How Greater Vote-by-Mail Influences California Voter Turnout
The novel coronavirus pandemic threatens the traditional model of voting, a model in which most voters expect to show up at a polling place on Election Day to cast a ballot. While in-person voters may be pressed into close quarters with others, the risk is even higher for poll workers, who encounter hundreds of voters in the course of a typical Election Day. This year, jurisdictions may contemplate radically limiting the number of in-person locations.

A push to increase voting by mail is the most common solution to this problem of safety and access. California, for instance, will be sending voter ballots in the mail and relaxing requirements for in-person voting locations. Which groups of voters might struggle with a transition to higher rates of voting by mail? If other low-risk options are offered, such as drop boxes or early voting, which voters might take advantage? If the postal service has trouble managing a higher volume of mailed ballots, as many fear it will, how many mailed ballots will be vulnerable to these problems because they are sent close to Election Day? Does the switch to higher voting by mail benefit one political party over another?

In this report, we use California’s experience with a pre-coronavirus voting reform in some of its counties to offer answers to these questions. The reform—the Voter’s Choice Act (VCA)—has been adopted by 15 of 58 counties and significantly increases by-mail voting, reduces and consolidates in-person options, and mandates certain early voting alternatives. We identify registered voters whose voting behavior changed between the 2018 California Primary and the 2020 Primary—after the reform was adopted, and we examine the timing and manner of voting in two VCA counties. We find:

- **Turnout is generally higher under the VCA, especially for registrants who have indicated they prefer voting in person.**

- **Though turnout is higher across most demographic groups there are a few exceptions, which should be points of concern for the fall.**
  
  Turnout under the VCA:
  
  - Declined or barely increased for foreign-language registrants who prefer in-person voting and for renters who prefer by-mail voting.
  - Declined in the 2020 primary for new and young registrants.
  - Declined in the 2018 primary for Latino and Asian American registrants who prefer to vote by mail.

- **Voters who mail in ballots appear to do so at a steady rate in the weeks before Election Day.** Voters using other options tend to vote on Election Day or in the last few days before.
- **Non-English and senior registrants use mail voting at higher rates.** There are no significant differences by race or ethnicity.

- **There is no evidence that the change to higher mail voting favors voting by registered Democrats or Republicans.**

Election administrators and advocacy organizations should consider targeting extra outreach toward groups that might have lower turnout after the transition to voting by mail. Research suggests this outreach is most effective when it comes from trusted messengers. These messengers vary considerably across groups and even within generations of a group. Outreach should also be considered for groups that use mail voting at lower rates to encourage that option for public health reasons. To reduce in-person turnout, administrators might also encourage more early voting for those who do not want to mail their ballots in.
California as Vote-by-Mail Example

The coronavirus presents serious threats to the safe and fair administration of the fall 2020 presidential election. In-person voting now comes with a risk of transmitting the virus, which threatens access to the ballot for millions. Poll workers face an even greater threat, since they typically encounter hundreds of people in the course of an Election Day and they tend to be older, retired residents at greater risk of complications from the virus. Election administrators may have trouble staffing in-person locations, and many voters may avoid voting if the risk or difficulty is too high.

To minimize in-person contact on Election Day, most states have been making some type of transition to encourage higher levels of voting by mail. Several states that require voters to renew vote-by-mail status each election have decided to mail all voters vote-by-mail applications, while others are receiving elevated numbers of vote-by-mail applications even without taking these extra steps. Only a few states are actively pushing back against vote by mail. (See text box.)

California is taking more action than most: it has committed to sending every registered voter a vote-by-mail ballot by default, and has allowed counties to reduce in-person options so long as they also provide at least three extra days of in-person voting and a minimum number of unstaffed drop-off locations for four weeks before the election.¹ But in broad strokes, the result will be similar to that of other states: a rapid transition to a higher level of voting by mail, with fewer in-person options.

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¹ California counties can proceed with the normal number of polling places or use one of two alternatives: a smaller number of polling places that only people in the local neighborhood can use, or a smaller number of “vote centers” available to any voter in the county. Either way, every county would need to provide a minimum of one voting location for every 10,000 voters. This is at least 10 times the number of voters per location that would be allowed under a standard polling place election (AB 860, SB 423, California Elections Code Sec 12223). The Secretary of State has also released guidance on how to conduct an election safely.
Within California, 15 counties have already made a change to a higher level of voting-by-mail over the last two election cycles. They adopted changes pursuant to the Voter’s Choice Act (VCA) of 2016, which laid out a path toward consolidating polling places into vote centers and mailing every voter a ballot (see Figure 1).

Counties adopting the Voters Choice Act mailed every voter a vote-by-mail ballot by default, and they switched from traditional polling places to a smaller number of professionally staffed “vote centers.” Unlike polling places, which are open only to voters living nearby, vote centers can be used by any voter in the county. Voters could drop off a ballot or vote in person at a vote center. VCA counties also made unstaffed drop boxes available for those who did not want to mail their ballots or take them to a vote center.
For past primaries, the law required VCA counties to offer some vote centers starting 10 days before Election Day, and still more in the last 3 days before. For the general election this fall, the VCA counties are not required to offer the full 10 days of vote center activity (though they can choose to do so if they like); otherwise they will administer their elections in much the same way they did before the pandemic.

FIGURE 1
Fifteen counties have adopted the Voter’s Choice Act in California, in two separate waves

SOURCE: California Secretary of State.
NOTE: Los Angeles was given special permission for a partial implementation in the first four years under the act: the county could use vote centers everywhere but would only be required to send vote-by-mail ballots to everyone in the portions of the county that included congressional and state legislative districts shared with Orange (which implemented the VCA in its entirety in March 2020).

2 The specific requirement was one vote center per 50,000 registered voters from 10 days before, and one per 10,000 registered voters from 3 days before. Each county also had to offer one drop box per 15,000 registered voters for 28 days before the election.
The VCA counties in California offer the closest analogue to the radical changes other jurisdictions in and out of California will need to make. We can use the experience from these counties to inform expectations for the November election. Which voters found the transition difficult, as evidenced by weaker turnout compared to other voters? How did the voters who used the new system choose to cast their ballots, and how long before Election Day did they do so?

We first examine how voter turnout has changed in VCA counties for a variety of demographic groups. Then we look at two VCA counties where we were able to obtain detailed data—Orange County and Sacramento County—to see when and how voters have used the new VCA system.

Who Votes with Higher Vote-by-Mail?

Age and a history of voting in past elections are both strong predictors of voting. By contrast, voting can seem costly for low-income people, who often have less flexibility in their daily routine, and intimidating for some communities of color, where a legacy of discrimination and exclusion has given voters less experience with elections and democratic engagement.

The structure of the voting experience can also affect a person’s likelihood of casting a ballot. Therefore, the switch to voting by mail may be more complicated for those who were not already voting by mail. These voters must choose between learning a new voting location or navigating a by-mail voting process they have never used before. Even by-mail voters might struggle some with the transition, since many are in the habit of dropping off their ballots in person at polling places, where they will find fewer options than before. We can offer some evidence on these points because our data allow us to identify voters who registered as preferring to vote in person or by mail—even in the counties that send every voter a vote-by-mail ballot by default.

We look at voter turnout in the counties that implemented the VCA and compare that to turnout in the 43 counties that never adopted the reform.3 We also look at both the 2018 primary among the five counties that implemented the reform in that election, and also at the 2020 primary among all 15 counties that had implemented by that point. Because the differences between counties can reflect more than just the VCA reform, in each case we work with a county’s change in turnout from the November 2016 election (before any county had implemented the reform). This helps account for any enduring differences between VCA and non-VCA counties that have nothing to do with the VCA itself. The result captures the disproportionate change in turnout in VCA counties when they made the switch to the new system. Positive values suggest the VCA made voting easier, while negative values suggest it made it more difficult.4

The results are shown in Figure 2, Figure 3, and Figure 4, calculated separately for a range of demographic groups and for those who indicated a preference for voting in person versus by mail. These numbers do not necessarily

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3 Los Angeles County was a special case: for the March 2020 primary, it was only required to send a vote-by-mail ballot to registrants in congressional and state legislative districts shared with Orange County. This amounted to about 13 percent of the county’s registrants. The remaining registrants switched to the vote center model of in-person voting, but did not receive a vote-by-mail ballot by default.

4 This type of analysis is called “difference-in-differences,” and it helps isolate effects of the policy change. When calculating these estimates, we first collapsed to a mean turnout value for each county within each demographic category, and then computed the difference-in-differences with those county-level estimates. This prevents large counties like Orange or Los Angeles from dominating the results, and better matches the sense that each county is running a separate “experiment” in VCA adoption, such that the experiences of each county should carry equal weight in understanding the implications of the reform. For Los Angeles County, we treated only the portion of the county that received a vote-by-mail ballot by default as having adopted the VCA, and left the rest of the county in the untreated group. Our results were similar if Los Angeles was dropped from the analysis.
show the effect of being in a particular demographic group, independent from a registrant’s other personal characteristics. The groups can and do overlap. For example, Latinos are also younger on average, more likely to be non-English speakers, less likely to be habitual voters, and so forth. However, by design the numbers do give a sense of the effect of the VCA reform on turnout within each group.

FIGURE 2
The Voter’s Choice Act has boosted turnout overall

SOURCE: Political Data, Inc. voter files from Fall 2016, General 2018, and Primary 2020 elections. Data for the general election in 2018 have been subset to include only those voters registered on or before the primary Election Day in 2018 to enable analysis of that election in particular.

NOTES: Entries are difference-in-differences estimates. Positive values indicate higher turnout under the VCA relative to non-VCA counties and to the fall of 2016. “In-person” and “by-mail” reflect the method of voting registrants preferred at the time of registration, not how they submitted their ballot. For instance, by-mail voters could have dropped their ballot off at a vote center or polling place, and an in-person voter in a VCA county would still receive a ballot in the mail and could choose to vote that way.

Overall, turnout under the VCA has been about four percentage points higher for in-person voters and about one point higher for by-mail voters in both the 2018 and 2020 primary elections (Figure 2). Figure 3 shows these numbers separately for ages (young and senior), voting histories (new to voting or habitual voter), races/ethnicities (Latino and Asian American), language (registered to receive ballot materials in a language other than English) and status as a renter. Even across these diverse demographic categories, the turnout increase is almost always higher for in-person than by-mail registrants. This suggests the notion that voting under the VCA is harder for in-person voters may be wrong.

Some categories of registrant in Figure 3 have a harder transition. In-person registrants who requested their ballot materials in a language other than English showed only a small increase in turnout for both elections, even as their by-mail counterparts increased their turnout by a large margin in both elections. By-mail renters also saw their turnout decline slightly in both elections.
FIGURE 3
Turnout under the VCA has increased for many but not all groups

![Bar chart showing turnout changes for various groups under the VCA.](chart.png)

**SOURCE:** Political Data, Inc. voter files from Fall 2016, General 2018, and Primary 2020 elections. Data for the general election in 2018 have been subset to include only those voters registered on or before the primary Election Day in 2018 to enable analysis of that election in particular.

**NOTES:** Entries are difference-in-differences estimates. Positive values indicate higher turnout under the VCA relative to non-VCA counties and to the fall of 2016. “In-person” and “by-mail” reflect the method of voting registrants preferred at the time of registration, not how they submitted their ballot. For instance, by-mail voters could have dropped their ballot off at a vote center or polling place, and an in-person voter in a VCA county would still receive a ballot in the mail and could choose to vote that way.

Other groups saw small increases in turnout or even decreases under the VCA in one election but not the other. In the 2018 Primary, new registrants without a voting history showed strong gains in the initial five VCA counties—Madera, Napa, Nevada, San Mateo, and Sacramento—but were actually less likely to vote in the 2020 primary, especially when they registered for in-person voting. Similarly, young people showed stronger turnout under the VCA in 2018 but lower turnout in 2020, while by-mail Latinos and Asian Americans saw turnout decline in 2018 but increase in 2020. Though their turnout is not consistently lower, the potential for lower turnout in these groups suggests they should receive more outreach as well.

There has been some debate about whether a heavy use of vote-by-mail benefits one of the two major parties. President Trump, in particular, has claimed that such a system helps Democrats more than Republicans. Figure 4 shows the effects of the VCA on turnout, organized first by election and then by party registration to highlight party comparisons. Across both in-person and by-mail voters and both elections, partisans vote at higher rates under the VCA, but the differences between the parties in this increase are small and favor different parties in different elections.

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5 If the 10 counties that switched to the VCA in 2020 are omitted from the 2020 analysis, the results are broadly the same. This suggests the differences between the elections are not a function of the precise group of counties using the reform in each election.
When and How Do Voters Vote?

The analysis above helps identify voters who might have trouble with voting in any form available. But for those who do vote, how and when might they cast their ballots under a high vote-by-mail system? VCA voters have had the choice of sending their ballot through the mail, dropping off their ballot at an unstaffed drop box, dropping off their ballot at a vote center, or voting a ballot in person at a vote center. As election administrators plan for the fall, knowing which communities prefer different methods of voting and when most voters are likely to show up in person will help with outreach and planning.

We were able to obtain detailed data for two VCA counties: Orange and Sacramento. Orange County used the VCA for the first time in the March 2020 primary election, while Sacramento has now used the system in three statewide elections: the primaries of June 2018 and March 2020, and the mid-term general election of November 2018.

The two counties have very different populations. Orange has twice as many people, with a larger share that is Latino (34%) or Asian American (22%). In Sacramento 24 percent of the population is Latino, while Asian Americans make up a 17 percent share. At 11 percent of the population, more African Americans live in Sacramento County compared to 7 percent in Orange. Orange County has more foreign-born residents (30%) and residents who speak a language other than English at home (44%) compared to Sacramento, where 21 percent of residents are foreign-born and 32 percent speak another language. Orange also has a much higher median household income ($85,398 vs. $63,902) and more college graduates (40% vs. 30%). Sacramento is closer to the
state as a whole in its Asian-American population and its income and education levels, while Orange is closer on the other dimensions. The counties also differed in the number and competitiveness of races on the ballot, yet had almost identical turnout in the March 2020 primary.

Figure 5 and Figure 6 show the share of voters voting on each day leading up to the election. The results are separated by voting type: those who mailed in the ballot sent to them or dropped off the ballot at an unstaffed drop box (Figure 5), and those who dropped the ballot off at a staffed vote center or went to the vote center and voted a new ballot in person (Figure 6). Mailing the ballot has been the plurality choice in both counties, with 48 percent choosing that option in Orange and 34 percent in Sacramento. Between the two counties, fewer dropped off the ballot in person and more voted in person in Orange County than in Sacramento County.

FIGURE 5
Ballots mailed or dropped at a drop box were more spread out over the weeks before Election Day in Orange and Sacramento Counties

SOURCE: Orange and Sacramento County registrars.
NOTE: For mailed ballots, dates indicate the day the ballot was sent, rather than the day it was received and processed.

6 These demographic numbers come from the 1-year 2018 American Community Survey (ACS), except the income numbers, which come from the 5-year 2014–2018 ACS.
7 Sacramento’s turnout was 49.9 percent; Orange’s was 50.1 percent. There were more seats and measures in Orange County and also more competitive races according to one accounting: four for the US House and five for the State Assembly.
FIGURE 6
Ballots dropped at or voted at vote centers were concentrated near Election Day

The patterns across days of mailing in ballots are remarkably consistent both between the two counties and within Sacramento County for all three elections it has held under the new system. A small concentration of mailed ballots are sent at the end—between about one-quarter and one-third on Election Day or the day before—but most ballots were sent at a fairly steady pace throughout the previous 23 days (ballots are sent to voters 29 days before the election).

The other voting methods—dropping off the ballot at a drop box or a vote center—all involve the voter delivering the ballot through a means other than the mail, and all show a strong concentration near Election Day, with at least half and as much as 85 percent of ballots dropped off on Election Day itself. Of these other methods, unstaffed drop boxes had more activity earlier, with between 40 and 50 percent of ballots coming in a steady stream in the weeks before.

The last three days before Election Day were popular for vote center activity. The law mandates more vote centers during this period, and voters have used vote centers more: somewhere between 9 and 22 percent of vote center activity occurred on those three days, not including Election Day itself. Between 3 and 6 percent of vote center activity occurred on the other seven days when at least some vote centers are mandated to be open.

Figure 7 looks at vote method by the choice of ballot language. Foreign language voters are noticeably more likely to mail in their ballots compared to English language voters. The patterns are once again very similar between the two counties and over multiple elections in Sacramento.

SOURCE: Orange and Sacramento County registrars.
Figure 8 shows the same vote method numbers broken down by age. The most important difference is a greater preference for by-mail voting among older voters (57% age 65 and older, down to 37% for ages 18 to 24), and a corresponding tendency to avoid casting a replacement ballot in person at a vote center (11% age 65 and older, up to 26% for ages 18 to 24). The age-based difference is greater in Orange County than in Sacramento County (see Technical Appendix). One might imagine that COVID-19 will only accentuate this difference, since seniors are most at risk of complications from the disease and so may prefer to vote from home.
Seniors are more likely to mail in their ballots and less likely to use a vote center

Finally, Figure 9 shows method of voting by race and ethnicity for Sacramento County (we were not able to obtain race and ethnicity estimates for Orange County). The most notable feature of these numbers is the absence of any real pattern. There are few significant differences between racial and ethnic groups in their use of each method of voting, though non-Hispanic white voters and Asian Americans are somewhat more likely to use the mail than other groups are. However, because these numbers are only available for Sacramento County we should be more cautious in extrapolating to other counties.

In the Technical Appendix we show results separately by county and across multiple elections in Sacramento. Across all of these demographic groups, voters relied somewhat more on drop boxes and less on mail in the 2018 mid-term general election in Sacramento. Young people are also both less likely to mail in their ballots and more likely to vote in a general election. Both findings suggest we should expect a greater concentration of activity near Election Day as more voters in a general election use methods that tend in that direction.
Racial and ethnic differences in voting method are small in Sacramento County

Conclusion

Election administrators are facing significant changes this fall, to address the consequences of the COVID-19 pandemic. The rapid transition to much higher vote-by-mail rates and more limited in-person options will be challenging, and some voters will have an easier time with the change than others.

Our estimates suggest that turnout is between one and four points higher under the VCA, and that in-person voters do particularly well. However, some groups have consistently had lower turnout—such as foreign language registrants who register to vote in person or renters who register to vote by mail—while others have had lower turnout in some elections but not others—such as young and new registrants in the 2020 primary.

The method and timing of voting among those who decide to cast a ballot has its own patterns. Young people and English language registrants are more likely to vote in person under the VCA. Across all groups, a substantial plurality of the ballots will likely be mailed in and will come at a relatively even pace over time. Among the ballots that are not mailed, most will likely be cast very close to Election Day. This may be especially true in a general election, since young people generally make up a larger share of the fall electorate.
However, unusual aspects of the fall election might push behavior in the other direction. Voters may want to vote earlier to avoid the crowds associated with higher risk of virus transmission. There are also concerns about the capacity of the United States Postal Service (USPS), which has been struggling financially, to manage the high volume of ballots near Election Day. USPS finances have been helped by higher-than-expected package volume during the coronavirus pandemic, but the postmaster general has recently introduced cost-cutting measures that many worry could slow delivery times.

In California, the deadline for county registrars to receive ballots postmarked on or before Election Day has been extended to 17 days after the election. That goes a long way toward ameliorating the problem there. But other states may not take the same steps, and even in California, many voters may not learn about the deadline extension. It seems reasonable to expect that some voters will cast their ballots earlier than usual to accommodate slower postal service.

These results are useful for planning election administration this fall. Outreach can be targeted to the groups most likely to have lower turnout or small increases in turnout to give them extra information about the change. For the purposes of this outreach, it may be important to target registrants who only sometimes had lower turnout along with those who always had lower turnout.

Moreover, research during the pandemic has shown that outreach will be most effective if it comes from trusted messengers (Common Cause/CSI 2020, Center for Inclusive Democracy 2020). These messengers may vary across groups and even within generations of a particular group. Ethnic media is often effective at reaching racial and ethnic groups, with each group following a different set of outlets, while first-time and low-propensity voters may rely more heavily on official communications from election administrators. When it comes to social media, older voters turn more to Facebook and WhatsApp, while younger voters more often use Snapchat, Instagram, and TikTok (Common Cause/CSI 2020). Coordination between election administrators and these trusted messengers and media will be critical. The original VCA law required that coordination; such deep engagement has been one of the casualties of the rapid administrative changes mandated by COVID-19.

Election administrators offering early voting options (for which there are mandated minimums in California) should plan for the large majority of in-person crowds to come within three days of Election Day. On the one hand, this might suggest that counties could cut back on earlier in-person options if they are short on resources or staff to maintain those facilities. However, since the goal is to spread out in-person voting to limit COVID-19 exposure, if resources are available administrators and advocates might instead want the facilities open earlier and make extra efforts to promote voting further from Election Day.
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