

Abstract

Poll workers operate on the front lines of American elections. They are the individuals most directly responsible for confirming voter eligibility and deciding whether to issue prospective voters standard or provisional ballots. Using individual level demographic data on poll workers and data on the racial and ethnic makeup of precincts in the city of Chicago, this paper examines the relationship between descriptive representation amongst poll workers, poll workers' connection to the neighborhood where their assigned precinct is located, and the number of provisional ballots cast during the 2018 midterm elections. While I find no significant effects of descriptive representation for Black and Hispanic / Latinx residents, there is some evidence suggesting that the number of White poll workers in a precinct moderate provisional voting in precincts with higher Hispanic / Latinx populations. I also find no significant relationship between poll workers' connection to their neighborhood and provisional voting rates. Practical data limitations and the demographic context of the city of Chicago may explain these limited substantive findings.

Descriptive representation in elected officials and government bureaucracy matters for a range of political and policy outcomes for racial and ethnic minorities. When constituents have public officials that reflect their lived experiences—for example—a state senator or assembly person that shares one's racial or ethnic affiliation—this can improve substantive policy outcomes that are of interest to a particular group (Minta 2009) and trust and willingness to engage with government (Gay 2002; Pantoja and Segura 2009). In the realm of election administration, the presence of descriptive representation among poll workers—the temporary street-level bureaucrats who are in charge of running polling places and helping voters on Election Day—positively relates to voter confidence in elections and election administration (King and Barnes 2019).

As the bureaucrats in election administration with whom voters most directly engage, poll workers have substantial discretion in determining voter eligibility, and making decisions about whether to offer a prospective voter a standard ballot or a provisional ballot (Suttmann-Lea 2020; Alvarez and Hall 2006). Given the importance of racial and ethnic congruence between citizens and poll workers, and citizens' confidence in elections, it stands to reason there may also be a significant relationship between descriptive representation in poll workers and polling place outcomes like provisional voting. This paper considers the effects of descriptive relationship on provisional voting in a sample of precincts in Chicago, Illinois, examining the relationship between the racial and ethnic makeup of precincts, the racial and ethnic makeup of the poll workers running those precincts during the 2018 midterm elections, and rates of provisional votes. Because Chicago is also a highly neighborhood centered city, I also explore whether or

¹ Chicago poll workers are referred to as "election judges" or "judges of election," but for the sake of comparison with other poll worker research, I refer to them as "poll workers" throughout this paper.

not there is a "neighborhood familiarity" effect, that is, an effect of voters being served by poll workers who are also registered voters in the precinct where they serve.

Overall, I find that "neighborhood familiarity" does not appear to have an effect on the number of provisional ballots cast, and there is not a clearly significant effect of descriptive representation for Black precincts or Hispanic / Latinx precincts as the number of Black and Hispanic / Latinx poll workers in these precincts go up, respectively. There is limited evidence that the presence of white poll workers, however, may affect provisional voting rates for Hispanic / Latinx populations. In the conclusion I explore possible explanations for these findings, including Chicago's high levels of descriptive representation for racial and ethnic minorities in polling places, particularly for Black residents, additional measures to consider in future research, and practical limitations to the data available.

Despite the lack of evidence supporting my initial expectations, this paper contributes to research on descriptive representation and substantive political outcomes, as well as studies of poll workers in election administration. One, it is the first study to use demographic measures of the racial and ethnic makeup of poll workers to assess the presence and effect of descriptive representation. Previous research looking at the relationship between descriptive representation and polling place experiences has relied on voter perceptions of the racial and ethnic background of poll workers, not demographic information about poll workers themselves (e.g. King and Barnes 2019). While perceptions are important for explaining factors like voter confidence, concrete information on the racial and ethnic makeup of poll workers themselves allows me to test the substantive effect of descriptive representation on polling place outcomes. Beyond this, this paper also highlights the potential –and challenges—of using voter files to better understand the demographic makeup of poll workers, a population that is difficult to survey in a reliable,

representative, and cost-effective way (Suttmann-Lea 2018). Finally, this is the first study of poll workers that also considers how the connection of poll workers to the neighborhood in which they serve may affect polling place outcomes (Suttmann-Lea 2020).

Descriptive Representation, Public Services, and Voter Experiences

There are ample evidence that racial and ethnic minorities have lower quality experiences when interacting with different elements of government bureaucracy and elected officials.

Research on aspects of bureaucracy outside of election administration—particularly the welfare state—reveal substantial disparities in the services provided to racial and ethnic minority constituents relative to white voters. Nonwhite recipients of Temporary Assistance for Needy Families (TANF) receive greater penalties for rules violations than their white counterparts (Keiser, Mueser, and Choi 2004), and white applicants also receive better information when asking about welfare benefits (Ernst, Nguyen, and Taylor 203). Overall, white applicants for public assistance tend to receive more than their minority counterparts (Desante 2013).

These kinds of disparities are also well documented in election administration. Hispanic / Latinx voters are less likely to receive responses from local election officials in response to questions about what is needed to vote (White et al 2015). Racial and ethnic minority voters of all backgrounds are more likely to have an absentee ballot returned that is ultimately rejected, even if it is returned to election offices on time (Shino, Suttmann-Lea, and Smith 2020). In terms of actual voting experiences at polling places, racial and ethnic minorities tend to be assigned to vote in polling places that are of lower quality on a number of different dimensions, from access, to the quality of poll workers, to wait times (Barreto et al 2019; Pettrigrew 2017). Finally, when voting in person, Hispanic / Latinx and Black voters are more likely to be inappropriately asked for identification by poll workers when none is required (Atkeson et al 2014; Cobb et al 2012).

It is possible that descriptive representation—the appointment or electing of government officials and bureaucrats who share the racial and ethnic background of their constituents—may help mitigate these negative outcomes and experiences for racial and ethnic minority groups. While much of this research has been focused on the experiences of Black constituents, there is nevertheless compelling evidence that descriptive representation can improve these individuals' perceptions of government officials, elections, and confidence in the electoral process (Tate 2002, King and Barnes 2019), and increase the likelihood constituents will reach out to an elected official (Gay 2001). There is also evidence that descriptive representation can positively benefit individuals in terms of more tangible policy outcomes, responses from government officials, and the provision of services. For example, while Black constituents are less likely to receive responses from elected officials when requesting information about elections, these effects are mitigated when Black constituents are represented by elected officials who are also Black (Butler and Broockman 2011). Additionally, Black members of Congress, are more likely to intervene on behalf of constituents on racial issues in congressional oversight hearings, even when there is little electoral incentive to do so (Minta 2009).

In the context of government bureaucracy, having members of one's racial and ethnic group in bureaucratic positions may help ensure that members of that group are treated equitably by bureaucrats, ensure they have active advocates for their interests, and increase confidence among group members that their interests are being represented (Theobald and Haider-Markel 2008; Mosher 1968). This is especially important to consider in areas where constituents are receiving services, or whose access to voting is dependent on the decisions of street-level bureaucrats like poll workers.

Importantly, the extent to which the benefits of descriptive representation are present for other racial and ethnic minority groups is less clear. With Hispanic / Latinx Americans, for example, the broad categories of "Hispanic" and "Latinx" may have less of an influence on perceptions of commonality by these groups between themselves and government officials. National origin, on the other hand, can be much more impactful than a broad panethnic terms like "Hispanic or Latinx" (Sanchez and Morin 2011). At the same time, Hispanic / Latinx Americans who do not tend to think of themselves as primarily Americans, who have a stronger sense of linked fate with their ethnic group are more likely to seek out and prefer descriptive representation (Schildkraut 2015).

Given that racial and ethnic minority voters are more likely to have lower quality voting experiences on a number of different dimensions (Barreto et al 2009; Atkeson et al 2014; Cobb et al 2012), it is worth investigating whether descriptive representation in polling places moderates some of these outcomes. Poll workers have significant discretion in determining voter eligibility (Alvarez & Hall 2006; Lipsky 1980). Moreover, unlike other aspects of bureaucratic administration, their jobs are temporary. This gives them fewer opportunities to develop a shared set of organizational norms that might ensure a consistent application of election laws governing provisional voting (Atkeson et al 2014; Romzek 1990). Beyond this, is also not clear that even within the same jurisdiction poll workers receive similar guidance on how to process provisional ballots. For example, in a qualitative study of poll worker decisions, respondents from Chicago, Illinois reported receiving different instructions on whether, when, and how to provide provisional ballots depending on the election official that was training them (Suttmann-Lea 2020).

Overall, considering descriptive representation at the level of polling place precincts is important for a number of reasons. When voters have positive interactions with poll workers, they look more favorably upon their voting experience, and generally have more confidence in the electoral system (Classen et al 2008). This is especially true for voters who perceive to have a shared racial and ethnic background with the poll worker who is serving them (King and Barnes 2019). The United States' legal system has also recognized the importance of descriptive representation in polling places for voter experiences. In Harris v. Graddick, a U.S. District Court case examining polling locations in Alabama operated by majorities of white poll workers, the court argued that even absent overt barriers to voting, a lack of representation in polling places could limit the voting motivations of black voters. The judge presiding over the ruling wrote, "The open and substantial presence of black poll officials, according to the evidence, is a significant indication to many black persons that voting places are now open to all, that black persons not only have a legal right to come and vote, they are welcome. And of course, the more black poll officials there are, the greater confidence black persons will have in the election process, and the less fear they will have about participating in that process."²

Neighborhood Familiarity and the Appointment of Poll Workers

Beyond the value of descriptive representation for racial and ethnic minority voters at polling places, where poll workers are assigned to serve and their connection to that neighborhood may also have a relationship with polling place outcomes. Both the segregation of racial groups in the City of Chicago, and the way in which the Chicago Board of Elections appoints poll workers makes it possible to examine these relationships. Chicago is divided into 50 wards that have a range of racial and ethnic diversity in their populations (Chow, Groskopf,

² Harris v. Graddick, 593 F. Supp. 128[M.D. Ala 1984])

Germuska, Dardick, and Boyer 2011). Moreover, the appointment process for poll workers by the Chicago Board of Elections ensures that poll workers are likely to be serving in a precinct that, if not in the voting precinct where they themselves are registered voters, may at least be within the home neighborhood or the ward where they serve. To assign poll workers, the Board of Elections first asks poll workers if they have a specific preference for which ward and precinct they would prefer to serve. In general, the Board of Elections tries to assign poll workers as close to their home precincts as possible, unless otherwise specified (Personal Correspondence, Chicago Board of Elections).

Beyond the appointment of poll workers, poll workers in Chicago themselves have reported that working at a precinct in their home neighborhood makes their work run more smoothly; they suggested that checking in voters one knows and sees regularly as a result of living in the same neighborhood makes confirming voter eligibility easier. This is particularly important given that one of the means by which voter identity and eligibility are confirmed in Chicago is through a signature matching system, an inherently subjective process that can lead to different standards being applied to different voters (Suttmann-Lea 2020). In short, poll workers who serve in communities where they live may be less likely to question the eligibility of voters with whom they might regularly interact or see from election to election if they are veteran poll workers who have worked in the same precinct over a number of years. This constitutes what I define as a "neighborhood familiarity" effect, that is, the effect of voters being served by poll workers who also live in and share the same neighborhood experiences as them.

Provisional Ballots as Polling Place Outcomes

Provisional ballots have been used in election jurisdictions across the United States as a part of the 2002 Help America Vote Act as a means to allow voters who do not appear on voter rolls, show up at the wrong precinct, or otherwise have their eligibility challenged, to vote cast a ballot that can be counted once their eligibility is verified by election officials (Foley 2005). Although federally mandated, local election officials have flexibility in how they administer provisional ballots (e.g. Kimball, Kropf, and Battles 2006). Local election officials are also responsible for training poll workers in the provisional voting process. Although poll workers are technically supposed to offer provisional ballots using the same criteria from precinct to precinct within a jurisdiction, they have limited regular oversight from local election officials, and may also be given different training instructions depending on who is running the training. This is especially true for large jurisdictions like Chicago, where multiple trainings run by different staff members are required to accommodate the nearly 10,000 poll workers that serve during general elections (Suttmann-Lea 2020).

Variation in the implementation of provisional voting has led to clearly documented differences in provisional ballot counts from jurisdiction to jurisdiction and the likelihood of an individual being asked to cast a provisional ballot. Socioeconomic, income, education, and residential mobility are all documented reasons why someone may be more likely to be asked to vote a provisional ballot than others (Merivaki and Smith 2020; Merivaki and Smith 2016; Alvarez and Hall 2009; Kimball and Foley 2009; Kimball et al 2006; McGinn and Debbage 2015). Importantly, there is also evidence racial and ethnic minority voters are more likely to face difficulties at the ballot box and have to vote provisionally, and less likely to have a

provisional ballot that is cast ultimately counted (Stewart 2014; Shaw and Hutchings 2013; Merivaki and Smith 2020).

There are a number of reasons why I use provisional ballots to examine the effects of descriptive representation in polling places. From a practical perspective, counts of provisional ballots cast are readily available administrative data in the jurisdiction for which I also have data on the demographics of poll workers. Provisional ballot counts have also been used as a measure of performance for jurisdictions' election administration (Gerken 2009). As such, I argue they are a reasonable means by which to measure the effects of descriptive representation on polling place outcomes. Finally, given the variation in the implementation of provisional ballots and the subjectivity with which poll workers interpret the laws they are implementing, unusual rates of provisional voting—especially if they are occurring in jurisdictions with larger numbers of racial and ethnic minority voters—raise questions about the equal treatment of voters under the law (Pitts and Neumann 2009; Suttmann-Lea 2020). As Merivaki and Smith (2020) write in their analysis of provisional voters in North Carolina, "Whether or not certain voters, or groups of voters, are more prone than others to cast a provisional ballot is an important issue as it raises questions of procedural fairness" (66).

Because of the patchwork of voting laws from state to state, it is important to identify the voter eligibility determination process for the jurisdiction being analyzed. In Chicago, poll workers generally first verify that prospective voter is in the correct precinct. Voters are asked to fill out an "Application for Ballot" sheet that includes their name, address, year of birth, and a signature. If it is confirmed the voter is registered, is in the correct precinct, and the poll worker verifying the signature determines it sufficiently matches what is on file with the voter's registration, the voter is provided a standard ballot. Chicago poll workers are also asked to rotate

positions, meaning it is less likely there is just one poll worker who is checking in voters throughout the day. Finally, they are instructed to collectively make decisions if there are questions about a voter's eligibility based on their signature or if other challenges arise (Chicago Board of Election Commissioners 2020).

There are a number of reasons a voter might be asked to vote provisionally in Chicago. If a voter's eligibility is challenged by a poll worker (for example, on account of a mismatching signature), and poll workers collectively agree the voter isn't eligible to vote, they can vote provisionally. Voters who registered to vote by mail but do not have ID are also asked to vote provisionally, as well as voters who are marked as having voted during early voting periods but claimed they did not do so. If a voter is at the wrong precinct and is registered elsewhere, but refuses to go to their correct precinct, they may also be offered a provisional ballot (Chicago Board of Elections, 2020, p. 54). Finally, Illinois allows for Election Day voter registration, which means that "not being registered to vote" is a less likely reason for voting provisionally unless the voter choses to not register, or did not have the correct documentation to do so. Following the election, the Chicago Board of Election takes the steps to confirm the eligibility of voters who cast provisional ballots. Although my data do not allow me to differentiate between the reasons why a voter was offered a provisional ballot, understanding the possible reasons for provisional voting in this jurisdiction illustrates the range of decisions about provisional voting over which poll workers have discretion.

Expectations

Given the previous research demonstrating the positive impact of descriptive representation on voter experiences, substantive outcomes, and services for minority constituents, particularly for Black constituents, (e.g. Minta 2009; Butler and Broockman 2011),

I expect as percentages of Black residents in precincts go up, higher numbers of Black poll workers will decrease instances of provisional voting. Given mixed findings on the effects of descriptive representation for Hispanic / Latinx voters, I do not anticipating finding a relationship between descriptive representation and provisional ballots for this group. Conversely, I do expect that for precincts with both higher Black and Hispanic / Latinx populations there will be "negative" descriptive representation when there are higher numbers of white poll workers. That is, I expect an increase in provisional voting for precincts with higher Black and Hispanic / Latinx residents that also have more white poll workers. Because of sample size limitations, I am not able to test for the effects of descriptive representation for Asian populations. Beyond this, I also expect there to be a positive relationship between the number of poll workers who live in the neighborhood where they are assigned to work and provisional ballots cast. I anticipate that the higher number of poll workers who are also registered to vote in a given precinct where they work will have lower rates of provisional voting. This accounts for the "neighborhood familiarity" effects described in interviews by Chicago poll workers (Suttmann-Lea 2020).

Methods

To test these expectations, I merged data from multiple sources. First, I used the Illinois Freedom of Information Act (FOIA) governing access to election administration data in the city of Chicago. With this and a state statute governing the availability of poll worker information, I requested the names and addresses of all of the poll workers who served in Chicago during the 2018 midterm elections, who are also required to be registered voters.³ Using this information I requested voter file data for these poll workers using the firm TargetSmart. Unfortunately,

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³ 10 ILCS 5/13/-3, Chapter 43, par. 13-3: Not more than 10 business days after the day of the election, the county clerk shall compile a list containing the name, address, and party affiliation of each judge of election who served on the day of election, and shall preserve such a list and make it available for public inspection and copying for a period of not more than one year from the date of receipt of such list.

TargetSmart was not able to match every poll worker with detailed voter file data. Out of the 9924 poll workers for which I requested data, 8101 (81.6%) were identified. Out of the over 2000 precincts in Chicago, I had access to demographic and partisan scores from the voter file for 883 complete precincts. Even with these limited data, however, I have poll worker demographics from multiple precincts in all 50 wards across the city. I used administrative data from the Chicago Board of Elections (CBOE) on the number of provisional ballots cast in each precinct during the 2018 midterm elections. Unfortunately, the CBOE does not keep track of the number of provisional ballots rejected, or reason for rejection. Finally, I merged these data with data from the Chicago Democracy Project that included precinct-level data from the American Community Survey on racial and mobility demographics of Chicago precincts.

Modeling count variables requires accounting for an over dispersion in the data's distribution (Kimball, Kropf, and Battles 2006). Given this, I use a negative binomial regression model (appropriate given that there are not a disproportionate number of zero counts—that is—precincts with no provisional ballots cast—in the data). I also use robust standard errors clustered by precinct. My dependent variable is the number of provisional ballots cast per precinct. My key independent variables are the number of poll workers present in a given precinct that are Black, Hispanic / Latinx, or White, the number of poll workers present in a given precinct that are also registered to vote in that same precinct, and variables measuring the percentage of a precinct that are Black or Hispanic / Latinx.

I also include control variables to account for factors that might also be related to the count of provisional ballots cast. These include the total number of poll workers in a precinct, given evidence that higher numbers of poll workers can yield lower numbers of provisional ballots cast (Merivaki and Smith 2016). To address that a precinct may have established

practices for casting provisional ballots from year to year—especially if the same poll workers serve in the same precinct over time—I control for provisional ballots cast in the previous general election in each precinct. I also include variables measuring the total number of registered voters and ballots cast in a precinct; higher numbers of ballots cast and registered voters should be related to a greater numbers of provisional ballots cast. To account for the fact that precincts with with more prospective voters who have recently moved—and thus are more likely to have needed to re-register to vote but not have the documentation needed—may also have more provisional ballots cast, I include controls for the percentage of individuals in a precinct who had moved to the precinct from another neighborhood in the city of Chicago within the past year, the percentage who had moved from a suburb, the percentage who had moved from a rural area, and the percentage who had moved from abroad. Finally, given that partisanship of bureaucrats can influence provisional voting rates (Kimball et al 2006, Kropf et al 2013), I also control for the partisan makeup of precincts with a control variable that measures the number of Democrats and Republicans in each precinct. Partisan data are taken from the poll worker voter file retrieved from TargetSmart, with partisan scores being collapsed into a discrete categorical partisan descriptors for each poll worker, then merged with precinct-level data.

Explaining Provisional Ballots Across All Chicago Precincts

I first test for and identify potential factors that explain the casting of provisional ballots across the city as a whole without data on the racial / ethnic and partisan makeup of poll workers in precincts. Table 1 presents the marginal effects for this negative binomial regression, with coefficients representing the percent changes in provisional ballots cast per one unit change in the independent variables. A one unit (percent) increase in the percentage of the Black population in a given precinct, for example, increases the provisional ballot count by about 1.8%.

Not surprisingly, an influx of new people in a given precinct across different types of moves (within city, from the suburbs, from rural areas, and from abroad) are also associated with increases in the number of provisional ballots cast. Although the coefficient on the number of workers is in the expected negative direction, meaning that the more poll workers are staffing a given precinct, the fewer provisional ballots, the coefficient is not statistically significant. Finally, as expected, there is a significant relationship between the number of ballots cast and provisional ballots cast in the previous general election in a given precinct, although substantively the effect of changes in these variables are small.

Table 1: Provisional Ballots Cast Over All Precincts

Predictor Variable	Marginal Effect (Standard Error)	
Total ballots cast	0.003 (0.001)*	
Provisional ballots 2016	0.111 (0.013)***	
Number of poll workers	-0.080 (0.093)	
# Registered Voters	0.002 (0.001)	
% Black population	1.829 (0.591)**	
% Hispanic / Latinx	1.097 (0.809)	
population		
% Asian population	1.519 (1.633)	
% In-Town Movers	6.743 (2.028)***	
% Suburban Movers	12.544 (6.804).	
% Rural movers	58.42 (31.656).	
% Abroad movers	17.833 (10.451).	
	N=2068	
Note: Regression coefficients: .p<0.10, *p<0.05, **p<0.001,		
***p<0.0001	-	

Descriptive Evidence: Racial and Ethnic Group Representation in Chicago Precincts

Of the 8101 poll workers identified in my voter file, 48.7% were Black, 32.7% were White, 13.9% were Hispanic / Latinx, and 2% were Asian. Not surprisingly given the overall partisan-lean of the city of Chicago, nearly 86% of poll workers identified were either be categorized as a Democrat or a Strong Democrat. Only about 12.7% were categorized either as a

Republican or Strong Republican. About 2% were categorized as Independents. With these data, I was able to identify the racial and ethnic background as well as the partisan makeup for all poll workers in 883 out of the nearly 2000 precincts in Chicago. To give a descriptive sense of what racial and ethnic representation looks like in this subset of Chicago precincts, Table 2 shows what percentages of precincts where there are a majority of White, Black, Hispanic / Latinx, and Asian residents were also represented by a majority of poll workers who shared their racial and ethnic background. Majority Black precincts featured the highest percentage of descriptive representation based on these measures, followed by majority White, majority Hispanic / Latinx, and majority Asian precincts. Overall, 72.4% of the precincts in my sample were staffed by a majority of poll workers who also shared the racial or ethnic makeup of the precinct where they were serving. The remaining precincts were either represented by a majority of poll workers from a different racial group, or by poll workers where there was not a majority from one racial or ethnic group.

Table 2: Precincts w/ Descriptive Representation

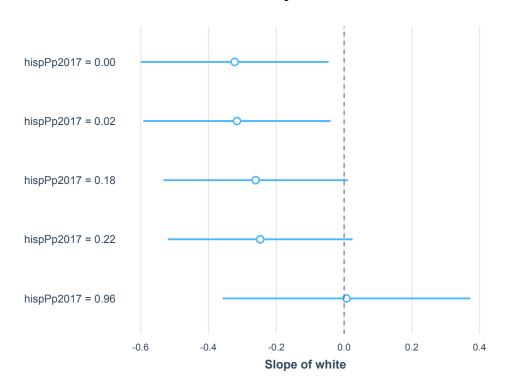
Racial and Ethnic Precinct	% of Precincts With	N
Makeup	Descriptive Representation	
Majority White	72.78	338
Majority Black	98.55	345
Majority Hispanic / Latinx	47.77	111
Majority Asian	25.00	4
No racial / ethnic majority	NA	85
Total precincts	72.4	883

To see whether descriptive representation moderates the effects of Hispanic / Latinx and Black populations on rates of provisional voting and to assess neighborhood familiarity effects, I run models that include measures of the number of Black, Hispanic, and White poll workers in each precinct and a variable that measures the number of poll workers in a given precinct who

are also registered to vote in that precinct. I then interact variables measuring the number of poll workers from White, Black, and Hispanic racial and ethnic backgrounds—my moderating variables—with conditioning variables measuring the percentage of Hispanic / Latinx and Black residents in a given precinct. In order to accurately interpret interaction effects, it is important to examine the influence of racial / ethnic makeup of poll workers at different levels of conditioning variables; simply because the coefficient on an interaction is statistically significant does not indicate the effect of the moderating variable is significant at all levels of the moderating variable (Brambor, Clark, and Golder 2006).

A full negative binomial regression model including control variables can be found in the appendix. In this model, the coefficient capturing "neighborhood familiarity"—the number of poll workers in a precinct who were also registered to vote in that precinct—is in the expected negative direction (meaning it is associated lower instances of provisional voting), but it is not statistically significant. In the interactions between the racial and ethnic makeup of the residents in precincts and the numbers of White, Black, and Hispanic / Latinx poll workers in a precinct, only the interaction between the variable measuring the percentage of Hispanic / Latinx residents and the number of white poll workers in a precinct was statistically significant. For simplicity's sake, I present the levels of significance for the moderating variables only for this coefficient. Figure 1 displays the effects of each additional white poll worker on provisional voting for the minimum, first quarter, mean, third quarter, and maximum levels of Hispanic / Latinx residents. In precincts with no Hispanic / Latinx voters, effect of each additional white poll worker decreases the count of provisional votes by about 3%. The effect of this white poll workers becomes less negative on provisional ballot counts, however, at higher percentages of Hispanic / Latinx in a precinct, although it also loses statistical significance as this percentage rises.

Figure 1: Effects of White Poll Workers on Provisional Ballot Rates Given Hispanic /
Latinx Precinct Populations



Discussion

Using data only from the precincts for which I had complete information on the racial and ethnic makeup of poll workers, I find limited evidence that descriptive representation has an effect on rates of provisional voting for Black and Hispanic / Latinx communities in Chicago. While there is some evidence for an effect of White poll workers on provisional voting rates in precincts with higher percentages of Hispanic / Latinx residents, statistical significance is limited to precincts with lower percentages of these residents. Moreover, I find little evidence of "neighborhood familiarity" effects. Rates of provisional voting do not change significantly when there are more poll workers in a precinct who are also registered to vote in that precinct.

There are a number of possible explanations for these findings that I plan to explore in follow up research. Most practically, the fact that I was only able to completely identify the racial and ethnic makeup of poll workers in 884 out of the over 2000 precincts in Chicago likely limits the power of my analysis. As a robustness check, I reran my models to include precincts where I was able to identify all but one poll worker, increasing my sample size to a total of 1608 precincts. Findings for the interactions between the racial and ethnic makeup of poll workers and precincts were similar to the model with the smaller sample size, but I do not want to draw conclusions about these data given I am not able to completely identify all poll workers in each precinct. Beyond this, my descriptive data shows that Chicago is a city that appears to perform well in ensuring, at least for its Black residents, it provides descriptive representation at polling places. It is possible the lack of findings for the effects of Black descriptive representation in particular are a function of a lack of variation in the levels of representation at polling places for this group. As noted above, Chicago, while an especially diverse city, is also a highly segregated city. This lack of variation may be compounded by the fact that poll workers are generally assigned to work close to their home neighborhood.

The lack of significant findings for my neighborhood familiarity measures may be because the measure I used was too conservative. Given the sheer number of precincts in Chicago, many of which are closely placed together within neighborhoods, there are likely many poll workers who live in the neighborhood where they are assigned to work, but are not actually registered to vote in that precinct. The alternative measure I have available with these data—the ward in which poll workers are assigned to work, and their home ward as registered voters—may also not be the best measure because it may not properly capture the neighborhood dynamics and familiarity described by poll workers in Chicago (Suttmann-Lea 2020). In future research I plan

incorporate the distance between the address where a poll worker is registered to vote and the precinct where they work in models as a more precise measure of neighborhood familiarity effects.

Given the limitations of my data, I am reticent to make anything more than circumspect claims about these findings. It may be that a city like Chicago—with its highly segregated neighborhoods—is not the strongest place to test for the effects of descriptive representation in polling places. There may also be other measures that capture poll worker performance and relate to counts of provisional ballots—for example education and years of experience serving as a poll worker—that are not reflected in the data currently available in my sample.⁴ This paper highlights the challenges associated with understanding the determinants of poll worker performance and descriptive representation on precinct outcomes like provisional voting. Data on these individuals is difficult to gather in ways that allow for more generalizable analysis. While using voter file data to get information on poll workers is promising (and relatively cost effective even in a city with as many poll workers as Chicago), incomplete voter files limit the inferences that can be made with this information.

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⁴ Atkeson et al (2014), for example, finds that education is related with whether or not a poll worker thinks they need to ask voters for identification.

Appendix

Table A1: Descriptive Representation, Provisional Voting, and Neighborhood Familarity **Effects**

Predictor Variable	Marginal Effect (Standard Error)	
# of Black poll workers	-0.227(0.532)	
# of White poll workers	-1.287 (0.566)*	
# of Hispanic poll workers	0.227 (0.766)	
# Democratic Poll Workers	-1.444 (0.774).	
# Republican Poll Workers	-1.266 (0.772)	
Number of poll workers also	-0.028 (0.1566)	
registered to vote in precinct		
Total ballots cast	0.127 (0.014)***	
Provisional ballots 2016	0.111 (0.013)***	
Number of poll workers	1.96 (0.093).	
# Registered Voters	0.000 (0.002)	
% Black population	-0.823 (2.12)	
% Hispanic / Latinx	-1.749 (2.170)	
population		
% In-Town Movers	8.489 (2.900)**	
% Suburban Movers	4.783 (10.416)	
% Rural movers	168.37 (48.014)***	
% Abroad movers	22.234 (11.496).	
Black population X Black	-0.065(0.461)	
poll workers		
Hisp / Latinx population X	-1.010 (0.933)	
Hisp / Latinx poll workers		
Black population X white	-0.465 (0.849)	
poll workers		
Hisp / Latinx population X	1.573 (0.689)*	
white poll workers		
	N=884	
Note: Regression coefficients: .p<0.10, *p<0.05, **p<0.001,		

***p<0.0001

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