California's Top-two Primary: A Successful Reform I

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Hold Politicians Accountable^{\dagger} (Dated: January 15, 2019)

Abstract

This is the first of three concurrent papers on California's top-two primary, California's Top-two Primary: A Successful Reform I, II, and III; this abstract covers all three. A common summary of the conclusions of all three papers appears in III, section VI.

The top-two primary yielded 80 same-party general elections in California, for the Assembly, state Senate, and U.S. House of Representatives combined, in the general elections of 2012, 2014, and 2016. Of these same-party district elections, 22 saw the re-election of incumbents running against a token opponent of their own party. The remaining 58 were highly competitive: a total of \$205 million was spent in those contests; 10 incumbents were defeated. In contrast, over the not three but five election cycles from 2002 to 2010, when there were partian primaries, an incumbent lost to a member of his own party in 1 race for the Assembly, 1 race for the state Senate, and 1 race for the U.S. House, for a decade total of 3. Of the 58 competitive same-party elections, the candidate who took second in the primary, and who would have been eliminated from the general election ballot in a system of partian primaries, actually won 20 (34%).

The number of voters who cast a ballot in these 80 same-party general elections was essentially double (1.9 times) the number who cast a ballot in the same election in the primary. Voters who cast a ballot sometimes skip voting for one race or one ballot measure or another; registered voters who cast a vote in the general election for U.S. President in 2014 and who were faced with a same-party general election a district office, despite there being no difference in party to guide or inform their choice, nonetheless cast a vote for the office 88% of the time; less than, but not markedly less than, the 95% of the time by voters faced with a top-two choice between a Democrat and a Republican. Voters skipped casting a vote in a race between a Republican and a Democrat for a district office this same 95% fraction of the time under the system of partisan primaries from 2002 to 2010.

One race for statewide office had a same-party general election, the 2016 race between Harris and Sanchez, both Democrats, for U.S. Senate. Voters who were registered Democrat or leaned Democratic (and who voted for U.S. President) voted in this race essentially 100% of the time, favoring Harris with 76% of their votes; Republicans or voters who leaned Republican voted in the race 68% of the time, favoring Sanchez with 59% of their votes. The participation of Republicans or voters who leaned Republican was enough to swing the statewide vote total by 14%, lowering Harris' victory percentage to 62%.

The turnout of voters under the top-two; whether a voter when turned out actually casts a ballot in a same-party general election; whether the top-two is biased for or against either major party; whether either major party has been eliminated from a same-party general election that it could otherwise have won; the effect of the top-two on the minor political parties; the flow of money in top-two races; and the changes the top-two has wrought in the number of votes, and from which electorate, required to win and retain office: these are all analyzed, with conclusions favorable to the top-two. The effects of three other changes to the California political system—redistricting reform, which ended legislative gerrymanders of the districts; and the decision by the legislature to ban citizen initiatives from the statewide primary ballot; and changes to term limits for the Assembly and state Senate—are taken into account.

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I. INTRODUCTION

Assessing the changes wrought by the advent in 2012 of the top-two primary is complicated by other, independent changes to the election system that also took effect in 2012, notably the use of new districts whose boundaries were not drawn by the California legislature but by a new Citizens Redistricting Commission [1]; the barring of initiatives from the primary ballot other than those put there by the legislature; and changes in the term limits for members of the state legislature, which reduced the number of incumbent-free elections.

The work is organized into three concurrent papers [2] of the same title, distinguished by the roman numerals I, II, and III, which can be read independently except for occasional cross-reference.

In the present paper, Section II reviews the history of recent primary election reform in California. Section III reviews some of the problems of California's election system before 2012 that the top-two is meant to address. Section IV examines what changes were made to address those problems by the passage of the top-two primary, including: expansion of voter choice in the primary; assuring that the two strongest candidates made it onto the general election ballot, and no others (we explain why blocking any third candidate, even as a write-in candidate, is desirable); and eliminating barriers to participation in the primary elections for office by voters with no party preference. Section V examines whether the top-two is biased against one or other major party in California. Section VI examines the overall turnout of voters under the top-two: in the general election; in the primary election; and how the primary election turnout was also affected by the passage of Senate Bill 202, which banned citizen initiatives from the primary ballot.

In paper II, Section I examines the condition of the minor parties in California under the top-two: concerning their voter registration; whether the minor parties shall remain qualified for the ballot; whether there is a correlation between increases or decreases in a minor party's voter registration, and whether that party runs or does not run candidates that appear on the general election ballot; and how much money is being spent by the minor parties. Section II examines how the top-two has changed the electorates and majorities that candidates, particularly incumbents, have to have in their support in order to win election, in three classes of elections: those without incumbents; those where incumbents were unchallenged in the primary by another candidate of their party; and seats where they were thus challenged. Section II concludes with a comparison of how incumbents fared in California under the top-two and under partian primaries.

In paper *III*, Section I presents a table of all the candidates elected in a same-party general election in California from 2012 through 2016, and shows how often the general election winner was the candidate who had trailed in the primary. Section II examines whether voters who submit a ballot and face a general election contest, either in a statewide race or in a district race, between two candidates of a party not their own, vote in that race or skip it. Section III tallies the amount of money spent in same-party general elections, as a measure of their competitiveness and interest. Section IV examines whether the top-two primary, in creating some general elections from which one or other major party is excluded, has denied a major party a real chance of winning those elections. Section V compares the number of general elections in California, either resulting from the system of partisan primaries or from the top-two, that end with both a Democrat and a Republican on the ballot, to the number in the other states.

In all three papers figures are gathered at the end before, or just after, the references;

and in each there is an Appendix A in which a more detailed discussion of each figure is provided beyond what will fit in a caption. In each paper there may be additional appendices detailing other specific points; for example, in the present paper Appendix B computes the fraction of voters with no party preference who cast a party ballot in the partisan primaries of 2008 and 2010, and Appendix C computes an upper bound to the money spent in the 2014 California primary.

The author is the chair of *Californians to Defend the Open Primary*, which has intervened to defend every legal challenge against the top-two primary since its inception, and who also played a significant role in its passage [3]. The author is well aware that the common standard of analysis and discourse in political campaigns is to put forward only the best arguments (such as they may be) in support of one's position, and if one finds telling arguments or evidence against one's position, to keep silent. The author is also a physicist, however, who understands the contrary standard, that if there is a telling argument against a position one holds, one must meet it; and if one finds evidence against a position one holds, one must present it. These three papers attempt to meet the latter standard. A summary of conclusions of all three papers appears in *III*, section VI.

II. A HISTORY OF RECENT PRIMARY ELECTION REFORM IN CALIFORNIA

For most state offices [4], California had before the election of 1998 primary elections that were strictly partian. Every qualified political party [5] was guaranteed [6] one spot, and could have no more than one spot, for each office on the general election ballot; no candidate could run in more than one party's primary to take more than one spot [7]; and only voters registered with the party of that candidate were allowed to vote in that party's primary election to determine who would become that party's nominee and get that party's spot. In particular, voters registered but with no political party (no party preference voters, or NPP voters) could not, by law [8], vote in any party's primary.

For the elections of 1998 and 2000, as a result of the passage [9] of Proposition 198, California had a "blanket" primary system. Each qualified party retained its spot on the general election ballot; but any registered voter, regardless of party affiliation or lack thereof, could cast his vote for any candidate of any qualified party for any office; and whichever candidate of a qualified party received the most such votes became that party's nominee and received that party's spot on the general election ballot [10].

On June 26, 2000, the U.S. Supreme Court decided in *California Democratic Party, et al., v. Jones* [11] that the blanket primary system was unconstitutional, on the grounds that it violated a party's First Amendment rights of association [12]. The ruling also brought to an end the use of the blanket primary in Alaska, where it had been in use (except for the elections of 1962, 1964, and 1966) since the elections of 1948 [13]; and also in Washington state, where it had been in use since 1936 [14].

California returned for the regular elections of 2002 through 2010 to a system of partisan primaries, with this principal difference: each political party was now permitted by law [15] to decide whether or not NPP voters would or would not be permitted to vote in that party's primary. No voter could vote for a candidate of one party for one office, and a candidate of another party for another. The Democratic and Republican party organizations elected to permit NPP voters to vote [16] in their party's primary, with various exceptions for the offices of U.S. President and Vice-President, and the membership of county party central committees.

In November of 2004, Proposition 62, an initiative to establish a top-two primary in California, failed with 42.6% [17] of the vote; but in June of 2010 the passage, with 53.8%[18] of the vote, of Proposition 14, the Top Two Candidates Open Primary Act [19], established [20] a top-two primary. Qualified political parties were no longer guaranteed to have a candidate on the general election ballot. Instead all candidates of all parties appeared on a common primary ballot, and all voters, regardless of party affiliation or lack thereof, could vote for any one candidate in any race; and for each office the two candidates who received the most such primary votes, whether or not the two candidates were of the same party, appeared on the general election ballot for that office [21]. Separate partial primaries were continued for some offices, notably for the offices of U.S. President and Vice President; and each party retained the power to decide whether or not NPP voters would be allowed to vote in a party primary. As of 2017, the regular elections in which California's top-two primary system has been used are those for the years 2012, 2014, and 2016; the system had been in use in California for decades previously in special elections to fill partian offices that had become vacant, as well as for the state office of Superintendent of Public Instruction and in local, non-partisan races.

III. PROBLEMS ADDRESSED BY THE TOP-TWO PRIMARY

The top-two primary addresses two fundamental problems with political practice in California. The first is summarized in Figure 1: the fraction of California's eligible voters who vote in the regular primary election has fallen steadily over the last five decades, even though the fraction of California's eligible voters who vote in the general election has not. Rejection of candidates in partian primaries has increasingly been made by a voting population increasingly smaller than the general election voting population. The nadir of this tendency occurred in 2008, when only 20% of registered voters voted in the primary election for state offices, when fully 60% participated in the general election.

Voters who vote in primary elections are, compared to voters who vote in general elections, not only fewer, but different: older and less ethnically diverse [22]; and the political centers of gravity of the Republicans and Democrats who vote in a party primary are respectively to the right and to the left of the centers of gravity of the Republicans and Democrats who vote in a general election. The party organizations and their platforms, and the policies of each party's legislators, have been dominated by the views of those primary election voters. The rising disaffection of the general electorate with both parties has been marked by the rise in the percentage of registered voters who choose not to register with either party, a percentage that has risen, as is shown in Figure 2, from 11.2% for the elections of 1990, to 29.1% for the election of 2016, easily surpassing the 26.0% then registered with the Republican party.

One can see from Figure 1 that the falling participation in the California primary cannot be attributed to Californians disengaging from elections as a whole. Not only has the fraction of registered voters in California who vote in the general election not fallen over time, it has essentially tracked the national average, zig-zagging higher in years when the general election ballot includes the office of U.S. President, and lower when it does not. Nor has the fraction of the population eligible to vote in California, that is actually registered to vote, fallen; as shown in Figure 2, that fraction has remained at essentially 75% for decades.

To understand the full deleterious effect starting in 2002 of a system of partian primaries one has to understand its interaction with two other features of elections in California: gerrymandering and term limits, the chronology of which is displayed in Figure 1. For the elections from 1992 to 2000, as a result of a deadlock between Governor Wilson, a Republican, and the Democratic majorities in both the Assembly and Senate, the boundaries for the districts for the Assembly, state Senate, and the U.S. House of Representatives were drawn by the California Supreme Court. The division between the parties of both the state legislature and of the state delegation to the U.S. House through the elections of 2000 were therefore not arranged by gerrymander, and the partisan makeup of the Assembly, state Senate, and the delegation to the U.S. House roughly tracked the changing opinions of the electorate. As is shown in Figure 3, the partisan makeup of these districts made up single-hump distributions, with a significant number of districts that either party could win. The possibility of losing or winning such districts encouraged the party caucuses within the delegations, whether the majority of a caucus privately desired to or not, to heed what a general election voter thought.

In 2000, though the election of Governor Davis, a Democrat, had put the entire California legislature under Democratic control, the entire national government (the presidency, the U.S. Senate, and the House of Representatives) was under Republican control. This balance of power resulted in California in a "sweetheart" gerrymander: the parties agreed not to use redistricting to change the number of seats held by either party. Instead, California was carved into districts designed to be safe for each party, and therefore safe for every incumbent save a few whose careers were to deliberately ended by splitting their districts into pieces.

One can see in Figure 3 the shift between the Court-drawn, ungerrymandered districts, with a number of districts that were competitive between the two parties, to the "sweetheart" system, where there were almost none. Except for the center bin in each figure, which is sometimes entirely empty, every incumbent's party now had at least a 5% advantage in his district in voter registration over the other major party. As is shown in Figure 4, over the following decade and for elections in the state Assembly, gaining an edge in voting registration by X% translated into gaining an edge in votes in the general election by 1.5-times-X%; and an expected edge of at least 7.5% in votes in November was great enough to make a loss to the other major party unlikely.

Legislators newly elected in the elections of 1990 could serve in the California Assembly for a maximum of 6 years, and in the California Senate for a maximum of 8 years [23], [24]. Therefore each member elected from the ungerrymandered districts from 1992 to 2000, which included some districts that were competitive between the two political parties, was termed out sometime in the elections of 2002 through 2008 and retired; and replacements were elected exclusively in districts already safe for their party and where the decision about who would represent that party, and *de facto* who would serve in office, was decided entirely in that party's partian primary.

The view of this author? This was a system in which winning a plurality of a low turnout party primary was now everywhere, everything; and being able to represent the general election voter of that party, let alone the general election voter over the district as a whole, was now everywhere, nothing; a system in which however little a legislative caucus of either party took care of the people's proper business, that caucus could not lose a seat. The fate of every legislator hung only on the small number of voters in his party primary, a challenge within a primary being the only way a legislator could lose his seat, or fail to win a higher office when term limits shortly forced him out of his present one; earning the good opinion of the general election voter was an irrelevancy. The system constructed [25] a legislature noted for polarization and intransigence [26]. By the conclusion of the decade, after the November elections of 2010, California's continuing political Democratic shift (the Democratic party gained by 2.3% in registration over the Republican party), and various other demographic shifts, had to some degree created a few districts that either party could win; the districts had evolved as shown in Figure 5. Because of the passage of Proposition 11 in June of 2008, and Proposition 20 in 2010 [27], a newly-created Citizens Redistricting Commission, and not the state legislature, was entrusted with drawing the district boundaries for the Assembly, state Senate, and the U.S. House. The members of the Commission were forbidden to draw maps to favor or discriminate against any political party [28]; when the maps were unveiled, the no-competition valley in each distribution proved to be essentially erased, as was the double-humped structure, as is shown in Figure 6. We conclude that it was the legislature and the governor, not the people of California, who decided [29] in 2001 that for the next decade the legislature would be highly polarized.

The privilege an NPP voter had, in the regular elections of 2002 through 2010, of choosing a partisan party primary in which to vote for state office, was limited and precarious. As shown in Table I, most minor parties forbade an NPP voter's participation [30]. While the two major parties permitted it, their permission was not a matter of routine.

The question of whether NPP voters should be excluded from the Republican party primary for state offices was the contentious issue roiling the California Republican Party state convention of September 26–27 of 2009; the proposed exclusion [31] was narrowly defeated [32]. After the change in the law for the elections of 2002 that allowed parties to include or exclude NPP voters from their party primary, the Democratic National Committee always allowed the California Democratic Party to let NPP voters to vote in a Democratic presidential primary. New rules of the Republican National Committee, however, approved in response to the California's "blanket" primary, impose draconian penalties [33] on any

x 0	*							
Primary Date	REP	DEM	AI	LIB	\mathbf{PF}	GRN	NL	REF ^a
March 2, 2002	+	+	+	-	0^{b}	-	+	_
March 2, 2004	+	+	+	-	-	-	-	0^{c}
June 6, 2006	+	+	+	-	-	-	-	0
June 3, 2008^{d}	+	+	+	-	-	-	$0^{\rm e}$	0
June 8, 2010	+	+	-	-	-	-	0	0

TABLE I. In the regular elections in 2002 through 2010, and for the partian primary that chose nominees for state office, shown is whether a ballot-qualified political party permitted voters with no party preference to vote in its primary for those offices (+), or did not (-). Primaries for which a party was not ballot-qualified are indicated with a zero (0).

^a The full names of the political parties qualified for some or all of the regular primary elections of 2002 through 2010 were the Republican, the Democratic, the American Independent, the Libertarian, the Peace & Freedom, the Green, the Natural Law, and the Reform parties.

^b The Peace & Freedom party had a hiatus in being a qualified political party, missing the primary of 2002 (and also of 2000).

^c The Reform party ceased to be a qualified political party before the elections of 2004.

^d In 2008 there an earlier primary on February 5 which chose nominees for U.S. President, but not for state office.

^e The Natural Law party ceased to be a qualified political party before the elections of 2006.

state that would allow NPP voters to vote in a Republican presidential primary. Ever since, the California Republican Party has barred NPP voters from participating in any of its presidential primaries, starting with the elections of 2004; and from 2004 on, from participating in any of the Republican primaries for state office that were also on the presidential primary ballot [34].

How unstable was the support to allow voters with no party preference to vote in the Republican party primary can also be gauged from the action of the state party organization in anticipation of the possible passage of the top-two primary on the June ballot of 2010. The bylaws were amended [35] to require those Republican party delegates and members of Republican party central committees registered in a district to meet at the Spring convention before the state primary election and choose a Republican nominee. That nomination was indelible; even if some other Republican became the only Republican in the top-two general election, the new bylaws forbade the state party organization from supporting him in any way; the opinion of voters as expressed in the state primary election was to be ignored.

This scheme remained in force, despite efforts to change it at the following convention [36].

At the convention of March 18–20, 2011 a culminating struggle occurred between the faction led by the outgoing state party Chairman, who wished to pass further bylaws to institutionalize this scheme, and the faction that wished to rescind it. The latter faction prevailed, barely [37], establishing that the California Republican party would accept as its nominee whichever Republican received the most votes in the top-two primary, whether or not those votes included cross-over votes of voters not registered with the Republican party but with no party or another party [38].

What internal struggles if any occurred within the state Democratic party organization on allowing voters with no party preference to vote in a Democratic partian primary are unknown to this author; but in at least one of the two major parties in California, the challenge to having any voters except those registered with the party have any role in choosing the candidates to appear on the general election ballot was severe.

IV. CHANGES THE TOP-TWO MADE TO ADDRESS THESE PROBLEMS

The power of political parties to deny to voters with no party preference the ability to cast a primary vote for one of the party's candidates was ended.

The top-two made three other major changes to address these problems. The top-two expanded the range of choices available to all voters in the primary election; it guaranteed that both candidates with the best chance of representing the whole of a district, as measured by the number of votes a candidate got in the primary, made it onto the general election ballot, to be judged by the most numerous and most representative electorate possible; and it swept away barriers to participation in the primary elections for state office that faced voters with no party preference (and voters registered with political parties that were not qualified for the ballot). We describe these changes in turn in sections IV A, IV B, and IV C.

A. Expansion of primary election choice

The top-two greatly expanded the range of choices available to every voter in the primary election, while not significantly expanding the total number of candidates who in fact ran.

In 2010, in the last election under partisan primaries, there were 22 candidates on the ballot for Governor and 13 for Lieutenant Governor; and in 2018, in the most recent primary election under the top-two, there were 27 candidates for Governor and 11 for Lieutenant Governor. That is not a significant difference in numbers [39]; but in 2010 a decline-to-state voter who chose a Republican ballot to vote for a candidate for Governor had his choice for Lieutenant Governor restricted to 6 Republicans, none of whom might be his preferred candidate of the 13 candidates running; if he chose a Democratic ballot to vote for a candidate for Governor, his choice for Lieutenant Governor was restricted to 3 Democrats, again of the 13 candidates running.

In 2018, in contrast, any voter had all 27 candidates for Governor on the ballot before him and could vote for any one of them, even at the last moment; and similarly had before him all 11 candidates for Lieutenant Governor, and could again vote for any one of them, whether the candidates for Governor and Lieutenant Governor whom the voter wished to choose were of the same party or not. Both the restriction on primary choice under partisan primaries, and the freedom of primary choice under the top-two primary, continued for each voter down the entire ballot. In 2010 and in 2018, for example, down the list of all 8 statewide offices [40], plus 4 more district offices: those for member of the state Assembly, the state Senate [41], the U.S. House, and of the California Board of Equalization.

Under the top-two, a good candidate in a down-ticket race no longer had to persuade any voter that he was so good that the voter should support him even at the price of abandoning the voter's preferred candidate for, say, Governor. Any voter could easily vote a straight party-line ballot if he wished—a candidate's party appears on the California ballot right after the candidate's name [42]—but if the voter wanted to vote for a candidate of another party or of no party, even in one race, that candidate's name was on the ballot before him.

B. The two strongest candidates make it to the general election, and no others

The top-two secured real choice on the general election ballot, by ensuring that both the candidates who had demonstrated the most support in a district (by getting the first or second highest total vote in the district's primary election) would appear on that ballot, whether or not those two candidates belonged to different parties, instead of (often) just one of the two candidates with the most support. Genuine choice is not increased if a primary system eliminates from the general election one of the two candidates the voters of a district have deemed in the primary to be the strongest, however many other candidates who—crucially—those voters have just shown in the primary lack the voters' support, might appear on the general election ballot with the one strong candidate who is left.

While many people's initial impression might be that the inclusion of the two strongest candidates on the general ballot could be an improvement, their initial impression might also be that the exclusion of all but those two strongest would not, removing "diversity" and "choice" on the general election ballot. Initial impressions can be misleading; and in fact the exclusion of all but the two strongest has many benefits.

1. The benefit to minority points of view

The exclusion from the general election of all candidates except the two deemed strongest is often to the actual advantage of the points of view represented by the candidates who are excluded, paradoxical though that may initially appear.

Suppose there arose tomorrow in California a new political point of view; call it the Star point of view. This point of view might be anything; its defining features are that an initial 3% of the electorate is willing to choose almost any candidate who has it over almost any candidate who does not; that there are few if any holders of this point of view in the government; and that the point of view is not part of the canon of either major party, and indeed the attitude of those parties towards it might range from indifference to hostility. What would one advise the holders of this point of view to do?

Clearly it behooves those holders to identify themselves to each other, and to expand the holders' numbers. So long as no major party incorporates the Star point of view, its holders should set up an unqualified political party, register Star voters, and organize their 3% of the electorate to vote as a block in favor of any candidate, of whatever party, who inclines to the Star point of view over any who do not; and in favor of any candidate who is indifferent over any who are hostile. In any such race whose outcome would be within 3% without the Star block of votes, the holders of the Star point of view would be the kingmakers; this is how the holders of a 3% point of view, in an alliance with other factions, could wield influence.

It would be accounted suicide for holders of the Star point of view instead to make a collective pact never to vote at all. That would reduce the influence of the Star point of view in the government permanently to zero. No major-party legislator would move a piece of legislation the Stars favored, or block or amend one the Stars opposed, counting on winning Star votes: there would never be any. No genuinely Star-favoring candidate with a base of support in a major party, considering a run with a tough battle at the end of it, would decide to run because he calculated he could win with Star votes as part of his coalition: again, there would never be any.

Yet in a system of partisan primaries, to move from an unqualified a Star party to a qualified one, and then to run a Star candidate in a general election with two major-party candidates, has just that suicidal effect. Once there is a Star candidate on the general election ballot, and the Star voters directed to cast their 3% in his support, those ballots are as thoroughly removed from having any effect on the government as if they had never been cast. In any election where one major-party candidate can anticipate that the Star block would both deservedly go to the other major-party candidate and be decisive, that one candidate or his supporters will find some person registered with the Star party to file to run and waste the Star vote [43], even if such a person does not appear naturally; and the Star party will be helpless against the wasting of their vote unless it has the will and the resources to campaign against one of its own members in the ensuing general election. Unlikely.

But under the top-two, while any Star candidate who runs, whether sincere, naïve, a dupe, or a shill, will assuredly not win office so long as the Star point of view is limited to 3% of the electorate, that Star candidate will be defeated in the *primary*, and in the *general* election the voters of the Star party will remain able to throw the Star block for whichever of the top-two candidates most aligns with the Star point of view. As under partisan primaries and when the Star party was not qualified, in a few contests that block will prove decisive, and the Star point of view will acquire the influence in the government a 3% point of view should—not a lot, but no longer zero. So long as the Star point of view is a 3% minority, the exclusion of the Star *candidates* from the general election is essential to the *point of view* to retain any influence.

To be sure, if there were no difference in the top-two candidates with respect to the Star

point of view, nothing would be gained by casting the Star vote in a block in the general election for either of them, and so nothing would be lost were that block instead cast for a Star-party candidate in a general election following a partisan primary. True; but there would also be nothing to be gained: as a matter of California history, candidates who belong to 3% parties don't win.

There are currently four minor parties ballot-qualified in California: the American Independent party, which qualified in 1968; the Libertarian, which qualified in 1980; the Green, which qualified in 1992; and the Peace & Freedom, which qualified in 1968. None have ever had a statewide registration that exceeded 3%, and the total number of winners of any state or federal office by any of these parties stands at zero. The only exception is the winning of one Assembly seat, for one term, by Green party member Audie Bock in 1999, a win which occurred in a special and not a regular election and so (ironically) was run according to top-two and not partisan-primary rules [44]. Indeed, one has to go back to 1916 to find a state or federal election in California won by any primary candidate running with a party other than the Republican or the Democratic party (see II, Table I).

If having a candidate of a 3% minor party on the general election ballot does not help elect a candidate of a minor party, it might be supposed it will at least help grow that party; but we shall show later (in *II*, Section IC) that there is little or no evidence that a party having a candidate on the general election ballot, in a district where its registered voters are few, does anything to grow the number of voters willing to join that party, or that not having such a candidate does anything to shrink it.

Our conclusion is that the top-two provides a ready path for a 3% point of view to have its due amount of influence over the government; a system of partian primaries does not.

A second way the top-two system is superior to the system of partisan primaries for the voters of a ballot-qualified Star party to wield influence that 0.5%-to-3% parties can usually manage to recruit candidates only in a small minority of the districts in a state, and only in a small minority of the elections on a ballot in which an individual voter is called to vote. Table II shows this was certainly true of the minor parties in 2010 [45], the last year of partisan primaries in California. Under the top-two a Star-registered voter may use his primary vote to support the most Star-inclined candidate in every primary election on his ballot in which the Star party has no candidate; under partisan primaries, that primary vote is otherwise wasted, because under that system being registered with a ballot-qualified Star party precludes a voter from participating in any other party's primary. Indeed, being obliged to waste one's vote in most elections on the primary ballot is a strong disincentive to register with the Star party at all.

2. Why having two candidates, and no more, is desirable in the general election

Why limit the number of candidates on the general election ballot to 2? Why not 3 or 4? We address this question in the remainder of this section.

First, in the general election it is desirable that the optimum plan for each voter be simply to decide which candidate he prefers and vote accordingly. That plan is not optimum when there are three (or more) candidates: a voter who prefers candidate A to B to C may gain by casting a ballot that dissembles his genuine preferences, a practice often called "strategic voting"; by casting his vote for B, for example, if the voter believes that too few other voters will ever vote for A, and the voter's best plan is now to help his second-choice B beat the detested C.

TABLE II. The number of races in the California primary of 2010, the last partisan primary, in which a qualified political party had at least one candidate on the ballot. Of the district offices, of the minor parties the Libertarian party contested 23% of the Assembly races, 30% of the state Senate races, and 36% of the U.S. House races; the other three minor parties far less than that, the next contenders being the AI and the P&F parties, who contested 11% of the U.S. House races. The total number of occasions in which in any race, state or federal, district or statewide, a minor party in the primaries of 2010 had more than one candidate on the primary ballot numbered 5, all statewide offices. The AI, P&F, and GRN parties did so for Governor; the AI party, for Controller; and the AI party again, for U.S. Senator.

Office	DEM	REP	AI	LIB	P&E	GRN
Assembly (80)	78	76	1	18	4	5
State Senate (20)	20	18	1	6	2	0
U.S. House (53)	52	53	6	19	6	5
B. of Equalization (4)	4	3	2	4	4	0
Statewide offices ^a (8)	8	8	8	8	8	8

^a The statewide office of Superintendent of Public Instruction is not a partial office and is not included; the office of U.S. Senator was on the ballot in 2010 and is included.

Once there is a benefit to strategic voting, it follows that it becomes unwise for other voters, in our example those who, say, prefer C to B to A, to make their preferences and so their intended vote known, lest they provide the information that would encourage others to use this practice against them. It also follows that there can be tactical value in circulating misinformation about the real distribution of the electorate's preferences. For example, if the supporters of B believe that the detested C is out of the running, it is to their tactical advantage to persuade as many voters who prefer A to B and also detest C that C is a real threat, that A is trailing B, and the only way to defeat C is for those voters to switch their vote from A to B. It follows moreover that there can be tactical value in campaigning for a candidate for whom one does not intend to vote. For example, if the goal is to help C beat B, when A is trailing both, then one sings the praises of A to any voter who prefers B to C and might be persuaded to vote for A instead of B.

It is an unfortunate fact of mathematics that every system of elections which seeks to decide between more than two candidates suffers from strategic voting and its attendant problems. That is the essential content of the Gibbard-Satterthwaithe theorem, one of the developments and generalizations of Arrow's theorem in the body of mathematics known as social choice theory [46]. The election systems covered by the theorem include the system in California of each voter voting for one candidate, the election to be decided by plurality; and to alternatives such as Borda count elections [47] and "instant runoff" elections [48]. Which of these alternatives, or some other, has the fewest or the most supportable flaws once there are three candidates with which to contend is a complicated question we do not need to address here; the present point is that the only way to avoid all the problems of strategic voting in order to cast one's ballot to one's best personal advantage, is to limit the number of candidates to 2 [49].

Recent elections to the U.S. presidency with a significant vote for a third candidate suggest

that running such a candidate may well hinder and not advance the views of the voters who would prefer that third candidate as president. Those presidential races since 1900 in which a third candidate garnered a significant number of votes are listed [50] in Table III. If in 2016 the supporters of Johnson (a Libertarian) had had before them only the choice between Trump or Clinton, would Trump have won the majority of their votes? If in 2000 Nader's supporter's had had before them only the choice of G.W. Bush or Gore, would G.W. Bush have won that majority? If in 1992 Perot's supporters had had before them only the choice of G.H.W. Bush or Clinton, would Clinton have won that majority? Further back, if in 1912 Theodore Roosevelt's supporters had had before them only the choice of Taft or Wilson, would Wilson have won that majority? Or noting that Theodore Roosevelt placed second in the popular vote, had Taft's supporters had had before them only the choice of Roosevelt or Wilson, would Wilson have won that majority? In any of these elections, would the supporters of the third-party candidate be content that the outcome of the presidential election was at least the election of their second-best choice, and not their third? It is to be doubted.

Of the other two races in Table III, the 1980 race proved not particularly close, but in the 1968 race, if one thinks that Wallace's supporters would have preferred Nixon to Humphrey, then the presence of Wallace on the ballot nearly threw the popular vote to Humphrey against those voter's preference.

3. Why allowing a third candidate onto the general election ballot remains undesirable even as a write-in candidate.

One might suppose that allowing a third candidate, in the form of a general-election write-in candidate, would at least be insurance against one of the top-two candidates dying; and that a party should have a chance to recruit a write-in candidate, particularly in a district where the voting registration indicates that the voters heavily favor that party, lest a minority party win the general election by default. These suppositions miss, however, that the top-two system in California does *not* award the office by default; that there is already in place in California a more effective system for preventing a death from awarding a minority party an office; and that write-in candidacies are not effective in providing the desired relief.

If a candidate in a top-two general election in California dies, voters are tasked [51] with voting their ballot for the live candidate, if they wish him elected; if not, with continuing to vote for the other; and if that other gets a majority of the votes, the living candidate does not win the office by default, but instead a vacancy in the office is created, to be filled just as if the other candidate had lived past election day, been elected to office, and only then died [52]. Similarly if a candidate in a top-two primary dies, should that candidate receive enough votes to qualify him for the general election, his name will appear on the ballot for that general election [53]; one votes again for that candidate if one wishes to create a vacancy.

Vacancies in California are typically filled by the calling of a special election; in particular this is so for the 80 Assembly and 20 state Senate [54] seats and 53 U.S. House seats [55] on the ballot every two years. Most other vacancies [56] are filled by appointment by the Governor, with confirmation by both the state Senate and the Assembly; these offices include 7 of the 8 offices voted statewide every 4 years, and the 4 regional members of the State Board of Equalization. The voters still have a say in who will be appointed to fill a

Year or candidate	Nominating Party	Popular Vote ^a
2016		
Donald Trump	Republican	$62,\!979,\!879$
Hillary Clinton	Democrat	$65,\!844,\!954$
Gary Johnson	Libertarian	$4,274,900^{\mathrm{b}}$
2000		
G.W. Bush	Republican	$50,\!456,\!002$
Al Gore	Democrat	$50,\!999,\!897$
Ralph Nader	Green	$2,\!882,\!955$
1992		
G.H.W. Bush	Republican	$39,\!103,\!882$
Bill Clinton	Democratic	44,909,326
Ross Perot	$(independent)^{cd}$	$19,\!741,\!657$
1980		
Ronald Reagan	Republican	$43,\!904,\!153$
Jimmy Carter	Democrat	$35,\!483,\!883$
John Anderson	$(independent)^{ce}$	5,719,437
1968		
Richard Nixon	Republican	$31,\!785,\!480$
Hubert Humphrey	Democrat	$31,\!275,\!166$
George Wallace	$\rm American\ Independent^{f}$	$9,\!906,\!473$
1912		
William Taft	Republican	$3,\!483,\!922$
Woodrow Wilson	Democrat	$6,\!293,\!152$
Theodore Roosevelt ^g	Progressive ^g	$4,\!119,\!207$

TABLE III. Presidential elections since 1900 with third candidates who received a significant number of votes. A candidate's name is italicized if he were an incumbent president when running, and is in **boldface** if the candidate won.

^a The U.S. Presidency is won by the number of votes in the Electoral College, not the popular vote.

 $^{\rm b}$ Green party candidate Jill Stein received a further 1,316,040 votes.

^c To qualify to run for U.S. president as an independent is to qualify in a state by collecting a sufficient number of signatures, and not because one is chosen as the nominee of a qualified political party.

^d Four years later, in 1996, Ross Perot qualified to run for president as the nominee of the Reform party.

^e John Anderson had contested the Republican presidential primary in 1980, before qualifying for the presidential ballot as an independent.

- ^f The American Independent Party is the name of a political party, and George Wallace was its nominee. The word "Independent" here has nothing to do with qualifying for the presidential ballot as an independent.
- ^g Theodore Roosevelt had served as U.S. President from 1904 to 1908, having been elected as the nominee of the Republican party, after first succeeding to the office after the assassination of William McKinley.

vacancy in these 7 offices, because in the same election in which a candidate died, the voters are electing the Governor who would be making the appointment. Only when a candidate dies in California in a general election for U.S. Senate in a presidential election year will

a vacancy be filled by a Governor not running in that same general election [57]. In the eighth and only remaining case, that of a gubernatorial candidate who dies, the voters have even more control, because in the same election they are choosing whether there should be a vacancy, they are electing the Lieutenant Governor who would then become Governor.

Persuading voters to elect a dead man, even to create a vacancy and so prevent a death from capriciously awarding an office, may seem like a tough task. But it is much easier task than winning a write-in candidacy against the dead candidate, even if the write-in has the dead candidate's party's full support. Consider the difficulties.

For the half of California voters who now vote at the polls, you have to arrange for them to know that a candidate has died and the name of the candidate you would like to have them write on the ballot; difficult because one cannot electioneer within 100 feet of the polls [58], nor may voters carry into the polls any materials you might choose to hand to them [59], including, for example, printed copies of the candidate's name a voter would have to write. The dead candidate has the advantage that his name is on the ballot, and that the dead candidate (typically) has an attractive statement already printed in the Official Voter Guide that is mailed to every household; and neither that statement nor any information provided by the state or county at the polls will confirm to a voter that the candidate is dead.

For the half of California voters who vote by mail, you have to get them the information about the death, and have them believe it, before the mail-in ballots begin to be arrive and so begin to be cast (which occurs a month [60] before the polls open), lest the voters of the party of the write-in candidate cast their ballots for the dead candidate, in effect splitting the party's vote. Before that, a party must find a single consensus write-in candidate around whom to rally, and raise the resources for, and then execute, a public information campaign of very large scale, starting (if the death was sudden) on zero notice. Unless the death of the candidate happens to be quite early, say before the beginning of September, the prospect of a write-in candidacy providing a party any actual relief is chimerical. The same is true of a candidate felled not by death but by scandal.

A campaign to ask voters to cast a ballot for a dead candidate to create a vacancy is much easier. The party of a dead candidate does not have to choose, on no notice, one candidate to unite behind. The ballots of voters who never learn that the candidate is dead, perhaps because they rely on the information in the Official Voter Guide, count toward success. So do the ballots of those who will vote for the dead candidate without paying attention to the news, either because they have learned they like to vote a party ticket, or because they already know enough about the second candidate on the ballot not to like him; and so do the ballots that were filled out and mailed before their voter had heard that the candidate had died, or even before the candidate had died. No one has to learn, remember, and correctly write on a ballot any candidate's name, something particularly difficult in California compared to other states because California voters tend more not to share a common ethnic background nor a native language, and no write-in candidate's name will be familiar, memorable, and recognizable to as many California voters as it might in other states.

In the event that all measures fail, and the death of one candidate leads to another candidate being elected, to some state office, whose character or actions the voters who elected him do not wish to suffer through the duration of his term, the California Constitution allows those voters by petition and subsequent vote to recall him from office [61]. Holders of federal office, that is, United States Senators and members of the United States House of Representatives, cannot be recalled; but recall is an effective remedy for all other offices voted on a state ballot. The most recent examples of successful recalls in California are those of Governor Davis in 2003, and state Senator Newman in 2018.

C. Elimination of barriers to participation in the primary elections for office by voters with no party preference, or voters registered with unqualified political parties

The greatest barrier swept away by the top-two was the power of the political parties to refuse to allow voters with no party preference (or voters registered with unqualified political parties) to vote in a primary for any political party's candidates; or to require the voter to vote only for that party's candidates in all races as a precondition for voting for even one in one race. In this section we describe all the other barriers to participation, which were also swept away.

If you were a voter registered with a qualified political party such participation was easy. If you went to the polls to vote, you were automatically handed the ballot of your party; if you had registered as permanent vote-by-mail [62], as by the primary of 2010 at least 35% of voters had (the figure in 2016 had risen to 52%), that ballot was automatically posted to you.

If, however, you were a voter with no party preference, who was inclined to vote in the primary of that same party, matters were quite different.

If you went to the polls, you had to request that party's ballot; and there was no obligation for anyone at the polls to tell you that you could request a party's ballot; absent a request from you, you would simply be handed a nonpartisan ballot on which partisan offices simply did not appear. If you did not know you could request a party's ballot, but found out in the line at the polls that you could, it is of course unlikely you had prepared to vote one; and if you did not know you could vote in a party's primary, quite possibly you did not have enough of an incentive to go to the polls in the first place.

If you were registered as permanent vote-by-mail, a program which began before the elections of 2002, your nonpartisan ballot was automatically posted to you. To vote a party's ballot by mail, however, required the following procedure [63]. Sometime before the election, your county registrar would send in the mail a notice that you could request such a ballot, with a form that you would have to fill out and mail back. The notice did not include a list of the parties whose ballot you could request, though you had to write down your choice of one of them to complete the form; to find the list you had in addition to call a toll-free number, or visit a web-site, or wait for a copy of the state Official Voter Guide, on one page of which would be the list of parties allowing your participation. And you had to receive, fill out, and mail back this form every election cycle; the default was not that you would receive no party's ballot at all. Voters with no party preference, for the purpose of casting a party's ballot, had therefore no system of permanent vote-by-mail at all.

There were to be sure efforts to educate a voter with no party preference about his right to vote a party ballot, and how to exercise it; but these efforts were little and late and did not level the barriers, whether that voter chose to vote at the polls or by mail. Voters who belonged to a party that was not qualified for the ballot received no efforts at all.

For NPP voters voting at the polls, in each Official Voter Guide for the primary elections of 2002–2010 there was a page including a notice that a voter registered with no party could

request a party's ballot at the polls, and which parties would allow the voter's participation; though the language made clear that the onus was on the voter to remember to request a ballot, and not on a poll worker to volunteer that the voter could request it [64].

The Secretary of State has had, since the passage of the federal Help America Vote Act (HAVA) of 2002, a program of informing county election officials what they need to prepare poll workers to do. The report [65] of the Poll Worker Training Task Force [66], convened in 2004 by the California Secretary of State as part of the response to HAVA, makes no mention at all of the issue of voters not registered with a political party requesting party ballots, though the legislation [67] enabling voters to request those ballots passed in 2000; and no mention appears in the culminating work of the Task Force, the Secretary of State's *Poll Worker Training Guidelines 2006* [68].

Mention finally appears in the next, 2010 update, titled the 2010 Poll Workers Training Standards [69], issued in March of 2010 before the June 8, 2010 primary (ironically, the election in which the top-two primary passed). These standards exhorted county elections officials that they

"should train poll workers how to use and distribute DTS [70] voter information materials including, but not limited to, signs, posters, and written information, to inform these voters that they may request a ballot of a political party,"

but there was no actual *requirement* that such a voter be thus informed until the primary elections of 2018 [71], a full 8 years after the top-two primary passed [72].

An NPP voter who signed up to vote as permanent absentee received the annual letter from the county registrar of voters sending the form to request a party ballot. Curiously, no notice in the Official Voter Guide to the any other no-party-preference voter that, if he registered as permanent absentee, he could request a party ballot to vote by mail, appeared in the Official Voter Guide until the guides [73] for the primaries of 2008 and 2010.

If you were a voter registered with a political party that was not qualified for the ballot, so there were no candidates of your party on the ballot for whom to vote, you had in the primaries of 2002 through 2010 the right under the law to vote in the party primary of any party that allowed voters of no party preference to participate [74]. The Secretary of State acknowledged this right in an advisory [75] to county election officials on March 9, 2010; a search through all the advisories to county elections officials as far back as 2007 (the first year all the advisories are available on the Secretary of States' website) yielded no other reference to the issue, and the 2010 advisory has no references to any earlier communications on the subject.

In 2010 the issue of whether anyone knew this right could be exercised affected 118,000 voters registered with non-qualified political parties, or 0.70% of all registered voters [76]. To set the scale, the Green party, the state's fourth largest political party, then had fewer registered voters: 113,000, or 0.66% [77].

We have been unable to find a state document distributed before 2010 that sought to inform county election officials, let alone an actual voter registered with an unqualified political party, of that voter's ability to vote in another party's partian primary. In particular, the notices from county election officials to permanent absentee voters who were registered with no party preference, that they could request a qualified party's primary ballot, were not sent to voters who were registered with non-qualified political parties.

Notwithstanding these various barriers to participation, by the elections of 2010 the fraction of voters registered with no political party who cast a primary ballot had risen to 23.5%, and of those who cast a ballot, 40.2% also cast a ballot of a political party that

permitted them to cast one. Voters with no party preference (and a few voters belonging to non-qualified political parties) who cast a party ballot made up 6.6% of the vote in the Republican primary in 2010, and 6.4% of the vote in the Democratic primary (For the derivation of these figures, see Appendix B). How high participation might have become without the barriers is unknown.

All these barriers to participation in the primary election were swept away by the passage of the top-two primary in 2010.

All voters at the polls, whether registered with a qualified political party or not, were handed the same ballot at the polls: no one had assert themselves to request anything. No party could forbid any voter from supporting one of its candidates; no one could forbid a voter who voted for a candidate of one party in one race from voting for a candidate for another party in another race. All voters, whether registered as preferring a qualified party, no party, or a non-qualified party, who were enrolled as permanent vote-by-mail received the same ballot, with the same freedom to vote for any and all candidates in any and all races; there were no extra steps anyone had to take. The only partisan races that remained that continued to be conducted under the partisan-primary rules were were for membership on county political party central committees, and for nominations for the office of U.S. President, and these races occurred together and only every other election cycle [78].

Given the continued rise before and after the passage of the top-two primary in 2010 of the fraction of all California voters registered with no political party, and the continued increase in the fraction of all voters registered as permanent vote-by-mail (both shown in Figure 7), the removal of the barriers to participation by decline-to-state voters (and voters registered with unqualified political parties) voting at the polls and by mail was timely. As of 2016, the fraction of all registered voters who have no party preference had risen to 24.3% of all registered voters (voters registered with non-qualified parties is another 0.6%), and the fraction of all registered voters who are enrolled as permanent vote-by-mail had risen to 52.3%.

V. QUESTIONS OF BIAS

Given the declining performance of Republicans in California [79] in 2012 through 2016, it is fair to ask if the top-two is intrinsically biased for or against either of the major political parties. The answer however is no.

Figure 2 certainly shows that Republican voting registration has fallen steadily since 2012, the first year of top-two elections in California; but it also shows that this almost linear fall began in November of 2006. The fall in Republican registration therefore proceeded for over 6 years before the top-two went into effect; and it is not sensible to assume its continuance since is due to the top-two.

Moreover, there are two other states with the top-two primary system where the performance of the two parties has been very different. Figure 8 shows that, immediately after the 2006 mid-term elections, Republicans in all three top-two primary states were in disarray. With the exception of the Congressional delegation in Louisiana, which in 2006 had 5 Republicans in its delegation of 7, the fractions of the Republican delegation to each state's Assembly [80], its state Senate, and to the U.S. House of Representatives were between 0.4 and 0.33; that is, closer in all three states to falling to 0.33 to allow Democratic supermajorities than to rising to 0.50 to reach parity.

Republican performance in the three states thereafter diverged. As of 2017, Louisiana has

close to supermajority Republican control of its Senate (it did have such control between the elections of 2014 and 2016), and has had solid Republican control of the Assembly since the elections of 2010; Republican control of its delegation to the U.S. House of Representatives has remained solid, now 5 out of 6 [81]. In the state of Washington, Republicans have risen to have control of the state Senate (by 1 seat) and are within 1 seat of control of the state Assembly; and Republican control of Washington state Congressional delegation has also increased. In California, Republican performance has sagged; after the regular elections of 2016, Republicans were in the superminority (below 1/3) by one seat in the Senate (rising to one seat over 1/3 after the defeat of Democrat Josh Newman in a recall election on June 5, 2018 and the election of Republican Ling Ling Chang), and two seats in the Assembly; and Republicans control barely a quarter of the California delegation to the U.S. House.

The basic lesson is that one cannot say a top-two primary instead of a partisan primary is of itself good or bad for Republican control, or good or bad for Democratic control. Republicans in California would long for the performance of the Republican parties in Washington state or Louisiana; Democrats in Washington state or Louisiana would long for the performance of the Democratic party in California.

The state of Nebraska is partially a top-two state. It is the only state with a single house making up its legislature, instead of the two houses (Assembly and state Senate) in each of the other 49 states. Elections to that house are run by the top-two system; though elections to the U.S. House of Representatives, and all elections voted upon statewide except for a handful of offices designated as non-partisan, are run with party primaries. The performance of the political parties in that single house is added to Figure 8 to form Figure 9. The addition does not change the lesson [82]: a top-two primary is not biased in favor of either major party.

In California the Republican fraction of the Assembly, Senate, and the delegation to the U.S. House dropped below 1/3 in the elections of 2012 after remaining stable for years. The question of whether the top-two is biased against Republicans then depends on whether this drop is the direct result of the first implementation of the top-two, or the result of another cause or causes that also hit in 2012. There were at least two.

The "sweetheart" gerrymander that first took effect for the elections of 2002 froze the numbers of Republican seats to the number extant in 2000, the last election in which the districts were those drawn by the California Supreme Court and contained a proportion that were competitive. Roughly, then, the number of seats the Republican party held immediately after the November 2002 election was the number that the party should have held, given the voter registration the party held at the time compared to that of the Democratic party. After a decade, by the eve of the elections in November of 2012, however, the Republican party had lost 4.3% in registration relative to the Democratic party. The Republican party had been relying on the sweetheart gerrymander and uncompetitive elections to maintain the numbers of their seats over a decade; when that gerrymander abruptly disappeared and the party was again faced with competitive elections, it was only to be expected that the Republican party would lose seats.

This outcome is almost a repeat of what had happened earlier in California, but with the roles of the parties reversed. In the 1980's the Democratic legislature and governor gerrymandered the districts to maximize the number of Democratic seats [83]. The party relied on those maps to maintain those numbers over the following decade; however between November of 1982 and a decade later, on the eve of November election of 1992, when competitive districts drawn by the California Supreme Court were first employed, the Democratic party had lost 4.6% in voter registration relative to the Republican party. Naturally the Democratic party soon lost seats; indeed by the end of 1994 they had lost 7 Assembly seats and with them control of the state Assembly.

A change from uncompetitive to competitive seats is therefore a tactical tailwind for the party that has gained registration over the preceding decade, and a headwind for the party that has lost it; and that wind hits whenever that change occurs, whatever else may be happening; so it is not a surprise that it hit Republicans in 2012.

The second cause was the total collapse by the elections of 2012 of the California Republican Party state organization as a force to win elections. Recounting the full story of that collapse, and the rebuilding of the organization after 2012, would take us too far afield [84]; but in the view of the author it was a significant factor in the dismal Republican performance in the elections of 2012. The organization had, in the view of this author, become essentially impotent before the elections of 2010 [85]; an impotence that had no dramatic effect on legislative races because the elections of 2010 still occurred under the "sweetheart" gerrymander, and colorably competitive races were few, and simply hard (though not impossible) to lose. So it is again not a surprise that the effects of the collapse of the party organization to appear when large numbers of competitive legislative and U.S. House races appeared again in 2012.

VI. VOTER TURNOUT, GENERAL AND PRIMARY

The turnout of registered voters in the 2012 general and primary elections, the first under the top-two system, was reported by McGhee [22] to be below what might have been expected. There have been two more election cycles since then, and we can now see that over the three cycles the turnout in the general and primary elections has not on average declined. McGhee also noted that the passage of Senate Bill 202, which banned citizen initiatives from the primary election ballot, might have a significant effect on voter turnout in the primary election; we find that it does.

A. General Election Turnout

The turnout in the California general election is plotted in Figure 1. The plot shows in blue, round points the fraction of the United States' Voting Eligible Population that voted in the general election in a given regular election year. The regular zig-zag shows that the fraction is larger in elections where the highest office on any state ballot is that of President of the United States, and is smaller in midterm elections. The plot shows in gold, round points the fraction of California's Voting Eligible Population that voted in the general election in a given election year. The turnout in California in general elections has essentially tracked the national turnout for the last 5 decades: it was just a bit higher in the 1970's and early 1980's. The plot also shows in gold, square points the fraction of the California's Voting Eligible Population that voted in the primary election that chose nominees for state office. The California turnout in the primary was in the 1970's comparable to the California turnout in the general election, but has shown a general decline over the ensuing four decades.

The general election turnout in California was lower than the general election turnout nationwide in 2012 and 2014, and was higher in 2016. The general election turnout averaged over the three years was 49.7%; the same average in California was 48.4%, so the California

turnout was lower than the national turnout by 1.3%. Doing the same averages over the previous 5 years, however, when for the elections of 2002 through 2010 we had a system of partial primaries, we find the California turnout was also lower than the national turnout, by essentially the same amount, 1.4%.

In short, in either the top-two or the partisan primary system, the California general election turnout has on average tracked the national general election turnout almost exactly; the remaining difference of 0.1% is inconsequential, but has the top-two turnout closer to the (larger) national turnout than was the turnout under partisan primaries. The evidence over the past 8 general elections is that the general-election turnout in California is on average 97.0% of the national turnout, independent of whether California used a top-two or a partisan primary for its non-presidential offices.

B. Primary Election Turnout

The story of the primary election turnout in California is more complicated. The California turnout in the primary was in the 1970's comparable to the California turnout in the general election, but has shown a general decline over the ensuing four decades. The sharp uptick in 2016 arose because the presidential primaries (unusually for June) not yet been decided, and the undecided Republican Trump/Cruz and Democratic Clinton/Sanders contests spurred turnout, though, it is seen, to not as high as the 2008 contest when the California presidential primary was held early on February 5.

The turnout in 2012 was affected by not only the advent of the top-two, but by three other simultaneous changes to the system of primary elections: the boundaries of the legislative and U.S. House districts shifted in response to the decennial U.S. Census, and the boundaries were for the first time drawn by the Citizens Redistricting Commission instead of by either the California legislature or the California Supreme Court; the term limits for members of the Assembly and Senate shifted from limits of 6 years in the Assembly and 8 years in the Senate, to a total of 12 years in either house; and most tellingly for turnout, citizen initiatives were moved, partially in 2012 and totally thereafter, from the primary election ballot, greatly reducing both the interest and consequence of the primary election, and the sums spent reaching out to voters before the primary.

Before we consider all that, however, the results of the 2018 primary election in California are in; the percentage turnout of California's Voting Eligible Population was 28.4%, historically high for a midterm election. A listing of midterm turnout [86] by election year is made in Table IV, together with the type of primary in use; and to aid the memory, a listing of the two principal candidates on the general election ballot for governor.

The most recent midterm election in which the percentage was as high as in 2018 was 20 years ago, in 1998. That election ran under the blanket primary; the most recent election conducted under a partian primary in which the percentage was as high was 32 years ago, in 1986. If the top-two suppresses turnout in the primary, the jump in midterm turnout in 2018 requires an explanation.

C. Effect of Senate Bill 202: Drop in dollars spent on voter contact in the primary election

Senate Bill 202 [87] in 2011 moved all initiatives that qualified by the collection of signatures off the June primary ballot [88]; such initiatives could appear only on the November general election ballot.

The primary ballot became, permanently, a great deal less controversial or consequential. In 2014, for example, the two propositions on the ballot were Proposition 41, a \$600 million bond measure to benefit veterans; and Proposition 42, a requirement that state and local governments bear the tens of millions of dollars of annual costs in providing access to public records—both of which were put on the ballot without a dissenting vote in either the Assembly or the state Senate [89]. This is not the sort of radical stuff that drives a voter who votes only occasionally in a primary to get out and vote, to support or oppose. By comparison, in the 2010 primary voters were offered, among other things, to decide whether to abolish partisan primaries and institute the top-two; and the battle over Proposition 32, *Political Contributions by Payroll Deduction*, also called "paycheck protection," which was maneuvered away from the 2012 primary ballot to the 2012 November ballot, was epic [90].

How much this lack of consequence has permanently diminished the turnout in the California primary is hard to quantify. Instead we examine a related, quantifiable question. The election of 2014 is, to date (2017), the only top-two election in California that was gubernatorial, not presidential, and so where the turn-out is not affected by preceding months of presidential rather than state news. We find that in 2014 that (a) the change moved some \$86 million dollars of campaigning from the June to the November election, and that (b) there remained at most \$103 million of campaigning in the primary, for all state and federal offices and all remaining state ballot measures, combined.

year	$\% VEP^{a}$	primary	Race for Governor
2018	28.43	top two	Cox vs. Newsom ^b
2014	18.44	top two	Kashkari vs. J. Brown
2010	24.11	$partisan^{c}$	Whitman vs. J. Brown
2006	23.37	$partisan^{c}$	Schwarzenegger vs. Angelides
2002	24.58	$partisan^{c}$	Simon vs. Davis
1998	30.05	blanket	Lungren vs. Davis
1994	26.22	$partisan^d$	Wilson vs. K. Brown
1990	28.15	$partisan^d$	Wilson vs. Feinstein
1986	31.47	$partisan^d$	Deukmejian vs. Bradley

TABLE IV. The percentage of California's Voting Eligible Population that cast a ballot in the primary for a regular midterm election by election year. The two principal candidates who figured in the ensuing gubernatorial general election are shown, with the name of the winner in italics.

^a Percentage of the Voting Eligible Population who cast a ballot.

^b This general election had not occurred at the time this paper was written.

^c In this year the law allowed each political party to decide whether to permit voters registered with no political party to vote in its party primary; and in this year both the Republican and the Democratic parties permitted them to vote.

^d In this year the law forbade voters registered with no political party to vote in any party primary.

Thus whether or not one can quantify the degree to which the primary ballot became less interesting when initiative propositions were banned, one can say that the amount of outreach to voters during the 2014 primary was cut by a bit less than half (by 46%). What effect that cut had on turnout is, again, difficult to quantify; our point here is that the cut makes it much more difficult to attribute any change in voter turnout on or after 2012 to the advent of the top-two, and not to the advent of Senate Bill 202.

D. Money moved out of the primary by the passage of SB202

In this subsection we do the actual computation of the money that used to be spent on voter contact in June to try to pass or defeat ballot propositions, and that was moved permanently out of the June primary by Senate Bill 202.

The total amount of money spent on voter outreach for or against California ballot propositions in general, primary, and special elections, from 2002 to 2016, is plotted in Figure 10. For each election, the sum spent on voter contact for ballot propositions is taken to be the total amount of money raised by the ballot committees, for or against propositions; plus the money spent targeting those propositions by independent expenditure committees; less the sum spent to qualify the propositions for the ballot (zero for propositions put on the ballot by the legislature).

The expected two-year cycle of regular elections, one primary and one general, is complicated by the special election for the recall of Governor Davis, in 2003; the special election Governor Schwarzenegger called to try to pass a suite of reforms (Propositions 74 through 77), in 2005; and a special election called to pass legislative propositions to deal with a budget crisis, in 2009. The voter-outreach dollars for the propositions on the ballot for these special elections are indicated by separate red points. The points joined by solid lines are those for regular general elections. Plotted in green are the dollars spent on voter contact for or against propositions that appeared on the earliest ballot in an election year.

The cycle is further complicated in 2008, when there was not one primary election, but two: an early primary in February for U.S. President; and a second primary in June for state offices. Both had some propositions on the ballot. This second primary is indicated by a second, separate green point in 2008.

Yet another complication is that in 2012 the effect of SB 202 was partial, and some propositions that qualified by gathering signatures remained on the spring ballot, and some did not.

The task is to extract what the spending on ballot propositions would have been in the regular two-year cycle absent these complications. The initial assumptions we shall make that affect the years 2002 through 2012 are:

(1) Senate Bill 202 was written as not to affect initiatives already in circulation that ultimately qualified; we assume those measures would have been on the June ballot, and what became their November spending would have occurred in June.

(2) Governor Schwarzenegger offered no reform suite (what became Propositions 74 through 77) at all, and so there would be no spending in support of them and no special election in 2005. This is certainly an assumption that understates and not overstates what the proposition spending would have really been, since some of these propositions might have come to the ballot even had Schwarzenegger never have become Governor. We assume, however, that ballot measures other than 74 through 77 on that special election

ballot, which were all in signature gathering anyway when the special election was called, would have appeared on the following June ballot, and so the spending on them would have occurred before the June primary.

(3) The February 2008 election was consolidated with the June 2008 election, together with its proposition spending (this consolidation is but a minor correction).

The resulting money that would have been spent on voter contact on ballot propositions in primary and general elections is shown in Figure 11, as the solid points joined by the solid lines; while the actual historical spending copied from Figure 10 is indicated by the open circles joined by the dashed lines. We see that the special election in fall of 2005 moved \$189 million of voter-contact dollars out of the regular primary of June 2006, and the passage of SB 202 in 2011 moved \$156 million out of the regular 2012 June primary and into November. We also see that the voter-contact dollars spent in primary and general elections in the four elections of 2006, 2008, and 2012, absent the complications, would have been roughly equal.

For the elections of 2014 and 2016 the provisions of SB 202 barring citizen initiatives from the primary ballot were fully in force, so no one of course tried to qualify an initiative for June. In Figure 12 we plot what would have happened had SB 202 never passed at all, if we assume the actual spending on voter contact for propositions in November had been split evenly between propositions in June and in November.

The assumption of an even split can be seen to be about right by making another comparison: the resulting absolute level of spending in June would then being consistent with the primary spending would have been in the four elections of 2006 through 2012, had there not been the three special elections and the extra primary in 2008.

We conclude that the passage of SB 202 moved \$146 million of voter contact dollars out of the 2012 June primary, roughly \$86 million out of the 2014 June primary (the money spent in the 2010 primary, the nearest non-presidential election, is known to be \$66 million, so that too seems intuitively about right), and roughly \$210 million out of the 2016 primary.

The sums transferred out of the June primary by SB 202 are therefore very large. To set the scale, we compute in Appendix C an upper bound to the money spent in the entire 2014 California primary, a primary for which SB 202 was fully in force, combining: the money spent supporting or opposing the legislative ballot propositions; the money spent in all the primaries for the statewide offices (including for U.S. Senate); and last the money spent on the district offices of the Assembly, state Senate, the U.S. House, and the Board of Equalization. That upper bound is \$103 million. If indeed the passage of Senate Bill 202 moved \$86 million out of the June primary, it cut the total amount of money spent reaching out to voters before the 2014 primary essentially in half (by at least 46%).

Appendix A: Fuller discussion of figures

1. Figure 1

Data for the fraction of the United States' Voting Eligible Population that voted [91] in regular general elections are from MacDonald [92]. Data for the fraction of California's VEP that voted in the general election in a given election year are from the California Secretary of State [93]. Data for the fraction of California's VEP that voted in the primary election that chose nominees for state office are from [94]. The date [95] of the California primary that chose nominees for state office is indicated. This date has generally been in early June ("Je" in the figure) but in some years has been moved to March ("3"). To highlight the changes in month, the June dates are shown in black but the March dates in red. In one year (2008) California had a primary on February 8 ("Fb") for the office of U.S. President only; the turnout for that election is shown as the open square; but it is the turnout in the following June 8 primary that year that affected the choice of nominee for all other offices, including the offices of Assembly, state Senate, and U.S. House of Representatives.

It is important in plotting the fractions to keep track of just what is used in the denominator as the number of potential voters living in a district. The U.S. Census defines the term "voting-age population," which is since 1971 means everyone residing in the United States, age 18 and older [96] (before 1971, the voting-age population was age 21 and older for most states). The voting-age population, or VAP, is what is used for example to construct U.S. House districts with equal "populations." Necessarily included in the VAP however are persons ineligible to vote, notably non-citizens; felons (depending on the state law); and mentally incapacitated persons. Excluded from the VAP are some persons who are eligible to vote, notably persons in the military (if serving out of state), and civilians overseas. Subtracting from the VAP the non-citizens, felons (if by state law they cannot vote), and the mentally incapacitated, and adding people in the U.S. military living out of an area and also civilians overseas, produces the number of people actually eligible to vote in an election, the so called "voting eligible population," or VEP. For a complete definition of this term, see [97]. The data in the plot use the VEP.

The horizontal lines at the top of the figure track certain changes in California governance:

Governors. The terms are shown as running from the time governors took office, which was usually January of the year following their election, but was not for the election of Governor Schwarzenegger after the recall of Governor Davis. The years in office for these two governors are accordingly not multiples of 4 years.

District Maps. The black dots indicate the time of the first general election in which a changed map was in use. Thus the maps drawn by the legislature, the California Supreme Court, or the Citizens Redistricting Commission are shown as taken effect in November of the various years 1972, 1982, 1992, 2002, and 2012, though each map was adopted earlier.

Assembly and Senate Term Limits. The black dots indicate the first general election in which newly elected members were subject to the term limits. Thus the rule for having a maximum of 6 years in the Assembly and 8 years in the Senate passed as Proposition 140 in the November election of 1990; however its provisions bound [23] all the members of the Assembly and Senate elected in that same election, and so that black dot falls in November of 1990. The change from that scheme, to 12 years total in the Assembly and Senate combined, passed as Proposition 28 on June 5, 2012, and so members newly elected in November of 2012 were subject [24] to the new terms limits, and so the black dot there also falls in November of 2012.

Primary type. The black dots indicate the time of the general election in the year in which the regular primary and regular general elections were run according to the type of primary. Thus while the top-two primary was actually put into law after its passage as Proposition 14 on June 8 of 2010, the black dot marks the time of the first general statewide election in which it was used, which was November of 2012.

Citizen Initiatives on the Primary Ballot. In the elections before 2012, initiatives qualified by the collection of the signatures of citizens appeared on the primary or the general election ballot, depending on just when the initiative qualified. In 2011 the legislature passed Senate Bill 202, which prohibited citizen initiatives from appearing on the primary

election ballot; the effect was partial in 2012 and some citizen initiatives were bumped to the November ballot but some were not.

The first two of the five vertical dotted lines indicate the beginning of the election year for the pair of elections conducted under the blanket primary, and the following trio for the three so far (2017) conducted under the top-two primary.

2. Figure 2

Data for the number of people in California who would be eligible to vote if registered, and for the number registered, and for the number registered with the Democratic party, the Republican party, or as Other (registered with neither of those parties) are taken from the report of registration taken 15 days before the November general election [98]. Data for the timing of political events are the same as in Figure 1.

3. Figure 3

Data are from the website of the California Secretary of State. To make the histogram the "before" figures used are from the report of voter registration [99] for 02/10/01, the last report for the districts as drawn by the California Supreme Court; the "after" figures used are from the report of voter registration [100] for 10/02/01, the first report for the districts as redrawn by the California legislature.

4. Figure 4

Values for the slope m and y-intercept b of the line with equation y = mx + b that is a fit to the data in each of the plots are tabulated in Table V.

Data for the electoral outcome in Assembly districts for the elections of 2002 through 2010 are taken from the statements of the vote issued by the California Secretary of State. The voter registration in each Assembly district is from the 15 Day Report Of Registration by Assembly district, issued 15 days before the regular November general election in each election year [101].

TABLE V. For Figure 4, the values of m and of b of the grey line $y = mx + b$ that is the least-squares
fit to the data. The variables x and y are measured in percent.

Office	year	m	b
Assembly	2002	1.526	6.609
	2004	1.499	4.456
	2006	1.525	2.633
	2008	1.422	-0.553
	2010	1.511	7.130
Assembly	all	1.496	4.014

5. Figure 5

Data are from the website of the California Secretary of State. To make the histogram the "before" figures used are from the report of voter registration for 10/02/01, the first report for the districts as redrawn by the California legislature; the data are the same as for the "after" section of Figure 3. The "after" figures in the histogram are from the 2/10/11reports [102] by the California Secretary of State of voter registration, the last reports made for those districts before they were redrawn by the Citizens Redistricting Commission.

6. Figure 6

Data are from the website of the California Secretary of State. To make the histogram the "before" figures used are from the report of voter registration for 2/10/11, the last report for the districts before they were redrawn Citizens Redistricting Commission; the data are the same as for the "after" section of Figure 5. The "after" figures in the histogram are from the 1/3/12 reports [103], the first after the districts had been redrawn.

7. Figure 7

Data in the plot are from the website of the California Secretary of State. Data for the percentage of all voters registered but not with the Republican or the Democratic party are from the plot of "Other" in Figure 2. Data for the percentage of votes cast in the primary and general elections that were cast by mail, and data for the subsets that are registered with no party, or with a qualified party other than the Republican or the Democratic party, or with a non-qualified party, are from [104]; these data are not posted for elections before those of 1990. Data for the percent of registered voters who were part of permanent vote-by-mail are from [105].

There is a small one-year bump in the plot of the number of voters registered with nonqualified parties, and a corresponding dip in the number of voters registered with no political party, for the elections of 2012. I have traced this to what appears to be an aberrant report of registration in Los Angeles County, the state's most populous, which apparently classed some voters of no party preference as voters registered with non-qualified political parties. The total number of voters registered, however, should be correct.

8. Figure 8

Data for the political party strength in the delegations in Louisiana [106], California [107], and Washington state [108] are from Wikipedia.

Louisiana and Washington have smaller populations than California, which is why in 2017 the U.S. House of Representatives included 6 seats from Louisiana and 10 from Washington, but 53 from California. The total number of legislative lower-house and upper-house regular elections, and U.S. House regular elections, per two-year election cycle is about 78 from Louisiana, 133 from Washington, and 153 from California, so the numbers of such elections that occur per cycle in each of the three states are more comparable than either the states' populations or the size of their congressional delegations would suggest; indeed in any year there more such races in Louisiana and Washington state combined (211) than in California (153).

Figure 8 paints a simple picture: the top-two does not determine which major party leads the delegations of the Assembly, state Senate, or U.S. House of Representatives of any state. But one can ask if there are any differences in the election laws of the three top-two states that might account for the major parties' different trajectories in the three states, and still allow for one party to be systematically advantaged or disadvantaged in California. What follows are the differences we have examined; we have not been able to find any, singly or in combination, that would allow this.

a. State primary election law has varied over time

In California the first top-two elections occurred in 2012, so the points in Figure 8 for 2006 through 2010 show the electoral results for the system of separate partian primaries that was in use for the elections of 2002 through 2010. In Washington the elections of 2004 and 2006 were conducted [109] using the "pick-a-party" primary system [110]; the elections of 2008 and after were top-two elections. In Louisiana use of the top-two system has been continuous since its advent in the elections of 1977, except for federal elections, including for the U.S. House of Representatives, in the years 2008 and 2010. In those two years there was a three-election system for the U.S. House, in which parties had separate party primary elections; if no candidate in that party election got more than 50% of the vote, there ensued a separate party primary runoff between the two leading candidates; in the general election that followed the representative of each party, together with any candidates qualifying as independents, appeared on a single ballot and that election was decided by plurality [111].

In sum, in Figure 8 the elections in the state of Washington in 2006 were conducted using the "pick-a-party" system, not the top-two. The Louisiana delegation to the House in 2006 was chosen under the top-two system, in 2008 and 2010 by a partian primary system, and in 2012 and after by the top-two system. The races for the Louisiana Assembly (there called the House) and the state Senate remained top-two races throughout. California had partian primaries in 2006, 2008, and 2010.

We do not find that these changes in election law disturb the basic lesson of Figure 8.

b. Top-two states differ somewhat in their election laws

Systems of voter registration. California (since 1922 [112]) and Louisiana have state systems of partian voter registration. In both states a voter may register with a qualified political party [113], or with a party seeking qualification, or with no political party. Washington state does not record any party information when a citizen registers to vote.

All three states have systems of registering online to vote, as well as registering by mail or in person.

Disclosure of a candidate's party on the ballot. In California and Louisiana, a candidate's name appears on a ballot always together with their party registration as recorded when the candidate filed for office [114]. In Washington state, where there is no state record of any person's party affiliation, each candidate may choose to state a party preference of anything they wish, up to 16 characters in length [115].

Conditions when a general election ensues. In Louisiana, any candidate who receives more than 50% of the primary election vote is declared elected, and neither the race nor the elected candidate's name appears on the general election ballot [116]. In California a top-two general election always follows the primary whether or not one candidate gets 50% of the primary vote [117]; indeed, if only one candidate files in the primary for an office and if there are no write-in candidates, that one candidate's name nonetheless appears alone on the general election ballot. Washington has the same rule [118] as California, with one extra condition: in Washington to advance to the general election a candidate must also receive at least 1% of the vote cast for the office in the primary [119].

Write-in voting. California permits write-in candidates in the primary election, but not in the general election [120]; Louisiana does not permit write-in candidacies in either [121]. Washington state permits write-in candidates in both [122].

Primary losers running in the general election.

We exempt from present consideration elections for the office of U.S. President, for which states have special rules.

In California, Louisiana, and Washington, a candidate's name cannot appear on the general election ballot unless the candidate was one of the two top vote-getters in the primary election; nor can a person win a general election if he has tried and failed to be one of those two. A primary loser therefore cannot contest a general election; nor can a candidate skip the primary election and still appear on the general election ballot. The three states obtain this common outcome in different ways.

In California [123] and Louisiana [124], the only names that can appear on the general election ballot are those of the two top vote-getters in the primary; and no other person can win a general election because California [125] and Louisiana both bar write-in voting for the general election (California allows write-in votes in the primary [126]; Louisiana bars write-in voting in any election [127]).

Washington has the same system as California, except that write-in votes are allowed in the general election (as well as in the primary); however, a candidate whose name appeared on the primary ballot, or who filed as a write-in candidate in the primary, may not file as a write-in candidate for the general election [128].

Voting by mail. In California one can file one request for voting by mail and automatically receive a mail-in ballot in subsequent elections. From 2006 to 2016 the proportion of California ballots cast by mail in primary and general elections has varied between 41.6% and 62.2% [129]. Washington state has, for and since the elections of 2008, conducted elections exclusively by mail; in the previous 2006 general election the percent of ballots cast by mail was also high, 88% [130]. In Louisiana, except for people in the military or who are overseas, or are in various senses disabled, one has to request a mail-in ballot anew before each election [131].

9. Figure 9

Data for the party makeup of the Nebraska legislature, a body that is legally nonpartisan, are taken from Wikipedia [132].

10. Figure 10

For 2002 through 2016 the sum spent on voter contact for ballot propositions we define to be the total amount of money reported as contributed to the ballot measure committees, for or against propositions, over the election year and the year preceding; plus the money spent targeting those propositions by independent expenditure committees; less the sum spent to qualify the propositions for the ballot (a sum which is zero for propositions put on the ballot by the legislature). If a dollar is given to a committee that campaigns for or against two or more propositions on the same ballot, that dollar is counted once. If a dollar is contributed to one committee and that committee in turn contributes a dollar to a second committee, which spends it actually campaigning, that dollar is also counted once.

This definition has a built-in flaw. A ballot committee might receive a contribution before a given election, and decide not to spend it before that election; such a dollar is still counted as part of the sum for voter contact for that election. We do not believe any such flaw is significant on the scale of the monies displayed in Figures 10, 11, and 12.

Our figures for the sums spent by ballot measure committees, independent expenditure committees, and for gathering signatures to qualify initiatives, are totaled for each set of initiatives on the ballot in each California election from 2002 through 2016, and are tabulated in Table VI, VII. We now describe in detail how each of those figures was obtained.

The money spent for or against propositions by ballot measure committees for each of the elections of November 2, 2004 through November 8, 2016 is from a search run through Followthemoney [133].

The search is done by restricting a search to California, to an election year, and doing a single combined search using the complete list of propositions on a particular ballot. For example, in 2006 the June 6 primary ballot contained only the two propositions 81 and 82, and the search results were:

Q. Show me contributions to ballot measure committees that supported or opposed selected ballot measures in elections in California 2006 (within federal, state and local data) A. 1,279 contributions totaling \$25,505,061

Your current selections are:

PROPOSITION 81

PROPOSITION 82

It is necessary to do a combined search, and not to search for the contributions to committees that supported or opposed Proposition 81, and then search for the contributions that supported or opposed Proposition 82, and then sum, hoping to get the money that supported or opposed both propositions. California allows ballot measure committees to take positions on both measures, and a dollar contributed such a committee would be counted twice in the sum. The combined search counts it, properly, once.

The most extreme example of such potential overcounting concerns Propositions 93 through 97 on the February 8, 2008 ballot. Three ballot measure committees took positions on all four measures, and spent a combined \$171 million. Asking for the contributions to any committee that supported and opposed proposition 93; then 94; then 95; and then 96, produces the figure of \$171 million *each time*; naïvely adding would produce an estimate too large by a factor of 4.

The money spent for or against propositions on a particular ballot by independent expenditure committees for 2005 through 2016 is from Followthemoney [133]. The search is again done by restricting a search to California, to an election year, and doing a single combined

TABLE VI. For each suite of ballot propositions in each of the elections from 2002 through 2016 is listed the total money spent supporting or opposing the propositions by ballot measure committees and by independent expenditure committees, and the money spent gathering signatures to qualify propositions for the ballot. Figures are in millions of dollars. Also listed is the sum spent on voter contact, defined as the sum spent by ballot committees, plus the sum spent by independent expenditure committees, less the cost of gathering signatures.

Year	Election	Propositions ^a	Ballot	Independent	Signature	Voter
	Date		Committee \$	Expenditure \$	Cost \$	Contact \$
2002	March 5	40 - 44, 45	33.04^{b}	0.18	1.90	31.32
	November 5	46-48, 49-52	45.32	0.39	5.20	40.51
2003	October 7	$53,\!54$	14.93^{c}	2.27	$1.79^{\rm d}$	15.41
2004	March 2	55, 56, 57-58	47.65^{e}	0.12	$2.36^{\rm e}$	45.41
	November 2	1A,59-60,60A, 61-71 ,72	163.05^{f}	1.14	19.74^{fg}	144.45
2005	November 8	73-80	409.43	31.16^{e}	22.29^{h}	418.30
2006	June 6	81, 82	25.50	0.13^{f}	1.62	24.01
	November 7	1A-1E, 83-90	331.19	2.61	15.23^{i}	318.57
2008	February 5	91-93,94-97	203.12	12.56	8.76^{j}	206.92
	June 3	98-99	22.52	0.28	5.14	20.35
	November 4	1A, 2-11 ,12	225.08	0.56	16.70	208.94
2009	May 19	1A-1F	25.59	0.04	0.	25.63
2010	June 8	13-15, 16-17	70.22	0.06	4.47	65.81
	November 2	$19\text{-}27^{ ext{k}}$	150.87	1.89	17.53	135.23
2012	June 5	28-29	68.91	0.02	2.09	66.84
	November 6	30-39 ,40	385.61	8.43	27.58	367.88
2014	June 3	41-42	1.10	0.11	0.	1.21
	November 4	$1-2, 45-47, 48^{1}$	182.38	0.94	6.14	177.18
2016	June 7	50	0.	0.05	0.	0.05
	November 8	$51 ext{-}58 ext{,}59 ext{,}^{\mathrm{m}}60 ext{-}66 ext{,}67$	469.85	1.34	44.71	426.48

^a See the following Table VII for the text of footnotes a through k.

search using the complete list of propositions on a particular ballot. For example, in 2006 the June 6 primary ballot contained only the two propositions 81 and 82, and the search results were:

Q. Show me independent spending targeting PROPOSITION 081 or PROPOSITION 082 in California 2006 (within federal, state and local data)

A. 73 expenditures totaling \$130,134

Followthemoney does not, alas, as of November, 2017 have ballot committee data for California state ballot propositions for the years 2002 and 2003, nor independent expenditure committee data for California state ballot propositions for 2002, 2003, and 2004. These sums we reconstruct using CalAccess, available through the website of the California Secretary of State [134]. It is unfortunately necessary to look at the contributions to each ballot measure committee, and to total them while accounting for (a) committees that take positions on more than one ballot measure; (b) committees that receive contributions only to pass them on

Footnotes a through k for the preceding table, Table VI.

- ^a Numbers are written in Roman font, boldface, or italics when measure on the ballot was put there, respectively, by the legislature; or was an initiative that qualified by gathering signatures; or as a referendum (which necessarily also qualified by gathering signatures).
- ^b The Nature Conservancy Action fund, ballot committee #970866, supported Proposition 40 and had contributions of \$4.5 million; but it contributed \$3.1 million to another committee (#991829, that also supported Proposition 40), and another \$0.9 million—essentially the balance—to a campaign to support not a March but a November ballot measure, Proposition 50. To avoid double-counting and miscounting the dollars actually spent on voter contact for the March election, we do not count as Ballot Committee dollars for the March 5, 2002 election any of the contributions to the Nature Conservancy Action Fund.
- ^c Includes \$3.63 million contributed in 2001 to 2002 as part of the Yes on 54 campaign, committee #1237969.
- ^d The Yes on 54 campaign, committee #1237969, reported its costs for gathering signatures in 2001-2002.
- ^e Except as noted, this figure and the figures above in the column are from CalAccess.
- ^f Except as noted, this figure and the figures below in the column are from Followthemoney [133].
- ^g Includes an estimate of \$1.8 million for signature gathering for Proposition 70, a cost presumably subsumed in the bill to another consultant.
- ¹ Except as noted, this figure and the figures below in the column are from Ballotopedia[135].
- ^m For Proposition 89 Cal-Access does not have any records of expenditures to petition-drive management companies. The costs of collecting signatures is therefore estimated to be zero, since it is not necessary to subtract anything from the expenses recorded by the ballot measure committees to get the correct number of voter contact dollars. While it is possible that the California Nurses Association, which sponsored Proposition 89, collected the requisite 373,816 valid signatures from its membership, and so the signature costs were indeed effectively zero, it is more likely that the Association paid for a drive without running the drive through a ballot measure committee. The actual signature costs in that case should be between \$1.0 million, which was the sum required to qualify Proposition 84, and $(3.7/6.0) \times $1.8 \text{ million} = 1.1 million , which represents the costs of qualifying Proposition 90, scaled down for the smaller number of signatures required to qualify Proposition 89.
- ^h The cost of signatures for Proposition 92 was \$1.41 million, shown by payments from committee #1282453 to Arno Political Consultants; the missing signature cost for Proposition 91, also an initiative constitutional amendment, is assumed to be the same as for Proposition 92.
- ⁱ On August 10, 2010, the legislature and governor removed Proposition 18 from the ballot.
- ^j On August 11, 2014, the state legislature and governor renumbered Proposition 44 to Proposition 2. On August 13, 2014, Proposition 43 was removed and Proposition 1 was added to the ballot by the state legislature and governor. Proposition 49 was removed from the ballot by order of the California Supreme Court; after further hearings, on January 4, 2016 the Court ruled that the proposition was legal under the state constitution, but that the legislature, which had put Proposition 49 on the ballot, would have to pass another bill to put it back. The bill, Senate Bill 254, became Proposition 59 on the November 8, 2016 ballot.
- ^k Proposition 59 was a Legislative Advisory Question.

to other committees; and (c) committees part of whose expenditures are to qualify initiatives for the ballot (since we are accounting for those expenditures separately). Finding the totals is too tedious to report completely; sample listings for the elections of October 7, 2003 and for March 2, 2004 are tabulated in Tables VIII and IX, respectively.

The money contributed to independent expenditure committees is computed similarly: by a combined search through Followthemoney where the site has the data available, and otherwise by examining the records at CalAccess. For both the money contributed to ballot measure committees and independent expenditure committees, the calculations using the data at CalAccess were computed for two years for which the data in Followthemoney were also available, and the sums found to be consistent.

The costs of gathering signatures for the elections of 2005 through 2016 are taken from Ballotopedia [135]. Ballotopedia as of 11/19/17 did not have data for the costs for the years 2002, 2003, and 2004. Those costs, for the elections of 2002 and through the election of March 2 of 2004, we account for through CalAccess. Sums expended to gather signatures are extracted from the listed expenditures of the various ballot measure committees, with the cost estimates listed in the "Signature Cost" column of Table VI when those costs could not be obtained separately.

11. Figure 11

The ballot for the special election of 2015 had eight propositions, 73 through 80. Four of these, propositions 74 through 77, comprised a suite of reforms championed by Schwarzenegger, then governor; when on June 13 he called for a special election, the other four, which had already qualified, were moved from the June ballot to that of the special election and became ballot propositions 73, 78, 79, and 80.

The worksheet for computing how much money was spent on these four propositions appears as Table X. The ballot committee expenditure totaled over the four, which appears in line A of the table, is from a search run through Followthemoney [136]. The sums spent on the separate propositions by independent expenditure committees are from Cal-Access, specifically through its sponsored search engine Power Search [137]. The money spent qualifying the initiatives is from Ballotopedia [135]. A total of \$189 million was spent on the campaigns for the initiatives that were moved from the November to the June ballot.

We turn to the effect of Senate Bill 202 on the elections of 2012. Claim: Senate Bill 202 moved Propositions 31 and 32 from the June to the November ballot.

We establish this claim, and then compute the money moved.

The summary of Senate Bill 202 read [138] in relevant part,

"... Under existing law, general election is defined to mean either the election held throughout the state on the first Tuesday after the first Monday in November of each evennumbered year or any statewide election held on a regular election date, as specified.

This bill would provide that, notwithstanding the above definition of "general election" that term means, for purposes of submitting to the voters an initiative or referendum measure that is certified for the ballot on or after July 1, 2011, only the election held throughout the state on the first Tuesday after the first Monday in November of each even-numbered year."

The bill passed by simple majority [139] but, passed as a "budget trailer bill," nonetheless took effect immediately [140] on its being chaptered on October 11, 2012. Two initiatives

TABLE VIII. For the propositions on the October 7, 2003 ballot, a listing of the contributions to each ballot measure committee that took a position for or against a ballot measure. The sum over all committees computes the actual money spent on voter contact by eliminating contributions from one committee to another, and double counting of dollars contributed to a committee that took a position on more than one proposition, and dollars spent gathering signatures to qualify measures for the ballot.

ID Number	Contributions	
1253055	$471,\!730.92$	
1258131	$14,\!340.00$	
1258137	5,733,635	
1256562	0	a
1237969	$205,\!941$	b
1257450	$23,\!939.31$	
950500	40,330.81	
1256083	0	a
1258103	0	a
1258000	63,700	
1258109	0	a
1258110	0	a
1244492	$5,\!171,\!499.36$	
1256875	0	a
1258807	0	a
1257764	$31,\!100$	
1257645	0	a
1257912	$27,\!432.22$	
1276681	0	
	11,793,648.02	
	$\begin{array}{c} 1253055\\ 1258131\\ \\ 1258137\\ 1256562\\ 1237969\\ 1257450\\ 950500\\ 1256083\\ 1258000\\ 1258000\\ 1258103\\ 1258109\\ 1258110\\ 1244492\\ 1258807\\ 1257845\\ 1257645\\ 1257912\\ \end{array}$	$\begin{array}{cccccccc} 1253055 & 471,730.92 \\ 1258131 & 14,340.00 \\ \end{array}$

^a Cal-Access reports that as of December, 2017 this committee had not electronically filed a Form 460/461/450 for this election cycle. Expenditures are assumed to be zero.

^b This sum did not pay for the cost of signature gathering. The Yes on 54 campaign, committee #1237969, reported its costs for gathering signatures in 2001–2002.

that had already qualified remained on the June ballot: Proposition 28, which had qualified on July 20, 2010 [141]; and Proposition 29, which had qualified on August 24, 2010 [142]. Two others that were in circulation were however caught up and moved from the June ballot: what became [143] Proposition 32, which qualified on December 6, 2011 [144]; and what became Proposition 33, which qualified on January 18, 2012 [145]. Proposition 32 entered its circulation period for gathering signatures on May 26, 2011 [146], and by law was required to submit its signatures no more than 150 days later [147], on or before October 24, 2011 [148]. Proponents had been gathering signatures for 107 of their 150 days of circulation when the legislature, in a gut-and-amend [149] on September 10, 2011, voted to change the law [150]. The bill was signed by the governor and chaptered October 7, 2011, when the proponents TABLE IX. For the propositions on the March 2, 2004 ballot, a listing of the contributions to each ballot measure committee that took a position for or against a ballot measure. The sum over all committees computes the actual money spent on voter contact by eliminating contributions from one committee to another, and double counting of dollars contributed to a committee that took a position on more than one proposition, and dollars spent gathering signatures to qualify measures for the ballot.

Proposition, and Committee name	ID Number	Contributions
	ID Nulliber	Contributions
Proposition 55		
COMMUNITY COLLEGE FACILITY COALITION	1220380	$337{,}534.00$
YES ON 55 – CALIFORNIANS FOR ACCOUNTABILITY	1245448	9897281.64
CALIFORNIA BUILDING INDUSTRY	900868	1285058.79
COALITION FOR ADEQUATE SCHOOL HOUSING	980478	851401
CALIFORNIANS FOR HIGHER EDUCATION	1224009	1281401
Proposition 56		
CALIFORNIANS FOR BUDGET ACCOUNTABILITY	1254038	15889090.25
CALIFORNIANS AGAINST HIGHER TAXES	1254104	9403108.07
Proposition 57		
NO ON 57/CALIFORNIANS AGAINST MORTGAGING	1260631	754750.16
CALIFORNIANS FOR A BALANCED BUDGET - YES ON 57 $\&$	58 1261936	8148674.45
DEMOCRATS FOR 57/58	1263036	161000
Proposition 58		
NO ON 57/CALIFORNIANS AGAINST MORTGAGING	1260631	754750.16 ^a
CALIFORNIANS FOR A BALANCED BUDGET - YES ON 57 &	58 1261936	8148674.45 ^a
DEMOCRATS FOR 57/58	1263036	161000 ^a
Sum over all committees ^a		48,009,299.36

^a These three committees took positions on both Proposition 57 and Proposition 58. To avoid counting the same contribution twice for voter contact, these nominal contributions to 58 are not included in the sum over all committees.

had but 17 days left before filing. Similarly, what became November Proposition 33 entered its circulation period on August 15, 2011 [151], and had been gathering signatures for 53 days when the bill was chaptered. The two measures completed qualification, on December 6, 2011 and on January 18, 2012, respectively [152], both before the January 26, 2012 cutoff [153] for qualifying for the June 5 primary ballot under the old law.

The spending on Proposition 32 was as detailed in Table XI. Some committees that made large expenditures targeted both Proposition 32, which was moved to the November ballot, and Proposition 30, which remained on the June ballot, and so it is necessary to estimate how much each such committee spent on each proposition to estimate how much spending was moved to the November ballot.

The sum spent on Proposition 32 by ballot measure committees we estimate as follows [154]. First the sums in opposition. Of the \$68.4 million spent by single-proposition committees opposed to Proposition 32, we include all. Of the \$5.7 million spent by committees that took positions on both Propositions 30 and 32, and opposed Proposition 32, we include half, or \$2.85 million. Of the \$2.79 million spent by committees that took positions on three or more propositions, and opposed Proposition 32, we conservatively include zero. The total spent by ballot measure committees in opposition to Proposition 32 we estimate then as \$71.3 million.

Next the sums in support. Of the \$10.3 million spent by single-proposition committees that supported Proposition 32, we include all. There remains for consideration a single committee in support, the Small Business Action Committee PAC. Of the \$29.0 million contributed by a single donor whose intent is known [155], we include all. Of the remaining \$41.5 million contributed to SBAC, we include half, or \$20.7 million. The total spent by committees in support of Proposition 32 we estimate then as \$60.1 million.

The sum in opposition, \$71.3 million, is dominated (by 96%) by committees whose sole purpose was to oppose Proposition 32. The reconstruction of the sum in support depends on less solid information about what the priorities of multiple-purpose committees proved to be. Whatever the result of that reconstruction, that the side in support was somewhat outspent by the side in opposition (\$71.3 million to \$60.1 million) is intuitively reasonable given that the campaign was (a) fiercely contested, and (b) the opposing side won.

The sums spent by independent expenditure committees for or against Proposition 32 appear at the bottom of Table XI. The net spent on Proposition 32 was \$142.2 million [156].

For Proposition 33 the task is simpler, since the contribution of the only campaign com-

Ballot Committees		
Group	Propositions	Expenditures ^a
A	73,78,79,80	202,205,703
В	74,75,76,77	$207,\!272,\!903$
C	73, 74, 75, 76, 77, 78, 79, 80	$409,\!430,\!647$
$A + B - C^{\rm b}$		47,959
Independent Expenditures		
	73	443,017
	78	$448,\!382$
	79	$326,\!973$
	80	$53,\!576$
D	73,78,79,80	1,271,949
Signature Costs		
	73	2,527,611
	78	$2,\!415,\!397$
	79	$4,\!635,\!466$
	80	$4,\!839,\!466$
E	73,78,79,80	14,417,940
A + D - E	73,8,78,80	189,059,717

TABLE X. Worksheet for finding the total spending on Propositions 73, 78, 79, and 80 on the November, 2015 ballot. Expenditures are in dollars.

^a All expenditures from 1/1/2014 to 12/31/2015.

^b That this difference is small indicates that the amount of money that was spent by committees who took positions both on initiatives in group A and on initiatives in group B is negligible.

Committee	Position	Other	Expenditures	
FPPC $\#$	on 32	Targets	-	
890947	Oppose		138,500.00	
941597	Oppose	30	$2,\!554,\!702.12$	
1270683	Support	30	$70,\!457,\!184.65$	
1289844	Oppose		$2,\!359,\!401.23$	
1322497	Support	32	$1,\!659.96$	
1333283	Oppose	$30,31,34,35,36,\ 37,39$	329,425.25	
1336580	Oppose		471,381.38	
1337891	Support		$359,\!628.07$	
1340076	Oppose		$64,\!788,\!460.61$	
1343790	Support		$5,\!901,\!144.49$	
1344800	Oppose	$30,\!35$	$1,\!317,\!452.79$	
1346267	Oppose	$30,\!35$	$358,\!142.48$	
1347688	Oppose	30	69,736.96	
1347975	Oppose		700,000.00	
$1348981^{\rm b}$	Oppose	30	0	
1348995	Oppose	$30,\!39$	$166,\!086.15$	
1349099	Oppose	30	$873,\!281.85$	
1350885	Oppose	$30,\!39$	$1,\!936,\!827.49$	
1350977^{b}	Oppose	34	0	
1351572	Support		4,077,830.62	
1351941	Oppose	30	949,236.42	
Net ballot commit	tee opposition		71.3	
Net ballot committee support			+ 60.1	
Independent Exper	nditure opposition		+ 4.2	
Independent Exper	nditure support		+6.6	
Total (\$ millions)			142.2	

TABLE XI. Worksheet for finding the total spending on Proposition 32 on the November, 2015 ballot. Expenditures in the top half of the figure are in dollars, and in the bottom half are in millions of dollars.

^a From 1/1/12 to 12/31/12.

^b This committee filed no FPPC Form 460/461/450; the expenditures are therefore assumed to be zero.

mittee to take a position on Proposition 33 and also on another proposition contributes negligibly to the total. The various contributions are listed in Table XII; the net spent is \$13.9 million.

We conclude the transfer of Propositions 32 and 33 to the November, 2012 ballot also transferred 142.2 + 13.9 = 156.1 million spent on voter contact.

Ballot Committees			
Committee	Position	Other	Expenditures ^a
FPPC $\#$	on 33	Targets	
1350907	Oppose	38	157,847
1340976	Support		+14,742,200
1322520	Oppose		+ 269,274
Independent Expenditures			+470,819
Signature Costs			-1,700,916
Total			13,939,224

TABLE XII. Worksheet for finding the total spending on Proposition 33. Expenditures are in dollars.

^a From 1/1/2011 to 12/31/2012.

12. Figure 12

This is identical to the previous figure, except that that half the proposition dollars for the November elections of 2014 and 2016 have been subtracted and added to the proposition dollars for the corresponding June elections. The figure of \$210 million spent in 2016 is roughly consistent with the sum spent in the previous presidential election, and the figure of \$86 million spent in 2014 with the sum spent in the previous gubernatorial election.

Appendix B: Derivation of DTS participation in the primaries of 2008 and 2010

The principal worksheet for computing the voter participation in the primaries of 2008 and 2010 is Table XIII (see the column to the right). The data on the number of ballots cast in the primary elections of 2008 and 2010 for each type of voter are taken from the reports by the California Secretary of State [157], [158]. Data on how many partian ballots were cast by voters with no party preference (or who were registered with a non-qualified political party) were required to be collected by county elections officials beginning with the primary elections of 2002; however there was no requirement that the Secretary of State collect or post these data, and the data are available on the website of the Secretary of State only for the June primary election of 2008 (and not for the February presidential primary of that year) and for the primary of 2010. We have declined to augment Table XIII by prising [159] the data for 2002, 2004, and 2006 from each of California's 58 counties; but the counties having had these three previous cycles to practice acquiring the data, the data from the counties for 2008 and 2010 should be reliable.

The data on voter registration for the primary elections of 2008 and 2010 for each type of voter are taken from the last report from the California Secretary of State before the primary election [160].

TABLE XIII. Ballots cast for all parties that allowed decline-to-state (DTS) and voters voters registered with no qualified political party (NQPP) voters to participate in the partian primaries of 2008 and 2010 for state office, and the number of registered voters of the relevant types just before the primary election.

	June 3, 2008	June 8, 2010
Republican primary		
Republicans	1,717,917	$2,\!286,\!540$
DTS/NQPP who voted	63,788	160,316
Democratic primary		
Democrats	2,093,197	2,416,137
DTS/NQPP who voted	199,528	164,198
American Independent primary		
American Independents	54,778	^a
DTS/NQPP who voted	$5,\!418$	^a
DTS/NQPP who voted nonpartisan	$365,\!516$	481,463
Total DTS/NQPP vote overall	634,260	805,977
Voter Registration statewide		
Republican	5,244,394	5,228,320
Democratic	7,053,860	$7,\!553,\!109$
American Independent	331,619	$397,\!136$
DTS	$3,\!128,\!684$	$3,\!423,\!750$
NQPP	$108,\!430$	118,799
Of the voters registered of the following type	es,	
the percentage who cast a primary ballot		
Republican	32.9	43.7
Democrat	29.7	32.0
American Independent	16.5	^a
DTS	20.3^{b}	23.5^{b}
Percent of a party primary vote that was D'	TS/NQPP	
Republican	3.6	6.6
Democratic	8.7	6.4
American Independent	9.0	^a
Percent of voters registered DTS who both		
voted and cast any partisan ballot	$42.4^{ m c}$	40.2^{c}

Appendix C: Upper Bound to the Money spent in the 2014 California primary

Candidates for state office in California are required to report at intervals the dollars disbursed by their campaign committee to the California Fair Political Practices Commission on a *Recipient Committee Campaign Statement*, FPPC Form 460 (or for very small overall disbursements [161], the short form, Form 450). For each candidate the dollars disbursed in the time interval January 1 to June 30 appear as a single line in the Summary Page

TABLE XIV.

Footnotes a through c for the preceding Table, Table XIII.

^a The American Independent party permitted DTS/NQPP voters to participate in its partisan primary in 2008, but not in 2010.

^b These figures are computed assuming the number of NQPP voters who cast a partian ballot is negligible compared to the number of DTS voters who cast one. The reader is admonished that the percentages for the "Percent of Party Participation" among voters who belong to the DTS/NQPP "party" is quoted in reference [157] to be 11.29% in 2008, not 20.3%; and in reference [158] is quoted to be 14.06% in 2010, not 23.5%. Those quoted figures turn out to be the ratio (expressed as a percent) of the number of DTS/NQPP voters who cast a nonpartisan ballot in the primary to the total registration of DTS voters, not the ratio of number of DTS/NQPP voters who cast either a nonpartisan ballot or who cast a ballot in a partisan primary instead, to the total registration of DTS voters. That the categories of a DTS voter who casts a nonpartisan ballot, or who casts a ballot in a partisan primary, are exclusive is confirmed by them being summed in calculating the total number of ballots cast in California in the same references.

^c These figures are computed assuming the number of NQPP voters who cast a partial ballot is negligible compared to the number of DTS voters who cast one.

(in Column B, "Calendar Year Total To Date," line 11) in each candidate's July report. Candidates for federal office are similarly required to report the dollars disbursed by their campaign committee to the Federal Elections Commission on FEC Form 3. For each candidate the dollars disbursed over the same time interval, January 1 to June 30, can be got by summing the totals (from the "Total Disbursements" line on the Financial Summary page) for the successive April, Pre-Primary, and July reports. We ignore write-in candidates, and assume that a candidate who filed no report disbursed nothing. The totals of such disbursements over all candidates is \$97.2 million.

A time window from January 1 through June 30 for disbursements to count towards voter contact is certainly too large: the primary election occurred June 2 and any expenditure made between June 3 and June 30 certainly was not for voter contact. Also we doubt any expenditure as early as January or February would affect turnout in the primary. But the wide interval suffices to compute an upper bound to the money spent appealing to voters during primary, and the interval is convenient because it coincides with the intervals over which disbursements are summed in both the FPPC and the FEC reports.

A disbursement is a dollar that leaves a campaign committee, for any reason. Incumbents disburse money from campaign committees not only to fund their re-election, but to support them in the discharge of their office. We should in principle sift through the expense reports and subtract disbursements (call these discharge expenses) made for that purpose. That would be tedious and also uncertain; we have no way of telling from an expense report what a trip or the hiring of a political consultant was really to accomplish. Instead, we assume that most incumbents do not campaign over the same interval January 1 to June 30 the previous year, so soon after the November general election; and that disbursements that occur there are all discharge expenses, the total of which is a reasonable estimate for the discharge expenses in the same interval the following year, which can then be subtracted. These disbursements appear in the fourth column of figure in Table XV. They are heaviest (disbursements of \$9.1 million) for incumbent members of the U.S. House seeking re-election,

TABLE XV. Worksheet for finding an upper bound to the total money spent reaching voters by candidates for state and federal office in the California primary of 2014. Figures are in millions of dollars. The first column of figures is the money reported as disbursed by the candidates: for state candidates, to the California Fair Political Practices Commission (FPPC) on Form 460; and for federal candidates, to the Federal Elections Commission (FEC) on Form 3. The second column is the same sum computed over the same interval in the previous year, used to correct for incumbent's expenses in discharging their office but not reaching out to voters. The third column ("Other") contains money disbursed in 2014 but not for voter outreach: for non-incumbents, dominated by the repayment of loans to the campaign; and for incumbents, dominated by contributions to political parties, political action committees, and candidates for other offices. Places marked by ellipses indicated subtractions that in pursuing an upper bound we have not troubled to compute. We find an upper bound of \$73.9 million.

	Incumbents running	Disbursement	s Disbursements	o Other	
Office	or	1/1/14 to	- 1/1/13 to	- 1/1/14 to	= Net
	Non-incumbents	6/30/14	6/30/13	6/30/14	
Governor	inc. (Brown)	0.19	0.02	0	0.17
	non-inc.	4.92		0	4.92
Lt. Governor	inc. (Newsom)	0.27	0.11	0	0.16
	non-inc.	0.03		0	0.03
Secretary of State	non-inc.	4.09		0	4.09
Controller	non-inc.	4.21		0	4.21
Treasurer	non-inc.	0.28		0	0.28
Attorney General	inc. (Harris)	0.50	0.43	0.01	0.06
	non-inc.	0.13		0	0.13
Insurance	inc. (Jones)	0.22	0.12	0.01	0.10
Commissioner	non-inc.	0.15		0	0.15
Superintendent	inc. (Torlakson)	1.13	0.09	0	1.04
	non-inc.	0.03		0	0.03
Board	inc.	0.15	0.03	0	0.11
of Equalization	non-inc.	0.87		0	0.87
Assembly	inc.	9.46	2.82	3.08	3.56
	non-inc.	17.73		0.02	17.71
state Senate	inc.	1.05	0.44	0.17	0.44
	non-inc.	9.23		0.08	9.16
U.S. House	inc.	13.9	9.1^{a}		4.8
	non-inc.	24.2		2.2^{b}	22.0
Totals		92.7	- 13.2	- 5.57	= 73.9

^a Disbursements from 1/1/13 to 6/30/13, used as an estimate for non-election disbursements for 1/1/14 to 6/30/14.

^b Loans repaid from 1/1/14 to 6/30/14.

Entity	Date Range	Disbursements	-	Other	=	Net
California Democratic Party	1/1/14- $6/2/14$	8.16	-	5.02	=	3.13
California Republican Party	1/1/14- $6/2/14$	2.04	-	1.06	=	0.98

TABLE XVI. Worksheet for finding an upper bound to the total money spent reaching voters by the major political parties in the California primary of 2014. Figures are in millions of dollars.

which makes sense both because of their numbers (45 in 2014) and because the business of their office occurs off in Washington, D.C., and not near home in California.

Some candidates, principally non-incumbents seeking election to the U.S. House, loan themselves money, and then repay it; the repayment counts as a disbursement, though that repayment addresses no voters. We subtract such repayments. Candidates, principally incumbents, also make donations to political parties, political action committees, and candidates for other offices, or transfer money to other committees controlled by themselves, and these too count as disbursements. Since we wish to count each dollar just once, and only should it be spent addressing voters in California, we gather such disbursements (a total of \$5.6 million) in the fifth column of figures in Table XV, and subtract them too.

Making the subtractions, we compute an upper bound of \$73.9 million for the money spent by all campaign committees in the 2014 primary, lower than the simple sum of all the disbursements by \$23.3 million.

Our computed upper bound can fail to be a true upper bound only in very unlikely circumstances. For example, if one believes a candidate was campaigning in their district as hard from January to June of 2013, when the November 2012 election was only just over, as in the same interval before the primary in 2014, then dollars of voter contact by that candidate we would wrongly estimate to be zero: the actual dollars spent in 2014 being cancelled by the voter contact dollars in 2013 having been assumed to be discharge expenses and subtracted off. We do not believe that behavior typical of most incumbents. We have also deliberately avoided subtracting off some significant sums, notably the sums contributed by members of the U.S. House to political parties, candidates, and political action committees in 2014. The contributions of Majority Whip McCarthy, alone, to candidates in 2014 inflate our upper bound and provide a cushion of \$0.5 million.

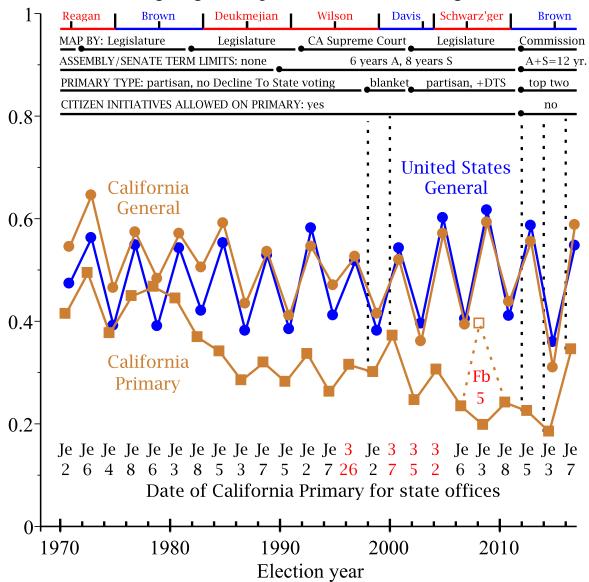
Candidates are not the only players in California. Independent Expenditure Committees, campaigning for the state and federal offices in California, spent between January 1 of 2014 and June 2 of 2014 a total of \$25.3 million [162].

We examine the disbursements of the state Republican and state Democratic party in Table XVI. The FPPC Form 460 for the California Democratic Party in 2014 had \$8.2 million of disbursements from January 1 to June 2, of which we estimate at least \$5.0 million were unrelated to direct voter contact (for example, \$2.2 million was spent on construction costs of a new headquarters, and \$1.4 million took the form of direct contributions to candidates). The report for the California Republican Party over the same interval had \$2.04 million of disbursements, of which we estimate at least \$1.06 million were unrelated to direct voter contact (for example, \$0.48 million took the form of direct contributions to candidates). We estimate therefore an upper bound of \$4.02 million, for the two major state parties combined, on what was spent to make contact with voters directly regarding the 2014 primary.

The money spent by the minor parties (the American Independent, Green, and Libertarian parties, and the Peace & Freedom party) combined over all of 2014 was less than \$40,000 (see II, Figure 5): negligible.

The Republican National Congressional Committee and the Democratic Congressional Campaign Committee might have been expected to have been major players in U.S. House races in California in 2014. The effect of their independent expenditure arms will already have been included in our estimate of all independent expenditures in California. That leaves for consideration their possible expenditures in coordination with candidates, which prove to be negligible. All such expenditures and the candidates affected must be detailed on their FEC Form 3X under Schedule F (Itemized Coordinated Expenditures). The amount so spent on behalf of any candidates, nationwide, from 1/1/14 through 6/2/14 is small (merely \$52,000 from the RNCC, and \$90,000 from the DNCC), and none was spent on any candidate in California.

The sum of our estimates for the upper bounds for dollars spent in the 2014 primary by candidates (\$73.9 million), for independent expenditure committees targeting all state and federal races (\$25.3 million), and for the sum spent by the Republican and Democratic state parties on such races (\$4.0 million) is \$103.2 million.



Fraction of Voting Eligible Population that voted in regular elections

FIG. 1. The plot shows in blue, round points the fraction of the United States' Voting Eligible Population that voted in the regular general election in a given election year. The regular zig-zag shows that the fraction is larger in elections where the highest office on any state ballot is that of President of the United States, and is lower in midterm elections. The plot shows in gold, round points the fraction of California's Voting Eligible Population that voted in the general election in a given election year. The turnout in California in general elections has essentially tracked the national turnout for the last 5 decades: just a bit higher in the 1970's and early 1980's. The plot also shows in gold, square points the fraction of California's Voting Eligible Population that voted in the primary election that chose nominees for state office. The California turnout in the primary was in the 1970's comparable to the California turnout in the general election, but has shown a general decline over the ensuing four decades. The sharp uptick in 2016 arose because the presidential primaries (unusually for June) not yet been decided, and the undecided Republican Trump/Cruz and Democratic Clinton/Sanders contests spurred turnout though, it is seen, not as high as the 2008 contest when the California presidential primary was on February 5. The years in which primary elections were held under the blanket or the top-two system are indicated by black dotted lines. For a fuller discussion of this figure see Appendix A 1.

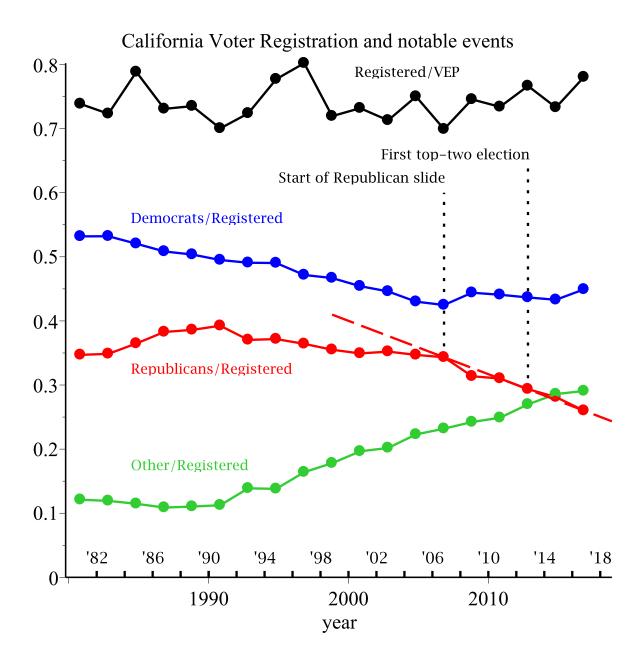


FIG. 2. Plotted as black points is the fraction of the voting-eligible population (VEP) in California that is actually registered to vote; this has been about 3/4 for about 5 decades. Plotted in blue, red, and green are the fractions of all registered voters that are registered Democratic, Republican, or Other (meaning, everyone registered but with no political party, or with a political party other than the Democratic or the Republican party). In 2015 the fraction of the registered voters who are "Other" first exceeded the fraction who are registered Republican. The date of the first top-two election is indicated with a vertical black dotted line. The fraction of voters registered Republican has had an almost linear slide since 2006; the difference in the Democratic percentage of registered voters, and the Republican percentage, has risen from 8.2% in 2006 to 18.9% in 2016; but there is no evidence that the top-two primary had any effect on that slide. One can see for comparison a kink upward in Democratic registration and downward in Republican registration coinciding with the McCain/Obama presidential election of 2008. For a fuller discussion of this figure see Appendix A 2.

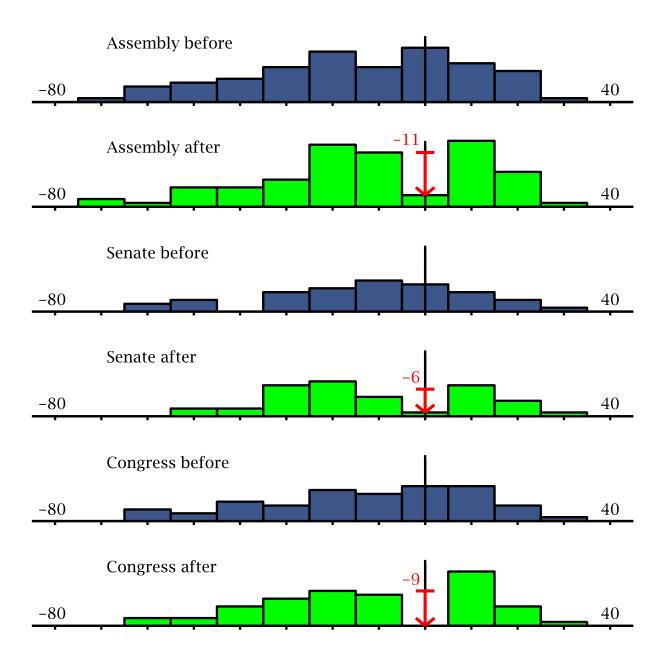


FIG. 3. Plot of the number of California Assembly, state Senate, and U.S. House districts that had a given difference, in percent, between the fraction of registered voters who were registered Republican and those who were registered Democrat, in bins of $\pm 5\%$ about differences ranging from -80% to +40%. The "before" in dark blue are for the districts as drawn by the California Supreme Court, for voter registration as of 2/10/01; they are essentially single-hump distributions with a significant number of districts with advantages within $\pm 5\%$ of zero. The "after" in light green are for the districts as redrawn by the California legislature, as of 10/02/01. They are essentially double-humped distributions with few competitive districts remaining. The red arrows show the number of competitive districts lost; in the Assembly, there remained respectively but 3 of the original 14; in the Senate, but 1 of the original 7; and in the Congress, zero of the original 9. The time between the reports of registration for the two different maps is 244 days, too short for the changes to be wrought by actual demographic changes. For a fuller discussion of this figure see Appendix 3.

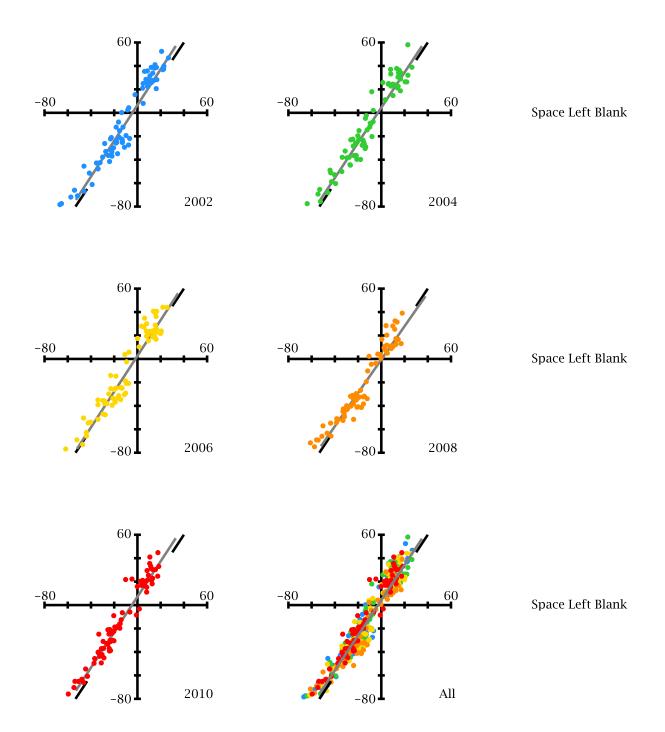


FIG. 4. The five Assembly-district primary elections of 2002 through 2010 had constant district boundaries and also separate partisan primaries, the winner of each of which was guaranteed a spot on the general election ballot. Consider the Assembly general elections where the general election included a Republican and a Democrat who had each won such a primary. Plotted horizontally is the advantage, as a percentage of all the voters registered in the district, the Republican party had over the Democratic party in registration; plotted vertically is the advantage, as a percentage all the votes cast for the office, the Republican candidate had over the Democratic candidate. The grey lines are the least-squares fit of a line to the points; to guide the eye, at the ends of each line are two black bars that if extended would form a line through the origin with a slope of 3/2. All the grey lines have essentially this slope, differing in their offset from the origin. The last figure shows the data for all five general elections in a single plot, with the line that is a least-squares fit to all the data. For a fuller discussion of this figure see Appendix 4.

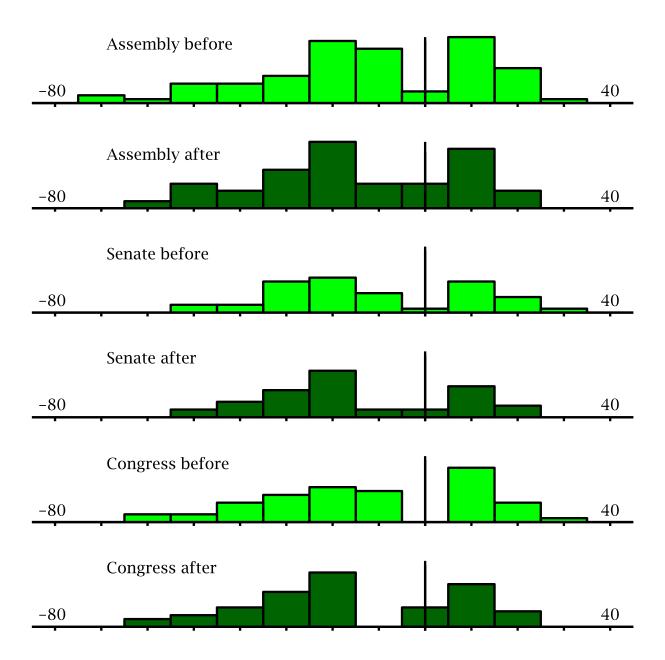


FIG. 5. Plot of the number of California Assembly, state Senate, and U.S. House districts that had a given difference, in percent, between the fraction of registered voters who were registered Republican and those who were registered Democrat, in bins of $\pm 5\%$ about differences ranging from -80%to +40%. The "before" in light green are for the districts as drawn by the California legislature, for voter registration as of February 10, 2001; the "after" districts in dark green as they evolved through the decade until the last report on February 10, 2011. The principal changes are a general shift in the Democratic direction (the value of the Democratic percentage minus the Republican percentage increased statewide by 2.3%, a bit less than a quarter the width of a bin), and some fill-in of the no-competition valley between the humps. For a fuller discussion of this figure see Appendix 5.

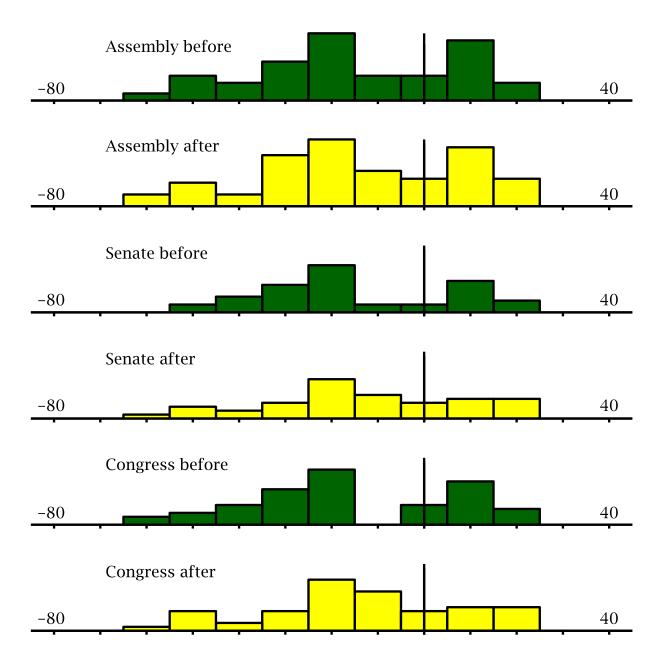


FIG. 6. Plot of the number of California Assembly, state Senate, and U.S. House districts that had a given difference, in percent, between the fraction of registered voters who were registered Republican and those who were registered Democrat, in bins of $\pm 5\%$ about differences ranging from -80%to +40%. The "before" in dark green are for the districts as drawn by the California legislature, as they evolved through the decade until February 10, 2011. The "after" districts in yellow are the districts as drawn by the Citizens Redistricting Commission, as of the earliest report on registration in those districts on January 3, 2012. The no-competition valley in each of the legislature's maps was essentially erased. The interval between the reports is 334 days, too short for the differences to be wrought by actual demographic changes. For a fuller discussion of this figure see Appendix 6.

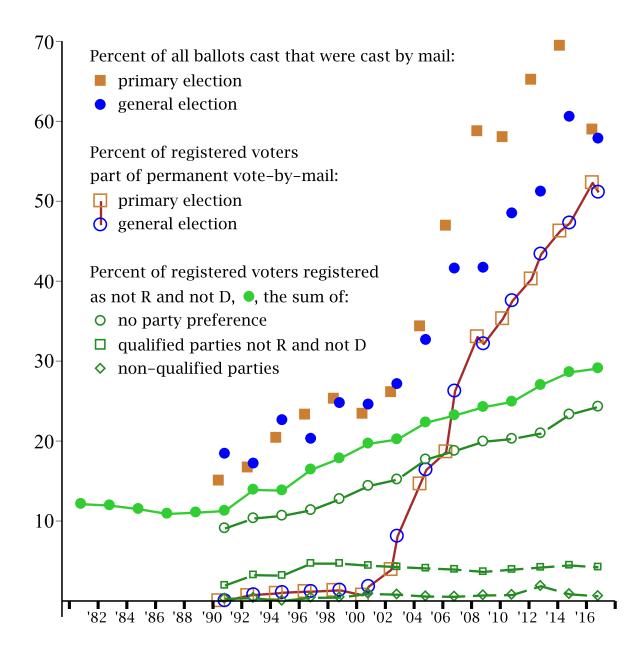


FIG. 7. Plot, in points linked by a brown line, of the fraction of all California registered voters who were enrolled in the primary and general regular elections to as permanent voter-by-mail. In the elections of 2002 through 2010 such a voter registered but with no political party would receive only a nonpartisan ballot unless before each primary they requested a particular political party's ballot as well. The percent of all registered voters who were not registered as either Republican or Democrat ("Other" in Figure 2) is plotted again, and broken into three categories: voters registered with no political party; voters registered with a qualified political party but not the Republican nor the Democratic party; and voters registered with political parties that are not qualified for the ballot. Also plotted is the percentage of all ballots cast in primary and general elections that were cast by mail. For a fuller discussion of this figure see Appendix A 7.

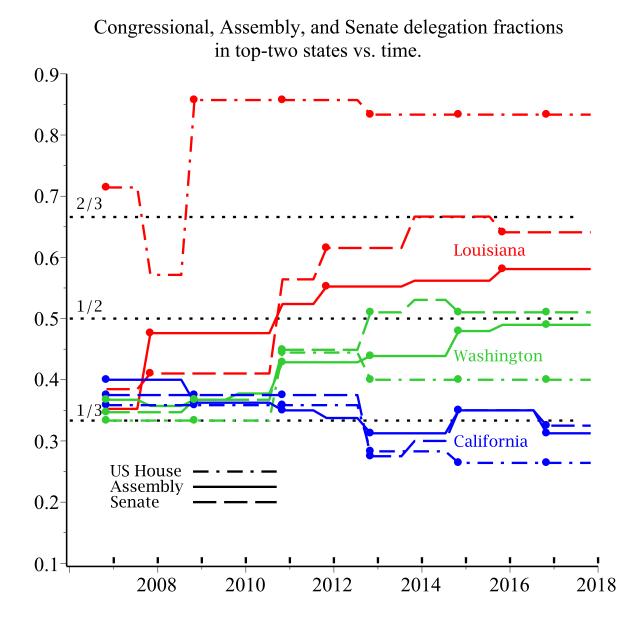


FIG. 8. Plotted are the fractions of the delegations to the state Assembly, state Senate, and U.S. House that were Republican, for the states of Louisiana (in red), Washington (in green), and California (in blue), which are the three states with top-two primaries (the first top-two election in California was in 2012). The solid points are the delegation fractions immediately after a regular election; note that Louisiana has its legislative races every four years in an odd-numbered year, while having its U.S. House races in even years as do all states. The lines joining points track in addition changes in the delegation fractions due to vacancies, special elections, and to elected officials changing parties. The horizontal black dotted lines mark the thresholds for controlling over 2/3 (a supermajority) of a delegation, or 1/2 (a majority), or 1/3 (enough to block votes requiring a supermajority). Since 2008, Republicans have done well and Democrats poorly in Louisiana and Washington state; the reverse is true in California. For a further discussion of this the figure see Appendix A 8.

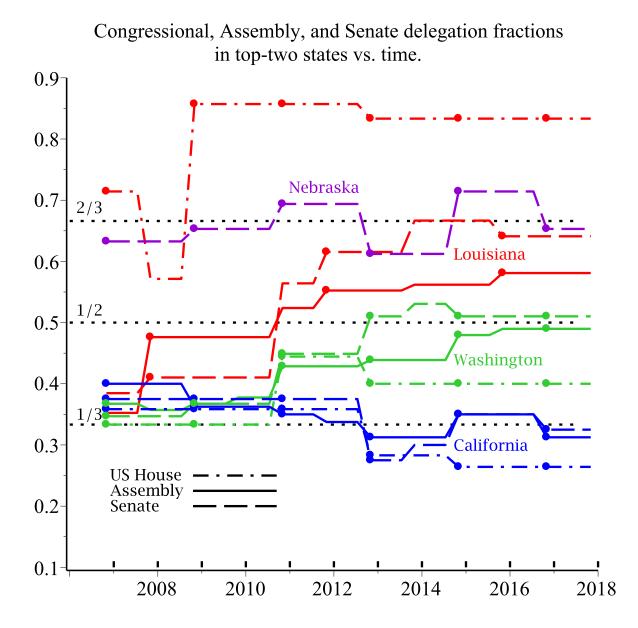


FIG. 9. This figure is the same as Figure 8, but data for top-two elections in Nebraska are included. Nebraska alone of the 50 states as a unicameral legislature, called the Unicam or the Nebraska Senate; its 100 members are elected to staggered four year terms. These top-two elections are non-partisan and no party identification is put on the ballot; Nebraska, however, has partisan primaries for most other state offices (for example, for Governor, for U.S. Senator, or for member of the U.S. House), and a system of voter registration by party; so the party identification of the members of the Nebraska Senate is well-known. The Senate has remained at about 2/3 Republican. For a fuller discussion of this figure see Appendix A 9.

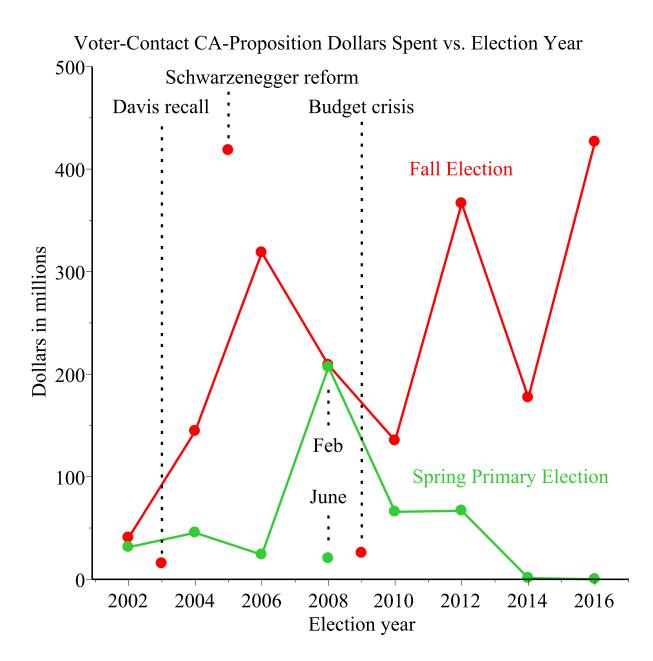


FIG. 10. Money spent on voter contact for or against the California ballot propositions in spring elections (green points) and in fall elections (red points). The elections for the regular fall general elections are joined by red lines. There have however been three special elections called in fall: in 2003 for the recall of Governor Davis; in 2005 one called by Governor Schwarzenegger, to try to pass a suite of political reforms (Propositions 74 through 77); and one called in 2009 to deal with the (then) budget crisis. In 2008 there were two elections in spring: one in February to nominate candidates for U.S. President; and another one in June, to nominate for state offices. The green lines join the earliest of these two spring elections with the regular spring primary election in other years. For a fuller discussion of this figure see Appendix A 10.

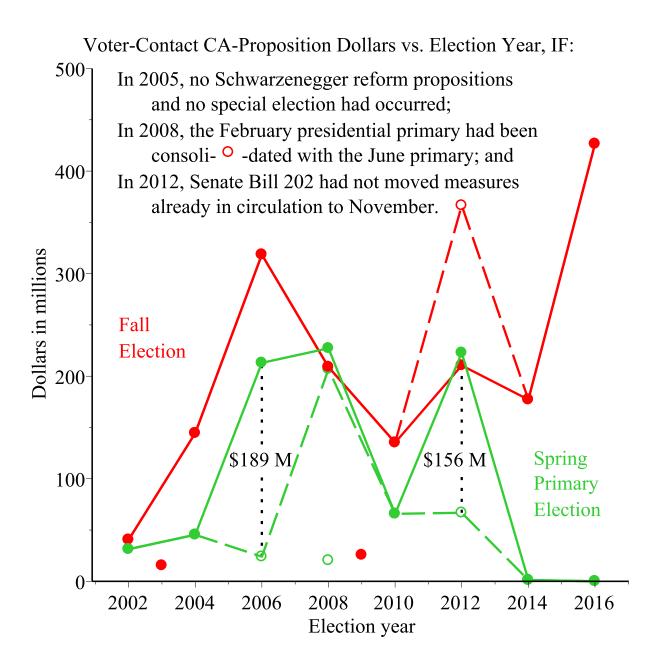


FIG. 11. This figure displays as solid points joined by solid lines the voter contact dollars that would have been spent in the regular spring primary election (in green) and the fall general election (in red) had the three interventions stated in the figure in the regular cycle of elections not occurred. The hollow points and dashed lines repeat from Figure 10 what happened with those interventions. For a fuller discussion of this figure see Appendix A 11.

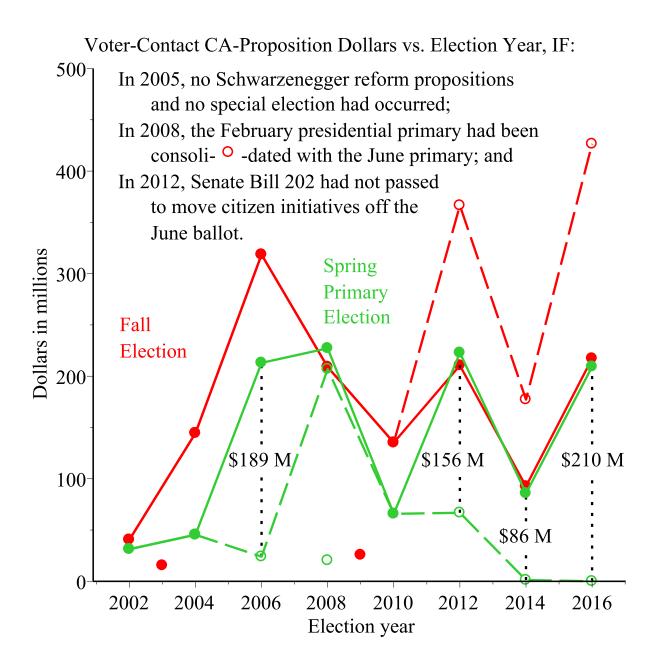


FIG. 12. This figure displays as solid points joined by solid lines the voter contact dollars that would have been spent in the regular Spring primary election (in green) and Fall general election had the three interventions stated in the figure in the regular cycle of elections not occurred. The only difference between this figure and Figure 11 is that SB 202 is assumed never to have passed at all. This change would move the sums indicated for 2012, 2014, and 2016 from voter contact in the general election to voter contact in the primary election. Here the hollow points and dashed lines repeat the solid points and solid lines from Figure 11. For a fuller discussion of this figure see Appendix A 12.

[1] Note: all the website addresses throughout these references have been standardized to use a backslash ("\") instead of a forward slash ("/") as a delimiter, even if the original address appears with a mix of the slashes, i.e., http:\\this\file.pdf is written in the references, even if the original address appeared as http://this/file.pdf or as http.\\this/file.pdf.

The standard American notation month/day/year is used for dates.

The name of the commission is set by the California Constitution, and it is the *Citizens* Redistricting Commission, and not, for example, the *Citizens'* Redistricting Commission.

- [2] For no reason other than that my text-processing software chokes at the number of footnotes and figures if the papers are not divided. The papers were written concurrently and released simultaneously.
- [3] The author contributed \$3 million to the Independent Voter Project to register voters with no party preference, who, one might presume, would be in favor of having voters with no party preference have an easier time voting in primary elections.
- [4] The offices covered by partian primaries were the district offices of the state Assembly, state Senate, and for the U.S. House of Representatives, and the state offices of Governor, Lieutenant Governor, Secretary of State, Attorney General, Treasurer, Controller, and Insurance Commissioner. The one state office not covered was that of Superintendent of Public Instruction. The federal office of U.S. President was also covered, as was that of U.S. Senator. Elections to membership in each of the 58 county party political central committees were also covered.
- [5] In California as of 09/09/17 the qualified political parties are the American Independent Party, the Democratic Party, the Green Party, the Libertarian Party, the Peace & Freedom Party, and the Republican Party. See the website of the California Secretary of State, http://www.sos.ca.gov/elections/political-parties/qualified-political-parties.
- [6] Elections code 13102.

"(a) All voting shall be by ballot. There shall be provided, at each polling place, at each election at which public officers are to be voted for, but one form of ballot for all candidates for public office, except that, for partian primary elections, one form of ballot shall be provided for each qualified political party as well as one form of nonpartian ballot, in accordance with subdivision (b).

(b) At partial primary elections, each voter not registered as intending to affiliate with any one of the political parties participating in the election shall be furnished only a nonpartial ballot. The nonpartian ballot shall contain only the names of all candidates for nonpartian offices and measures to be voted for at the primary election. Each voter registered as intending to affiliate with a political party participating in the election shall be furnished only a ballot of the political party with which he or she is registered and the nonpartian ballot, both of which shall be printed together as one ballot in the form prescribed by Section 13207."

Subsequently amended in 1996 by the passage of Proposition 198. For this the original text, see for example the ballot pamphlet for the 1996 primary election at the website of the California Secretary of State, http://vigarchive.sos.ca.gov/1996/primary/ballot/198txt.htm.

[7] Cross-filing, a candidate's ability to run to become the nominee of more than one political party at a time, and by, for example, becoming the nominee of both the Republican and

the Democratic party to win the general election in a walkover, was abolished in California in 1959.

[8] California Elections Code Section 2151 read as of March, 1996:

"2151. At the time of registering and transferring registration, each elector may declare the name of the political party with which he or she intends to affiliate at the ensuing primary election. The name of that political party shall be stated in the affidavit of registration and the index.

The voter registration card shall inform the affiant that any elector may decline to state a political affiliation, but no person shall be entitled to vote the ballot of any political party at any primary election unless he or she has stated the name of the party with which he or she intends to affiliate. The voter registration card shall include a listing of all qualified political parties.

No person shall be permitted to vote the ballot of any party or for any delegates to the convention of any party other than the party designated in his or her registration, except as provided by Section 2152."

See for example Proposition 198: Text of Proposed Law on p. 61 of the California Ballot Pamphlet: March 26, 1996, available at the UC Hastings Scholarship Repository, UC Hastings College of Law, as the Voter Information Guide for 1996, Primary (1996), https:// repository.uchastings.edu/ca_ballot_props/1140.

- [9] Proposition 198, "Elections. Open Primary" passed in the primary election of March 23, 1996 with 59.5% of the vote. See the website of the California Secretary of State, http://elections. cdn.sos.ca.gov/sov/1996-primary/summary-of-votes.pdf.
- [10] For the text of Proposition 198 see pp. 60–63 of the California Ballot Pamphlet: Primary Election, March 26, 1996, available from the University of California at Hastings Scholarship Repository as Voter Information Guide for 1996, Primary (1996), https:// repository.uchastings.edu/ca_ballot_props/1140, and also https://repository.uchastings.edu/ cgi/viewcontent.cgi?article=2139&context=ca_ballot_props.

The following is from the Analysis by the Legislative Analyst, p. 33:

"This measure allows all persons who are entitled to vote in primary elections, including those not affiliated with a political party, to vote for any candidate regardless of the candidate's political party affiliation. Thus, voters in primary elections would be allowed to vote for candidates across political party lines. Furthermore, the initiative provides that county elections officials prepare only one ballot for all voters. The candidates for an office would be listed randomly on the ballot and not grouped by political party affiliation. The candidate of each political party who receives the most votes for a state elective office becomes the nominee of the party at the next general election.

These provisions do not apply to elections of political party committee members. In these elections, voters would be restricted to voting for candidates of their own political party affiliation".

[11] The Republican, Libertarian, and the Peace & Freedom party, all of which were political parties qualified in California, joined in the suit. See California Democratic Party et al. v. Jones, Secretary of State of California, et al., 530 U.S. 567 (2000), available for example at https://scholar.google.com/scholar_case?case=1572654332 5213837207&hl=en&as_sdt=6&as_vis=1&oi=scholarr. [12] The concluding paragraph of the majority (7-2) opinion reads,

"Respondents' legitimate and state interests (*sic*) petitioners' First Amendment rights are not inherently incompatible. To the extent they are in this case, the State of California has made them so by forcing political parties to associate with those who do not share their beliefs. And it has done this at the 'crucial juncture' at which party members traditionally find their collective voice and select their spokesman. Tashjian, 479 U. S., at 216. The burden Proposition 198 places on petitioners' rights of political association is both severe and unnecessary. The judgment for the Court of Appeals for the Ninth Circuit is reversed."

In my opinion, the first sentence is to be parsed as, 'The Respondent's legitimate First Amendment rights, and the First Amendment Rights of the state interests petitioner (that is, the petitioner appearing on behalf of the interests of the state of California's) are not inherently incompatible."

In the original, the quotation "crucial juncture" appears, as in this sentence, in double quotation marks. In my opinion, the first sentence is to be parsed as, 'The Respondent's legitimate First Amendment rights, and the First Amendment Rights of the state interests petitioner (that is, the petitioner appearing on behalf of the interests of the state of California's) are not inherently incompatible.'.

- [13] Alaska Division of Elections, Alaska Primary Election History, http://www.elections.alaska. gov/doc/forms/H42.pdf, pp. 1–4.
- [14] Washington Secretary of State, History of the Blanket Primary in Washington, https://www.sos.wa.gov/elections/bp_history.aspx.
- [15] California elections code Section 2151, as amended by the passage of Senate Bill 28 (chaptered on September 9, 2000). See the legislation information website of the California legislature, specifically http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml? bill_id=199920000SB28. The relevant text read,

"2151. At the time of registering and of transferring registration, each elector may declare the name of the political party with which he or she intends to affiliate at the ensuing primary election. The name of that political party shall be stated in the affidavit of registration and the index. The voter registration card shall inform the affiant that any elector may decline to state a political affiliation, but no person shall be entitled to vote the ballot of any political party at any primary election unless he or she has stated the name of the party with which he or she intends to affiliate or unless he or she has declined to state a party affiliation and the political party, by party rule duly noticed to the Secretary of State, authorizes a person who has declined to state a party affiliation to vote the ballot of that political party. The voter registration card shall include a listing of all qualified political parties. No person shall be permitted to vote the ballot of any party or for any delegates to the convention of any party other than the party designated in his or her registration, except as provided by Section 2152 or unless he or she has declined to state a party affiliation and the party designated in his or her registration and the party, by party rule duly noticed to the Secretary of State, authorizes a party affiliation 2152 or unless he or she has declined to state a party affiliation and the party, by party rule duly noticed to the Secretary of State, authorizes a person who has declined to state a party affiliation and the party, by party rule duly noticed to the secretary of the party, by party rule duly noticed to the Secretary of State, authorizes a person who has declined to state a party affiliation and the party, by party rule duly noticed to the Secretary of State, authorizes a person who has declined to state a party affiliation to vote the party ballot or for delegates to the party convention".

[16] For the offices of Assembly, state Senate, and U.S. House of Representatives; there were exceptions for at least the office of U.S. President and for the membership of county central committees.

That the Republican and the Democratic parties of California permitted voters registered

with no political party to participate in both the Republican primary and the Democratic primary is confirmed in the following references:

For the March 5, 2002 primary election, see p. 32 of the Official Voter Information Guide, http://vig.cdn.sos.ca.gov/2002/primary/pdf/bp-pe02.pdf.

For the March 2, 2004 primary election, see p. 15 of the Official Voter Information Guide, either at the site https://repository.uchastings.edu/cgi/viewcontent.cgi?article= 2238&context=ca_ballot_props, or at the site http://vigarchive.sos.ca.gov/2004/primary/ voter/decline.html.

For the June 6, 2006 primary election, see p. 5 of the Official Voter Information Guide, http://vig.cdn.sos.ca.gov/2006/primary/pdf/english-06.pdf.

For the June 3, 2008 primary election, see p. 4 of the Official Voter Information Guide, http://vig.cdn.sos.ca.gov/2008/june/lang/english.pdf. (Note: the February 5, 2008 primary did not include the offices of Assembly, state Senate, or House of Representatives, but only the office of U.S. President; the Democratic party permitted voters unaffiliated with any party to participate in that primary, but the Republican party did not.)

For the June 8, 2010 primary election, see p. 4 of the Official Voter Information Guide, http://vigarchive.sos.ca.gov/2010/primary/voter-info/decline-to-state-voters.htm.

- [17] See the website of the California Secretary of state, specifically http://elections.cdn.sos.ca.gov/sov/2004-general/sov_pref21_votes_for_and_against.pdf.
- [18] See the website of the California Secretary of state, specifically http://elections.cdn.sos.ca.gov/sov/2010-primary/pdf/19-votes-for-against.pdf.
- [19] For the full text see for example the .pdf copy of the 2010 voter information guide, at the University of California at Hastings Scholarship Repository, Voter Information Guide for 2010, Primary (2010), available at https://repository.uchastings.edu/ca_ballot_props/1306.

Proposition 14 was put on the ballot by the passage of SCA (Senate Constitutional Amendment) 4, author Maldonado, filed with the Secretary of State on February 19, 2009. See the legislation information website of the California Legislature, specifically http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200920100SCA4& search_keywords=primary.

- [20] The implementation of the top-two primary was specified in a separate bill, SB (Senate Bill) 6, author Maldonado, which was filed with the Secretary of State February 20, 2009; Section 67 of this bill made the implementation operative only if SCA (Senate Constitutional Amendment) 4, which became Proposition 14, were to be approved by the voters. See the legislation information website of the California legislature, specifically http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200920 100SB6&search_keywords=primary. Note that some of the election law established by SB 6 was subsequently changed.
- [21] See the ballot title and summary, on p. 5 of the Official Voter Information Guide, available at the website of the California Secretary of State at http://vig.cdn.sos.ca.gov/2004/general/english.pdf. The summary reads,

"Requires primary elections where voters may vote for any state or federal candidate regardless of party registration of voter or candidate. The two primary-election candidates receiving most votes for an office, whether they are candidates with no party or members of same or different party, would be listed on general election ballot. Exempts presidential nominations. Fiscal Impact: No significant net fiscal effect on state and local governments".

- [22] See Figure 5, p. 12 of Eric McGhee (with research support from Daniel Krimm), Voter Turnout in Primary elections, Public Policy Institute of California, http://www.ppic.org/content/pubs/report/R_514EMR.pdf.
- [23] Term limits for the California legislature were set by the passage of Propostion 140 in fall of 1990. See the Voter Information Guide for 1990, General Election, pp. 137–188, available at the Scholarship Repository of the University of California, Hastings College of the Law, available at https://repository.uchastings.edu/cgi/viewcontent.cgi?article=2056& context=ca_ballot_props. Proposition 140 amended the relevant parts of Article IV of the California Constitution as follows (new text shown in underline):

"Sec. 2. (a) the Senate has a membership of 40 Senators elected for 4-year terms. 20 to begin every 2 years. <u>No Senator may serve for more than 2 terms</u>. The Assembly has a membership of 80 members elected for 2-year terms. <u>No member of the Assembly may serve more than 3</u> terms."

and added to Section 17 of Article XIII

"Sec. 7. The limitations on the number of terms prescribed by Section 2 of Article IV, Sections 2 and 11 of Article V, Section 2 of Article IX, and Section 17 of Article XIII apply only to terms to which persons are elected or appointed on or after November 6, 1990, except that an incumbent Senator whose office is not on the ballot for the general election on that date may serve only one additional term. Those limitations shall not apply to any unexpired term to which a person is elected or appointed if the remainder of the term is less than half of the full term".

[24] Proposition 28, which passed on June 5, 2012, changed the term limits on members of the California Assembly and state Senate which were set by the passage of Proposition 140 in November of 1990. For the full text of Proposition 28, see for example the University of California at Hastings Scholarship Repository, Voter Information Guide for 2012, Primary (2012), p. 24, available online at https://repository.uchastings.edu/ca_ballot_props/ 1321. Proposition 28 amended the relevant part of Article IV, Section 2 of the California Constitution to read (new text in underline):

"Senators elected for 4-year terms, 20 to begin every 2 years. No Senator may serve more than 2 terms.

(2) The Assembly has a membership of 80 members elected for 2-year terms. No member of the Assembly may serve more than 3 terms.

(3) Their terms The terms of a Senator or a Member of the Assembly shall commence on the first Monday in December next following their her or his election.

(4) During her or his lifetime a person may serve no more than 12 years in the Senate, the Assembly, or both, in any combination of terms. This subdivision shall apply only to those Members of the Senate or the Assembly who are first elected to the legislature after the effective date of this subdivision and who have not previously served in the Senate or Assembly. Members of the Senate or Assembly who were elected before the effective date of this subdivision may serve only the number of terms allowed at the time of the last election before the effective date of this subdivision".

[25] Legislators did not seek only to construct safety for themselves and the number in their caucus, and created polarization unknowingly. Anecdotal evidence suggests that the few incumbents whose present and future legislative careers were ended by the 2002 maps met their fate precisely because the majority of the Republican or the Democratic caucus thought them unreliable, that is, each was either an incumbent Republican who was inclined to agree on some issues with the Democrats, or the reverse.

There have always been factions of both caucuses who viewed a 'moderate' member of their caucus as more of a personal, political, and ideological threat than any member of the other caucus: factions whose members were politically sophisticated enough to know the consequences of the 2002 maps, and accepted, or even welcomed, a system in which few 'moderates' would be elected for the next decade.

[26] To show that my breezy summary of the state of the California legislature circa 2009 is shared by some responsible authority other than myself, consider the following recapitulation written June 1, 2018 by the editorial board of the Sacramento Bee, the California capitol's newspaper of record (italics added).

"... As the June 5 [2018] primary approaches, let's pause to reflect.

Specifically, let's reflect on the wee hours of a winter morning in February 2009 at the state Capitol. California's top-two primary did not exist; a version of it [the blanket primary] had been tried and booted out by the courts and was barely a twinkle in the bleary eyes of a few Democratic and Republican centrists.

Each party nominated its candidate the old-fashioned way, on a separate ballot or at a party convention. Primaries were dominated by the base and the true believers; that, plus gerry-mandering plus a two-thirds threshold for passing a state budget made it almost impossible for legislators to accomplish anything of substance.

The budget was 100 days overdue—par for the course in what was then a Golden State of gridlock. The Legislature had already been ranked as one of the most dysfunctional in the nation, and now the state was in the depths of a crippling recession. California was going broke. Our bond rating had tanked. Services were being threatened, federal stimulus money was at risk, revenue was desperately needed and ideological Republicans were dug in because they had forced each other to sign no-new-tax pledges.

[I would observe that it would be equally just to claim that ideological Democrats had dug in, fearing their own primary partisans, to refuse to offer to reform any of the practices that led to the fiscal crisis, to be part of a package to stave off the crisis' immediate consequences.]

This was the sad state of affairs when, in a last-ditch move, a Republican state senator, Abel Maldonado, agreed to help Democrats pass a tax increase in return for their help passing a package of initiatives [*i.e.*, the ballot measure to establish the top-two primary] to put more moderates into office.

On that morning, in a marathon deal brokered by Gov. Arnold Schwarzenegger, Senate President Darrell Steinberg, Assembly Speaker Karen Bass and Sen. Dave Cogdill (who was ousted as leader of the Senate Republicans for his trouble), the Legislature hauled itself back from the brink.

The top-two primary was part of the result.

Since then, the change at the Capitol has been so striking that it's hard to remember how truly awful state government was in that paralyzed era. Budgets pass on time now, thanks to a shift to a simple majority requirement for approval. Legislative districts make sense, thanks to a switch from partisan gerrymandering to an independent redistricting commission. In the Assembly, the top-two system, which lets the top two vote getters progress to the general election regardless of party, has made a cadre of moderate, pro-business Democrats a somewhat leavening force.

...."

See, "So should we dump California's top-two primary, or what?" [in the opinion of the author of the present paper, a deliberately tongue-in-cheek title], Sacramento Bee, June 1, 2018, available for example at http://www.sacbee.com/opinion/california-forum/article212315364. html.

- [27] The author of the present paper was the largest single donor supporting the passage of Proposition 11, and was the proponent, co-author, campaign head, and largest donor for Proposition 20.
- [28] See the California Constitution, Article XXI, Section 2(e), available at the leginfo website of the California legislature at https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml? lawCode=CONS&division=&title=&part=&chapter=&article=XXI.

"(e) The place of residence of any incumbent or political candidate shall not be considered in the creation of a map. Districts shall not be drawn for the purpose of favoring or discriminating against an incumbent, political candidate, or political party."

Proposition 11, passed November 4, 2008, gave the Citizens Redistricting Commission authority over district maps for state offices other than the U.S. House of Representatives, subject to this and other constraints; see for example the full text of Proposition 11 on pp 137–140 of the Voter Information Guide for 2008, General Election (2008), available at the UC Hastings Scholarship Repository at https://repository.uchastings.edu/ca_ballot_props/1266.

Proposition 20, passed November 10, 2010, extended the Commission's authority to cover the district maps for the U.S. House, subject to this same constraint. For the full text of Proposition 20 see pp. 95–97 of the Voter Information Guide for 2010, General Election (2010), available at the UC Hastings Scholarship Repository at https://repository.uchastings. edu/ca_ballot_props/1305.

[29] The district maps for the state Senate and for the U.S. House were set by Assembly Bill 632, chaptered on September 27, 2001 (Chapter 348, Statutes of 2001). The bill and its history may be found at the leginfo website of the California Assembly and Senate, specifically at \http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id= 200120020AB632&search_keywords=redistricting.

The district maps for the Assembly and the Board of Equalization were set by Senate Bill 802, chaptered on September 27, 2001 (Chapter 349, Statutes of 2001). This bill and its history may also be found at the leginfo website of the California Assembly and Senate, specifically at http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200120020 SB802&search_keywords=redistricting.

[30] The data in Table I about which parties permitted NPP voters vote a party partial primary are from the Official Voter Guide from the California Secretary of State in each election year.

For 2002, see p. 32 of http://vig.cdn.sos.ca.gov/2002/primary/pdf/bp-pe02.pdf.
For 2004, see p. 15 of http://vig.cdn.sos.ca.gov/2004/primary/english.pdf.
For 2006, see p. 5 of http://vig.cdn.sos.ca.gov/2006/primary/pdf/english-06.pdf.
For 2008, see p. 4 of http://vig.cdn.sos.ca.gov/2008/june/lang/english.pdf.
For 2010, see p. 4 of http://vig.cdn.sos.ca.gov/2010/primary/pdf/english/complete-vig.pdf.

[31] The relevant part of the proposed change was to make the following deletion from the bylaws of the Committee of the California Republican Party. (The current bylaws are available at the website of the California Republican Party at https://www.cagop.org/platform_and_bylaws). The text of the proposed change is from an August 24, 2009 California Republican Party memorandum regarding the "Proposed Bylaw Amendments" submitted for consideration by the Rules Committee at the California Republican Party Convention at Indian Wells, California, September 26–27, 2009.

"The Committee shall recognize only those partisan nomination processes under California law that limit the electorate for partisan nomination elections to registered Republican voters, and which do not impose upon the Committee, without its express concurrence, a nomination process open to voters registered in other parties or as decline to state; provided, however, that commencing with the 2002 statewide partisan primary election, the Committee shall authorize and permit to vote, and have their ballots counted in the Republican primary, the following classes of voters:

(1) any registered Republican voter otherwise qualified to vote at that election; and

(2) any person who is registered as decline-to-state or non-partisan, who is otherwise qualified to vote at the election".

[32] The author of this paper was one of the leaders among the convention delegates opposing the exclusion. As with many (but not all) close party battles, the struggle mostly left no official trace.

The convention was held in Indian Wells, in the California desert, and its remote location made it likely that delegate attendance in person at the convention would be low; also the fall convention in an odd-numbered year itself tended to have such low attendance, inasmuch as the party organization's officers had been elected at the previous convention in spring, and regular California state elections would be the year following. Any absent delegate could tender their vote by proxy to a delegate attending in person, each of whom could carry and vote either one or two such proxies; the backers of the proposal began a campaign to collect such proxies and sew up the vote.

The proposal having drawn much opposition, a campaign supported by the author succeeded in bringing enough delegates to the convention and in collecting enough proxies in opposition that it became likely that the proposal would be defeated (by a majority vote) if it came to a vote of the convention floor. If there were not enough delegates in person or by proxy to have a quorum, however, no decision could be made by the delegates on the convention floor, and all decisions would be made instead by the party's Executive Committee, a body of fixed membership largely appointed by the party Chairman where ordinary convention delegates, in person or by proxy, have no vote.

There ensued a second struggle as to whether opponents of the proposal could muster enough delegates and proxies to complete a quorum of the floor if the supporters of the proposal

chose not to appear and to withhold the proxies they had collected. The opponents succeeded; then, either because the proponents wished to withdraw before a defeat, or as a last bid to deny the convention a quorum, the proxies collected by the proponents were not submitted to be voted. To refuse to cast a vote with which one has been entrusted with a proxy by an absent delegate was not a popular act, and the party Chair announced from the dais of the convention that there would be an investigation to find out who was responsible; the investigation found out what the party brass already knew, and the investigation was quashed.

For the record, the proponent's proxy campaign was organized by Michael Schroeder, chairman of the party from 1997 to 1999, and Steve Frank, current (2017) Senior Contributing Editor of a web journal called the California Political Review. The author of the proposal was Mr. Jon Fleischman, who served as Executive Director of the party from 1999 to 2001, and when he offered his proposal, was a member of the party's Board of Directors (term from 2007–2011). The party Chairman was Ronald ("Ron") Nehring.

The official history is only that the proposal was never taken up by the Rules Committee when it met on Saturday September 26, as many random proposals (any delegate may submit one) are not taken up; and that it was never taken up by the delegates meeting in convention the following morning.

[33] See Rule 16(d)(2) and 16(d)(3) of The Rules of the Republican Party, As adopted by the 2016 Republican National Convention July 18, 2016, and as as Amended by the Republican National Committee on July 20, 2018, available at https://prod-cdn-static.gop.com/media/ documents/2016-Republican-Rules-Reformatted2018_1533138132.pdf.

In the following quotations the italics are added for emphasis. The penalty for not following the rules is for a state to have its delegates limited only to those who are selected in accordance with the rules; in the case of California in 2016, such penalties would have reduced its count of delegates from the full 172 (the nation's largest) down to the 3 elected within the state Republican party organization itself (state party Chairman, National Committeeman, National Committeewoman).

"16(d)(2) Only persons eligible to vote who are deemed as a matter of public record to be Republicans pursuant to state law or, if voters are not enrolled by party, by Republican Party rules of a state shall participate in any primary election held for the purpose of electing delegates or alternate delegates to the national convention or in any Republican caucus, mass meeting, or mass convention held for the purpose of selecting delegates to the county, district, or state conventions, and only such legal and qualified voters shall be elected as delegates to county, district, and state conventions; provided, however, that in addition to the qualifications provided herein, the applicable Republican Party rules of a state may prescribe additional qualifications not inconsistent with law, which additional qualifications shall be adopted before October 1 in the year before the year in which the national convention is to be held and published in at least one (1) newspaper having a general circulation throughout the state, such publication to be at least ninety (90) days before such qualifications become effective.

16(d)(3) No state law shall be observed that permits any person to participate in a primary delegate and alternate delegate selection process that also permits that person at the same primary to participate in the choosing of nominees of any other party for other elective office.

Delegates and alternate delegates to the national convention shall in that event be selected pursuant to state Republican Party rules that are not inconsistent with The Rules of the Republican Party; provided, however, that the selection process established by the state Republican Party rules shall provide that only persons eligible to vote who are deemed to be Republicans pursuant to state law or state Republican Party rules shall participate in such delegate election or selection process".

- [34] This would seem to be true only vacuously, since the election of 2008 saw a second primary for state offices after the presidential primary that was open to NPP voters, and the passage of the top-two primary rendered the point moot for the presidential elections of 2012 and 2016. The author remarks, on the basis of having attended every single convention of the California Republican Party since the spring convention of 2007, and also having attended 3 meetings of the Republican National Committee, that it is my view that the chance is zero the Republican National Committee would have allowed, or the California Republican Party would have sought, NPP voters to participate in any primary for state office that coincided with the presidential primary.
- [35] The amendments adopted at the convention of the California Republican Party Committee on March 13–14, 2010 added the following language in bylaw 1.04(A) following (A)(2):

"Moreover, should a "Top-Two" or "Open Primary initiative pass on or after June 2010, the Committee will recognize as the Republican nominee for state wide office (those offices set forth in Section 2.01.01(A)(1) of these Bylaws) that person who receives a majority vote of the Nominators and is a registered Republican (the "Nominating Election.")

The Committee's nominees for the elective offices listed in section 2.01.01(A)(2) of these Bylaws will be determined by the Nominators who are registered voters in the district for each office, by a majority vote of the Nominators voting in the Nominating Election, and who are registered Republicans.

The "Nominators" will include all regular and appointed delegates of the Committee—or their proxies—-and all members of each Rep. [*sic*] County Central Committee—or their proxies. The Nominating Election for all statewide candidates will be held at the Committee's convention immediately prior to the primary election. The Nominating Election is an election and no quorum requirements shall apply.

A candidate who is not the Republican nominee may not receive any support of any kind from the Committee, including, but not limited to, financial, political, in kind, or communications. Moreover, a candidate—whether registered as Republican or not—who is not the Republican nominee may not appear on any material printed, published, or distributed by the Committee".

- [36] Party rules at the time required two conventions a year, one in spring; and one in fall. The top-two primary passed in June.
- [37] The rescinders, including this author, had mustered, in person and by votes present by proxy, a majority of the convention floor to rescind the scheme. The problem was that any change to the bylaws not recommended by the party Rules Committee would require not a majority but a two-thirds vote to pass, and the rescinders' count of the likely votes was short of that supermajority. All then hung on the recommendation of the Rules Committee, whose members were appointed by the Chairman, with the consent of the party Board of Directors; that committee was divided on what to do.

Shortly before the Convention, the party Chairman appointed four new members to stack the Rules Committee and secure his majority. Rescinders managed to persuade 2 of those 4 to support their position. The critical vote on the Rules Committee went to a 9 to 9 tie, which then brought the vote of the Rules Committee chair into play. With the state party Chairman who had appointed him facing him, he cast his vote for rescinding. There followed half an hour of parliamentary motions to undo that vote, all of which failed on a 10 to 9 vote. The rescinders knew the party bylaws provided that the state party Chairman was, ex-officio, a member of the Rules Committee, and had had only to step forward and cast a vote to make the vote on the motion for rescinding a 10 to 10 tie, defeating it, and so preventing any motion from the Rules Committee from reaching the convention floor. The party Chairman and his supporters, it proved, did not. That was how tight the margin was. Whether the rescinders could have mustered a two-thirds vote, and not just a majority vote, on the convention floor will, perhaps fortunately, never be known.

For the record, the party Chairman was Ronald ("Ro") Nehring.

[38] The bylaws were amended to read what now stands,

"Section 1.04(B) DETERMINATION OF NOMINEES

However, notwithstanding any other provision in these Bylaws, so long as there is a "top Two" [*sic*] primary under California law for the selection of candidates for State Constitutional Office and for members of the United States Senate, the House of Representatives, California State Senate, California State Assembly, and California Board of Equalization, then the Republican nominees shall be determined as follows:

Categoy 1 Nominees. Any person who has been a registered Republican for at least one year, who is the only registered Republican on the ballot or the winner of the general election in a race for any of the above-referenced offices is deemed to have received more Republican votes than any other candidate for election to that office and is deemed to be the Republican nominee.

Category 2 Nominees. Any person, who has been a registered Republican for at least one year, who ran for election for any of the above-referenced offices and who is the sole Republican candidate in the general election is deemed to have received more Republican votes than any other candidate for election to that office and is deemed to be the Republican nominee.

Category 3 Nominees. Any person, who has been a registered Republican for at least one year, who ran for election for any of the above-referenced offices and received more votes than any other registered Republican candidate in that primary, but did not finish first or second, is deemed to have received more Republican votes than any other candidates for election as the Republican nominees for that office and is deemed to be the Republican nominee."

The point of the last provision is that it is the party nominee is entitled to be a delegate of the party and to appoint additional delegates of his choosing, and so to have a certain number of delegate votes under his control. For the text of the current bylaws, of which this is a sample, see the *Standing Rules and Bylaws of the California Republican Party, as Amended May 6, 2018,* at the website of the California Republican Party at https://d3n8a8pro7vhmx.cloudfront.net/cagop/pages/38/attachments/original/1533854981/Byalws.Updated.05.06.18.pdf?1533854981.

[39] In fact the number of candidates running for governor as members of political parties was

just the same, 22 in both elections. In 2010 there were in addition 5 candidates running with no party preference.

- [40] The gubernatorial elections of 2010 and 2018 both included an election for U.S. Senator, which is included in the 8.
- [41] Only half of California's 40 state Senate seats are up for election every two years, so only half of California's voters had an election for state Senate on their ballot.
- [42] Technically, what appears on the ballot with the candidate's name is the party with which a candidate has declared his preference when the candidate filed his papers to run for office; there appears for example on the ballot the language "Party Preference: Republican" or "Party Preference: Green." Nothing forbids a candidate from re-registering after filing for office to prefer another party; California law requires, however, a candidate's complete party-preference (or registration) history, including that over the preceding 10 years, be posted publicly on a website maintained by the California Secretary of State. For candidates registered but with no qualified political party there appears on the ballot the language, "Party Preference: None".
- [43] Lest the reader think this tactic merely hypothetical, a former member of the California legislature from the partisan primary era, who shall remain nameless, confided to this author that the legislator's campaign always made sure that a particular minor party always had a candidate on the general election ballot in the legislator's district, and for just this reason.
- [44] Green party candidate Audie Bock was elected on March 30, 1999 in Assembly District 16 in a special, not regular, election, apparently becoming the first (and last) third-party candidate to serve in the California Assembly since 1914. See Victory by California Assembly Candidate is First for Greens, Bill Staggs, New York Times, April 4, 1999, available at https://www.nytimes.com/1999/04/04/us/victory-by-california-assembly-candidateis-first-for-greens.html.

Ms. Bock ran for re-election in 2000, but as an independent (qualifying for the general election ballot without running in a primary), and was defeated; no Green candidate filed for the primary ballot in her district. See the website of the California Secretary of State, Complete Statement of the Vote [for the 2000 primary], p. xvii and p. xxvi, available at http://elections.cdn.sos.ca.gov:/sov:/2000-primary:/sov-complete.pdf.

- [45] Data in Table II is from the summary of the vote for the 2010 primary election from the website of the California Secretary of State, see\ https:\\elections.cdn.sos.ca.gov\sov\2010primary\pdf\20-35-sov-summary-primary.pdf.
- [46] For a readable introduction to social choice theory as it applies to elections see the various books by Donald G. Saari, for example, *Decisions and Elections: Explaining the Unexpected*, Cambridge University Press, 2001; *Chaotic Elections! A Mathematician Looks at Voting*, American Mathematical Society, 2000; and *Basic Geometry of Voting*, Springer, 1995. For Arrow's theorem, see the first of these, Chapter 2, especially p. 43; for the Gibbard-Satterthwaithe theorem, see p. 136 and p. 206; and the third of these, p. 231.

For Arrow's original work on Arrow's theorem see Social Choice and Individual Values, 2nd edition, by K.J. Arrow, Wiley, New York, 1963. For the original work on the Gibbard-Satterthwaite theorem see the separate papers Manipulation of Voting Schemes: a general result, by A.F. Gibbard, Econometrica **41**, pp.587–601 (1973); and Strategyproofness and Arrow's conditions: existence and correspondence theorems for voting procedures and social

welfare functions, by M.A. Satterthwaite, Journal of Economic Theory 10, pp. 187–217 (1975).

[47] In a Borda count election between n candidates, the voter is assumed to have a private ranking of the candidates from most to least preferred. The voter casts a ballot by assigning each of the candidates a number from 0 to n - 1, so that every candidate gets a number, and no number is used twice. If a voter casts a ballot in accord with his real preferences, the voter gives the number n - 1 to his most preferred candidate, the number 0 to his least, and the others in order in between. The victor in the election is the candidate the total of whose numbers assigned him is the highest.

There are variants where one assigns different sets of numbers to the candidates. For example, one can decide to allow voters to assign only the numbers 3, 2, and 1 to each of three candidates, when the actual number of candidates that are running is four or more.

- [48] In instant runoff election between n candidates, each voter returns a ballot that lists the candidates in order most preferred to least preferred (the voter is of course under no obligation to have the order he lists match his genuine, private ranking of the candidates). For each candidate the number of ballots is totaled that rank that candidate first. If any candidate has a majority, that candidate is elected. If not, the candidate with the lowest such total is deemed eliminated from the race. He is struck from each voter's rankings, each of which now is a ranking of the remaining n 1 candidates. If any candidate of these n 1 now has a majority of the current first-place rankings, he is elected; if not, the candidate with the fewest number of such current first place rankings is eliminated, and the process repeats with the remaining n 2 candidates. The process of successively reducing the number of candidates eventually produces a winner.
- [49] One must not exaggerate this result. A system of primary and general elections that has to cope with say, 6 candidates in the primary is, overall, a system within the scope of the Gibbard-Satterthwaithe theorem and opportunities will arise where it will profit a voter not to cast a ballot in accord with his real preferences. Our point is that under the top-two those opportunities appear only in the primary election, not the general election, because in the general election the number of candidates has been limited to 2. If the top-two is successful in its aim of moving the two strongest candidates to the general election, there to be assessed by the largest and most representative electorate, it seems to us that to balance the evils attendant once strategic voting is possible one would have to have an especially compelling reason to increase the number of candidates in the general election beyond 2.

Nonetheless, it is conceivable, at least within the authors present understanding of the current state of social choice theory, that some clever scheme of elections might yet be devised where a 6-candidate primary were made to yield a general election with than 3 candidates, say, yet the system offered in some sense 'fewer' opportunities for strategic voting over the primary and general election combined than a scheme that instead yielded a general election with 2 candidates. But it is certain that some of those opportunities would necessarily occur in the general election.

[50] Most data in Table III are from ProCon.org. Election results for 2016 are from their page 2016 Presidential Election Results, available at https://2016election.procon.org/view.resource. php?resourceID=006652. Election results earlier than 2016 are also from ProCon.org, specifically their page titled *Presidential Election History from 1789 to 2012*, available at https://2012election.procon.org/view.resource.php?resourceID=004332. The page notes,

"The presidential candidates and their political parties, number of electoral and popular votes received, and vice presidential candidates for every election from 1789 to 2008 are listed below, in reverse chronological order. Every candidate that received either more than 100,000 popular votes or at least one electoral vote has been included. Please note that there is no official federal record of popular votes cast in presidential elections because the information is compiled by each state, so the totals vary across different sources. ProCon.org used data provided by the National Archives and Records Administration when possible, and supplemented the missing information with data from Dave Leip's Atlas of US Presidential Elections and the Federal Elections Commission. The data were corroborated with other sources including the New York Times, CNN, and PresidentElect.org. While the sites had discrepancies in the numbers provided for the popular vote totals, all reported totals were within 1% of each other."

However, the identification of which party a third party candidate ran under is taken from Wikipedia, specifically the pages specifically https://en.wikipedia.org/wiki/United_States_presidential_election,_xxxx#National_results, where xxxx is the four-digit election year.

- [51] California's system of dealing with deaths of candidates was established not by the passage of Proposition 14 in June of 2010, nor by the legislation triggered by its passage, but by the passage of Assembly Bill 1423, which as an urgency statute became effective became effective February 10, 2012, in time for the primary election of 2012. Full disclosure: this author advised the legislature on some of the provisions of AB 1423.
- [52] See California Elections Code, Section 8803(b), established by the passage of Assembly Bill 1413, which became effective February 10, 2012 (as an urgency statute). (In the code section that follows, a "voter-nominated office" is an office that is elected by the top-two system.)

"8803(b) No vacancy on the ballot for a voter-nominated office at a general election shall be filled. If a candidate who is entitled to appear on the general election ballot dies, the name of that candidate shall appear on the general election ballot and any votes cast for that candidate shall be counted in determining the results of the election for that office. If the deceased candidate receives a majority of the votes cast for the office, he or she shall be considered elected to that office and the office shall be considered vacant at the beginning of the term for which the candidate was elected. The vacancy shall be filled in the same manner as if the candidate had died after taking office for that term".

[53] See California Elections Code 8805(b). A "voter-nominated office" in California is an office that is elected by the top-two system. The following was established by the passage of Assembly Bill 1413, which became effective February 10, 2012 (as an urgency statute).

"8805(b) Whenever a candidate for nomination for a voter-nominated office at a primary election dies on or before the day of the election, and a sufficient number of ballots are marked as being voted for him or her to entitle him or her to nomination if he or she had lived until after the election, the name of the deceased candidate shall appear on the general election ballot and the general election shall proceed in accordance with subdivision (b) of Section 8803".

[54] California Constitution, Article IV, Section 2:

"(a) (1) The Senate has a membership of 40 Senators elected for 4-year terms, 20 to begin every 2 years.

(a) (2) The Assembly has a membership of 80 members elected for 2-year terms.

. . .

(d) When a vacancy occurs in the Legislature the Governor immediately shall call an election to fill the vacancy".

[55] The U.S. Constitution requires vacancies in the U.S. House of Representatives to be filled by election only.

"When vacancies happen in the Representation from any State, the Executive Authority thereof shall issue Writs of Election to fill such Vacancies." —Article I, Section 2, Clause 4.

- [56] A vacancy in the office of Governor is filled by the Lieutenant Governor (California Constitution, Article V, Section 10). A vacancy in the office of U.S. Senator is filled by appointment by the Governor. Vacancies in other statewide offices (Lieutenant Governor, Secretary of State, Controller, Treasurer, Attorney General, Superintendent of Public Instruction, and Insurance Commissioner), and vacancies in the regional seats on the state Board of Equalization, are filled by appointment by the Governor and confirmation by a majority of both the state Senate and the state Assembly. (For the case of Insurance Commissioner, see the California Insurance Code, Section 12900(b); for the rest, see the California Constitution, Article V, Section 5(b)).
- [57] The U.S. Constitution gives states the right to choose how vacancies in the office of U.S. Senator are to be filled. California and 35 other states allow the Governor to fill the vacancy; however 14 states requires a special election to be called. These proportions change over time; for current information, see the website of the National Council of State Legislatures\ at http://www.ncsl.org/research/elections-and-campaigns/vacancies-in-the-united-states-senate.aspx.
- [58] See California Elections Code Section 18370, available at https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=18370&lawCode=ELEC.

"18370. No person, on election day, or at any time that a voter may be casting a ballot, shall, within 100 feet of a polling place, a satellite location under Section 3018, or an elections official's office:

- (a) Circulate an initiative, referendum, recall, or nomination petition or any other petition.
- (b) Solicit a vote or speak to a voter on the subject of marking his or her ballot.

(c) Place a sign relating to voters' qualifications or speak to a voter on the subject of his or her qualifications except as provided in Section 14240.

(d) Do any electioneering as defined by Section 319.5.

As used in this section, "100 feet of a polling place, a satellite location under Section 3018, or an elections official's office" means a distance 100 feet from the room or rooms in which voters are signing the roster and casting ballots.

Any person who violates any of the provisions of this section is guilty of a misdemeanor".

[59] See the instructions of the California Secretary of State in the 2018 Poll Worker Training Standards, available on the website of the California Secretary of $\label{eq:state} State, \ http://www.sos.ca.gov/elections/voting-resources/voting-california/help-strengthenour-democracy/poll-worker-info/poll-worker-training-standards/$

"A: General Rights: Materials in the Voting Booth

State and federal law do not prohibit voters from bringing the Secretary of State's Voter Information Guide, a county voter information guide, a sample ballot, a copy of the Voter Bill of Rights, or other similar explanatory materials into the voting booth. However, the law does preclude voters from bringing electioneering materials (see Section 3, Electioneering) into the voting booth or within 100 feet of the polling place. ([Elections Code Section] 18370)".

- [60] In 2016, election day was November 8 the mail-in ballots began to be posted to voters on October 10. See the page Key Dates and Deadlines: November 8, 2016, General Election at the website of the California Secretary of State at http://www.sos.ca.gov/elections/prior-elections/statewide-election-results/generalelection-november-8-2016/key-dates-and-deadlines-nov-8-2016/.
- [61] For the power to recall holders of state office see the California Constitution, Article II, Sections 13–19.
- [62] The earlier and synonymous term was "permanent absentee".
- [63] This procedure is detailed in the Official Voter Guide for each of the primaries of 2008 and 2010. From p. 4 of the 2010 guide:

"If You [a voter not affiliated with a political party] Vote by Mail . . . Each county elections office is required to mail all decline-to-state voters who are registered as permanent vote-by-mail voters a notice and application regarding voting in the primary election. The notice shall inform the voter that he or she may request a vote-by-mail ballot for a particular political party for the primary election if that party authorized decline-to-state voters to vote in its primary. If you have already been issued a nonpartisan ballot but would like to request a ballot from one of the participating parties, you must contact your county elections office. For a list of county elections offices...".

 $\left[64\right]$ The language of the 2002, 2004, and 2006 guides was

"If you do not request a specific ballot, you will be given a nonpartisan ballot containing only the names of candidates for nonpartisan offices and the measures to be voted upon at the [primary election]."

and for the 2008 and 2010 guides it was

"If you do not request a specific ballot, you will be given a nonpartisan ballot containing only ballot measures and the names of candidates for nonpartisan offices".

[65] Task Force on Uniform Poll Worker Training Standards, Final Report, 2005, available at the website of the California Secretary of State at http://elections.cdn.sos.ca.gov/pwt_taskforce/pwtf_final_report.pdf.

Training of poll workers had formerly been a county, not a state, responsibility; this was altered by the passage of the federal Help America Vote Act of 2002, and this task force was the first called to implement the state's new responsibilities, as required by California Senate Bill 610 (Escutia), Chapter 530, Statutes of 2003.

[66] Information about the task force can be found at the website of the California Secretary of State at http://www.sos.ca.gov/elections/historical-information-poll-worker-training-task-force/.

- [67] Senate Bill 28, Cox, chaptered on September 9, 2000.
- [68] As of the time of this writing the links on the website of the California Secretary of State to the Poll Worker Training Guidelines 2006, are broken. A copy of the Guidelines may be accessed at http://web.mit.edu/supportthevoter/www/files/2013/08/Poll-Worker-Training-Guidelines-2006.pdf.

The *Guidelines* were issued by the Secretary of State in response to Senate Bill 610 (Chapter 530, Statutes of 2003) which required the Secretary of State to establish a Poll Worker Training Task Force to make recommendations for "uniform guidelines for the training" of poll workers; there is no mention in the *Guidelines* of the right of a voter with no party preference to vote a party ballot, let alone any indication that a poll worker or a county elections official should inform these voters of that right.

[69] The 2010 Poll Workers Training Standards, sent as an attachment to a March 12, 2010 advisory to county registrars of voters, are available on the website of the California Secretary of State at http://elections.cdn.sos.ca.gov/ccrov/pdf/2010/march/10090ra.pdf. These standards list, on pp. 2–3 under the heading of "General Rights," the following paragraphs:

"Rights of Voters Who Decline to State a Political Party Affiliation or Register with a Nonqualified Political Party[:]

Poll workers should have a thorough understanding of the rights and options of voters who are not registered with a qualified political party but are registered as decline-to-state (DTS) voters or are registered with nonqualified political parties. For the purposes of this section, any reference to DTS voters includes both those voters who have declined to state a political party affiliation and those who are registered with nonqualified political parties.

. . .

If a voter is registered as a DTS voter, they shall be given a nonpartisan ballot. However, this voter is entitled to vote the ballot of a political party that has authorized DTS voters to vote the ballot of that political party. ([Elections Code Section] 13102(b))

. . .

County elections officials should train poll workers how to use and distribute DTS voter information materials including, but not limited to, signs, posters, and written information, to inform these voters that they may request a ballot of a political party that has authorized a DTS voter to "crossover" to vote the ballot of that political party for a particular election. The poll worker should provide information to the DTS voter in a way that avoids any advocacy towards a particular party's ballot.

County elections officials should train poll workers how to properly record which political party's ballot was requested or whether a nonpartisan ballot was requested by each DTS voter. ([Elections Code Section] 13102(d))

. . . "

These paragraphs were also included in a Draft of the 2010 standards sent to county registrars on January 8, 2010; see the memorandum *Publication: Draft Poll Worker Training Standards*, available on the website of the California Secretary of State at http://elections.cdn.sos.ca.gov/ccrov/pdf/2010/january/10013ra.pdf.

By the time the 2018 Poll Worker Training Standards (see http: \\elections.cdn.sos.ca. gov\poll-worker-training-standards\poll-worker-training-standards.pdf) were issued, the language about communicating to a voter with no party had been strengthened, as required by the addition of Section 14227.5 to the California Elections Code by the passage of Assembly Bill 837 on October 15, 2017. The strengthened language reads,

"At a partisan primary election, before providing a voter who has declined to disclose a political party preference with a nonpartisan ballot or before the voter enters the voting booth, as applicable, a member of the precinct board shall provide a uniform notification to the voter informing him or her that he or she may request a political party's ballot (a "crossover" ballot) and the name of each political party that has authorized a voter who has declined to disclose a political party preference to vote in its ballot for that election. ([Elections Code Section]14227.5)".

- [70] A DTS voter is a "decline-to-state" voter, a voter who has registered to vote but has declined when registering to state an affiliation with any political party; since the passage of the toptwo primary, this type of voter is referred to as a voter with no party preference, or as an NPP voter.
- [71] Assembly Bill 837, which passed on October 15, 2017, established Election Code Section 14227.5, which reads,

"14227.5. (a) At a partial primary election, before providing a voter who has declined to disclose a political party preference with a nonpartial ballot or before the voter enters the voting booth, as applicable, a member of the precinct board shall provide a uniform notification to the voter informing him or her that he or she may request a political party's ballot and the name of each political party that has authorized a voter who has declined to disclose a political party preference to vote in its ballot.

(b) A county elections official shall train the members of a precinct board regarding their duties under subdivision (a)."

For the text of AB 837 see the leginfo website of the California legislature, at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB837.

- [72] The requirement is still necessary because partial elections still occur for the offices of U.S. President and Vice-President. In particular the Democratic party has historically allowed voters not affiliated with any political party to vote in the Democratic presidential primary.
- [73] The information about voting as permanently absentee that appeared in the 2006 guide (p. 6) read

"Apply to Be a Permanent Vote-By-Mail Voter

Any voter may apply for PERMANENT ABSENT VOTER STATUS (Elections Code [Section] 3201). These voters are automatically sent a vote-by-mail ballot for every election without having to fill out an application every time. Please contact your county elections official to apply to become a permanent vote-by-mail voter if you wish to receive vote-by-mail ballots for all future elections. To find out who your county elections official is, go to pages 60 and 61 of this guide or online at www.ss.ca.gov\elections\elections_d.htm to see a list of contact information for all county elections officials."

The information about voting as permanently absentee that appeared in the 2008 guide (p. 22) read

"If You Vote by Mail... Each county elections office is required to mail all decline-tostate voters who are registered as permanent vote-by-mail voters a notice and application regarding voting in the primary election. The notice shall inform the voter that he or she may request a vote-by-mail ballot for a particular political party for the primary election if that party authorized decline-to-state voters to vote in its primary. If you have already been issued a nonpartisan ballot but would like to request a ballot from one of the participating parties, you must contact your county elections office. For a list of county elections offices, see page 60 of this guide".

[74] The relevant part of the elections code, established by the passage of Senate Bill 28 (Statutes of 2000) read (italics added)

"13102(b) At partian primary elections, each voter not registered as intending to affiliate with any one of the political parties participating in the election shall be furnished only a nonpartian ballot, unless he or she requests a ballot of a political party and that political party, by party rule duly noticed to the Secretary of State, authorizes a person who has declined to state a party affiliation to vote the ballot of that political party. The nonpartisan ballot shall contain only the names of all candidates for nonpartisan offices and measures to be voted for at [sic] the primary election. Each voter registered as intending to affiliate with a political party participating in the election shall be furnished only a ballot of the political party with which he or she is registered and the nonpartisan ballot, both of which shall be printed together as one ballot in the form prescribed by Section 13207."

Therefore a voter registered with a political party that had not yet qualified for the ballot, or registered with a political party that had stopped being qualified for the ballot (for example with the Reform party in the primary on and after the primary of 2004, or with the Natural Law party on and after the primary of 2008, or with the Peace & Freedom party for the election of 2002) could have requested the party ballot of, for example, the Republican or the Democratic Party.

[75] See County Clerk/Registrar of Voters (CC/ROV) Memorandum #10086, regarding Statewide Direct Primary: Voters Registered with Unqualified Political Parties, dated March 9, 2010. The memorandum is available at the website of the California Secretary of State at http://elections.cdn.sos.ca.gov/ccrov/pdf/2010/march/10086em.pdf. The relevant text reads,

"A question has arisen as to whether this means people who are registered with an unqualified political party can, for the June 8, 2010, Statewide Direct Primary election, request a Democratic Party or Republican Party ballot so they can participate in one of those two parties' primary elections for partian office.

The answer is yes—voters who decline to state a political party affiliation (DTS voters) and those who are affiliated with an unqualified political party can request a Democratic or a Republican party ballot (excluding central committee races) for the June 8, 2010, Statewide Direct Primary election.

•••

The qualified political parties that are participating in the June 8, 2010, Statewide Direct Primary election are the American Independent, Democratic, Green, Libertarian, Peace and Freedom, and Republican parties.

Therefore, pursuant to Elections Code section 13102(b), any registered voter who is not registered or affiliated with one of those six qualified Political parties is allowed to request

and vote the ballot of any political party that adopts a party rule to permit those voters to take part.

The Democratic and Republican parties have adopted such a party rule for the June 8, 2010, Statewide Direct Primary election".

- [76] In 2010 all the qualified political parties (the American Independent, Democratic, Green, Libertarian, Peace & Freedom, and Republican parties) participated in the primary. The number of voters registered with political parties "other" than these was reported to be 118,799, and 0.70% of all registered voters, in the last report of voter registration before the 2010 primary, Voter Registration Statistics by County: Report of Registration as of May 24, 2010, available on the website of the California Secretary of State at http://elections.cdn.sos.ca.gov/sov/2010-primary/pdf02-county-voter-reg-stats-by-county.pdf.
- [77] See the reference in footnote [76].
- [78] In the primary elections of 2002–2010 the elections for the county central committees of qualified political parties occurred every 2 years. The passage of Assembly Bill 1413 in 2002 changed these elections to occur only every 4 years, the elections to coincide with the primaries for U.S. President for which partian ballots were also required; unless the central party of a county decided to withdraw from county elections altogether and devise its own means for selecting its members.
- [79] The difference in the Democratic percentage of registered voters, and the Republican percentage of registered voters, has risen from 8.2% in 2006 to 18.9% in 2016.
- [80] In Washington state and in Louisiana, the lower house of the state legislature is more properly called the state House.
- [81] Louisiana's number of seats in the U.S. House of Representatives fell in 2012 from 7 to 6 as a result of the decennial national reapportionment.
- [82] Figure 13 in *III* shows that across the 46 states that have partial primaries, there was at least in 2014 also no correlation between the fact that a state has a top-two primary or a partial primary, and if the latter, what kind, and whether Republicans or Democrats dominate its state legislature.
- [83] See for example Wallace Turner, Rep Burton, Democratic Liberal, Dies on Visit to California, the New York Times archives, 1983, available at https://www.nytimes.com/1983/04/11/ obituaries/rep-phillip-burton-democratic-liberal-dies-on-visit-to-california.htm.

"Mr. Burton was high on the list of Democratic House members that the Republican party wanted to beat. The reason was the Burton redistricting plan for the California delegation, the House's largest. Those district lines let Democrats win 28 seats to 17 for Republicans, as against a Democratic edge of 22-21 in a smaller delegation in the previous election. 'My contribution to modern art,' Mr. Burton once said of the reapportionment".

[84] By November of 2012 the California Republican Party was \$1.2 million in debt due to accumulated overhead, having done nothing to assist Republican candidates. Even vendors of fundraising letters, letters which might be expected to more than pay for themselves, were refusing further business with the party. Party staff had been laid off to the point that any telephone call or e-mail to the party headquarters after early July of 2012 was neither answered or read—and 2012 was a presidential election year when the state party organizes Republicans in California who wish to volunteer in other states. The Board of Directors voted to strip the Chairman of most of his authority and lodge it in committees of the Board, to try to save something from the wreck; but too late.

For the record, the party Chairman was Thomas ("Tom") Gerard F. Del Beccaro.

[85] One symptom: the party had invariably sent a slate mailer to Republican voters detailing the party's stands on ballot propositions, this mailer more than paying for itself because each campaign that agreed with the party's stand on a proposition, for or against, would contribute. I was the proponent and chief financial backer of Proposition 20 on the November, 2010 ballot, a proposition which the party had endorsed; I was told in early October that the party would not accept my budgeted \$250,000 contribution to the mailer because no mailer would be sent.

The November, 2010 ballot also contained Proposition 25, which changed the voting requirement to pass a state budget from a 2/3 vote in each house of the legislature to simple majority. Proposition 25 passed, though the Republican party had opposed it, thus ending any leverage Republican legislators had over the state budget.

No explanation for the absence of a mailer was ever given.

The essential impotence of the Republican state-party organization was masked by the large sums gubernatorial candidate Meg Whitman ran through the party's financial structure, under her direction, through the general election of 2010. While the organization permitted Whitman to run a gubernatorial campaign, the organization was, in the opinion of the author (who has been a party delegate since 2007 and has attended every day of every party convention), doing hardly anything else.

- [86] See the website of the California Secretary of State, Historical Voter Registration And Participation In Statewide Primary Elections 1914–2018, available at http://elections.cdn.sos. ca.gov/sov/2018-primary/sov/04-historical-voter-reg-primary.pdf.
- [87] SB 202 (for the text see http://leginfo.legislaturecagov/faces/billNavClient.xhtml?bill_id= 201120120SB202) was chaptered on October 11, 2011; its author was Hancock; it passed with 25 votes in the Senate and 45 in the Assembly on an essentially party-line vote.
- [88] McGhee reports that as of 2014 California had been one of only 7 states to have such initiatives on the primary ballot, the others being Maine, Missouri, Nebraska, North Dakota, Oklahoma, and Oregon. See [22], p. 8, footnote 1.
- [89] For the number of votes in the Assembly and Senate for Propositions 41 and 42 see for example the Official Title and Summary pages for Propositions 41 and 42 in the California Official Voter Guide for the June 3, 2014 primary election, available at the website of the California Secretary of State at http://vigarchive.sos.ca.gov/2014/primary%/pdf/.
- [90] The sums spent on voter contact for and against Proposition 32 in November are tallied in Appendix A 11. The total is \$142.2 million.
- [91] McDonald, Michael P., FAQ. What is the "Vote for Highest Office" and "Total Ballots Counted"? United States Elections Project. See http://www.electproject.org/. The methodology for finding the number of ballots cast in each of the 50 states is found in the following quote.

"The Vote for Highest Office is the number of people who voted for the "highest office" in a given election. In presidential election years, the vote for highest office is (almost always) the presidential vote. In a non-presidential election year, the vote for highest office is the largest vote total for a statewide office such as governor or US Senator. When no statewide office is on the ballot, the sum of the congressional races is used instead. In 2006, I changed this methodology slightly to use the sum of the congressional races if the votes for Congress exceeded a statewide office, as occurred with Indiana's uncompetitive US Senate race. Some people do not cast a vote, even for president. Some failures to record votes are true errors, such as unrecorded votes originating from the infamous hanging chads of the 2000 Florida election. It is important to realize that some people intentionally abstain. for example, the in 2004 presidential election 3,688 Nevadans voted for "None of These Candidates" (Nevada is the only state that allows this option). Under-Votes are such abstentions, or blank or indecipherable votes. Over-votes occur when a voter selects multiple candidates when only one is acceptable.

The best measure of participation is Total Ballots Counted, which includes all under-votes and over-votes. A problem is that not all states report total ballots counted. The national total ballots cast is estimated for missing states using a correspondence between the vote for highest office and total ballots cast for the states that provide both numbers. The good news is that an increasing number of states report total ballots cast, which allows estimation with greater precision of the national total ballots counted.

A statistic constructed by subtracting vote for highest office from the total ballots cast is known as residual vote.

The total ballots counted does not represent the true number of people who attempted to vote. Total Ballots Cast adds rejected ballots to the total ballots counted, such as rejected mail ballots or provisional ballots. These ballots are often rejected when a voter's eligibility is in question or the voter did not follow proper voting procedures. Reporting for total ballots cast is less frequent than total ballots counted, and I do not attempt to collect these statistics".

[92] McDonald, Michael P., U.S. VEP Turnout 1789-Present, United States Elections Project. See http://www.electproject.org/. Plotted is the column "United States Presidential VEP Turnout rate" (column 2) for presidential election years, and the column "United States VEP Midterm Turnout Rate" (column 4) for gubernatorial election years.

A small question arises: is the Turnout in question the number of ballots cast, or the number of ballots in which a voter voted for the highest elected office? The two differ, because some voters will cast a ballot but not fill in a choice for, say, U.S. President. We resolve this question by looking at the figure of 58.6 for the 2012 presidential election year. McDonald reports in McDonald, Michael P., 2012 November General Election v2.0: Turnout Rates, United States Elections Project, that the U.S. Turnout rate was 58.6% for "VEP Total Ballots Counted"; and 58.0% for "VEP Highest Office", and 53.6% for "VAP Highest Office". So the figures plotted are indeed those for the total ballots cast.

- [93] See the website of the California Secretary of State. Historical Voter Registration and Participation in Statewide General Elections 1910-2016, available at http://elections.cdn.sos.ca. gov/sov/2016-general/sov/04-historical-voter-reg-participation.pdf. Data are from the column "Turnout Eligible".
- [94] See the website of the California Secretary of State. Historical Voter Registration and Participation in Statewide Primary Elections 1910-2016, http://elections.cdn.sos.ca.gov/sov/2016general/sov/04-historical-voter-reg-participation.pdf. Data are from the column "Turnout Eligible." Comment: the figure can be confirmed to have the total number of votes cast as the

numerator by noting e.g. that in the 1980 primary the file lists the "Total Votes" as 6,774,184 and the total registration as 10,694,660, for which the ratio is 0.633417, and the file also lists as "Turnout Registered" the matching figure of 63.64%.

- [95] See the website of the California Secretary of State. Historical Voter Registration and Participation in Statewide Primary Elections 1910-2016, http://elections.cdn.sos.ca.gov/sov/2016general/sov/04-historical-voter-reg-participation.pdf. Data are from the column "Primary Date".
- [96] See for example the *Fairvote* glossary of redistricting terms at http://www.fairvote.org/ redistricting_glossary. "Voting age population (VAP): Number of persons in a geographic unit who are at least 18 years of age.".
- [97] See the United States Election Project, http://www.electproject.org/home/voter-turnout/faq/denominator.

"The voting-age population, known by the acronym VAP, is defined by the Bureau of the Census as everyone residing in the United States, age 18 and older. Before 1971, the voting-age population was age 21 and older for most states.

The voting-eligible population, or VEP, is a phrase I [McDonald, Michael P.] coined to describe the population that is eligible to vote. Counted among the voting-age population are persons who are ineligible to vote, such as non-citizens, felons (depending on state law), and mentally incapacitated persons. Not counted are persons in the military or civilians living overseas".

- [98] See the website of the California Secretary of State, Historical Voter Registration and Participation in Statewide Primary Elections 1910-2016, \http\\:elections.cdn.sos.ca.govsov\2016general\sov\04-historical-voter-reg-participation.pdf.
- [99] See the website of the California Secretary of State:

Report of Registration as of February 10, 2001: Registration by State Assembly District, http://elections.cdn.sos.ca.gov/ror/ror-pages/ror-odd-year-01/assembly.pdf.

Report of Registration as of February 10, 2001: Registration by State Senatorial District, http://elections.cdn.sos.ca.gov/ror/ror-pages/ror-odd-year-01/senate.pdf.

Report of Registration as of February 10, 2001: Registration by U.S. Congressional District, http://elections.cdn.sos.ca.gov/ror/ror-pages/ror-odd-year-01/congressional.pdf.

[100] See the website pf the California Secretary of State: Report of Registration as of October 2, 2001: Registration by State Assembly District, http://

elections.cdn.sos.ca.gov\ror\ror-pages\154day-prim-02\assembly.pdf.

Report of Registration as of October 2, 2001: Registration by State Senatorial District, http://elections.cdn.sos.ca.gov/ror/ror-pages/154day-prim-02/senate.pdf.

Report of Registration as of October 2, 2001: Registration by US Congressional District, http://elections.cdn.sos.ca.gov/ror/ror-pages/154day-prim-02/congressional.pdf.

[101] Voter registration data in the Assembly districts just before the November regular general election, by successive election from 2002 to 2010, are from the website of the California Secretary of State. The respective links to the files are:

http://elections.cdn.sos.ca.gov/ror/ror-pages/15day-gen-02/assembly.pdf.

 $http: \label{eq:http:lections.cdn.sos.ca.gov/ror/ror-pages/15 day-presgen-04 assembly.pdf.$

http://elections.cdn.sos.ca.gov/ror/ror-pages/60day-gen-06/assembly.pdf. (See the note below.)

 $http: \label{eq:linear} http: \label{eq:linear} http$

http://elections.cdn.sos.ca.gov/ror/ror-pages/15day-gen-10/assembly.pdf.

The reader is admonished that, as of July 1, 2018 on the website of the California Secretary of State at http://www.sos.ca.gov/elections/voter-registration/voter-registration-statistics/, that the buttons for the <u>15 Day Report of Registration</u> and the <u>60 Day Report of Registration</u> for the November 7, 2006 General Election each link to the other's file. The first links to the January 3, 2006 Report of Registration, and the second to the September 8, 2006 Report of Registration; This error appears to have been repeated in the filenames. In short, despite the name of this link, the data it contains is expressly noted inside of the file as Report of Registration as of September 8, 2006 Registration by State Assembly District, and so indeed represents the 15-day report of registration, not the 60-day or some other.

[102] Report of Registration as of February 10, 2011: Registration by State Assembly District, http://elections.cdn.sos.ca.gov/ror/rorpages/roroddyear11/assembly.pdf.

Report of Registration as of February 10, 2011: Registration by State Senate District, http: \\elections.cdn.sos.ca.gov\ror\rorpages\roroddyear11\senate.pdf.

Report of Registration as of February 10, 2011: Registration by US Congressional District, http://elections.cdn.sos.ca.gov/ror/rorpages/roroddyear11/congressional.pdf.

[103] Report of Registration as of January 3, 2012: Registration by State Assembly District, http://elections.cdn.sos.ca.gov/ror/rorpages/154daypresprim12/assembly.pdf.

Report of Registration as of January 3, 2012: Registration by State Senate District, http://elections.cdn.sos.ca.gov/ror/rorpages/154daypresprim12/senate.pdf.

Report of Registration as of January 3, 2012: Registration by US Congressional District, http://elections.cdn.sos.ca.gov/ror/rorpages/154daypresprim12/congressional.pdf.

- [104] See Historical Vote-By-Mail (Absentee) Ballot Use in California at the website of the California Secretary of State at http://www.sos.ca.gov/elections/historical-absentee/. Note: we detail in Section IV C that there was no permanent absentee ballot program for NPP voters to use to cast a party ballot of a party that had invited their participation in the primary elections of 2002 through 2010.
- [105] The data on the percent of registered voters who were party of permanent vote-by-mail from 1992 to 2016 are accessible as the button Registered Permanent Vote-By-Mail Statistics 1992 to 2016* (XLS) on the web page of the California Secretary of State at http://www. sos.ca.gov/elections/voter-registration/vote-mail/#VBMstats; the file name is pvbm-votersurvey.xls.
- [106] See Wikipedia, specifically Political Party Strength in Louisiana, https://en.wikipedia.org/ wiki/Political_party_strength_in_Louisiana.
- [107] See Wikipedia, specifically Political Party Strength in California, https://en.wikipedia.org/ wiki/Political_party_strength_in_California.
- [108] See Wikipedia, specifically Political Party Strength in Washington (state), https://en. wikipedia.org/wiki/Political_party_strength_in_Washington_(state).
- [109] For a timeline giving the development of the primary election system in the state of Washington see the website of the Washington state Secretary of State, *History of Washington*

State Primary Systems, available at https://www.sos.wa.gov/elections/research/history-of-washington-state-primary-systems.aspx.

- [110] In the "pick-a-party" primary system each voter requests at each election a partian primary ballot for whatever party the voter for that election chooses, and no record is kept of which party primary ballot each voter chooses; but having chosen a party's ballot for that election a voter may vote in that primary only for candidates of that party.
- [111] Some of the dates of these elections were irregular. In 2008 the primary elections were scheduled for September 6, but were rescheduled to October 4 because of damage from Hurricane Gustav. The primary runoff occurred November 4, and the general election occurred on December 6. In 2010 the primary was held on August 28, the primary runoff on October 2, and the general election on November 2.

The dates elections occurred are taken from the website of the Louisiana Secretary of State, specifically https://voterportal.sos.la.gov/Graphical. For the information about Hurricane Gustav see Wikipedia, United States House of Representatives elections in Louisiana, 2008. https://en.wikipedia.org/wiki/United_States_House_of_Representatives_elections_in_Louisiana, 2008; note this source gives one of the election dates a day off, as if on October 3, 2008.

[112] The first statewide record in California of party affiliations was reported in 1922. See p. 5 of HISTORICAL VOTER REGISTRATION AND PARTICIPATION IN STATEWIDE GENERAL ELECTIONS 1910-2016 at the website of the California Secretary of State, specifically at \http:\\elections.cdn.sos.ca.gov\sov\2016-general\sov\04-historical-voter-regparticipation.pdf. There is also the statement,

" 'Although counties have been required to report the party affiliation of California's registered voters since 1915, the first statewide record did not appear until 1922, and no records are available prior to that date.' See Eugene C. Lee, <u>California Voters 1928-1960</u>, Institute of Government Studies, University of California, 1963, quoted at page 26."

As appears in the records of the California Secretary of State, see p. xii of Registration and Participation: Voter Registration Statistics By County As of May 22, 2006 Report of Registration, available at http://elections.cdn.sos.ca.gov/sov/2006-primary/p5regandpart. pdf.

- [113] As of 2017 the parties qualified in both California and Louisiana are the Democratic, the Republican, the Green, and the Libertarian parties. California has the Peace & Freedom party and the American Independent party as well, which Louisiana does not; Louisiana has the Independent party as well, which California does not. There is no connection except an accidental resemblance in name between the American Independent party in California and the Independent party in Louisiana.
- [114] There are some minor differences in implementation.

In California, a candidate registered with a qualified political party, say the Green party, has immediately after their name on the ballot the language, "Party Preference: Green". If a candidate is either registered with a party seeking qualification or with no party, what appears is "Party Preference: None" (which is short for, "qualified political party preference: none"). See California Election Code Sections 8002.5 and 13105.

In Louisiana, a candidate's political party designation is listed on the same line on the ballot and immediately below or after the candidate's name. If a candidate is registered with a party seeking qualification, the word "other" is placed after the name; if registered with no party, the words "no party" appear. See State of Louisiana Election Code, Title 18 of the Louisiana Revised Statutes, as amended through the 2016 second extraordinary session, Section 551(D). The code is available on the website of the Louisiana Secretary of State at https://www.sos.la.gov/ElectionsAndVoting/Published Documents/ElectionCode.pdf, page 128.

Before the elections of 2008 the party names that might appear after a name on a Louisiana ballot could only be "Democratic," "Republican," or "Other"; for the elections of 2008 and after, the list of allowable party names included, as in California, those of any qualified political party.

- [115] There is no requirement that a candidate's party label on the Washington state ballot be truthful or that the party exist. The stated preference appears on the ballot after or under the candidate's name, sandwiched between the words "Prefers" and "Party", the whole enclosed by parentheses; so a preference for the Green party appears as "(Prefers Green Party)". If a candidate wishes to state no preference for a party at all, there would appear instead "(States No Party Preference)". See the website of the Washington state Secretary of State, at the link http://wei.secstate.wa.gov/osos/en/Pages/Top2PrimaryFAQ.aspx.
- [116] State of Louisiana Election Code, Title 18 of the Louisiana Revised Statutes, as amended through the 2016 second extraordinary session, https://www.sos.la.gov/ElectionsAndVoting/ PublishedDocuments/ElectionCode.pdf p. 128, section 551(C)(2).
- [117] See for example Primary Elections in California, p. 4 of the Official Voter Information Guide for the June 5, 2012 primary election (the first conducted under the top-two), available at the website of the California Secretary of State, specifically http://vig.cdn.sos.ca.gov/2012/ primary/pdf/english/complete.pdf. The following appears:

"The Top Two Candidates Open Primary Act requires that all candidates for a voternominated office be listed on the same ballot. Previously known as partian offices, voternominated offices are state legislative offices, U.S. congressional offices, and state constitutional offices.

In this new open primary system, this means you can vote for any candidate, regardless of what party preference you indicated on your voter registration form. Only the two candidates receiving the most votes—regardless of party preference—move on to the general election regardless of vote totals. If a candidate receives a majority of the vote (50 percent +1), a general election still must be held. Even if there are only two candidates in the open primary, a general election is still required".

[118] See the Frequently Asked Questions at the website of the Secretary of State of the state of Washington at https://www.sos.wa.gov/elections/faqcandidates.aspx.

"In races where only one or two candidates filed, will that race skip the Primary and only appear on the General Election ballot?

No. Even in races where only one or two candidates filed for a partial office, that race will still appear in the Primary Election".

[119] RCW [Revised Code of Washington] 29A.36.170. See also the website of the Secretary of State for the state of Washington at https://www.sos.wa.gov/elections/faqcandidates.aspx.
"What is a Top 2 Primary?

The Washington Top 2 Primary allows voters to choose among all candidates running for each office. Voters do not have to declare a party affiliation to vote in the primary. Candidates for partisan office may state a preference for a political party, which is listed on the ballot. The two candidates who receive the most votes in the Primary Election qualify for the General Election. Candidates must also receive at least 1% of the votes cast in that race to advance to the General Election".

- [120] California Elections Code, Section 8606. "Notwithstanding any other provision of law, a person may not be a write-in candidate at the general election for a voter-nominated office".
- [121] See the document from the Louisiana Secretary of State, Voting by Mail, available at https://www.sos.la.gov/ElectionsAndVoting/Vote/FrequentlyAskedQuestionsPages/ VotingByMail.aspx?OwnershipName=VotingByMail&faqid=0.

"VOTING BY MAIL. Write in candidates, are they allowed? No, Louisiana does not allow write-in candidates."

See also Frequently Asked Questions for an electronic ballot, https://www.sos.la.gov/ElectionsAndVoting/PublishedDocuments/FrequentlyAskedQuestionsForElectronicBallot 2012.pdf

"Can I write a candidate's name on my ballot in any column?

No. Louisiana does not allow Write-In [sic] candidates".

[122] See RCW [Revised Code of Washington] 29A.60.021(1), available for example at http://:apps.leg.wa.gov/rcw/default.aspx?cite=29A.60.021.

"Write-in voting–Declaration of candidacy–Counting of vote.

(1) For any office, except precinct committee officer, at any election or primary, any voter may write in on the ballot the name of any person for an office who has filed as a write-in candidate for the office in the manner provided by RCW 29A.24.311 and such vote shall be counted the same as if the name had been printed on the ballot and marked by the voter. [italics added]. No write-in vote made for any person who has not filed a declaration of candidacy pursuant to RCW 29A.24.311 is valid if that person filed for the same office, either as a regular candidate or a write-in candidate, at the preceding primary. Any abbreviation used to designate office or position will be accepted if the canvassing board can determine, to its satisfaction, the voter's intent".

[123] See the California Elections Code, section 8141.5, available at the leginfo website of the California legislature at https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml? sectionNum=8141.5.&lawCode=ELEC.

"8141.5. Except as provided in subdivision (b) of Section 8142 [which concerns tie votes], only the candidates for a voter-nominated office who receive the highest or second highest number of votes cast at the primary election shall appear on the ballot as candidates for that office at the ensuing general election. [italics added.] More than one candidate with the same party preference designation may participate in the general election pursuant to this subdivision. Notwithstanding the designation made by the candidate pursuant to Section 8002.5, no candidate for a voter-nominated office shall be deemed to be the official nominee for that office of any political party, and no party is entitled to have a candidate with its party preference designation participate in the general election unless that candidate is one of the candidates receiving the highest or second highest number of votes cast at the primary election".

[124] See p. 111 of the State of Louisiana Election Code, Title 18 of the Louisiana Revised Statutes As Amended Through the 2017 Second Extraordinary Session, available at the website of the Louisiana Secretary of State at https://www.sos.la.gov/ElectionsAndVoting/Published Documents/ElectionCode.pdf.

"Section 481. Candidates who qualify for a general election

The candidates who qualify for each office remaining to be filled in the general election are those who received the two highest numbers of votes, the four highest number of votes, and so on among those not elected in the primary election, until the maximum number of candidates for each office on the general election ballot is reached".

[125] See the California Elections Code, section 8606, available at the leginfo website of the California legislature at https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?section Num=8606.&lawCode=ELEC.

"8606. Notwithstanding any other provision of law, a person may not be a write-in candidate at the general election for a voter-nominated office".

[126] The law that enables write-in candidacies is California Elections Code Sections 13(a) and 13(b), below, available at the leginfo website of the California legislature at https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=13.&lawCode= ELEC. For the code that forbids write-in elections in general elections [125], see Elections Code Section 8606.

"13(a) A person shall not be considered a legally qualified candidate for an office, for party nomination for a partisan office, or for nomination to participate in the general election for a voter-nominated office, under the laws of this state unless that person has filed a declaration of candidacy or statement of write-in candidacy with the proper official for the particular election or primary, or is entitled to have his or her name placed on a general election ballot by reason of having been nominated at a primary election, or having been selected to fill a vacancy on the general election ballot as provided in Section 8807, or having been selected as an independent candidate pursuant to Section 8304.

(b) Nothing in this section shall be construed as preventing or prohibiting any qualified voter of this state from casting a ballot for a person by writing the name of that person on the ballot, or from having that ballot counted or tabulated, nor shall this section be construed as preventing or prohibiting a person from standing or campaigning for an elective office by means of a write-in campaign. However, nothing in this section shall be construed as an exception to the requirements of Section 15341 or to permit a person to be a write-in candidate contrary to Sections 8600 and 8606".

[127] See the website of the Louisiana Secretary of State, Qualify for an Election, https://www.sos. la.gov/ElectionsAndVoting/BecomeACandidate/QualifyForAnElection/Pages/default.aspx. "Congressional, State and Local Candidates

In order to become a candidate in an election, you must qualify for the office you are seeking. Louisiana does not allow write-in candidates".

[128] See RCW [Revised Code of Washington] 29A.24.311, available at http://app.leg.wa.gov/ RCW/default.aspx?cite=29A.24.311. Note: various aspects of write-in voting in Washington state were changed by the passage of Senate Bill 6058 in 2018. Below, we quote the code sections as it was before March 22, 2018, edited to become the new code. Not only were the changes made after the date of the elections studied in this paper, the changes would not be relevant to our argument had they occurred earlier. For the text of Senate Bill 6058 (part of which was vetoed by the Governor, but not the parts quoted below) see http://lawfilesext. leg.wa.gov/biennium/2017-18/Pdf/Bills/Session%20Laws/Senate/6058.sl.pdf.

"RCW 29A.24.311. Write-in voting—Candidates, declaration.

(1) Any person who desires to be a write-in candidate and have such votes counted at a primary or election may shall file a declaration of candidacy with the officer designated in RCW 29A.24.070 not later than 8:00 p.m. on the day ballots must be mailed according to RCW 29A.40.070 of the primary or election. A write-in declaration is timely if filed by this deadline. No votes shall be counted for a write-in candidate who has not properly filed a write-in declaration of candidacy. Declarations of candidacy for write-in candidates must be accompanied by a filing fee in the same manner as required of other candidates filing for the office as provided in RCW 29A.24.091.

(2) Votes cast for write-in candidates who have filed such declarations of candidacy need only specify the name of the candidate in the appropriate location on the ballot in order to be counted. Write-in votes cast for any other candidate, in order to be counted, must designate the office sought and position number, if the manner in which the write-in is done does not make the office or position clear.

(3) No person may file as a write-in candidate where:

(a) At a general election, the person attempting to file either filed as a write-in candidate for the same office at the preceding primary or the person's name appeared was printed on the ballot for the same office at the preceding primary;

(b) The person attempting to file as a write-in candidate has already filed a valid write-in declaration for that primary or election;

(c) The name of the person attempting to file is already appears printed on the ballot as a candidate for another office, unless the other office is precinct committee officer or a temporary elected position, such as charter review board member or freeholder;

(d) The office filed for is precinct committee precinct officer.

(4) The declaration of candidacy shall be similar to that required by RCW 29A.24.031. No write-in candidate filing under this section may be included in any voter's pamphlet produced under chapter 29A.32 RCW unless that candidate qualifies to have his or her name printed on the general election ballot. The legislative authority of any jurisdiction producing a local voter's pamphlet under chapter 29A.32 RCW may provide, by ordinance, for the inclusion of write-in candidates in such pamphlets".

- [129] See the website of the California Secretary of State, Historical Vote-By-Mail (Absentee) Ballot Use in California, http://www.sos.ca.gov/elections/historical-absentee/.
- See the Washington Secretary of State, Washington State's Vote-by-Mail Experience 2007,
 p. 2. Available as https://www.sos.wa.gov/documentvault/WashingtonStatesVotebyMail
 ExperienceOctober2007-2066.pdf.
- [131] See the website of the Louisiana Secretary of State, specifically the website address https://www.sos.la.gov/ElectionsAndVoting/Vote/FrequentlyAskedQuestions/Pages/ VotingByMail.aspx?OwnershipName=VotingByMail&faqid=0.

- [132] Political party strength in Nebraska, https://en.wikipedia.org/wiki/Political_party_strength_ in_Nebraska.
- [133] Followthemoney is managed and run by the National Institute on Money in State Politics. See https://www.followthemoney.org/.
- [134] The link to CalAccess is http://cal-access.sos.ca.gov.
- [135] See California ballot initiative petition signature costs, at https://ballotpedia.org/California_ ballot_initiative_petition_signature_costs#X, where X is the respective four-character year 2005 through 2016.
- [136] Followthemoney is managed and run by the National Institute on Money in State Politics. See https://www.followthemoney.org/. A sample search:

"Q. Show me contributions to ballot measure committees that supported or opposed selected ballot measures in elections in California 2005, 2004 (within federal, state and local data)

A. 5,746 contributions totaling \$202,205,703

Your current selections are: PROPOSITION 73, PROPOSITION 78, PROPOSITION 79, PROPOSITION 80".

[137] Powersearch can be accessed through the link http://powersearch.sos.ca.gov/advanced.php. A sample search, resulting from a search over duration of the whole election cycle 2006 to 2006:

"Summary Search Results: \$449,045.58 in 99 independent expenditures [for] Prop 73 - TER-MINATION OF MINOR'S PREGNANCY. WAITING PERIOD AND PARENTAL NOTI-FICATION. INITIATIVE CONSTITUTIONAL AMENDMENT. [Divided into] \$4,946.79 in 19 supporting independent expenditures [, and] \$444,098.79 in 80 opposing independent expenditures".

- [138] See the website of the California Assembly and Senate, specifically http://leginfo.legislature. ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB202.
- [139] Senate Bill 202 passed with 25 votes in the Senate and 45 in the Assembly on an essentially party line vote, with Democrats in the majority; the exceptions were that 2 votes were not recorded in the Senate, missing Yee (D) and Strickland (R); 45 votes were not recorded in the Assembly, missing Bonilla, Davis, Donnelly, Furutani, and Halderman (all D), and Gorell (R).
- [140] Otherwise a bill passed by a simple majority of both houses could take effect only on January 1 of the year following its passage; to take effect immediately, a non-budget bill would require passage as an urgency statute, requiring a 2/3 vote in each house.
- [141] See the website of the California Secretary of State, Secretary of State Debra Bowen Certifies First Initiative for February 2012 Statewide Primary, http://admin.cdn.sos.ca.gov/pressreleases/2010/db10.-082.pdf.
- [142] See the website of the California Secretary of State, Secretary of State Debra Bowen Certifies Second Initiative for February 2012 Statewide Primary, http://admin.cdn.sos.ca.gov/pressreleases/2010/db10-086.pdf.
- [143] The gap in numbering between Proposition 29 and Proposition 28 in June, and Propositions 32 and 33 in November, was filled by Propositions 31 and 32, also initiatives. These were constitutional amendments, and so were numbered to appear on the ballot ahead of Propositions 32 and 33, even though the constitutional amendments qualified later.

- [144] See the website of the California Secretary of State, Second Measure Qualifies for November 2012 State Ballot, http://www.sos.ca.gov/administration/news-releases-and-advisories/2011-news-releases-and-advisories/db11-059/.
- [145] See the website of the California Secretary of State, Third Measure Qualifies for November California Ballot, site http://www.sos.ca.gov/administration/news-releases-andadvisories/2012-news-releases-and-advisories/db12-013/.
- [146] See the website of the California Secretary of State, Political Fundraising Initiative Enters Circulation, http://www.sos.ca.gov/administration/news-releases-and-advisories/2011-newsreleases-and-advisories/db11-021/

"DB11:021 May 26, 2011

Political Fundraising Initiative Enters Circulation Prohibits Political Contributions by Payroll Deduction. Prohibitions on Contributions to Candidates. Initiative Statute.

SACRAMENTO - Secretary of State Debra Bowen today announced that the proponent of a new initiative may begin collecting petition signatures for her measure".

[147] Effective for the elections of 2014, this 150-day interval has since been raised to 180 days. The present system is described in the 2017 Statewide Initiative Guide, available at the website of the California Secretary of State, specifically http://elections.cdn.sos.ca.gov/ballot-measures/ pdf/statewide-initiative-guide.pdf.

p. 3. "The official summary date, the date the circulating title and summary is sent to the proponent(s) by the Attorney General, is the date the Secretary of State uses to calculate calendar deadlines provided to the proponent(s) and elections officials. (Elections Code Sections 336, 9004.) No petition may be circulated prior to the official summary date. (Elections Code Section 9014.)"

p. 5. "Proponents are allowed a maximum of 180 days, from the official summary date, to circulate petitions and collect signatures. (Elections Code 9014.) However, the initiative measure must be certified for the ballot at least 131 days before the next general election at which it is to be submitted to the voters. (Elections Code Section 9016; Cal. Const., art. II, Section 8(c).)".

- [148] The 150-day interval actually ended on October 23, which is a Sunday; and proponents are allowed in such cases to file signatures the following business day, which was Monday October 24.
- [149] The history of Senate Bill 202 can be found at the website of the California Assembly and Senate, specifically at http://leginfo.legislature.ca.gov/faces/billHistoryClient.xhtml?bill_id=201120120SB202.

In brief, the first notice anyone had of the proposed change to the law was on September 8, 2011; and the legislature approved it two days later.

The bill was introduced February 8, 2011; its sole effect was but to raise the fee for filing an initiative with the Attorney General from \$200 to \$2000. In that form it passed deliberately through various Senate committees, and to the Senate floor, where it was approved on May 31. It wound its deliberate way through various Assembly committees; on September 2, 2011 a trivial amendment was approved by the Assembly with 74 aye votes, with no nays and with 6 members of the Assembly (4 Democrats, and 2 Republicans) having no vote recorded. The bill was re-referred to the Assembly Committee on Elections and Redistricting, and on

September 8 it was amended in committee into its current and essentially new form; besides changing the rules about on which ballot a qualified initiative would appear, the bill isolated Assembly Constitutional Amendment 4 (concerning a rainy day fund) and moved it to the November 4, 2014 ballot.

A hearing was held on the bill in that committee the following day, on September 9; the bill was passed (by setting aside any requirements of giving anyone notice by a vote to suspend Joint Rule 62(a)) by the Assembly that same day, on a 45-30 vote, and sent to the Senate, where it was approved by the Senate the following day, September 10, and ordered enrolled. There was no analysis prepared for the vote in the Assembly; the analysis for the vote in the Senate, presumably prepared overnight, was so clumsy or so biased that the only "Arguments in Opposition" that appeared were, in fact, arguments in support.

[150] Why the law was changed is, of course, a matter of dispute. One view is that of reporter and columnist Dan Walters, which appeared in the Los Angeles Daily News, October 19, 2011. Should ballot issues be November-only? See the site https://www.dailynews.com/ 2011/10/19/dan-walters-should-ballot-issues-be-november-only/. We agree with the statements made in the following excerpts:

"S.B. 202, written and passed in the session's final hours, declares that initiative ballot measures can appear only on a November general election ballot, or in a special election, thus overturning 40 years of having them appear in both primary and general elections.

Democrats and labor unions fashioned the bill, which was signed by Gov. Jerry Brown, who as secretary of state in 1971 allowed initiatives to appear on primary ballots even though the state constitution limits them to general and special elections.

• • •

The unions and their Democratic allies sought S.B. 202 because of a pending initiative measure that would make it more difficult to extract union campaign funds from members' paychecks.

They believe that so-called paycheck protection would have a stronger chance of approval at the June, 2012 presidential primary, since Republican voter turnout is likely to be relatively high and that of Democrats relatively low".

- [151] See Auto Insurance Initiative Enters Circulation, DB11:031, dated August 15, 2011, available on the website of the California Secretary of State at http://www.sos.ca.gov/administration/ news-releases-and-advisories/2011-news-releases-and-advisories/db11-031/.
- [152] See the website of the California Secretary of State.

For Proposition 30, see Second Measure Qualifies for November 2012 State Ballot, http: \\www.sos.ca.gov\administration\news-releases-and-advisories 2011-news-releases-and-advisories db11-059

For Proposition 31 see Third Measure Qualifies for November California Ballot, http://www.sos.ca.gov/administration/news-releases-and-advisories/2012-news-releasesand-advisories/db12-013/.

- [153] This date is 131 days before the primary election.
- [154] It would seem easy to track each expenditure made by date, and so separate the pre-June expenditures from the post-June expenditures and separate that way the sums spent on Propositions 30 and 32. That is not quite as straightforward as it sounds; for example, if

a political consultant is hired, on which was he working? If a bill is paid in July, is that payment for work already done on Proposition 30, or a deposit for work yet to be done on Proposition 32? Fortunately for our purposes a rough estimate suffices.

[155] A total of \$28,987,453.60 was contributed by the author of the present paper, who hereby goes on record as to his priorities.

The reader may well surmise that the author was not displeased when the system of requiring compulsory donations to political causes as a condition of employment was voided on freedom of speech grounds, and for the nation and not just the state of California, by the United States Supreme Court in Janus vs. American Federation of State, County, and Municipal Employees, Council 31, et al., on June 27, 2018.

- [156] No costs of qualification need be subtracted, because all the expenditures in the tables occurred after Proposition 32 had qualified.
- [157] For 2008, from Voter Participation Statistics by County and Party, http://elections.cdn. sos.ca.gov/sov/2008-statewide-direct-primary/04_voter_stats_by_county_party_jun08_082508. pdf.
- [158] For 2010, from Voter Participation Statistics by County and Party, available at http://elections.cdn.sos.ca.gov/sov/2010-primary/pdf/04-voter-stats-by-county-party.pdf.
- [159] The statutes do not grant access to the data to all members of the public, only to certain individuals and organizations. The relevant parts of the California Elections Code read (see https://leginfo.legislature.ca.gov/faces/codes_displaySection. xhtml?lawCode=ELEC§ionNum=13102),

"13102(d) The county elections official shall maintain a record of which political party's ballot was requested pursuant to subdivision (b) [that is, requested by a voter with no party preference or whose preferred political party is not ballot-qualified], or whether a nonpartisan ballot was requested, by each person who declined to disclose a party preference. The record shall be made available to any person or committee who is authorized to receive copies of the printed indexes of registration for primary and general elections pursuant to Section 2184. A record produced pursuant to this subdivision shall be made available in either a printed or electronic format, as requested by the authorized person or committee."

and also read (see https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml? lawCode=ELEC§ionNum=2184),

"2184. Upon request of any Member of the Legislature, of Congress, or any candidate who is to be voted for in the county, in a city therein, or in a political subdivision of either, or upon written demand of his or her campaign committee, of any committee for or against any proposed ballot measure, or of any committee for or against any referendum or initiative measure for which legal publication has been made, the county elections official shall furnish to the Member of the Legislature, of Congress, or to either the candidate or his or her campaign committee or to the ballot measure committee the roster for the primary and general elections in which the Member of the Legislature or Congress may participate as a candidate, or for the election in which the candidate will participate, or the ballot measure will be voted upon, at a charge of fifty cents (\$0.50) per thousand names. All moneys collected shall be deposited in the county treasury to the credit of the general fund".

[160] For 2008, from Voter Registration Statistics by County: Report of Registration as of May 19,

2008, available from http: \elections.cdn.sos.ca.gov \sov 2008-statewide-direct-primary \02_ county_reg_totals_051908.pdf.

For 2010, from Voter Registration by County: Report of Registration as of May 24, 2010, available at http://elections.cdn.sos.ca.gov/sov/2010-primary/pdf/02-county-voter-reg-stats-by-county.pdf.

- [161] The Libertarian Party of California Candidate Support Committee, for example, used this form in 2013 and 2014.
- [162] From a search in Followthemoney, specifically:

"Q. Show me independent spending to payees paid between Jan 01, 2014 and Jun 02, 2014 in California (within federal, state and local data)

A. 2,028 expenditures totaling \$25,288,135"

Payees refers to the races targeted, which include Governor and Lt. Governor; other statewide offices; state Assembly, state Senate, and U.S. House.

Followthemoney is managed and run by the National Institute on Money in State Politics. See https://www.followthemoney.org/. A.M.D.G.