INTRODUCTION

In 2016, Maine launched a bold experiment by becoming the first state to adopt ranked-choice voting, otherwise known as instant run-off voting. Several municipalities have experimented with ranked-choice voting for more than a decade. Because this voting system has been used in municipalities nationwide, The Maine Heritage Policy Center was able to compile results from 96 elections in the U.S. that triggered ranked-choice voting. Put differently, these election results were compiled from 96 races where more than one round of tabulation occurred.

Using this data, we can examine and draw conclusions about ranked-choice voting and compare Maine’s recent experience with other jurisdictions to identify patterns. The goal of this report is to analyze the history, claims and mechanisms of ranked-choice voting in an attempt to understand how the system works, its merits and shortcomings, and how it compares to plurality elections and other voting systems. This report also intends to help lawmakers and the public decide if ranked-choice voting is right for Maine and other states.

HOW DOES RANKED-CHOICE VOTING WORK?

In contrast to plurality elections where voters select a single candidate and the candidate with the most votes wins, ranked-choice voting gives voters the option to rank-order candidates on their ballots. For example, in the 2018 race for Maine’s Second Congressional District, voters could have ranked up to five candidates, including a write-in, on their ballots.

If a candidate receives more than 50 percent of first-place votes, they are declared the winner of the election. However, oftentimes one candidate does not receive a majority of the votes cast on Election Day. When this occurs, the candidate(s) who do not stand a mathematical chance of winning are eliminated from contention, and additional rounds of tabulation occur until a candidate receives a majority of the remaining votes. In Maine’s 2018 Second Congressional District election, both William Hoar and Tiffany Bond were eliminated from contention after the first round of tabulation, and the ballots that listed them as a voter’s first choice were then awarded to the candidate listed as the voter’s next choice. This recurs until a candidate receives over 50 percent of the remaining, non-
exhausted ballots. In Maine’s 2018 Second Congressional District election, only two rounds of tabulation were needed to declare a winner. However, races with a large field of candidates can require many rounds of tabulation. Regardless, most ranked-choice voting elections that have more than one round of tabulation produce exhausted ballots.

**What is an Exhausted Ballot?**

An exhausted ballot occurs when a voter overvotes, undervotes, or ranks only candidates that are mathematically eliminated from contention. Because these votes are not tabulated in the final round, their ballot does not influence the election after it becomes exhausted. For example, if a ballot becomes exhausted in round four of an election that necessitates 20 rounds of tabulation, the voter’s ballot is not included in the final tally; it is as if they never showed up on Election Day.

The distinction between exhausted ballots in the first round of tabulation and the rest of the election merits clarification. In this report, we do not consider overvotes and undervotes in the first round of tabulation as “exhausted votes” because voters could make the same mistake on a ballot in an election decided by plurality. In other words, votes that are exhausted in the second and subsequent rounds of tabulation are purely a consequence of using ranked-choice voting. Thus, this report will focus on and isolate those exhausted ballots when considering elections in Maine and across the United States.

**VOTER CONFUSION AND INFORMATION DEFICITS**

In a plurality election, the choice facing voters is simple: Of all the candidates running, whom do you prefer? Ranked-choice voting entails a much more complicated — and somewhat artificial — decision. To fully participate, voters must rank-order all of the candidates. In contrast to run-off elections, voters do not get the benefit of evaluating candidates as they face-off one-on-one. In Maine, voter confusion was so pervasive that proponents of ranked-choice voting felt the need to publish a 19-page instruction manual to help voters navigate the process.\(^1\)

This inherent feature of ranked-choice voting is problematic because it demands that voters have a large amount of information about candidates’ differing views. The fact is that most Maine voters, like most voters in any election, do not follow political races closely enough to meaningfully rank candidates in contests with more than three or four candidates. Yet, in order to avoid losing influence in a ranked-choice voting election, a voter must rank each and every candidate.

It is well-documented that American voters often lack basic information about candidates’ policy positions. A Pew Research Center survey conducted shortly before the 2016 presidential election revealed that a significant proportion of registered voters knew little or nothing about where the two major candidates stood on key issues.\(^{[2]}\) For instance, 48 percent of Hillary Clinton voters knew a lot about her positions, 32 percent knew some, and 18 percent knew not much or nothing. Knowledge about Donald Trump’s stances was even lower: 41 percent of Trump voters knew a lot about his positions, 27 percent knew some, and 30 percent knew little or nothing.\(^{[3]}\) In 2018, a poll found that 34 percent of registered Republican voters and 32.5 percent of registered Democratic voters said they did not even know the names of their party’s congressional candidates in their districts.\(^{[4]}\)

In other words, tens of millions of Americans enter the voting booth knowing virtually nothing about the policy stance of the candidates. It seems unlikely that they could confidently rank five, ten, or more candidates based on a sound assessment of their platforms. A 2014 study conducted in California provides additional reasons to be skeptical that ranked-choice voting functions in practice as its proponents predict.\(^{[5]}\) The study found voters are “largely ignorant about the ideological orientation of candidates, including moderates...”\(^{[6]}\) This information deficit is already a concern in plurality contests and is greatly magnified in ranked-choice voting elections when voters are asked to rank more than a single candidate.

Less knowledgeable voters are more likely to rank fewer candidates, potentially denying them influence over the election outcome. Giving knowledgeable voters more electoral influence may be defensible as a matter of political philosophy, but it is surely not the intent behind Maine’s adoption of ranked-choice voting. The 2018 Maine Democratic gubernatorial primary provides a good example of the practical challenges this poses to voters in ranking their preference in a large field of candidates. There were seven candidates on the ballot in this race and more than seven percent of the ballots were exhausted by the end of the fourth round of tabulation.\(^{[7]}\) Another example is the 2011 mayoral race in Portland, where ranked-choice voting was used and 15 candidates


\(^{[3]}\) Ibid.


\(^{[6]}\) Ibid.


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appeared on the ballot. In this race, voters had 15 choices and almost 18 percent of the votes were exhausted before a winner was determined.\[^8\]

When we examined the 96 ranked-choice voting races in our sample from across the nation, our analysis found an average of 10.92 percent of ballots cast are exhausted by the final round of tabulation. This phenomenon can be seen in Figure 1.

When presented with a ranked-choice voting ballot, many voters do not rank every candidate, potentially due to insufficient information about the candidates or confusion about how ranked-choice voting works. Exhausted ballots are a serious problem under ranked-choice voting, as they systematically reduce the electoral influence of certain voters. A study in 2014 reviewed more than 600,000 ballots in four municipal ranked-choice voting elections from around the country and found ballot exhaustion to be a persistent and significant feature of these elections.\[^9\] The rate of ballot exhaustion in that study was high in each election, ranging from 9.6 percent to 27.1 percent.

While exceedingly rare, ranked-choice voting races can create more exhausted ballots than ballots that are awarded to the winner of an election. For example, the 2010 election for San Francisco’s Board of Supervisors in District 10 resulted in 9,608 exhausted ballots whereas the prevailing candidate only received 4,321 votes.\[^10\] More striking, there were

more than 1,300 more ballots that were exhausted than were awarded to a candidate at the end of the 20th round of tabulation.\(^{11}\)

**Voter Disenfranchisement**

Of particular significance for Maine, research has found that jurisdictions with higher proportions of older voters are more likely to report ballot-marking mistakes.\(^{12}\) Maine is the oldest state in the nation with a median age 44.6 years of age.\(^{13}\)

Similarly, in San Francisco’s 2004 ranked-choice voting election, a study conducted by FairVote, a proponent of ranked-choice voting, found that “the prevalence of ranking three candidates was lowest among African Americans, Latinos, voters with less education, and those whose first language was not English.”\(^{14}\) In the races examined in FairVote’s study, the ballots had three columns for voters to rank their candidates of choice. African Americans, Latinos, voters with less education, and those whose first language was not English disproportionately did not utilize their ballot to the fullest extent possible. More specifically, only 50 percent of African Americans and 53 percent of Latinos ranked three candidates whereas 62 percent of whites ranked a candidate in all three columns.

When individuals leave columns blank on their ballots and the candidate(s) they vote for are eliminated from contention, their ballot is not counted in the final tabulation. Therefore, if these voters only choose one candidate on their ballot, it is more likely to become exhausted, thereby giving those who fully complete their ballot more influence over the electoral process. In other words, African Americans, Latinos, voters with less

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\(^{11}\)Ibid.


education, and those whose first language is not English are more likely to be disenfranchised with a ranked-choice voting system.

Further, in his analysis of San Francisco elections between 1995 and 2001, Jason McDaniel, an associate professor at San Francisco State University, found that ranked-choice voting is likely to decrease voter turnout, primarily among African Americans and white voters. McDaniel also found that ranked-choice voting increases the disparity between "those who are already likely to vote and those who are not, including younger voters and those with lower levels of education." In short, the complexity of a ranked-choice ballot makes it less likely that disadvantaged voices will be fully heard in the political and electoral process.

One key question is whether the rate of ballot exhaustion declines as ranked-choice voting becomes an accepted practice in a jurisdiction and voters become acclimated to it. Evidence suggests that, although mistake rates may decline slightly over time, ranked-choice voting produces consistently higher proportions of exhausted ballots than plurality elections. When we examined races in San Francisco, the data showed inconsistent results — some districts showed higher rates of exhausted ballots over time while others realized a decline. In Australia, which has used ranked-choice voting in its legislative elections for more than a century, officials still report a much higher rate of invalid ballots than comparator countries like the United States.

While confusion at the ballot box is difficult to quantify, the large percentage of exhausted ballots after the first round of tabulation in ranked-choice voting elections is troubling. It is clear that plurality elections do not elicit as many exhausted ballots. In addition, it is easier for voters to understand and participate in plurality elections. In short, policymakers should make voting as simple as possible and strive to increase engagement in our electoral process.

**CLAIMS MADE BY PROPONENTS OF RANKED-CHOICE VOTING**

Too often, proponents of ballot initiatives advance lofty claims to win support at the ballot box. Question 5 was no different when it achieved ballot access for the 2016 general

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[16] Ibid.
[17] Ibid.
election. Below are some of the claims made by proponents of ranked-choice voting and how they measure up to the data.

**CLAIM 1: A CANDIDATE NEEDS A MAJORITY TO WIN**

Proponents of ranked-choice voting often claim that “in a ranked-choice election, a candidate needs to earn more than half of the votes to win.” While this might seem logical based on the sequence of events in a ranked-choice election, it does not always hold true. In fact, a candidate in Maine has already prevailed in a ranked-choice election without receiving a true majority of the votes cast.

In Maine’s 2018 Second Congressional District election, incumbent Bruce Poliquin won a plurality (46.33 percent) in the first round of voting. Because the election was governed by ranked-choice voting and Poliquin had not earned more than 50 percent of the votes cast, a second round of tabulation was conducted and the candidates who could not mathematically win were eliminated from contention.

In the second round, Jared Golden secured victory after he gained enough votes from the eliminated candidates to eclipse Poliquin’s lead. However, in this case, “majority” is a misnomer. In reality, Golden prevailed with only 49.18 percent of the total votes cast in the election. This phenomenon is due to the number of ballots that were exhausted during the reallocation of votes from William Hoar and Tiffany Bond, who were eliminated after the first round.

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To come to this conclusion, one must look at the total number of votes cast in the first round of the election, which was 289,624. After enough ballots were exhausted, Jared Golden was declared the winner with 142,440 votes. However, this was only the majority of the votes tallied in the second round of tabulation, which totaled 281,375. Thus, 8,253 votes were exhausted after the first round and were not carried over into the second round.

Further, peer-reviewed research points to the lack of a majority winner as a crucial flaw in the ranked-choice voting system. A 2014 study revealed that ranked-choice voting does not always produce a majority winner. In fact, none of the winners of the elections examined in the study won with a majority of the votes cast.[21] In examining 96 ranked-choice voting race from across the country where additional rounds of tabulation were necessary to declare a winner, The Maine Heritage Policy Center concludes that the eventual winner failed to receive a true majority 61 percent of the time. This can be seen in Figure 5. The most extreme example was from the 2010 San Francisco District 10 Board of Supervisors race, where the prevailing candidate received less than 25 percent of the votes cast.

Thus, the claim that ranked-choice voting always provides a majority winner because a candidate is required to earn more than 50 percent of the vote is false and deserves further scrutiny from voters. While candidates sometimes do receive a majority of the total votes cast, a winner is often declared only after a large number of exhausted ballots have been removed from the final denominator.

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CLAIM 2: RANKED-CHOICE VOTING REDUCES NEGATIVE CAMPAIGNING AND MITIGATES THE IMPACT OF MONEY IN POLITICS

Ranked-choice voting is often presented as a solution to the bitter, divisive campaign rhetoric that has come to characterize much of politics in Maine and the nation.\footnote{What Data Exists to Support the Argument That Ranked Choice Voting Has Reduced Negative Campaigning in Jurisdictions Where It Has Been Adopted? The Committee for Ranked Choice Voting 2020. Accessed July 24, 2019. http://www.rcvmaine.com/what_data_exists_to_support_the_argument_that_ranked_choice_voting_has_reduced_negative_campaigning_in_jurisdictions_where_it_has_been_adopted.} The argument goes like this: Since candidates hope to be the second choice of voters who prefer a rival candidate, all candidates are dissuaded from trashing their opponents and alienating potentially crucial voters.

But while this logic may discourage candidates from attacking each other directly, it may also augment the role of unaccountable third-party groups in negative campaigning. We could not test whether the candidates themselves reduced negative campaigning because the Federal Elections Commission does not compile data related to expenditures in opposition or support of a candidate from the principal campaign committees. As empirical evidence of the claim that ranked-choice voting makes elections more civil, advocates point to a survey of voters conducted in 2014 in several U.S. cities that used ranked-choice voting to elect city officials.\footnote{Tolbert, Caroline. “Experiments in Election Reform: Voter Perceptions of Campaigns Under Preferential and Plurality Voting.” University of Iowa. March 15-16, 2014. Accessed July 23, 2019. https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/caroline-tolbert.pdf.} While this study does suggest that negativity declines with ranked-choice voting, it simply measures the “perception of campaign cooperation and civility” and was conducted through a telephone survey. In addition, the sample size was relatively small — measuring only 2,400 respondents in several municipalities. The conclusion that ranked-choice voting decreases negative campaigning merits additional scrutiny.

We can test proponents’ claims with campaign finance data from Maine’s 2018 gubernatorial primaries and the Second Congressional District general election. The largest limitation to this research is that independent expenditures below $250 do not have to be reported to the Maine Ethics Commission, so some campaign spending is not captured in our analysis.\footnote{Title 21-A, §1019-B: Reports of Independent Expenditures. Accessed July 24, 2019. http://www.mainelegislature.org/legis/statutes/21-A/title21-Asec1019-B.html.}

Maine’s Gubernatorial Primaries

In Maine’s 2018 gubernatorial primaries, there was a clear increase in independent expenditures (spending by third-party groups unaffiliated with a particular candidate or party) when compared to prior gubernatorial primaries. In 2018, a total of $207,500 was spent through independent expenditures to oppose specific candidates. Similarly, $146,775...
was spent through independent expenditures to support candidates in the 2018 gubernatorial primaries. While this may seem insignificant for gubernatorial races, we need to consider that there were zero independent expenditures in opposition to specific candidates during the 2006, 2010, and 2014 gubernatorial primaries.[25] Of these elections, the 2010 gubernatorial race would most closely resemble the 2018 election because of the large field of candidates and the fact that the incumbent was term limited out of office, making it an open seat.

As outlined in Table 1, there were zero independent expenditures in opposition to a candidate in 2010 and only $46,669 was spent in support of a candidate. In contrast, $207,500 was spent in opposition to a candidate in 2018 and $146,775 was spent in support. Support expenditures actually decreased by more than 40 percent from 2014 to 2018 while opposition expenditures increased by 100 percent.

According to fundraising data from the Maine Ethics Commission, 2018 Democrat gubernatorial candidate Adam Cote had raised over $1 million in the primary election whereas candidate Janet Mills hovered around $792,000 before June 12, 2018. Instead of Mills’ campaign attacking Cote directly, it may have been more effective for her to allow third-party groups to launch attacks against Cote to avoid tarnishing her image in the eyes of Cote supporters. That is exactly what happened — $192,500 of the opposition spending came from Maine Women Together to attack Cote for once being a Republican and accepting corporate donations.[26] Since a third-party group was levying attacks on Cote, it was more plausible that Mills would receive his voters’ second choice votes if he was eliminated from contention than if she attacked him through her own campaign channels. Unfortunately, this analysis is limited by the records that were available from the Maine Ethics Commission. Records for gubernatorial races prior to 2006 are unavailable.

<table>
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<th>Support ($)</th>
<th>Total ($)</th>
<th>Total Number of Candidates</th>
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<td>$369,775</td>
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</table>

Source: Maine Ethics Commission

Maine’s 2018 Second Congressional Race
A similar phenomenon occurred in Maine’s 2018 Second Congressional District election. According to Federal Election Commission data, approximately $11.52 million was spent through independent expenditures in opposition to a candidate in the 2018 Second Congressional District race. This was a 24 percent increase from 2016, which saw $9.27 million spent on opposition expenditures.

When we compare the opposition expenditures in non-presidential elections (2014 and 2018), we find that opposition expenditures increased by 341 percent. Only $2.91 million was spent on independent expenditures to oppose a candidate in 2014. Figure 6 breaks down the amounts spent through independent expenditures in support and opposition to candidates in the Second Congressional District.

While this analysis does not provide sufficient evidence that ranked-choice voting increases negative campaigning by third-party groups, it casts doubt on the claim that the system improves the tone and civility of political races. This data should be interpreted as a preliminary indication that ranked-choice voting does not reduce negative campaigning.

![Figure 6: Independent Expenditures in Maine's 2nd Congressional District (2014-2018)](chart)

**CLAIM 3: RANKED-CHOICE VOTING WILL INCREASE TURNOUT**

A common metric used to judge the performance of a voting system — although by no means the only criterion — is its impact on voter turnout. In a democratic society, public participation in elections is critical. A voting system that, for whatever reason, discourages a large portion of eligible voters from casting a ballot could hardly claim to reflect the will of the people.

By international standards, voter turnout in the United States is low.[27] In the 2018 midterms, only 50.3 percent of eligible voters nationwide cast a ballot, and even that level

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of engagement marked a 50-year high for a midterm election.[28] Maine performs much better than the national average (turnout was 60.2 percent in 2018), largely due to the demographic characteristics of our population. Older people tend to vote more, as do whites.[29]

Of course, the United States’ comparatively low voter turnout has a multitude of causes. Cultural differences, barriers to voter registration, political party dynamics, the competitiveness of races, and other factors influence voter turnout.

Some argue that ranked-choice voting could improve America’s chronically low levels of citizen participation in elections by making voters feel that their voice has a greater impact on the outcome of the election. On the other hand, ranked-choice voting might depress turnout by discouraging voters who are confused about how to vote or who don’t feel knowledgeable enough to make an informed decision. By increasing the complexity of the ballot, ranked-choice voting could also make it harder for voters to understand the connection between any one vote they cast and the resulting impact on government policies.

The empirical evidence is mixed but tends to show that ranked-choice voting slightly depresses turnout relative to plurality elections. It is important to note that ranked-choice voting has been tried in a small number of jurisdictions in the U.S., which limits the sample size and reduces the power of statistical analyses. It is also exceedingly difficult to isolate other variables — such as voter enthusiasm generated by specific candidates and other concurrent election reforms — that can play a major role in voter turnout. It is too early to evaluate the specific impact of ranked-choice voting on voter turnout in Maine. The 2018 elections in Maine saw exceptional voter participation, but national politics may have been the driving force behind this phenomenon.

A study of four cities in California that adopted ranked-choice voting in the early 2000s found that “voter turnout has remained stable when compared to previous elections.”[30] In contrast, testimony to the Kansas Special Committee on Elections from the American Civil Liberties Union (ACLU) said:

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“Ranked-choice ballots have suppressed voter turnout, especially among those segments of the electorate that are already least likely to participate. Ranked-choice voting (RCV) has resulted in decreased turnouts up to 8% in non-presidential elections. Low-propensity voters are already less likely to participate in elections that do not coincide with congressional or presidential races. By adding additional steps to voting, RCV exacerbates this tendency, making it less likely that new and more casual voters will enter into the process. Moreover, RCV exacerbates economic and racial disparities in voting. Voting errors and spoiled ballots occur far more often. In Minneapolis, for example, nearly 10% of ranked choice ballots were not counted, most of these in low-income communities of color. Other municipalities have seen similar effects.”[31]

Proponents of ranked-choice voting point to an analysis commissioned by FairVote that found ranked-choice voting is associated with a 10-point increase in voter turnout compared to primary and run-off elections, but is not associated with any change in turnout in general elections. The study was based on data on 26 American cities across 79 elections.[32] According to the study, this 10 point “increase” in turnout is likely due to the compression of voting and “winnowing” of candidates into one election.[33] Overall, the study suggested that ranked-choice voting elections have “minimal effects on rates of voter participation.”[34]

As previously mentioned, a study of San Francisco's election data from 1995 to 2011 found that turnout declined among African American and white voters and exacerbated the disparities between voters who were already likely to vote and those who were not.[35] The author attributes these effects, at least in part, to the fact the ranked-choice voting increases the “information costs” of voting (i.e., the need to be familiar with how ranked-choice voting works further discourages low-propensity voters from participating in elections).[36] Exit polls of voters participating in ranked-choice voting bolster these findings.[37]

[33] Ibid.
[34] Ibid.
[36] Ibid.
Since the answer to whether ranked-choice voting actually increases turnout when compared to plurality elections is still up for debate, it is irresponsible to make this lofty claim.

**COMPARING ELECTION OUTCOMES**

A relevant question in comparing plurality elections against ranked-choice voting is to ask how often the two voting systems would produce a different electoral outcome. Those cases are relatively sparse, occurring only when the votes cast for eliminated candidates are reallocated to a contender who came in second place or worse in the first round of tabulation, and the votes gained in subsequent rounds of tabulation exceed the gains made by the leader after the first round.

**Maine**

In 2018, only three elections in Maine triggered ranked-choice voting tabulation:
- Democrat Gubernatorial Primary
- Democrat Congressional Primary (Second Congressional District)
- General Election for the Second Congressional District

Of the elections that triggered ranked-choice voting in Maine, the general election race for the Second Congressional District was the only election that produced an outcome different than what would have occurred under a plurality election.

As previously mentioned, Poliquin initially received 134,184 votes, or 46.33 percent of the total votes cast whereas Golden received 132,013 votes, or 45.48 percent of the total votes cast. Once the second round of tabulation was completed, 4,747 votes (3,117 from Bond and 1,630 from Hoar) were allocated to Poliquin and 10,427 votes (7,862 from Bond and 2,565 from Hoar) were awarded to Golden. Figure 7 provides a visual breakdown of how the votes were distributed to change the outcome of the election.

**Other Jurisdictions**

According to the election results obtained from 96 ranked-choice voting elections nationwide that triggered a second round of tabulation (excluding one that resulted in a tie in the first round
of tabulation), ranked-choice voting changes the outcome of an election approximately 17 percent of the time. This is illuminated in Figure 8. If all ranked-choice voting races were examined in this analysis, including those that produced a majority winner in the first round, the percentage of races where the outcome changes would decrease.

The frequency with which ranked-choice voting elections produce a different outcome than plurality elections is important because it allows lawmakers to weigh the benefits and consequences of a new voting system. If ranked-choice elections rarely produce a different outcome, the costs of such a system may outweigh the alleged benefits.

CONCLUSION
Democratic choice, within the confines of our constitutional republic, forms the bedrock of America’s system of governance. Adopting a simple, fair, and secure voting system is fundamental to democratic elections. It is clear that plurality elections are much simpler and easier to understand than races determined by ranked-choice voting.

This analysis of 96 ranked-choice voting elections from across the country shows that the voting system produces false majorities, frequently exhausts more than 10 percent of ballots cast on Election Day, and further disenfranchises voters who are already less likely to vote.

While proponents of ranked-choice voting may claim the new voting system is a better alternative to traditional voting systems, the plurality system offers voters an easier method of selecting representatives without the false promises of ranked-choice voting.