

Dynamic Voting in a Dynamic Campaign: Three Models of Early Voting

Vivekinan Ashok,
Daniel Feder,
Mary McGrath,
and
Eitan Hersh^{*†}

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Abstract

The proliferation of early voting necessitates reconceptualizing mass mobilization. No longer a dynamic campaign concluding with a single Election Day, elections are now a dynamic process in most states. We offer two models to explain how low-participation voters are mobilized in this dynamic electoral process. We compare these to a convenience model in which voters typically impervious to campaign influences vote early. To test these models, we assembled daily snapshots of 2012 early voting records across the U.S. We observe where and when individuals with key demographic characteristics voted. Though high-participation voters do disproportionately take advantage of early voting, our evidence suggests that in presidential swing states, low-participation voters are mobilized to vote early. However, we find no systematic increases in early turnout following major campaign events, local or national. Our findings have several implications for the study of mass mobilization and for policy concerns surrounding early voting.

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[†]Vivekinan Ashok, Daniel Feder, and Mary McGrath are PhD candidates, and Eitan D. Hersh is Assistant Professor, Department of Political Science, Yale University, 77 Prospect Street, New Haven CT, 06520, 203-436-9061, eitan.hersh@yale.edu.

1 Introduction

Not long ago, elections in the United States were characterized by a dynamic, drawn-out campaign followed by a single, national day of voting. Over the last decade, however, the U.S. has experienced a “quiet revolution” in its voting procedures (Gronke, 2013): the national vote is now dynamic as well. It can influence and be influenced by a still-unfolding campaign. In key presidential swing states like Colorado and North Carolina, the majority of votes are cast prior to Election Day. In the country as a whole, a quarter to a third of votes are cast early. The increasing adoption of early voting, both by states and by voters, suggests that the direct and indirect process of voter mobilization is changing as well.

In this article, we test three models of early voting pertinent to these changes in the election landscape. In a direct mobilization model, campaigns use the early voting period to secure votes among supporters who are unlikely to vote without an outside push, such as young voters, in the case of Democratic campaigns. Indirect mobilization, by contrast, may take place as campaign events and news inspire some voters to make a decision and then cast a ballot early. We compare these mobilization-oriented models to a model of convenience, the most common model of early voting in the literature. In a convenience model, the voters who take advantage of early voting are disproportionately high-participation types — politically engaged and older voters who are considered relatively impervious to campaign influences.

We test these models using day-by-day snapshots of public voting records in almost every state that permits early voting. Election offices across the country provide regular reports on which voters have cast early ballots. They presumably do this for the benefit of candidates: if campaigns know in real-time which voters have already cast ballots, they can redirect resources toward mobilizing registrants who have yet to vote. Catalist, a political data vendor that supplies a national voter database to Democratic Party-aligned campaigns, collects, standardizes, and releases data from these reports to its subscribers. In fall of

2012, we downloaded Catalist’s early voting records in every available state, every day that such records were released. We collected counts of voters casting ballots by date, Congressional district, party affiliation, age, and Census block group characteristics. The dataset we compiled from these counts allows us to test models of mobilization and voting behavior both cross-sectionally across local areas and dynamically throughout the early voting period. These data also allow us to overcome limitations of some past studies on early voting that relied only on survey self-reports or aggregate-level data, or else that were restricted to just one or two states.

Our examination of early voting makes two contributions to the study of politics. First, it directly addresses scholarship on mass mobilization campaigns. When an election is held on a single day but campaign events happen over a period of time, scholars face a trade-off in the study of campaigns. They can measure campaign effects using panel studies of “vote intention” in the midst of a campaign season (Hillygus and Jackman, 2003; Hillygus, 2005; Gerber et al., 2011; Huber and Arceneaux, 2007), but campaigns’ influence on “intenders” might not reflect outcomes at the ballot box (Rogers and Aida, 2013). The alternative is to study post-election surveys of self-reported voters or single-snapshot governmental records, either in the aggregate (e.g. Holbrook and McClurg (2005)) or at the individual-level (e.g. Gerber and Green (2000)). These approaches, however, might fail to capture campaign effects that are fleeting (see Gerber et al. (2011)), and post hoc surveys of voting may be corrupted by misreporting (Ansolabehere and Hersh, 2012). In our analysis of how campaign stimuli may alter voting behavior, we connect the dynamic nature of campaigns with the newly-dynamic nature of voting, and instead of relying on measures of turnout intention, we observe individual-level voting records of early voters as they flow into election offices.

Our study also contributes to considerations of the public policy of elections, allowing us to speak to important questions about the policy-driven shift away from a single, national day of voting. First, by allowing voters to cast ballots over the course of many days, does early

voting make an election “a more private and less intense experience,” demobilizing voters who might have been inspired by the excitement of a single Election Day (Burden et al., 2014)? Second, if voting early can lead to voters regretting their decisions, could election results be called into question if large segments of the electorate cast ballots before becoming aware of late-arising information (Meredith and Malhotra, 2011)? Finally, will political organizations take advantage of the unsupervised nature of early voting to intimidate or coerce voters in ways that would not be possible in a traditional polling place (Gronke et al., 2008)?

By examining early voting patterns in the aftermath of local and national events and in battleground states as well as in safe states, we can look for evidence of whether campaign stimuli mobilize or demobilize low-participation voters. By determining whether voters cast ballots in large numbers following campaign events, we can also assess whether voters appear to be making “instant gratification” decisions they may later come to regret. And by examining the turnout patterns of groups that we know the Presidential campaigns tried to mobilize early, like young Democratic voters, we can estimate the extent to which campaigns are effectively targeting voters and persuading them to vote. If these targeted voters appear unaffected by the campaigns, then claims of intimidation and undue influence may be unwarranted.

2 Three Models of Voting

We engage with three models of voting: a model of *convenience*, a model of *indirect mobilization* and a model of *direct mobilization*. In assessing these models, it is important to keep the following points in mind: First, they are each pertinent to more general models of voting and are here applied to the particular features of *early* voting. Second, these models are not necessarily at odds. On the contrary, we hypothesize that each of the three models captures an important and distinct component of American voting behavior. Third, these

models are not the only way to organize theories of early voting. For example, Gronke and McDonald (n.d.) present a useful taxonomy of behavioral, institutional, and situational rationales for casting early votes. Here, our focus is on models that may provide insights into how the traditional understanding of voter decision-making and campaign effects play out in the context of a dynamic voting environment. Finally, except when more detailed distinctions are necessary for hypothesis-testing below, we consider early voting to include all “no-excuse” methods of casting ballots ahead of Election Day, including the multiple types of mail voting and in-person early voting, as reviewed by Gronke et al. (2008).

2.1 Convenience

Given that early voting has been introduced by states explicitly to make the voting process more flexible and accessible, empirical studies of early voting have given most attention to theoretical models of *convenience* (Gronke and Toffey, 2008). The most common hypotheses of convenience have focused on “early deciders” or “high-participation types” who make up their minds about whether and for whom to vote early in the election season (Stein, 1998; Karp and Banducci, 2001; Gronke and McDonald, n.d.; Gronke, 2013; Barreto et al., 2006; Neeley and Richardson Jr., 2001). Once voters decide that they they will vote, they choose the most convenient time to cast their ballot. Thus, early deciders will disproportionately take advantage of early voting.¹ Voters who make up their minds early on tend to be more partisan, older, and more engaged with politics. Under this convenience model, then, these attributes should be correlated with early voting. Many empirical studies of early voting are consistent with this model, which is why Berinsky (2005) concludes that early voting fails to reduce participatory bias in elections, a “perverse consequence” of election reform.

There is an interesting connection between the convenience model of early voting and

¹Another type of voter thought to find early voting particularly convenient is the commuter. See Gimpel, Dyck and Shaw (2006) for geographic measures of commute time and early voting patterns. See also Gronke (2008).

research on campaigns. In the campaign literature, high-participation types have been considered relatively impervious to campaign stimuli. These voters tend to know both that they will vote and for whom they will vote months ahead of an election. The ups and downs of the campaign do not influence their decision process (e.g. Campbell (2001)). Indeed, campaign operatives and political scientists alike operate under the assumption that most voters' turnout behavior is unmovable: their propensity to vote is so high or so low that they are unaffected by campaign stimuli. The voters who are on the cusp of turning out (on the "turnout bubble") are thus a central focus of electoral campaigns (Burden et al., 2014; Highton, 2004). The convenience model suggests that these sporadic voters are least likely to vote ahead of Election Day. While the Election Day electorate may be composed of the kinds of sporadic voters who may be affected by campaigns, the early voting electorate will be composed of the types of people least affected by them.

2.2 Indirect Mobilization: Instant Gratification

A convenience model is not the only way to think about early voting. Consider a model of indirect mobilization: voters who are undecided at the beginning of the early voting period may react to campaign stimuli during the early voting period and decide to vote ahead of Election Day. We call this an "instant gratification" model because once early voting begins, a voter can cast a ballot immediately upon making a decision to vote. In contrast to the convenience model described above, this model suggests that early voting is not limited to the campaign-impervious high-participation types, but may also include voters who make up their minds to turn out during the early voting period. In short, for those citizens for whom the decision to vote is impulsive, the availability of early voting gives them more opportunities to spontaneously cast a ballot.

An indirect mobilization hypothesis builds on a long line of research in the literature

on campaigns, but research on early voting has engaged very little with this model.² As Leighley (1995) writes, “The mobilization model asserts that participation is a response to contextual cues and political opportunities structured by the individual’s environment.” In this light, scholars like Shaw (1999); Shaw and Roberts (2000); McClurg (2004); Holbrook and McClurg (2005); Hillygus (2005) and Hillygus and Jackman (2003) have studied campaign events like debates, party conventions, and candidate appearances, and they have examined how turnout intention and vote intention shifts following such stimuli. Other research, like Gelman and King (1993), focuses on how the passage of time in the election season (as opposed to any single campaign event) allows voters to learn about the election and the candidates. Generally, this scholarship has assessed either single-snapshot datasets following an election or panel surveys in which levels of support or turnout intentionality are measured from polling questions.

A model of indirect mobilization can be extended to the study of early voting. As time goes on and the campaign heats up, low-participation types may acquire information, make a decision to vote, and then cast a ballot at a convenient time. In some cases, voters may react to specific, localized events. Consider the 2012 Presidential swing state of Colorado, where registrants were able to vote from October 22nd through Election Day, November 6th. During that period, voters may have been influenced by the final Presidential debate (October 22), by coverage of President Obama’s response to a massive storm (October 29-30) or his visits to Denver (October 24, November 1) and Aurora, CO (November 4), and by Mitt Romney’s visits to Morrison, CO (October 23) and Colorado Springs and Englewood, CO (November 3), among other stimuli. For Colorado registrants as yet undecided about whether or for whom to vote, one or more of these events may have helped them make their decision, at which point they would be able to spontaneously cast a ballot. Indeed, the

²The closest research may be recent work by Dunaway and Stein (2013), which shows that early voting appears to increase the volume campaign related news in a state, which might indirectly mobilize voters.

presidential campaign visits to swing states in 2012 were often timed to coincide with the start of the early voting period in order to generate news and excitement so as to inspire the casting of early ballots.

In this indirect mobilization model, early voters may not only be a concentrated group of high-participation types who are impervious to campaign stimuli; they may also include late deciders whose choices are made during the early voting period. If this is true, we should see increases in turnout at particular times in the early voting calendar (after a major event), among particular subsets of voters (voters whose attributes are correlated with sporadic turnout), and in particular places (locations where campaign news and events are particularly salient). We may also see a more gradual pattern of indirect mobilization: single events aside, over the course of the early voting period, low-participation types may increasingly join the ranks of the early voters as the buzz surrounding the election gets louder, an outcome in the spirit of Gelman and King (1993).

2.3 Direct Strategic Mobilization

Low-participation types may also be influenced by a campaign contacting them directly and urging them to vote, such as with phone banks and door-to-door canvassers. This process is one of direct, strategic mobilization rather than indirect mobilization. Some voters may be targeted specifically to cast their ballots using an early-voting mechanism. Scholars have engaged with strategic mobilization hypotheses of early voting in a variety of ways. Some have argued that turnout increases attributable to early voting opportunities ought to be concentrated in areas where parties are active in mobilization campaigns (e.g. Caldeira, Patterson and Markko (1985); Oliver (1996); Stein and Garcia-Monet (1997)). Others have argued that campaigns focus early voting mobilization efforts on core supporters who need turnout reminders, thus leaving campaigns more resources to persuade undecided voters on

Election Day (Stein, 1998; Gronke and Toffey, 2008).³

In the last several election cycles, clear anecdotal evidence has emerged showing that campaigns focus early voting mobilization on individuals deemed to be “sporadic” supporters. Beginning about two weeks before the election, campaigns generally shift from a persuasion and registration strategy that defines the early portion of the campaign season to a Get-Out-The-Vote (GOTV) strategy (see Malchow (2008)).⁴ The Get-Out-The-Vote strategy appears to be a central goal of early voting mobilization. Consider evidence presented by the 2012 Obama campaign in its own post-election “Legacy Report,” in which the campaign described early voting mobilization as part of its core strategy. The report details the development of “a comprehensive early vote program to encourage supporters to take advantage of the convenience of voting early.” The campaign also made clear which voters it was targeting for early voting: “Not only did a record number of voters turn out [early], but many were the voters who the campaign had specifically prioritized for early vote: sporadic supporters.” In light of this anecdotal evidence that the Obama campaign — a campaign considered quite adept in its mobilization efforts — used the early voting window to target low-participation supporters, we look for evidence supporting a direct mobilization model by assessing whether “sporadic supporters” appear to turn out disproportionately in early voting battleground states.

Why do campaigns want to specifically encourage their unreliable supporters to vote early? Presidential campaigns can exploit cross-state differences in early voting opportunities to maximize their resources. They can benefit from focusing on early voting mobilization in states where it is permitted and then moving resources to the other states on Election Day.

³For other works engaging with strategic mobilization and early voting, see Mann (n.d.); Alvarez, Levin and Sinclair (2012); Burden et al. (2014); Gimpel, Dyck and Shaw (2006); Kropf (2012); Gronke et al. (2008); Arceneaux, Kousser and Mullin (2012). For research on message timing and voter mobilization, see Panagopoulos (2011); Nickerson (2007).

⁴See also www.barackobama.com/calendar/ and “An Organizer’s Guide: What is GOTV?” New Organizing Institute, 2010, downloaded 22 April 2013, <http://neworganizing.com/wp-content/uploads/2010/10/What-is-GOTV-1.pdf>.

For example, the 2012 swing states North Carolina, Florida, and Ohio have early-in person and no-excuse absentee voting; Virginia and New Hampshire are also swing states but have neither of these early voting options. Campaigns can encourage people to vote early in the first group of states so that they can deploy more resources on Election Day in the second group of states.

Campaigns may also want to take advantage of looser restrictions on electioneering in the early voting period. States generally forbid certain invasive forms of electioneering on Election Day that are permitted or at least tolerated during early voting. States give voters private booths to cast ballots and they often forbid canvassers from engaging with voters within so many feet of a precinct location. These kinds of checks are much weaker in early voting, and campaigns can benefit from the laxer standards. A campaign may retrieve from election administrators a list of voters who have absentee ballots that have not yet been returned to the election office. A campaign worker could then visit these voters at home, persuading a voter to fill out his or her ballot immediately, and perhaps even helping the voter put the ballot in the mailbox.

This perspective on mobilization in early voting states is in tension with recent work by Burden et al. (2014, 2011), which argues that though early voting may be convenient for some voters, the net effect might be to demobilize citizens by spreading out the news and excitement of the election over a period of days and weeks. Burden et al. (2014) also argue that campaigns have a weakened incentive to focus on early voting battleground states because many voters in these states have already cast ballots, and thus resources are better spent on Election Day-only states in which all the votes are still up for grabs.

Our perspective is somewhat different. We conceive of the early voting period as an opportunity for campaigns to mobilize undependable voters. Candidate visits appear to be timed to the early voting calendar and campaigns use vendors like Catalist to obtain real-time information about which voters have yet to cast early ballots, allowing the campaigns

to better target their early voting mobilization efforts. In the context of the 2008 and 2012 Obama campaigns, we disagree with the view that early voting reduces campaign incentives to mobilize voters in early voting states. At the same time, some of our tests of the mobilization of low-participation voters — particularly the tests of indirect mobilization — suggest a view that is consistent with Burden et al., which is that low-participation voters appear not to be induced to cast their ballots by specific campaign events during the early voting period.

2.4 Hypotheses

The *convenience*, *indirect mobilization*, and *direct mobilization* models of early voting each offer explanations about the composition of the early voting public. Equipped with the national database of 2012 early voters that we have compiled from Catalist’s records, we can examine the merits of each of these models in ways that were not previously possible. Doing so will help us begin to understand which citizens are taking advantage of early voting opportunities and why they might be doing so. Building on the literature on campaigns, we focus on demographic characteristics to distinguish likely high-participation types from low-participation types. Because our study utilizes public records of turnout from election offices, we focus on simple, individual-level differences to classify voters. We distinguish registered party affiliates from unaffiliated voters (whom we will call independents). And we distinguish older voters from younger voters. To a lesser extent, we also examine race. In a few southern states, voters’ individual racial identities are publicly listed on voter registration files. Outside the South, we observe the percentage of white residents in the voters’ Census block group as a proxy for studying race. Because individual-level race data is unavailable for most voters, we focus less on race in this analysis than on partisanship and age. Our results on race suggest the need for caution in using ecological racial data as a proxy for racial groups in this context.

Early voting presents increased and varied opportunities to turn out to vote. Because independent voters and younger voters tend to be much less likely to vote than partisans and older voters (Ansolabehere and Hersh, 2012) and racial minorities also tend to vote less regularly,⁵ we focus our attention on groups whose demographic affiliations signal uncertainty about turning out. To be clear, these attributes, particularly race and age, are not indicative of vote choice uncertainty. Our focus is on correlates of turnout uncertainty.

The expectation of the *convenience* model is that high-participation types are more likely to take advantage of the opportunity to vote early. This implies that the Election Day voting public should be composed disproportionately of low-participation types.

The expectation of the *indirect mobilization* model comes in two parts. First, following specific campaign events, like debates or candidate visits, low-participation types should be more likely to display a temporary spike in turnout than high-participation types, whose decisions ought to be relatively unaffected by such events. Second, as the early voting period advances, low-participation types should be increasingly likely to participate. The news and conversation about the campaign, which increase as the election approaches, should be more likely to reach and potentially mobilize low-participation types. High-participation types are much more likely to have been tuned into this news and conversation from before the start of the early voting period. Thus, the over-time increase in turnout rates for low-participation types should be large relative to the increases in turnout of high-participation types. Since this type of mobilization is *indirect*, these patterns may be apparent across the country, not just in battleground states. If voters are mobilized by the buzz of national news and social-network conversations, then even low-participation types in safe states may be inspired to vote as the early voting period progresses, especially following specific events like debates.

In contrast, the expectation of the *direct mobilization* hypothesis is that turnout among

⁵The relationship between race and turnout is more nuanced. The turnout gap between non-whites and whites is strong among men and weak among women (Ansolabehere and Hersh, 2013).

targeted demographics should be especially high in battleground states with early voting. If campaigns are focusing attention on driving up turnout among likely supporters whose turnout behavior is sporadic and if the early voting window gives campaigns more opportunities to connect with these voters, then we should see particularly high rates of voting by these subgroups in early voting swing states. Because of the nature of our data and the specific qualities of the 2012 election, we will focus particularly on young (i.e. under 30) registrants affiliated as Democrats as well as African-Americans in the South. The 2012 Obama campaign put considerable effort into grassroots mobilization, opening local field offices, recruiting hundreds of thousands of staff and volunteers, and utilizing tools like Facebook to try to connect with their target audiences. We know that the Obama campaign was particularly focused on young people and African-Americans, whose age or race signalled likely support but finicky turnout.

Altogether, then, we expect high-participation types to vote early more than low-participation types. But we expect low-participation types to increase their relative participation in early voting as time progresses and to increase their participation following campaign stimuli. We expect these spikes in voting among low-participation types to be particularly apparent in the 2012 battleground states. We expect low-participation voters to vote at the highest rates in states that are both battleground states and early voting states.

3 Data

Catalist, LLC is a political data firm that contracts with Democratic and progressive organizations as well as with academic institutions. Most of Catalist's clients are candidate campaigns and organizations like labor unions and interest groups. These clients use Catalist's continually-updated national voter file for voter outreach. During the election season, Catalist's clients have an interest in knowing which voters have cast early ballots in real-time

so that they can frequently adjust their contacting strategies. As a result, Catalist makes regular requests to local and state election officials to obtain up-to-date turnout records. In most early voting states in 2012, Catalist received daily updates about early voting turnout.⁶ Catalist links up-to-date reports from election officials with its own database of individual voters.

Throughout the early voting period, we downloaded daily counts of early voters by Congressional district, party affiliation, and age. We also downloaded counts by several Census block-group level characteristics, like the percentage non-Hispanic white of the voter's block group. We needed to download the data daily because while Catalist retains past records of which voters cast early ballots versus Election Day ballots, it does not make available the date on which the ballot was recorded as having been cast. By downloading the data in real-time, just as the actual campaigns using Catalist did, we were able to gather continual snapshots of the voter rolls.

Two features of the data are particularly important to keep in mind. First, states have idiosyncratic practices with respect to early voting, both in terms of the methods used to cast ballots (e.g. early in-person, early by-mail) and the length of the early voting period. As a result, throughout the article, we report trends for individual states in addition to grouped analyses. To accommodate this feature of the data and to allow for maximum transparency, we often show data for sample states in the text, with the full set of states in the appendix.

Second, it is not necessary for our analysis that the date a voter actually cast a ballot be exactly the same as the date for which Catalist reports the vote being recorded. While Catalist received data for most states on a daily basis, a voter might have cast a ballot, either by mail or early in-person, several days before the election administration recorded the vote and transmitted the information to firms like Catalist. Our analysis does not rely on a precise measurement of time—it relies on a relative measure. For the section of our study

⁶Catalist retrieved data less frequently than daily in Alaska, Maine, Wisconsin, and Wyoming.

in which we analyze campaign events, we are attentive to a possible lag in the recording of early votes. Our analysis only requires the reasonable assumptions that voters who cast ballots earlier in the early voting period were recorded as having voted before voters who cast ballots later in the period and that early voters were recorded as early voters and Election Day voters were recorded as Election Day voters.

According to the National Conference of State Legislatures (NCSL), all states *except the following* have some combination of no-excuse absentee voting, early voting, and all-mail voting: Alabama, Connecticut, Delaware, Kentucky, Massachusetts, Michigan, Minnesota, Missouri, Mississippi, New Hampshire, New York, Pennsylvania, Rhode Island, South Carolina, and Virginia.⁷ Most of our analysis focuses on turnout patterns within early voting states. Note that since all voting in Oregon is considered “early” (though voters can return ballots on Election Day, these ballots are not separately identifiable in the dataset) and some of our analysis compares early voting to Election Day voting, Oregon is excluded from those parts of the analysis. For Washington State, which, like Oregon, has all-mail voting, Catalist is able to distinguish mail ballots that were submitted in-person on Election Day from ballots sent by mail ahead of Election Day. Accordingly, we are able to compare Election Day voting to early voting in Washington. Note also that we were unable to obtain Election Day turnout figures appended to Catalist records in New Mexico for 2012 by the time our contract with Catalist expired. Several early voting states are not party registration states, so they are excluded from analyses that compare party affiliates to independents. Some of our analysis distinguishes swing states, also known as battleground states, from safe states. Nine states in 2012 were widely considered battleground states. These states are Colorado, Florida, Iowa, Nevada, New Hampshire, North Carolina, Ohio, Virginia, and Wisconsin. Of these states, all but New Hampshire and Virginia are early voting states.

Several states have particularly noteworthy idiosyncracies. First, Illinois is the only early

⁷<http://www.ncsl.org/research/elections-and-campaigns/absentee-and-early-voting.aspx>

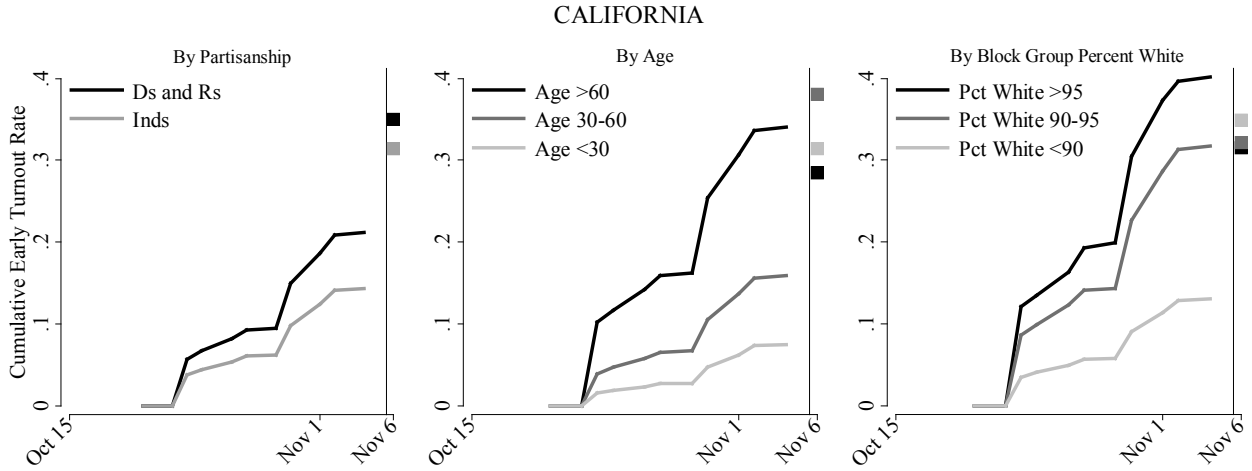
voting state that did not provide Catalist with pre-election updates of early voting turnout. Illinois is thus the only early voting state that is entirely excluded from our analysis due to data limitations. Second, Michigan presents an unusual case. Michigan is not considered an early voting state because voters need an excuse to request an absentee ballot. However, one of the sanctioned excuses in Michigan is being 60 years old or older. Many older voters take advantage of absentee voting in Michigan: Catalist recorded over one million early votes cast in that state, nearly all of which were associated with older voters. Because early voting opportunities in Michigan are constrained by age, we leave Michigan out of most of the analysis. Finally, in five states (Idaho, Kansas, Louisiana, Nebraska, and Ohio), the tallies for Election Day turnout as generated from the individual-level records maintained by Catalist appear to be the sum of Election Day voters and early voters. In these states, when we seek to compare Election Day and early turnout, we must subtract the early voting counts from the Election Day counts.

4 Analysis

4.1 Convenience

Our analysis begins with the simplest hypothesis, that of convenience. Following the bulk of the literature on early voting from prior election years, we hypothesize that demographic groups with typically higher turnout - like partisans, older voters, and white voters (here proxied by living in a homogenously white block groups outside the South) - will be more likely to cast early ballots. In Figure 1, we show the cumulative early voting turnout rate and the Election Day turnout rate for voters in California belonging to eight demographic clusters. In the appendix, we replicate Figure 1 for twenty-seven other early voting states for which we have data. Note that in non-party registration states, the sub-plot for party affiliation is not shown.

Figure 1: Cumulative Early Turnout Rate, by Subgroup: California



Note: Each line represents the cumulative early voting turnout rate for the associated demographic group. At each point in time, the total number of early voting ballots recorded are divided by the number of registered voters in that group. For example, consider the black line in the left-most graph. By the end of early voting period, 2,767,509 registered Democrats and Republicans cast early votes, out of 13,080,326 Californians who are registered Democratic or Republican, thus resulting in a cumulative early voting turnout rate of 0.21. On the right side of each plot, we show the Election Day turnout rate for each subgroup. For example, compared to the 21% of party affiliates who voted early, 35% of party affiliated voted on Election Day.

The plots in Figure 1 show a clear pattern. The groups of voters that are associated with high-participation types, including party affiliates, older voters, and voters in homogeneously white precincts, have much higher turnout rates in the early voting period than the groups associated with low-participation types. On Election Day, shown by the blocks on the right side of each plot, the difference in turnout rate is considerably muted. The turnout gap between partisans and independents at the end of the early voting period, for example, is twice as big as the gap between these groups on Election Day. For age cohorts, the pattern is even more dramatic. Voters over 60 are much more likely to cast early ballots than younger voters; however, on Election Day, older voters have the lowest turnout rate of the three age groups measured. A similar result is seen with respect to homogeneous versus heterogeneous racial geographic areas.

The patterns for California in Figure 1 are broadly reflective of the other early voting states. In most party registration states, the turnout gap between partisans and independents is higher in the early voting period than on Election Day. The same is true with respect to age and race. The exceptions to these patterns come in several forms. For one, several of the early voting states (Nebraska is an example) have relatively low rates of participation in early voting. Because few voters are using early voting at all, Election Day voters are disproportionately high-participation types. Another exception has to do with race. The early voting states for which we have individual-level race data reveal a substantially different pattern than the states for which we utilize block-group level data. In Florida, Georgia, and North Carolina, non-whites are much more likely to use early voting than white voters, while the reverse pattern is implied by the ecological data. This may indicate that early voting turnout patterns by race are quite different in the South versus the non-South. However, it certainly indicates that we should be very cautious in making individual-level inferences from the Census block-group race data. Consequently, we focus less on race throughout the remainder of the analysis.

Exceptions aside, across the twenty-eight early voting states under investigation here, it is clear that the early voting population disproportionately represents those groups considered to be high-participation types. This leaves Election Day to a population disproportionately composed of political independents, younger voters, and voters in more racially diverse neighborhoods.⁸

⁸It is important to note that statistical estimates of uncertainty are unnecessary in Figure 1 and in the parallel appendix figures. All of these figures are based on dividing the total number of registrants listed as having voted in a state at a particular time by the total population of registrants within each cohort. The smallest number of observations from which any number is calculated in these figures is turnout among Montana block groups that are less than 90% white, and there are more than 6,500 registrants in that cohort. For most points in the graphs, there are tens of thousands to millions of registrants in each cohort. Consequently, throughout our analysis, all differences that appear different are significantly different by statistical terms. The plots in Figure 1 and all following can be examined for substantive significance.

4.2 Indirect Mobilization

Mobilization from Specific Events

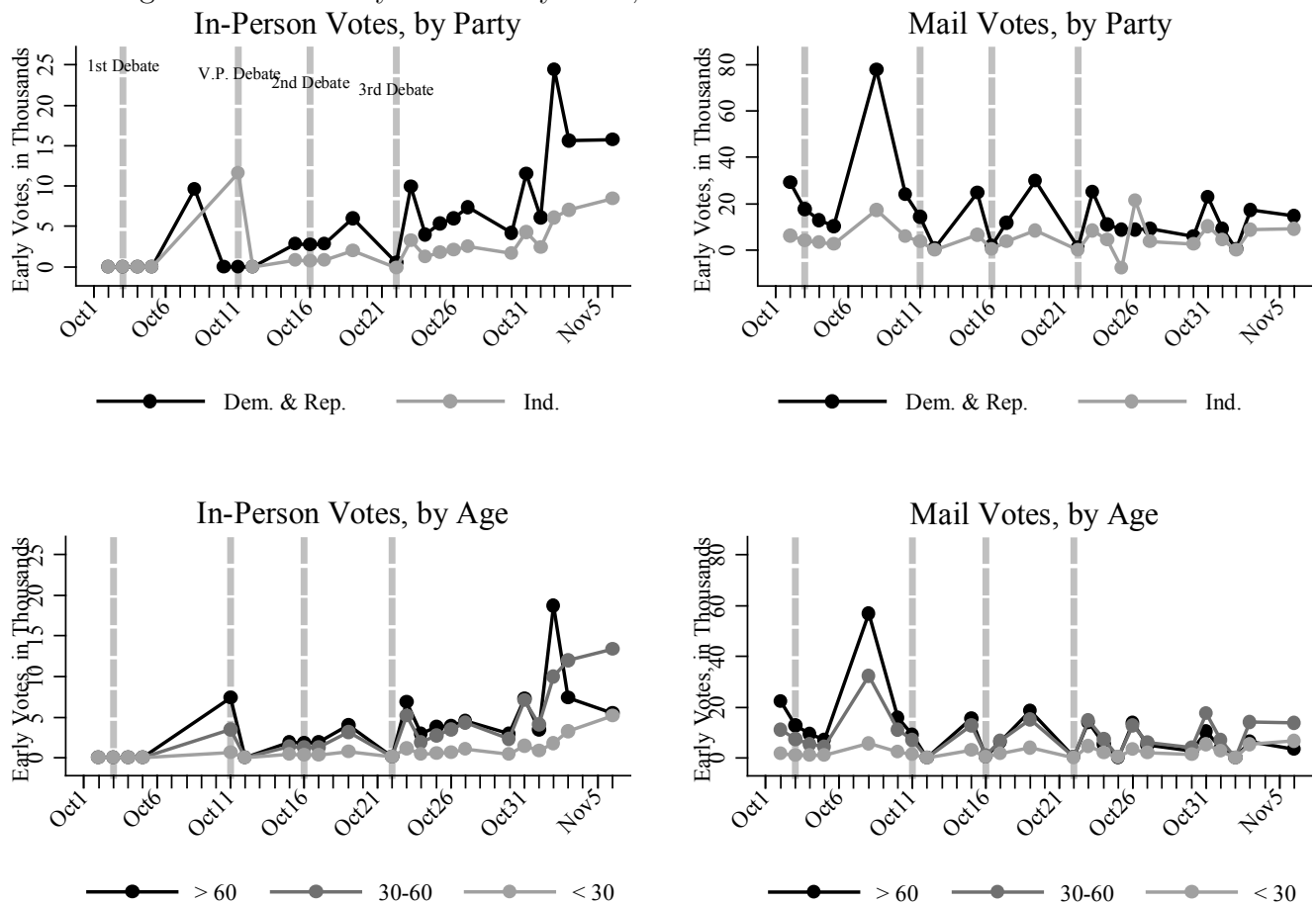
Having established in Figure 1 and in similar figures in the appendix that partisans, older voters, and voters in homogenously white Census block groups were more likely to take advantage of early voting in 2012, we now seek evidence supporting the model of indirect mobilization. We test two hypotheses. The first hypothesis is that low-participation voters, like independents and young voters, should be most responsive to campaign events. Following key events, like candidate visits and Presidential debates, low-participation voters may react by turning out to vote more than their high-participation peers. The rationale behind this hypothesis is that the turnout decision of high-participation types is established; their interest is already piqued. But low-participation types who are on the turnout bubble may be inspired to cast their ballots by one of these news-making events.

In Figure 2, we plot turnout statistics for partisans and non-partisans and for each age cohort. We focus this analysis on Iowa, because Iowa is both a swing state and has a very long window of time in which it permits early voting.⁹ We show separate plots for voters who cast ballots in-person and voters who cast ballots by mail, because the time lag between when a ballot was cast and when it was recorded may differ for the two voting methods. In each plot we mark with a dotted line the dates of the three Presidential debates and the one Vice Presidential debate. None of these debates took place in Iowa, but as is typical with nationally televised general-election debates, the debates were major news stories. Debates have been studied by scholars in the past as they represent plausibly mobilizing events that may catalyze some amount of political conversation and interest in the campaign.

Figure 2 does not show dramatic and obvious spikes in turnout that one might reasonably assume are direct responses to the televised debates. There are some visible increases in

⁹The turnout behavior for registered Democrats is not substantially different from the behavior of registered Republicans in this analysis, and thus their turnout statistics are combined.

Figure 2: Iowa Early Turnout by Date, in Relation to Presidential Debates



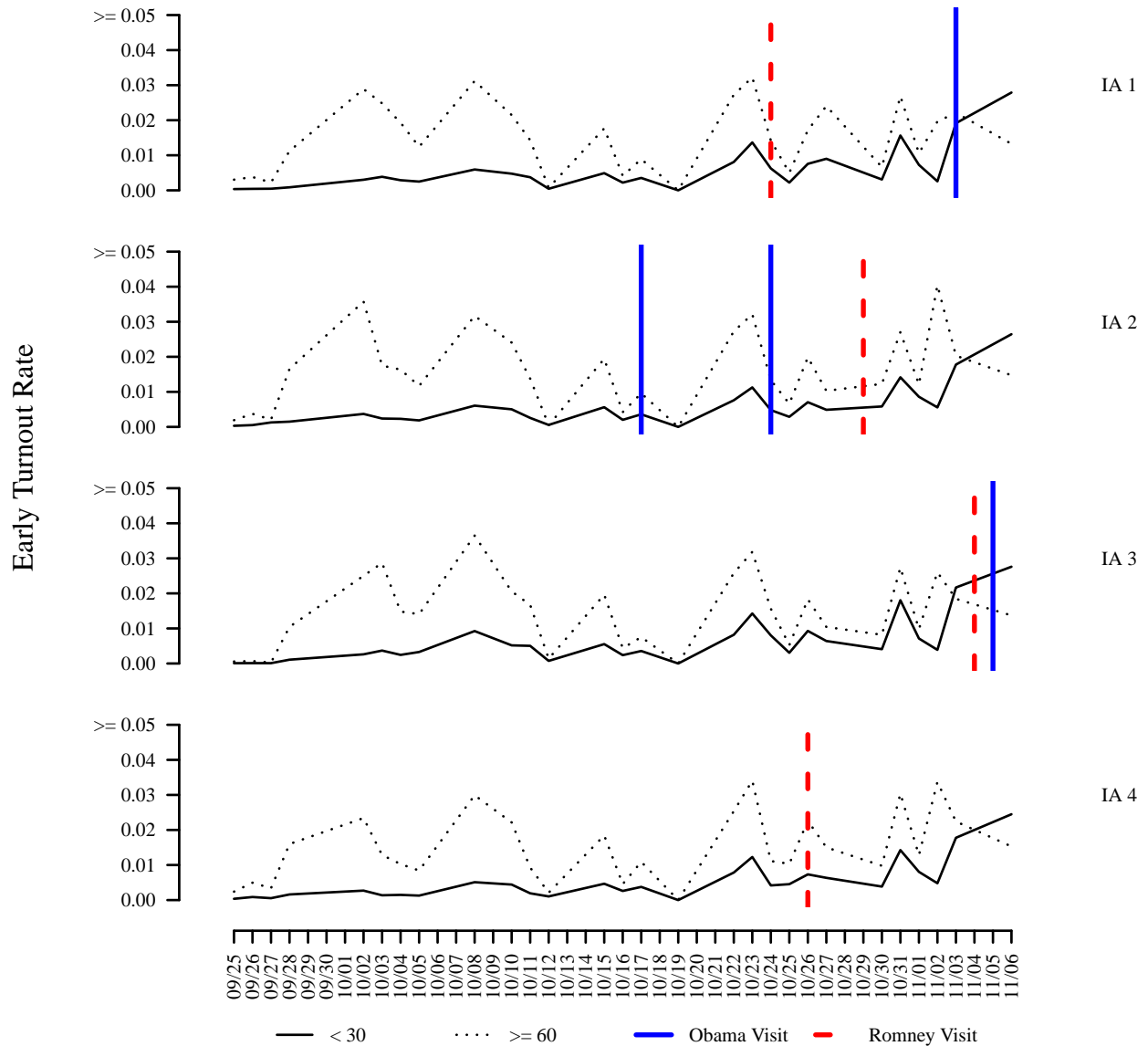
Note: At each day of the early voting period, the number of early votes cast on that day is presented. Dates of Presidential debates are identified by vertical lines.

turnout after each each event, particularly in mail voting, but the lags between the events and the turnout bumps are inconsistent. For example, looking at the upper right hand plot, there is a spike in turnout five days after the the first debate, four days after the Vice Presidential debate, three days after the second debate, and one day after the third debate.

However, regardless of whether or not the spikes in turnout seen in Figure 2 are attributable to indirect mobilization resulting from the debates, one thing is clear: nearly all the spikes in turnout are much less pronounced among the youngest voters and among independents. The evidence in Figure 2 is therefore inconsistent with the model of indirect

mobilization in which high-turnout voters cast ballots at their convenience but low-turnout voters cast ballots in response to specific campaign stimuli.

Figure 3: Iowa Early Turnout by Date, in Relation to Presidential Candidate Visits to Districts



Note: For each day of the early voting period, the number of early voters is divided by the total number of registrants in that age cohort. Dates of candidate visits are identified by vertical lines.

While low-participation voters may not be responsive to national events like debates, perhaps they are responsive to local events like visits by presidential candidates. In Figure

3, we identify the dates of visits by presidential candidates Romney and Obama and the Congressional district in which the visit took place.¹⁰ Each sub-plot in Figure 3 shows the turnout rate of older voters and younger voters for one of Iowa’s four Congressional districts. Republican candidate Romney visited all four districts one time. President Obama visited the second district twice, and two other districts once. Each subplot shows the turnout rate over time for a high-participation type (here, voters older than 60) and a low participation type (voters under 30). In the appendix, we show similar graphs by party affiliation for Iowa, by age and party affiliation for Colorado, by age for Ohio (Ohio does not have party registration data), and by party and age for Florida.

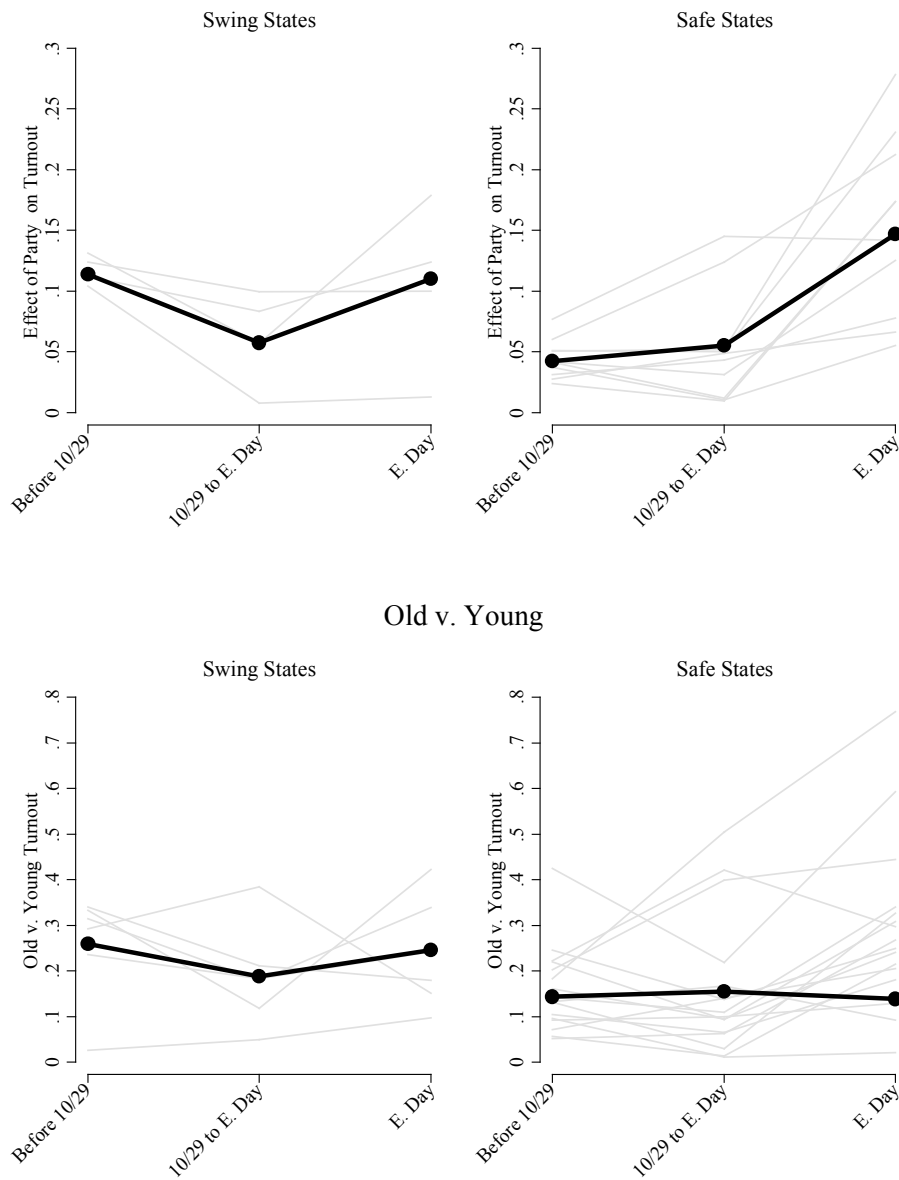
As with the previous figure, there are two noteworthy features of Figure 3. First, while there are some increases in turnout following local candidate visits to Iowa districts, those bumps have inconsistent lags following the visits. Second, compared to the oldest cohort, the day-by-day turnout rate of young voters is actually much steadier. That is, there are fewer dramatic bumps in daily turnout rates for the low-participation types than the high-participation types. This is the opposite of what the indirect mobilization model predicts. If the high-participation types are simply voting at their convenience while the low-participation types are more impulsive and responsive to campaign stimuli, then we would expect a more steady rate of voting among older voters than younger voters—but we observe the opposite. Even if we could attribute increases in turnout following events to indirect mobilization, the actual turnout behavior is nevertheless inconsistent with the hypothesis that these events ought to have larger effects on low-participation voters.

4.2.1 Gradual Indirect Mobilization Over Time

Even if low-participation voters do not appear to respond to local and national campaign events by casting a ballot soon thereafter, the proliferation of news and conversation about

¹⁰The smallest geographic unit of analysis for which we have data is Congressional district, which is why we use this geography rather than other plausible geographic indicators.

Figure 4: Change in Participatory Bias Over Time, By Party and By Age Group
 Partisans v. Non-Partisans



Note: OLS regression coefficients are plotted. Black lines and dots combine all states within the appropriate grouping and employ state fixed-effects. Coefficients for voters within individual states are indicated in gray. The upper-left plot incorporates voters in CO, IA, NC, and NV (N=13,665,528). The upper-right plot incorporates voters in AK, AZ, CA, ID, KS, LA, ME, NE, NJ, UT, and WY (N=36,927,110). The lower-left plot incorporates CO, IA, NC, NV, OH, and WI (N=24,447,838). The lower-right plot incorporates AK, AR, AZ, CA, GA, ID, KS, LA, ME, MT, ND, NE, TN, TX, UT, WA, and WY (N=61,249,487).

the campaign as the election approaches may increasingly inspire them to vote early. The second hypothesis of our indirect mobilization model is that the early part of the early voting period will be dominated by high-participation types, who are more likely to know from the beginning both whether and for whom they would vote. But as the election gets closer, low-participation types increasingly join the ranks of the early voters.

We evaluate this hypothesis by dividing our data into three time frames: Election Day, the week before Election Day, and the period of time prior to one week before Election Day. Within each period, we run several individual-level, least squares regression models in which turnout (1=yes, 0=no) is the dependent variable. We run models separately for individuals within each state. We also group states into swing states and safe states and incorporate state fixed-effects into this pooled analysis. In the first model, the independent variable distinguishes party registrants (1) from independents (0) in party registration states only. In the second model, the independent variables include two indicators, one for voters over 60, the other for voters 30-60, leaving the baseline group as voters younger than 30. We exclude states that do not have data in all three time frames. This includes Florida, which had an unusual and truncated early voting calendar in 2012 (Herron and Smith, 2012; Gronke and Stewart III, April 11-14, 2013), as well as Oregon and New Mexico, for which we do not have data on Election Day voting. In periods 2 and 3, the number of voters in each demographic cohort who voted in a prior period are removed from the denominator of registrants. Thus, the turnout in periods 2 and 3 reflect turnout among registrants who have not already voted.

Consider the upper-left plot in Figure 4. The black dots represent coefficients from three regressions. The first dot implies that for voters in the four swing states that have both party registration and early voting (CO, IA, NC, and NV), turnout before October 29th was 11 percentage points higher for party registrants than for independents. However, in those same states, partisans were only 5.5 percentage point more likely to vote than independents between October 29th and Election Day (as shown by the center black dot). On Election

Day, they were once again 11 points more likely to vote than independents (the rightmost black dot). All four of the states in the upper-left plot are estimated separately (indicated by gray lines) and exhibit a consistent pattern of reduced participatory bias in the week ahead of the election. Notice that this pattern does not hold in safe states, as shown in the upper-right plot. In safe states with early voting and party registration, the turnout gap between partisans and independents actually increases in the week before the election.

The lower plots focus on the difference in turnout rates between voters over 60 and voters under 30 and includes all states with early voting, regardless of whether they have party registration. Early in the early voting period, older voters turn out at higher rates than younger voters. In swing states, the turnout rate for older voters is 26 percentage points higher for the period of time prior to October 29th. But in the last week of early voting, this turnout gap is attenuated in swing states by 7 percentage points - a reduction in bias of almost 30%. In safe states, older voters are slightly more likely to vote than younger voters in the week ahead of election day.

One of the most noticeable aspects of Figure 4 is how much higher initial early voting turnout is among partisans and older voters relative to independents and young voters in swing states, a pattern not apparent in safe states. In the last week of early voting, from October 29th until Election Day, the degree of participatory bias shrinks considerably in swing states. Even so, on average there is more overall bias at each time period in swing states than in safe states.

Note the difference between Figure 1 (and accompanying appendix figures) and Figure 4. In the first analysis, we showed that Election Day voters are composed more of low-participation types compared to the early voting participants. Nevertheless, as we show in Figure 4, there still can be considerable participatory bias such that turnout is higher among partisans and older voters than among independents and younger voters on Election Day. In this figure, unlike in Figure 1, Election Day turnout is measured only among voters who had

not yet participated. Among the registrants who had not voted prior to Election Day, older and partisan voters are *still* more likely to vote than the younger and independent voters, even though these low-participation types are nevertheless more likely to vote on Election Day than before Election Day.

In our model of indirect mobilization, we posited that although high-participation types may be more likely to take advantage of early voting, we should see a changing pattern over time. The high-participation types, impervious to campaign stimuli, are more likely to cast their ballots at the start of the early voting period. As early voting progresses and as public and media attention to the election builds, we ought to see higher rates of early voting among low-participation types. We find this to be the case, but only in swing states. Though presidential elections are national events and the campaigns make national headlines, it appears that uniquely in swing states, the last week of early voting incorporates more low-participation voters than the beginning of the early voting period. For both age and for party affiliation, the temporal change in participatory bias is pronounced and in the expected direction only in swing states.

4.3 Direct Mobilization

Our hypothesis about the process of direct mobilization relies on the knowledge that presidential campaigns generally focus their direct outreach efforts to registered voters residing in battleground states. Early voting periods afford them days - and even weeks - to conduct their canvassing efforts, with multiple opportunities to prod finicky supporters to cast their ballots. Thus, we offer a simple hypothesis with respect to direct mobilization: turnout among low-participation voters should be highest in states that are both battleground states and early voting states.

We test this hypothesis using a state-level, triple-difference design. First, we measure turnout for a subgroup (e.g. Democrats aged 18-29) as a deviation from overall state turnout.

This accounts for the fact that, regardless of context, young voters are likely to vote less than the typical registered voters. Second, we calculate this turnout difference across four state-types: early voting safe states, early voting swing states, non-early voting safe states, and non-early voting swing states. Because we are dealing with state-level turnout measures, not every one of these four state types is populated by multiple states. Nevertheless, calculating turnout in these categories provides insights into the direct mobilization model of early voting.

Consider Figure 5. In this Figure, we show differenced turnout for two groups thought to be the focus of “sporadic supporter” mobilization by the Democratic presidential campaign — young registered Democrats, and black voters (individually identified only in Southern states). For the sake of comparison, in gray we show the same analysis for older Republicans and for Southern Whites. Though these latter groups are likely to be core Republican voters, several Republican consultants have explained to us that because these types of voters are high-turnout types, Republican campaigns do not put in the same kind of effort into Get-Out-The-Vote drives for these groups as Democrats do for their young and African-American supporters.

Each point represents the 2012 turnout for the labelled subplot demographic group minus overall turnout. Because turnout is low among the young Democrats, the values on the y-axis in the upper-left plot are all negative. Each point within a subplot is shaded based on the proportion of all votes cast early in the state. In the non-early voting states, the points are all unfilled, since no one was able to cast a ballot using no-excuse early voting methods. The x-axis divides the states into four groups, as described above. Notice that in the early voting battleground states, a much higher percentage of registrants cast early votes than in early voting safe states. This is represented by the higher incidence of lighter points in the safe states.

The main purpose of Figure 5 is to show where differenced turnout for each subgroup is

first the upper left plot showing the turnout behavior of Democrats ages 18-29. Only one state, New Hampshire, populates the non-early voting swing state category. Nevertheless, relative to statewide registrants, young Democrats in New Hampshire have one of the lowest turnout rates in the country in 2012, lower even than nearly all safe states. This seems unusual given that New Hampshire was clearly a swing state and was a center of strategic mobilization efforts. However, given that a campaign could mobilize young voters for days or weeks preceding Election Day in swing states, the direct mobilization of young Democratic voters may have been more effective in the states where a campaign contact could result in a ballot cast prior to Election Day. Indeed, the early voting swing states had higher turnout for this demographic compared to the early voting safe states as well as compared to the non-early voting swing state. By comparison, the upper-right plot shows this was not true for older Republicans. Turnout among older Republicans (relative to statewide turnout) was lower in early voting safe states than early voting swing states. And the difference between New Hampshire and the early voting swing states is much smaller than the difference for young Democrats. (See Table A.1 in the appendix for means and differences in means for all subgroups and state categories.)

In the lower half of Figure 5, we show results for individually-identified black and white voters in the South. Among the Southern states, there is no state that is a non-early voting swing state. Nevertheless, we can compare relative turnout for blacks across the state-categories that are populated with data. As the lower-right plot shows, among blacks, the highest turnout in the South occurred in the early voting swing states of North Carolina and Florida. Black turnout in those states was much higher even than in the early voting safe states. The lower-left plot shows Southern whites, a core constituency for Republicans. Relative turnout among white voters was lower on average in the early voting swing states than in the early voting safe states, the opposite of what we observe among black voters. Whether the effects for the Democratic constituencies and Republican constituencies are

different because Republicans chose to focus less on mobilizing these core supporters or because they were less effective at doing so (or for some other reason) is impossible to say from the data. What we do know is this: there was a Democratic presidential campaign that a.) focused on mobilizing “sporadic partisans” to vote early, b.) exerted a great deal of effort, by historical standards, on directly canvassing these voters, and c.) was widely viewed as adept at mobilization. Groups who fit the profile of sporadic Democratic supporters had the highest turnout rates in states that were battlegrounds *and* allowed for no-excuse early voting, consistent with our hypothesis that campaigns directly target low-turnout types to cast their ballots early.

Discussion

Using the largest database of day-by-day snapshots of early voting turnout ever analyzed in political science research, we have learned a number of lessons about early voting and the relationship between this new dynamic form of voting and political campaigns. First, confirming the long-standing finding that high-participation voters are most likely to take advantage of early voting, we showed that in most early voting states, older voters and partisan registrants, who tend to be reliable voters overall, are indeed more likely to cast early ballots. This means that the Election Day electorate tends to be disproportionately composed of low-participation voters.

Second, we sought evidence that low-participation voters are responsive to news-making campaign events, like nationally televised debates and local visits by Presidential candidates, casting ballots in the days following these events. We saw no evidence that low-participation voters react to such stimuli. While the process of indirect mobilization is not apparent in responses to specific events, we found evidence that in early voting swing states, the early voting period begins with mostly high-participation types casting ballots. However,

as Election Day approaches, low-participation voters begin to take increasing advantage of early voting. This is consistent with a general form of indirect mobilization in which low-participation voters gradually take an interest in the contest and eventually decide to cast a ballot.

Third, we reasoned that campaigns focus their direct mobilization efforts particularly on low-participation types residing in swing states and that early voting swing states afford campaigns a much longer window of time to engage in direct mobilization. We find support for our hypothesis that turnout among groups that were the focus of attention by the 2012 campaign widely considered most adept at direct mobilization appear to have higher turnout in swing states that had no-excuse early voting than in non-early voting swing states or safe states.

We emphasize that our analysis of voter turnout does not employ a randomized controlled experiment, nor do we offer a precise and narrow estimate of a casual effect. For example, one of our hypotheses suggests that low-participation voters may respond more strongly to localized campaign events than do high-participation voters. Our test of this hypothesis was blunt. We measured turnout before and after the event, and we saw no evidence that low-participation types are more likely to display an increased rate of turnout following the event than are high-participation voters. We do not claim that this settles the matter. A more precise design may find that low-participation voters are in fact more responsive to such stimuli. The contributions of this study are not to precisely estimate causal effects but rather to organize theories of early voting as they are pertinent to direct and indirect forms of voter mobilization and then to evaluate how these theories comport with real-time snapshots of individual-level early voting behavior. This study constitutes the largest-scale descriptive accounting of early voting yet undertaken.

Our observational approach has clear limitations, but it allows us to present a fine-grained picture that will help point future research in a productive direction. Looking across

a range of states and a range of events, we see no evidence that appears consistent with the “instant gratification” model of indirect mobilization. Thus, future scholars or political organizations engaging in more precise causal-effects research strategies may seek to look elsewhere to tease out the mobilization value of campaign events. In terms of concerns with early voting procedures related to voter intimidation and regret, our results suggest less reason to be concerned about the latter than about the former. While early voting may allow low-participation voters to cast a spontaneous ballot that they may later regret, we do not see evidence that the sporadic voters we analyze were doing so following specific news-worthy events.

On the other hand, our evidence does suggest that the 2012 Democratic presidential campaign, thought to have been particularly effective at direct mobilization, may have succeeded in increasing turnout among fickle supporters in the early-voting swing states in which they were active. This finding, in and of itself, is neither surprising nor alarming. But if it is true that campaigns are particularly potent at increasing turnout in early voting states, it is worthwhile to understand why. Is it that campaigns in these states merely have more time to engage with voters? Or is that when voting takes place outside the secure bounds of the precinct polling place, campaigns can use more aggressive means of voter engagement? This question particularly merits further research.

The interaction of campaigning, early voting, and election rules is bound to become more important in future elections. Recently, the Presidential Commission on Election Administration observed a “bipartisan consensus of election administrators in favor of voting before Election Day,” and unreservedly endorsed continued expansion of and innovation surrounding early voting, both to reduce the obvious strains on Election Day voting administration and to expand opportunities for citizens to vote (57-58). Concerns about aggressive campaigning, voter engagement, and late-breaking information will become ever more pertinent as states increase the availability of and variety of methods for voting early.

As to the question raised by recent work by Burden et al. that early voting laws are demobilizing because they diffuse the excitement and “civic significance” of an election that takes place on a single day, we see evidence that may point to an opposite effect (though our data and perspective come from the 2012 election, not the 2004 and 2008 elections that are the subject of their study). Campaign strategy materials indicate that the 2012 Democratic presidential campaign aimed to *use* the early voting period to drum up support among voters on the “turnout bubble.” Candidate and surrogate visits appear to be timed to the early voting calendar, and campaigns deploy canvassing operations specifically designed to convince sporadic voters to cast their ballots ahead of Election Day. This does not mean that campaign efforts work. However, we do see evidence that targeted groups were especially likely to vote in early voting swing states and that low-participation voters increased their use of early voting as the early voting calendar progressed in 2012. The basis for these conclusions is that unlike past research, we are able to measure the turnout behavior of specific demographic groups that are more heavily populated by low-participation voters. On the other hand, Burden et al. are focused on comparing early voting to other forms of election reform, a nuance we do not attend to here. Altogether, we think that more research is needed before concluding that early voting laws have a demobilizing effect on voters. Our analysis suggests that early voting is likely to promote increased turnout among low-participation voters.

Conclusion

The newly dynamic nature of U.S. elections means that the ways political campaigns galvanize voters and the ways voters respond to campaign stimuli are changing. The fact that so many voters can cast early ballots changes the incentives of political actors. Campaigns might use the early voting period to more intensively target low-participation voters. Or they might run their campaigns differently in different places and at different times, depending on

the types of voters casting ballots and the public policies that govern early voting practices. The practice of early voting is not something that merely adds convenience to the electoral process for the public — it is a practice that is becoming intertwined with electioneering and mass mobilization. Elections no longer feature dynamic campaigns and singular days of voting; the voting process is itself as dynamic as the campaign. The interaction of the dynamic campaign and the dynamic election leads to a far more complex process of voting that political scientists are just beginning to understand.

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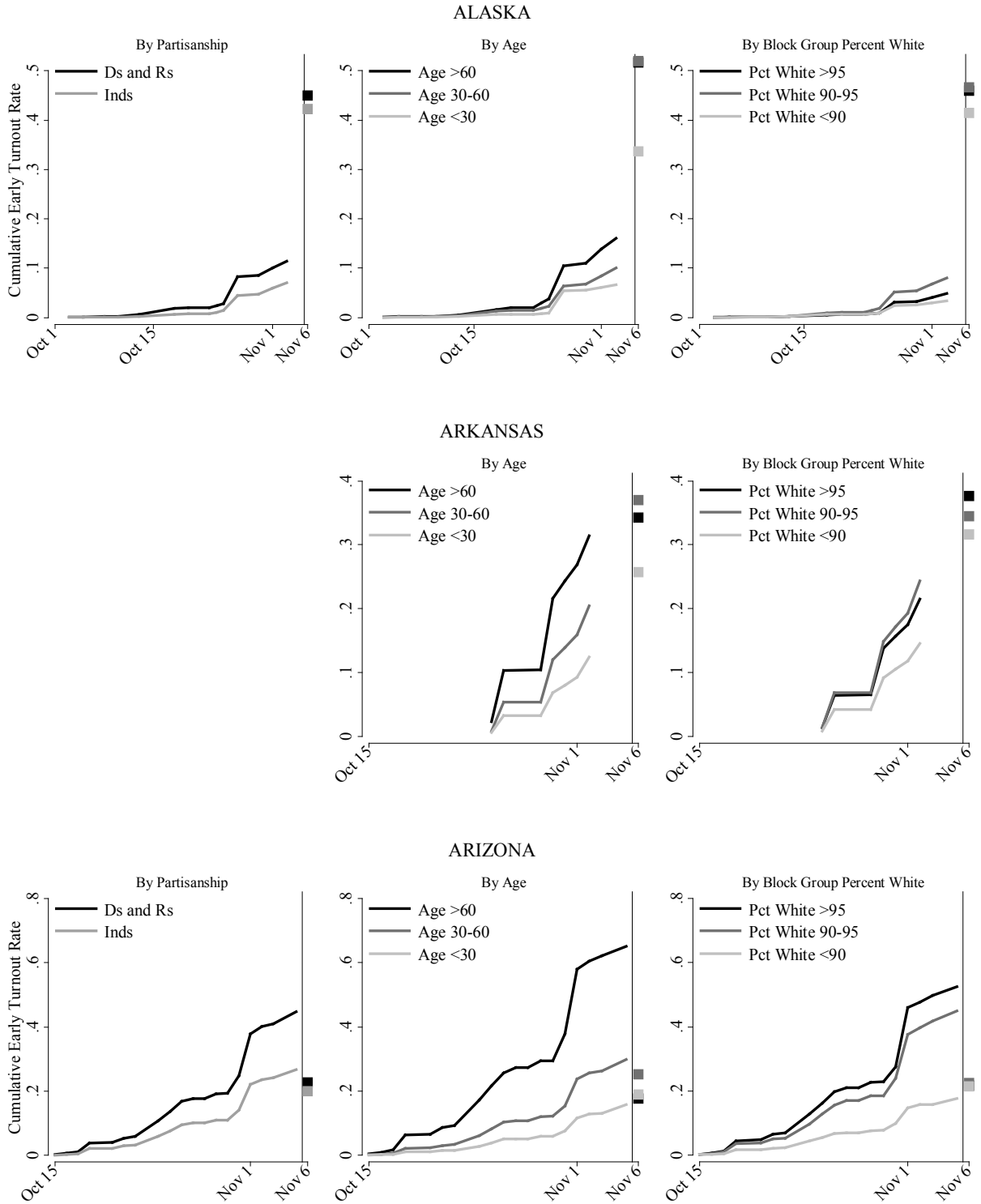
Appendix

Table A.1: Means and Differences in Means for Direct Mobilization Turnout Test

Subgroup	Safe			Swing			Overall
	Non-EV	EV	Diff.	Non-EV	EV	Diff.	Diff.-in-Diff.
Democrats Under 30	-0.133	-0.126	0.006	-0.238	-0.084	0.154	0.148
Republicans Over 60	0.106	0.146	0.040	0.022	0.059	0.037	-0.003
Southern White Voters	-0.002	0.036	0.038		0.009		
Southern Black Voters	0.012	0.005	-0.007		0.051		

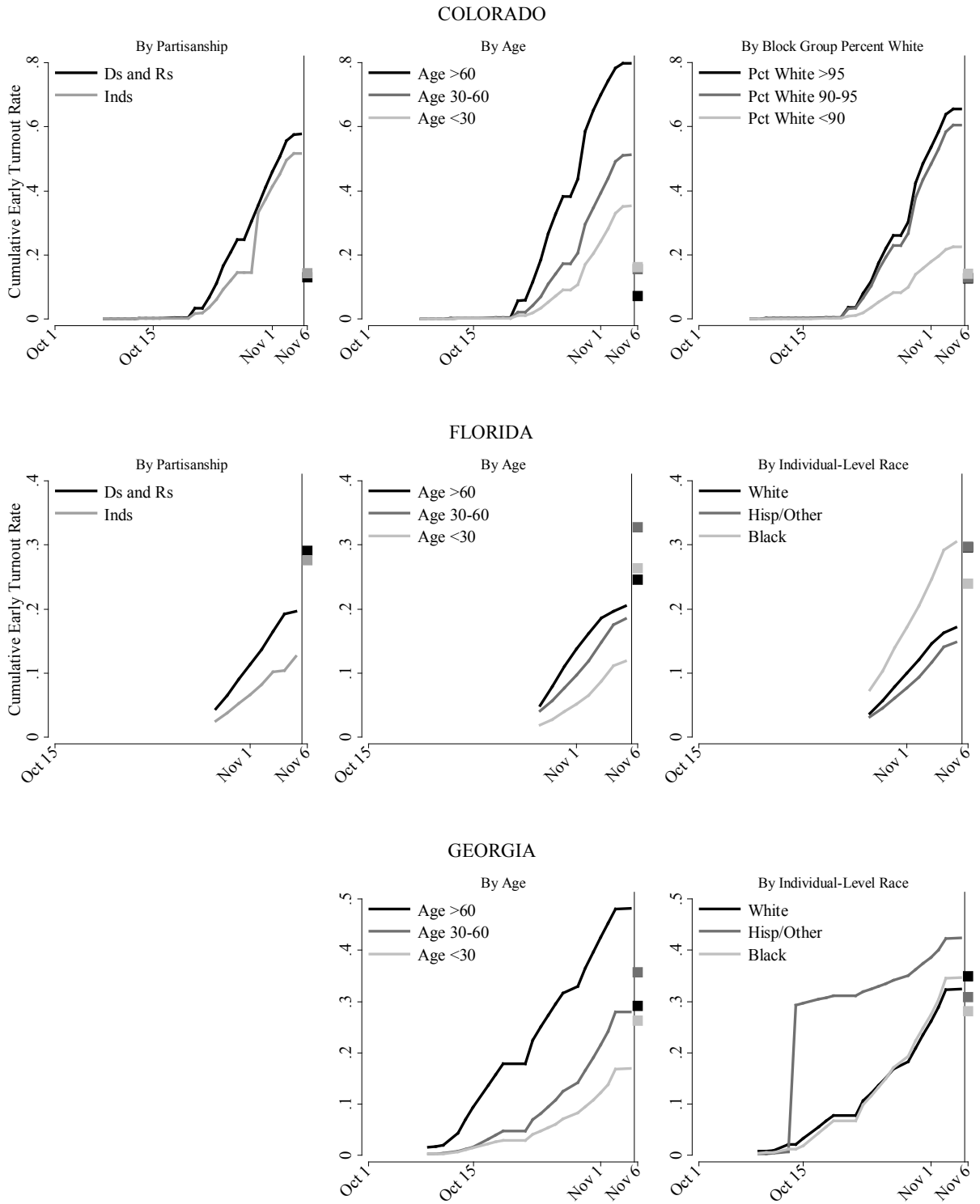
Note: Numbers in this table correspond to Figure 5, in which we test whether turnout among low-participation voters is higher in states that are both battleground states and early voting states. Means show the average deviation from overall state turnout for each state type and demographic subgroup. For example, registered Democrats under 30 years of age turned out at a rate 13.3 percent below the registered population as a whole in non-battleground, non-early voting states. The difference is the slope of the associated dashed line for the subgroup/state-type combination in Figure 5, and the difference-in-difference is the difference between the slopes of the two lines. Because both Southern swing states (North Carolina and Florida) have early voting, no difference or difference-in-difference calculation is presented for Southern state analyses.

Figure A.1: Replication of Figure 1 in All States, Part 1



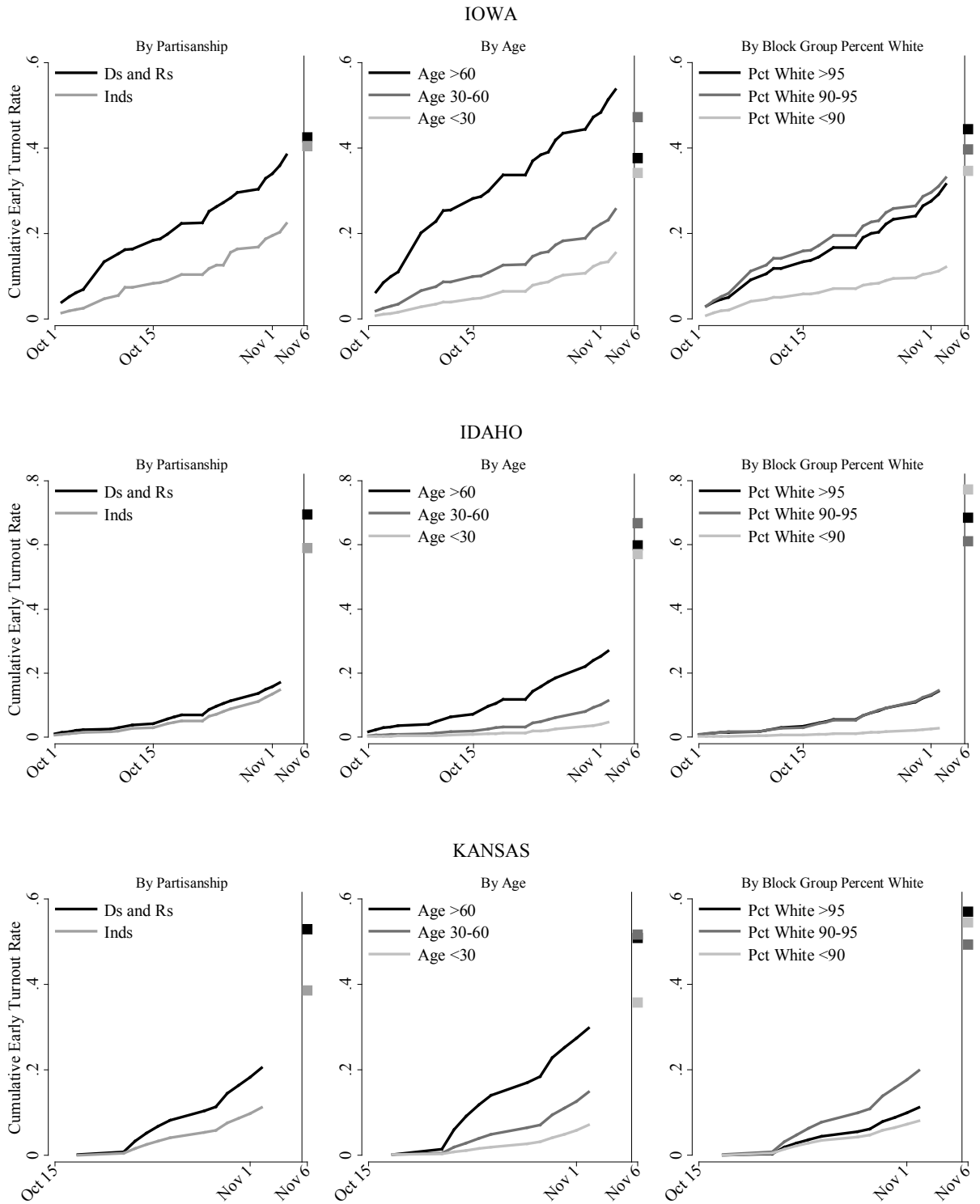
Note: Not all states maintain party affiliation records.

Figure A.2: Replication of Figure 1 in All States, Part 2



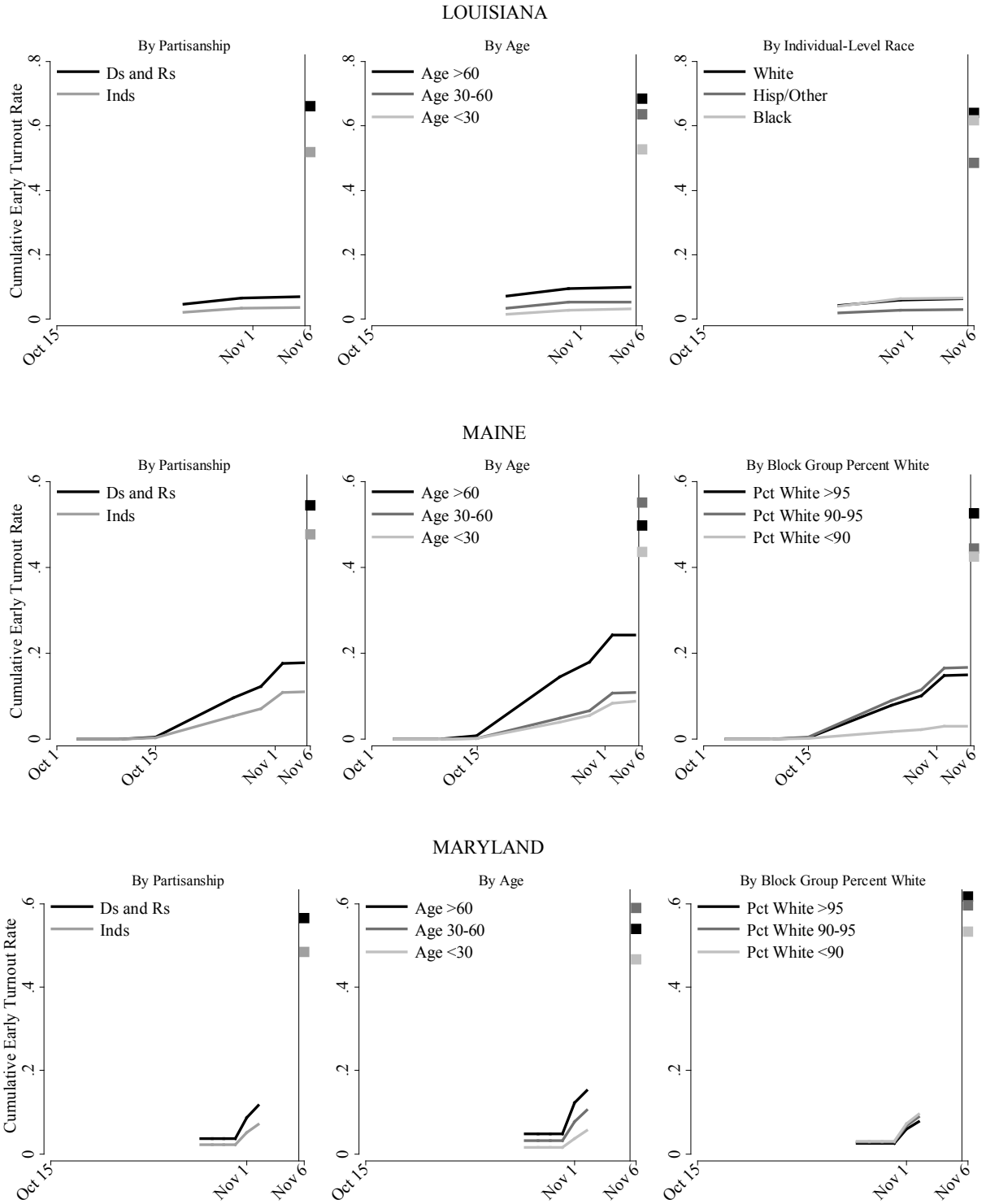
Note: Not all states maintain party affiliation records.

Figure A.3: Replication of Figure 1 in All States, Part 3



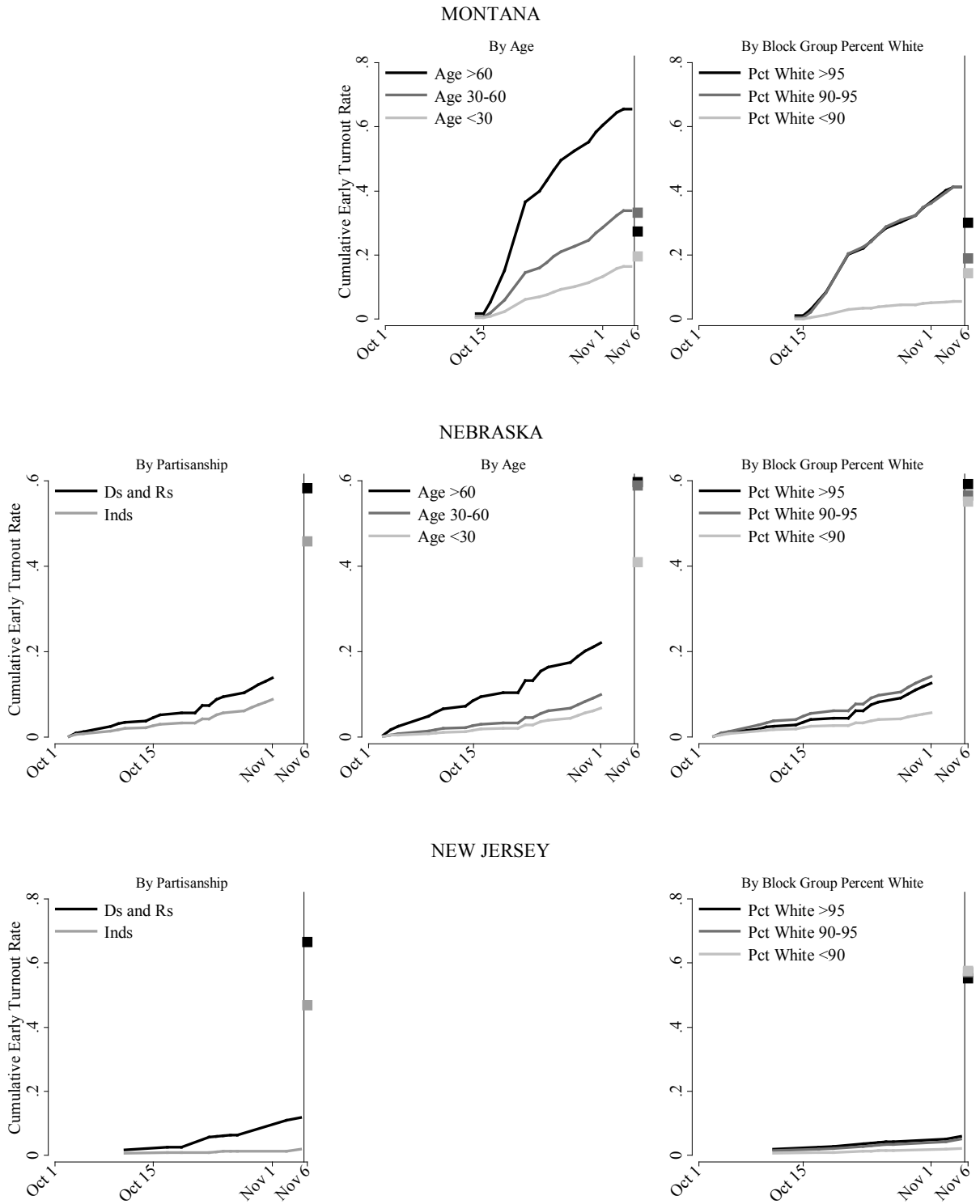
Note: Not all states maintain party affiliation records.

Figure A.4: Replication of Figure 1 in All States, Part 4



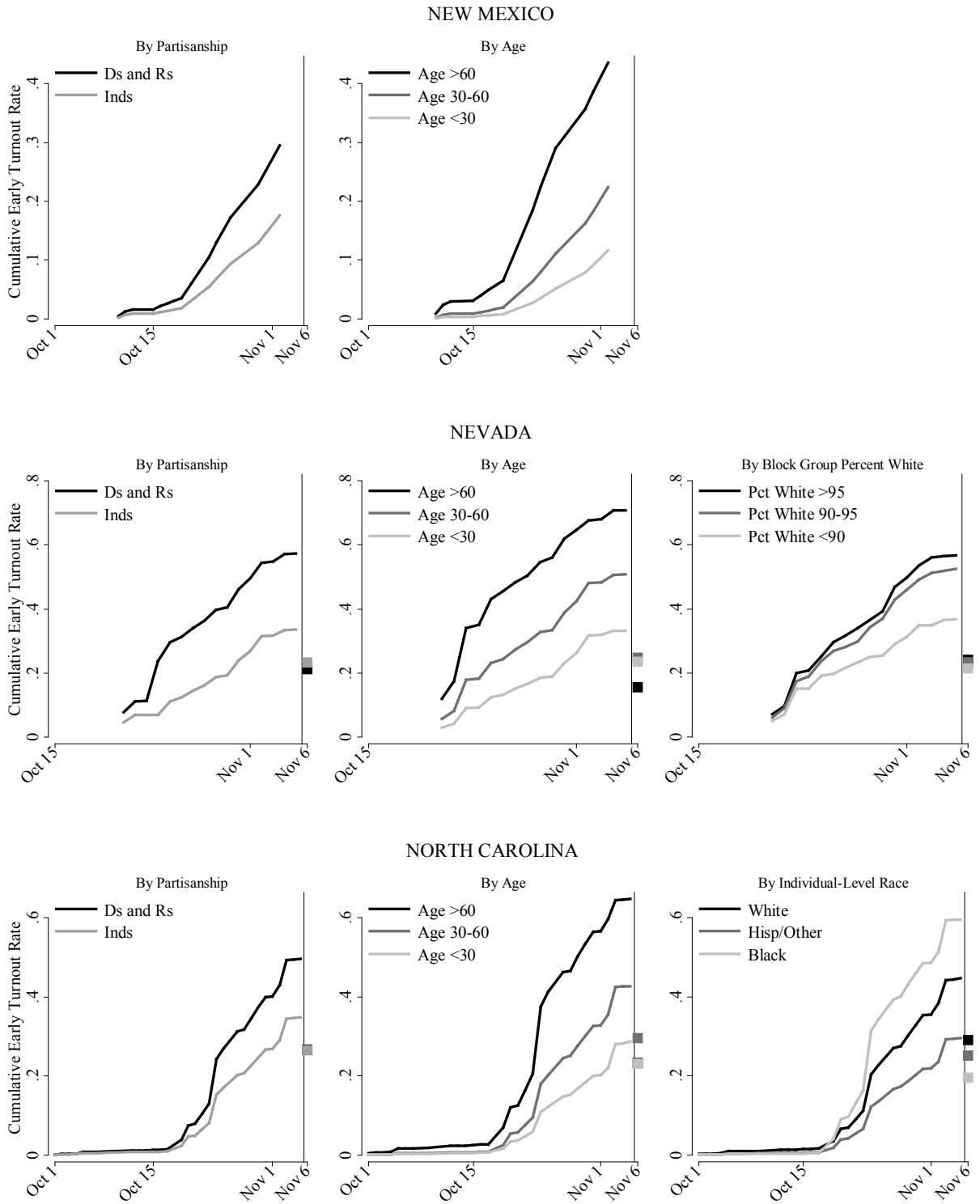
Note: Not all states maintain party affiliation records.

Figure A.5: Replication of Figure 1 in All States, Part 5



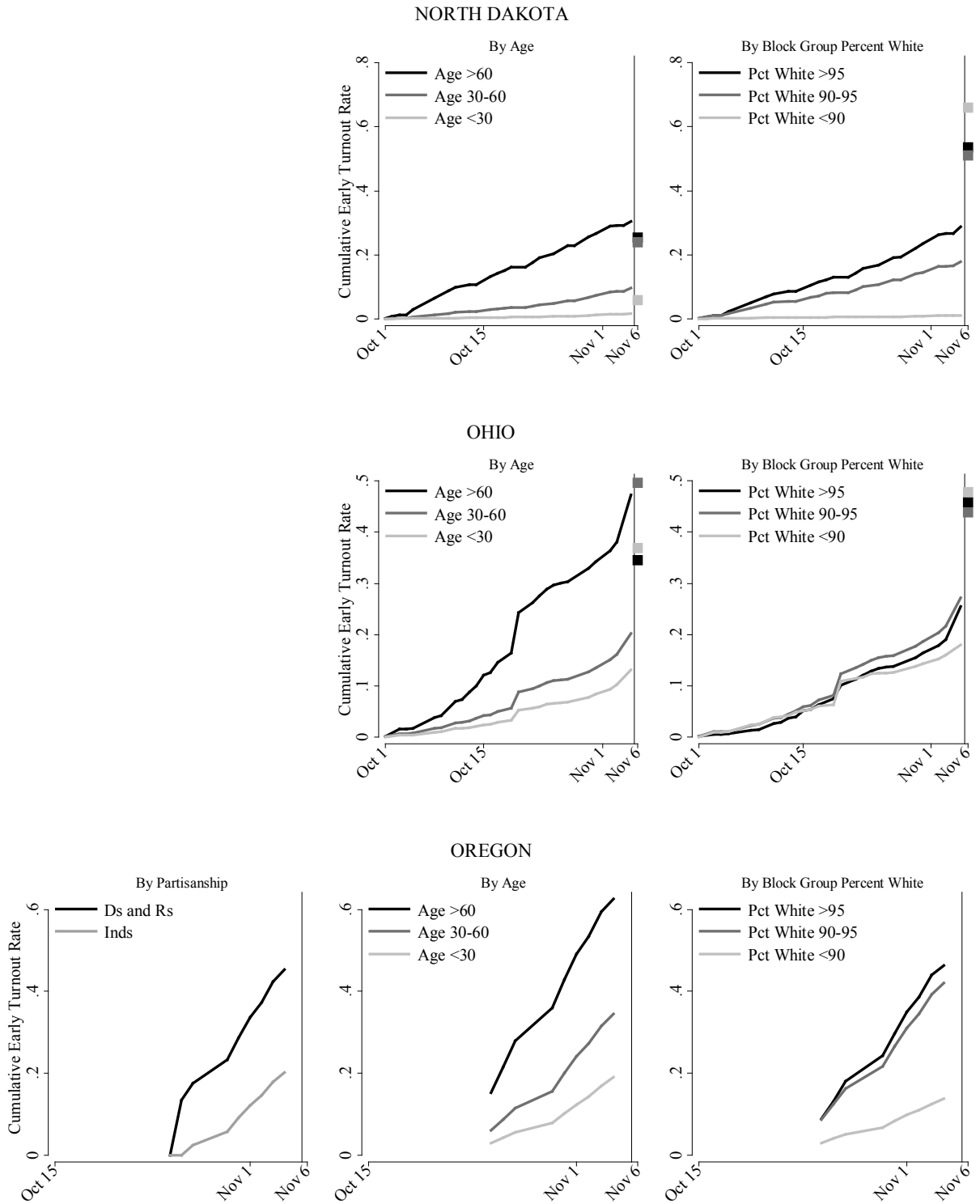
Note: Not all states maintain party affiliation records.

Figure A.6: Replication of Figure 1 in All States, Part 6



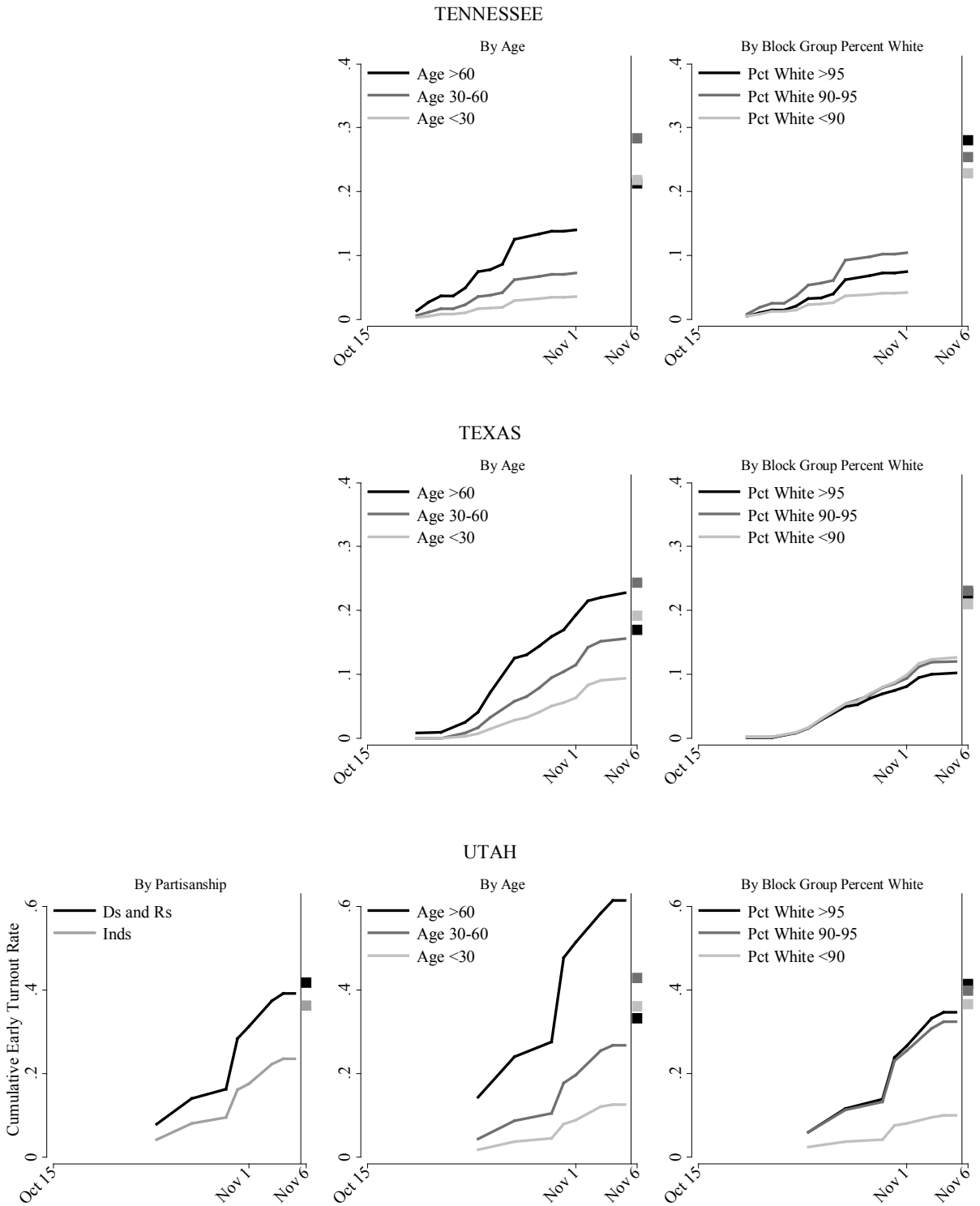
Note: Not all states maintain party affiliation records.

Figure A.7: Replication of Figure 1 in All States, Part 7



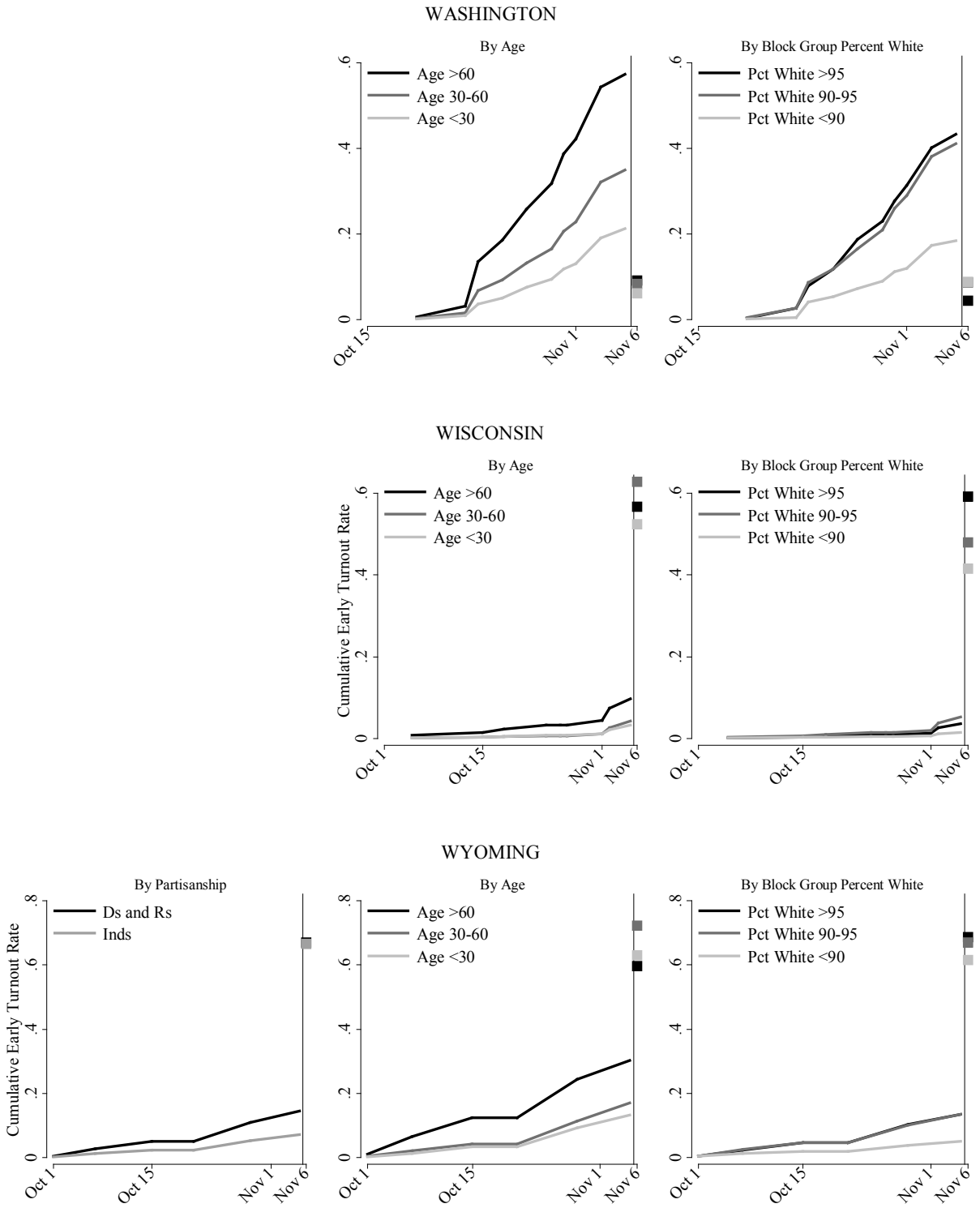
Note: Not all states maintain party affiliation records. The Election Day numbers for Ohio are too high. This appears to be a function of non-standard reporting practices in Ohio. It appears that all voters - early and election day - are included in the Election Day tabulation. We do not believe this affects the accuracy of the early voting numbers. See Michael McDonald, "2012 Early Voting Statistics," United States Election Project, 6 November, 2012. <http://elections.gmu.edu/earlyvote2012.html>.

Figure A.8: Replication of Figure 1 in All States, Part 8



Note: Not all states maintain party affiliation records.

Figure A.9: Replication of Figure 1 in All States, Part 9



Note: Not all states maintain party affiliation records.

Figure A.10: Replication of Figure 3 in CO

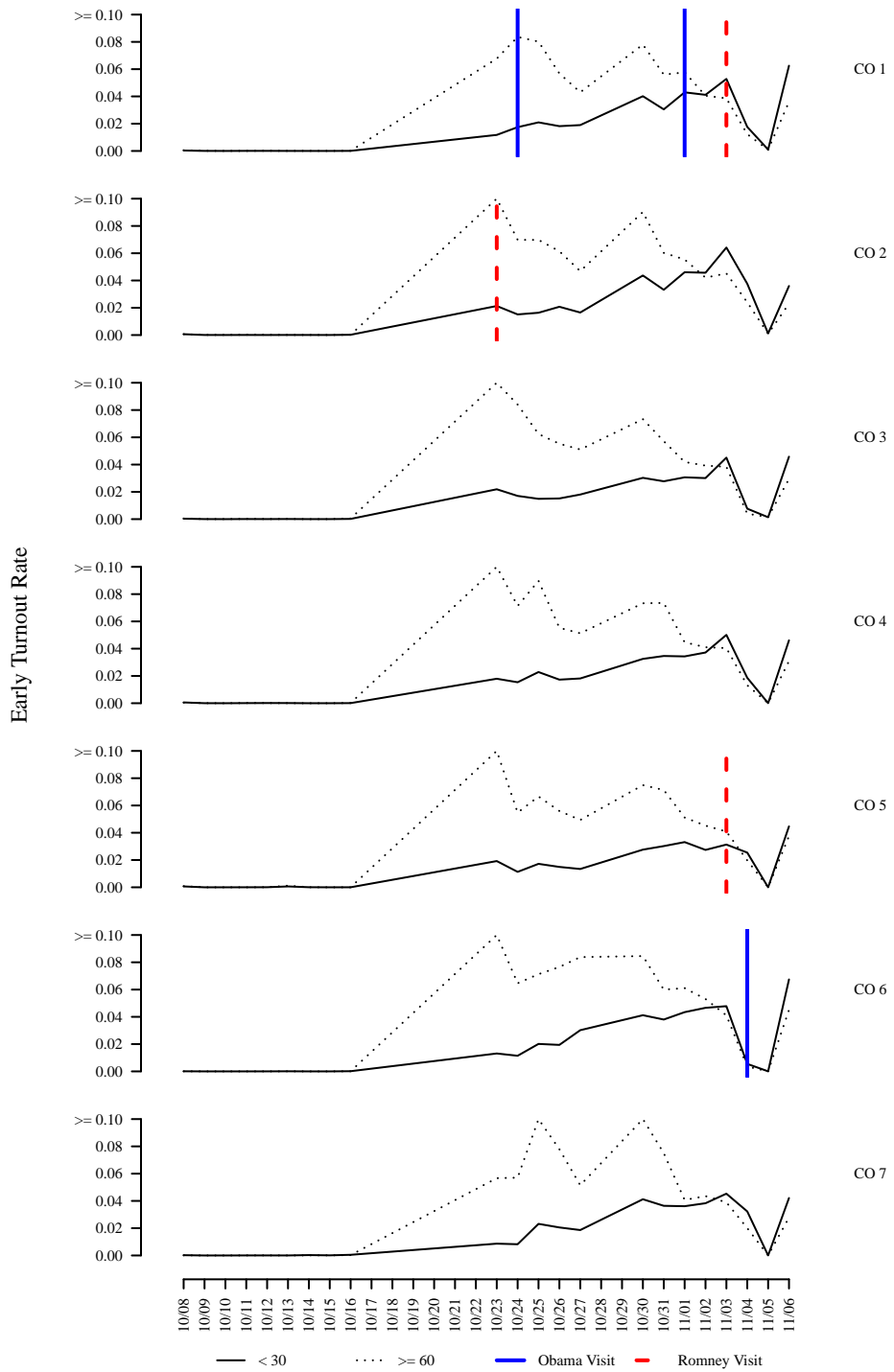


Figure A.11: Replication of Figure 3 in OH

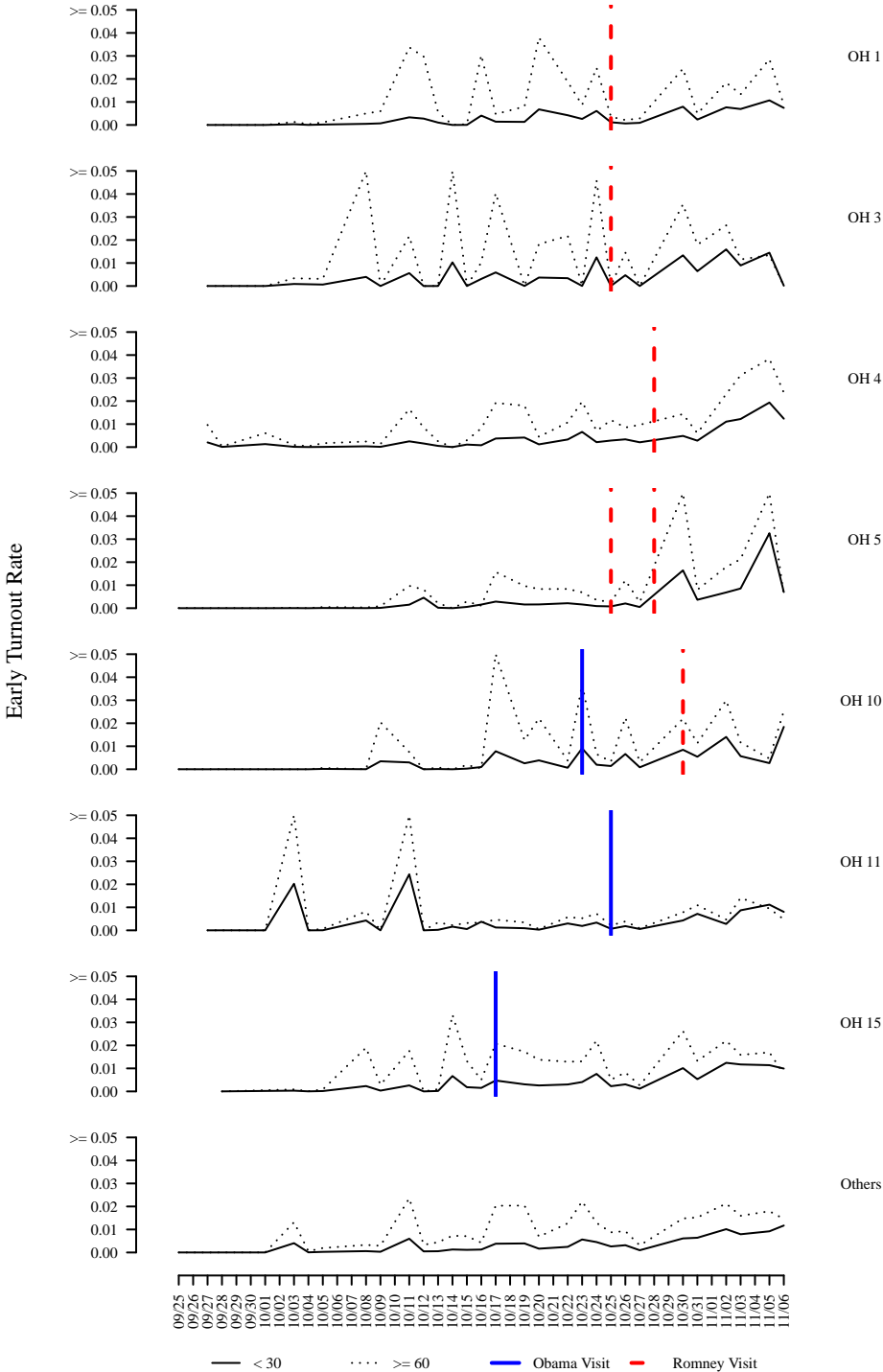


Figure A.12: Replication of Figure 3 in FL

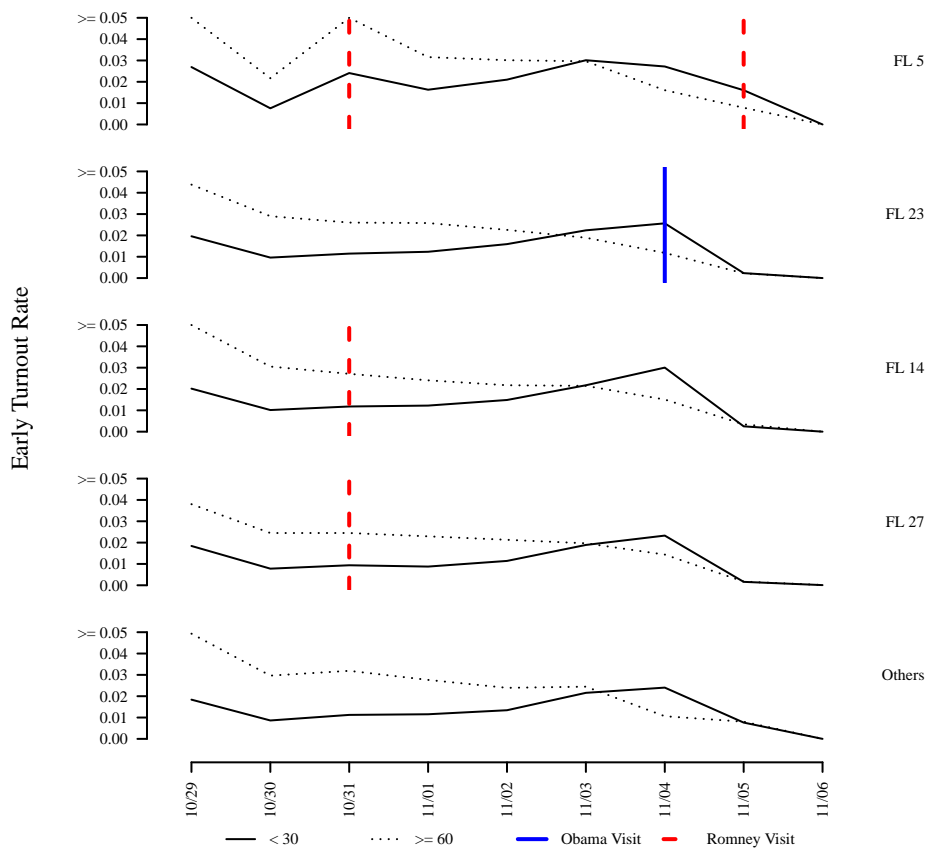


Figure A.13: Replication of Figure 3 in IA by Party Registration

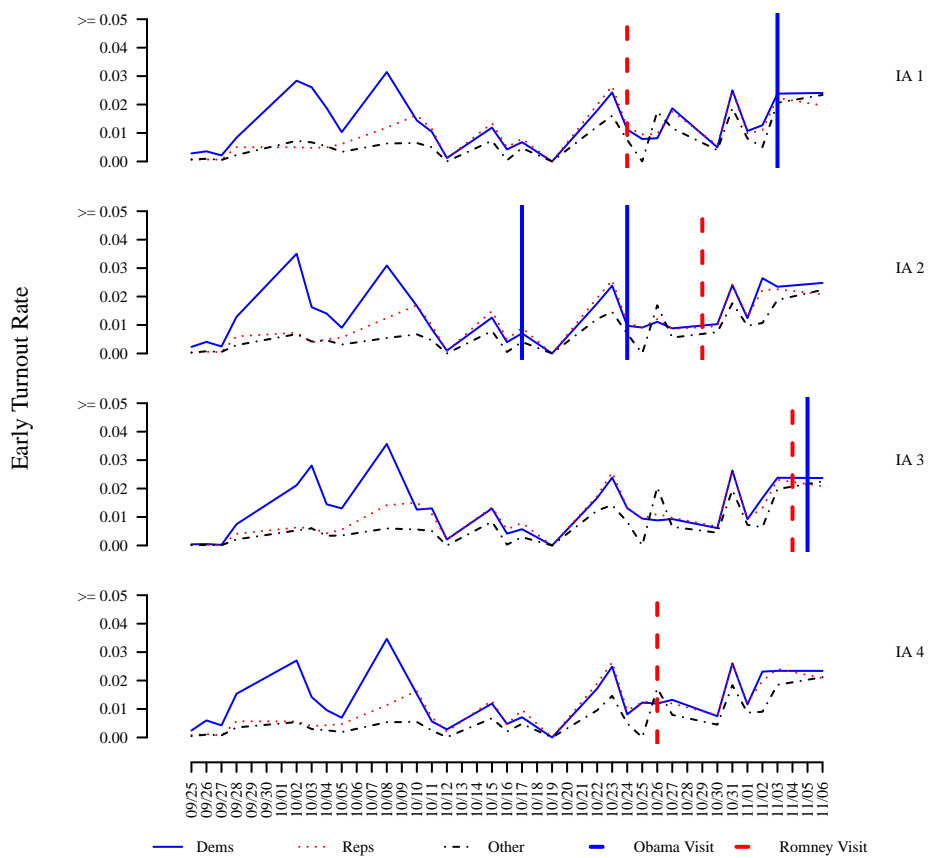


Figure A.14: Replication of Figure 3 in CO by Party Registration

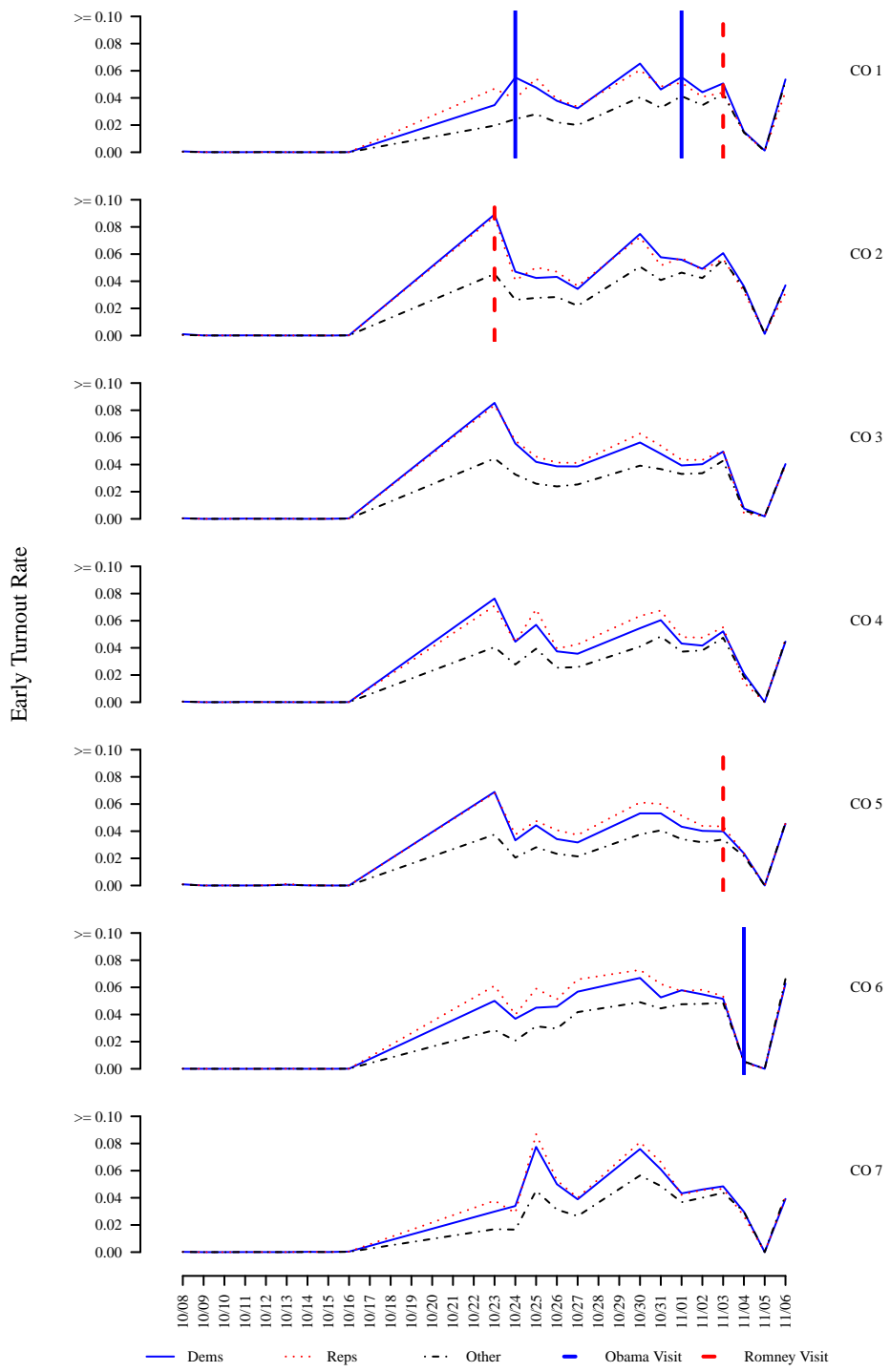


Figure A.15: Replication of Figure 3 in FL by Party Registration

