

VOTE-BY-MAIL IN THE UNITED STATES

BEST PRACTICES AND NEW AREAS FOR RESEARCH

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SUMMARY

Voting-by-mail (VBM) is a permanent part of the American election ecosystem. The rate of mail voting has tripled since 2000, and mail ballots now constitute a third of ballots returned (half in the pandemic election of 2020). We document the emergence and growth of mail balloting and detail the unique administrative arrangements associated with this method of voting, showing how a method first associated with soldiers in the Civil War and later with UOCAVA voters has quietly become the primary method of voting in many parts of the country and an important method for maintaining access for many vulnerable populations who face difficulties getting to polling places on Election Day.

Research shows that there is no longer a “typical” mail voter; state-level variations mean that generalizations about VBM practices should be made at the state level. VBM has a small but significant impact on overall turnout, but with little evidence of a partisan advantage. The largest impact on turnout is associated with “universal ballot delivery” or “full vote-by-mail” systems, where ballots are transmitted by mail to all eligible and registered voters. Universal ballot delivery systems seem to improve equity of access across race, ethnicity, and age, but more research is needed to further understand these impacts. There is less clarity about the impact of no-excuse vote-by-mail on equity.

There is some evidence that administrative practices, such as signature verification, ballot curing, or

placement of drop boxes, can help or harm equity, depending on how they are implemented. More systematic work is needed on some administrative practices, notably related to security. The budgetary impact of VBM is also unclear. Universal ballot delivery systems are less costly, but there is insufficient evidence about other regimes, such as no-excuse absentee balloting combined with other modes.

The tenor of political debate and public confidence in VBM prior to 2020 was moving toward widespread acceptance or more generous mail voting policies. However, debates that erupted following the 2020 election and which continue make it unclear whether partisan divides in usage rates and in public trust about VBM will remain an issue. Given the limited research studying how administrative decisions promote participation, balance security and access, increase confidence, and reduce costs, we see this policy area as ripe for further experimentation and research partnerships.

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1. INTRODUCTION: WHAT IS MAIL VOTING; HOW DID WE GET HERE?

Non-precinct place voting reforms—the laws, rules, and procedures that allow citizens to cast ballots at a place and time other than at the precinct polling place on Election Day—have grown dramatically in the United States over the past 35 years to a point where it is a permanent part of the American election ecosystem.²

This white paper explores one type of non-precinct place voting reform – **voting-by-mail (VBM)** – where the voter casts a ballot that was sent to them through the mail.

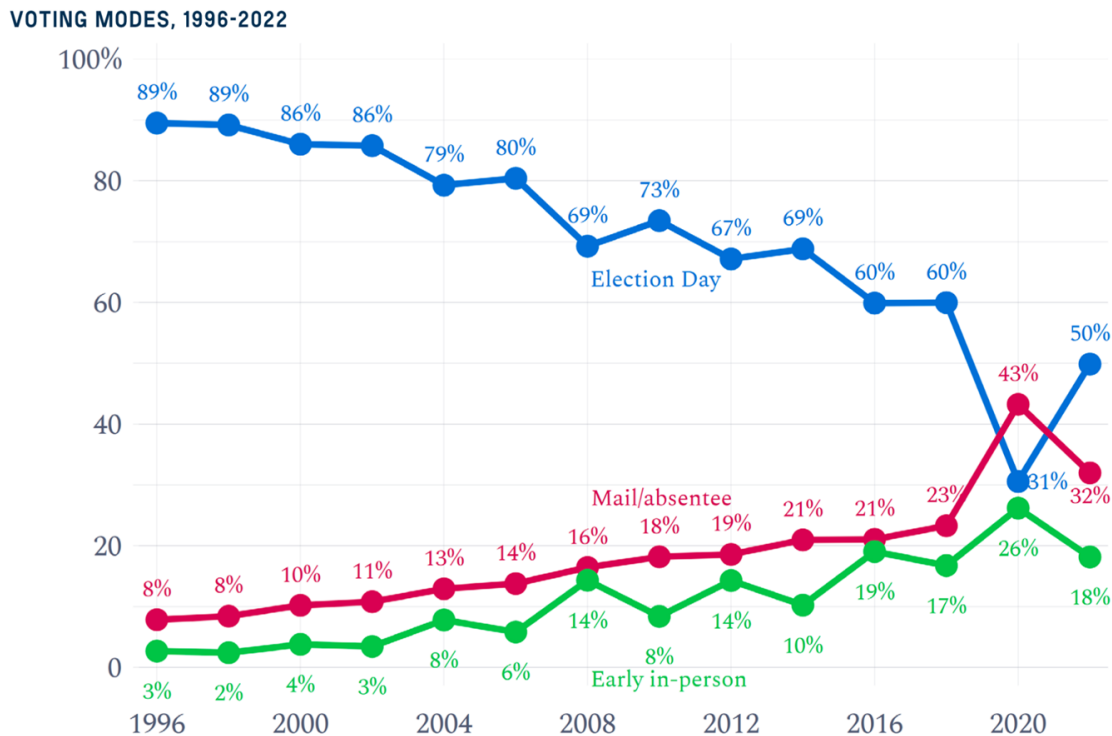
As shown in Figure 1, the usage of VBM has steadily grown by 2-3 percentage points in each presidential election since 1996 with a notable spike in 2020 due to the COVID-19 pandemic which seems to have resulted in a jump of approximately six percentage points in VBM usage beyond what would have been predicted without the pandemic.³

2 “Election ecosystem” is a term coined by Huefner and colleagues, and conceptualizes election systems where each component part (institutional arrangements, voter registration, voting technology, early and absentee voting, polling place operations, provisional voting, and vote counting and post-election procedures) are fundamentally interdependent (Huefner et al. 2007)

3 A simple regression predicting the percentage of ballots returned using VBM as a function of the election year and whether or not it is a presidential election, using the 1996-2018 data, produces a forecast VBM rate of 26% in 2022, compared to the actual rate of 32%.

FIGURE 1: VOTING BY MAIL AND OTHER VOTING MODES, 1996-2022

Source: Stewart III (2023)



Data sources: Census Bureau, Voting and Registration Supplement, 1996-2022

Providing access to VBM requires states and localities to substantially alter nearly every aspect of their election administration. The substantial administrative changes associated with VBM, most notably the fact that ballots leave the hands of election officials, the conventional wisdom (not supported by empirical evidence) that mail ballots take longer to count,⁴ and the emergence in 2020 of a substantial partisan gap in use of and trust in mail ballots have meant that VBM has had detractors, even though there is growing evidence that VBM results in small but statistically significant increases in turnout and saves money (see later in this report). Our professional impressions, albeit not systematically tested, is that there are more detractors of VBM than early in-person voting, which relies primarily on the same voting technology as Election Day voting and is an in-person voting method.

The following sections of this white paper outline the benefits and costs of VBM, as demonstrated by scientific research, in the areas of turnout and participation; reliability and security; representation among disadvantaged groups; budgetary costs; and public opinion about election integrity. Within each section, we discuss potential inequitable impacts on the representation of communities of color and other historically underrepresented groups. For this paper, we define equity in election administration as the principle that all eligible individuals and communities should be ensured equal access and equal opportunity to participate in the electoral process, including the

4 Curiel and colleagues (Curiel, Stewart III, and Williams 2021) untangle different rates of election night reporting in 2020. These rates have multiple and interdependent causes: varying administrative practices used in states; varying usage levels of in-person, early in-person, and by-mail voting; and a partisan gap in usage rates of different modes of voting, especially vote by mail. These authors estimate that mail processing delayed reporting on average four hours, but these rates varied substantially across states, depending on how much pre-processing of mail ballots was allowed. Unfortunately, partisan differences got tangled up with many of these processes—for instance, states that banned pre-processing leaned Republican, and Democrats (and hence more Democratically leaning counties) had higher rates of by-mail ballot usage and tended to be urban areas where generally ballot counting is slower and more complex. The combined consequence was a “blue shift” that was driven by Democratically leaning urban areas in key states and which has comparatively higher rates of by-mail balloting, all of which provided grist for the Trump campaign’s efforts to challenge results and undermine confidence in mail balloting (John Curiel, Stewart III, and Williams 2021, 6).

ability to register to vote, access to polling locations, the ability to cast a ballot that is accurately counted, and fair enforcement of election laws. We highlight areas where there is substantial agreement and identify areas where the research record is sparse and future research is needed.

1.1 WHAT IS VOTING-BY-MAIL?

“Vote-by-mail” and “absentee voting” are umbrella terms often used interchangeably within the U.S. In this white paper, we use the more common term of vote-by-mail (VBM) to include at least five distinct legal, regulatory, and administrative policies: excuse-required vote-by-mail, no-excuse required vote-by-mail, mailing all active registered voters a vote-by-mail application to make it easier to sign up, universal voting-by-mail, and voting by those covered under the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) (Ballotpedia n.d.; National Conference of State Legislatures 2022).

As of July 2022, 27 states and Washington, D.C., offer “no-excuse” VBM, which means any voter can request and cast a VBM ballot, with no excuse or reason necessary, according to the National Conference of State Legislatures (NCSL). Eight states conduct elections where every registered voter is sent a VBM ballot through the mail (California, Colorado, Hawaii, Nevada, Oregon, Utah, Vermont, and Washington), with differing proportions of the population who return the ballot by mail, drop box or by dropping the ballot off at a staffed drop-off location (options for VBM return vary by state).⁵ The remaining 15 states require a voter to provide an excuse to qualify for a VBM ballot.

5 NCSL describes these eight states as “all-mail” or “vote by mail” but we are not certain that this is the right term because over half of ballots in most of these states are not returned by mail, and in some states, there remains significant levels of in-person voting. For example, both California and Colorado (and potentially other states) have “vote centers” that provide in-person election services. In their respective voter files from November 2022, 9% of California ballots are coded as VCR (vote center) and 2.5% are coded as “POLL”; and 4.5% of Colorado ballots are coded as cast using one of two “IN PERSON” methods.

UOCAVA voting is treated in this white paper as a separate category because it is governed by a distinct set of Federal laws with special ballot transmission timelines and other requirements.⁶ UOCAVA ballots are a small proportion of the overall vote.⁷ This is an area where commitment to ensuring access to the franchise has enjoyed bipartisan support, and an area where ballot transmission and return challenges have spurred innovations that have sometimes become the bleeding edge of reform for domestic voting (Landquist, Andreae, and Hutchinson 2021; C. M. Smith 2014; Wang 2007).

Administering a VBM system (all or in part), requires that voter registration rolls be exceedingly clean and updated, particularly with complete and accurate mailing addresses; ballot materials need to be prepared in such a way and on a timeline that fits the United States Postal Service (USPS) requirements and postal delivery standards (and, for overseas ballots, the 45-day transmission deadline required by the Military and Overseas Voter Empowerment (MOVE) Act which amended UOCAVA); formal identification requirements must be “disembodied” to allow verification after a voter has cast the ballot (Cottrell, Herron, and Smith 2021); and voter errors and mistakes can only be rectified through “curing” procedures, if they exist in that state (Meredith and Kronenberg 2022).

Election officials need to essentially set up a direct mail operation and be ready to obtain and manage the inflow and outflow of large quantities of paper. They must establish relationships with the USPS and understand mail delivery standards. They need to decide if they will offer alternative return modes, such as drop boxes, and if so, how ballots will be securely transported to the local election office.⁸ Identities must

6 The legal requirements are contained in 52 USC Ch 203: Registration and Voting by Absent Uniformed Services Voters and Overseas Voters in Elections for Federal Office. Predecessor statutes were the Uniformed and Overseas Citizens Absentee Voting Act 42 U.S.C. 1973ff-6 and the Federal Voting Assistance Act 42 USC 1973cc. While some states and localities provide for alternative UOCAVA ballot transmission and return methods, the overwhelming majority of UOCAVA ballots are delivered and returned by mail.

7 In the November 2020 election, a high water mark for mail ballots, 911,614 UOCAVA ballots were counted compared to 69,486,968 mail ballots, or 1.3% of all mail ballots (Election Assistance Commission 2021). In 2022, 254,721 UOCAVA ballots were counted compared to 36,683,450 mail ballots or .69% of all mail ballots (Election Assistance Commission 2023)

8 In thirteen states, VBM ballots can be returned

be verified, most commonly by checking signatures against a digitally stored signature, envelopes sliced, ballots removed and flattened for scanning, and ballots scanned.⁹ Depending on state law, there may be an additional step whereby ballots are “remade,” “duplicated,” or individual contest choices “adjudicated” when the voter’s choices cannot be discerned by voting technology.¹⁰

Absentee balloting emerged more than 150 years ago as a way to ensure voting access for Union soldiers serving in the field in the Civil War (Fortier 2006; Keyssar 2000), but in most states, these laws were allowed to lapse after the war. Absentee voting laws for military and, in some states, for citizens, were passed in some states in the early decades of the 20th century, and by 1948, 27 states had some provisions for absentee voting for citizens who were infirm or sick. The next major change at the Federal level were the passage of the Federal Voting Assistance Act in 1955, which for the first time standardized the process of applying for a Federal ballot for service personnel, and the Overseas Citizens Voting Rights Act of 1975, which mandated overseas citizens who did not have a domestic domicile to vote absentee (Fortier 2006). These laws, created in large part to ensure access to the franchise for military personnel and their families, paved the way for

to Election Day precinct place voting locations, and LEOs must manage secure storage and ballot transport from these locations as well. See the U.S. Vote Foundation (<https://www.usvotefoundation.org/ballot-return-options>) for a current list of states allowing precinct place drop off.

9 Thirty-eight states allow some pre-processing prior to Election Day; nine allow processing to start on Election Day; and the remaining three do not allow absentee and mail ballot processing to start until after the close of polls on Election Day (National Conference of State Legislatures 2022).

10 There are complexities in these procedures that cannot be easily described here. In some states, there is a requirement for a paper ballot of record, so if the state provides for electronic return of a UOCAVA ballot, election officials may need to print a paper ballot in order to tabulate the ballot. In other instances, ballots may become damaged or unreadable by a tabulation system for a wide variety of reasons, from spilled coffee to stray marks to damage during postal transmission. States may allow these ballots to be remade following the same procedure described above. In still other cases, states with strong “voter intent” laws may allow local officials, most often using election boards, to adjudicate choices and remake a ballot, but some states allow an “adjudication” process that corrects choices at the individual contest level.

extensions of absentee voting for other categories of citizens, such as elderly, infirm, disabled voters, and students attending college away from home. This is far from the last time that election innovations required to meet the special needs of UOCAVA voters ended up paving the way for innovations and reforms for domestic voters, as we shall see later.

The first “no-excuse” absentee ballot law was passed in 1978 in California, followed quickly by Oregon and Washington. This opened up a period of rapid innovation and reform, as nearly half the state adopted some form of “no excuse” non-precinct place voting, in some cases no-excuse absentee voting by mail, in other cases no-excuse early in-person voting (as in Texas in 1984), and in some states, both (Fortier 2006). With respect to no-excuse absentee voting, studies that have examined its advancement during this period have not found a single policy or political rationale (Fortier 2006; Gronke, Paul and Eva Galanes-Rosenbaum 2008). “Voter access” and “voter convenience” are often cited as reasons, along with easing the administrative burdens of Election Day and, for full VBM systems, budgetary savings (Gronke 2008; Gronke, Paul and Eva Galanes-Rosenbaum 2008).

There are substantial variations in how VBM systems are implemented, and it is important to recognize that predicting the participation, security, and cost implications of adopting VBM depends critically on the particular policy mix adopted by a state and/or locality,¹¹ as well as what other balloting options are provided in a state.

11 For example: what “excuses” are allowed; how frequently do registrants need to renew their no-excuse absentee status; is there a “permanent” no-excuse option; do ballots need to arrive by Election Day or be postmarked by Election Day; is there pre-paid postage; what are drop box policies; how are signatures verified; what is the nature of the ballot curing process.

2. USAGE OF VOTE BY MAIL

No-excuse-required VBM has become much more widely available throughout the United States in the past quarter century. As of November 2022, some version of no-excuse mail voting was available in 35 states and the District of Columbia, and 32% of ballots were cast by-mail, compared to just 16 states and 11% of ballots cast in 2002. It would be surprising if the profile of the “typical” by-mail voter did not also shift over the same time period, as by-mail voting became integrated into election administration, political campaigns, vote mobilization efforts, and voter behavior.

The conventional scientific wisdom, based on the initial advances of “restriction easing” methods of voting (no-excuse absentee, by-mail) was summarized in 2005 by Adam Berinsky:

“...reforms designed to make voting “easier” magnify the existing socioeconomic biases in the composition of the electorate.” (Berinsky 2005, p. 479)

The consensus of the research for VBM in particular was that these voters tended to be older, whiter, better educated, and higher income (Berinsky, Burns, and Traugott 2001; Gronke, Galanes-Rosenbaum, and Miller 2008; Karp and Banducci 2000a; Southwell and Burchett 2000).

These trends were a product of a set of demographic characteristics that are linked to the need for mail voting. Older voters may face mobility issues or have health concerns that limit their ability to go to the polls on Election Day, so being over a specified age is an acceptable excuse in eight states. Other excuses include having a disability, being out of the county on Election Day, being a student living outside of the county, and other reasons why an eligible voter cannot make it to the polls on Election Day.¹² However, “excuse required” mail voting, while critical to provide equitable access to the polls, generally comprises no more than 10% of mail ballot cast, overall and across various demographic categories, except for voters over 65, where excuse required by-mail ballots are a larger percentage of ballots cast (Stewart 2020).

12 A table of acceptable excuses for each state is provided by the National Conference of State Legislatures at this page: <https://www.ncsl.org/elections-and-campaigns/table-2-excuses-to-vote-absentee>

The other 90% of by-mail ballots are cast by voters in the 27 states which do not require an excuse, along with the eight states that transmit ballots by mail to all eligible citizens on the rolls. It is in those states where the voter has to proactively apply for no-excuse status where there has historically been a disparity in the usage rates of by-mail voting. The same characteristics that are associated with higher rates of turnout generally – higher rates of education, income, and political engagement – are also associated with the use of mail voting.

But is this still the case, as access to VBM has grown so substantially? Charles Stewart noted in March, 2020, as it became apparent that by-mail voting would be a critical solution to the challenges of conducting an election during a pandemic, that “(t)he lack of a major difference between demographic groups is contrary to some claims I have been hearing (and some I believed myself before running the numbers)” (Stewart 2020). Stewart presents data from 2016 demonstrating that there were not many differences between demographics groups in their use of mail voting.

We have provided updated tables using the 2022 Survey on the Performance of American Elections, which largely replicate what Stewart found, but with two major differences. First, as shown in Table 1, while there are only minimal differences within demographic groups in their usage rates of VBM at a national level,

there are substantial differences across methods (i.e., comparing by-mail to Election Day and early in-person voting). These differences require further research as to their causes and whether they are sustained over time, but we note at least one study that has similar results from 2020, that show little impact of vote by mail on turnout between partisan groups, but did create substantial differences in the age profile of VBM voters vs. early in-person and Election Day voters (Yoder et al. 2021).¹³Second, as has been noted elsewhere, an enormous partisan gap in the use of mail voting emerged in 2020 – 60% of Democrats used mail voting compared to 32% of Republicans (Stewart III 2021, pg. 9). The partisan gap is reduced by one-third but persisted in 2022 (46% Democrats, 27% Republicans) (Stewart III 2023, p. 10).

13 In brief, Yoder et al. (2021) took advantage of administrative decisions in Indiana and Texas in 2020 which required voters under the age of 65 to provide a valid excuse for an absentee ballot but did not require an excuse among voters older than 65. This “natural experiment” allowed comparisons between voters who are 65 and 64 years old, but otherwise very similar. The research showed that the rules (and changes in behavior in response to COVID) caused substantially higher rates of absentee voting among the 65 year olds but not among 64 year olds, but no difference in overall turnout or turnout among partisan affiliates.

Table 1: Select Demographics of U.S. Voting-by-Mail vs. Other Methods in 2022

	VBM	Election Day	Early In Person
Education: > 12 years of education	33%	48%	19%
Education: < HS or fewer years	36%	54%	16%
Average Age	54.9 yrs.	51.3 yrs.	55.1 yrs.
< \$50,000	38.5%	42.8%	18.3%
> \$100,000	34.7%	45.2%	19.9%
Democrat	43.3%	35.2%	21.2%
Republican	25.2%	55.9%	18.7%
Independent	34.7%	45.5%	19.4%

Source: 2022 Survey on the Performance of American Elections

However, we are not confident that inferences made by comparing the demographic or partisan profiles across these columns are valid. There is no such thing as a “typical” by-mail voter. Select state-level research has identified substantial variation in use rates by age, race/ethnicity, and political party affiliation. State by state differences are critically important because neither election laws, age, race/ethnicity, or party affiliation are randomly distributed across states.

Generalizations that do not account both for legal and administrative differences across states as well as demographic differences across states can easily be misleading. For example, a Rand report issued after the 2020 election stated: “(B)lack voters were least likely to use mail-in ballots (34%), while Asian American voters were the most likely to (60%),” (Absher and Kavanaugh 2023, p. 29) is misleading if it is intended to be a statement generalizable to Asian American and Black voters in every state. It fails to recognize that there are large concentrations of Asian Americans in states such as California, that send ballots to all registered voters, while there are large concentrations of Blacks in states such as Mississippi and Alabama, which have far more restrictive absentee balloting laws, or in North Carolina, Georgia, and Florida, which do not require an excuse for casting a by-mail ballot but which have historically shown higher rates of early in-person voting across all demographic groups.

Two examples of the importance of being careful about making assertions about mode of voting based on national data should suffice. First, we analyzed data from the Current Population Survey’s Voting and Registration Supplement in 2022, can be used to replicate the Rand analysis, and the patterns match what Absher and Kavanaugh (2023) report: Asian Americans show the highest levels of by-mail voting, followed by Latino, White, and Black people. But when the data are disaggregated by region, Asian Americans continue to show the highest rate of by-mail voting across regions, but otherwise, the ordering by race varies. Second, we compared usage rates of VBM in California and Colorado, two states that have automatic voter registration, send mail ballots to all registered voters, and have voting centers for in-person voting for those who want to use this method. In these very similar election ecosystems, the race and ethnic rates of by-mail voting are not comparable. In California in 2022, the rank ordering for VBM use rates is: Asian American, White, Black, Latino. In Colorado in 2022, the rank ordering is Black, Latino, White, and Asian American. These results are in the Appendix.

Individual states have distinct demographic, racial, and ethnic profiles; distinct institutional arrangements; and distinct patterns of political competition. These all in tandem can lead to distinctive rates of VBM, early, and Election Day voting. It is possible to compare across states, but this requires careful matching of voters and of institutional arrangements. We believe that the research and policy lesson is that national comparisons are generally to be avoided and that state-specific comparisons over time provide more accurate estimates.

2.1 THE UOCAVA VOTER

As noted in the opening, UOCAVA voting is a unique administrative regime, largely shaped by Federal law. The federal MOVE Act requires states to electronically provide absentee ballots to eligible UOCAVA voters, and absentee ballots must become available at least 45 days before an election. States are not required to accept voted ballots electronically, and in 19 states, mail is the only option for returning a UOCAVA ballot. Because the majority of UOCAVA ballots are still transmitted and returned by mail, UOCAVA voting is covered in this white paper.

Among the distinctive features of UOCAVA voters and voting:

1. They are highly concentrated: 57.5% of the residences of UOCAVA voters are in three states, and 60% of the reporting jurisdictions in the 2022 U.S. EAC Election Administration and Voting Survey (EAVS) report that they had 10 or fewer UOCAVA voters (Election Assistance Commission 2023).
2. They consist of two very different populations: active duty military (ADM) personnel and their families and overseas citizens voting from abroad (OCVAP) (C. M. Smith 2014). These populations present very different challenges to election administrators for registration, ballot transmission, and ballot return.
3. Turnout rates are much lower than the general population. ADM turnout rates in 2020 were estimated to be 47% of those registered, compared to 82% of the general population (Federal Voting Assistance Program 2021b). The size of and turnout rate among OCVAP is very difficult to estimate, but the most recent figure is 7.8% (Federal Voting Assistance Program 2021a).¹⁴

¹⁴ These data are not official but are estimates based on statistical models and survey sampling, which are themselves based on incomplete lists of citizens requesting absentee ballots sent to overseas addresses collected from a private

4. Overseas citizens are widely geographically dispersed and very difficult to track. A 2021 report estimates that there were 4.8 million U.S. citizens living overseas in 2018, distributed across 186 countries (Federal Voting Assistance Program 2021b).
5. Active duty military personnel are widely geographically distributed but easier to track. There are an estimated 1.33 million ADM and families (Election Assistance Commission 2023) who may reside in the United States or overseas. While states continue to maintain registration rolls and administer elections, state and local officials are assisted by the voting assistance program of the Department of Defense (Cain, Mac Donald, and Murakami 2008).

There is also significant reporting on UOCAVA voting, but these findings are difficult to generalize to the general population.

3. THE PARTICIPATION EFFECTS OF MAIL VOTING POLICIES

One of the most common arguments in favor of expanding access to mail voting is that doing so will increase participation. In this section, we unpack these arguments, discuss how social scientists study these policies, and review the evidence social scientists have produced to date on the effect of mail voting expansions on turnout. We document that policies that expand access to mail voting tend to increase participation only modestly with estimates ranging from nearly no effect of no-excuse mail voting to approximately three percentage points for universal mail ballot delivery.

3.1 WHY MIGHT VOTE-BY-MAIL AFFECT PARTICIPATION?

Mail voting expansions are part of a larger class of convenience voting reforms (Gronke et al. 2008). By giving people more options for how to vote, convenience reforms are supposed to reduce the cost of voting. With a VBM ballot in their home, a potential voter does not have to wait in line on election day, take time off of work, find childcare, or make a special trip to cast their vote. In 2020, the health risk associated with voting in person was added to the list of costs that mail voting options would help reduce (Persily and Stewart 2021). Thinking about the individual's decision of whether or not to vote, there are likely some people who, for example, will not vote if they have to take time off of work but will if they can vote in their free time (Riker and Ordeshook 1968). This leads to the standard prediction that expansions of mail voting will increase participation (Gronke, Galanes-Rosenbaum, and Miller 2007).

On the other hand, there are a number of reasons to worry that mail voting expansions will not increase participation. Many policies that expand mail voting also reduce in-person voting options. For example, California counties adopting the Voter's Choice Act¹⁵

15 In 2016, Governor Jerry Brown signed Senate Bill 450, allowing California counties to choose to adopt a new voting system known as the Voter's Choice Act (VCA). Under the VCA, neighborhood polling places are replaced with vote centers and VBM ballots are automatically sent to all registered voters in a county. Vote centers offer a variety of services including in-person voting, accessible voting options, language assistance, VBM ballot drop-off, and conditional voter registration. These centers are distributed throughout

voter file firm and from states that could provide reliable lists. See Volume 3 in FVAP (2021a) for more details of the methodology.

mailed a ballot to each registered voter but also moved in-person voting from many neighborhood polling places to larger centralized vote centers that serve a much larger geographic area with voting available up to 10 days before Election Day (McGhee, Paluch, and Romero n.d.). This may be more convenient for most voters on net, but individuals who move frequently or who need help voting may be worse off when in-person polling places are further away and serve more people. Some people may also only vote due to social pressure and participate less often when they do not expect to be seen at the polling place (Gerber, Huber, and Hill 2013).

3.2 HOW CAN WE KNOW HOW MUCH BY-MAIL VOTING POLICIES INCREASE PARTICIPATION?

It is difficult to estimate how much mail voting policies increase participation. We might compare turnout rates in states with different mail voting policies, but states with more expansive mail voting may be different from states with limited mail voting policies in ways that affect participation and are hard to account for. For example, Oregon mails all registered voters a ballot while Connecticut requires an excuse to vote by mail, but we can imagine many differences between these two states in a given year that would affect participation such as what offices are contested, who is running, how close elections are expected to be, other election reforms recently enacted, and more. We might instead compare turnout rates in states before and after they expand mail voting, but this is subject to the same concerns—turnout may be different before and after the expansion for reasons unrelated to the expansion.

Most of the existing research uses one of three approaches to estimate the effect of mail voting policies on participation. The first and least reliable is to compare turnout in places or periods with different mail voting policies and adjust for other differences using regression or matching. Since, as we discussed above, many of these differences may be hard to account for, we are often unsure whether we are estimating the effect of mail voting policies or the effect of mail voting policies as well as the effects of many other differences between expansion and non-expansion places or points in time. The second, widely used approach is to compare changes in participation in places that expand mail voting to changes in participation in places that

do not expand mail voting. This is known as a difference-in-differences design. If we see that participation increases and decreases similarly over time in expanding and non-expanding places prior to expansion, we often feel comfortable assuming that any additional increase in participation in expanding places after the expansion is due to the expansion. This assumption is most plausible when we have good arguments for why participation increases and decreases similarly across places over time. For example, counties within the same state are typically on similar turnout trajectories because they vote on many of the same offices at the same time. The third, less common approach, called a regression discontinuity design, is to compare people eligible to vote in the same election but whose mail voting options are different due to an arbitrary cutoff. For example, some states allow citizens over 65 to vote by mail without an excuse but require 64 year olds to submit an excuse to obtain a mail ballot. Since we expect 64 and 65 year olds to be very similar, we can assume that remaining differences in participation arise from the different mail voting policies they face. The main weakness of this approach is that it only tells us about participation effects for people near the cutoff when we may want to know how expanding options to vote by mail affects the average person.

3.3 HOW MUCH DO NO-EXCUSE BY-MAIL POLICIES INCREASE PARTICIPATION?

Three studies conducted since 2009 have directly estimated the effect of no-excuse mail voting policies on participation. Across all three papers, the evidence suggests that no-excuse mail voting policies lead to a modest increase in participation at most.

Leighley and Nagler (2009) use a difference-in-differences design to estimate the effect of no-excuse VBM policies on turnout. They study all statewide shifts to no-excuse mail voting from 1972 to 2008. They find that the policy increases turnout by approximately 1.4 percentage points in their main analysis.

Meredith and Endter (2016) use a regression discontinuity design to estimate the effect of no-excuse VBM policies on the participation of people who are close to 65 years old. They study Texas's policy allowing 65 year olds to VBM without an excuse in the 2012 presidential election. They find that 65 year olds are two percentage points more likely to vote with a vote-mail ballot than 64 year olds, but they are also two percentage points less likely to vote early in person. These effects cancel out and mean that this no-excuse voting-by-mail does not noticeably affect the rate of participation. (Yoder et al. 2021) extend (Meredith and

the county and are available to all voters for up to ten days before and on Election Day. Voters in VCA counties can cast a ballot at any vote center within their county.

Endter 2016) paper to the 2020 election and add data from Indiana which has an age cutoff for access to no-excuse mail voting like Texas. Despite the expectation that no-excuse VBM would have a much larger effect on turnout in 2020 and especially for seniors who have higher health risks, (Yoder et al. 2021) find that the no-excuse VBM policy in Texas and Indiana did not substantially increase participation in 2020.

3.4 HOW MUCH DOES UNIVERSAL MAIL BALLOT DELIVERY INCREASE PARTICIPATION?

A large literature has studied the effect of universal VBM ballot delivery policies on participation. The typical policy studied sends a VBM ballot to all registered voters and consolidates in-person voting to a smaller number of locations. Aggregating across studies and focusing on studies with the most credible research designs, universal VBM ballot delivery policies increase turnout by only a modest amount.

Ten papers published between 1987 and 2011 study the effect of universal mail ballot delivery policies on turnout (Bergman and Yates 2011; Berinsky, Burns, and Traugott 2001; Gronke, Galanes-Rosenbaum, and Miller 2007; Karp and Banducci 2000b; Kousser and Mullin 2007; Larocca and Klemanski 2011; Magleby 1987; Richey 2008; Southwell 2009; Southwell and Burchett 2000). The majority of these papers study universal mail ballot delivery in Oregon, and they all use research designs that compare states with different policies or study changes in participation before and after a policy change. Two additional papers published since 2011 have also used similar designs (Atsusaka and Stein 2021; Bonica et al. 2021). While all of these older designs are subject to the threats we discuss above, and the findings from these papers are variable, the median estimate across studies is a modest positive effect on turnout.

Gerber, Huber, and Hill (2013) introduced an improved design and found that, consistent with the median of previous estimates, that universal mail ballot delivery increases turnout by approximately 2.6 percentage points. They estimate this effect by studying the rollout of universal mail ballot delivery across counties in Washington state. They use a difference-in-differences design to compare counties the increase in turnout in counties that adopted the policy to those that had not yet adopted the policy. Since they expect turnout rates to rise and fall by a similar amount across counties from one election to the next, they interpret their difference-in-differences estimate as the effect of universal mail ballot delivery. More recent papers have extended this design to include California and Utah

and have found similar effects of universal mail ballot delivery on participation (Barber and Holbein 2020; McGhee, Paluch, and Romero n.d.; Thompson et al. 2020)

Difference-in-differences designs have also found that ballots cast under universal mail ballot delivery policies are also more complete, meaning that the effects on turnout understate how many more votes are cast due to universal mail ballot delivery (Marble n.d.). Using a credible within-county, cross-district difference-in-differences design in Los Angeles County, Alvarez and Li 2021 estimate a similar, roughly 3-percentage-point effect of universal VBM ballot delivery on participation.

3.5 DO MAIL VOTING POLICIES INCREASE PARTICIPATION MORE IN SOME ELECTIONS THAN OTHERS?

As we discuss above, expanded access to mail voting options leads to a modest increase in participation. Primary and special elections tend to have much lower turnout rates. If some regular general election voters fail to vote in special and primary elections because they do not know it is happening or forget to go to the polls on election day, sending a ballot to their home and giving them extra time to vote may be especially effective. The existing research is consistent with this expectation--studies of the introduction of universal mail ballot delivery in Oregon in 1995 find that the policy increased turnout most in special elections (Gronke and Miller 2012). Since these studies compare turnout in special and primary elections before and after Oregon introduced universal mail ballot delivery, they may overstate or understate the difference in the effects between primary, special, and general elections if the elections held after 1995 are different from elections before 1995 for reasons other than mail voting policy. We take these articles as suggestive evidence that universal mail ballot delivery may be more effective in special elections and recommend future research in this area using modern research designs.

3.6 HOW MUCH DO INDIVIDUAL POLICY COMPONENTS AFFECT PARTICIPATION?

Policies that expand VBM are often complex and contain parts that might contribute to higher or lower turnout. While VBM expansions often coincide with fewer polling locations, the number of remaining in-person voting options can vary substantially. When all in-person polling places are closed, the effects of universal VBM ballot delivery may be smaller or even modestly negative (Elul, Freeder, and Grumbach 2017).

Placing mail ballot drop boxes closer to a larger share of eligible voters can also modestly increase turnout in elections conducted primarily by mail (McGuire et al. 2020). Finally, encouraging eligible voters to VBM does not always increase participation since, even if the encouragement leads more citizens to attempt to vote, some of those added ballots may be cast incorrectly and counteract the positive effect of the encouragement (Hopkins et al. 2021).

4. RELIABILITY AND SECURITY OF VOTING-BY-MAIL

Some concerns about VBM are related to how reliable, secure, and accessible to voters the system is. In this section, we address these issues, discuss the procedures implemented to ensure that all eligible mail ballots count, challenges voters face to cast a valid mail ballot, how social scientists study these policies, and review the evidence social scientists have produced to date on VBM ballot counting and curing. Evidence shows that states use different methods to confirm the accuracy of the information provided on the mail ballot, ballot rejections vary by race, ethnicity and age, and there are no statewide protocols for documenting the processing of rejected ballots, which is important for ballot curing. In addition, what we know about VBM rejections, curing, and its susceptibility to fraudulent practices, is based on research conducted on a few states and few elections. More research utilizing national data and more election years is needed.

4.1 VOTE-BY-MAIL BALLOT REJECTION

The Help America Vote Act (HAVA) of 2002 may have “cured many of the ills of in-person voting,” however by-mail voting appears to have been an afterthought (Alvarez et al. 2011; Stewart III 2010). As usage of mail voting has increased over time (Biggers and Hanmer 2015; Gronke 2008; Gronke et al. 2008; Stewart III 2010), election officials have tried to adapt and catch up with the demands and challenges of the mail voting process. Particularly, the 2020 Presidential Election tested how well this voting method could serve voters nationwide and how prepared election officials were to administer an election overwhelmingly reliant on mail voting.

Taking place in the midst of a global pandemic, the 2020 election led to a swift change in election laws and procedures across states to make it possible for voters to both participate in the election and protect their health (McDonald et al. 2022). Six states - California, Colorado, Hawaii, Oregon, Utah, and Washington - conducted their election by universally mailing all registered voters a VBM ballot, while in most of the other states the procedure of casting a mail ballot entailed specific steps the voter should follow to request, receive, return, and successfully cast their mail ballot (Altamirano and Wang 2022).

As Stewart III (2010) describes, the route upon which mail ballots travel between voters and election offi-

cial has many potential navigational offshoots from the time the voter requests a ballot to when the ballot is tabulated, as the process is highly decentralized. Undoubtedly, this is a challenging task for both election administrators and voters. Unlike in-person voting, where individuals verify their eligibility with election officials before casting a ballot, mail voters who are sent a ballot only if they are registered to vote have their eligibility assessed remotely by election administrators after the ballot has been returned. Therefore, mail voters have limited options to rectify any issues with the ballot return envelope that may invalidate their ballot. This may lead to increased concerns about this vote method's reliability and security (Bryant 2020).

According to the 2020 Election Administration and Voting Survey (EAVS) comprehensive report, there were 69,560,318 mail ballots counted in the 2020 election compared to 32,982,211 counted in 2016. The increased usage of mail voting has been associated with concerns about mail ballot rejections. Research has shown that mail ballot rejection rates are related to institutional as well as individual factors such as: 1) missing return deadlines, 2) verification issues (missing or mismatched: signature, witness signature, address, or date of birth), 3) envelope design, 4) ballot secrecy (Baringer, Herron, and Smith 2020; Shino, Suttman-Lea, and Smith 2022; Smith and Baringer 2018; Hopkins et al. 2020), or lack of information of how to successfully navigate the whole process, from requesting to returning a mail ballot (Suttman-Lea and Merivaki 2023).

There is also evidence that the primary reasons for VBM ballot rejection varies by race, ethnicity and age. California studies have shown that in at least the last several elections, Latino voters had lower rates of late mail ballots than the general population and other voters of color and a larger share of Latino rejected VBM ballots had non-matching signatures and missing signatures. Black voters had higher rates of late ballots compared to the general population and lower non-matching signatures. Reasons for VBM rejection varied widely across age groups. Youth voters (age 18-24) in California had by far the most signature issues, twice the proportion as those aged 55 and older. Older voters over the age of 55 had the lowest rates of non-matching signatures, but also the highest rate of missing signatures (Romero 2014; Romero et al. 2021).

States use different methods to confirm the accuracy of the information provided on the mail ballot, with the most common method being signature verification. When voters return a VBM ballot, they must sign

an affidavit on the ballot envelope. For some political operatives and members of the public, signature verification is one of the most controversial issues related to mail voting. Most of the states use a signature-match system to verify mail ballots. In states that use this ballot signature verification method, most require voters to sign the ballot envelope while a few states require witnesses.¹⁶ Ballots are validated by comparing signatures against one or more previously provided signatures, but there is high variability on how different states, and sometimes jurisdictions within the same state, apply signature verification (manual, automation, and a mix of the two).

There is high variability on how different states, and sometimes even counties within the same state, apply signature verification on mail ballots (Janover and Westphal 2020; Smith and Baringer 2018). In some jurisdictions election officials do the signature verification manually and use their judgment to compare and verify signatures. Other jurisdictions use an automated verification system. The signature verification process can vary across counties within a state, with some localities using a multi-tier process, automated, or a combination of the two, depending on the county size and the volume of ballots that need to be counted.

There is also high variability in the criteria used to compare and validate signatures. Most counties in California “compare a set of enumerated characteristics of the ballot signature to one or more signatures on file to determine whether they match...common criteria that counties use are the slant of the handwriting, the shape of letters and loops in the signature, the way that t’s are crossed and i’s are dotted, and the signature’s initial and ending marks. Other commonly assessed criteria are the spacing and size of letters and the consistency of any unique characters in the signature” (Janover and Westphal 2020, p. 330). Oth-

16 There are twenty-seven states that use ballot signature verification on returned mail ballots: Arizona, California, Colorado, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Maine, Massachusetts, Michigan, Montana, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, South Dakota, Tennessee, Texas, Utah, Washington, and West Virginia. While nine states require witness signature on the return ballot envelope: Alabama (two witnesses or a notary), Alaska (witness or notary), Louisiana, Minnesota (witness or notary), North Carolina (two witnesses or a notary), Rhode Island (two witnesses or a notary), South Carolina, Virginia, and Wisconsin. For more see <https://www.ncsl.org/elections-and-campaigns/table-14-how-states-verify-voted-absentee-mail-ballots>

er counties use holistic signature evaluation criteria, rather than looking at any particular elements of the signature.

Ballot design is another institutional factor that affects the success rate of a VBM ballot. In a case study of California, Janover and Westphal (2020) find that there is a high variability in the design of ballot return envelopes (across counties) with respect to layout, wording, size, color, and content. Similarly, studies from Florida and Pennsylvania, flag the variability in the ballot design as a possible factor contributing to VBM rejection rates (Hopkins et al. 2021; D. A. Smith and Baringer 2018). In other words, studies from CA, FL highlight that the non-standardization of the processes in place when processing and validating VBM ballots, staff training and resources, could be another reason that affect VBM ballot acceptance rate ((Janover and Westphal 2020; Smith and Baringer 2018). These studies do not evaluate what the good and bad VBM ballot designs are. This is an area where more research is needed.

There are new technologies for tracking outgoing and incoming ballots; ballot tracking has gained a substantial presence in many jurisdictions, but the use of intelligent bar code systems is not substantial. In the 2022 general election, one-quarter of VBM voters in California, nearly half in Colorado, and over one-quarter in Georgia were signed up to receive ballot updates through BallotTrax, the ballot tracking system utilized by both state elections offices. In the first study on the impact of ballot tracking systems in these states, users in California, Colorado, and Georgia were found to have higher registered voter turnout rates in the 2022 general election, although the difference in turnout between BallotTrax users and non-BallotTrax users was larger in California. Users in California and Colorado also had lower rates of rejection for their VBM ballots compared with non-users (Romero et al., forthcoming).

Collingwood and Gonzalez O'Brien (2021) find that voters who lived in close proximity (about 2.5 miles) from the nearest secure drop box location were more likely to use them as a drop-off method for their VBM ballot. Research has also found that secure drop boxes for VBM ballots help to reduce barriers to casting a mail ballot (Collingwood et al. 2018; Collingwood and Gonzalez O'Brien 2021; McGuire et al. 2020). In a recent study, Shino, Smith, and Temoney (2023) find that during the 2020 General Election in Florida, Black voters were more likely to report having used a VBM drop box compared to white voters. There is not much research into whether drop boxes constitute a security

risk or how these risks, if they exist, can be ameliorated. In addition, the current research has been conducted in two counties in Washington and in Florida. Research needs to be extended into other states and jurisdictions to ensure that these results generalize to other states, localities, and population subgroups (for example, does the turnout impact of drop boxes increase in areas with longer or unpredictable USPS delivery times).

It should be emphasized that there is a fine line between election integrity and accessibility. For example, states like North Carolina require their voters to have two adult witnesses to sign their ballot envelope as part of the ballot verification. While this measure was put in place to preserve the integrity of VBM ballots, it has had unintended consequences. Referring to the 2020 EAVS report, the percentage of mail ballots being rejected for missing witness signatures has increased. A similar issue observed with ballots not placed in the secrecy envelope, with 8.3% of mail ballots being rejected for this reason.

An understudied topic related to the security of VBM is to what extent security measures are simply barriers, and to what extent do they actually deter and detect fraud. This is an area of research that should be expanded when considering the issue of rejected VBM ballots. Academic studies cited above treat rejections as barriers to valid voters voting. What is still unknown is if the rejections (except for late ballots) are actually cases of fraudulent voting that has been thwarted? The issue of voter fraud, particularly the question of its prevalence, is arguably one of the most important issues in election administration today, at least among half the electorate.

4.2 VOTE-BY-MAIL BALLOT CURING

All VBM ballots must meet a variety of state requirements to be verified and counted, including being received by a certain deadline and verifying signatures on the ballot. Twenty-four states have processes to correct signature errors in the event of a missing signature or discrepancy in signature matching.¹⁷ Ballot curing is a two-part process that involves notification and correction, although the timeline and procedure of this process varies state by state. The correction process may include signing a voter signature verifi-

17 State Cure Processes: <https://www.ncsl.org/elections-and-campaigns/table-15-states-with-signature-cure-processes>

cation form, submitting a new ballot, or submitting a letter to the county clerk.

While research is limited, curing is no panacea. When it comes to the factors that determine whether an eligible individual could cure and have their ballot counted, it was found that two of the most significant reasons were receiving the mail ballot at their registered address and returning the ballot well in advance of Election Day.

Examining data from Florida, Smith and Baringer (2018, p. 51) argue that regardless of changes in Florida election law giving voters the option to “cure” their VBM ballots if they have an error identified with the signature on the return envelope, still “the overall statewide rejection rate of the 2.67 million VBM ballots cast in the 2018 general election was 1.2%,” a higher percentage of rejected VBM ballots compared to the 2012 and 2016 elections. Most importantly, there is a high variability across counties in how the curing process is handled allowing voters to correct rejected VBM ballots with a “Vote-by-Mail Ballot Cure” Affidavit (Smith and Baringer 2018). Most importantly, Smith and Baringer (2018), find that despite the change in the electoral law to allow voters to cure their faulty mail ballot, these changes were not sufficient to reduce or eliminate the high rejection rate of mail ballots cast by young and voters of color.

In a recent study of Florida’s ballot rejection rates in 2020, Smith (2022) finds that younger voters were over three times more likely than older voters to have their ballots initially rejected, while historically marginalized voters, including Black, Latino, and other underrepresented groups, faced an initial rejection rate at least 60% higher than that of white voters. However, the study revealed that nearly three out of four voters who initially had their VBM ballots rejected were able to successfully cure them before the deadline, narrowing the overall rejection rate between younger and older VBM voters, as well as historically marginalized and white voters. First-time voters encountered more difficulties in curing their rejected ballots compared to other groups. Additionally, the study highlighted the same variations and lack of consistency across counties as seen in 2018, emphasizing that individual voters should not be automatically blamed for disparities in rejection rates since these rates vary among counties (Smith 2022).

There is little research on the factors that contribute to setting up a successful system for the curing process. Meredith and Kronenberg (2022) highlight three factors: the speed and quantity of information dissem-

ination sources election officials use to reach out to voters, the ability of voters to rectify the error without the need to cast a new ballot, and whether election officials share information about VBM ballots that present issues with stakeholders involved in voter outreach. Referring to Meredith and Kronenberg (2022), the two most significant reasons determining whether an eligible individual could cure and have their ballot counted were receiving the mail ballot at their registered address and returning the ballot well in advance of Election Day. Their findings show that registrants who had no registration zip in their county of registration, a different county than county of registration, a different state, and returned a ballot after October 4 were less likely to cure their ballots compared to their counterparts. Registered Democrats had a higher successful rate of curing their ballot compared to registered Republicans and those not registered with a major party. Registered Black voters cured their ballots at a higher rate than whites, but other racial groups had a lower curing rate than whites (this is a consistent finding with (Smith 2022)). Also, older voters had a higher rate of curing their ballot compared to younger voters (this is a consistent finding with (Smith 2022)).

A universal factor with VBM is the absence of statewide protocols for documenting the processing of rejected ballots, which makes it challenging for both researchers and practitioners alike to obtain and systematically evaluate the information. This includes the number of voters who submitted mail ballots initially flagged for missing or mismatched signatures, whether these ballots were ultimately rejected, or whether these ballots were successfully cured in a given election. Using national voter file and survey data, (Ritter 2023) finds that implementing VBM cure laws could slightly increase turnout.

Some new research suggests that timely efforts by election officials to inform voters about changes in election laws governing VBM may be one mitigation strategy to limit the need to cure mail ballots, as voters are more likely to return their ballots successfully and have them counted (Suttmann-Lea and Merivaki 2023). However, there are limits to the geographic and demographic reach of voter education efforts with historically underrepresented groups typically on the losing end of this information gap. Further, there are clear and persistent disparities in who is more likely to have their mail ballot rejected even when information about the process is disseminated by election officials, community organizations, news media, or political campaigns.

4.3 VOTE-BY-MAIL FRAUD AND SECURITY CONCERNS

Concerns about fraud and mail voting escalated prior to the 2020 Presidential election, due to comments made by former President Donald Trump. Trump frequently attempted to delegitimize mail voting with statements like: “Mail-in voting will lead to massive fraud and abuse. It will also lead to the end of our great republican party. We can never let this tragedy befall our nation.” According to the Heritage Foundation, a conservative think tank, the fraudulent use of mail ballots is defined as “requesting absentee ballots and voting without the knowledge of the actual voter; or obtaining the absentee ballot from a voter and either filling it indirectly and forging the voter’s signature or illegally telling the voter for whom to vote.”¹⁸

Some political elite and the public often argue that VBM use is the most common source of voter fraud, but decades of data, research, and findings suggest that there are mechanisms in place to mitigate fraud risks related to VBM (Barretto et al. 2020). One of these mechanisms is the process of requesting and validating a mail ballot, which follows several steps to ensure that only eligible voters cast a ballot. In order to cast a mail ballot, first, a registered voter must request a mail ballot either by mail or online. The local jurisdiction election office receives the request, verifies the voter’s identity, and the mail ballot is sent to the voter. Once the registrant receives the ballot in the mail, they fill it out and verify their ballot (depending on the state’s policy where the voter resides, this step includes either signing the ballot envelope or having a witness sign their ballot envelope). The voter can return their ballot to their local elections board either by mailing the ballot back or dropping it off in person (at their local election office, a designated drop box, or at a staffed early or Election Day voting site, depending on their state’s policy). In the final step, the local election office receives the ballot and verifies the voter’s identity. While the ballot verification process has many checks in place, isolated cases of fraud have happened. It should be emphasized that we do not know whether these steps are universally followed, future research should shed light on what universal practices are and how they are executed. Recently, two Florida voters pleaded guilty of committing election fraud in 2020 casting mail ballots in two different

states.¹⁹ However, voter fraud cases are extremely rare, given the number of ballots cast (Barretto et al. 2020; Minnite and Callahan 2003). Studies consistently have found negligible evidence of fraud in state elections (Ahlquist, Mayer, and Jackman 2014; Levitt 2012). In addition, using data from The Heritage Foundation on voter fraud cases from 1982 to 2020, Barretto et al. (2020) report that there were only 207 cases out of 1,277 credible instances of voter fraud. One question that needs future evaluation is how VBM safety check mechanisms work together to mitigate voter fraud.

One of the prominent claims among critics of by-mail voting is that universal mail ballot delivery will lead to the fraudulent use of ballots delivered to deceased individuals. Studying the case of Washington state from 2011 to 2018, when all registered voters are mailed a ballot, Wu et al (2020) link voting records to death records. They find that, out of approximately 4.5 voters, only 14 could possibly have had their ballot cast after their death—the security in place to prevent this form of fraud is highly effective, so it would be incredibly difficult to pull fraud like this off. Given the importance of claims related to VBM being susceptible to fraudulent practices, more research including data from other states, and election years, is necessary.

18 “Heritage Explains Voter Fraud.” The Heritage Foundation. <https://www.heritage.org/election-integrity/heritage-explains/voter-fraud>

19 <https://www.washingtonpost.com/politics/2022/04/13/florida-voter-fraud-2020/>

5. THE REPRESENTATIONAL IMPACT OF ACCESS AND SECURITY POLICIES

Mail voting policies have only a modest effect on average participation. We might be tempted to think everyone is a little bit more likely to participate when policymakers expand mail voting. But a small average effect is also consistent with mail voting policies dramatically increasing the participation of a small group without affecting anyone else. If the effects of mail voting policies are limited to a small group of people, this could be important for who wins elections and whose voice is heard.

In this section we discuss two aspects of the research on how vote-by-mail policies affect different groups differently. First, we describe the research on who participates more when policymakers expand mail voting. We document that the existing research reaches different conclusions, and we recommend further research in this area to understand why. Then, we describe the research on who bears more of the cost of security policies. We discuss the consistent finding that, across the states studied to date, racial and ethnic minorities, young voters, and overseas residents, including military voters stationed overseas, are more likely to have their ballots rejected.

5.1 EXISTING RESEARCH REACHES CONFLICTING CONCLUSIONS ABOUT WHICH VOTERS ARE MOST AFFECTED BY MAIL VOTING POLICIES

Researchers have reached conflicting conclusions about who is most affected by policies that expand mail ballot voting. Early work found that all-mail ballot elections increased the participation of high-propensity voters (Berinsky, Burns, and Traugott 2001), while more recent work finds that they increase the participation of low-propensity voters most (Gerber, Huber, and Hill 2013). Furthermore, it was found that more politically knowledgeable voters are more likely to cast a mail ballot than on Election Day (Shino and Smith 2022). Similarly, there are conflicting results about how the effects of expanded mail ballot voting vary by race and income, including uncertainty in the relationship between racial polarization in partisanship, and how these interact with racial and ethnic differences on participation. One common finding is that neither party stands to gain from the introduction of policies that increase mail ballot voting (Barber and

Holbein 2020b; McGhee, Paluch, and Romero 2021; Thompson et al. 2020; Yoder et al. 2021).

5.2 DISPROPORTIONATE REJECTION OF VBM BALLOTS CAST BY RACIAL AND ETHNIC GROUPS

Who is more likely to have their VBM ballot rejected? Examining ballot rejection data from Georgia and Florida, several studies find that younger voters, first-time voters, and voters of color are much more likely to cast VBM ballots that are rejected (Baringer, Herron, and Smith 2020; Cottrell, Herron, and Smith 2021; Shino, Suttman-Lea, and Smith 2022; Smith 2022; Smith and Baringer 2018). VBM ballots cast by Black, Latino, and other racial and ethnic groups were more than twice as likely to be rejected as VBM ballots cast by white male voters in 2018 (Smith and Baringer 2018, p. 55). What is more, the percentage of rejected VBM ballots among these groups has increased compared to the 2012 and 2016 elections. Shino, Suttman-Lea, and Smith (2022) and Baringer, Herron, and Smith (2020) find substantial variations in rejection rates across Georgia and Florida counties. These findings indicate a lack of uniformity in ballot design, civic education efforts, and evaluation standards employed by these states.

Studies in California have consistently found that voters of color have higher VBM rejection rates than the general voter population, with Latino voters experiencing the highest rejection rate (Romero 2014; Romero et al. 2021). VBM rejection rates also vary by age group. Young voters aged 18 to 24 have by far the highest rejection rate than all other age groups. In the 2022 general election, the youth rejection rate was more than 50% higher than the rejection rate among voters aged 25 to 34, the age group with the second highest rate of rejection. Voters over the age of 45 have lower rejection rates than the general population, particularly for those over age 55.

In addition, Smith and Baringer (2018), find that VBM ballots cast by overseas voters are rejected at a high rate, especially those ballots cast by military voters stationed overseas, but also those in the U.S. Similarly, (Alvarez, Hall, and Sinclair 2008), using data from the 2002 General Election in Los Angeles County, find that uniform service personnel, overseas civilians, voters who request non-English ballots, and permanent absentee voters have both a lower probability of returning and having their ballot counted. While they find no partisan differences on who is more likely to return their ballot or have it counted.

A distinctive feature of much of the research cited in this section is that much of it is based on elections data from Florida, Georgia, North Carolina, and Washington. Why might this be the case and what lessons can be learned? In the case of North Carolina and Washington, these are states that have readily accessible data files with the kind of detailed information needed to understand equity and access to voting by mail or the impact of curing.²⁰ In the case of Florida, Georgia, and North Carolina, these states have been subject to a number of lawsuits, and the scholars involved in those lawsuits have been able to gain access to some of the detailed ballot processing information that is otherwise not accessible to scholars.

Moving forward, the field would benefit if research was driven not just by the interests of litigators, but also by the needs and interests of election administrators. We need more collaborations in more locations. One example is provided by retired Orange County Registrar of Voters Neal Kelley. Kelley partnered with researchers at the California Institute of Technology led by R. Michael Alvarez, providing them a secure way to look “behind the curtain” at nearly every step of the election process in the county. This partnership resulted in actionable improvements for the county (reported at this website <https://monitoringtheelection.us/>), a second partnership with the State of Oregon (Gronke et al. n.d.), and peer-reviewed research and an academic volume (Alvarez et al. 2020; Kim, Seo-Young Silvia, Schneider, and Alvarez 2019). This is a broader call for collaborations, but these are particularly important to understand voting by mail because of the additional steps in ballot transmission and processing that are not normally reported in state voter files.

20 In the case of North Carolina, the state has made detailed voter file information, including absentee ballot request and return files, available for no cost on the internet. In the case of Washington, this is the only state we know of that creates a statewide “match back” file tracking the ballot curing steps for any challenged ballot.

6. BUDGETARY COSTS AND PUBLIC RESPONSES

When thinking about mail elections two considerations come to mind: voters’ support and administrative costs. This section summarizes current literature on these matters. The 2020 election has been a turning point on voters’ trust on mail voting and especially widening the partisan division on this matter. In this section we discuss the public’s support and confidence on mail voting, costs associated with this voting method, as well as any insights we can draw from the 2022 election.

6.1 PUBLIC’S SUPPORT FOR VOTING-BY-MAIL

Support for VBM has been gradually increasing over the past two decades, however, that growth was interrupted in 2020 as the issue became highly polarized. Democrats also became much more supportive, which means that the increased polarization has led to overall support to plateau out. Mail voting is a form of convenient voting; however, it is not as widely embraced by all voters as expected (Alvarez et al. 2011; Clinton et al. 2022). This election reform is the least supported reform by voters compared to voter ID, make Election Day a holiday, automatic voter registration, Election Day registration, Election Day to weekend, and vote by mail over the Internet (Alvarez et al. 2011). However, as expected support for universal vote by mail is higher in states that have already implemented it such as Oregon, Washington, and Colorado (Alvarez et al. 2011; Southwell 2004; Stewart III 2021; Stewart 2023). Looking at VBM support rates, in these three states from the 2008 to the 2016 election, Republicans have continuously shown lower support for mail voting compared to Democrats. However, in the 2020 election, Republican support dropped to 15%, compared to 41% in 2016, in these three states, while Democratic support soared to 90% compared to 81% in 2016 (Persily and Stewart 2021; Stewart III 2021). In 2022 the support for VBM among Republicans in these three states increased to 27%, while Democrat support for VBM slightly dropped to 89% (Stewart III 2023).

Hassell (2017) argues that voters can be swayed to support mail voting instead of in-person voting, indicating that voting method preferences can be flexible and easily changed. Recent literature has shown that support for mail voting can change due to party contact, COVID-19, and elite cues (Clinton et al. 2022; Hassell 2017; Safarpour and Hanmer 2022; Shino, Smith, and Uribe 2022). Looking at historical trends, Clinton et

al. (2022) find that support for all mail voting in the general population has increased since 1996. Especially in post-pandemic the support for universal VBM increased significantly among Democrats widening the partisan gap, which was almost non-existent in pre-pandemic (Clinton et al. 2022; Lockhart et al. 2020). However, the partisan gap in VBM usage somewhat narrowed down in the 2022 election. According to data collected after the 2022 election, forty-six percent of Democrats reported to cast a mail ballot in 2022 compared to sixty percent in 2020 and 27% of Republicans reported to have cast a mail ballot in 2022 compared to 32% in 2020 (Stewart III 2023).

Support for national legislation mandating no-excuse VBM ballots has become a polarized issue with Democrats being more supportive of the issue compared to Republicans (Atkeson et al. 2022; Clinton et al. 2022; Lockhart et al. 2020; Shino, Smith, and Uribe 2022, SPAE 2020, SPAE 2022). Republican opposition to VBM increased close to November 2020 election, but their opposition to other election reforms remained largely unchanged (Clinton et al. 2022), which indicates that support for VBM decreased coincided with the electoral reform (i.e. VBM) that received the most negative partisan elite messaging (Clinton et al. 2022; Shino, Smith, and Uribe 2022). Most importantly, on the effects of elite negative cues on methods of voting, it was found that Trump supporters were also more likely to under-report their use of mail ballots in the 2020 and past elections (Shino, Smith, and Uribe 2023).

6.2 PUBLIC'S CONFIDENCE IN VOTE-BY-MAIL

A few studies have surveyed voters or conducted experiments to explain how the experience of voting might affect one's confidence in the election outcome. These studies show that VBM voters are less confident compared to other voters (Atkeson and Saunders 2007; Bryant 2020; Burden and Gaines 2015; Stewart 2011). Suttman-Lea and Merivaki (2023), find that those who cast a mail ballot in 2020 were less confident that their vote would count as intended compared to Election Day voters. Using Survey of the Performance of American Elections (SPAE) data from 2008 to 2022, in Figure 4 we plot weighted percentages for voters' confidence over time given their preferred method of voting. In 2008, we find that 91.3% of those who had voted by-mail were confident that their vote would count as intended compared to 94.1% of those who had voted on Election Day. Even though the confidence in vote count remains high over time, we observe a slight increase in confidence among those who vote early, ei-

ther by-mail or in-person, and a slight decrease among those who vote on Election Day.

Figure 4 shows general trends in voter confidence with respect to voting method, however it masks the partisan divisions that exist both pre- and post- 2020. In Figure 5, we observe that party samples move more significantly on this issue, particularly on mail voting. Democrats have overall been more confident in mail voting compared to Republicans. In 2016, this partisan gap almost disappeared as Republicans almost reached parity with Democrats in trust of mail voting, but expanded in 2020 and then declined again in 2022.

The partisan gaps in 2020 are a definite cause for concern, but deeper examination of the gaps may provide a silver lining and policy recommendations for election officials. The “winner’s effect” is a phenomenon whereby voters who cast a ballot for a winning presidential candidate express higher levels of confidence in the integrity of the ballot count – has been long recognized by researchers (Atkeson, Alvarez, and Hall 2015; Atkeson and Saunders 2007; Gronke 2015; Sances and Stewart 2015). In 2020, the “winner’s gap” underwent a “seismic shift” (Clark and Stewart 2021). In that article, Clark and Stewart (2021) show that the winner’s effect was larger than in previous elections, and the gap was particularly magnified in states where Donald Trump lost by a few percentage points. The partisan gap appeared to have been magnified by voting by mail: “...the effect of moving from no mail ballots to 100 percent vote-by-mail in the states [that Trump lost] being 10.2 percentage points” (2021, pg. 19). This is a cause for concern because it shows that voter confidence may be “particularly volatile” in the current political climate, and that there is fertile ground for losing presidential candidates to stoke mistrust and potentially create a “crisis of legitimacy” (Clark and Stewart 2021; see also Persily and Stewart 2021).

However, this deep dive into voter confidence also provides some reasons for optimism that these gaps will decline over time. Clark and Stewart (2021) also show that the way that VBM was implemented may also be contributing somewhat to the partisan gap. In “legacy” VBM states (Oregon, Washington, Colorado), they show that lower voter confidence in those states was initially driven by lower rates among Republicans, but the gap reduced over time. The authors show this same effect in 2020, but in many more states because of the dramatic increase in VBM due to COVID-19. We may hypothesize from these findings that Republican voters are particularly sensitive to being “forced” into voting by mail, or potentially more generally resistant to rapid changes in the way ballots are cast. While we

cannot minimize the impact of losing candidates deploying corrosive rhetoric about the election system as a campaign tactic, it is possible that the partisan gaps can be minimized by additional efforts at engagement and outreach with Republican opinion leaders and voters. This is a fruitful area for future research.

Mail voting, while convenient, is associated with particular challenges such as postal delays, return postage availability or cost, and limited operating hours of postal services and/or election offices (Herron and Smith 2021; Schelker and Schneiter 2017). Given individuals some worry about the United States Postal Service (USPS) potentially misplacing or delaying their

ballots, particularly in the context of voting by mail, states that conduct all-mail elections have addressed this apprehension by providing alternative options for voters to submit their ballots, such as designated physical locations where they can drop off their ballots (Collingwood and Gonzalez O’Brien 2021). Using data from SPAE 2016, (Barretto et al. 2020) find that in Colorado, Oregon, and Washington, most voters returned their ballots to official ballot return sites such as drop boxes and election offices, reducing the possibility of their ballots being lost or taken in transit.

FIGURE 4: VOTER CONFIDENCE BY VOTE METHOD (2008-2022)

Source: Survey of the Performance of American Elections (SPAE) Data.

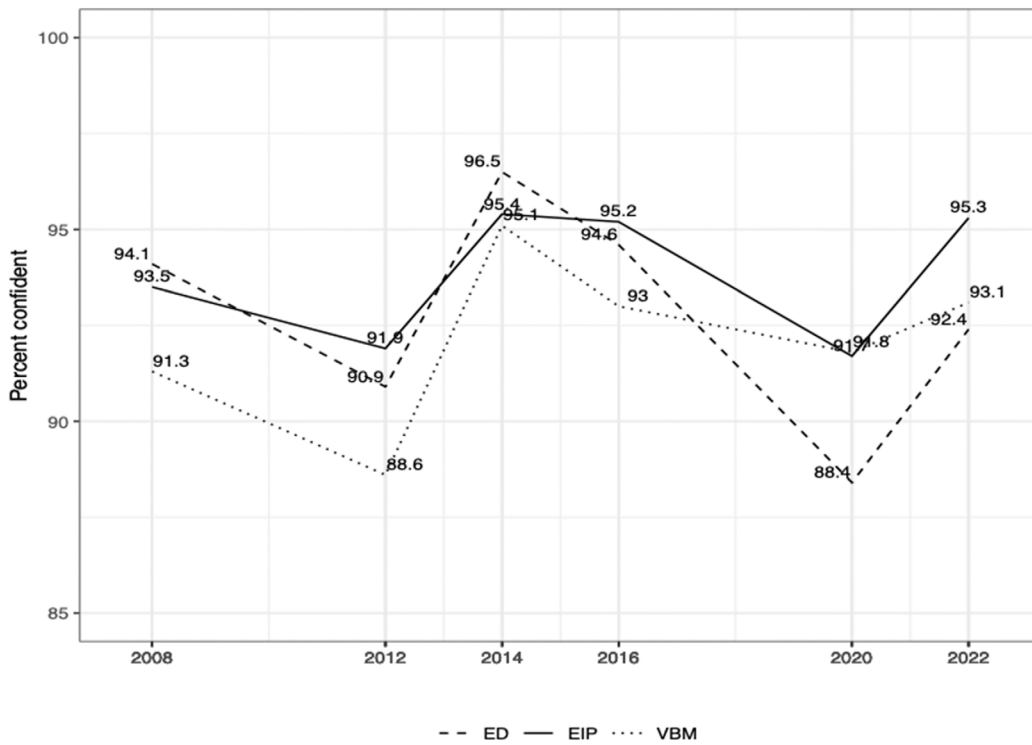
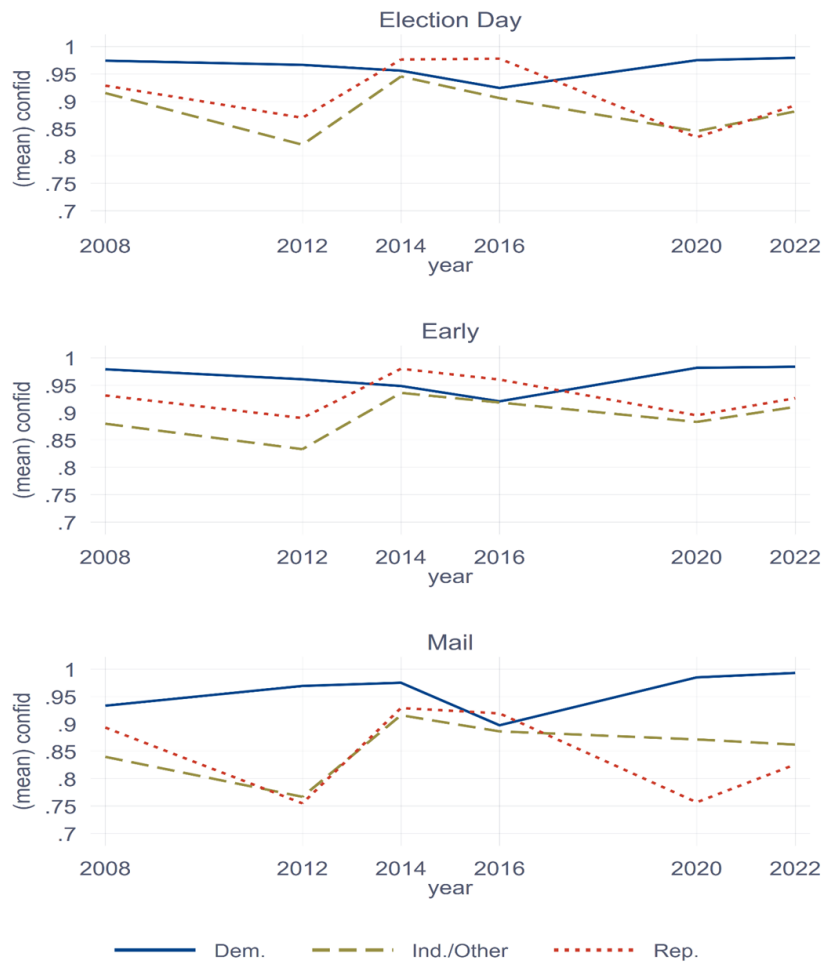


FIGURE 5: VOTER CONFIDENCE BY VOTE METHOD AND PARTISANSHIP (2008-2022)



In addition, Menger and Stein (2019) find that “two-thirds of persons who receive an unsolicited ballot in the mail before Election Day choose to travel out of their way to return their ballot in person, rather than through the less costly and more convenient USPS.” How and when voters choose to return their mail ballots have important consequences for voter participation, the management of elections, and the level of confidence voters have in the election results. The surge in last-minute ballot returns poses a challenge to the administration of VBM elections as it increases personnel expenses for verifying and counting ballots, and it diminishes the likelihood of accurately counting and reporting all ballots on Election Day (Menger and Stein 2019). This, in turn, can significantly impact the confidence voters have in the legitimacy of election outcomes (Sances and Stewart 2015), which we discuss in more detail in the section below.

6.3 VOTER AND ADMINISTRATIVE COSTS

From a “cost of voting” perspective, prospective voters will participate in an election if the benefit they receive from voting exceeds the cost of participating (Downs 1957; Schraufnagel, Pomante, and Li 2022). The cost of voting varies across and within state and over time (Schraufnagel, Pomante, and Li 2022), meaning that not all eligible citizens have the same opportunities to participate in the electoral process. According to Schraufnagel, Pomante, and Li (2022, 223), “it is not by chance that the eight states ranked as the easiest to vote each has institutionalized an all VBM process.” On one hand, states that have adopted VBM to make it easier for voters to participate in the elections by giving them more alternatives to cast a ballot. On the other hand, a longer voting period is associated with costs. These costs are things like correcting or revising errors in ballots to accommodate eleventh-hour developments, such as candidate withdrawals or replacements or voters casting multiple ballots (provisional and early/VBM). It can be challenging to distinguish deliberate voting crimes from instances of

voter confusion or administrative errors (Burden and Gaines 2015; Meredith and Malhotra 2011).

6.4 FINANCIAL COSTS

There have been few scientific studies of the costs of by-mail voting. Oregon and Colorado reported substantial cost savings from full vote by mail, when the baseline comparison was a “mixed” regime – one that still had Election Day voting but where VBM was already heavily utilized (Barouh 2020; Lamb 2021). One 2020 report provided estimates of moving to widespread use of no-excuse absentee balloting, deploying drop boxes, and upgrading other technology, but it is not clear how these costs would be offset by other savings (Norden et al. 2020).

Mail-in voting can reduce spending by cutting down on equipment, staff, and location rental costs. However, the late return of paper ballots poses a hurdle for the administration of VBM elections. The bulk of ballots received in the final days needs signature verification and counting, leading to additional personnel costs for LEOs (Menger and Stein 2019). Additionally, this rush can undermine the accuracy and timely reporting of all ballots on Election Day, which can undermine voter confidence in the election process (Atkeson and Saunders 2007; Sances and Stewart 2015).

VBM ballots prolong both the vote counting and the election certification process because the county registrar has to confirm each voter’s registration status, compare the signature on the envelope with the one on the registration form to ensure the voter’s identity, and verify that the voter did not vote elsewhere (Burden and Gaines 2015).

6.5 COST OF VOTER CONFIDENCE

Burden and Gaines (2015, 36) find a “small, but consistent pattern of higher belief in fraud where mail voting is more prevalent.” As Stewart (2011) argues, the implementation of universal voting by mail in Oregon and Washington has led to the emergence of a significant minority of voters who have doubts about this process. A considerable number of them firmly believe that the vote count is compromised and when compared to the rest of the nation, voters in Oregon and Washington express notably lower confidence that their vote was counted as cast (Stewart 2011). Mail voting disconnects the voter from their ballot prior to its tabulation. Usually, a poll worker or election official is tasked with opening and depositing VBM ballots into the voting machine. As a result, maintaining the privacy of vote choices becomes challenging. Additional-

ly, ballots may become unreadable due to bending or incorrect completion, making the voter’s intent uncertain (Burden and Gaines 2015).

During a closely contested election, the handling of VBM (and provisional) ballots becomes a focal point for potential legal challenges from candidates, political parties, and advocacy groups. Conversely, certain states allow the counting of VBM ballots upon receipt, rather than waiting until Election Day or later. While early tabulation is understandable to expedite the process, it also requires administrators to take precautions to prevent early count information from leaking to the public and influencing subsequent voters’ actions (Burden and Gaines 2015).

6.6 COST OF LOST VOTES

The intricate process increases the chances of ballots potentially moving off their main route from the voter to the LEO. This situation “can happen in three different forms such as a registered voter requested a mail ballot but did not receive a ballot, mail ballots are sent to the voter but not returned for counting, and mail ballots are returned for counting, but rejected” (Stewart 2011). According to (Stewart 2010) findings, mail ballots are lost at approximately twice the rate of those cast in person. Additionally, in one election, he estimated that 21% of all ballot requests were lost at some point in the process (Stewart III 2010).

7. POLICY AND RESEARCH LESSONS

Throughout this white paper, we have discussed a wide range of policy recommendations and research limitations. In this section, we summarize and enumerate our most important recommendations.

7.1 KEY POLICY RECOMMENDATION

- » *Universal mail ballot delivery programs, if implemented well, have the potential to modestly increase participation overall, significantly increase participation for particular groups, and save money.* Policymakers and community advocates need to weigh this against increased ballot rejection rates and decreased trust and confidence in election integrity (both can be minimized with appropriate administrative steps and voter education efforts).
- » *Signature verification and other methods to affirm eligibility should be assessed to ensure that they are not differentially impacting subgroups in a state or jurisdiction.*
- » *Implementing VBM cure laws could have a positive effect on turnout.*
- » *Drop boxes provide convenience and are a preferred return method in many states.* States and jurisdictions should take advantage of geo-spatial and demographic analysis tools to optimize locations and ensure equity of access.
- » *Transparency and data accessibility* provide avenues to engage and educate portions of the public who have lower levels of voter confidence or who view VBM more skeptically.
- » *More collaborations* between researchers and election administrators in locations beyond the “usual suspects” would be valuable.
- » *National comparisons of VBM and other usage rates of different modes of voting should generally be avoided.* State-specific comparisons over time provide more accurate estimates and provide better guidance to policymakers.
- » *How does the composition of the electorate change under different mail voting policies?* While existing work addresses this question, no paper has fully resolved the competing findings in this literature.
- » *How well do security measures actually work?* As we discuss above, secrecy envelopes and signature matching are common tools for improving security, but we do not know how much they reduce fraud or increase public trust. To what extent could security measures be barriers to voting?
- » *Does extending the deadline for VBM ballots decrease the rejection rate of late delivered ballots?* There is little research, for instance, on recent reforms such as pre-paid postage or relaxing delivery standards to “postmark by Election Day” on voter participation. Research could identify the correct thresholds to balance the administrative need to have time to process and count the ballots and report election outcomes, and the voters’ need to have time to return the ballot and cure problems.
- » *What factors and practices can lead to a more effective VBM curing process?* We called for broader collaborations as a policy recommendation; these collaborations are also a call for future research into the various stages of ballot and signature challenges and curing.
- » *How does the availability of ballot tracking potentially impact voter confidence, turnout, rejection rates, and election integrity?* Random controlled trials (RCTs) hold potential to assess which outreach efforts have the most uptake of ballot tracking as well as isolating the cause and effect relationship between ballot tracking and vote propensity and turnout.
- » *What are the key steps in the mail ballot chain that impacts voters of color, lower income voters, Indigenous voters, voters with language access needs, different age cohorts, and those with disabilities?* We have highlighted at many points the value of more detailed administrative data. These data, connected to demographic and geospatial data, would be enormously valuable to spur research innovations and help identify disparities in access.
- » *How much does VBM affect participation in state, local, and special elections?* Too much of the research focuses on federal elections, due in part to data accessibility but also the structure of professional incentives that devalue scholarship based on one or a small number of states or local ju-

7.2 PRIORITIES FOR FUTURE RESEARCH

- » *What arrangement of in-person and ballot return options make universal mail ballot delivery policies most successful?* Scaling back in-person voting too much can lead to lower levels of participation. More research weighing the costs of keeping ex-

risdictions. These professional incentives can be overcome if there is very high quality, detailed administrative data and if researchers can show substantially different effects in state and local races, effects that many of us believe exist but have to date not been able to scientifically demonstrate.

- » ***What more can we learn from military and overseas voting?*** It is time to take another research look at UOCAVA voting and voters. Ideally this research would support, but be at arm's length from, federal agencies and policy / advocacy groups.
- » ***How much do policies that expand VBM cost taxpayers?*** Detailed budget information on election administration is finally becoming accessible, and it may soon be possible to identify the cost implications of different VBM regimes on elections budgets.

APPENDIX

FIGURE 1: VOTING METHODS BY RACE AND ETHNICITY IN NOVEMBER 2022

Source: Current Population Survey Voting

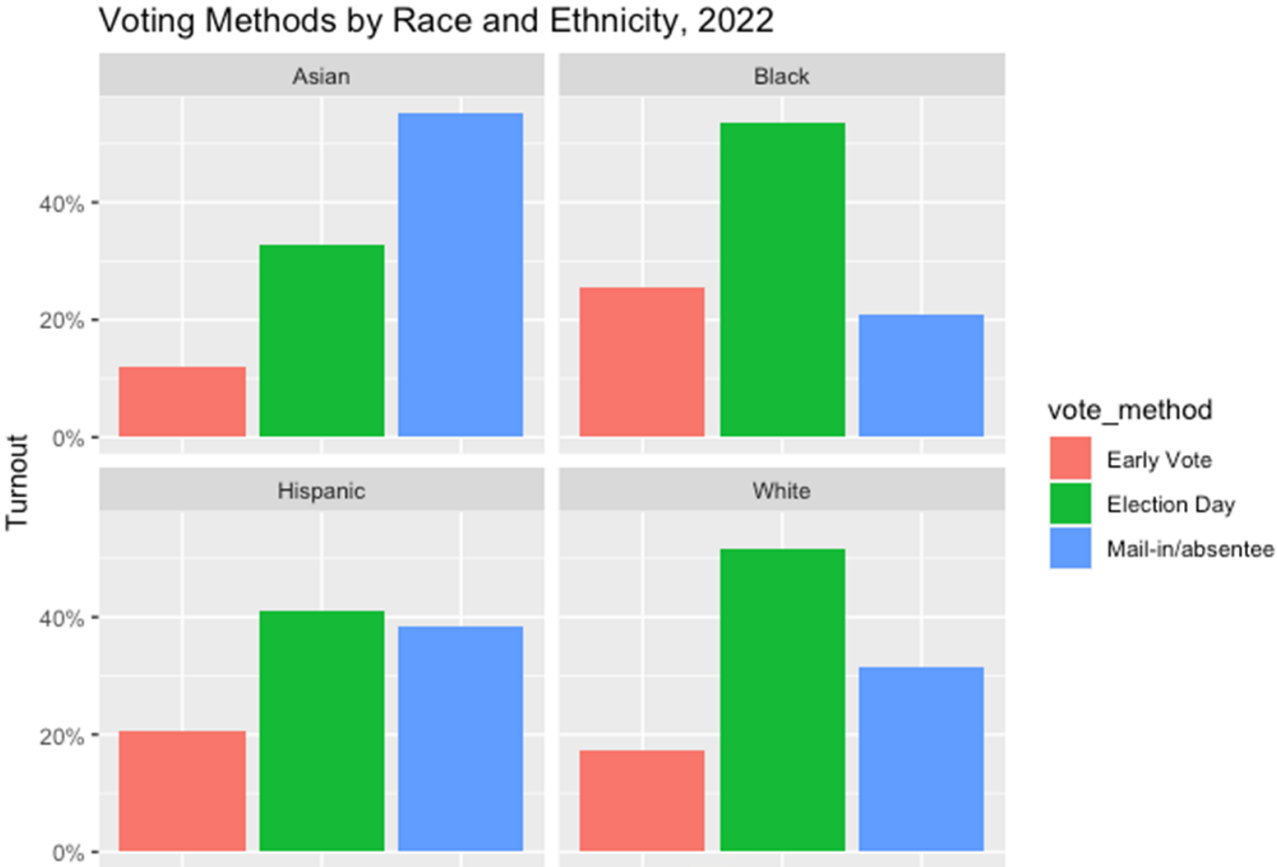


FIGURE 2: VOTING METHODS IN 2022 BY RACE/ETHNICITY AND REGION

Source: Current Population Survey

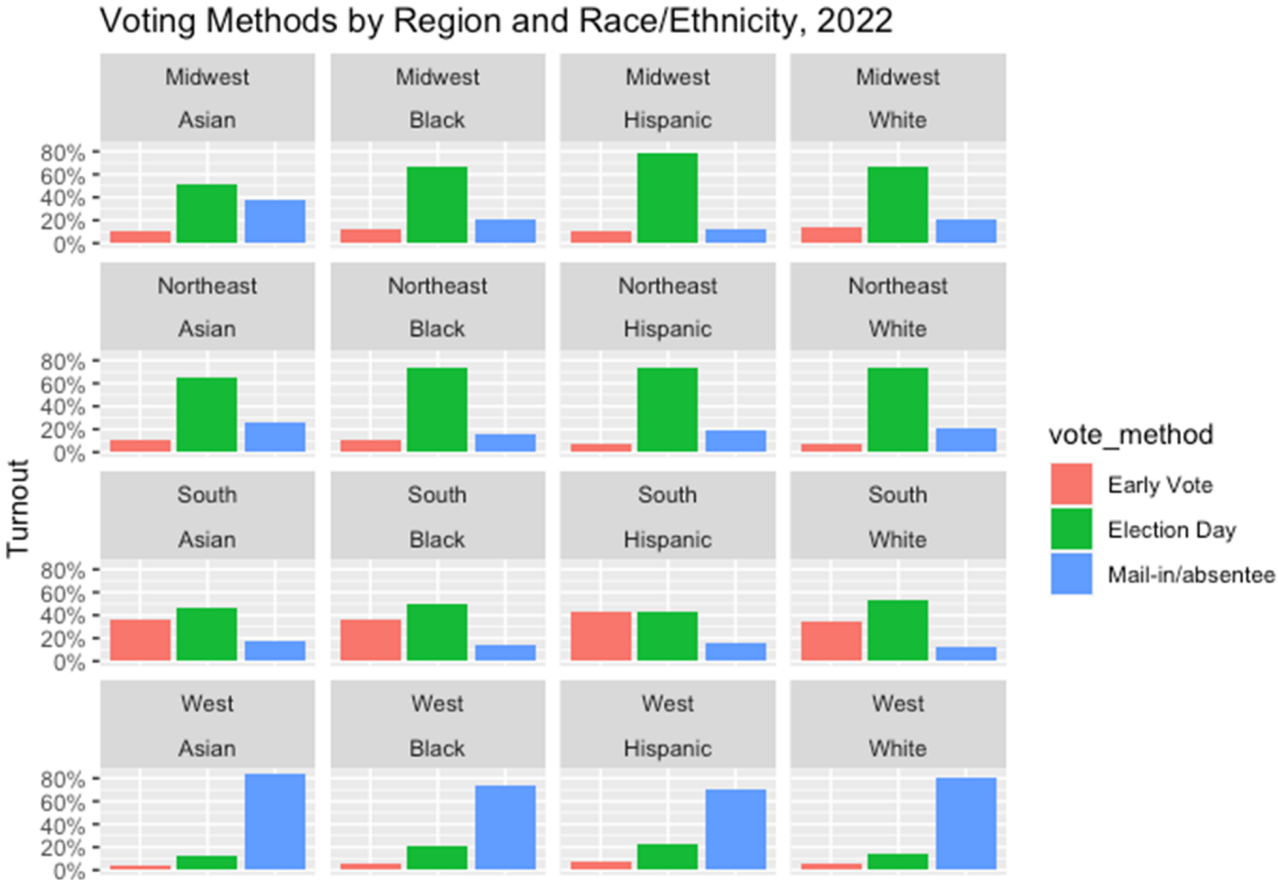
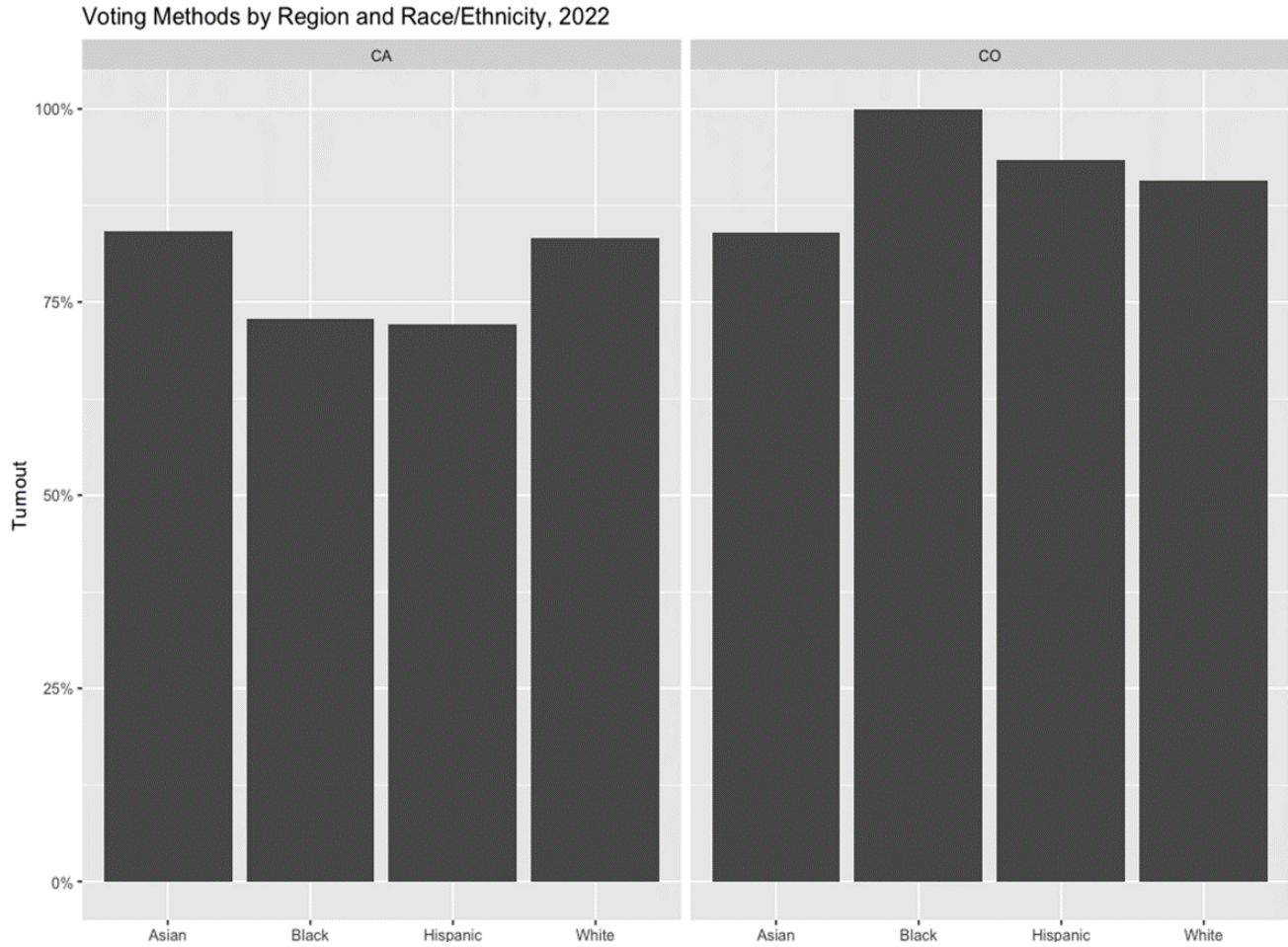


FIGURE 3: MAIL VOTING BY RACE AND ETHNICITY IN CALIFORNIA AND COLORADO

Source: State Vote Files



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