (Abramson and Aldrich 1982, Winders 1999, McDonald and Popkin 2001, Southwell 1985) and administrative influences (Kelley 1967, Cassel and Luskin 1988, Kim and Petrocik 1975, Cox and Kousser 1981, Boyd 1989). Altogether, research has identified a wide variety of influences that have impacted the rate at which votes are cast in national elections. Most of these factors have fluctuated over time in their degree of influence, in many cases as a direct result of intentional policy decisions and administrative changes in how elections are handled.

It is these administrative factors that interest us, as they are directly caused by the actions of election administrators, organizers and legislators on both the state and federal level in attempts to protect and regulate the election process. While some other impacts on election turnout, such as the weather and natural catastrophic events (Barnhart 1925, Knack 1994, Achen and Bartels 2006), are interesting and informative, it is the actual design of the election process that can have the greatest impact upon turnout (Kim and Petrocik 1975, Lijphart 1990, Timpone 1998, Cox 1999). If elections have few restrictions on casting ballots, turnout will soar, but the legitimacy of the vote is weakened through the possibility of fraud. Conversely, as access to the ballot is restricted, more legitimate votes are lost along the way as eligible voters are unable or simply unwilling to meet all the requirements necessary to cast a ballot. This also affects the legitimacy of election results by altering the composition of the electorate. Election administration walks a fine line in ensuring both integrity and access in an attempt to validly measure the will of the people.

The very system of voter registration, which was initially intended to reduce fraudulent voting, has in itself been demonstrated to have an impact on voter turnout in ways initially unintended, or at least not touted at the time (Kelley 1967). The initial reduction in turnout noted with the inception of the registration system was associated mainly with reductions in fraudulent voting (Lapp 1909). Those reductions have also gone beyond the simple prevention of invalid votes, and have also been shown to depress the rate at which legitimately eligible citizens have been able to vote as well (Campbell et. al. 1960, Rosenstone 1978). While serving as a necessary check against voter fraud, registration has been continually demonstrated to systematically depress voter turnout, typically by around 10 percent, by creating an additional hurdle that qualified citizens must overcome in order to cast a ballot (Campbell et al. 1960, Kelley 1967, Rosenstone 1978, Powell 1986, Nardulli 1991, Mitchell 1995).

The distribution of this effect among the electorate has not been so random as to be considered negligible. If turnout was depressed uniformly across the electorate, in a random manner, it could be dismissed as neither damaging the legitimacy of the results, nor as being in such a systematic fashion as to deter the participation of the general population. The American

Voter was among the first works to suggest registration laws had a focused effect, mainly depressing turnout among the poor and less educated (Campbell et. al. 1960). This finding has been echoed in other works over the years and it is frequently accepted that registration laws have differential effects upon the electorate (Lijphart 1997, Highton 1997, Timpone 1998, though for an interesting counterpoint on the role of education, see Nagler 1991).

While registration laws have been cited for negatively affecting the less educated and poor, the requirements have also been demonstrated to impact heavily upon those who have moved prior to an election (Squire 1987, Highton 2000, Gimpel 2001). Felon disenfranchisement laws have also been shown to impact turnout, specifically among people of color (Uggen and Manza 2002).

In an attempt to help offset the costs of registration, Congress authorized the National Voter Registration Act of 1993 (“Motor Voter”). By permitting registration in all government offices, particularly motor vehicle centers, NVRA aimed to allow citizens a low-cost opportunity to register in a facility that they were likely to frequent at some point in their lives. To a degree, Motor Voter has been successful, and the costs of registration have been somewhat mitigated, boosting registration rates (Knack 1995, Highton 1998, Wolfinger 2001). Motor voter registrants are still more likely to be white and also tend to turn out in lower rates than non-motor voter registrants, but disadvantaged groups have benefited from the process on the whole (Wolfinger 2001). Motor voter registrants also tend to be younger rather than older, suggesting that young voters may still be brought onto the voting rolls, but that older voters may be more difficult to re-enlist (Knack 2000).

Policies concerning absentee and mail-in ballots also were designed to increase turnout. Absentee ballots and mail-in ballots have been demonstrated to significantly affect turnout rates, but mainly among those who were already likely to vote (Patterson 1985, Oliver 1996). Also, the increases provided by mail-in ballots seem to occur in mainly low-salience elections such as primaries, as opposed to more highly visible general elections (Magleby 1987, Karp and Banducci 2000).

Election Day registration (EDR) laws also have been shown to boost turnout, particularly among disadvantaged groups as opposed to likely voters (Knack 2000). EDR laws minimize the costs prior to an election and especially seem to benefit the young and those who have recently moved. In Highton’s 1998 study, he showed that EDR states had around 8.9 percent higher turnout, controlling for other influences.

In addition, early voting policies have the potential to influence the composition of the electorate. Early voting procedures mainly attract likely voters who make up their minds early in the election cycle. With those voters having already cast a ballot, however, campaigns are able to more directly target unlikely voters, providing for increased turnout among less likely voters as well (Stein 1998).

Parallel to the movement to make voting more accessible was an increasing focus on ballot security. In the wake of the 2000 presidential election, Congress adopted the Help America Vote Act of 2002 (HAVA). HAVA requires first-time voters to provide photo identification that

demonstrates their identity prior to registration. But an increasing number of states also are requiring voters to provide some form of identification on Election Day as well. By November 2004, 15 states required voters to provide a form of non-photo identification, such as a utility bill or credit card statement. Another five states required voters to provide photo identification at the polling place (Report to the U. S. Election Assistance Commission on Best Practices to Improve Voter Identification Requirements, 2006).³

Just as other alterations to the structure and administration of elections have been demonstrated to influence voter turnout, voter identification requirements have the potential to alter the composition of the electorate on Election Day. The two key questions we seek to address here are whether those costs are high enough to negatively influence turnout, and, if so, whether the influence varies across different segments of the population. We test these premises using both aggregate- and individual-level data from the November 2004 general election.

Data

States had one of five types of requirements in place on Election Day 2004 (Report to the U.S. Election Assistance Commission, 2006). Upon arrival at polling places, voters had to either: state their names (10 states); sign their names (13 states and the District of Columbia); match their signature to a signature on file with the local election board (seven states); provide a form of identification that did not necessarily include a photo (15 states); or provide a photo identification (five states).⁴ It was then possible to code the states according to these requirements, and test the assumption that voter identification requirements would pose an increasingly demanding requirement in this order: stating one's name, signing one's name, matching one's signature to a signature on file, providing a form of identification, and providing a form of photo identification.

But election laws in numerous states offer exceptions to these requirements if individuals lack the necessary form of identification, and laws in those states set a minimum standard that a voter must meet in order to vote using a regular ballot (as opposed to a provisional ballot). Thus it is also possible to categorize states based on the minimum requirement for voting with a regular ballot. In 2004 the categories were somewhat different compared to the maximum requirement, in that none of the states required photo identification as a minimum standard for voting with a regular ballot. Four states, however, required voters to swear an affidavit as to their identity (Florida, Indiana, Louisiana, and North Dakota). The five categories for minimum requirements were: state name (12 states), sign name (14 states and the District of Columbia), match one's signature to a signature on file (six states), provide a non-photo identification (14 states), or swear an affidavit (four states) (Report to the U.S. Election Assistance Commission, 2006). For the purposes of this analysis we also tested the array of minimum identification

³ In each of the five photo identification states, however, voters lacking a valid photo identification could vote using a regular ballot, as opposed to a provisional ballot, by providing either non-photo identification or by swearing an affidavit attesting to their identity (Report to the U.S. Election Assistance Commission, 2006).

⁴ Oregon conducts elections entirely by mail. Voters sign their mail-in ballots, and election officials match the signatures to signatures on file. For the purposes of this analysis, Oregon is classified as a state that requires a signature match.

requirements to assess whether they posed increasing levels of demand on the voter: state name, sign name, match signature, provide non-photo identification, and, given the potential legal consequences for providing false information, swearing an affidavit.

We examined turnout among U.S. citizens of voting age in both the aggregate- and the individual-level data. The aggregate data consisted of voter turnout at the county level, demographic characteristics of each county in terms of race, ethnicity, age, income, and education, registration closing dates in each state, and measures of the closeness of the presidential race, as well as races for governor and U.S. Senate in the relevant states.⁵ Individual-level turnout data came from the November 2004 Current Population Survey.

In the aggregate data, determining the percentage of the voting-age population that has U.S. citizenship posed a methodological challenge. The Census Bureau gathers information on the citizenship status of adults ages 18 and older only during the decennial census. While the Census Bureau provides annual estimates of the population to account for changes between decennial censuses, the bureau does not offer estimates for the proportion of the adult population who are citizens as part of the annual estimates. To address this issue we estimated the 2004 citizen voting-age population for each county using a method reported in the analysis of the 2004 Election Day Survey conducted for the U.S. Election Assistance Commission (U.S. Election Assistance Commission, 2005). We calculated the percentage of the 2000 voting-age population who were citizens in 2000, and applied that percentage to the July 1, 2004 estimates for voting-age population in each county. In other words, we assumed that the percentage of the voting-age population that had U.S. citizenship in 2004 was similar to the percentage of the voting-age population who were citizens in 2000.⁶

Determining citizenship status in the individual-level data simply involved restricting the analyses to individuals who identified themselves as citizens in the November 2004 Current Population Survey. (Those who said they were not citizens did not have the opportunity to answer the supplemental voting questions contained in the Current Population Survey.)

Analysis of aggregate data

If one treats maximum voter identification requirements as a continuous variable, with photo identification as the most demanding requirement, one finds some statistical support for the premise that as the level of required proof increases, turnout declines. Averaging across counties in each state, statewide turnout is negatively correlated with maximum voter identification requirements ($r = -.30, p < .05$). In considering the array of minimum requirements,

⁵ Turnout data came from Leip (2004), and demographic data came from the U.S. Census. Registration closing dates came from *The Book of the States 2005*, and measures of the closeness of races came from *The Almanac of American Politics*.

⁶ McDonald and Popkin (2001) recommend an even more stringent approach to voter turnout calculations. They point out that voting-age population estimates include adults who are ineligible to vote (such as convicted felons), and the estimates overlook eligible citizens living overseas. While estimates of the voting-eligible population are available at the state level, we were unable to find such estimates for individual counties, which provide the unit of analysis for the aggregate data analyzed here.

with affidavit as the most demanding requirement, however, the correlation between voter identification and turnout is negative, but it is not statistically significant ($r = -.20$, $p = .16$). This suggests that the relationship between turnout rates and minimum requirements may not be linear. Breaking down the turnout rates by type of requirement reveals in greater detail the relationship between voter identification requirements and voter turnout.

[Table 1 here]

The aggregate data show that 60.9 percent of the estimated citizen voting age population voted in 2004. Differences in voter turnout at the state level in 2004 varied based on voter identification requirements. Taking into account the maximum requirements, an average of 64.2 percent of the voting age population turned out in states that required voters to state their names, compared to 58.1 percent in states that required photo identification. A similar trend emerged when considering minimum requirements. Sixty-three percent of the voting age population turned out in states requiring voters to state their names, compared to 60.1 percent in states that required an affidavit from voters. Given the lack of a clear, consistent linear relationship between turnout and minimum identification requirements, however, we opted to treat the voter identification requirements as a series of dummy variables in subsequent analyses.

Voter identification requirements alone do not determine turnout. Multivariate models that take into account other predictors of voting can paint a more complete picture of the relationship between voter identification requirements and turnout. We estimated the effects of voter identification requirements in multivariate models that also controlled for the electoral context in 2004 and demographic characteristics of the population in each county.

We coded the voter identification requirements as a series of dummy variables, coding each variable as one if the requirement existed in a given state, and zero otherwise. This yielded five dichotomous variables for maximum requirements (state name, sign name, match signature, non-photo identification, or photo identification), and five dichotomous variables for minimum requirements (state name, sign name, match signature, non-photo identification, or providing an affidavit). We omitted the variable for stating one's name so that it could serve as the reference category in comparison with the other four identification requirements in each of the statistical analyses.

To capture electoral context we included whether the county was in a presidential battleground state (any state in which the margin of victory for the winning candidate was five percent or less), and whether the county was in a state with a competitive race for governor and/or the U.S. Senate (also using the threshold of a margin of victory of five percent or less). Another contextual factor to consider is voter registration requirements, such as the deadline for registration. As states set the deadline farther away from Election Day, the task of remembering to register to vote becomes more challenging. Adopting an approach used by Knack (1995), we chose to create two dummy variables – one for states that have Election Day registration, and one for states that close registration at least 28 days before Election Day.⁷

⁷ Knack argues persuasively that combining Election Day registration states and states that have closing dates into one continuous variable overlooks the nonlinear nature of the measure, in that

Drawing from U.S. Census projections for 2003, we included the percentage of the voting-age population in each county that was Hispanic or African-American to control for ethnicity and race. We controlled for age using the 2003 Census projection for the percentage of county residents age 65 and older. We controlled for socioeconomic status by including the 2004 projected percentage of the county's population that had a four-year college degree, and each county's median household income for 2002.⁸

We estimated a series of random effects models to account for the likelihood that data from counties were correlated within each state (for further explanation of random effects and other multilevel models, see Bryk and Raudenbush 1992, Luke 2004, Singer 1998).⁹ We allowed the median income variable to have both fixed and random effects in each state to take into account variation in the cost of living in each state. The dependent variable in each model was voter turnout at the county level, with turnout calculated as the percentage of the estimated citizen voting-age population that voted in the 2004 election.

[Table 2 here]

Turning first to an analysis using the maximum identification requirements, two of the four requirements had a small and negative effect on turnout in 2004: matching one's signature and providing a form of non-photo identification. Taking into account the reference variable of stating one's name, the results indicate that turnout was lower in states that required signature matches or a non-photo identification than in states that required voters to simply state their name, holding constant the electoral context and demographic variables.

Two contextual factors -- whether the county was in a state that was a presidential battleground state and whether that state had a competitive race for governor and/or U.S. Senate -- increased voter turnout. Whether the state had Election Day registration had a positive effect on turnout, but the dummy variable for the closing date of registration did not have a significant effect. As the percentage of Hispanics in the county's population increased, turnout declined. The same was true of African-Americans. The percentage of senior citizens and college graduates in the county and household median income had positive effects on turnout.

The effects of the minimum voter identification requirements were non-existent. None of the dummy variables for voter identification requirements were statistically significant. Being a battleground state and having a competitive statewide race were significant and positive, as was the percentage of senior citizens and college graduates in the county and household median income. The percentages of Hispanics and African-Americans in the county's population

the difference between zero (for Election Day registration states) and one is far different from one-unit differences elsewhere on the scale.

⁸ To bring the income figures into a scale comparable to those of the other variables, we used the natural log of median household income.

⁹ The data analyses provided evidence that there was, indeed, a clustering of data within each state. The intraclass correlation, bounded by 0 and 1, measures the variation between the states. A random intercept model using only the intercept as a predictor generated an intraclass correlation of .43, indicating considerable variation between the states.

continued to have a negative effect on turnout. Election Day registration continued to exert a positive influence on turnout, while closing off registration at least 28 days before the election had a negative effect.

We then sought to test the hypothesis that voter identification requirements dampen turnout among minorities, a claim voiced by some critics of the requirements. To test this idea we incorporated a series of interactions between the maximum and minimum voter identification requirements and the percentage of African-Americans and Hispanics living in the counties. Results of the analyses showed that, in each case, the interactions did not improve the fit of the models to the data. A chi-square test of the difference in the deviance for each model (represented by $-2 \log$ likelihood in Table 2), showed no significant improvement by including the interactions ($p > 0.05$). Thus the models failed to generate evidence to support the claim that stricter voter identification requirements have a disproportionately negative effect on African-Americans and Hispanics.

Analysis of the aggregate data at the county level generates some support for the hypothesis that as the identification requirements for voting vary, so does turnout. Specifically, in terms of the maximum requirements, the results suggest that requiring a signature match or non-photo identification is negatively related to turnout compared to requiring that a voter state his or her name. But the analysis showed that adding interactions between identification requirements and the percentage of the county that was African-American or Hispanic did not improve the fit of the model to the data.

Aggregate data, however, cannot fully capture the individual demographic factors that may figure into the decision to turn out to vote. For example, previous research has found that factors ranging from whether one is a native-born citizen to residential mobility also have emerged as significant predictors of turnout (Alvarez and Ansolabehere 2002, Alvarez et al. 2004, Kenney et al. 1993, Wolfinger and Rosenstone 1980). Married individuals also are more likely to vote than those who are not married (Alvarez and Ansolabehere 2002; Alvarez, Nagler and Wilson 2004; Fisher, Kenny, and Morton 1993). To fully explore the effects of voter identification requirements on turnout, it is important to examine individual-level data as well.

Individual-level analysis

Individual-level turnout data exists in the November 2004 Current Population Survey conducted by the U.S. Census Bureau. The Census Bureau conducts the CPS monthly to measure unemployment and other workforce data, but the bureau adds a battery of voter participation questions to the November survey in even-numbered years to coincide with the presidential and midterm Congressional elections.

One of the advantages of the CPS is the sheer size of the sample. The survey's Voting and Registration Supplement consisted of interviews, either by telephone or in person, with 96,452 respondents.¹⁰ The large sample size permits analyses of smaller groups, such as Black

¹⁰ It is important to note that the Census Bureau allows respondents to answer on behalf of themselves and others in the household during the interview. While proxy reporting of voter turnout raises the possibility of inaccurate reports concerning whether another member of the

or Hispanic voters. The analyses reported here are based on reports from self-described registered voters. We omitted those who said they were not registered to vote. We also excluded those who said they cast absentee ballots because the identification requirements for absentee ballots may differ from those required when one votes in person. In addition, we eliminated from the sample respondents who said they were not U.S. citizens because the questionnaire design skipped those individuals past the voter registration and turnout questions in the survey.

The dependent variable in these analyses is whether a respondent said he or she voted in the November 2004 election.¹¹ As in the analysis of aggregate data, we coded the voter identification requirements as a series of dummy variables, coding each variable as one if the requirement existed in a given state, and zero otherwise. This yielded five dichotomous variables for maximum requirements (state name, sign name, match signature, non-photo identification, or photo identification), and five dichotomous variables for minimum requirements (state name, sign name, match signature, non-photo identification, or providing an affidavit). We omitted the variable for stating one's name so that it could serve as the reference category in comparison with the other four identification requirements in each of the statistical analyses.

In addition to the voter identification requirements, the models include two other state-level factors that might have influenced turnout in 2004: whether the state was considered a battleground state in the presidential election, and whether there was a gubernatorial and/or U.S. Senate race in the state (see Alvarez and Ansolabehere 2002, Alvarez et al. 2004, and Kenny et al. 1993 for similar approaches). As in the aggregate data analysis, the threshold that determined whether the state was a battleground state or had a competitive statewide race was a margin of victory of five percent or less.¹² At the individual level, we controlled for gender, household income, and dummy variables for race/ethnicity, age and education. In terms of race and ethnicity, we created dummy variables to represent whether a voter was Black/non-Hispanic, Hispanic, or Asian (with white/non-Hispanic/other voters as the omitted category for reference purposes). We separated education into five dummy variables: less than high school, high school diploma, some college, college graduate, and graduate training. We omitted the "less than high

household voted, follow-up interviews with those for whom a proxy report had been given in the November 1984 CPS showed 99 percent agreement between the proxy report and the information given by the follow-up respondent (U.S. Census Bureau 1990).

¹¹ The U.S. Census Bureau reported, based on the November 2004 CPS, that 89 percent of those who identified themselves as registered voters said they voted in 2004 (U.S. Census Bureau 2005). Previous research has shown that, generally speaking, some survey respondents overstate their incidence of voting. Researchers speculate that over-reports may be due to the social desirability that accompanies saying one has done his or her civic duty, or a reluctance to appear outside the mainstream of American political culture (U.S. Census Bureau 1990). It is also possible that voting is an indication of civic engagement that predisposes voters to agree to complete surveys at a higher rate than non-voters (Flanigan and Zingale 2002). Hence the voter turnout rates reported in the CPS tend to be up to 10 percentage points higher than the actual turnout rate for the nation (Flanigan and Zingale 2002). Even with this caveat, however, the CPS serves as a widely accepted source of data on voting behavior.

¹² Given that the individual-level analysis focused on registered voters (as opposed to the citizen voting-age population in the aggregate analysis), we did not include the closing date for registration or Election Day registration as predictors of turnout in the individual-level analysis.

school” variable from the model for reference purposes. Regarding age, we created four dummy variables to represent 18 to 24 years of age, 25 to 44, 45 to 64, and 65 years and older. We omitted the 18-to-24 category as the reference variable in the model.

Drawing on previous research in voting behavior, we also controlled for whether an individual was employed, or at least a member of the workforce (as opposed to being a full-time student, a homemaker, or retired). Both employment and workforce membership have been shown to be positive predictors of turnout (see Mitchell and Wlezien 1995). Marital status, whether one is a native-born citizen and residential mobility also have emerged as significant predictors of turnout (Alvarez and Ansolabehere 2002, Alvarez et al. 2004, Kenney et al. 1993, Wolfinger and Rosenstone 1980). We included in the model variables for whether a respondent was married (coded 1 if yes, 0 otherwise), and whether one was a native-born citizen (coded 1 if yes, 0 otherwise). We measured residential mobility by coding for whether the respondent had moved to a new address in the six months prior to the interview (coded 1 if yes, 0 otherwise).

Results

The dependent variable is whether a respondent said he or she voted in the November 2004 election (coded 1 for yes, 0 for no). We estimated models using probit analysis, which calculates the effects of independent variables on the probability that an event occurred – in this case whether a respondent said he or she voted. We estimated the models using robust standard errors to control for correlated error terms for observations from within the same state.

[Table 3 here]

The two models in Table 3 use either the maximum or minimum voter identification requirements in each state. The two models generate similar results. In each model, three of the voter identification requirements exert a statistically significant, negative effect on whether survey respondents said they had voted in 2004. In other words, compared to states that require voters only to state their names, the requirements to sign one’s name, provide a non-photo identification, or photo identification in the maximum requirements or affidavit in the minimum requirements exert a negative influence on turnout.

Of the other state-level factors, only the competitiveness of the presidential race had a significant effect on turnout. In terms of demographic influences, African-American voters were more likely than white voters or other voters to say they had cast a ballot, while Asian-Americans were less likely than white or other voters to say they had turned out. Hispanic voters were not statistically different from white or other voters in terms of reported turnout. Consistent with previous research, education, income, and marital status all were positive predictors of voting. Women also were more likely to say they voted than men. Among the age categories, those ages 45 to 64 and 65 and older were more likely than those ages 18 to 24 to say they voted. Respondents who had earned a high school diploma, attended some college, graduated from college or attended graduate school were all more likely to say they voted than those who had not finished high school. Respondents who had moved within six months before the interview were less likely to say they had voted.

While the probit models provide statistical support for the influence of voter identification requirements and other variables on turnout, probit coefficients do not lend themselves to intuitive interpretation. Another common approach in studies of election requirements is to examine how the predicted probability of voter turnout would vary as election requirements vary. We used the probit coefficients to calculate the predicted probability of voting at each level of voter identification requirements while holding all other independent variables in the models at their means.¹³ We calculated the probabilities taking into account both maximum and minimum requirements.

[Table 4 here]

Taking into account that signature matches were not a predictor of turnout, the differences in predicted probability appear to decline from stating one's name to providing a photo identification or affidavit. Voters in states that required photo identification were 2.9 percent less likely to vote than voters in states where individuals had to give their names.¹⁴ In terms of the minimum requirement, voters in states that required an affidavit at minimum were 4 percent less likely to turn out than voters in states where they had to give their names.

The differences were more pronounced for those lower in education. Constraining the model to show predicted probabilities only for those with less than a high school diploma, the probability of voting was 5.1 percent lower in states that required photo identification as the maximum requirement and 7 percent lower in states that required an affidavit as the minimum requirement compared to states where stating one's name was the maximum or minimum requirement.

Race and ethnicity have generated particular interest in the debate over voter identification requirements. But incorporating dummy variables for Hispanics, African-Americans, and Asian-Americans into one model carries the implicit assumption that the remaining variables, including education, income and whether a citizen was born in the United States or naturalized, will influence each of these groups in a similar manner in terms of deciding whether to vote. These assumptions are not always supported by the data (see Leighley and Vedlitz, 1999.) To isolate the effects of voter identification and other variables on voter turnout within specific racial and ethnic groups, we divided the sample into sub-samples and re-ran the probit models.

[Table 5 here]

¹³ In the case of dichotomous independent variables, holding them at their mean amounted to holding them at the percentage of the sample that was coded 1 for the variable (Long 1997).

¹⁴ The voter turnout percentages may seem disproportionately high compared to the turnout rates reported in the aggregate data analysis. It is important to consider that the turnout rates in the aggregate data were a proportion of all citizens of voting-age population, while the turnout rates for the individual-level data are the proportion of only self-identified registered voters who said they voted.

The effects of voter identification requirements were similar for white voters compared to the entire sample, which was not surprising given that white voters comprised 81 percent of the sample. Voters in states where the maximum requirement involved signing one's name, providing a non-photo identification or photo identification were less likely to vote than those in a state that required voters to give their names. Taking into consideration the minimum requirements, this was true only for voters in states that require a non-photo identification or an affidavit. White voters in photo identification states were 3.7 percent less likely to vote than were white voters in states where respondents gave their names. The difference in probability was 4.4 percent for voters in states where an affidavit was the minimum requirement.¹⁵

Voter identification requirements also influenced turnout among Black voters, but to a lesser extent relative to white voters.

[Table 6 here]

Of the maximum voter identification requirements, only the non-photo identification requirement reduced turnout compared to turnout in states that required voters to state their names. The predicted probability of voting was 5.7 percent lower for Black respondents in states that required non-photo identification. In terms of age, only African-Americans age 65 and older were more likely to vote than respondents in the 18 to 24 referent group. Respondents in all levels of education were more likely to vote than respondents without a high school diploma. Gender, income, living in a battleground state, being a part of the workforce and having been born in the United States also were positive predictors. Recent mobility tended to lower the probability of voting. None of the minimum identification requirements had a significant effect on voting, while most of the remaining variables had effects similar to those in the maximum requirement model.

Hispanic voters also were less likely to vote in states that required non-photo identification as opposed to stating one's name.

[Table 7 here]

Using the coefficients from Table 7 to calculate predicted probabilities, for both the maximum and minimum requirements, Hispanic voters were 10 percent less likely to vote in non-photo identification states compared to states where voters only had to give their name. Hispanic voters ages 45 to 64 and 65 and over were more likely to vote than their 18-to-24-year-old counterparts. Education and income also were positive predictors of voting. Interestingly, being a native-born citizen lowered the probability of voting, while native-born citizenship was a positive predictor for African-American voters and was not a predictor at all for white voters. It may be that naturalized citizens of Hispanic descent are more conscious of the value of voting rights than other groups.

Varying voter identification requirements influenced Asian-American voters as well. As with Hispanic and Black voters, Asian-American voters were less likely to turn out in states with

¹⁵ Complete tables of predicted probabilities for each racial and ethnic group discussed here are available from the authors on request.

non-photo identification requirements than in states where voters gave their names. Asian-American voters also were less likely to turn out in states where they had to sign their names as opposed to stating their names at the polling place.

[Table 8 here]

Using the probit coefficients to calculate predicted probabilities, Asian-American voters were 8.5 percent less likely to vote in states that required non-photo identification compared to states that require voters to state their names under the maximum requirements, and they were 6.1 percent less likely to vote where non-photo identification was the minimum requirement. Asian-American voters also were 2.2 percent less likely to vote when signatures were the maximum requirement compared to stating one's name.

There were no significant differences in terms of age or income. In contrast to Hispanic voters, whether one was a naturalized or natural-born citizen did not affect the probability of voting. Those with high school or college diplomas or graduate training were more likely to turn out than those with less than a high school diploma. Women and married voters also were more likely to turn out than men and voters who were not married.

Discussion and conclusion

The results presented here provide evidence that as voter identification requirements vary, voter turnout does as well. This point emerged from both the aggregate data and the individual-level data, although not always for both the maximum and minimum sets of requirements. The overall effect for all registered voters was fairly small, but still statistically significant.

In the aggregate data, requirements that voters match signatures on file or provide a non-photo identification had negative effects on turnout compared to requiring that voters state their names. Interactions with specific groups – African-Americans and Hispanics – did not improve the fit of the aggregate data to the models. But differences emerged among specific groups in the individual-level data. For the overall sample, the signature, non-photo identification and photo identification requirements all had negative effects compared to the requirement that voters simply state their names. These effects translated into reduced probabilities of voting of about 3 to 4 percent for the entire sample, with larger differences for specific subgroups. For example, the predicted probability that Hispanics would vote in states that required non-photo identification was about 10 percentage points lower than in states where Hispanic voters gave their names. The difference was about 6 percent for African-Americans and Asian-Americans, and about 2 percent for white voters (the gap widened to 3.7 percent for white voters when comparing photo identification to simply stating one's name).

That the non-photo identification requirement was the most consistent in terms of statistical significance across the groups is intriguing given the intense debates surrounding photo identification requirements. This begs the question as to why photo identification requirements did not have a greater influence in 2004. It may have been due to the fact that while

photo identification was a maximum requirement in five states, each of those states accepted another type of identification as a minimum requirement.

In examining the effects of voter identification requirements on turnout, there is still much to learn. The data examined in this project could not capture the dynamics of how identification requirements might lower turnout. If these requirements dampen turnout, is it because individuals are aware of the requirements and stay away from the polls because they cannot or do not want to meet the requirements?¹⁶ Or, do the requirements result in some voters being turned away when they cannot meet the requirements on Election Day? The CPS data do not include measures that can answer this question. Knowing more about the “on the ground” experiences of voters concerning identification requirements could guide policy-makers at the state and local level in determining whether and at what point in the electoral cycle a concerted public information campaign might be most effective in helping voters to meet identification requirements. Such knowledge also could help in designing training for election judges to handle questions about, and potential disputes over, voter identification requirements.

This research also is unable to answer the question of whether stricter voter identification requirements succeed at preventing vote fraud. The results, instead, tell part of the story. It appears that stringent requirements can reduce turnout. But it remains to be seen whether the reduction in turnout is the price to pay for greater ballot security. That may, indeed, be the case. But it is also possible that strict voter identification requirements, designed to promote legitimate election results, could actually undermine that legitimacy instead .

¹⁶ The individual-level data offer some insight here. If advance knowledge of the voter identification requirements were to dampen turnout, it is reasonable to expect that advance knowledge of those requirements also could discourage some individuals from registering to vote. We ran the same probit models using the November 2004 Current Population Survey data and voter registration as the dependent variable (coded 1 if the respondent said he or she was registered, and 0 if the respondent was not registered). Of all of the voter identification requirements, only requiring signatures or matching signatures had a significant effect on whether a respondent said he or she was registered to vote in 2004. In each instance the effect was negative.

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Table 1 – Variation in 2004 State Turnout Based on Voter Identification Requirements			
Maximum Requirement		Minimum Requirement	
Voter Identification Required in the States	Mean Voter Turnout for States in that Category	Voter Identification Required in the States	Mean Voter Turnout for States in that Category
State Name	64.2 %	State Name	63.0 %
Sign Name	61.1 %	Sign Name	60.8 %
Match Signature	60.9 %	Match Signature	61.7 %
Provide Non-Photo ID	59.3 %	Provide Non-Photo ID	59.0 %
Provide Photo ID	58.1 %	Swear Affidavit	60.1 %
Average Turnout for All States	60.9 %		

Table 2. Predictors of 2004 turnout at the county level taking into account maximum and minimum voter identification requirements				
Variable	Maximum Requirements		Minimum Requirements	
	Unstandardized Estimate	Standard Error	Unstandardized Estimate	Standard Error
Intercept	-0.91**	0.14	-0.93**	0.14
Sign Name	-0.01	0.01	0.002	0.02
Match Signature	-0.02*	0.01	0.01	0.02
Non-photo ID	-0.03**	0.01	0.004	0.02
Photo Identification	-0.01	0.02	----	----
Affidavit	----	----	0.01	0.02
Battleground State	0.04**	0.01	0.04**	0.01
Competitive Senate/Governor's Race	0.03*	0.01	0.03*	0.02
Registration Closing \geq 28 Days	-0.02	0.012	-0.03*	0.01
Election Day Registration	0.04**	0.017	0.05**	0.02
% African-American	-0.02*	0.01	-0.02*	0.01
% Hispanic	-0.06**	0.01	-0.06**	0.01
% Age 65 or older	0.81**	0.03	0.82**	0.03
Median Household Income	0.09**	0.01	0.09**	0.01
% College Graduate	0.42**	0.02	0.42**	0.02
-2 Log Likelihood	-9338.0		-9334.0	

Coefficients are restricted maximum likelihood estimates. N = 3,111. * p < .05 ** p < .01 (one-tailed tests)

Table 3. Probit model of voter turnout.				
Variable	Maximum Requirements		Minimum Requirements	
	Unstandardized Estimate	Standard Error	Unstandardized Estimate	Standard Error
Sign name	-0.11*	0.05	-0.08*	0.04
Match signature	-0.04	0.05	-0.03	0.05
Non-photo ID	-0.16**	0.06	-0.15**	0.05
Photo ID	-0.17**	0.07	----	----
Affidavit	----	----	-0.23**	0.06
Hispanic	-0.08	0.05	-0.08	0.05
African-American	0.24**	0.04	0.24**	0.04
Asian-American	-0.37**	0.07	-0.38**	0.07
Age 25-44	0.004	0.02	0.003	0.02
Age 45-64	0.26**	0.03	0.26**	0.03
Age65+	0.43**	0.03	0.43**	0.03
High School	0.31**	0.02	0.31**	0.02
Some college	0.57**	0.03	0.57**	0.03
College	0.88**	0.04	0.88**	0.04
Graduate School	0.98**	0.05	0.98**	0.05
Household income	0.03**	0.003	0.03**	0.003
Married	0.23**	0.02	0.23**	0.02
Female	0.10**	0.01	0.10**	0.01
Battleground state	0.17**	0.04	0.18**	0.04
Competitive race	0.05	0.06	0.05	0.05
Employed	0.05	0.05	0.05	0.05
Member of workforce	-0.05	0.05	-0.05	0.05
Native-born citizen	0.02	0.04	0.02	0.04
Moved within past 6 months	-0.29**	0.03	-0.29**	0.03
Constant	-0.09	0.10	-0.09	0.09
Pseudo-R-Squared	0.09		0.10	

Notes: N = 54,973 registered voters

p < .05* p < .01** (one-tailed tests)

Models were estimated with robust standard errors to correct for correlated error terms within each state.

Data source: U.S. Census Bureau, Current Population Survey, Voting and Registration Supplement, November 2004

Table 4. Predicted probability of voter turnout – full model		
	Maximum requirement	Minimum requirement
State name	0.917	0.915
Sign name	0.899	0.902
Match signature	(N.S.)	(N.S.)
Non-photo ID	0.890	0.890
Photo ID	0.888	----
Affidavit	----	0.875
Total difference from “state name” to “photo identification” or “affidavit”	0.029	0.040
N	54,973	
<p>Figures represent the predicted probability of registered voters saying they voted as the identification requirement varies stating one’s name to providing photo identification or an affidavit, with all other variables held constant. N.S. = nonsignificant coefficient in the probit model.</p> <p>Data source: U.S. Census Bureau, Current Population Survey, Voting and Registration Supplement, November 2004.</p>		

Table 5. Probit model of turnout for White voters.

Variable	Maximum Requirements		Minimum Requirements	
	Unstandardized Estimate	Standard Error	Unstandardized Estimate	Standard Error
Sign name	-0.10*	0.05	-0.07	0.04
Match signature	-0.04	0.05	-0.01	0.06
Non-photo ID	-0.14**	0.06	-0.14**	0.06
Photo ID	-0.22**	0.08	----	----
Affidavit	----	----	-0.26**	0.05
Age 25-44	-0.01	0.03	-0.01	0.03
Age 45-64	0.25**	0.03	0.25**	0.03
Age65+	0.44**	0.04	0.44**	0.04
High School	0.36**	0.03	0.36**	0.03
Some college	0.64**	0.03	0.64**	0.03
College	0.95**	0.04	0.96**	0.04
Graduate School	1.05**	0.05	1.05**	0.05
Household income	0.03**	0.004	0.03**	0.003
Married	0.27**	0.02	0.27**	0.02
Female	0.09**	0.01	0.09**	0.01
Battleground state	0.16**	0.04	0.16**	0.04
Competitive race	0.07	0.07	0.07	0.06
Employed	0.08	0.05	0.08	0.05
Member of workforce	0.0003	0.05	0.003	0.05
Native-born citizen	0.08	0.08	0.08	0.08
Moved within past 6 months	-0.28**	0.03	-0.28**	0.03
Constant	-0.23*	0.11	-0.24**	0.10
Pseudo-R-Squared	.10		.10	

Notes: N = 44,760 registered voters

p < .05* p < .01** (one-tailed tests)

Models were estimated with robust standard errors to correct for correlated error terms within each state.

Data source: U.S. Census Bureau, Current Population Survey, Voting and Registration Supplement, November 2004

Table 6. Probit model of turnout for African-American voters.				
Variable	Maximum Requirements		Minimum Requirements	
	Unstandardized Estimate	Standard Error	Unstandardized Estimate	Standard Error
Sign name	-0.13	0.09	-0.08	0.13
Match signature	-0.05	0.10	-0.17	0.13
Non-photo ID	-0.24**	0.07	-0.14	0.12
Photo ID	-0.10	0.12	----	----
Affidavit	----	----	-0.05	0.19
Age 25-44	-0.004	0.09	-0.004	0.09
Age 45-64	0.12	0.09	0.13	0.09
Age65+	0.30**	0.12	0.31**	0.12
High School	0.24**	0.06	0.25**	0.06
Some college	0.40**	0.07	0.40**	0.07
College	0.69**	0.08	0.68**	0.08
Graduate School	0.99**	0.19	0.98**	0.19
Household income	0.04**	0.01	0.05**	0.008
Married	0.11	0.07	0.11	0.07
Female	0.14**	0.04	0.14**	0.04
Battleground state	0.13*	0.07	0.21**	0.08
Competitive race	-0.10	0.07	-0.16	0.10
Employed	-0.09	0.11	-0.09	0.10
Member of workforce	-0.32**	0.12	-0.31**	0.11
Native-born citizen	0.31**	0.11	0.28**	0.12
Moved within past 6 months	-0.32**	0.06	-0.32**	0.06
Constant	0.16	0.18	0.12	0.17
Pseudo-R-Squared	0.09		0.09	

Notes: N = 5,013 registered voters

p < .05* p < .01** (one-tailed tests)

Models were estimated with robust standard errors to correct for correlated error terms within each state.

Data source: U.S. Census Bureau, Current Population Survey, Voting and Registration Supplement, November 2004

Table 7. Probit model of turnout for Hispanic voters.				
Variable	Maximum Requirements		Minimum Requirements	
	Unstandardized Estimate	Standard Error	Unstandardized Estimate	Standard Error
Sign name	-0.20	0.20	-0.19	0.11
Match signature	-0.12	0.20	-0.18	0.12
Non-photo ID	-0.40*	0.20	-0.38**	0.13
Photo ID	-0.13	0.23	----	----
Affidavit	----	----	-0.25	0.16
Age 25-44	0.11	0.09	0.11	0.09
Age 45-64	0.35**	0.10	0.36**	0.10
Age65+	0.38**	0.11	0.40**	0.11
High School	0.18**	0.08	0.19*	0.08
Some college	0.46**	0.07	0.46**	0.07
College	0.63**	0.11	0.64**	0.11
Graduate School	0.72**	0.13	0.73**	0.13
Household income	0.03**	0.01	0.03**	0.01
Married	0.05	0.06	0.05	0.06
Female	0.09*	0.04	0.09*	0.04
Battleground state	0.31**	0.06	0.36**	0.07
Competitive race	-0.06	0.13	-0.05	0.13
Employed	0.13	0.12	0.14	0.12
Member of workforce	0.07	0.13	0.08	0.13
Native-born citizen	-0.18**	0.07	-0.20**	0.07
Moved within past 6 months	-0.38**	0.08	-0.39**	0.08
Constant	0.22	0.27	0.21	0.20
Pseudo-R-Squared	0.08		0.08	

Notes: N = 2,860 registered voters

p < .05* p < .01** (one-tailed tests)

Models were estimated with robust standard errors to correct for correlated error terms within each state.

Data source: U.S. Census Bureau, Current Population Survey, Voting and Registration Supplement, November 2004

Table 8. Probit model of turnout for Asian-American voters.				
	Maximum Requirements		Minimum Requirements	
Variable	Unstandardized Estimate	Standard Error	Unstandardized Estimate	Standard Error
Sign name	-0.37**	0.20	-0.26	0.17
Match signature	-0.17	0.22	-0.01	0.21
Non-photo ID	-0.40**	0.21	-0.28*	0.16
Photo ID	-0.30	0.21	----	----
Affidavit	----	----	0.12	0.30
Age 25-44	-0.11	0.23	-0.10	0.23
Age 45-64	0.06	0.26	0.08	0.26
Age 65+	0.14	0.36	0.17	0.34
High School	0.54**	0.21	0.55**	0.21
Some college	0.36	0.31	0.36	0.31
College	0.67**	0.22	0.66**	0.23
Graduate School	0.57*	0.25	0.55*	0.26
Household income	0.01	0.01	0.01	0.01
Married	0.34**	0.13	0.34**	0.13
Female	0.16*	0.09	0.16*	0.08
Battleground state	0.29*	0.14	0.23	0.16
Competitive race	0.33*	0.19	0.27	0.22
Employed	-0.24	0.33	-0.25	0.33
Member of workforce	-0.54	0.35	-0.55	0.35
Native-born citizen	0.14	0.12	0.16	0.11
Moved within past 6 months	-0.38*	0.17	-0.39*	0.17
Constant	0.36	0.52	0.29	0.51
Pseudo-R-Squared	0.08		0.08	

Notes: N = 912 registered voters

$p < .05^*$ $p < .01^{**}$ (one-tailed tests)

Models were estimated with robust standard errors to correct for correlated error terms within each state.

Data source: U.S. Census Bureau, Current Population Survey, Voting and Registration Supplement, November 2004