

A Survey and Analysis of Statewide Election Recounts, 2000-2009
By Rob Richie and Emily Hellman, April 2011

Abstract

This report examines statewide election recount outcomes and practices in the United States, using data from the decade of elections taking place in the years 2000 to 2009. Our findings provide a basis for observations on when recounts are necessary, provisions for model state laws on recounts and forecasts of recount scenarios in elections governed by a national popular vote. Major findings include:

⇒ **Statewide recounts are rare:** Out of the 2,884 statewide general elections in the 2000 to 2009 decade, there were 18 statewide recounts, 11 of which were deemed “consequential” (with an original victory margin of no more than 0.15 percent). In other words, there was one recount for every 160 statewide elections and one consequential recount for every 262 statewide elections. This pattern was true of most subcategories of statewide elections as well, including only two consequential recounts out of the 422 elections in this period for the offices of governor, lieutenant governor, secretary of state, attorney general and treasurer.

⇒ **Outcome reversals are even rarer:** Over the 2000-2009 decade, recounts resulted in three reversals out of 11 consequential recounts, or one out of every 961 statewide elections. These reversals took place in the races for U.S. Senate in 2008 in Minnesota, auditor in 2006 in Vermont and governor in 2004 in Washington.

⇒ **Margin shifts in recounts are small:** Statewide recounts resulted in an average margin swing of 296 votes between the frontrunners, representing 0.027% of the statewide vote in those elections. The median average shift in margin was 229 votes, with 15 of the 18 recounts changing the margin by fewer than 500 votes.

⇒ **Margin shifts are smaller and recounts rarer in larger electorates:** Recounts in elections with more voters altered the vote margin by lower percentages than in elections with fewer voters. In the five cases in which the total votes cast were above two million, the margin shift was on average 0.016% of the vote (fewer than one for every 6,400 votes cast). In the eight cases in which the total votes cast were fewer than one million, the margin shift was on average 0.039% (fewer than one for every 2,500 votes cast). No recount took place in our three largest states.

⇒ **Most states should revise their laws governing statewide recounts:** Model state laws should establish clear post-election audit procedures and define a reasonable victory margin percentage for automatic, taxpayer-financed recounts.

Table of Contents

1. Introduction	6. Conclusion
2. Methodology	7. Data Sources and Acknowledgments
3. Recounts in Statewide Elections, 2000-9	8. Appendix: Summary charts on state recount laws, statewide elections and statewide recounts and margin changes
4. Current Recount Laws in States	(Detailed spreadsheets available online)
5. Likelihood of Recounts and Outcome Reversals due to Recounts	

1. Overview

The ability to handle a recount of votes to ensure fair, accurate and genuinely democratic outcomes is widely recognized as a critical component of trustworthy election administration. Even though errors by human beings and machines typically mean that any recount of large numbers of ballots will result in at least slightly different vote totals from the initial count, the great majority of elections in the United States result in clear winners that are not disputed. However, particularly close elections may necessitate recounts because losing candidates may challenge the outcome on the grounds of potential fraud or administrative error.

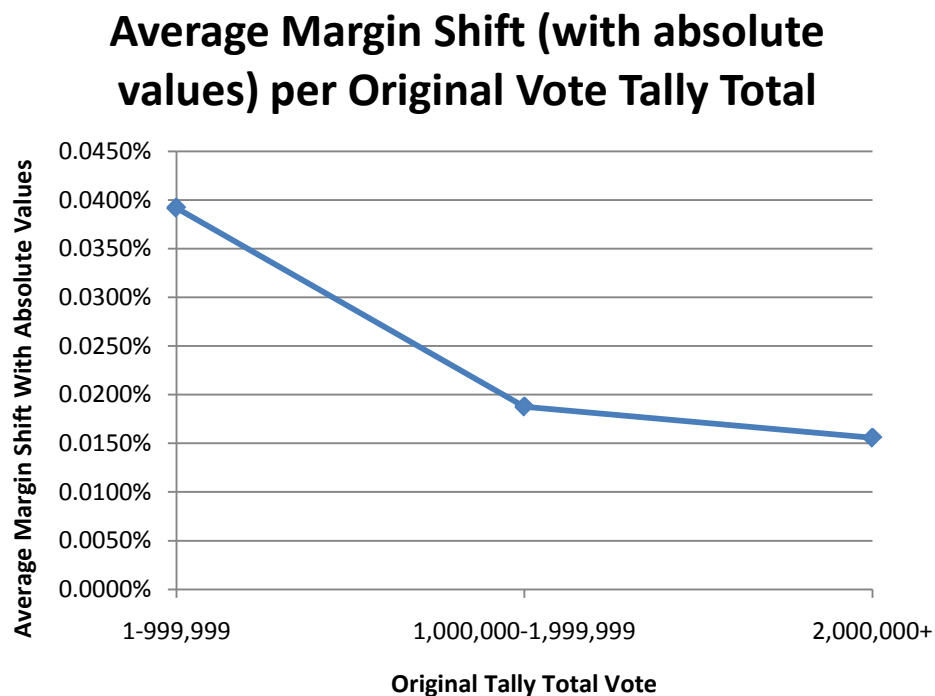
Trust in elections requires trust in the recount process – and ongoing vigilance in lessons to be learned about how best to do recounts and how to determine what victory margins and post-elections audit results should trigger a recount. In this report we quantify various aspects of statewide recounts in the United States in the decade of elections from 2000 to 2009, including how often they occur, how often they change outcomes, how much vote totals change and how these figures vary with the size of the electorate. We conclude that:

- ***Recounts take place rarely:*** From 2000 to 2009, there were 18 recounts out of 2,884 statewide general elections – an average of two per year. Of these recounts, seven were not consequential, meaning their original margin was 0.15% or more. (An election won by only 0.15% is obviously a close election, but also well beyond the largest margin shift to take place in any statewide recount in 2000-2009.) In sum, a recount occurred on average once every 160 statewide elections over the 2000-2009 decade, and a consequential recount took place only once out of every 262 statewide elections.
- ***Recounts change the margin by insignificant numbers:*** The mean average change in the vote margin in the 18 statewide recounts in 2000-2009 was 296 votes, representing 0.027% of the vote. The largest change in margin occurred in Vermont in 2006, where initial errors in hand-counted tallies were the main factor contributing to the recount changing the margin by 0.11%. The next largest shift in the margin among the remaining 17 recounts was 0.076%. Recounts with original victory margins of more than 0.15% resulted in larger shifts on average than in recounts with closer margins, although this margin change usually widened the gap between the winning and losing candidates, thereby suggesting that initial errors in these races were typically random and correcting them slightly favored the candidate who was initially ahead in votes cast.
- ***The election outcome was changed in 16.6% of all statewide recounts and 27.2% of all consequential recounts, representing one out of 961 statewide elections:*** Recounts altered the outcome three times in the 18 statewide recounts during the 2000-2009 decade – that is to say, a recount changed the statewide election outcome one out of every 961 statewide elections. Recounts reversed the outcomes only in exceptionally close races, but 27% of consequential recounts decided initially by less than 0.15% resulted in a change in the outcome.
- ***As the number of voters increased, the shift in change in percentage of votes declined:*** Due to the fact that correcting small numbers of errors will have varying impacts on the victory margin percentage based on the number votes cast, the margin of victory in which a recount may possibly change the outcome theoretically should decrease in percentage terms in relation to the number of votes cast, absent any organized fraud. As an example, correcting one miscounted vote in an election with ten votes cast would change the margin by 10%, but correcting one miscounted vote in an

election with 1,000 votes would change the margin by only 0.1% percent. Evidence from our study suggests that this theory indeed is accurate. In the 18 statewide recounts in 2000-2009, a recount's effect on victory margin indeed declined as the number of votes cast in the race increased. Consider that:

- o For elections with combined vote totals under one million (eight cases), the margin swing (meaning the percentage in the margin changed by the recount) was on average 0.039% of total votes cast (about one for every 2,500 votes cast).
- o When the total votes cast were in the range of one to two million (five cases), the margin shift was on average 0.019% of total votes cast (about one for every 5,300 votes cast).
- o When the total votes cast were above two million (five cases), the margin shift on average was 0.0156% of total votes cast (about one for every 6,400 votes cast).
- o No recounts were required for any election where more than six million total votes were cast for the two leading contenders. (Indeed the state of California has never had a recount, including in 133 statewide general elections in 2000-2009.)

Fig. 1: Margin Shifts in Recounts in Relation to Votes Cast in Election



2. Report Methodology

2.1 Definition of recount

The meaning of what constitutes a recount varies from state to state. For some states, a recount means completing an electronic review of the original tallies from the voting machines. In other states, it entails a vigorous hand-to-eye tally of ballots. In this study we define a recount as a process by which the original election results are reconfirmed in every precinct in a statewide race, typically due to a close initial victory margin, accusations of election fraud or concerns about administrative error. Methods of confirming the count include retabulating ballots by feeding them again into machines, electronic reviews of ballot records, and hand-counted tallies of ballots and/or paper trails.

As to the definition of “statewide election,” we surveyed all statewide general elections – meaning any election, whether for an office or a ballot measure, where all citizens of a state, regardless of their residency, had an opportunity to vote for the same candidates or position on issues. The great majority of these elections took place in November, but general elections can include special elections and nonpartisan judicial races and ballot questions taking place alongside primaries. We did not include primary elections in which the winners were not able to take office without subsequent general elections. (Please visit www.fairvote.org/recounts for a detailed list of statewide elections, organized by year, state and office.)

As an example, Wyoming only has one congressional district, and its U.S. House elections are statewide because all Wyoming voters, regardless of where they live, can vote for the same candidates. But a Massachusetts election held for the U.S. House of Representatives is not a statewide election because even though all voters in the state can vote for a U.S. House candidate, they cannot all vote for the same candidates. As another example, the December 2009 primaries in Massachusetts in elections to fill a U.S. Senate vacancy were not statewide races for the purposes of this study, but the January 2010 general election that was a decisive election in which all voters could participate would be considered a statewide race.

We divide recounts into two categories: “consequential recounts” and recounts that are not consequential. We made this distinction because we found that the likelihood of significant changes in victory margin in any recount is very small, making election outcome reversals only likely to occur in exceedingly close races, absent organized fraud or systematic administrative error. Among the 18 statewide recounts in 2000 to 2009, the largest margin shift occurred in Vermont in 2006, where errors in the reporting of initial hand tallies were key to a 0.11% shift in the margin. The next largest shift in victory margin among the remaining 17 recounts was only 0.076%. Therefore, taking these numbers into account, we define a *consequential recount* as a recount in which the original margin is no more than 0.15%. A recount in which the original margin was greater than 0.15% is deemed not consequential.

2.2 Data collection

Data on statewide elections in 2000-2009 was collected by visiting Secretary of State and Election Board websites, as well as calling and emailing each of the states’ respective offices. Contact was made either by phone or email with 46 of the 50 offices. For those states with unresponsive offices, data was collected by thorough Google and Lexis-Nexis searches using the term “recount.” Races for each state were organized by year and by category of election (ballot measure and office being elected).

A multi-seat election (where more than one candidate was elected) was counted as one statewide election because only one recount would be needed to confirm the results.

In elections going to a recount, we gathered vote totals only for the top two candidates, given that in each case the recount was close only between the top two finishers. As a result, numbers used in calculations such as “total vote” reflect only the votes cast for the top two candidates. As an example, in our analysis of the 2000 presidential election recount in Florida, the total vote is what George Bush and Al Gore together received, but does not include votes cast for Ralph Nader and other third party and independent candidates. Finally, we analyzed margin shifts both as absolute values and non-absolute values, thereby showing both the size and direction of any shifts in votes.

In the 2007 edition of this report, we sought to identify every recount that had taken place from 1980 to 1999. For this edition, we used information from those recounts only as a supplement to our data from 2000 to 2009, a period of time when getting full data was achievable.

3. Reviewing Recounts in Statewide Elections, 2000 - 2009

3.1 A total of 2,884 statewide general elections in 2000-2009 decade

In the ten years of elections from 2000 to 2009, there were 2,884 statewide general elections for president, senator, governor, lieutenant governor, secretary of state, attorney general, judicial offices, ballot measures and other statewide offices. This ten-year total averages out to just over 288 elections a year. (See Table 1 in appendix for a breakdown by type of election.)

3.2 Types of elections that triggered the 18 statewide recounts

Election officials conducted 18 recounts in statewide elections in the 2000 to 2009 decade, fewer than two per year. Of these 18 recounted elections, five were ballot measures, three were judicial races and three were U.S. Senate races. The remaining elections were one state outcome in a presidential race (Florida in 2000) and one election each for Governor, Secretary of State, Board of Education, Superintendent of Public Instruction, State Auditor and Attorney General. Of these recounts, 11 were consequential recounts with an initial margin of 0.15 percent or less.

3.3 Extremely close margins needed for outcome reversal

Recounts in statewide elections did not reverse outcomes of elections that did not have an exceptionally close margin in the initial count. In the three overturned recounts, the mean average of the initial margin of victory was just 0.027 percent, while the median margin of victory in all 18 recounted elections was 0.1 percent. (See Tables 2-5 in the appendix.)

The largest change in results occurred in the Vermont in the 2006 auditor’s race, where the votes shifted by 0.11 percent in a race where the original margin was 0.06%, or 137 total votes. Tied to errors in recording hand-counted tallies on election night, the size of this swing was unusual – and still small in absolute number of ballots. The next largest shift in margin among the remaining 17 recounts was only 0.076 percent and the average shift was far less at 0.031%.

The original victory margin in many races with a recount was not close to the narrow margin necessary for a viable chance to reverse an outcome. Even using what we see as generous definition (absent clear indications of fraud or error) of a consequential recount being one with an original margin of 0.15 percent or less, seven of the 18 recounts do not meet this threshold.

Among the seven recounts that were not consequential, the original margin of victory was on average 3.78 percent and the median 3.31 percent. Among the 11 consequential recounts, the mean and median original margins of victory were 0.06 percent.

When using absolute values to calculate the margin shift, recounts that are not consequential on average changed slightly more from their original tallies than consequential recounts, but more often toward expanding the victory margin. In consequential recounts, the absolute value margin shifted a mean 0.0245 percent and a median 0.013 percent. In the remaining recounts, the absolute value margin shifted a mean of 0.031 percent and a median of 0.021 percent.

Errors in the 18 recounts were just as likely to increase the initial victory margin as reduce it. In seven of the eleven consequential recounts, initial leaders expanded their lead, and four times (including the three races resulting in a reversal of outcome), their initial lead was reduced. In the seven remaining recounts, the trailing candidate reduced the victory margin five times, although never close to what would have been necessary to change the outcome. These outcomes would suggest that initial errors in these 18 statewide elections were largely random in nature.

3.4 Negligible vote gains are typical for both sides in recounts

Of the 36 candidates (meaning the top two candidates) and ballot measure positions (“yes” and “no”) considered in the 18 statewide elections with recounts, the vote totals of 28 candidates and positions increased slightly during the recount, evenly split between the initial leader and initial second-place finisher. The votes cast increased for both sides in 13 of the 18 recounts and decreased for both sides in three elections. The initial leader lost votes and the trailing candidate gained more votes in one recount, and the initial leader gained votes and the trailing candidate lost votes in the final recount. In half of all recounts, margins between the winner and loser decreased slightly after the recount and in half that margin increased slightly. On average, the losing candidate’s votes saw a slightly larger swing, with their vote total being affected by 0.162% in comparison to the winner’s vote total being affected by 0.141%. However, these low percentages underscore recounts’ small impact on vote margins.

3.5 The three exceptional races with a reversal in outcome

Three recounts resulted in a reversal of the original outcome: the 2004 gubernatorial race in Washington State, the 2006 State Auditor race in Vermont and Minnesota’s 2008 U.S. Senate race, with the recounts in Washington and Minnesota earning significant national attention.

- **Washington:** Washington State’s gubernatorial election in 2004 was decided in favor of Democrat Christine Gregoire by 129 votes out of 2,746,593 votes cast, representing a margin of victory of 0.005 percent. Gregoire initially trailed Republican Dino Rossi in the race by 261 votes. The recount shifted the margin by 390 votes, or 0.014 percent of total votes cast.
- **Vermont:** Vermont’s State Auditor race in 2006 initially went to Republican incumbent Randy Brock by a margin of 137 votes, or 0.062 percent of total votes. After the recount, Democratic challenger Thomas Salmon won the election by a margin of 102 votes, or 0.046 percent. The recount changed the margin in Salmon’s favor by 239 votes, or 0.107 percent of total votes cast. Most of the changes occurred in localities that had inaccurately recorded ballots tallied by hand on election night.

- **Minnesota:** Minnesota's U. S. Senate election in 2008 was a high-profile example of a recount that was ultimately decided in the courts. Minnesota law provides that tallies within one-half of one percent automatically trigger a recount. Democratic challenger Al Franken entered the state-mandated recount trailing by only 215 votes, or 0.009 percent of the votes cast, against Republican incumbent Norm Coleman. After a months-long legal process that hinged largely on questions of voter intent in filling out paper ballots, Franken finished with 225 more votes than the incumbent—a 440 vote swing, amounting to 0.018 percent of the total votes cast.

3.6 Partial recounts do not tend to change the initial outcome

Occasionally, partial statewide recounts occur, but change the outcome of the race even more rarely than full recounts. Several examples of this method of recount occurred in elections we examined that took place before 2000: the 1988 U.S. Senate race in Florida, the 1995 Maine referendum on seat belts, the 1998 attorney general race in New York and the 1998 Senate race in Nevada.

In the 1988 Senate race in Florida, a partial manual recount was conducted in a few counties upon the request of the losing candidate. The recount in Maine began as a complete statewide manual counting of ballots, but was halted midway when the requesting party withdrew their demand. In the 1998 attorney general race in New York, votes cast in New York City were recounted after allegations of machine malfunctioning. In the 1998 Senate race in Nevada, a judge ordered the manual recounting of 6,000 absentee ballots in Reno upon allegations that their misprinting had resulted in incorrect tallying by machines. None of these recounts reversed the previous result.

Partial statewide recounts occurred in Ohio during the 2004 presidential race and in a U.S. Senate race in Indiana in 2006. These recounts were both requested by petitioners seeking to draw attention to problems in how ballots were counted, not to overturn outcomes.

4. Recount Laws in States

4.1 Laws about automatic recounts and requested recounts vary widely

Laws regarding recounts vary from state to state and have evolved over time. In our review of state statutes (Table Six in appendix), we found that out of 50 states and Washington, D.C., 18 jurisdictions have automatic recount provisions for state and federal elections, based on a specified threshold. Ten states automatically conduct a recount within a margin of 0.5 percent between the top two candidates, four states automatically hold a recount if the margin is 1 percent or less, three do so at margins of 0.1% up to 0.25 percent, and one (Michigan) conducts automatic recounts for margins equal to or below 2,000 votes. Three additional states do not have automatic recount laws although allow recounts in the case of an exact tie.

Older automatic recount laws tend to be less sophisticated – as an example, several states have laws dating back to the early twentieth century that only have an automatic recount in the event of an exact tie in the vote. The first states to pass automatic recount laws using thresholds of 0.5 percent were Connecticut, Florida, Michigan, Ohio, and Oregon in the 1970s. Passage of an automatic recount law often has followed in the wake a close election and mimics the threshold used in existing laws in other states. Delaware, Alabama, and Texas have adopted automatic recount laws since 2000, with the Alabama law following a particularly close election.

Thirty-three states have no procedure for automatic recounts in the event of a close election. However, of these states, all but two have at least some recount provision. Forty-one states (including the District of Columbia) allow candidates to petition for statewide recount. This does not include California, which instead allows voters to petition for a recount, and New York, which only allows candidates to petition for recounts in non-statewide elections. Like California, many states provide voters or political parties with the opportunity to petition for a recount as well. Some states allow candidates to petition only if the results are within a certain margin, and some states charge candidates money to petition, with the fees generally returned to the petitioner if the recount changes the outcome in the petitioner's favor. Deadlines for petitions vary state by state.

In very close races, both an automatic recount and then a requested recount often occur because a candidate would like to have the ballots analyzed more closely. However, that does not mean that automatic recount laws are always less thorough; some require hand counts at a certain margin, for example. Once again, details vary based on state laws.

According to Citizens for Election Integrity Minnesota (CEIMN), almost every state has a procedure in place for a voter or group of voters to petition for a recount. These laws vary in the timeline and margin which must be met before eligible voters can request a recount (these voters typically must have voted in the election for which a recount is requested). The states without such a law in place for statewide elections are Arkansas, Connecticut, Delaware, Florida, Hawaii, Idaho, Louisiana, Mississippi Nebraska, New Mexico, North Carolina, North Dakota, South Carolina, Tennessee, Vermont and West Virginia.

4.2 Counting procedures

Just as recounts can be triggered differently in different states, recounts also are often conducted differently due to different election equipment and recount requirements. Moreover, the circumstances leading to a recount can affect what kind of recount is done. In the 2004 U.S. Senate race in Alaska, for example, all ballots were re-scanned and there was a manual count of a sample of ballots in order to evaluate concerns that the machines were not tallying all ballots accurately. In Minnesota's U.S. Senate race in 2008, a statewide manual hand count was conducted because Minnesota law seeks to verify voter intent. Full manual recounts decided the 2006 state auditor race in Vermont, the 2004 constitutional amendment referendum in Alabama and the 2004 gubernatorial race in Washington. All recounts prior to the introduction of voting machines involved manual counting, of course, while the 2000 State Education Board election in Colorado was an example of an automatic machine recount.

The margin shifts tended to reflect the process by which the ballots were recounted, although not dramatically so. Manual recounts are the more costly and time-intensive than machine counts and require careful procedures to minimize human error, but such manual recounts also resulted in larger margin swings – presumably because of humans evaluating voter intent differently – and ideally more accurately – than determined by machines in the original count.

5. Likelihood of Recounts and Outcomes

5.1 Additional findings from statewide recounts

Recounts occur mostly in very close elections, with an initial average margin of victory of 1.51% and initial median margin of 0.093% in the 18 statewide recounts in 2000-2009.

Among consequential recounts, the 2000 presidential race in Florida involved the largest vote total, with 5,816,486 votes cast, and had an election night margin of 1,784 votes, or 0.031 percent of votes cast (after additional ballots were counted and all ballots recounted on machines, the state was ultimately decided by 537 votes). For recounts that are not consequential, the largest vote total was 2,137,677 votes in the 2000 Secretary of State race in Washington State. The original victory margin was 10,489 votes, or 0.491 percent. (See Tables 2 and 4 in the appendix.) Among the consequential recounts, the lowest vote total was 63,080 in the 2000 Montana Superintendent of Public Instruction race, with an original victory margin of 0.101 percent, or 64 votes.

For the remaining recounts, the lowest vote total was 218,433 in the Wyoming 2004 Amendment A election, with an 11.55 percent, or 25,221 vote, victory margin. (See Tables 3 and 5.) This race's 11.55 percent initial victory margin was also the largest margin among all 18 recounts. The election was an outlier, as only one other race (the other 2004 Wyoming ballot measure recount) had an original margin greater than five percent. The smallest victory margin occurred in the overturned 2008 U.S. Senate race in Minnesota, with a victory margin of 215 votes, just 0.009 percent of the total vote between the top two candidates.

Overall, recounts changed the victory margin by an average of 296 votes or 0.027 percent when using absolute values. Recounts changed the victory margin by fewer than 500 votes in 15 of the 18 statewide recounts in the 2000-2009 decade.

5.2 Unlikelihood of outcome reversals can deter frivolous calls for recounts

The rarity of statewide recounts is underscored by the fact that several close elections were settled without a recount despite victory margins similar to ones where recounts occurred. For example, the 2002 U.S. Senate race in South Dakota was won by 524 votes without a recount. Before the period of our study, the 1994 gubernatorial race in Maryland was particularly controversial. The losing candidate alleged potential fraud, but ultimately decided not to press for a full recount after conceding that the gap of 5,993 votes was too large to be overturned. Similarly, in the 1982 gubernatorial race in Illinois, the losing candidate abandoned his challenge in a race where the final victory margin was 5,074 votes.

In states where there is no provision for automatic recounts, cost constraints as well as the sheer unlikelihood of closing the gap and changing the outcome of an election may deter losing candidates from seeking a recount.

6. Implications for Policymakers

How recounts are administered differs widely among states regarding various aspects of the process, such as the timing of recounts, prerequisites and counting techniques. Moreover, regardless of the standard criteria for handling recounts in close elections, candidates have the option of petitioning in court for at least partial recounts even in elections that are not close.

Nevertheless, our findings indicate that the overwhelming majority of elections have outcomes that are not realistically disputable, absent indications of systematic fraud or administrative error. In the relatively few statewide races with recounts in 2000-2009, the original outcome rarely was overturned, and initial victory margins only slightly changed. Yet recounts should be done in exceptionally close races even if costly to taxpayers – and procedures should be in place to seek to identify fraud or error.

6.1 State laws governing automatic recounts and post-election audits

Recounts uphold the value of every vote when an outcome is in doubt, and the losing candidate should not be put in the position of being labeled as a “sore loser” for asking for a recount if there are sufficient reasons to verify the outcome of an election. For that reason, the 33 states without any automatic recount provisions should establish them. At the same time, the nine states with provisions for automatic recounts in elections won initially by 0.5% or more should reduce those triggers to reflect current realities of what is a realistic change in a recount when there is no evidence of systematic fraud or error. While a recount trigger of 0.5 percent can make sense for local and state legislative races with small electorates, the trigger for automatic recounts funded by taxpayers in statewide races should be smaller. Given data on margin shifts in statewide recounts with modern voting machines, we would recommend 0.1% percent as an automatic trigger for most states, perhaps rising to 0.2% for the smallest population states.

At the same time, however, recount laws should go hand-in-hand with rigorous post-election audit procedures designed to identify outcomes that may be questionable due to fraud or error no matter what the initial margin. Such post-election audits should be tailored to the margins in each race, and the number of audited ballots should increase in relation to the percentage of discrepancies found as the audit progresses.

Our ideal recount law also would allow candidates to petition for a full recount despite an initial victory margin larger than the automatic recount trigger, but not in a way that prevents seating the likely winner. In these cases the candidate’s campaign or political party should be ready to pay for the recount if the outcome is not reversed. Recounts can be costly (consider that Washington State’s gubernatorial election recount in 2004 cost more than 1.1 million dollars) and can be divisive if pursued solely to prevent a likely winner from taking office.

6.2 National popular vote elections

Since 2006, every state legislature in the nation has debated legislation to enact the National Popular Vote plan for president, which comes in the form of identical statutes entering participating states into an interstate compact to guarantee election of the presidential candidate who earns the most popular votes in all 50 states and the District of Columbia (see nationalpopularvote.com). As of April 2011, seven states and the District of Columbia have signed the National Popular Vote plan into law; the agreement will become active once the participating states collectively have more than half of the nation’s electoral votes.

The National Popular Vote plan could trigger the need for a national recount, but the odds of recount being necessary and problematic are significantly greater in the current method of electing the president in which any one of 50 states could have a close outcome where an outcome reversal could swing the national outcome.

Consider that only one out of every 160 statewide general elections over the 2000-2009 decade triggered any kind of recount, only one out 262 statewide elections in this period resulted in a consequential recount and only one out of every 961 statewide general elections led to the outcome being reversed by a recount. These numbers are generally true for the most competitive statewide offices such as governor, lieutenant governor and attorney general.

Applied to our four-year presidential election cycle, a consequential nationwide recount would need to occur once every 1,048 years, with an overturned election once every 3,844 years. In contrast, in our current system based on 51 separate elections determining allocation of electoral

votes, any closely contested presidential election where the outcome could hinge on one state's outcome is far more likely to trigger a consequential recount even with such seemingly long odds – perhaps once every five very close presidential elections, given that five elections would represent a total of 255 statewide races.

Examining what might be a consequential recount in national popular vote elections, consider that the average change in victory margin in consequential recounts was 0.0245 percent. In an election with 100 million voters, therefore, the initial victory margin would need to be fewer than 25,000 votes to expect a recount to have a plausible chance to reverse the outcome, absent clear evidence of fraud or error that affected a large number of votes. But the graph provided earlier (Fig. 1) indicates that recounts result in a decreasing percentage change in the victory margin as the number of votes in an election rises. For elections with combined vote totals fewer than one million, the margin swing (meaning the margin percentage changed in the recount) was on average 0.039% of total votes cast (about one of every 2,500 votes cast). When the total votes cast were in the range of one to two million, the margin shift was on average 0.019% of total votes cast (about one of every 5300 votes cast). And when the total votes cast were above two million, the margin shift was on average 0.0156% of total votes cast (about one of every 6,400 votes cast).

This data means that the likelihood of an outcome reversal decreases when more votes are cast in an election. As a result, the required margin for a meaningful chance to overturn the outcome might in fact be fewer than 25,000 for a race with 100 million votes cast. (In 2008, more than 131 million valid votes were cast in the presidential race.) Considering these factors together, the need for a consequential recount in a national popular vote election quite plausibly might be necessary about once in a millennium, and an outcome reversal might take place once every four thousand years.

University of Pennsylvania Professor Jack Nagel's independent analysis of the same questions also concluded that the odds of a recount are significantly less for a single nationwide vote pool than for the current Electoral College system in which each state's votes are counted separately. He writes: "Defenders of the Electoral College often attempt to turn the Florida 2000 fiasco into a reason for rejecting the direct vote alternative. They ignore the obvious answer: The national vote in 2000 was not close enough to dispute, nor has the popular vote been that close in any recent election. Using any reasonable assumption about how close an election must be for recount demands to arise, the likelihood of disputes is greater under the current Electoral College system than it would be in an election decided by the national popular vote."

7. Data Sources and Acknowledgments

With Emily Hellman doing the work on data collection and Hellman and Rob Richie in writing, this report is an update of a 2007 edition co-authored by Monideepa Talukdar. We thank Bill Shein and former interns Scott Epstein and Erin Creegan for their initial research for that edition, and Adam Fogel, Neal Suidan, Matt Sledge, Patrick Withers, Jules Leconte, Joanna McKeegan and Brian Bennett for their assistance in updating this edition.

The data used in this report was obtained from election results archived on Secretaries of State and Election Board websites, by calling and emailing their offices, and from the Lexis-Nexis news database. Its completeness, therefore, is contingent upon the completeness of the information obtained from these sources. Much of the information on state laws was obtained through using Citizens for Election Integrity Minnesota (CEIMN)'s invaluable State Recount Laws Searchable Database (<http://ceimn.org/ceimn-state-recount-laws-searchable-database>).

Table 1. Total Number of Statewide Elections and Recounts, by Office, 2000-2009

Office	Number Statewide Elections (2000-09)	Number of Statewide Recounts (2000-09)	Percent of Recounts Per Election (2000-09)
President	150	1	0.67%
U.S. Senator	170	3	1.76%
U.S. Representative	35	0	0.00%
Governor	118	1	0.85%
Lieutenant Gov.	44	0	0.00%
Secretary of State	81	1	1.23%
Attorney General	100	1	1.00%
Treasurer	79	0	0.00%
Auditor	58	1	1.72%
Comptroller	18	0	0.00%
Public Service Commissioner	16	0	0.00%
Agriculture/ Industries Commissioner	27	0	0.00%
Labor Commissioner	8	0	0.00%
Insurance Commissioner	23	0	0.00%
Public Lands Commissioner	11	0	0.00%
Tax Commissioner	3	0	0.00%
Corporation Commissioner	13	0	0.00%
Railroad Commissioner	6	0	0.00%
Public Utilities Commissioner	6	0	0.00%
Mine Commissioner	2	0	0.00%
Superintendent of Education /Public Instruction	34	1	2.94%
Board of Education/Governors	9	1	11.11%
University Regent	8	0	0.00%
Trustee	6	0	0.00%
Court Positions and Retention	601	3	0.50%
Ballot Question	1245	5	0.40%
Other	13	0	0.00%
TOTAL	2884	18	0.62%

Table 2. Statewide Recounts Tallies, 2000-2009 (Consequential Recounts)

State	Year	Office/Initiative	Recount Result: Effect on Outcome	Original Tally			Recount Tally		
				Votes – Winner	Votes – Loser	Margin	Votes – Winner	Votes – Loser	Margin
Alabama	2004	Amendment 2	Sustained	691,300	689,450	1,850 0.134%	690,376	688,530	1,846 0.134%
Colorado	2000	State Education Board	Sustained	768,915	767,704	1,211 0.079%	767,561	767,471	90 0.006%
Florida	2000	President	Sustained	2,909,135	2,907,351	1,784 0.031%	2,912,790	2,912,253	537 0.009%
Georgia	2004	Court of Appeals Judge	Sustained	207,416	207,068	348 0.084%	207,499	207,136	363 0.088%
Minnesota	2008	U.S. Senate	Reversed	1,211,590	1,211,375	215 0.009%	1,212,206	1,212,431	-225 -0.009%
Montana	2000	Superintendent of Public Instruction	Sustained	31,572	31,508	64 0.101%	31,634	31,573	61 0.097%
Oregon	2008	Measure 53	Sustained	489,592	489,042	550 0.056%	490,158	489,477	681 0.070%
Vermont	2006	Auditor of Accounts	Reversed	111,486	111,349	137 0.061%	111,668	111,770	-102 -0.046%
Virginia	2005	Attorney General	Sustained	970,886	970,563	323 0.017%	970,981	970,621	360 0.019%
Washington	2000	U.S. Senate	Sustained	1,199,260	1,197,307	1,953 0.081%	1,199,437	1,197,208	2,229 0.093%
Washington	2004	Governor	Reversed	1,371,414	1,371,153	261 0.010%	1,373,232	1,373,361	-129 -0.005%
AVERAGE				905,687.818	904,897.273	790.545 0.060%	906,140.182	905,621.000	519.182 0.041%

Table 3. Statewide Recount Tallies, 2000-2009 (*Recounts Not Consequential*)

State	Year	Office/Initiative	Recount Result: Effect on Outcome	Original Tally			Recount Tally		
				Votes – Winner	Votes – Loser	Margin	Votes – Winner	Votes – Loser	Margin
Alabama	2006	Constitutional Amendment	Sustained	409,372	406,730	2,642 0.324%	408,524	405,374	3,150 0.387%
Alaska	2004	U.S. Senate	Sustained	149,446	139,878	9,568 3.307%	149,773	140,424	9,349 3.222%
North Carolina	2006	Court of Appeals Judge	Sustained	771,303	767,887	3,416 0.222%	774,819	771,353	3,466 0.224%
Pennsylvania	2009	Superior court Race	Sustained	952,781	869,088	83,693 4.594%	954,065	870,091	83,974 4.603%
Washington	2000	Secretary of State	Sustained	1,074,083	1,063,594	10,489 0.491%	1,073,911	1,063,689	10,222 0.478%
Wyoming	2004	Amendment A	Sustained	121,827	96,606	25,221 11.546%	122,038	96,762	25,276 11.552%
Wyoming	2004	Amendment C	Sustained	123,957	109,998	13,959 5.967%	124,178	110,169	14,009 5.978%
AVERAGE				514,681.286	493,397.286	21,284.000 3.779%	515,329.714	493,980.286	21,349.429 3.778%

Table 4. Statewide Recount Swing Margins, 2000-2009 (*Consequential Recounts*)

State	Year	Office/Initiative	Recount Result: Effect on Outcome	Margin Swing Between Top two Candidates (without absolute values)	Margin Swing Between Top Two Candidates (with absolute values)	Margin Shift (without absolute values)	Margin Shift (with absolute values, as percent of original tally winner loser total)	Vote Gained/Lost: Winner	Vote Gained/Lost: Loser	Effect on Vote Total: Winner	Effect on Vote Total: Loser
Alabama	2004	Amendment 2	Sustained	4	4	0.0003%	0.0003%	-924 -0.134%	-920 -0.134%	924 0.134%	920 0.134%
Colorado	2000	State Education Board	Sustained	1,121	1,121	0.0730%	0.0730%	-1,354 -0.176%	-233 -0.030%	1,354 0.176%	233 0.030%
Florida	2000	President	Sustained	1,247	1,247	0.0214%	0.0214%	3,655 0.125%	4,902 0.168%	3,655 0.125%	4902 0.168%
Georgia	2004	Court of Appeals Judge	Sustained	-15	15	-0.0036%	0.0036%	83 0.040%	68 0.033%	83 0.040%	68 0.033%
Minnesota	2008	U.S. Senate	Reversed	440	440	0.0182%	0.0182%	616 0.051%	1,056 0.087%	616 0.051%	1056 0.087%
Montana	2000	Superintendent of Public Instruction	Sustained	3	3	0.0048%	0.0048%	62 0.196%	65 0.206%	62 0.196%	65 0.206%
Oregon	2008	Measure 53	Sustained	-131	131	-0.0134%	0.0134%	566 0.115%	435 0.089%	566 0.115%	435 0.089%
Vermont	2006	Auditor of Accounts	Reversed	239	239	0.1073%	0.1073%	182 0.163%	421 0.377%	182 0.163%	421 0.377%
Virginia	2005	Attorney General	Sustained	-37	37	-0.0019%	0.0019%	95 0.010%	58 0.006%	95 0.010%	58 0.006%
Washington	2000	U.S. Senate	Sustained	-276	276	-0.0115%	0.0115%	177 0.015%	-99 -0.008%	177 0.015%	99 0.008%
Washington	2004	Governor	Reversed	390	390	0.0142%	0.0142%	1,818 0.132%	2,208 0.161%	1,818 0.132%	2208 0.161%
AVERAGE				271	355	0.0190%	0.0245%	452.364 0.049%	723.727 0.087%	866.545 0.105%	951.364 0.118%

Table 5. Statewide Recount Swing Margins, 2000-2009 (*Recounts Not Consequential*)

State	Year	Office/Initiative	Recount Result: Effect on Outcome	Margin Swing Between Top Two Candidates (without absolute values)	Margin Swing Between Top Two Candidates (with absolute values)	Margin Shift (without absolute values)	Margin Shift (with absolute values, as percentage of original tally, winner loser total)	Vote Gained/Lost: Winner	Vote Gained/Lost: Loser	Effect on Vote Total: Winner	Effect on Vote Total: Loser
Alabama	2006	Constitutional Amendment	Sustained	-508	508	-0.0622%	0.0622%	-848 -0.208%	-1,356 -0.335%	848 0.208%	1356 0.335%
Alaska	2004	U.S. Senate	Sustained	219	219	0.0757%	0.0757%	327 0.218%	546 0.389%	327 0.218%	546 0.389%
North Carolina	2006	Court of Appeals Judge	Sustained	-50	50	-0.0032%	0.0032%	3,516 0.454%	3,466 0.449%	3,516 0.454%	3466 0.449%
Pennsylvania	2009	Superior court Race	Sustained	-281	281	-0.0154%	0.0154%	1,284 0.135%	1,003 0.115%	1,284 0.135%	1003 0.115%
Washington	2000	Secretary of State	Sustained	267	267	0.0125%	0.0125%	-172 -0.016%	95 0.009%	172 0.016%	95 0.009%
Wyoming	2004	Amendment A	Sustained	-55	55	-0.0252%	0.0252%	211 0.173%	156 0.161%	211 0.173%	156 0.161%
Wyoming	2004	Amendment C	Sustained	-50	50	-0.0214%	0.0214%	221 0.178%	171 0.155%	221 0.178%	171 0.155%
AVERAGE				-65	204	-0.0056%	0.0308%	648.429 0.133%	583.000 0.135%	939.857 0.197%	970.429 0.230%

Table 6. Statewide Recount Laws

State	Automatic Recount	Percent for Automatic Recount	Notable Provisions	Non-automatic	Candidate Petition Procedure for Statewide Elections	Recount Automatic Only if Tie Vote
Alabama	Yes	0.50%		Yes	Petition filed by candidate within 48 hours of official canvass.	
Alaska				Yes	Petition filed by candidate within five days after completion of the state review.	Yes
Arizona	Yes	0.1%				
Arkansas				Yes	Candidate may petition no later than two days after results (if absentee ballots can affect election).	
California			Recount by court order or voter request only			
Colorado	Yes	0.50%	Percentage of the top vote-winner's margin of victory	Yes	Must be filed within 24 days of the election (20 days for a primary).	
Connecticut	Yes	0.50%	Margin less than 20 votes also triggers recount			
Delaware	Yes	0.50%	Only absentee and provisional ballots recounted; not for statewide offices	Yes	Statewide candidate can only petition if within 1,000 votes or 0.5% of closest candidate.	
District of Columbia	Yes	1%		Yes	Recount requests must be made within seven days after the certification of the election results.	
Florida	Yes	0.50%				
Georgia				Yes	Petition filed by candidate any time prior to certification or two business days prior if due to the race being within a close margin.	
Hawaii			No recount law, but process to resolve election disputes in court			
Idaho				Yes	Petition filed by candidate within 20 days of the canvass.	
Illinois				Yes	Any losing candidate who received votes equal to 95% of the number of votes received by any successful candidate for the same office. Petitions must be made within five days after the announcement of canvass results.	
Indiana				Yes	Petition filed by candidate no later than 12 pm, two weeks after the election	
Iowa				Yes	Petition filed by candidate no later than three days after the canvass.	
Kansas				Yes	Petition filed by candidate no later than noon the Monday following the election.	
Kentucky				Yes	Petition filed by candidate within ten days of the election.	
Louisiana				Yes	Only absentee ballots can be recounted.	
Maine				Yes	Recount request must be filed within five business days after the election.	
Maryland				Yes	Petition filed by candidate within three days of certification.	
Massachusetts				Yes	Petition filed by candidate by 5pm on the 10th day after the general election with local officials and then filed with the Secretary of the Commonwealth within 15 days.	
Michigan	Yes	Equal or below 2,000 votes		Yes	Candidate must petition the state within 48 hours after the certification of election results.	
Minnesota	Yes	0.50%		Yes	Candidate must petition the state within five days of the primary results and within seven days of the general results.	
Mississippi			No identified recount law			
Missouri				Yes	Candidate must petition the state within seven days of the result.	
Montana				Yes	Candidate must petition the state within five days of the result.	

Nebraska	Yes	1%		Yes	Candidate must petition the state within ten days after the canvassing board convenes.	
Nevada				yes	Candidate must petition the state three working days after certification of the vote.	
New Hampshire				Yes	Candidate must petition the state by 5 p.m. the Friday after the election. The difference between the 2 candidates must be less than 20% of the total votes cast in each precinct to be recounted.	
New Jersey				Yes	Candidate must petition before within 15 days following the election.	
New Mexico	Yes	0.50%		Yes	Candidate must petition the state within six days after completion of the canvass.	
New York			"Re-Canvass" by court order only			
North Carolina				Yes	Candidate may petition within 0.5% or 10,000 votes in statewide elections. Requests must be filed by 12 pm on the 2 nd business day after the canvass.	
North Dakota	Yes	1%-primary, 0.5% General 0.25% for ballot measures	Percent is margin divided by number of votes received by leader	Yes	Candidate may apply within in three days after the meeting of the county canvassing board if they are defeated by more than 1% but less than 2% in the primary, and more than 0.5% but less than 2% in the general.	
Ohio	Yes	0.25%	Higher percent for non-statewide votes.	Yes	Candidate must file petition within five days of certification.	
Oklahoma				Yes	Candidate must file the petition by 5 pm the Friday following the election.	
Oregon	Yes	0.20%		yes	Candidate must file the petition by the 35 th day after the date of the election or five business days after the results in the case of presidential elections.	
Pennsylvania	Yes	.50%	Available only for candidates or measures on the ballot in every election district "			
Rhode Island				Yes	In primary elections, by 4:00 p.m. the day after the primary. In General elections, within seven days after the election. Close margin is required.	
South Carolina	Yes	1%				
South Dakota				Yes	Within five days after the election, within three days for statewide elections, after election but before official canvass for presidential election. Close margin is required.	Yes
Texas				Yes	For initial recounts, petition must be file by the 5th day after the election or 5 pm the second day after the completion of the canvass (whichever is later).	Yes
Tennessee			No recount except via courts			yes
Utah				Yes	Candidate has to petition the state within seven days of the initial canvas selection. The candidate has to lose by no more than one vote per precinct.	
Vermont				Yes	Candidate has to petition the state within ten days and has to lose by less than two percent (five per cent for non-statewide races with one winner).	
Virginia				Yes	Candidate has to petition within ten days within certification, and margin has to be less than 1%. For Presidential electors, petition has to be filed no later than 5 pm on the second calendar day after the day after the ay the state board certifies the result of the election.	
Washington	Yes	0.50%	Fewer than 2,000 votes	Yes	Candidate has to petition the state within three days of when official election results are declared.	
West Virginia				Yes	Candidate has to petition within 48 hours of last county certifying results in a multi-county election.	
Wisconsin				Yes	Candidate must petition the board of canvassers within three business days of certification.	
Wyoming	Yes	1%		Yes	Candidate must petition the board of canvassers no later than two days after canvass of vote.	

Sources: Citizens for Election Integrity Minnesota (CEIMN) searchable database on state recount laws (available at <http://ceimn.org/ceimn-state-recount-laws-searchable-database>) and contact with state Board of Elections officials. In the event that no information was available, we analyzed the relevant State Elections Code without looking to case law.