

Chapter 5

Mail Ballots in the United States: Policy Choice and Administrative Challenges

Christopher B. Mann¹

One of the most dramatic changes in voting in the United States over the last two decades has been the growth in the number of voters casting ballots by mail with every successive election cycle. In recent years an increasing number of states have changed laws to allow voters to cast mail ballots without an excuse, to allow voters to “permanently” request mail ballots for all future elections, and even to switch to “all mail” voting. Casting ballots by mail involves major changes in the mechanics of obtaining, completing, and submitting ballots compared to the in-person voting system used in the U.S. for more than a century (Ewald 2009; Keyssar 2009). Given the large and growing proportion of ballots cast by mail, it is vital to understand the effect of these policy changes on election administration and determine how well states administer this distinctive method of voting.

In the 2012 general election, 30 states allowed voters to request mail ballots without providing a reason for using a mail ballot (National Conference of State Legislatures 2012). Eight states allowed voters to request mail ballots for every election (permanent mail voter status). In-person voting was not available in Oregon or Washington: ballots were mailed to all voters that could be returned by mail or in special ballot drop boxes.² Twelve additional states

¹ Barry Burden, Martha Kropf, John Love, Charles Stewart and the participants in the Measure of Elections Conference at MIT provided valuable feedback on this chapter. I thank the team at MIT for their efforts to compile and clean a variety of data sources related to election administration and the Pew Center on the States for their financial support. Errors in fact or judgment are the author’s sole responsibility.

² In-person voting is available in limited cases with accessible technology for disabled voters in Oregon and Washington.

allowed counties and cities to conduct similar mail-ballot elections in specific types of primary, local, and off-year elections.

Unfortunately, research about voting using mail ballots has not kept pace with state policy changes, nor with the growing task of administering mail ballots. Research on in-person voting is not readily transferable to mail voting because many of the central elements of in-person voting are missing, including polling place location and quality, poll-workers, waiting time in line, and voting machines.³ Simultaneously, mail voting raises new considerations about the usability of ballots, verification of identity, and reliability of mail delivery.

This chapter addresses fundamental questions about mail-ballot policy choices and administrative performance. States have one of four types of mail voting systems for domestic voters: 1) traditional Absentee Voting; 2) *election-specific* vote-by-mail; 3) *permanent* vote-by-mail; and 4) postal voting. I define these systems in more detail below.

The federal Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) creates a separate system of mail ballots for military members and U.S. citizens living outside of the United States. This UOCAVA system is addressed by Thad Hall in a separate chapter in this volume because the federal law governing voting by overseas citizens is different than most domestic mail voting designed by the states, and states have little policy or administrative discretion over UOCAVA voting.

This chapter uses state-level comparisons of mail ballot use, ballot return rates, and ballot rejection rates obtained from the U.S. Election Assistance Commission's biennial Election Administration and Voting Surveys to demonstrate the similarities within and differences between the four systems of domestic mail voting. Election administration problems – and their

³ Elements of election administration such as voter registration, communication/education about how to vote, and vote counting that are separate from the casting of ballots remain similar.

solutions – are products of policy choice and administrative performance. Election administration performance examines how well the voting process is run *within* the parameters of policy choices made by state legislatures, and thus is best assessed among states with the same mail voting system. Conversely, the effects of policy choices about mail voting are seen by comparing different mail voting systems.

Defining Four Systems of Mail Voting

State policies define four systems of administering mail ballots identified by why voters receive a ballot in the mail: 1) traditional Absentee Voting, 2) *election-specific* vote-by-mail, 3) *permanent* vote-by-mail, and 4) postal voting.⁴ Policy choice about why voters receive a mail ballot leads to significant differences in which and how many voters use mail ballots (Alvarez, Levin, and Sinclair 2012; Barreto et al. 2006). These differences present different administrative challenges under each system.

The first step to better understand mail voting is clarity in the terminology. Table 5-1 summarizes definitions of the four systems. To this point there has been no consensus among policy makers, election administrators, or scholars about terminology for describing mail voting policy. The same term often refers to different procedures in different states, or different terms refer to the same procedure in different states. I use the terms “mail ballots” and “mail voting” to refer to any ballots delivered to the voters by mail, under any system governing who can receive mail ballots.

[Table 5-1 about here]

⁴ All states allow voters to return mail ballots by mail or by hand, although the locations to which ballots can be hand-delivered vary across states.

States have moved through a progression of legislative policy changes from traditional absentee voting towards postal voting. This pattern in the historical development of election policy does not imply this succession of policy changes is inevitable or normatively desirable. These policy changes do not necessarily have popular support before they are passed, but receive popular support once in place (Alvarez, Hall, Levin and Stewart 2011). States may skip steps, or even reverse this progression.⁵ Nevertheless, historically, every state has moved through this developmental sequence to their current mail voting system. Table 5-2 summarizes the mail voting system currently available in each state (and measures of mail voting discussed below).

[Table 5-2 about here]

The first system, traditional absentee voting, began with efforts by Abraham Lincoln's Republican Party to ensure that Union soldiers fighting in the Civil War would be able to vote in the 1864 federal elections.⁶ For almost 150 years, states have had statutorily defined grounds to request an absentee ballot in lieu of appearing in person on Election Day. These reasons include limited mobility due to health or disability, and being away from the polls due to military service, poll worker service, education, or employment.⁷

The requirement to provide a reason for requesting a mail ballot largely depends on the honor system because election officials lack resources to investigate whether voters' reasons are legitimate. In some absentee voting jurisdictions, mail ballot requests have been increasing over time. Some observers think voters in these jurisdictions want the convenience of mail ballots and

⁵ One recent example of a small reversal of this trend is 2013 legislation passed in North Carolina requiring mail ballots to have signatures from two witnesses or a notary.

⁶ Given ongoing partisan conflicts about pre-Election Day voting, it is worth noting that partisan motivations have been part of mail voting policy debates from the very beginning.

⁷ Several states including Michigan, Tennessee, and Texas provide an age threshold as an "excuse," which may be an assumption that senior citizens are more likely to face health or mobility challenges.

are willing to stretch the truth in providing a reason. However, it is also possible that more voters believe they have legitimate reasons to request mail ballots. Either way, the requirement to provide a reason for requesting a mail ballot may be eroding, and with it the major policy distinction between absentee voting and the vote-by-mail system.

State legislatures create the second system, *election-specific* vote-by-mail [or simply “vote-by-mail”] by removing the traditional absentee voting requirement that voters must provide a reason for requesting a mail ballot. Thus, it is sometimes called “no excuse absentee voting”. In a vote-by-mail system, any registered voter can request a mail ballot for upcoming elections. The basic rationale for this policy change is increasing convenience for voters. Election officials have mixed opinions about mail voting under a vote-by-mail system, with the costs of administering a separate method of voting (including postage costs) weighed against voter convenience and the benefits of centrally processing ballots.

Under a no excuse vote-by-mail system, the population of voters sent mail ballots grows larger and more diverse than under the traditional absentee voting system. As the proportion of voters using mail ballots increases over time, the mail voting population includes increasing numbers of less engaged, less motivated, and less knowledgeable voters.

The third system, *permanent* vote-by-mail, allows voters to record a standing request for a mail ballot for every future election. Permanent mail voter status is voluntary and layered on top of an election-specific vote-by-mail system. Some election officials promote permanent mail voting status to voters and lobby for policy change in state legislatures. The permanent vote-by-mail system reduces their workload of processing mail ballot requests due to a growing set of repeat mail ballot voters for each election cycle; they might also prefer the central control of ballot preparation, delivery, acceptance, and counting (Cuciti and Wallis 2011; Mann and

Sondheimer 2009). However, some election officials have concerns about higher costs of administering mail ballots as a separate election system, including the postage costs. Political and civic organizations promote permanent mail voting status as a way to encourage their supporters to participate in all types of elections. As a result, the proportion of the electorate using mail ballots tends to rise above the levels in election-specific vote-by-mail systems. This expansion of the size of the mail voting population also further increases the diversity of the mail ballot population.

The fourth system, postal voting, delivers ballots to *all* voters by the mail. In the 2012 general election, postal voting was used statewide in Oregon and Washington, and in portions of California, Idaho, Minnesota, Nebraska, and Nevada, where county election officials may designate precincts containing a small number of voters to use postal voting. Colorado adopted postal voting in 2013 for all future elections, and previously allowed counties to choose postal voting except for even-year general elections.⁸ Advocates of postal voting among election officials and policy-makers argue the system saves money compared to in-person voting and provides improved centralized ballot processing. Postal voting systems also have “traditional absentee” provisions that allow voters to request mail ballot be delivered somewhere other than a voter’s registration address. With postal voting, the population receiving mail ballots is identical to the registered voter population, and therefore more diverse than under other systems.

Measuring Impacts of Mail Ballot Policy and Administration

Studying the impact of mail voting requires measures of outcomes that are comparable across jurisdictions and primarily influenced by policy or administration. Studying administrative

⁸ Colorado’s postal voting law is unusual by requiring *delivery* of a mail ballot to all voters, but also requires county election officials to provide all voters with the opportunity to vote on an electronic voting machine at voting service centers open prior to and on Election Day.

performance requires comparisons within each of the four mail voting systems to identify the influence of election administration within similar rules. Good measures of *administration* should reflect steps in the voting process that are largely under the control of election officials. For example, rejection of ballots provides a reasonable measure of administration because election officials have significant discretion over implementation of mail voting (design of ballots, instructions, etc.) to influence voter behavior. Election officials also have some discretion over the process for rejection or acceptance of each ballot. Good measures of *policy* impacts should have minimum reliance on administrative performance to avoid conflating the rules and their implementation. Policy measures may reflect how voters and campaigns interact with opportunities created by policy choice, as well as depend directly on policy parameters. For example, the mail ballot use rate depends on the policy choices about who can use mail ballots.

Like many other aspects of election administration, there is a shortage of systematically collected data about mail voting (Gerken 2010). The best available source is the Election Administration and Voting Survey (EAVS) conducted by the U.S. Election Assistance Commission following each federal election cycle. In particular, Section C of the EAVS collects data from local election officials on the number of mail ballots sent to voters, returned by voters, and rejected/accepted as valid ballots. The mail ballot rejection subsection also disaggregates the reasons for rejection. This chapter focuses on the available EAVS data before turning to suggestions about additional data measuring the impact of mail ballots that could provide insights on policy choices and administrative performance.

Table 5-3 describes the data and procedures used to calculate the five measures of mail voting discussed below. Unfortunately, the data collection process for the EAVS is challenged by the absence of standardized terminology for mail ballot administration and by incomplete

response to survey items by election officials. If jurisdictions do not report data using the EAVS's intended definition or fail to report data, it undermines the validity of measures for capturing the intended outcome – but only for those jurisdictions. Therefore, The EAVS data in this chapter has been cleaned by Charles Stewart and Stephen Pettigrew (Pew Charitable Trusts, Pettigrew and Stewart 2013a, 2013b, 2013c) to correct or remove any clearly suspect data, plus additional corrections or exclusions noted in the figure notes. Thus, this is the best available data on mail voting across the United States.

[Table 5-3 about here]

The far-right column of Table 5-3 reports correlations in the state-level measures between the 2008, 2010 and 2012 EAVS. In addition to the strong correlation between elections for the proportion of ballots cast by mail, the EAVS data are strongly correlated with estimates based on voter responses to the 2008 and 2012 Survey on the Performance of American Elections (Stewart 2008, 2013) and the 2008, 2010, and 2012 Census Voter and Registration Survey (U.S. Census Bureau 2008, 2010, 2012). The strong correlation in the proportion of ballots cast by mail is expected, and therefore encouraging, because the proportion of mail ballots is determined largely by the mail ballot system. The weaker correlation in unreturned ballots between the elections likely reflects, at least in part, the great variation in salience in states based on the competitiveness of mid-term senatorial or gubernatorial races. Optimistically, the weaker correlations in unreturned ballots and rejected ballots reflect election-to-election improvements in handling mail ballots. Realistically, scanning Table 5-2 reveals many year-to-year state-level shifts that are difficult to explain. This suggests that weaker correlations may be partly attributable to errors in reporting these more detailed outcomes for mail ballots. The consistent patterns in these measures seen in the figures below suggest that errors in data reporting are

adding noise to averages (i.e., reducing measure reliability), but the measures are capturing the intended outcomes (measure validity).

The assessment of mail voting policy begins with the most intuitive measure: the proportion of ballots cast by mail. The use of mail voting is a key consequence of the four mail voting systems. For this measure, the total number of ballots cast is used as the denominator, rather than total eligible voters, to avoid confounding the choice of *how* to vote with the choice of *whether* to vote. Policy choices about mail voting may contribute to the voters' decisions about participating, but only modestly in federal general elections. Once a voter has decided to cast a ballot, mail voting policy has a clearer influence on how ballots are cast.

Among states within each voluntary mail ballot system (excluding postal voting), there is considerable variation in use of mail ballots. Voluntary use of mail ballots tends to grow over time because a large proportion of voters who try mail voting continue to use it in future elections (Mann and Sondheimer 2009). However, this growth does not occur at the same rate across states or even within states from election to election. The activity of campaigns, civic groups, and election officials to encourage use of mail ballots explains some of this variation. Recruitment to use mail ballots has proven effective for increasing mail ballot use (and total turnout) in multiple field experiments (Arceneaux, Kousser, and Mullin 2012; Mann 2011; Mann and Kalla 2013; Mann and Mayhew 2012, 2013; see also Oliver 1996). Voter education communication by election administrators also significantly influences the use of mail ballots, even when not influencing overall turnout (Michelson et al. 2012; Monroe and Sylvester 2011).

The second measure, the rate of unreturned mail ballots, reveals incomplete participation by voters who request mail ballots but fail to cast them. However, unreturned ballots measure different things under each system because the system determines the breadth of the population

sent mail ballots. Thus, the denominator (mail ballot sent) and numerator (unreturned mail ballots) shift simultaneously across mail voting systems. Unreturned ballots in postal voting states measure everyone who decides not to participate in the election because everyone is sent a mail ballot. Given the high levels of non-participation in U.S. elections, the rate of unreturned ballots among mail voters will be large. Unreturned ballots in absentee voting and vote-by-mail states are registered voters who expressed a desire to vote at some point in the election cycle but did not fulfill this intent before Election Day. Given the proximate interest demonstrated by requesting a ballot, the proportion of voters in these systems who fail to return their mail ballot should be relatively small. In addition to failure to return the ballot due to disinterest, procedural errors by voters, election officials, or the U.S. Postal Service will cause some ballots to be unreturned. The proportion of unreturned mail ballots in permanent vote-by-mail states will fall in between because the recipients of mail ballots will include people who requested ballots for that election (or would have done so if not for permanent mail voter status) and people who would not have requested a ballot (e.g. presidential election “surge” voters who do not vote in midterm elections).

Careful consideration of unreturned ballots also highlights a significant problem in trying to use a measure like unreturned ballots for assessing mail voting versus in-person voting as a policy choice. In-person voting has no measure of initiating the voting process equivalent to a request for a mail ballot, and therefore no measure of incomplete voting actions. How many voters make an effort to find their polling place, but do not go to the polls? How many voters plan to go to the polls but run out of time on Election Day? Surveys attempt to measure intentions or initial steps towards voting, but there is no reason to believe marginal voters will be any more honest about intention than the well-known shortcomings in honest reporting whether

they actually voted (Ansolabehere and Hersh 2012). Unreturned mail ballots may indicate procedural errors by voters, election officials, or the U.S. Postal Service that prevent completing the mail voting process, or they may be a positive indicator of unconsummated attempts to participate. Either way, in-person voting has no measure comparable to unreturned mail ballots.

The final step in casting a mail ballot is the rejection or acceptance of a returned ballot as valid by the local election official. Because there are so many reasons to reject ballots, total ballot rejection rate is not a useful measure to assess policy choice or administrative performance. Moreover, interpretation of whether the rejection of ballots is “good” and “bad” is confounded by prior assumptions about voter fraud. Some ballots may be correctly rejected as fraudulent, but other rejected ballots are from legitimate voters who simply make procedural mistakes. Fortunately, data from the EAVS provide the reasons officials reject mail ballots. These reasons have clear links to steps in the mail voting process. Two of these reasons are promising measures because they are unlikely to be indicators of fraud: 1) ballots rejected for being returned after the deadline and 2) ballots rejected without voter signatures.

The number of ballots rejected for a non-matching signature is an example of the ambiguity between measuring fraud and voter error. A non-matching signature is facial evidence the ballot was not completed by the correct voter (i.e., that fraud may have occurred). Thus, high rates of rejection for non-matching signatures may be an indication of good performance in preventing fraudulent ballots from being cast. On the other hand, non-matching signatures may be innocent errors by legitimate voters. Signature on file with election officials can become outdated as handwriting changes over time – especially among older voters. Young voters might not have well-established, replicable signatures. Voters may make mistakes such as using new names due to marriage or divorce, using nicknames, including or omitting initials or middle names, etc. The

incidence of these problems can be reduced by improved instructions from election officials and communication with voters to correct problems like outdated signatures. In these cases, excluding otherwise legitimate ballots on the technicality of non-matching signatures does not seem desirable. Therefore, inverse to the fraud-based judgments above, high rejection rates for non-matching signatures indicate poor mail ballot administration.

Equivalent measures to these types of ballot rejections do not exist for in-person voting. The equivalent of mail ballots returned after the deadline would be something like people who meant to go to the polls but did not remember until the morning after Election Day. The equivalent of unsigned ballots and non-matching signatures would be people who are turned away at the polls for inadequate identification. Provisional ballots provide a partial measure of this situation, but not everyone without proper identification completes a provisional ballot (by voter or poll-worker choice) and provisional ballots are used for other problems at the polls. Counting all individuals turned away for inadequate identification is difficult to do reliably, and is not currently done systematically. Moreover, identification requirements are not applied consistently by poll-workers (Atkeson et al. 2010), whereas central processing of mail ballots increases the likelihood of consistent and rigorous signature validation. Overall, mail voting allows us to measure more steps the voting process than in-person voting. This difference in measurability is important to remember to avoid biased inferences from apples-to-oranges comparisons when tallying up data on observed problems with mail voting and in-person voting.

Choice of Mail Voting Systems and Mail Ballot Use

Data from the 2008, 2010 and 2012 EAVS demonstrate the significant differences in the proportion of ballots cast by mail across the four systems for administering mail ballots.⁹ Figure 5-1 shows the proportion of ballots cast by mail in each state in the 2008 and 2010 general elections. The observed data cannot tell us if policy choices caused these differences in mail ballot use or if differences in mail ballot use led to policy choices. However, there are clearly distinct levels of mail ballot use in each system.

[Figure 5-1 about here]

Scanning down the columns for the 2008, 2010 and 2012 elections in Figure 5-1, the pattern of mail voting rates in the four systems is consistent. States with traditional absentee voting are clustered on the left side of each graph, with an average proportion of ballots cast by mail of 7.4% in 2008, 5.4% in 2010, and 6.8% in 2012. In states with a vote-by-mail system, the proportion of ballots cast by mail shifts significantly to the right, with an average proportion of ballots cast by mail of 21.9% in 2008, 17.4% in 2010, and 18.4% in 2012. The states with permanent vote-by-mail systems shift significantly farther right, with an average proportion of ballots cast by mail of 37.4% in 2008, 43.3% in 2010, and 47.5% in 2012. The two postal voting states appear at the right edge of the graphs as expected.

Comparing the two elections, the proportion of ballots cast by mail is lower in the 2010 mid-term election than the 2008 or 2012 presidential elections in traditional absentee voting and vote-by-mail systems. Just as citizens are less likely to vote in midterm elections, they are less likely to request mail ballots. The rightward shift in postal voting states is an artifact of the final

⁹ The differences in the distributions of the proportion of ballots cast by mail from one system to the next are statistically significant in state-level data according to Kolmogorov-Smirnov tests: absentee voting versus vote-by-mail, 2008 $p < 0.001$, 2010 $p < 0.001$; vote-by-mail versus permanent vote-by-mail, 2008 $p = 0.063$, 2010 $p = 0.006$; permanent vote-by-mail versus postal voting 2008 $p = 0.065$, 2010 $p = 0.065$.

two counties in Washington utilizing postal voting after 2008.¹¹ On the other hand, in the permanent vote-by-mail states where voters automatically received mail ballots, the proportion of ballots cast by mail went up across all three elections (rightward shift in the distribution). Thus, permanent vote-by-mail states appear to retain mail voters in the participating electorate. This pattern highlights the importance of attending to differences between the mail voting systems, since the finding is specific to permanent vote-by-mail and not generalizable to absentee or vote-by-mail.¹²

[Figure 5-1 about here]

Differences in Unreturned Mail Ballots

Figure 5-2 shows the distribution of unreturned ballots in 2008, 2010 and 2012 for each system of administering mail ballots. The postal voting states, Oregon and Washington, are omitted from this and all remaining figures because their responses to the 2008, 2010 and 2012 EAVS were based on “absentee” mail ballots (sent somewhere other than the registration address) rather than the full set of mail ballots sent to regular voters.¹³

[Figure 5-2 about here]

In the 2008 presidential election, the distribution of unreturned ballots is statistically indistinguishable across the three voluntary mail voting systems, although permanent vote-by-mail appears to have a higher rate of unreturned ballots than the other voluntary mail voting systems. The average rate of unreturned ballots among mail ballots sent is: absentee voting 7.7%,

¹¹ Washington is coded as a postal voting system, although King and Pierce Counties did not require postal voting in 2008 and Pierce County did not require postal voting in 2010. The 2010 and 2012 EAVS data for Oregon are corrected to reflect all-mail voting, since the state reported only “absentee ballots” delivered by mail rather than all ballots delivered by mail.

¹² Other research suggests the pattern of retaining voters occurs in postal voting systems as well (e.g., Kousser and Mullin 2007).

¹³ Washington provided data for Figures 5-2 to 5-5 on the 2010 EAVS, but this single state-year observation for postal voting is omitted from the figures. These data are reported in Table 5-2.

vote-by-mail 8.5%, and permanent vote-by-mail 15.7%.¹⁴ In the 2010 midterm election, mail voting systems that permitted broader access to mail ballots appear somewhat likely to have higher rates of unreturned ballots, shown by the rightward shift in the distributions across the three mail voting systems: absentee voting 7.2%, vote-by-mail 11.2%, and permanent vote-by-mail 19.1%.¹⁵ In the 2012 presidential election the pattern falls between the prior two elections, with a marginally significant rightward shift towards more unreturned ballot rates in systems with broader populations: absentee voting 7.3%, vote-by-mail 10.7%, and permanent vote-by-mail 16.0%.¹⁶

From a policy perspective, the data on unreturned mail ballots suggests mail voting policy with broad access results in higher proportions of unreturned ballots, although the statistical relationships are relatively weak. Critics of mail voting may point to the increase in unreturned mail ballots as a problem with the vote-by-mail and permanent vote-by-mail systems. However, since the denominator of mail ballots cast increases much more rapidly than the numerator of unreturned ballots across the mail voting systems, it is not clear what to make of this pattern. Absentee voters have generally met more burdensome requirements than vote-by-mail voters to receive a ballot, so it is not surprising that they are less likely to fail to return a ballot. The apparently higher rates of unreturned ballots under permanent vote-by-mail likely reflect ballots that are sent but not successfully delivered to voters who move or die between elections, as well as changes of interest in participating from one election to the next. These voters who no longer

¹⁴ Kolmogorov-Smirnov tests of the differences in the distributions of unreturned ballots in 2008 indicate no statistically significant change: absentee voting versus voting by mail $p=0.857$ and for voting by mail versus permanent voting by mail $p=0.268$.

¹⁵ The shifts are marginally statistically significant in the state-level data according to Kolmogorov-Smirnov tests of the differences in the distributions of unreturned ballots in 2010: for absentee voting to voting by mail $p=0.176$ and for voting by mail to permanent voting by mail $p=0.076$.

¹⁶ The shifts are marginally statistically significant in the state-level data according to Kolmogorov-Smirnov tests of the differences in the distributions of unreturned ballots in 2010: for absentee voting to voting by mail $p=0.160$ and for voting by mail to permanent voting by mail $p=0.109$.

exist are a list maintenance challenge orthogonal to the method of voting. Although unreturned ballots do not seem desirable from any perspective, extensive research on the effects of different mail voting systems has found no evidence of a decrease in turnout (e.g., Berinsky, Burns, and Traugott 2001; Burden, Canon, Mayer, and Moynihan 2013; Fitzgerald 2005; Gronke et al. 2008; Gronke, Galanes-Rosenbaum, and Miller 2007; Gronke and Miller 2012; Hamner and Traugott 2004; Karp and Banducci 2000, 2001; Richey 2008), and some research suggests that turnout may increase in some elections (e.g. Berinsky 2005; Gerber, Huber, and Hill 2012; Kousser & Mullin 2007; Oliver 1996; Southwell and Burchett 2000). Given the well-established finding of null or slightly positive effects on total turnout from reforms expanding mail ballot access, it seems likely that the people who fail to return their ballots would have also failed to show up at their polling places. Therefore, mail voting seems to be making disinterest in voting and/or procedural errors in casting a ballot observable in the form of unreturned ballots, but not making voters significantly less likely to participate.

The range of unreturned ballot rates *within* each system suggests unreturned ballots may be a valuable indicator of administrative performance. However, its value as a measure of election administration performance will depend on establishing a clear link between particular aspects of administering mail ballots and failure to return them. To some degree, reducing unreturned ballots may require campaign-like interventions to influence individual voting behavior rather than simply altering mail ballot administration.¹⁷

Learning from Rejected Mail Ballots

¹⁷ For example, see Mann and Sondheimer 2013 on a field experiment showing a reduction in unreturned ballots caused by phone calls from a county election official reminding voters to return their ballots.

Examining the rejection rate for mail ballots across the four mail administration systems again shows notable differences in the distribution: The rejection rate appears to decrease as access to mail ballots increases.¹⁸ This is seen in the leftward shift in the distributions of Figure 5-3 when going from absentee voting to postal voting. Note that the horizontal axis for Figure 5-3 is only 0% to 25% rather than 0 to 100% in Figures 5-1 and 5-2.

[Figure 5-3 about here]

An array of factors influence the total ballot rejection rate in Figure 5-3. Fortunately, the different reasons for rejecting ballots reported in the EAVS are linked to specific steps in the mail voting process. Although returning a ballot on time and properly signed to verify its authenticity is certainly the voter's responsibility, election officials can reduce the odds of late and/or unsigned ballots by providing clear instructions, establishing convenient ballot dropboxes, working with the U.S. Postal Service to ensure prompt delivery, and reminding mail ballot voters about deadlines and signature requirements (Mann and Sondheimer 2013). Figure 5-4 shows the incidence of rejection of mail ballots for arriving after the deadline is lower in mail voting systems with greater use of mail ballots. (Note that the horizontal axis for Figures 5-4 is only 0 to 10% rather than 0 to 100% as in Figures 5-1, 5-2 and 5-5 or 0 to 25% in Figure 5-3). Figure 5-5 shows lower rejection rates due to missing signature in mail voting systems with greater use of mail ballots.

[Figures 5-4 and 5-5 about here]

Because the measures of reasons for rejecting mail ballots have considerable range, especially in absentee voting and vote-by-mail states, they seem likely to be useful in assessing administrative performance. First, these measures identify jurisdictions with low rates of

¹⁸ The shifts are only marginally statistically significant in the state-level data according to Kolomgorov-Smirnov tests of the differences in the distributions of rejected ballots in all three elections.

rejection for tardy returns or unsigned ballots in states where “best practices” might be established. Second, they provide accountability and actionable information to election officials who need to improve mail ballot administration because of growing demand for mail voting. Furthermore, these measures serve as “canaries in the coal mine” for other aspects of mail ballot administration. Local election administrators could “teach to the test” by focusing on specific reasons for rejecting ballots, but it seems more likely that changes to address these specific issues will improve other areas of mail ballot administration as well.

It may initially seem odd that a policy choice to *increase* mail ballot use will *reduce* rejection of mail ballots. The most likely explanation is that election officials and voters learn over time to reduce the problems that lead to ballot rejections. When mail ballots are a small portion of overall ballots, improving the administration of mail ballots and offering voter education about mail voting are unlikely to receive attention from election officials. However, as the proportion of mail ballots increases across the mail voting systems, election officials have greater incentives and pressures to improve administration of mail ballots and to invest in voter education. As more voters use mail ballots repeatedly, individuals learn to avoid mistakes that lead to ballot rejection. Knowledge of proper mail voting procedures is also likely spread through social networks and the efforts of political and civic organizations. In short, a policy choice to make mail ballots more broadly available creates incentives and pressures for election officials and voters to do a better job implementing mail voting.

Additional Measures of Mail Voting

The available data describes only limited aspects of mail voting. Concerns about fraud are at the center of current policy debates regarding mail voting, so it would be helpful to find reliable and valid measures that provide more windows into the mail voting process. Although a wide variety

of data could be useful, the most valuable data would also include measures of 1) requests for mail ballots, 2) residual votes on mail ballots, and 3) additional information about the acceptance of mail ballots.

The first step in casting a mail ballot under the absentee voting, vote-by-mail and permanent vote-by-mail systems is requesting the ballot. Data on the number of requests received and accepted would provide useful information on policy choices and administrative performance. Request acceptance is determined by policy choices about valid reasons for requesting mail ballots, time limits on when requests can be made, required information, and the format of requests. These policy choices may have impacts on the rate of mail ballot use, the incidence of subsequent problems with mail ballots, and the cost of administering mail voting. Administrative performance in handling requests could be assessed among jurisdictions with similar policies about requests to identify best practices.

A major criticism of mail voting is an elevated rate of residual votes on mail ballots (e.g., Stewart 2011a; Kimball and Kropf 2008; Kousser and Mullin 2007). Because mail ballot voters complete their ballots at home, they cannot ask questions of poll-workers, and are not subject to the warnings from in-person voting machines about making too many or too few selections. However, this does not mean residual voting on mail ballots is intractable. Systematic collection of residual vote data on mail ballots would allow research on the design of mail ballots, instructions sent to mail ballot voters, voter education efforts, and other steps to reduce this problem. Developing best practices for policymakers and administrators could reduce the mail ballot residual vote rate, just as voting machine improvements have reduced residual vote rates for in-person voting.

The available measures of ballot acceptance overlook important policy and administrative distinctions in the acceptance process. The rejection of mail ballots received without signatures or with non-matching signatures is guided by policy directives and administrative discretion. Some jurisdictions have procedures to obtain missing or non-matching signatures whereas others do not. These procedures are similar to verifying provisional ballots for in-person voting. Unfortunately, there is no widespread collection of data on the initial and final status of ballots received. This chapter used data on missing signatures as reported by local election officials, presumably after any steps taken to obtain a correct signature. Collecting procedures for correcting signatures and data on ballot status before and after such effects would provide important insights about policies and implementation with potential to reduce a significant problem with mail ballots.

Given the worries about the potential for fraud with mail ballots, finding reliable measures of fraud in mail ballots is important. However, it is extremely difficult to measure fraud in any type of voting. Successful fraud is, by definition, undetected. As noted earlier, measures such as rejecting ballots for non-matching signatures may combine malignant attempts at fraud and innocent reasons for non-matching signatures, with no empirical tools to separate fraud and error. Further, depending on prior assumptions, measures indicating detected fraud may be interpreted as the tip of a larger unseen problem or as evidence that fraud has been prevented. In short, measuring fraud in mail voting is just as slippery and contested as it is for every other method of voting (Alvarez, Hall, and Hyde 2009; Minnite 2010).

Next Steps in Studying the Mail Voting Policy and Administration

Relative to its growth among voters and the expansion among states, mail voting has received little attention in research on voting reforms, voting behavior, or campaigns. Future research on

mail voting must move beyond the question of whether expanding access to mail ballots increases turnout. Scholarly research has been mired in a debate about whether there is an increase in turnout from changing mail voting policy to expand access to mail voting (e.g., Barreto et al. 2006; Bergman and Yates 2011; Berinsky 2005; Berinsky, Burns, and Traugott 2001; Burden, Canon, Mayer, and Moynihan 2010; Fitzgerald 2005; Gerber, Huber, and Hill 2012; Gronke et al. 2008; Gronke, Galanes-Rosenbaum, and Miller 2007; Gronke and Miller 2012; Hamner and Traugott 2004; Karp and Banducci 2000, 2001; Oliver 1996; Richey 2008; Southwell 2009, 2010; Southwell and Burchett 2000). The absence of an effect on turnout does not mean mail voting has no effect on other aspects of voting behavior, conduct of campaigns (Dunaway and Stein 2013), and election administration.

This chapter has made a strong case that mail voting is not a single voting reform, but is more appropriately viewed as a feature of four distinct systems with different rules governing the access to mail ballots. These systems present distinct administrative burdens and challenges and require different institutional capacities for successful administration. First, research on mail voting must stop using the “pre-Election Day voting” or “convenience voting” typology that lumps together mail voting and early in-person voting. This typology is useful for looking at the spread of policy reforms and (possibly) for campaign effects, but not for studying election administration or voting behavior. Behaviorally and administratively, mail voting is a different animal from early in-person voting and Election Day voting.

Second, research on mail voting should be careful about which mail voting system is under investigation and especially about the limits of generalizability of findings across the distinct mail voting systems. Because it seems likely the use of mail ballots will continue grow within each system for the foreseeable future, research is needed on how to improve each mail

voting system. Research can assist policymakers by examining the benefits and problems in each mail ballot voting system. Research can also identify best practices for administering mail ballots under different sets of policy constraints on mail voting.

Many promising areas for future research parallel other research on election administration. For example, the design of mail ballots and instructions should be subject to the same type of usability analysis as in-person voting technologies (e.g., Herrnson et al. 2008; Stewart 2011b; Michelson et al. 2012). Similar to the extensive research on the time needed for UOCAVA voters to receive and return ballots, research on when to send mail ballots to domestic civilians is needed to determine if changes in mail voting timelines could reduce the number of unreturned ballots.

An important step for future research on mail voting is the use of individual-level data. For in-person voting, many types of problems are hard to track because the incidents are not linked to specific individuals. We would like to know who has difficulty finding the polling place, who runs into problems with identification, and who struggles with voting machine technology. For mail ballots, many more steps in the voting process are (or can be) recorded at the individual level. Local election officials often collect individual-level data as part of administering mail ballots. Unfortunately, this individual-level information has not been utilized much for research on mail voting because it rarely leaves each local election office. The opportunities for measuring steps in the mail voting process at the individual level could provide more refined measures than possible with in-person voting. These refined measures could improve understanding of problems in attempting to vote, who these problems happen to, and how these problems could be resolved by policy choice or administrative action.

Conclusion

Mail voting is here to stay, and to grow, despite the failure of mail voting reforms to deliver increased turnout and the occurrence of many election administration problems. Mail voting is a growing part of the landscape of election administration in the United States because voters like the convenience once they try it, and election administrators like the central processing of mail ballot and potential cost savings.

Four distinctive systems define who can use mail ballots in U.S. elections. The policies governing who can request, or must be sent, mail ballots alter the population using mail ballots and the scope of problems arising from the use of mail ballots. The selection effects on who uses mail ballots from the four systems require evaluating administrative performance within each of the systems separately. Although the available data to measure the performance of mail ballot administration is meager, there are already some useful measures for evaluating state performance. However, more data are needed to inform policy choices and improve administration of this growing method of voting.

The data presented in this chapter suggest that policy reforms to promote more widespread use of mail ballots will result in improved mail ballot administration. However, a closer look is not so rosy. Voters in states still using an absentee voting system for mail ballots have the highest rate of problems, although the impact is limited by the constraints on who can access mail ballots. If more voters seek mail ballots despite the limits under absentee voting, and anecdotal evidence suggests more voters are doing so in many places, then increasing numbers of mail ballots will be cast in states where they are most likely to encounter problems. Innovations in administering mail ballots may trickle down to absentee voting jurisdictions, but it

is more likely that the limited ballot access of absentee voting systems will prevent achieving the level of mail ballot use that appears to incentivize and demand better handling of mail ballots.

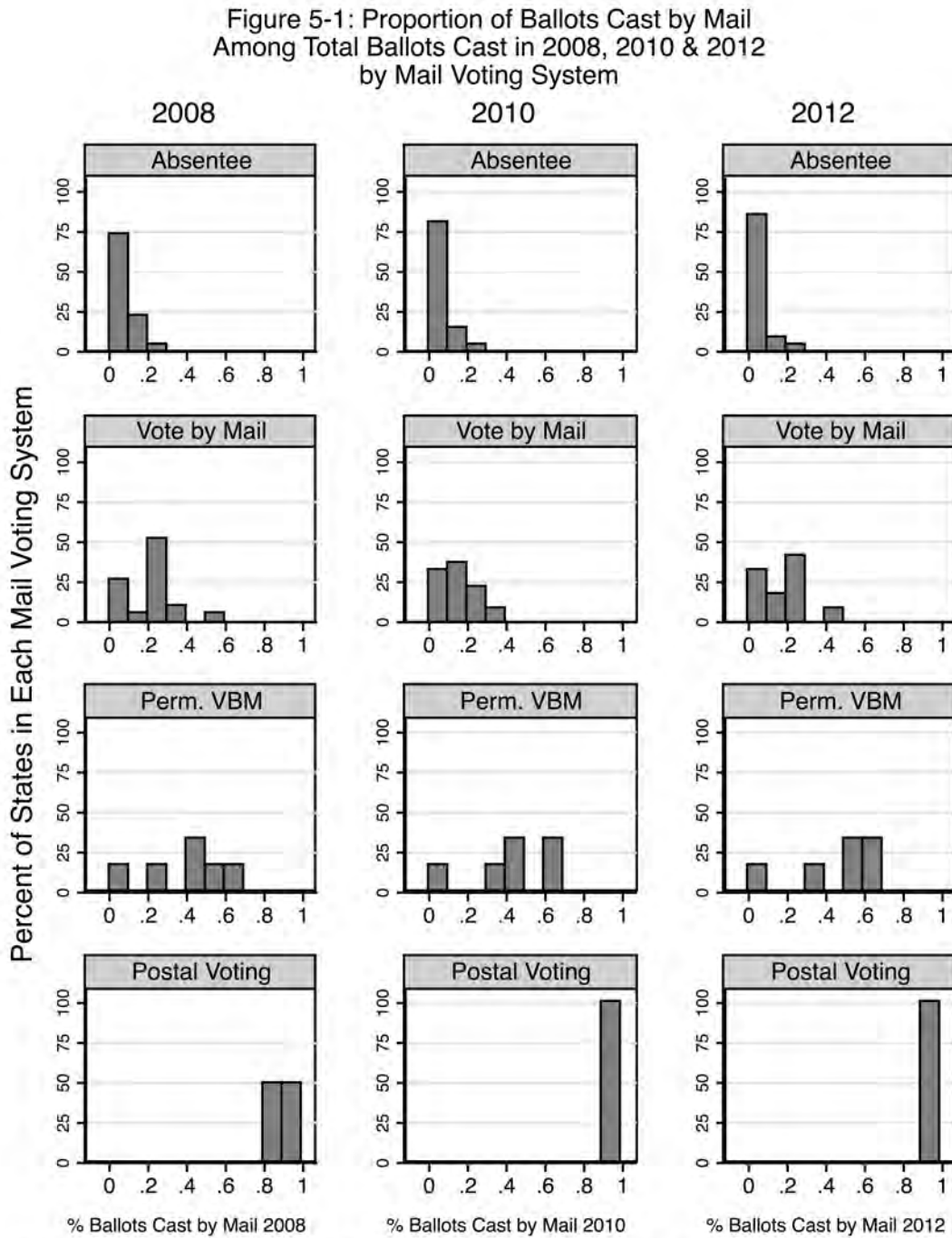
The proportion of mail ballots has not yet reached the threshold at which election officials appear to take steps to improve mail ballot administration. If the history of mail voting policy reforms is a guide, permanent vote-by-mail is likely to come slowly, if at all, in many states. Consequently, mail ballot use will increase steadily, but without the accelerant of permanent mail ballot status to draw attention to mail ballot administration. It seems more likely that absentee voting states will adopt the vote-by-mail system, and thereby add to the conundrum of growing mail ballot use without commensurate steps to reduce problems. This combination of policy and administrative inertia with dynamic growth in mail voting rates is a recipe to increase the incidence of mail ballot problems. The increase in mail ballot related problems will continue until mail ballot usage becomes large enough to motivate local election officials to take the necessary steps to improve administration, or until voters learn the hard way to avoid these problems.

Yet the lower incidence of rejected mail ballots under permanent vote-by-mail and postal voting in recent elections should not be seen as a panacea. There is no guarantee that other states will match this performance if they adopt these mail voting systems. However, the current relative success of permanent vote-by-mail and postal voting states offers the opportunity to identify best practices that can inform policy about and administration of mail ballots.

Casting ballots by mail is a large and growing feature of elections in the United States, and a process that is quite different from in-person voting. Unfortunately, research on mail voting has not kept pace with the spread of mail policy reform or the growing use of mail ballots. Understanding voting requires more data collection and careful analysis to understand and

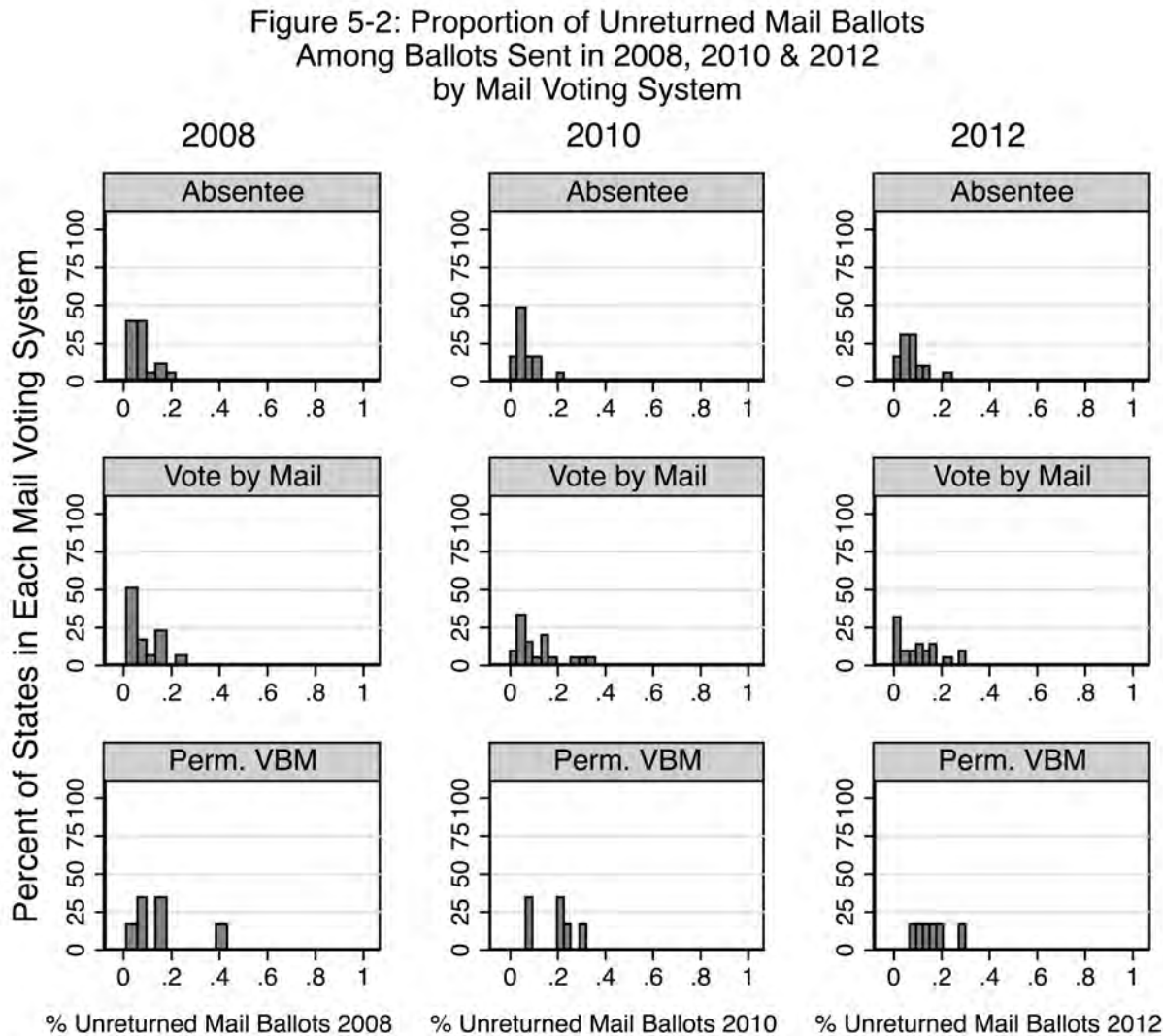
inform the increasing use of mail ballots and the spread of policy changes that expand mail ballot use.

Figure 5-1. Proportion of Ballots Cast by Mail among Total Ballots Cast in 2008, 2010 and 2012, by Mail Voting System



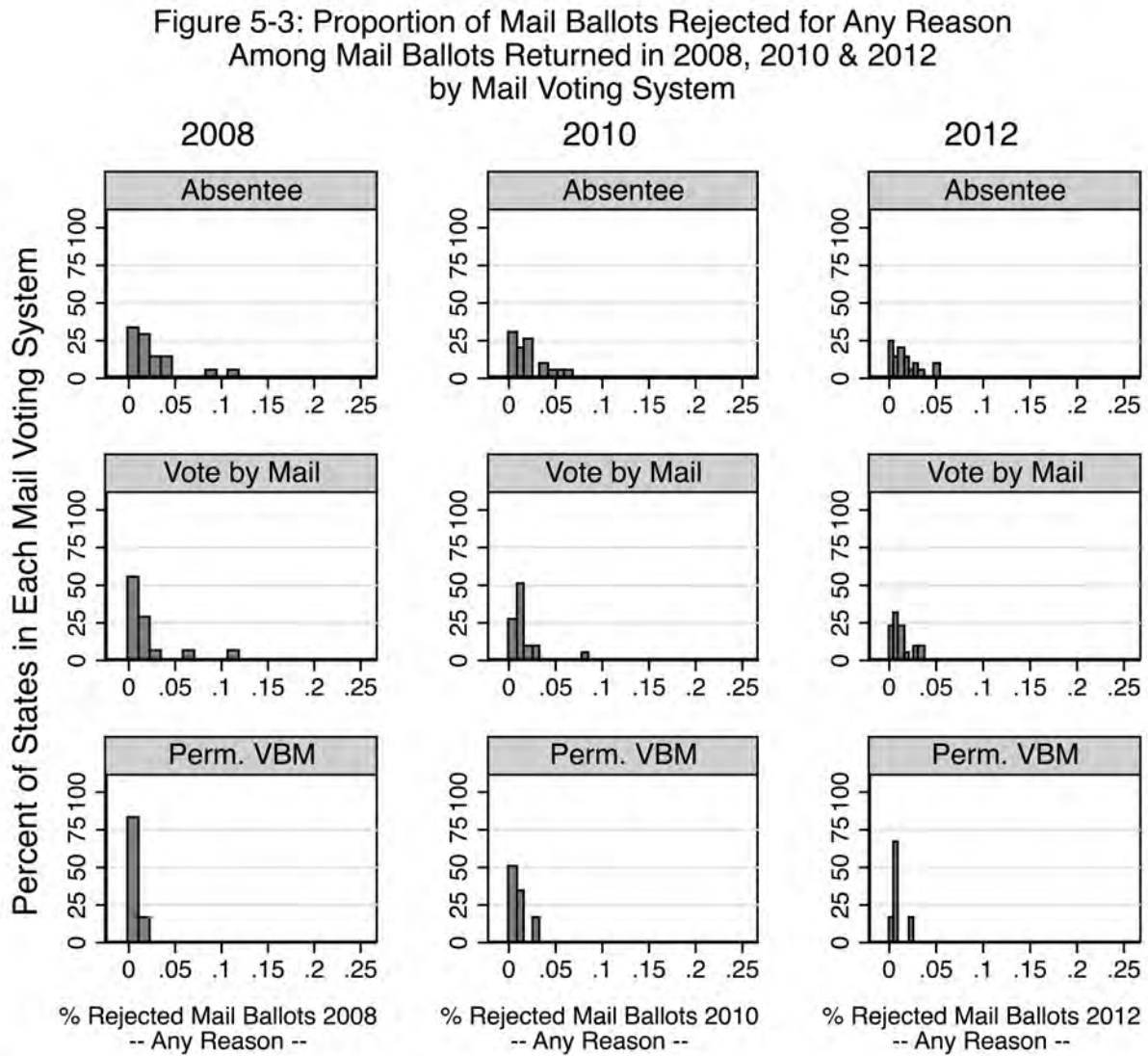
Source: 2008, 2010 & 2012 Election Administration & Voting Survey, U.S. Election Assistance Commission.
 Notes: States reporting data: 2008 = 47; 2010 = 50; 2012 = 50. NY did not report mail ballot data in 2008. MI has more than 20% mail ballots under Absentee Voting, but MI allows any over age 65 to request a mail ballot without an additional reason.

Figure 5-2. Proportion of Unreturned Mail Ballots among Ballots Sent in 2008, 2010 and 2012, by Mail Voting System



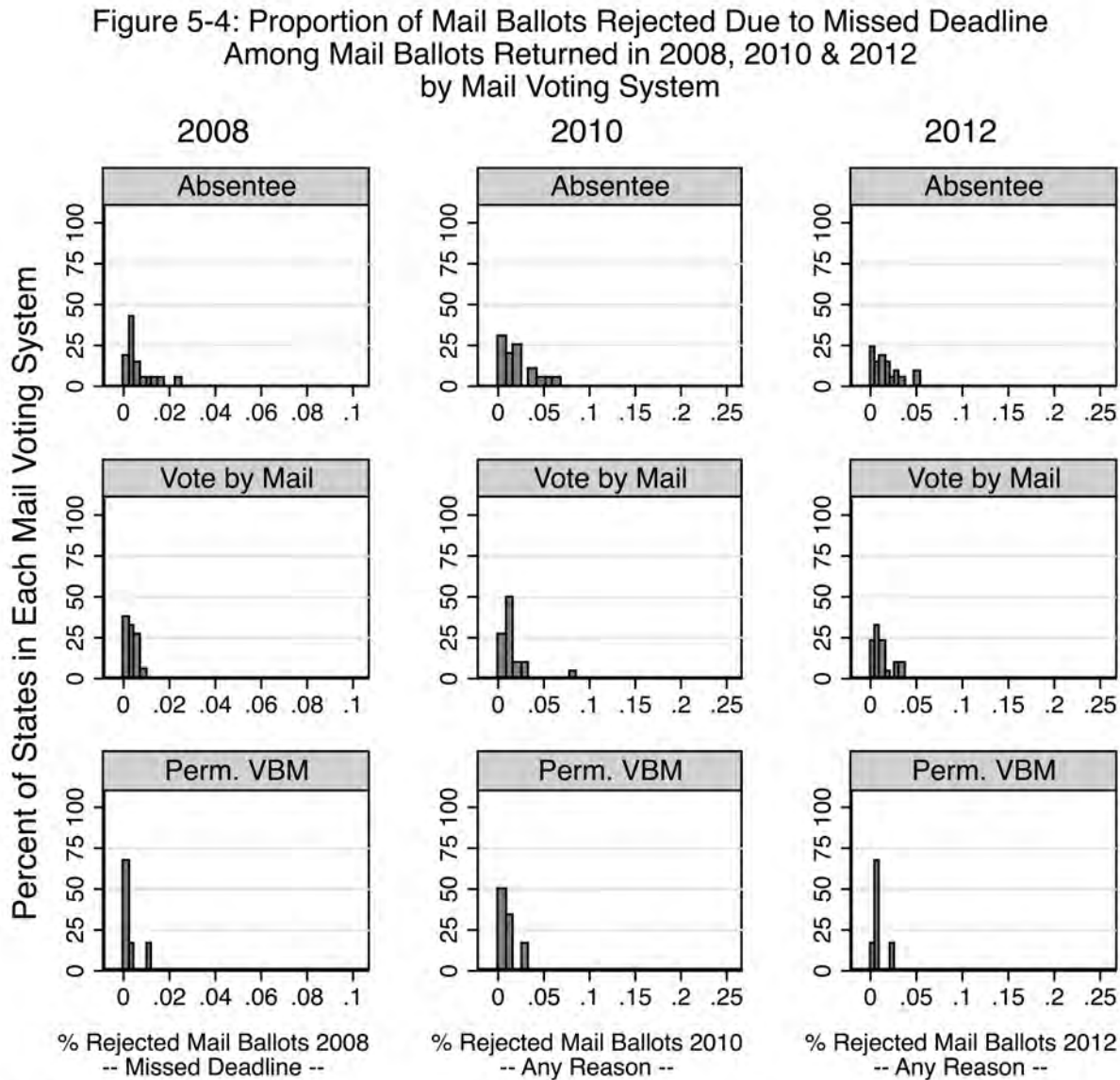
Source: 2008, 2010 & 2012 Election Administration & Voting Survey, U.S. Election Assistance Commission.
 Notes: States reporting data: 2008 = 47; 2010 = 49; 2012 = 49. Postal Voting excluded because OR and WA do not report unreturned ballots among regular mail ballots. They only report unreturned ballots for absentee voters receiving ballot somewhere other than the registration address. States reporting negative rates or 100% of mail ballots as unreturned are excluded. The outlier in 2008 permanent vote by mail is NJ, holding its first election with permanent vote by mail after initiating the reform in 2007 so voter confusion may explain the high rate.

Figure 5-3. Proportion of Mail Ballots Rejected for Any Reason among Mail Ballots Returned in 2008, 2010 and 2012, by Mail Voting System



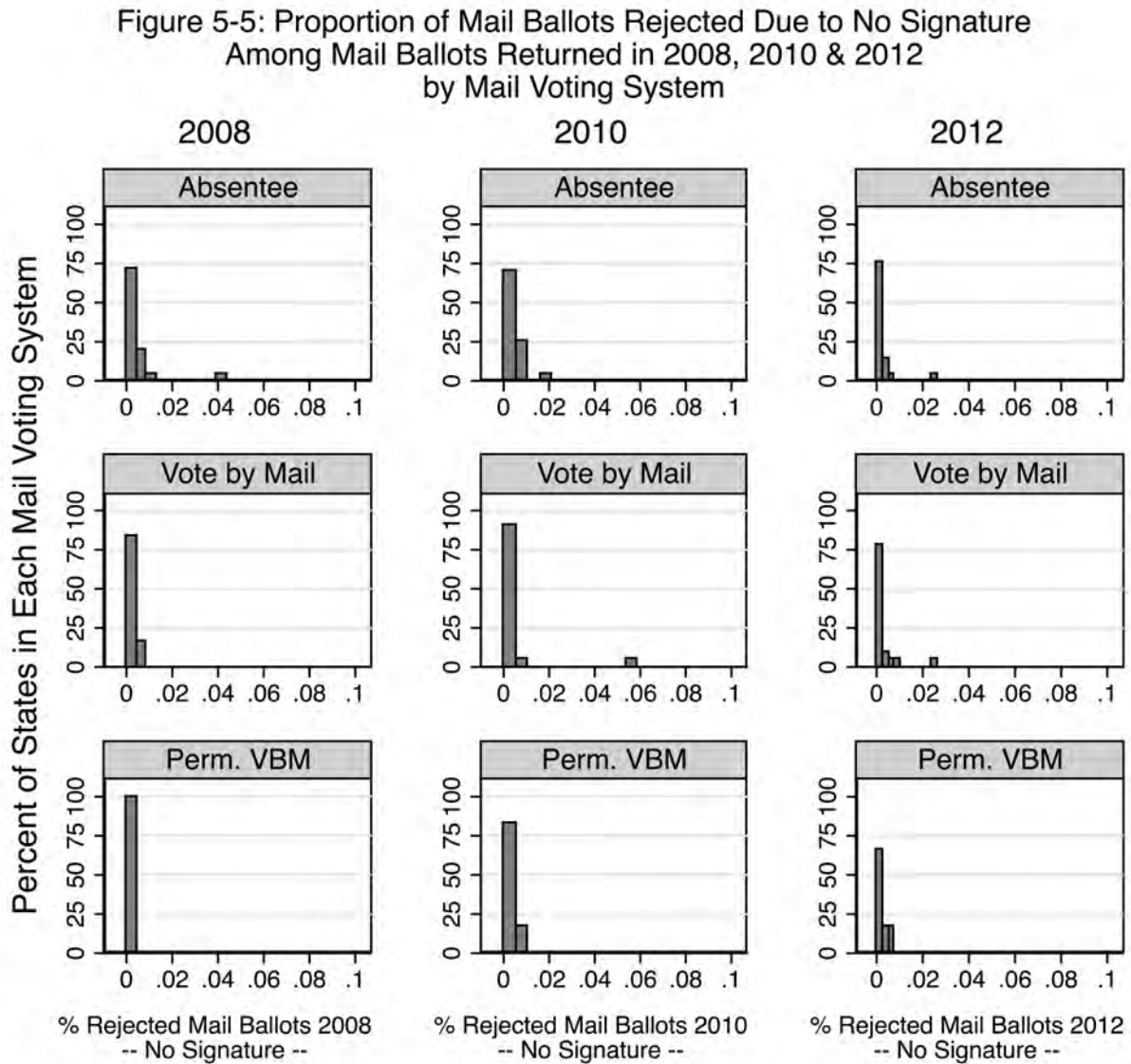
Source: 2008, 2010 & 2012 Election Administration & Voting Survey, U.S. Election Assistance Commission.
 Notes: States reporting data: 2008 = 45; 2010 = 49; 2012 = 46. Postal Voting excluded because OR and WA do not report rejected ballots among regular mail ballots. States reporting negative rates or 100% of mail ballots as rejected are excluded. The 2008 outliers for vote by mail (NC & NV) and absentee voting (IN) were states with heavy mobilization by the Obama for President campaign. DC was an outlier in absentee voting in 2008 and vote by mail in 2010.

Figure 5-4. Proportion of Mail Ballots Rejected Due to Missed Deadline among Mail Ballots Returned in 2008, 2010 and 2012, by Mail Voting system.



Source: 2008, 2010 & 2012 Election Administration & Voting Survey, U.S. Election Assistance Commission.
 Notes: States reporting data: 2008 = 42; 2010 = 45; 2012 = 43. Postal Voting excluded because OR and WA do not report rejected ballots among regular mail ballots. States reporting negative rates or 100% of mail ballots as rejected are excluded.

Figure 5-5. Proportion of Mail Ballots Rejected Due to No Signature among Mail Ballots Returned in 2008, 2010 and 2012, by Mail Voting System



Source: 2008, 2010 & 2012 Election Administration & Voting Survey, U.S. Election Assistance Commission.
 Notes: States reporting data: 2008 = 38; 2010 = 43; 2012 = 43. Postal Voting excluded because OR and WA do not report rejected ballots among regular mail ballots. States reporting negative rates or 100% of mail ballots as rejected are excluded. The 2008 absentee voting outlier is Arkansas. The 2010 vote by mail outlier is DC.

Table 5-1. Definitions of Systems for Administering Mail Ballots

Term	Definition
Absentee Voting	Mail ballots are only available to voters who meet statutorily defined reasons for being unable to appear at their assigned polling places on Election Day.
Vote-by-Mail <i>(election-specific Vote-by-Mail)</i>	Any registered voter can request a mail ballot without providing a reason or excuse. Requests for ballots can be valid for an election cycle, an election year, or a specific election, depending on state law.
Permanent Vote-by-Mail	Any registered voter may request a mail ballot for all future elections, without providing a reason or excuse. ¹⁹ Permanent mail voter status is a voluntary choice, and layered on top of the election-specific Vote-by-Mail system.
Postal Voting	All registered voters are sent a ballot by mail. In-person voting with voting machines / polling booths is not available to the general public.

¹⁹ Some Absentee Voting states have permanent absentee lists for voters who have a permanent reason why they are unable to vote in person. I do not consider these states as Permanent Vote-by-Mail.

Table 5-2. Mail Voting Systems and Mail Voting Data by State

Election	Mail Voting System			Share of Ballots Cast by Mail			% of Mail Ballots Not Returned			% of Returned Mail Ballots Rejected			% of Returned Mail Ballots Rejected for Missing Deadline			% of Returned Mail Ballots Rejected for Missing Signature		
	2008	2010	2012	2008	2010	2012	2008	2010	2012	2008	2010	2012	2008	2010	2012	2008	2010	2012
AK	Vote-by-Mail			8.7%	7.2%	8.2%	16.5%	15.6%	15.5%	2.1%	2.9%	3.2%	0.3%	0.0%	0.0%	0.1%	0.3%	0.0%
AL	Absentee Voting			.	.	.	.	.	12.8%	.	.	.	.	.	.	.	.	.
AR	Absentee Voting			1.8%	2.4%	2.6%	16.8%	9.7%	9.1%	3.1%	5.0%	3.0%	0.7%	0.9%	1.0%	4.4%	1.0%	1.0%
AZ	Perm. Vote-by-Mail			52.4%	61.5%	65.9%	6.4%	23.1%	19.7%	0.6%	0.8%	0.8%	0.1%	0.3%	0.3%	0.2%	0.3%	0.3%
CA	Perm. Vote-by-Mail			42.9%	48.8%	50.0%	16.2%	30.9%	29.4%	2.2%	1.4%	0.9%	0.3%	0.5%	0.4%	0.2%	0.2%	0.4%
CO	Perm. Vote-by-Mail			62.2%	68.5%	68.1%	9.0%	22.0%	12.5%	0.5%	0.6%	0.9%	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%
CT	Absentee Voting			8.8%	5.7%	7.5%	-4.9%	6.5%	8.7%	2.1%	1.9%	2.0%	.	1.9%	.	.	.	.
DC	Absentee	Vote-by-Mail		11.1%	2.5%	3.8%	3.7%	32.7%	28.2%	8.6%	8.6%	3.5%	0.3%	0.5%	0.8%	.	5.4%	0.8%
DE	Absentee Voting			4.9%	3.6%	4.6%	3.6%	4.5%	7.6%	1.6%	1.2%	1.2%	1.6%	1.1%	1.2%	0.0%	0.1%	1.2%
FL	Vote-by-Mail			21.5%	22.4%	26.6%	14.1%	29.0%	18.2%	1.0%	1.4%	0.9%	0.3%	0.7%	0.4%	0.3%	0.4%	0.4%
GA	Vote-by-Mail			52.3%	29.7%	48.8%	1.6%	2.6%	1.7%	0.2%	0.1%	.	0.1%	0.0%	.	0.0%	0.0%	.
HI	Perm. Vote-by-Mail			21.2%	30.1%	35.7%	15.0%	7.7%	9.8%	0.8%	0.9%	0.7%	0.1%	0.3%	0.4%	0.1%	0.1%	0.4%
IA	Vote-by-Mail			38.1%	31.9%	42.5%	5.1%	6.0%	7.0%	0.7%	1.2%	1.2%	0.1%	0.3%	0.2%	0.0%	0.3%	0.2%
ID	Vote-by-Mail			29.1%	19.5%	24.3%	3.3%	6.6%	3.3%	0.5%	1.6%	0.6%	0.3%	0.5%	0.4%	0.1%	0.1%	0.4%
IL	Absentee	Vote-by-Mail		3.3%	3.7%	2.0%	6.8%	17.3%	0.7%	0.2%	2.0%	.	0.2%	.	.	0.1%	.	.
IN	Absentee Voting			15.8%	10.3%	19.0%	3.7%	0.5%	0.7%	10.9%	3.9%	2.1%	0.1%	0.1%	0.2%	0.1%	1.8%	0.2%
KS	Vote-by-Mail			23.3%	17.8%	16.3%	6.5%	16.3%	30.2%	1.4%	2.7%	3.6%	0.7%	0.7%	1.2%	0.5%	0.9%	1.2%
KY	Absentee Voting			6.1%	4.8%	1.8%	5.9%	2.8%	.	1.7%	1.7%	5.4%	0.3%	0.2%	0.7%	0.9%	1.1%	0.7%
LA	Absentee Voting			14.4%	10.1%	2.1%	2.6%	6.1%	21.7%	0.7%	0.6%	5.4%	0.4%	0.3%	2.2%	0.1%	0.1%	2.2%
MA	Absentee Voting			6.5%	5.1%	8.1%	9.1%	5.9%	8.2%	1.0%	0.1%	1.0%	.	0.7%	0.8%	.	0.1%	0.8%
MD	Absentee	Vote-by-Mail		7.3%	4.5%	5.1%	9.3%	14.6%	12.5%	1.0%	1.3%	1.1%	0.3%	0.8%	0.6%	0.4%	0.3%	0.6%
ME	Vote-by-Mail			31.5%	24.3%	25.5%	2.8%	3.7%	3.2%	0.8%	0.8%	1.2%	0.1%	0.2%	0.2%	0.2%	0.4%	0.2%
MI	Absentee Voting			24.9%	23.1%	25.7%	2.5%	4.6%	2.9%	0.7%	0.7%	0.6%	0.4%	0.4%	0.4%	0.0%	0.1%	0.4%
MN	Absentee Voting			10.9%	5.9%	8.7%	-74.0%	7.1%	4.3%	2.8%	5.9%	2.9%	0.3%	0.6%	0.7%	1.2%	0.6%	0.7%
MO	Absentee Voting			9.6%	5.7%	8.9%	6.5%	3.7%	4.6%	1.8%	1.8%	2.0%	0.5%	0.6%	0.7%	0.1%	0.3%	0.7%
MS	Absentee Voting			5.1%	2.5%	6.9%	15.4%	-2.7%	3.9%	4.1%	6.1%	3.3%	0.5%	0.1%	0.1%	0.1%	0.2%	0.1%
MT	Perm. Vote-by-Mail			42.2%	45.8%	57.8%	4.1%	9.2%	9.3%	0.9%	0.5%	0.3%	0.1%	0.2%	0.1%	0.1%	0.2%	0.1%
NC	Vote-by-Mail			4.5%	2.0%	4.5%	14.5%	11.8%	10.7%	11.9%	1.4%	1.1%	.	0.3%	0.4%	0.6%	0.2%	0.4%
ND	Vote-by-Mail			23.7%	26.9%	28.7%	6.4%	6.1%	5.5%	0.5%	0.3%	0.4%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%
NE	Vote-by-Mail			21.5%	16.1%	24.9%	4.0%	8.2%	10.6%	1.1%	1.3%	1.9%	0.6%	0.3%	0.3%	0.3%	0.3%	0.3%
NH	Absentee Voting			9.6%	6.3%	9.0%	4.7%	5.3%	4.7%	1.8%	2.3%	2.6%	0.6%	1.0%	1.2%	0.4%	0.4%	1.2%
NJ	Perm. Vote-by-Mail			3.7%	5.2%	7.5%	43.4%	21.9%	15.6%	.	2.9%	2.3%	1.2%	0.5%	0.4%	.	0.8%	0.4%
NM	Vote-by-Mail			20.1%	12.9%	10.0%	16.6%	.	14.7%	0.8%	.	1.4%	0.2%	.	0.7%	0.4%	.	0.7%
NV	Vote-by-Mail			8.3%	7.9%	7.5%	8.8%	14.1%	15.0%	6.3%	1.7%	1.5%	0.7%	1.2%	0.8%	0.6%	0.2%	0.8%
NY	Absentee Voting			.	2.3%	3.7%	.	22.4%	13.0%	.	3.8%	.	.	.	.	.	.	.
OH	Vote-by-Mail			28.5%	21.5%	22.1%	1.7%	8.3%	6.4%	1.6%	1.7%	1.0%	0.3%	0.6%	0.5%	0.1%	0.1%	0.5%
OK	Vote-by-Mail			4.9%	8.9%	4.4%	17.0%	8.1%	15.6%	2.7%	1.3%	3.1%	1.0%	0.4%	1.0%	.	0.1%	1.0%
OR	Postal Voting			.	0.3%	99.0%	100.0%	42.8%	.	.	1.8%	.	.	1.0%	.	.	0.5%	.
PA	Absentee Voting			4.6%	3.0%	4.3%	11.3%	10.8%	12.1%	0.7%	1.9%	0.7%	0.6%	1.7%	0.6%	.	0.1%	0.6%
RI	Absentee Voting			3.9%	3.3%	5.3%	100.0%	10.8%	9.9%	.	1.1%	1.3%	.	.	.	.	0.6%	.
SC	Absentee Voting			.	11.2%	6.3%	2.6%	3.3%	3.2%	0.3%	0.4%	0.2%	0.3%	0.4%	0.2%	.	.	0.2%

SD	Vote-by-Mail	18.5%	18.1%	13.6%	2.5%	0.3%	2.2%	0.3%	0.3%	0.2%	0.4%	0.2%	0.1%	0.1%	0.1%	0.1%
TN	Absentee Voting	2.4%	1.3%	2.2%	.	6.6%	7.4%	3.7%	0.8%	1.1%	1.5%	0.3%	0.7%	0.5%	0.4%	0.7%
TX	Absentee Voting	3.9%	3.8%	2.8%	8.7%	8.3%	6.3%	4.6%	1.6%	1.6%	2.5%	0.4%	1.3%	0.7%	0.6%	1.3%
UT	Vote-by-Mail	8.4%	13.6%	18.1%	25.3%	30.8%	22.6%	2.0%	1.3%	1.1%	0.6%	0.7%	.	0.1%	0.4%	.
VA	Absentee Voting	13.4%	4.9%	10.8%	7.3%	3.7%	4.0%	1.3%	0.5%	0.5%	0.9%	0.0%	0.1%	0.4%	.	0.1%
VT	Vote-by-Mail	27.3%	18.0%	20.7%	3.1%	5.1%	3.4%	1.3%	2.5%	0.7%	0.5%	0.4%	0.2%	0.2%	0.2%	0.2%
WA	Postal Voting*	87.2%	96.0%	97.0%	.	28.8%	18.1%	.	1.4%	1.0%	.	0.5%	0.2%	.	0.2%	0.2%
WI	Vote-by-Mail	21.1%	10.5%	21.4%	99.6%	5.8%	6.7%	23362.6%	1.2%	0.6%	.	.	0.1%	.	.	0.1%
WV	Absentee Voting	1.7%	0.6%	2.0%	18.4%	13.2%	9.1%	3.1%	2.0%	0.2%	1.1%	1.2%	0.1%	0.1%	0.0%	0.1%
WY	Vote-by-Mail	25.0%	21.2%	26.1%	2.8%	4.5%	2.7%	0.4%	0.5%	0.3%	0.3%	0.3%	0.1%	0.0%	0.1%	0.1%

Note: Data from the 2008, 2010 and 2012 Election Administration and Voting Survey by the U.S. Election Assistance Commission.

Table 5-3. Measures of Mail Voting

Measure	Numerator in Measure	Denominator in Measure	Correlation: 2008 & 2010	Correlation: 2008 & 2012	Correlation: 2010 & 2012
Proportion of Ballots Cast by Mail <i>Among All Ballots Cast</i>	Valid mail ballots counted in the election (EAVS Section C Question 4a)	Total participants in the election (EAVS Section F Question 1a)	0.964	0.971	0.980
Unreturned Mail Ballot Rate <i>Among Mail Ballots Sent</i>	Mail ballots sent minus mail ballots returned in the election (EAVS Section C Questions 1a & 1b)	Mail ballots sent in the election (EAVS Section C Question 1a)	0.514	0.391	0.791
Rejected Mail Ballot Rate <i>Among Mail Ballots Returned</i>	Mail ballots rejected for any reason (EAVS Section C Question 4b)	Mail ballots returned in the election (EAVS Section C Question 1b)	0.496	0.235	0.506
Rejected Mail Ballot Rate due to Missed Deadline <i>Among Mail Ballots Returned</i>	Mail ballots rejected for missing ballot return deadline (EAVS Section C Question 5a)	Mail ballots returned in the election (EAVS Section C Question 1b)	0.211	0.431	0.240
Rejected Mail Ballots Rate due to No Signature <i>Among Mail Ballots Returned</i>	Mail ballots rejected for not having a valid signature (EAVS Section C Question 5b)	Mail ballots returned in the election (EAVS Section C Question 1b)	0.117	0.106	0.761

Notes: Data from the 2008, 2010 and 2012 Election Administration and Voting Survey by the U.S. Election Assistance Commission. Numerator and denominator explain the EAVS data used to calculate each measure. Correlations between statistics for each election were calculated using each state weighted equally. Rates ≤ 0 or $\geq 100\%$ are excluded from correlations (and subsequent figures) as likely data reporting errors. The EAVS state-level estimates of the proportion of ballots cast by mail are highly correlated with estimates from the 2008 and 2012 Performance of American Elections Surveys and the 2008, 2010 and 2012 U.S. Census Voter and Registration Surveys.