Voting-system Options for the Seattle Port Commission

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1 Overview

This research note asks two questions about recent elections to the Seattle (WA) Port Commission:

1. Given the best available census data and results from the last election, what ethno-racial groups are electing candidates of choice?

2. Given those data, might some conceivable voting arrangement make election outcomes more equitable?

First we review the types of candidates that ran and won in the 2017 Port Commission races. Second, we find some evidence of polarized voting, particularly between Black and Hispanic-Latino voters. The data suggest that Asian voters are a less cohesive block.

We then consider two alternative electoral systems. The first is a nine-seat, single-member-district system that mirrors the current County Council. In theory, the greater number of seats should create opportunities for ethno-racial voting blocks to elect more candidates of choice.

Such a system does not help Asians and Hispanics, who are residentially dispersed, and leaves Black voters with one influence seat, and no gain in the number of candidates they would be able to elect. A five-district system, with larger districts, would perform no better in terms of descriptive representation.

We then assess the impact of a three-vote, five-seat, at-large system. Given current voting behavior, our simulation yields two winners of color and urban-suburban/rural balance.

2 Political and demographic context

Current population estimates from the American Community Survey place the total population of King County (WA) at 2.1 million, with approximately 80 percent of the population at or above voting age. In the 2017 November election, 546,200 ballots were cast from 1,279,345 registered voters, for an eligible turnout rate of 42.7 percent.[1]

Elections for the five seats on the Port Commission are currently conducted using an at-large, top-two, runoff system with typically staggered intervals of two and three seats, in off-year election cycles.[2] This system allows every voter in King County to cast a single vote for each position (i.e., "post" or seat) in both an August first-round election and then a November runoff. The top two candidates from each first-round race proceed to the runoff.

Three posts were contested in 2017. Port Commission turnout averaged 36 percent per post. In the August first-round election, turnout was even lower, about 30 percent. Tables 1, 2, and 3 display the results of the three position races. Candidates are ordered by first-round vote shares, and final winners' names appear in bold.

Candidate	Round 1	Round 1 pct.	Runoff	Runoff pct.
John Creighton	124,844	32.7%	218,537	47.3%
Ryan Calkins	121,177	31.8%	243,714	52.7%
Bea Querido-Rico	78,230	20.5%		
Claudia Kauffman	55,316	14.5%		

Table 1: Commission Position 1 results.

Candidate	Round 1	Round 1 pct.	Runoff	Runoff pct.
Stephanie Bowman	191,203	51.3%	286,972	61.3%
Ahmed Abdi	121,898	32.7%	181,024	38.7%
Lisa Espinosa	55,943	15.0%		

Table 2: Commission Position 3 results.

There was a high level of racial and ethnic diversity among candidates running for the Commission in 2017. Candidates of color included former State Senator Claudia Kauffman, Port of Seattle Program Manager Bea Querido-Rico, Sustainability Specialist Lisa Espinosa, Outreach Manager Ahmed Abdi, Public Affairs Administrator

[1] `https://results.vote.wa.gov/results/20171107/king/`

[2] Vacancies can cause there to be more than two or three posts open at the next election.

Candidate	Round 1	Round 1 pct.	Runoff	Runoff pct.
Preeti Shridhar	94,679	24.8%	199,207	42.5%
Peter Steinbrueck	91,227	23.9%	269,174	57.5%
Ken Rogers	54,997	14.4%		
John Persak	53,974	14.2%		
Richard Pope	53,452	14.0%		
Brooks Salazar	17,214	4.5%		
Fernando Martinez	8,876	2.3%		
Ray Armistead	5,660	1.5%		

Table 3: Commission Position 4 results.

Preeti Shridhar, Industrial Appeals Specialist Brooks Salazar, and CEO Fernando Martinez.

Despite that diversity, no candidate of color won any of the three seats. Except for Stephanie Bowman, who won Position 3 in the runoff, all other victors were white men. This result is consistent with electoral history. Only two persons of color have won seats in the century-long history of the Port Commission.

The electoral system may contribute to the lack of Commission diversity. Because it is an at-large system, it is possible that the white electoral majority is determining the outcome for every seat. Majority-group sweeps like this are one well-known feature of at-large-plurality voting systems, such as the one now used. In such systems, every voter has M votes to cast, equal to the number of seats to fill. If groups tend to vote for different candidates, and if the majority group's voters support the same M candidates, even a slight majority $(50\% + 1)$ can determine the outcome for every seat. That leaves cohesive minorities without candidates of choice in government.[3]

If voters who share racial characteristics tend to vote the same way and are systematically denied an equal opportunity to elect candidates of their choice as a result of the electoral system, that constitutes a violation of political equality. In the next section, we give evidence consistent with such racially polarized voting (RPV) in recent Port Commission contests.

[3] `http://www.naacpldf.org/files/case_issue/At-Large%20Voting%20Frequently%20Asked%20Questions.pdf`

3 Racially polarized voting in the 2017 elections

We find that black voters tended to support one candidate in each race, both first- and second-round. Hispanic-Latino voters tended to vote for other candidates in a dispersed fashion. The Asian-American vote behaved similarly.

We relied on the 2012-2016 American Community Survey estimates of racial-group aggregations at the census-tract level, matched to aggregated, precinct-level election results.[4] All ethno-racial identification rates are based on the voting-age population, commonly termed "VAP."

The standard approach for detecting RPV is ecological inference (EI). EI methods recover estimates of individual-level behavior from aggregate-level data, such as census figures and election returns.[5]

We used Goodman's (1953) approach due to the data available: percentages of people who voted in some way, then percentages of census respondents identifying in this way or that [4].[6] We used a Bayesian implementation that makes estimates fall between zero and one [5].[7] This was necessary because conventional, frequentist models were producing less-than-zero estimates for black and Hispanic voters. Why were we getting negative estimates in the first place? They resulted from the vote polarization manifest in these data.

Figures 1 and 2 present our estimates. Each bar represents the percentage of each group – non-Hispanic white, non-Hispanic black, Hispanic-Latino, non-Hispanic Asian, and other – who voted for some candidate. The line segment atop each bar represents the 95-percent Bayesian credible interval for that estimate. Negligible shares for write-in candidates are omitted from the graphs (but were included in the analysis).

Black-Hispanic vote polarization is manifest in each of the three first-round elec-

[4]We aggregated election results up to the census-tract level because this was the lowest possible level of aggregation at which to conduct the analysis. Census data were available at the block-group level, and voting data were available by precinct. Since precincts divide block groups and vice-versa, we had to aggregate both up to the 2010 census tract.

[5]Exit polls and survey data could be other strategies. Each has its own drawbacks, which we are happy to discuss. In short, both require waiting until an election to detect potentially harmful RPV in that election. Exit polls literally must be done on Election Day. Surveys must be taken close to Election Day because voters in local elections typically have not formed their preferences until very late in the campaign cycle.

[6]Critical assumptions are two: (1) that the proportion of eligible voters does not vary across groups and (2) that the turnout rate does not vary across groups.

[7]A visual inspection of sampled values for each parameter suggests each model fits the data well. We fit these models in the R statistical package, drawing 100,000 samples from each posterior distribution. We used uninformative (a.k.a. "flat") prior distributions.

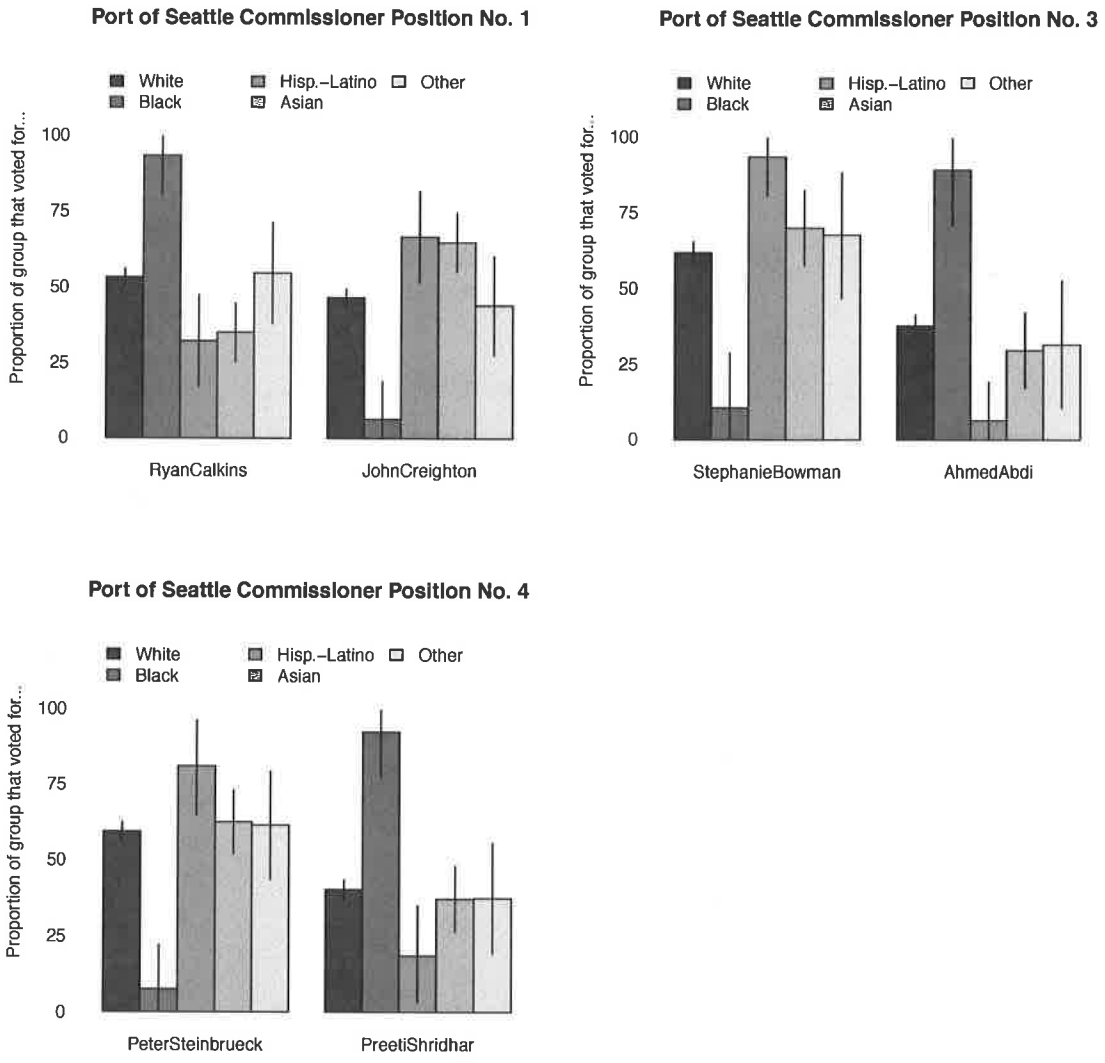

Figure 1: Estimates of racially polarized voting in the 2017 first-round elections.

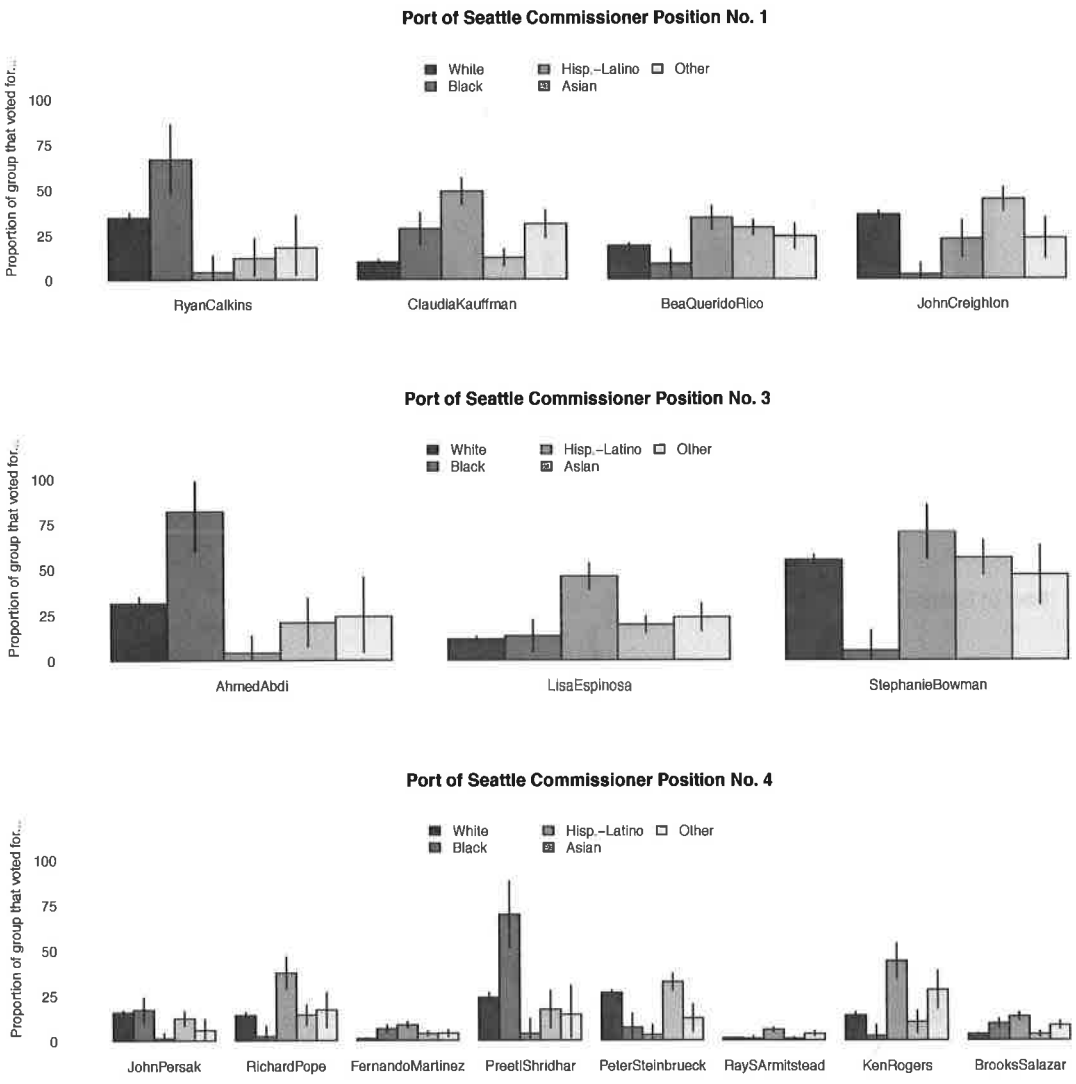

Figure 2: Estimates of racially polarized voting in the 2017 runoff elections.

tions. The more black identifiers in a given tract, the more that tract tended to vote for Calkins (Position 1), Abdi (Position 3), or Shridhar (Position 4). Similarly, heavily Hispanic tracts tended to break for Creighton, Bowman, or Steinbrueck, respectively.

Results for the runoff elections also suggest cohesive black voting behavior. In contrast with the first-round results, however, we see vote dispersion among Hispanics. In the first round for Position 1, for example, Calkins was the overwhelming favorite of heavily black census tracts, while Hispanics tended to divide support among the three other candidates. This pattern also appears in the other two primaries: Abdi and Shridhar were strongly preferred by African-American voters in races for the other two posts.

What about the other ethno-racial groups? Only in the races for Position 3 do we get a sense of clustering, but it is not as stark. Asian voters tended to prefer Bowman in both the primary and general elections. We do not over-interpret this result because the Asian-American census category encompasses a large set of groups with different voting preferences. Our results reflect these preferences, as Asian-Americans living in Bellevue tend to vote with whites, whereas those in downtown Seattle tend to vote with blacks. We show this in Figure 3, discussed just below.

4 Electoral system options

Having established the existence of racially polarized voting, we turn to an analysis of how different electoral systems might affect candidate performance and voters' abilities to elect candidates of choice. The upshot is that, even under an expanded Commission, majority-minority districts are hard to draw.

4.1 The geography of race in King County

The only racial group large enough to determine electoral outcomes by sheer numbers is the white majority (65 percent) of voters in King County who, as in most U.S. elections, also make up a larger proportion of the electorate than they do the general population.[8] Again, our ethno-racial data are total-population estimates.

Figure 3 (top panel) displays the plurality (largest) racial group by census tract. The largest group within each tract reflects the potential for racial bloc voting. Asian-Americans make up 17 percent of the oveall population (shaded blue), and

[8] https://www.census.gov/newsroom/blogs/random-samplings/2017/05/voting_in_america.html

are geographically more concentrated in the Bellevue region, as well as Beacon Hill/Georgetown. However, these two clusters are distinct in terms of voting behavior, as we show below. Several other neighborhoods throughout western King County are home to a significant percentage of residents of Asian descent, making this a relatively dispersed group.

Hispanic/Latino-American communities (shaded in green) are even more geographically dispersed, with small pockets dotting south-central Seattle and southwestern King County. They make up 9.5 percent of the overall population. The most geographically concentrated racial communities are African-Americans, who primarily live on the southeast shore of Seattle, making up 6.8 percent of the overall population in King County. Though the Central District is the historically black district, rising property values and gentrification have dispersed black families to areas like Renton, Seatac, Tukwila, Kent, and Federal Way. These geographic patterns inform our understanding about how single-member district systems would render representation based on race.

4.2 Option: Single-seat districts

A natural question to ask is whether race-conscious districting could improve outcomes for black and Hispanic-Latino voters. Consider an election in which the current nine-seat County Council system is adapted to the Port Commission. In theory, because the County Council is four seats larger than the Port Commission, it should be easier to draw majority-minority districts. It is not. Imposing the council district plan would create only one district, District 2 in the county plan, where Asian- and Afro-Americans could effectively elect a candidate of choice if they formed a coalition to support a candidate.

This can be shown more clearly when we overlay the council district boundaries on the Position 4 general election results (Steinbrueck v Shridhar), illustrating the geographic concentration of voting patterns for Port Commission seats (Figure 3). Majority voter preferences in each precinct are shaded for Steinbrueck (blue) or Shridhar (orange). In both races featuring a white candidate against a candidate of color, voting patterns were highly geographically concentrated like this, with the white majority favoring the white candidate everywhere outside of Seattle.

We also show that Asian- and African-American voters in southeast Seattle share more candidate preferences, compared to Asian-American voters in Bellevue, who were more likely to support the white candidate. This is at least partially due to the fact that the Census classification "Asian" is too broad for racial voting analysis. While an Asian-African-American-infuence district would provide more accurate

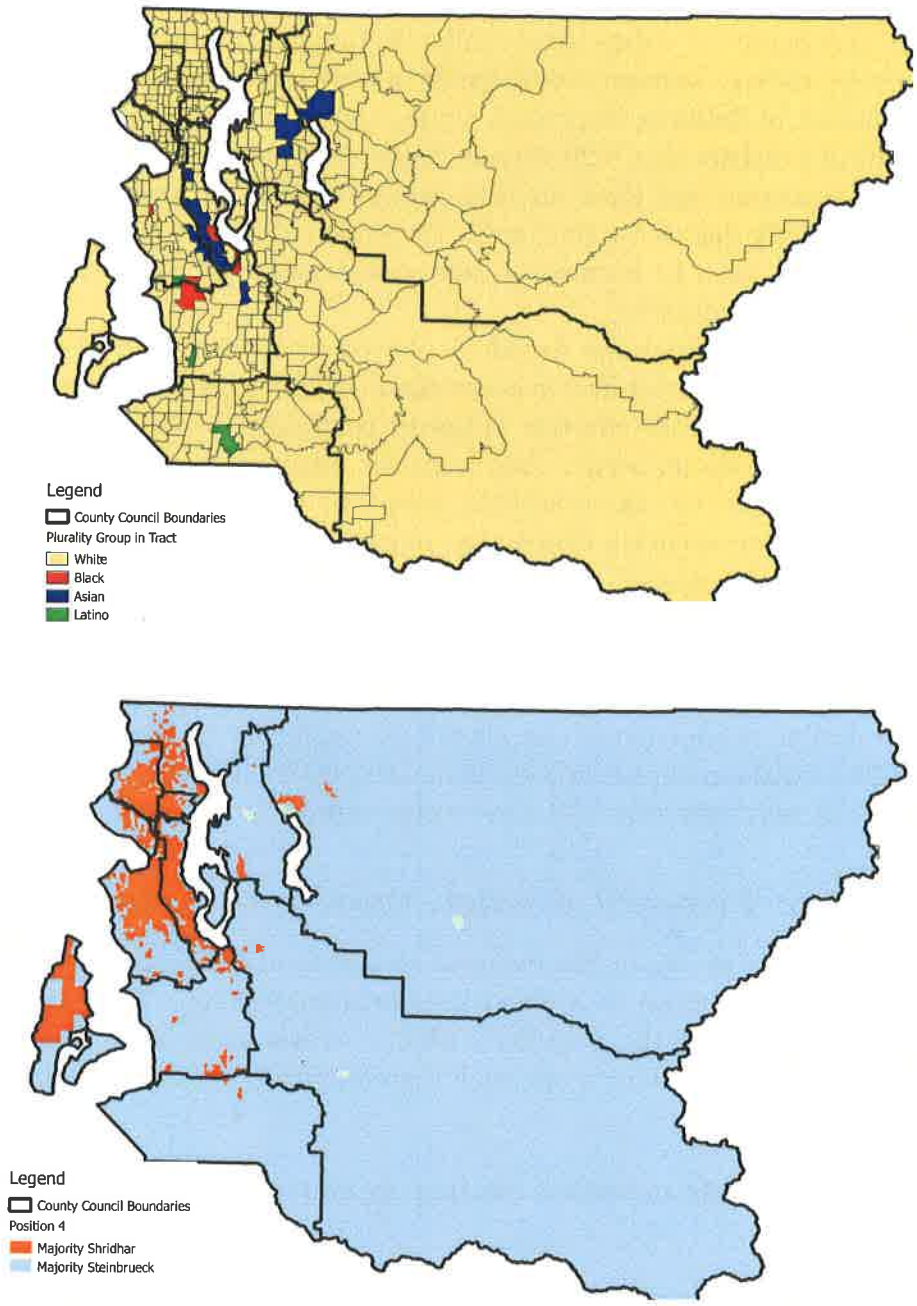

Figure 3: Ethno-racial geography of county (top) and results of the Position 4 runoff (bottom). Each tract is shaded according to the largest group within it. Heavy, black lines represent superimposition of the nine-seat map for County Council.

representation for voters in those neighborhoods, it would not result with certainty in a larger percentage of voters successfully electing candidates of choice, compared to the current at-large system. Additionally, a nine-seat plan still leaves the Asian-influence district of Bellevue 60-percent white, such that whites could still determine the outcome in a district that is 26-percent Asian. The electoral history of the County Council demonstrates that these districts rarely result in victories for candidates of color. This is partly due to the geographic dispersion of Asian- and Latino-American voters, who might even be harmed by sets of districts in which they would consistently be in a voting minority.

None of these disadvantages would be abated by moving to a plan with larger districts, such as simply creating a five-seat plan. If a nine-seat single-member district plan is not going to create effective majority coalitions out of minority groups, a five-seat plan would do no better. And from the historical performance of the King County Council elections, there is little reason to be optimistic that such a plan would produce more accurate descriptive representation than the current at-large plan, as they have functioned about the same in terms of minority representation.

Single-member districts can also have other, undesirable effects on political competition. On the one hand, candidates in homogeneous districts might lose incentives to build racially broad-based coalitions. On the other hand, if an election were competitive, a sizable proportion of the electorate (again up to 50 percent minus one vote) would go without representation in the respective district, which is one of the challenges that reformers typically aim to overcome.

4.3 Option: Five-seat district, three-vote system

One more option is to retain the five-seat structure of the Commission, eliminate numbered posts, and move to a (semi-)proportional system. The core idea in all such systems is to limit the plurality's ability to win more races than its demographic strength implies. Given one such system, and given our best data on voter preferences, we find that:

1. Black voters might move from electing one to three of their majority-preferred candidates.

2. Asian Americans in some Bellevue tracts still might elect a candidate of choice.

3. To the extent that the 2017 election reflects competition between urban and suburban/rural slates, outcomes might shift to more accurately represent the urban population – albeit without removing suburban/rural representation.

Our conclusions are based on a hypothetical re-run of the 2017 first-round elections. We view these results as the closest possible indication of voters' sincere preferences. Second-round results are not as accurate because, given the runoff system in place, voting behavior in these races represents strategic choice.[9]

Every voter in our simulation can vote for up to three of five available seats. Winners are those five candidates who earn the most votes. This is a variant of "limited voting," which has been a device in other places for satisfying voting-rights claims and/or promoting minority-party representation [1, 2].

In addition to this three-vote, limited-voting scheme, there are other proportional and semi-proportional rules: e.g., free-cumulative voting, equal-and-even-cumulative voting [3], the single transferable vote (multi-winner ranked-choice voting) [7], and so on.

We settled on the three-vote system because of the data we have. Simulating a one-vote system would have required hard-to-make assumptions about what voters would have done with just one vote instead of three. Simulating cumulative or ranked-choice voting would have required knowing voters' relative evaluations of candidates. We know about none of this. What we do know, however, are vote totals for the three first-round elections.

Figure 4 presents results. All else being equal, a three-vote system based on 2017 first-round results would have led to the following winners, in order of vote total:

1. Stephanie Bowman, heavily favored at the runoff in suburban/rural tracts, and majority-preferred among both Asian Americans and Hispanic-Latinos.

2. John Creighton, heavily favored at the runoff in suburban/rural tracts, and the most-preferred candidate among Asian Americans in the first-round race for Position 1.

3. Ahmed Abdi, heavily favored at the runoff in urban tracts, majority-preferred among blacks.

4. Ryan Calkins, favored at the runoff in both urban and suburban/rural tracts, majority-preferred among blacks.

5. Preeti Shridhar, heavily favored at the runoff in urban tracts, majority-preferred among blacks.

[9] We acknowledge that candidates and voters also are strategic in first-round elections. A first round nonetheless may be an early stage of coalition formation.

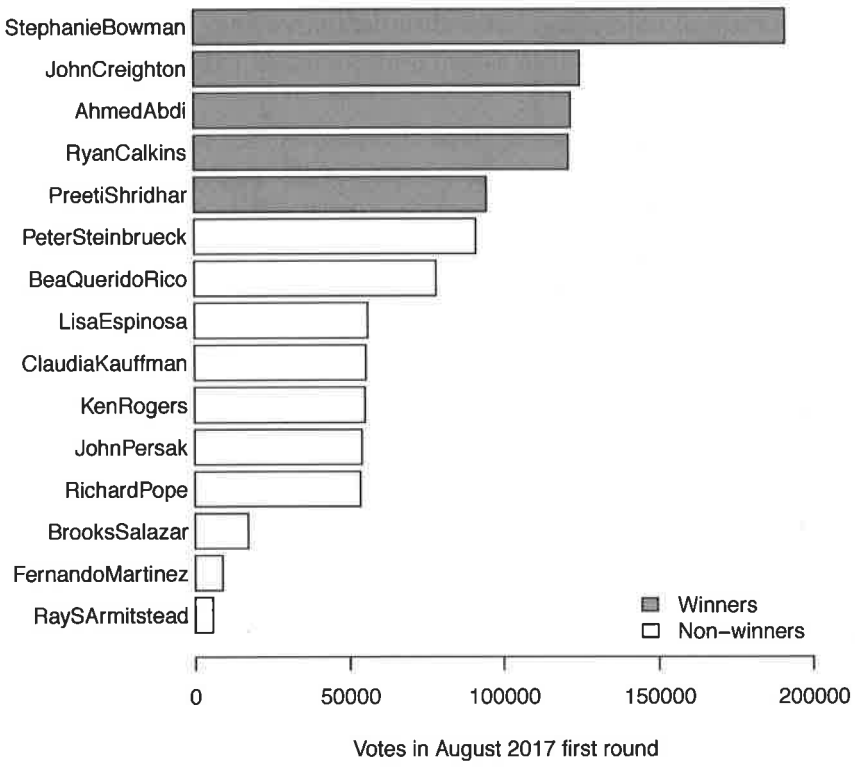

Figure 4: Hypothetical election result from a three-vote, five-seat system, using the 2017 first-round result as proxy for voters' factional preferences.

5 Conclusion

Our analysis has demonstrated that the white majority of voters in King County can, and does, determine the outcome for each contested seat on the Seattle Port Commission, under the current electoral system. We find evidence of racially polarized voting, primarily between black and other non-white voters, with black voters consistently voting as a coherent bloc, but unable to elect a candidate of choice without majority-white support for the same candidate.

We considered the performance of a single-member electoral system that mirrors the current County Council system and find no evidence that it would provide voters of any race with greater opportunity to elect a candidate of choice. Essentially, it would render the same sort of representation that the council plan does, with one majority-minority influence district. Black voters (with the help of Asian and white voters) were already able to select a majority-preferred candidate in 2017 (Calkins), and moving to a district system, whether nine- or five-seat, would dilute the bloc-voting strength of more geographically dispersed racial groups. Indeed, the County Council system has elected just two candidates of color in its history, not a record worth replicating.

Finally, we used actual primary election results to demonstrate that, all else being equal, a three-vote, at-large, "limited" or semi-proportional system would have produced an outcome electing two candidates of color, providing more balanced racial and geographic representation. The data show that a more proportional electoral system is likely to improve descriptive representation on the Seattle Port Commission.

6 About the authors

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References

[1] Shaun Bowler, Todd Donovan, and David Brockington. *Electoral Reform and Minority Representation: Local Experiments with Alternative Elections.* Ohio State University Press, Columbus, OH, 2003.

[2] David Brockington, Todd Donovan, Shaun Bowler, and Robert Brischetto. Minority representation under cumulative and limited voting. *Journal of Politics*, 60(4):1108–25, 1998.

[3] Elisabeth R. Gerber, Rebecca R. Morton, and Thomas A. Rietz. Minority representation in multimember districts. *American Political Science Review*, 92(1):127–44, 1998.

[4] Leo A. Goodman. Ecological regressions and the behavior of individuals. *American Sociological Review*, 18:663–664, 1953.

[5] Olivia Lau, Ryan T. Moore, and Michael Kellermann. eiPack: $R \times C$ ecological inference and higher-dimension data management. *R News*, 7(2), October 2007.

[6] Anthony J. McGann, Charles Anthony Smith, Michael Latner, and Alex Keena. *Gerrymandering in America: The House of Representatitves and the Future of Popular Sovereignty.* Cambridge University Press, 2016.

[7] Jack Santucci. Evidence of a winning-cohesion tradeoff under multi-winner ranked-choice voting. *Electoral Studies*, 52:128–38, 2018.