

Evaluating the Impact of Universal Vote-by-Mail on Voter Turnout in California

MASTER OF PUBLIC POLICY AND ADMINISTRATION

California State University, Sacramento

Michael Siegel

May 2026

Advisor: Ahrum Chang, Ph.D.

Executive Summary

Universal vote-by-mail (UVBM) is an election administration model in which ballots are automatically mailed to all registered voters prior to Election Day. California first implemented UVBM statewide during the 2020 general election and made it permanent through AB 37 in 2021. This study examines whether California's adoption of UVBM had a measurable effect on voter turnout across all 58 California counties from 2012 to 2024 using a two-way fixed effects regression model.

The analysis finds that the implementation of UVBM is associated with a 3.5 percentage point increase in county-level voter turnout, a modest but statistically significant result consistent with the broader convenience voting literature. Despite representing the most expansive form of mail voting reform, UVBM produces turnout increases similar in magnitude to those seen under earlier convenience voting policies. The study also finds that general elections are the strongest predictor of voter turnout. General elections are associated with a 23.8 percentage point increase in turnout relative to primary elections, a gap that no current policy has proven capable of closing. Higher shares of Democratic and Republican registrants are both associated with higher overall county turnout, while No Party Preference registration shows no significant effect.

These findings carry important implications for election policy. UVBM is a worthwhile and evidence-supported reform, but policymakers should understand it as an incremental tool rather than a transformative solution. Meaningfully expanding voter participation will require strategies that go beyond ballot access and address the deeper structural barriers that continue to keep many Californians away from the polls.

TABLE OF CONTENTS

| | |
|---|----|
| Executive Summary | 1 |
| INTRODUCTION | 3 |
| BACKGROUND | 5 |
| Convenience Voting and Voter Turnout: An Overview | 9 |
| Literature Finding UVBM Increases Turnout | 10 |
| The Limits of Mail Voting: Competing Evidence | 12 |
| DATA & METHODS | 14 |
| RESULTS | 17 |
| DISCUSSION | 20 |
| CONCLUSION | 24 |
| REFERENCES | 27 |
| APPENDIX A | 32 |

INTRODUCTION

In representative democracies around the world, voter turnout is seen as an important barometer of civic engagement and the overall health of democratic institutions. High voter turnout is often considered ideal because it helps ensure that elected officials represent the preferences of the broader population (Lijphart, 1997). Conversely, low voter turnout, especially among minority groups, is associated with weaker representation (Hajnal and Trounstein, 2005). The United States has long lagged behind many other advanced democracies in voter participation rates (Franklin et al., 2004). Powell (1986) identifies that America experiences a 26% lower turnout in presidential elections on average when compared to other democratic European nations. This gap in voter turnout has fueled ongoing debates about whether institutional design, rather than civic culture alone, helps explain cross-national differences in turnout.

One prominent explanation for low voter participation in the United States centers on the costs associated with voting. Unlike other democracies that hold national elections on weekends, declare Election Day a national holiday, or implement more widespread and comprehensive automatic voter registration, elections in the United States are always held on a weekday, and election administration laws, including automatic voter registration, vary by state (DeSilver, 2018; U.S. Election Assistance Commission, 2023). As a result, policymakers in America have begun to explore options to reduce the costs of voting, including reforms such as expanding early voting access and implementing same-day voter registration (National Conference of State Legislatures, 2024).

Universal vote-by-mail (UVBM) is a new election reform policy designed to further reduce the costs of voting. By sending ballots to all registered voters and allowing ample time to

return ballots by mail, voters in states utilizing UVBM are no longer required to vote in person at a polling place. Support and opposition to universal vote-by-mail are strongly divided along partisan lines. Democrats generally argue that universal vote-by-mail can expand access to the ballot and increase overall voter turnout by making the voting process more convenient and accessible (Thompson et al., 2020). In contrast, many Republicans have expressed concerns about the security of mail voting systems and the possibility that expanded vote-by-mail could disproportionately increase turnout among voters who tend to support Democratic candidates (Sherman, 2025).

Current literature examining the effects of UVBM on voter turnout remains limited, largely because the policy has only been adopted widely in response to the COVID-19 pandemic. A majority of similar research focuses heavily on earlier convenience voting policies before UVBM was implemented. The studies that do examine UVBM specifically tend to focus on states like Washington, Oregon, and Colorado, rely on data from the pandemic period when conditions were atypical, or examine limited geographic units such as individual counties or legislative districts (Alvarez & Li, 2026; Barber & Holbein, 2020; Thompson et al., 2020). Research examining UVBM's effects across all counties of a single state over multiple election cycles remains sparse. This paper examines how California's implementation of UVBM in 2020 has affected voter turnout in subsequent elections. In doing so, it seeks to contribute to the existing literature by addressing a gap in research on the statewide effects of UVBM in California elections.

The remainder of this paper is organized as follows. First, I explain the background of UVBM, including how the policy is defined, when and why it was adopted in California, and how this changed the way elections are administered in the state. Next, I examine existing

research on the effects of UVBM on voter turnout. The methodology section describes the data and regression model used in this analysis. The results and discussion sections present the findings of the regression analysis and interpret the effects of UVBM on voter turnout across California counties. Finally, the conclusion section discusses the broader impact of this research, the implications for election policy, and identifies areas for future research.

BACKGROUND

Over the past several decades, election policy reformers across the United States have implemented a variety of early or convenience voting policies, such as no-excuse absentee voting, early in-person voting, and UVBM, in an attempt to remove barriers and make it easier for everyone to participate in elections (Barber & Holbein, 2020; Fitzgerald, 2005; Gronke et al., 2007). The general idea is straightforward: by providing voters with more options to vote and increasing the time available for casting ballots, more people will ultimately participate in elections. UVBM, however, is a much more recent innovation, popularized in response to the COVID-19 pandemic. California has been near the forefront of election policy reforms and has a long history of adopting convenience voting policies, ultimately leading to the permanent use of UVBM.

UVBM is an election administration model in which ballots are automatically mailed to all registered voters prior to Election Day, eliminating the requirement to vote in person or request a mail ballot (California Secretary of State, n.d.-b). Voters can complete their ballots at home and return them either by mail using prepaid postage or at an official ballot drop box. In-person voting remains available for those who prefer it. As of 2026, eight states and the District

of Columbia use UVBM: California, Colorado, Hawaii, Nevada, Oregon, Utah, Vermont, and Washington (National Conference of State Legislatures, n.d.).¹

Voting by mail is not a new concept in American election administration. For much of the twentieth century, voting in person was the default expectation for most voters. However, absentee voting, an early and heavily restricted form of mail voting, was reserved for those with special circumstances (Biggers and Hanmer 2015). Acceptable grounds for requesting an absentee ballot were narrow and typically included circumstances such as physical disability, illness, or confirmed travel that would prevent the voter from appearing at the polls on Election Day.

California's history with mail voting reflects this restrictive national norm. In 1922, California voters approved Proposition 22, the first introduction of absentee voting in California's history (Absent Voters, California Proposition 22 1922). This proposition allowed absentee voting under extremely narrow circumstances for members of the military or other citizens whose occupation required travel. The passage of Proposition 22 (1922) marked the first time California allowed voting by mail.

The rules establishing who qualifies for an absentee ballot in California expanded gradually over time. By 1976, the list of qualifying circumstances had expanded to include illness, physical handicap, conflicting religious commitments, absence from the precinct on Election Day, and residence more than ten miles from the polling place, reflecting a gradual broadening of access that nonetheless preserved the fundamental assumption that absentee voting was exceptional rather than routine (California Commission on State Mandates, 2003).

¹ Governor Cox of Utah signed House Bill 300 in 2025, which will roll back Utah's use of UVBM starting in 2029, changing it to an opt-in model rather than a universal system (Utah State Legislature, 2025).

The most consequential reform to California's absentee voting framework came with the enactment of Statutes 1978, Chapter 77, which removed the requirement that voters demonstrate a qualifying reason to obtain an absentee ballot. Unlike the incremental expansions that preceded it, this modification extended absentee ballot access to any registered voter upon request, a fundamental reconceptualization of mail voting as a universal option rather than a limited accommodation for voters with demonstrated need. However, despite the newly expanded access to absentee voting, the 1978 reform still required voters to apply for an absentee ballot each election cycle, introducing an opt-in barrier to voting by mail.

The next significant reform to absentee voting occurred following the passage of AB 1520 (2001). This legislation amended the Elections Code to allow any California voter to register as a permanent absentee voter, meaning they would automatically receive a mail ballot for every subsequent election without needing to submit a new request. The enactment of this legislation represents a continuation of the trend to further reduce barriers to voting and expand access to absentee voting in California. The cumulative effect of these reforms was a steady and substantial growth in the share of California voters casting ballots by mail. By the mid-2010s, a majority of ballots cast were absentee, laying the groundwork for the more systemic changes that would follow (California Secretary of State, n.d.-a).

In 2016, Governor Jerry Brown signed SB 450, the California Voter's Choice Act (VCA), representing the most significant structural reform to California's election administration in decades (California State Senate, 2016). The VCA allowed counties to opt into an all-mail election model, provided they met the eligibility requirements outlined in the legislation. In addition, the VCA replaced traditional precinct-based polling places in participating counties with a smaller number of multi-day vote centers where voters could cast ballots, register to vote,

or receive in-person assistance during an extended period preceding Election Day. Under this framework, every registered voter in a participating county would automatically receive a mail ballot, regardless of whether they had previously signed up for absentee voting.

For the 2018 General Election, five counties, Madera, Napa, Nevada, Sacramento, and San Mateo, became the first in the state to operate under this model, effectively implementing a precursor to what would later become UVBM statewide (California Secretary of State, 2018).²

In May 2020, Governor Gavin Newsom issued an executive order requiring all counties to mail ballots to every registered voter for the November 2020 General Election, citing public health concerns associated with in-person gathering (California Office of the Governor, 2020). This emergency measure marked the first instance of truly statewide UVBM in California, and the 2020 General Election proceeded under universal mail ballot delivery for all 58 counties. This pandemic-era policy was later made permanent through AB 37 (2021), signed by Governor Newsom. AB 37 amended the Elections Code to require all counties to send a vote-by-mail ballot to every active registered voter for all elections going forward, effectively institutionalizing UVBM as the default framework for California elections. Voters retain the right to cast their ballot in person at a vote center, but in-person voting is now an option rather than the baseline expectation.

² In California, as in most of the United States, elections are administered at the county level. Each of California's 58 counties is responsible for managing its own elections, including maintaining voter registration rolls, distributing ballots, operating vote centers, and certifying results, under the oversight of the California Secretary of State (Legislative Analyst's Office, 2017). Counties bear the primary costs of election administration, receiving reimbursement from the state only under specific circumstances, most notably, the prepaid postage costs associated with UVBM (Legislative Analyst's Office, 2022).

Convenience Voting and Voter Turnout: An Overview

Current literature has extensively examined the effects of convenience voting policies on voter turnout, with findings that are largely consistent but modest in scope. While UVBM represents a more expansive reform than traditional convenience voting policies, it shares the same underlying logic: reducing the logistical costs of voting will increase participation. As such, the convenience voting literature serves as an important foundation for evaluating UVBM's effects, particularly given that UVBM-specific research remains limited due to the policy's recent adoption. Much of this literature finds that convenience voting reforms, including early in-person voting and no-excuse absentee voting, produce only small positive effects on overall turnout (Berinsky et al., 2001; Gronke et al., 2007; Sled, 2008).

Several important nuances emerge from convenience voting research. Berinsky et al. (2001), in one of the foundational individual-level studies of vote-by-mail in Oregon, find that while the expansion of mail ballots contributed to modest turnout increases over time, these gains did not translate into a broader expansion of the electorate. Rather, mail voting policies primarily retained existing voters and modestly increased participation among already high-propensity voters, particularly long-time residents and strong partisans, while leaving lower-propensity voters largely unaffected. Voters with limited education and lower political interest showed no meaningful increase in participation. This finding raises significant equity concerns, as convenience voting reforms were broadly intended to increase participation across all voter populations, not simply to reinforce the habits of those already likely to vote. Sled (2008) and Gronke et al. (2007) build on these findings, each identifying important limitations to the modest turnout gains associated with convenience voting. These two studies find that vote-by-mail

produced no meaningful change in election outcomes or voter policy preferences despite modest overall turnout gains. Additionally, among all convenience voting reforms Gronke et al. (2007) examined, only vote-by-mail results in increased voter turnout. However, that effect is limited primarily to presidential elections, where voter motivation is already elevated. The authors are also explicit that campaigns, mobilization efforts, and individual political predispositions are the primary drivers of turnout, and that institutional reforms have at best small effects.

Taken together, there are two main takeaways from convenience voting literature. First, expanded mail ballot access produces modest turnout gains that are insufficient to meaningfully alter election outcomes or bring new voters into the electorate. Second, these policies demonstrate no impact on partisan vote shares, resulting in no measurable electoral advantage for either major party. These findings suggest that the turnout benefits of convenience voting are not only modest but most likely to materialize in elections where voters are already motivated to participate.

Literature Finding UVBM Increases Turnout

Research into UVBM specifically largely mirrors the findings of the broader convenience voting literature, with studies consistently finding modest but meaningful increases in voter turnout following its adoption across multiple levels of analysis, from individual voters and legislative districts to counties and states. Barber and Holbein (2020), drawing on three decades of county-level data and over 40 million individual voter records from Washington and Utah, find that mandatory vote-by-mail increases turnout by approximately 1.8 to 2.9 percentage points, comparing their findings to what you may expect from a single nonpartisan get-out-the-vote phone call. Thompson et al. (2020), using a comparable design across California, Utah, and

Washington, find a similar 2 percent increase. At the state level, McDonald et al. (2024) find a consistently positive association between mail ballot usage and overall turnout across five election cycles from 2012 to 2020, while McGhee et al. (2022) find that mailing every voter a ballot produced approximately 4 percentage points of additional turnout before 2020 and 5.6 percentage points in the 2020 election. These findings collectively suggest that UVBM generates modest increases in voter turnout, similar to the pattern seen in the earlier convenience voting literature.

A particularly consistent and important finding across UVBM literature is the absence of meaningful partisan effects. Across multiple studies, methodological approaches, and geographic contexts, the evidence shows that UVBM does not systematically advantage either major political party (Alvarez and Li, 2026; Barber and Holbein, 2020; Thompson et al., 2020). Additionally, studies that identify a slight Democratic advantage after the implementation of UVBM reflect pre-existing political trends in those jurisdictions rather than a partisan advantage (Amlani and Collitt, 2022; McGhee et al., 2022). The consistent findings that UVBM does not affect partisan vote share across this literature are important given the intensity of the current partisan debate surrounding UVBM.

In addition to the general consensus that UVBM produces modest increases in voter turnout and that it does not offer any partisan advantages, there are a few other important patterns that emerge. First, the way universal ballot delivery policies are implemented is an important indicator as to whether positive effects occur. Research indicates that only the full transition to automatic ballot delivery produces consistent positive turnout effects (Amlani and Collitt, 2022; McGhee et al., 2022). Partial reforms, such as no-excuse absentee voting and mailing ballot applications, produce smaller and less stable results. Second, the benefits of

UVBM are not uniformly distributed across the electorate. Both convenience voting and UVBM were found to be more likely to retain and mobilize existing high-propensity voters rather than add new voters to the electorate (Alvarez and Li, 2026; Berinsky et al., 2001). This raises serious equity concerns and indicates that low-propensity voters, who convenience voting and UVBM policies sought to engage, may remain largely unaffected by these reforms.

The Limits of Mail Voting: Competing Evidence

Not all research finds a positive relationship between mail voting and voter turnout. Several studies find that an expansion of convenience voting or forced all-mail voting resulted in a slightly lower voter turnout across different units of analysis. Three studies focusing specifically on California precincts and county-level data find that voters in jurisdictions that adopted vote-by-mail experienced lower turnout in general elections (Bergman & Yates, 2011; Elul et al., 2017; Kousser & Mullin, 2007). Notably, Elul et al.'s (2017) research uses the same data source as this paper but occurred before the implementation of UVBM in California. Fitzgerald's (2005) study is more expansive, examining the effects of convenience voting on turnout across 50 states. They identify that most early voting policies result in a negative impact on voter turnout. Interestingly, Fitzgerald (2005) and Berinsky et al. (2001), who both arrive at different findings about VBM's impact on voter turnout, identify that convenience voting policies appear to retain existing voters while failing to attract new, low-propensity voters to participate.

The literature finding negative turnout effects under mail voting systems shares several consistent themes, particularly around the conditions of implementation, demographic disparities, and the limitations of VBM as a standalone driver of turnout. First, voter turnout

generally decreased in jurisdictions that swapped from a traditional election system to an all-mail ballot system (Bergman & Yates, 2011; Kousser & Mullin, 2007). These studies identify several reasons why this may be the case, including information gaps about the change in election systems, voter error, poor mail management, and losing or forgetting to return requested absentee ballots, which may outweigh the convenience effects, especially for low-propensity voters. Importantly, however, Kousser and Mullin (2007) suggest that the decrease in voter turnout could be negated with UVBM rather than the selective all-mail voting precincts they studied. Second, important demographic trends emerged from these studies. Turnout among Latino and Asian voters was lower, while younger voters saw slightly higher levels of turnout (Bergman & Yates, 2011; Elul et al., 2017). The authors of these studies attribute the rise in young voters under the vote-by-mail systems to a lack of an existing routine that mandatory mail could disrupt for others. However, the disparities in Latino and Asian participation under vote-by-mail again raise equity concerns about the ability of these groups to transition to convenience voting.

These findings collectively suggest that the costs of voting, which mail ballot reforms are designed to eliminate, may be less consequential to turnout than the motivational and social factors that drive participation in the first place. However, it is important to note that all of these studies occurred under earlier convenience voter policies, including no-excuse absentee voting, all-mail voting precincts, and other similar reforms. UVBM was not implemented at the time these studies were conducted. This distinction may help explain why vote-by-mail-specific policies produce inconsistent effects across the literature, with studies finding both positive and negative relationships with voter turnout.

This paper addresses a gap in the current literature by examining the effect of permanent UVBM adoption across all 58 California counties. Current literature on convenience voting has

found that these reforms contribute to only modest increases in voter turnout, with no benefit to either major political party, and that they are more effective at retaining existing voters than attracting new ones to the electorate (Berinsky et al., 2001; Gronke et al., 2007; Sled, 2008). However, there is also disagreement within the literature, with some studies finding negative relationships between expanded mail voting access and voter turnout (Bergman & Yates, 2011; Elul et al., 2017; Fitzgerald, 2005; Kousser & Mullin, 2007). Research into UVBM is limited, but generally finds modest increases in voter turnout, similar to previous convenience voting literature (Alvarez & Li, 2026; Amlani & Collitt, 2022; Barber & Holbein, 2020; McDonald et al., 2024; McGhee et al., 2022; Thompson et al., 2020). Much of the literature exploring the effects of UVBM on voter turnout focuses on other states, earlier convenience voting reforms, or limited geographic units of analysis. California's permanent transition to UVBM provides a unique opportunity to examine the policy's effects at scale in the most populated state in America.

DATA & METHODS

The data for this research comes from the California Statewide Database, which provides comprehensive voter registration information and vote totals for California elections dating back to 2000. The raw data is reported at the precinct level, but for this analysis, it was aggregated to the county level. County-level data allows for a more accessible understanding of the results, as elections are typically discussed on a per-county basis. The dataset used in this analysis includes voter registration figures as well as total votes cast for all primary and general elections from 2012 through 2024. The final dataset consists of 808 county-level observations.³

³ The 2021 special election is excluded from this analysis. Additionally, data were missing for the 2014 Mono County primary election and for the 2022 primary election in Merced, Shasta, and Trinity counties.

The dependent variable in this analysis is voter turnout, measured as a proportion of registered voters who cast a ballot in a given county during each election. It is expressed as a decimal (e.g., 0.60 represents a 60% turnout rate). This measure captures the overall level of electoral participation and serves as the main outcome used to assess whether the adoption of UVBM had a measurable impact on voter turnout.

The independent variable in this analysis is the implementation of UVBM following the statewide adoption of the policy. It is reported as a binary variable, where a value of 1 indicates that UVBM was established statewide and every county mailed ballots to all registered voters, and a value of 0 indicates that the election was conducted without UVBM. This variable is coded as 1 beginning with the 2020 general election, when California first implemented UVBM, and continuing through the 2024 general election.

The control variables in this analysis account for the partisan and demographic composition of each county's registered voter population and are expressed as a decimal. These include the percentage of registered voters by political party (Democratic, Republican, No Party Preference, Others), race/ethnicity (Latino & Asian), gender (male or female), and age group (18–24, 25–34, 35–44, 45–54, 55–64, and 65 and older). Each control variable is calculated as the number of registrants in a given category divided by the total number of registered voters in the county for a specific election. For example, the percentage of Democratic registrants in Sacramento County for the 2020 general election is calculated by dividing the number of registered Democrats by the total number of registered voters in Sacramento County for that election. This approach allows for consistent measurement across time and geography, capturing changes in population characteristics that are included as controls in the regression model.

The California Statewide Database reports race and ethnicity data based on voters'

surnames, using a methodology known as surname analysis (U.C. Regents, n.d). While this approach allows for the identification of certain demographic groups, it has limitations. Specifically, it does not distinguish between Black and White voters, as surnames alone are generally insufficient to reliably identify individuals in these categories. As a result, the database only provides race/ethnicity data for groups with more distinctive surname patterns. This analysis includes only Hispanic and Asian registration percentages as control variables for race.

A two-way fixed effects regression was used, incorporating both county fixed effects and year fixed effects. This approach enables comparison of each county with itself over time while also accounting for statewide and national shocks common to counties in a given election cycle. The model isolates the within-county changes associated with the implementation of UVBM by controlling time-invariant county characteristics and year-specific factors. Table 1 reports the descriptive statistics for all variables analyzed in this study.

Table 1. Descriptive Statistics

| Variables | Obs. | Mean | Std. Dev. | Min. | Max |
|------------------------------------|-------------|-------------|------------------|-------------|------------|
| <i>Dependent Variable</i> | | | | | |
| Voter Turnout (%) | 808 | 0.561 | 0.167 | 0.166 | 0.892 |
| <i>Independent Variable</i> | | | | | |
| UVBM Implemented | 808 | 0.355 | 0.479 | 0 | 1 |
| <i>Party</i> | | | | | |
| % Democratic Reg. | 808 | 0.387 | 0.099 | 0.162 | 0.638 |
| % Republican Reg. | 808 | 0.329 | 0.108 | 0.066 | 0.576 |
| % No Party Pref. Reg. | 808 | 0.216 | 0.034 | 0.030 | 0.335 |
| % Others Reg. | 808 | 0.067 | 0.024 | 0.028 | 0.255 |
| <i>Race</i> | | | | | |
| % Hispanic Reg. | 808 | 0.187 | 0.141 | 0.025 | 0.741 |
| % Asian Reg. | 808 | 0.050 | 0.053 | 0.006 | 0.288 |
| <i>Gender</i> | | | | | |
| % Male Reg. | 808 | 0.490 | 0.022 | 0.454 | 0.629 |
| <i>Age</i> | | | | | |
| % Age 18–24 Reg. | 808 | 0.094 | 0.028 | 0.030 | 0.180 |
| % Age 25–34 Reg. | 808 | 0.151 | 0.035 | 0.066 | 0.266 |
| % Age 35–44 Reg. | 808 | 0.144 | 0.022 | 0.089 | 0.206 |
| % Age 45–54 Reg. | 808 | 0.156 | 0.022 | 0.110 | 0.222 |
| % Age 55–64 Reg. | 808 | 0.188 | 0.030 | 0.130 | 0.314 |
| % Age 65+ Reg. | 808 | 0.268 | 0.061 | 0.169 | 0.411 |

RESULTS

Table 2 presents the results of the fixed effects regression on California county voter turnout from 2012 to 2024. The model explains approximately 91% (R^2 within = 0.909) of within-county variation in turnout.

Table 2. Fixed Effects Regression on California County Voter Turnout, 2012-2024

| <i>Independent Variable</i> | Coefficient (SE) |
|--|-------------------------|
| UVBM Implemented | 0.035*** (0.006) |
| Institutional Controls | |
| Election Type (General) | 0.238*** (0.007) |
| Party | |
| % Democratic Reg. | 0.512** (0.191) |
| % Republican Reg. | 0.426* (0.206) |
| % No Party Pref. Reg. | 0.087 (0.068) |
| Race | |
| % Hispanic Reg. | -0.143 (0.249) |
| % Asian Reg. | -0.003 (0.513) |
| Gender | |
| % Male Reg. | 0.651* (0.276) |
| Age | |
| % Age 18–24 Reg. | 1.517*** (0.342) |
| % Age 25–34 Reg. | -0.824* (0.390) |
| % Age 35-44 Reg. | -0.900 (0.480) |
| % Age 45-54 Reg. | 0.253 (0.426) |
| % Age 55-64 Reg. | 0.153 (0.475) |
| † p < .10 · * p < .05 · ** p < .01 · *** p < .001 | |
| R ² (within) | 0.909 |
| N | 808 |
| <i>Note.</i> Reference Categories: % Other Party Reg., % Female Reg., and % Age 65+ Reg. All percentage variables represent the share of registered voters in each category. | |

The primary finding, the implementation of UVBM, is associated with a 3.5 percentage point increase in voter turnout, holding all other variables constant. This effect is statistically significant, positive, and consistent with previous convenience voting literature, which suggests that such reforms produce modest but real gains in electoral participation (Berinsky et al., 2001; Gronke et al., 2007; Sled, 2008). Among all variables in the model, election type produces the largest effect on turnout. General elections are associated with a 23.8 percentage point increase in voter turnout relative to primary elections.

County-level party registration composition shows a consistent positive relationship with voter turnout across partisan categories. Counties with higher shares of Democratic registrants (0.512, $p < .01$) and Republican registrants (0.426, $p < .05$) are both associated with higher overall county turnout. The share of No Party Preference registrants shows no statistically significant effect on county voter turnout.

Neither of the race variables in the model is statistically significant. The shares of Hispanic and Asian registrants show no significant relationship with overall county voter turnout. These null findings are addressed further in the discussion section.

The regression results find that the share of male registrants is positively associated with county-level voter turnout (0.651, $p < .05$). This finding is somewhat counterintuitive and will be explored further in the discussion section.

All age composition variables are interpreted relative to the 65+ age category, which was omitted from the model. The 18–24 age group shows a highly significant and positive coefficient (1.517, $p < .001$), which runs counter to conventional literature on youth voting behavior. The 25–34 and 35–44 age groups both show negative coefficients, indicating lower turnout relative to the 65+ reference category. The 25–34 group is statistically significant (-0.824 , $p < .05$), and the 35–44 group is marginally significant (-0.900 , $p < .10$). The 45–54 and 55–64 age groups show no statistically significant effect. With the exception of the 18–24 finding, these results are broadly consistent with existing literature on age and electoral participation. The anomalous 18–24 finding is addressed in the discussion section.

DISCUSSION

The results presented in Table 2 offer several important insights into the relationship between UVBM and voter turnout in California counties. The main finding shows that UVBM increased voter turnout by 3.5 percentage points within counties after its statewide implementation in California, a result that is highly statistically significant ($p < .001$). Despite UVBM representing the most relaxed version of no-excuse absentee voting, this finding shows that it, similar to previous expansions of convenience voting, contributes to incremental changes in voter turnout rather than resulting in a major transformative change (Berinsky et al., 2001; Gronke et al., 2007; Sled, 2008). This incremental change may reflect the cumulative effect of California's previous convenience voting reforms, which have gradually expanded mail voting access over several decades. By the time UVBM was adopted statewide, many engaged voters had likely already transitioned to voting by mail under earlier policies, potentially limiting UVBM's impact to those who had not yet been reached by prior reforms. However, even incremental changes in voter turnout can produce real democratic significance at scale with California's large voting-age population. This makes election reforms like UVBM an important tool policymakers can use to help encourage more turnout in elections over time.

One of the largest predictors of voter turnout within California counties is not policies or demographics, but rather the election type. This variable alone shows that general elections see substantially higher turnout than primary elections within counties. While UVBM produces a statistically significant but incremental effect on turnout, these policies operate at the margins when compared to the deeply structurally determined trends in voter turnout between general and primary elections. This finding also makes intuitive sense. General elections typically generate more attention than their primary election counterparts for a variety of reasons. Research on

California primary elections supports this, finding that primary turnout is driven far more by the dynamics of individual candidate races and the presence or absence of ballot initiatives than by structural factors like voter access (McGhee et al., 2022). Additionally, this structural divide is further compounded by the demographic composition of the primary electorate, which tends to be older and less representative of the broader voting population, a pattern that convenience voting reforms alone are unlikely to resolve.

As a result, future convenience voting policies or expansions of UVBM may follow a similar pattern: marginally boost voter turnout, with these effects limited by the power of general versus primary elections. Understanding the structural dominance of general elections over primaries is essential for policymakers considering future efforts to enhance voter turnout. The magnitude of this gap suggests that even the most expansive convenience voting reforms, including UVBM, may have a limited capacity to meaningfully increase primary election turnout, pointing to a need for reform strategies that go beyond ballot access and convenience.

Party affiliation is also an important predictor of voter turnout within counties in California. A higher share of registered partisan voters, Democratic or Republican, within counties is associated with higher voter turnout. This finding is also consistent with previous literature, which finds that convenience voting reforms tend to mobilize existing partisan voters rather than influence new voters to turn out in elections (Berinsky et al., 2001; Gronke et al., 2007; Sled, 2008). Because convenience voting reforms are intended to increase turnout across all voters, this partisan trend represents a continued limitation to the effectiveness of these policies. Additionally, this analysis finds that registrants with no party preference were not associated with increases in voter turnout. As the share of Californians within the no party

preference category increases over time, this may represent a challenge to UVBM and other conventional convenience voting policy reforms.

The share of both Hispanic and Asian registrants within counties was not associated with any statistically significant change in voter turnout. However, there are important limitations to this finding. First, the California Statewide Database uses surname analysis to create these race variables. The Database itself acknowledges that this approach can misclassify Filipinos as Latino due to shared Spanish surnames and fails to capture women who change their surnames upon marriage (U.C. Regents, n.d). These limitations introduce potential measurement error into the Hispanic and Asian registration variables, meaning the null findings for these groups may partly reflect imprecise measurement rather than a true absence of any relationship between racial composition and voter turnout. Beyond measurement concerns, because this analysis operates at the county level, the null findings for Hispanic and Asian registration share reflect county-wide patterns rather than the turnout behavior of those groups specifically. Changes in a county's racial composition may not move overall turnout even if the affected group is participating at notably different rates than others within the same county. Individual-level research would be required to draw conclusions about racial disparities in UVBM participation.

The positive association between male registration share and county-level voter turnout requires careful interpretation. This finding is somewhat counterintuitive to conventional research, which generally finds that women turn out at equal or slightly higher rates than men (Manza & Brooks, 1998; Studlar et al., 1998). However, this represents a county-level aggregate finding and thus should not be interpreted as evidence that men individually outperform women at the polls. Rather, it likely reflects that counties with higher shares of male registrants tend to share other characteristics, such as rural composition or occupational demographics, that

independently drive higher turnout. This is a known limitation with aggregate data, where county-level patterns do not necessarily reflect the individual voter behavior within those counties. Similar to the race variable, individual-level data would be required to draw more meaningful conclusions about the relationship between voter turnout and UVBM specifically.

The age composition findings present the most complex interpretive challenge in this analysis. As noted in the results section, the 18–24 age group shows a positive and highly significant coefficient, which runs counter to conventional turnout literature consistently finding that young voters participate at lower rates than older voters (Smets, 2012). However, a correlation matrix (Table A1) run on the age variables shows a negative correlation between 18–24 registration share and voter turnout (-0.204), consistent with conventional expectations. This is an important distinction. The fixed effects regression model used in this analysis looks at how things change within individual counties over time. This produces different results than simply comparing counties to one another, as seen in the correlation matrix, where a negative correlation occurs. The most plausible interpretation of these results is that within individual counties, increases in youth registration share and increases in overall turnout occurred simultaneously during major elections, such as the 2016 and 2020 presidential elections. To verify that this finding was not driven by specific outlier counties with unusually high youth registration shares, the model was re-estimated excluding the two counties with the highest 18–24 registration shares. The coefficient remained stable, suggesting this pattern is consistent across California counties rather than the product of any single county's characteristics. The remaining age findings, negative coefficients for the 25–34 and 35–44 groups relative to the 65+ reference category, are consistent with conventional expectations.

CONCLUSION

The findings of this research carry several important implications for election policy in California and beyond. First, UVBM is a worthwhile, but incremental reform. Despite representing the most expansive type of convenience voting reform, UVBM produces turnout increases consistent with those seen under more limited convenience voting policies, suggesting that even the most universal form of mail voting is subject to the same incremental changes in voter turnout that broader convenience voting literature has seen. However, even incremental increases in voter turnout can have very real impacts at scale in a state as large and diverse as California, where even a modest boost in participation can translate to hundreds of thousands of additional votes cast across the electorate.

Next, the single largest predictor of voter turnout remains the type of election. UVBM alone cannot overcome this large and entrenched structural gap in voter participation. Policymakers and researchers must consider the significant gap between voter participation in primary and general elections when developing future election reform policies aimed at increasing voter participation. This participation gap between primary and general elections represents one of the most significant structural challenges facing policymakers seeking to increase voter turnout, as even the most expansive convenience voting reforms have been unable to close this major divide. Research suggests this gap may deepen over time, as structural changes to California's ballot, including the movement of citizen initiatives to the general election, continue to reduce the incentives for voters to participate in primary elections (McGhee, 2014). For policymakers, this points to a need for reform strategies that move beyond ballot access and convenience, and more directly address the structural and informational barriers that keep voters disengaged from primary elections specifically.

Finally, there are important partisan implications to consider. Both Democratic and Republican registration shares are positively associated with turnout, while No Party Preference registration shows no significant effect. This pattern is consistent with previous literature suggesting that UVBM reinforces participation among already-engaged partisan voters rather than expanding the electorate to new participants (Berinsky et al., 2001; Gronke et al., 2007; Sled, 2008). For policymakers, this has important implications. UVBM may be a valuable tool for maintaining turnout among partisans, but it, like previous convenience voting reform policies, struggles to increase turnout among unaffiliated or disengaged voters. Policies beyond increased ballot access may be needed to help reach and engage new voters.

While this study offers meaningful insights into the relationship between UVBM and voter turnout in California counties, several limitations should be noted when interpreting these findings. First, this analysis uses the statewide switch to UVBM as the starting point for this policy rather than the limited number of counties that used UVBM prior to the statewide adoption. This was an intentional decision aimed at analyzing the statewide policy shift specifically, but it also means that concurrent changes or mobilization efforts, including those associated with the COVID-19 pandemic and the 2020 presidential election, cannot be fully ruled out as contributing factors. Despite this concern, the UVBM coefficient reflects the average effect across multiple post-adoption election cycles, including the 2022 midterm elections and the 2024 elections. The consistency of the finding across these cycles partially mitigates the concern that the result is driven by conditions unique to the 2020 election. Next, the data consists of county-level aggregates, which limits the ability to have individual-level inferences. Because the dependent variable is constructed from aggregate vote totals and all control variables are derived from county-level registrant data, it is not possible to determine which specific

demographic groups within a county are driving changes in voter turnout. Individual-level data linking voter behavior to demographic characteristics would be required to draw those inferences. As a result, the demographic findings, particularly race, gender, and age, should be interpreted with caution, as county-level data do not necessarily reflect how individual voters within those groups responded to UVBM.

Finally, the findings in this study point toward several productive directions for future research. First, a study using individual-level voter data rather than county aggregates would allow researchers to better understand demographic-specific differences in turnout associated with UVBM. Additionally, given the dominance of election type in this model, future research examining specifically the different effects UVBM has on primary and general elections could produce important insights for policymakers. More research into policies and ideas that can help bridge the structural divide in voter participation between primary and general elections in California, beyond that of universal ballot access, would be deeply beneficial.

Ultimately, UVBM represents a significant reform aimed at reducing administrative burdens and barriers associated with ballot access and distribution. This research finds that California's implementation of UVBM produced a meaningful and statistically significant increase in voter turnout, affirming its value as an election reform policy. However, the structural dominance of election type over all other predictors in this analysis suggests that expanding voter participation will require policymakers to look beyond ballot access reforms and toward strategies that address the deeper structural, informational, and motivational barriers that continue to keep Californians away from the polls.

REFERENCES

- Absent Voters, California Proposition 22. (1922). UC Law SF Scholarship Repository.
https://repository.uclawsf.edu/ca_ballot_props/172
- Alvarez, R. M., & Li, Y. (2026). Universal mail ballot delivery boosts turnout: The causal effects of sending mail ballots to all registered voters. *The Journal of Politics*. Advance online publication. <https://doi.org/10.1086/736867>.
- Amlani, S., & Collitt, S. (2022). The impact of vote-by-mail policy on turnout and vote share in the 2020 election. *Election Law Journal: Rules, Politics, and Policy*, 21(2), 135-149.
- Barber, M., & Holbein, J. B. (2020). The participatory and partisan impacts of mandatory vote-by-mail. *Science Advances*, 6(35), eabc7685.
- Bergman, E., & Yates, P. A. (2011). Changing election methods: How does mandated vote-by-mail affect individual registrants?. *Election Law Journal: Rules, Politics, and Policy*, 10(2), 115-127.
- Berinsky, A. J., Burns, N., & Traugott, M. W. (2001). Who votes by mail?: A dynamic model of the individual-level consequences of voting-by-mail systems. *Public opinion quarterly*, 65(2), 178-197.
- Biggers, D. R., & Hanmer, M. J. (2015). Who makes voting convenient? Explaining the adoption of early and no-excuse absentee voting in the American states. *State Politics & Policy Quarterly*, 15(2), 192–210. <http://www.jstor.org/stable/24643829>
- California Commission on State Mandates. (2003, February 27). Absentee ballots: Amended parameters and guidelines (Case No. 02-PGA-02). <https://csm.ca.gov/decisions/200.pdf>
- California Office of the Governor. (2020, May 8). Executive Order N-64-20.
<https://www.gov.ca.gov/wp-content/uploads/2020/05/05.08.2020-EO-N-64-20-text.pdf>

California Secretary of State. (2018, November 6). Secretary of State Alex Padilla announces opening of all vote centers in Voter's Choice Act counties.

<https://www.sos.ca.gov/administration/news-releases-and-advisories/2018-news-releases-and-advisories/secretary-state-alex-padilla-announces-opening-all-vote-centers-voters-choice-act-counties>

California State Assembly. (2001). Assembly Bill No. 1520 (2001–2002 Reg. Sess.).

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020AB1520

California State Assembly. (2021). Assembly Bill No. 37: (2021-2022 Reg. Sess.).

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB37

California State Senate. (2016). Senate Bill 450 (2015-2016 Reg. Sess.).

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB450

California Secretary of State. (n.d.-a). Historical vote-by-mail (absentee) ballot use in California.

<https://www.sos.ca.gov/elections/historical-absentee>

California Secretary of State. (n.d.-b). Vote by mail. <https://www.sos.ca.gov/elections/voter-registration/vote-mail>

DeSilver, D. (2018). Weekday elections set the U.S. apart from many other advanced

democracies. <https://www.pewresearch.org/short-reads/2018/11/06/weekday-elections-set-the-u-s-apart-from-many-other-advanced-democracies/>.

Elul, G., Freeder, S., & Grumbach, J. M. (2017). The effect of mandatory mail ballot elections in

California. *Election Law Journal: Rules, Politics, and Policy*, 16(3), 397-415.

Fitzgerald, M. (2005). Greater convenience but not greater turnout: The impact of alternative

voting methods on electoral participation in the United States. *American Politics Research*, 33(6), 842-867.

- Franklin, M. N., Lyons, P., & Marsh, M. (2004). Generational basis of turnout decline in established democracies. *Acta politica*, 39(2), 115-151.
- Gronke, P., Galanes-Rosenbaum, E., & Miller, P. A. (2007). Early voting and turnout. *PS: Political Science & Politics*, 40(4), 639-645.
- Hajnal, Z., & Trounstine, J. (2005). Where turnout matters: The consequences of uneven turnout in city politics. *The Journal of Politics* 67(2):515–35.
- Kousser, T., & Mullin, M. (2007). Does voting by mail increase participation? Using matching to analyze a natural experiment. *Political analysis*, 15(4), 428-445.
- Legislative Analyst's Office. (2017). The 2017-18 budget: Considering the state's role in elections (Report No. 3634). <https://lao.ca.gov/reports/2017/3634/state-role-elections-033017.pdf>
- Legislative Analyst's Office. (2022, May 13). The 2022-23 Budget: Vote by Mail Ballots: Prepaid Postage. <https://lao.ca.gov/Publications/Report/4596>
- Lijphart, A. (1997). Unequal participation: Democracy's unresolved dilemma presidential address, American Political Science Association, 1996. *American political science review*, 91(1), 1-14.
- Manza, J., & Brooks, C. (1998). The gender gap in US presidential elections: When? Why? Implications?. *American Journal of Sociology*, 103(5), 1235-1266.
- McDonald, M. P., Mucci, J. K., Shino, E., & Smith, D. A. (2024). Mail voting and voter turnout. *Election law journal: Rules, politics, and policy*, 23(1), 1-18.
- McGhee, E. (2014). Voter turnout in primary elections. Public Policy Institute of California.
- McGhee, E., Paluch, J., & Romero, M. (2022). Vote-by-mail policy and the 2020 presidential election. *Research & Politics*, 9(2), 20531680221089197.

National Conference of State Legislatures. (n.d.). Table 18: States with all-mail elections.
<https://www.ncsl.org/elections-and-campaigns/table-18-states-with-all-mail-elections>

National Conference of State Legislatures. (2024, October 25). Same-day voter registration.
<https://www.ncsl.org/elections-and-campaigns/same-day-voter-registration>.

Powell Jr, G. B. (1986). American voter turnout in comparative perspective. *American political science review*, 80(1), 17-43.

Sherman, A. (2025, August 18). Trump said the U.S. is the 'only country' that uses mail-in voting. That's false. PolitiFact.
<https://www.politifact.com/factchecks/2025/aug/18/donald-trump/mail-voting-elections-Trump-Russia-Ukraine/>

Sled, S. M. (2008). It's in the mail: The effect of vote by mail balloting on voter turnout and policy outcomes in US elections (Doctoral dissertation, Massachusetts Institute of Technology).

Smets, K. (2012). A widening generational divide? The age gap in voter turnout through time and space. *Journal of Elections, Public Opinion & Parties*, 22(4), 407-430.

Studlar, D. T., McAllister, I., & Hayes, B. C. (1998). Explaining the gender gap in voting: A cross-national analysis. *Social Science Quarterly*, 779-798.

Thompson, D. M., Wu, J. A., Yoder, J., & Hall, A. B. (2020). Universal vote-by-mail has no impact on partisan turnout or vote share. *Proceedings of the National Academy of Sciences*, 117(25), 14052-14056.

UC Regents. (n.d.). Surname matching methodology. Statewide Database, UC Berkeley School of Law. <https://statewidedatabase.org/info/metadata/surname.html>

U.S. Election Assistance Commission. (2023, June). Election administration and voting survey (EAVS) 2022 comprehensive report. https://www.eac.gov/sites/default/files/2023-06/2022_EAVS_Report_508c.pdf

Utah State Legislature. (2025). House Bill 300: Amendments to election law (2025 Gen. Sess.). <https://le.utah.gov/Session/2025/bills/static/HB0300.html>

APPENDIX A

Table A1. Correlation Matrix of Voter Turnout and Age Composition

| Variable | (1) | (2) | (3) | (4) | (5) | (6) |
|----------------------|--------|--------|--------|--------|-------|------|
| (1) Voter Turnout | 1.00 | | | | | |
| (2) % Age 18–24 Reg. | -0.204 | 1.00 | | | | |
| (3) % Age 25–34 Reg. | -0.304 | 0.734 | 1.00 | | | |
| (4) % Age 35–44 Reg. | -0.259 | 0.560 | 0.820 | 1.00 | | |
| (5) % Age 45–54 Reg. | -0.182 | 0.075 | 0.038 | 0.064 | 1.00 | |
| (6) % Age 55–64 Reg. | 0.209 | -0.710 | -0.789 | -0.852 | 0.180 | 1.00 |

Note. Pearson correlation coefficients reported. N = 808. All age variables measured as percentages of the registered voter population.