An Economic Analysis of HB17-1281

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April 27, 2016

Under consideration this session is HB17-1281, which would allow approval voting in certain local elections. The bill only applies to nonpartisan elections conducted at the city, town, county, or school district level. Approval voting is a method that permits an elector to vote or "approve" of as many candidates on the ballot as they wish. The candidate who receives the most votes wins.

Proponents of this bill contend that the approval voting method leads to fairer and more desirable election outcomes than the current plurality method that is used. They claim there are two critical issues with plurality voting. (1) It is vulnerable to the "spoiler effect", where candidates with little support can influence the outcome of the election. (2) There is little incentive to vote for a preferred candidate who is unlikely to reach a plurality, which leads to electors "voting against their favorite".

The two issues are valid and represent dichotomous market imperfections in the plurality voting system. This analysis will expand on these failures and how an approval voting method has the potential to correct for them. There are compelling economic reasons to transition to this style of voting.

This analysis will present three economic outcomes that are expected from an approval voting system. (1) Approval voting remedies the spoiler effect and meets the "independence of irrelevant alternatives" criterion for fair voting methods. (2) It eliminates "wasted vote syndrome" and increases voter sovereignty. (3) It provides candidates and policy makers with better information about voter preferences.

There is no perfect voting method. This analysis will also confront the potential downsides of approval voting. Insincere voting is a concern in approval voting as it is in any voting system.

The first and primary concern with plurality voting is the possibility of a so-called "spoiler". A spoiler is a non-winning candidate whose presence on the ballot affects which candidate wins. Spoilers arise when candidates with similar ideologies split votes from a portion of the electorate.

Plurality voting systems are extremely vulnerable to the spoiler effect, more so than any other method. The "spoiler" candidate only needs to take away a small amount of support from a similar candidate to influence the election. This happens because voters are bound to a single vote and must choose between similar candidates (Center for Election Science 2015).

Support for a spoiler can cause the most preferred candidate to lose to a candidate who is less preferred. If a majority of voters prefer candidate A to candidate B, but candidate A loses a portion of votes to a similar candidate C, candidate A risks the possibility of losing the election to candidate B, despite enjoying the support of a larger group of voters.

The spoiler effect is a violation of one of Arrow's Fairness Criteria, a set of rules used to evaluate the fairness of elections. Arrow's Independence of Irrelevant Alternatives states that adding an option C should not change the ranking of A and B (Suri 2015).

The failure of plurality voting to produce the correct winner does not only happen in theory. In 2000, the outcome of the American presidential election was influence by a spoiler. Al Gore lost the popular vote in Florida to George W. Bush despite being the favorite candidate. Gore split the liberal vote with Ralph Nader, an ideologically similar candidate who had no chance of reaching a plurality. Though Gore enjoyed more support among the Floridian electorate as a whole, he lost the election.

Approval voting systems are arguably immune from the spoiler effect. In a system where voters can show support for any number of candidates on the ballot, there is no need to split

votes. Supporting a similar candidate in addition to the frontrunner does not damage the frontrunner's chances of winning to a less popular candidate. According to Arrow's Independence of Irrelevant Alternatives, this makes approval voting more fair than the current plurality voting system (Suri 2015).

Another market imperfection we see empirically in plurality voting is called "wasted vote syndrome". In plurality elections, candidates other than the two frontrunners find it hard to garner support, even when it exists within the electorate. Voters who want to maximize the effectiveness of their vote lack incentive to vote for a preferred candidate with little chance of winning. Instead, they choose between the "lesser of two evils".

In this sense, the sovereignty voters maintain over their own ballot is not maximized. Voters are incentivized to insincerely vote for candidates with better chances of winning instead of whom they truly prefer. The lack of flexibility in plurality voting inhibits the ability of the electorate to accurately project its will (Baharad and Nitzan 2005).

There is a marginal increase in voter sovereignty when switching from plurality to approval voting. In an approval voting system, voters have greater flexibility over their ballot. In *Voter Sovereignty and Election Outcomes*, Steven Brams explains "Approval voting gives [voters] the opportunity to be sovereign by expressing their approval for any set of candidates, which no other voting system permits" (2003). Voters have the full capacity to show their support for every candidate they approve of and withhold support from all candidates of who they disapprove.

The will of the electorate is not always well represented in the outcome of an election under a plurality system. When looking at election results, approval for the top contending candidates tend to be skewed upwards and approval of weaker candidates tend to be skewed

downwards. Voters ignore their favorite candidates and cast votes instead for an acceptable candidate with a better chance of winning. As a result, information about the electorate's policy preferences is not always communicated accurately.

For instance, in partisan elections, the vote for third parties like the Green Party and the Libertarian Party are artificially low. This may cause some to believe that support for the policies of these parties is also low. However, this is only a result of the strong incentives for voters to vote insincerely in the plurality system (Weber 2007).

Robert Weber explains, "While the winner is often the same, approval voting is more effective than either the plurality rule or Borda's rule in showcasing an election outcome which well-represents the preferences of the electorate" (2007). Approval voting helps the electorate accurately convey which policy platforms they support by voting in approval of the candidates who represent them.

In this respect, the utility of a voter's ballot is increased. An elector can cast a vote for candidate A who has a high chance of winning and for another candidate B, whose policy platform they wish to have a heightened profile. In this case, candidate B's chance of winning is unimportant. The voter instead is signaling to candidate A, and other policy makers, that candidate B's platform has support among the electorate. The increase in information about the electorate's preferences helps policymakers make more representative choices in office.

While it does produce more economically satisfactory outcomes than plurality voting, approval voting is not without flaws. It is certainly not immune to strategic voting that would dilute the benefits discussed in this analysis thus far.

Bullet voting is a potential voting tactic under approval voting. A voter is consider to "bullet vote" when they choose to vote for only one candidate despite approving of more than

one (Center for Election Science 2015). This strategy may be attractive for voters who will not want to hurt their favorite candidates by voting for anyone else. Bulleting voting would marginally decrease the magnitude in benefit of increased voter sovereignty and the increased information of policy preferences under approval voting.

Free and fair elections are a public good. The government should ensure that our election systems produce the most optimal outcomes for the electorate as a whole. Since it is almost universally agreed that plurality voting suffers from too many failures to consistently produce fair and representative outcomes, it is appropriate for the Colorado General Assembly to begin experimenting with other voting systems that could produce better outcome.

Approval voting would remedy some of the major market imperfections we see in the current plurality system. The spoiler effect, which can drastically influence elections, is nonexistent in approval voting. In addition, approval voting allows for maximum voter flexibility creating little incentive for voters to hide their preference for any candidate they find acceptable. Finally, ballots would have better function as a tool to accurately convey the policy preferences of the electorate to officials.

HB17-1281 should be passed. It is a necessary and incremental step for reforming an election system that suffers market failures under plurality rules. If successful in local, nonpartisan elections, approval voting could be a viable candidate for larger, partisan elections in the future.

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