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Candidate Diversity in San Francisco Supervisor Elections

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Political Science 195: Policy Analysis in California

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In 2010, it seemed inevitable that Don Perata would be elected Mayor of Oakland. A former President Pro Tempore of the California Senate, Perata had the most name recognition, funding, and experience out of the candidate pool. After voting was finished, Perata received the most votes but lost to his opponent, Oakland councilmember Jean Quan. This is because Oakland uses a system known as ranked choice voting (RCV) for local elections. In RCV, voters can rank candidates on their ballot in order of preference instead of just voting for a single candidate. If any one candidate receives a simple majority, they automatically win the race. However, if no candidate receives over 50%, the lowest performing candidate is eliminated, and their voters are transferred to their second choice. This process continues until a candidate receives a majority, which is how Quan became mayor.

Since 2004, several California cities have adopted ranked choice voting (RCV) to conduct their local elections over the first-past-the-post system used statewide. The cities that currently use the system to elect citywide officials are San Francisco, Oakland, Albany, Berkeley, Palm Desert, and San Leandro. Proponents of the system claim it increases the diversity of elected officials. This is especially potent in California, which is the second most diverse state in the country (Hubbard 2021). San Francisco, a large diverse city with a long history with RCV, is a perfect candidate to study this. This leads to my research question, did the implementation of ranked choice voting in San Francisco elections increase the diversity of supervisor candidates and winners?

Significance and Background

Ranked choice voting is not exclusive to the Golden State. The first use of RCV in the United States was in 1915, when Ashtabula, Ohio used the system to elect its city council. Alaska and Maine use RCV for some statewide races, and 41 other U.S. cities have implemented it in

local elections. In addition to more diverse candidates, supporters claim RCV increases voter turnout, is cost-effective since it eliminates the need for primaries, and makes elections less negative (Livini 2019). Opponents claim the system is too untested and the complex nature of the system can confuse voters (Park 2023). Since the Trump presidency, concerns over America's democratic processes have grown exponentially. In that time, RCV has gained popularity as a method for making our elections fairer. As support has grown, so has opposition. RCV is banned in six states, with the largest being Florida. Enthusiasm for RCV is mostly concentrated with Democrats and progressives, however support does not perfectly fit along party lines. Democrats from Walter Mondale to Gavin Newsom have been skeptical of the system, while Virginia and Utah Republicans have embraced the system for primaries and local elections.

Beyond the cities that currently utilize it, RCV implementation is expanding in California. The cities of Eureka, Redondo Beach, and Ojai are poised to use RCV for future elections, while Santa Clara is poised to become the first county in the state to use it. The state legislature has shown interest in expanding RCV, passing SB 212 in 2019 and AB 1227 in 2023. General law cities would be able to opt-in for RCV under SB 212, while AB 1227 would let the County of Santa Clara conduct RCV elections for county officials. Similar laws to SB 212 were passed by state governments in Utah and Virginia. However, SB 212 was ultimately vetoed by the Governor, but he signed AB 1227. In 2022, Assemblymember Patrick O'Donnell introduced AB 2808, which would have banned RCV statewide. The bill was strongly opposed by civil rights groups and local governments, later dying in committee.

The body being measured in this research is the San Francisco Board of Supervisors. In California, boards of supervisors have legislative and executive powers to govern counties. Since San Francisco is the only consolidated city-county in California, the board works differently

there. San Francisco has a mayor that holds executive authority, meaning the Board of

Supervisors functions closer to a city council than its counterparts in other counties. There are 11

seats on the Board of Supervisors, each representing a district of roughly 70,000 residents during

the study period (SF GSA 2010).

Literature Review

Since RCV is still relatively novel, scholarly research on the subject is still developing.

The 2019 report *Ranked Choice Voting and Racial Minority Voting Rights in the Bay Area* by the

organization FairVote is the closest to this paper's focus. FairVote analyzed four Bay Area cities

(San Francisco, Oakland, Berkeley, and San Leandro), in the two to three election cycles before

and after they implemented RCV. This included the percentage of races won by non-white

candidates, the demographics of the districts they won in, and the change in voting

demographics. The study found non-white candidates won 61% of races under RCV, instead of

38% before and they were winning more in districts of all demographic compositions. FairVote

found a negligible change in voter demographics, besides the share of black voters in Oakland

and White voters in San Leandro significantly decreasing. Like this study, mine is also

approaching the racial diversity of winning elected officials in the Bay Area, with an eye towards

district demographics. However, my study focuses on the diversity of all candidates running,

providing greater insight into the impact of RCV. Additionally, my study is more narrowly

focused, looking at just one type of elected office in one city.

The 2021 article *Election Reform and Women's Representation: Ranked Choice Voting in

the U.S.* by Cynthia Richie Terrell, Courtney Lamendola, and Maura Riley of the organization

RepresentWomen, studies the performance of female candidates in RCV elections. The study

found in cities with 30,000 people or more that use RCV, 46% of mayors were women,

compared to just 23% in non-RCV cities. In the Bay Area specifically, women were 42.1% of winning candidates after RCV from 1995-2014, compared to 34.4% of winners in non-RCV cities during the same period. According to the authors, female candidates perform better under RCV since the system gives voters more opportunities to vote for female candidates. Overall, the study suggests that women perform better immediately and in the long-term after RCV is put in place. My study also evaluates female representation in the Bay Area under RCV, but only in San Francisco. Unlike this study and the previous one, my research looks at the effect of RCV on the race and gender of candidates, not just one or the other.

California is not the only focus of RCV research. In *Demographic Differences in Understanding and Utilization of Ranked Choice Voting*, professors Todd Donovan, Caroline Tolbert, and Samuel Harper studied how different demographics understood RCV in New York City, the most populous jurisdiction in the United States to use the system. The team surveyed voters after the city's first RCV election in 2021. The answers were then compared to 2013-2014 surveys of Minnesota, Massachusetts, and California voters using RCV, with all the surveys using identical questions. The researchers concluded that there were no significant differences across racial and age demographics, but better-educated voters were more likely to understand RCV. However, in NYC, White voters were more likely to rank multiple candidates than POC groups, with this held true for Black voters in California. This piece is different from my research, which does not analyze voter comprehension of RCV. However, I think highlighting this important context for understanding how voters view RCV, both inside California and beyond. If I more time to conduct this study, I would want to evaluate how voters in San Francisco have responded to RCV.

Theory and Argument

Previous research on this subject suggests that ranked choice voting grows the number of non-white and female elected officials in the Bay Area. This returns to the research question proposed earlier: did the implementation of ranked choice voting in San Francisco elections increase the diversity of supervisor candidates and winners? I hypothesize the adoption of ranked choice voting in San Francisco positively impacted the racial and gender diversity of supervisor candidates and winners. I also hypothesize that candidates will increasingly resemble the demographics of their district more. This study analyzes the existing claims of RCV at a different standard. This paper looks at just one type of elected office, the San Francisco Board of Supervisors, in one city over a roughly twenty-year period. This framework was chosen for a focused study that tracks the impact of RCV over a long period. The Board of Supervisors is chosen to see how RCV operates in larger legislative districts, providing a possible glimpse into how RCV at the state legislature or congressional level would operate. A testable version of this hypothesis is that more female and non-white candidates will run in and win elections in the period after RCV was implemented in San Francisco.

For the hypothesis, the independent variable is the application of ranked choice voting in 2004. The dependent variable is the race and gender of candidates running and winning in supervisor races. This relationship is theorized because ranked choice voting gets rid of the primary process. Primaries have proven to be a barrier for female and non-white candidates to win elections, since they attract whiter, wealthier, and older voters (Kamarck and Podkul 2018). RCV eliminates primaries, meaning all candidates must run in the general election, where most voters vote. The increased diversity of candidates and winners also comes from the consensus-based nature of RCV. Since candidates are not just vying for first place, more candidates tend to

run in RCV elections, attracting candidates from backgrounds that might not otherwise run. As with the Perata-Quan example from earlier, it gives candidates with less funding and name recognition a chance to be competitive. These types of candidates are more likely to be from underrepresented groups.

This explanation also answers why I hypothesize districts will elect more representative candidates under RCV. Since voters have more freedom over who they can vote for, they can vote for candidates who are closer to their own ideology or demographics, since there is not the burden of strategic voting. Additionally, candidates of similar backgrounds often run together in RCV systems, encouraging their voters to put the other as their second choice.

Research Design / Data

To test this hypothesis, I created a dataset of every supervisor race from 2000 to 2018. The dataset encompasses 64 races, 16 before RCV and 48 after RCV. For each race, it includes every viable candidate with their name, race, gender, and performance in the initial round of voting. For this project, viable candidates are those who achieved at least 2% of the initial vote. This is to include as many candidates as possible, while removing the lowest performing candidates who are harder to find data on. The data collected comes from the San Francisco Department of Elections, which keeps online records of results from 1995 to 2024, including RCV tabulations.

In the dataset, each election also contains the racial demographics of the district, containing the share of the population that is White, Black, Hispanic, and Asian. This comes from the San Francisco General Service Administration for elections between 2000-2010, and the San Francisco Chronicle for races between 2012-2018, with these sources using 1990, 2000,

and 2010 Census data. This is a comparative analysis, that uses both quantitative data (vote share) and qualitative data (candidate name, race, and gender).

This dataset allows me to measure my independent and dependent variables. My independent variable is the implementation of RCV in 2004. This information will provide insight into elections from the pre-RCV period, 2000-2002, and the post-RCV period, 2004-2018. This allows for analysis of elections before and after the change, seeing how the independent variable affected the dependent variable. As a reminder, the dependent variable is the race and gender of winning and losing candidates in San Francisco supervisor races. My dataset contains this information for every viable candidate, allowing me to track how the independent variable changes this information over a nearly twenty-year period.

The San Francisco Department of Elections database only lists the names and performances of each candidate, but not their race and gender. For more recent elections, I was able to find demographic information on candidates from televised debates or their candidate website. However, many smaller candidates from more distant elections have little to no information online. To find these, I collaborated with UC Center Sacramento Teaching Assistant Paige Pellaton. For previous research on substantive representation when cases are randomly assigned to district judges, Pellaton utilized code packages to find the race and gender of litigants. For race, Pellaton used the wru package by imai_improving_2016, which predicted a litigant's race through the 2000 US Census Bureau's Surname List and geolocation. For gender, Pellaton utilized the gender package by blevins_jane_2015 which ran the litigant's first name through US Social Security Administration data. Pellaton ran roughly 100 supervisor candidates that I could not find information on through these models.

When Pellaton tested the system, she found a 92.1 percent and 77.6 percent accuracy for the gender and race of litigants respectively. The largest discrepancy was the system would often confuse historically Black and historically White surnames. I do have concern that the lack of complete accuracy on my collection could affect the reliability of the data. However, this is the most accurate way to conduct my research. Many of these candidates received little to no media attention and did not have an online presence, making it difficult to find demographic information on them. While not wholly accurate, this methodology provides the greatest possibility of measuring these candidates.

A point of concern I have is the fact that significantly more races post-RCV are represented over pre-RCV races. These years are chosen specifically, as 2000 is the first election to use districts for electing supervisors. Therefore the 2000 and 2002 elections will show who was running and winning in district elections before RCV. From 1982-1998, supervisors were elected at-large to decrease political tensions after the assassinations of Mayor George Moscone and Supervisor Harvey Milk. This remained until Proposition G reestablished supervisor districts after being passed by voters in 1996. For the 2000 election, all districts were contested, instead of half per election cycle. This effectively provides three cycles worth of races pre-RCV between 2000 and 2002. The cutoff was chosen at 2018, as 2020 was the first election year to be conducted with universal vote-by-mail, which differently impacted electoral outcomes.

While more pre-RCV races were excluded deliberately, the data is still not balanced. I want to caution that while the 2000 and 2002 elections provide the most recent insight into pre-RCV district-based elections in San Francisco, they do not represent a more prolonged timeframe like the post-RCV data. A surface-level look at data from the 1996 and 1998 elections show

similar trends to 2000 and 2002, but I am concerned they are not wholly representative of elections pre-RCV.

As mentioned earlier, the scope of study is very narrow. The results from the study are not intended to be definitive evidence on the relationship between RCV and diversity, but a focused look at one type of elected office from multiple perspectives. The studies mentioned in **Literature Review** provide a more wide-ranging look at RCV, but generally focus on winning candidates in narrow windows of time. All the data measurements are valid approaches to accomplishing this, since the combination of the race and gender of winning and losing candidates, in addition to district demographics and candidate performance give a complete look at how RCV changed the diversity of San Francisco elections. The goal of this study is to be an addition to previous and future research into RCV.

Analysis

Through this dataset, there are multiple different ways to analyze how RCV changed the demographic representation in supervisor races. To properly answer my research question, I want to evaluate my data in the context of who is winning, who is running, where certain candidates are running, and how certain candidates perform where they runn. To answer this first question, I created **Figure 1**, which provides a simplified look at the race and gender of winning candidates in the cycles pre and post RCV.

Figure 1 shows a noticeable shift in winning candidates after the electoral change. Before RCV was implemented, the demographics of elected supervisors were: 62.5% White (10 elected), 12.5% Asian (2 elected), 12.5% Hispanic (2 elected), and 12.5% Black (2 elected). By gender, winning candidates were 81.2% male (13 elected) and 18.7% female (3 elected). The

most apparent takeaway is White and especially male winning candidates are dominant before RCV. Relative to the general population at the time, Asian Americans (30.7%) and Hispanic Americans (14.1%) were under-represented, while White (43.6%) and Black (7.6%) Americans were overrepresented (Bay Area Census 2000). This discrepancy is largely fueled by plurality Asian districts electing White candidates. The opposite is true for Black and Hispanic candidates, whose two wins each came in districts where they comprised less than 20% of the population. During this period, White and Asian Americans were the only groups that formed pluralities or majorities in any given district.
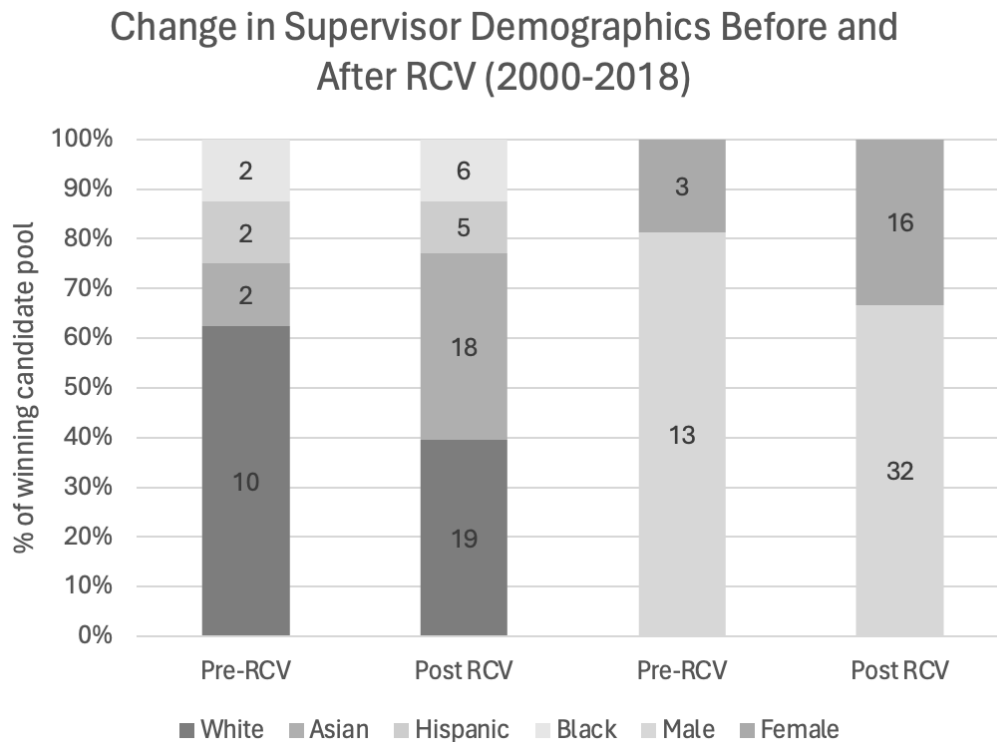

Figure 1. Racial and Gender Demographics of winning supervisor candidates before and after RCV (SF Elections 2024)

In the post-RCV period, the demographics of winning candidates were: 39.5% White (19 elected), 37.5% Asian (18 elected), 10.4% Hispanic (5 elected), 12.5% Black (6 elected), 66.6%

male (32 elected), and 33.3% female (16 elected). The starkest change during this period is the increase in Asian American representation and decrease in White representation amongst winners. It can be noted that this does reflect demographic trends during the period, where San Francisco became less White (43.6% in 2000 to 41.9% in 2010) and more Asian (30.7% in 2000 to 33% in 2010) (Bay Area Census 2010). However, these changes are minor and do not fully explain the demographic shift of the Board of Supervisors. Therefore, RCV implementation is decently responsible for change towards equal representation. White and Asian candidates elected to the Board now almost perfectly mirror their share of the general population.

Hispanic Americans are now slightly underrepresented, while African Americans continue to be overrepresented at the same rate. The proportion of female winners nearly doubled from 18.7% before RCV to 33.3% after. While women are still under-represented on the Board, this marks significant progress towards equal representation.
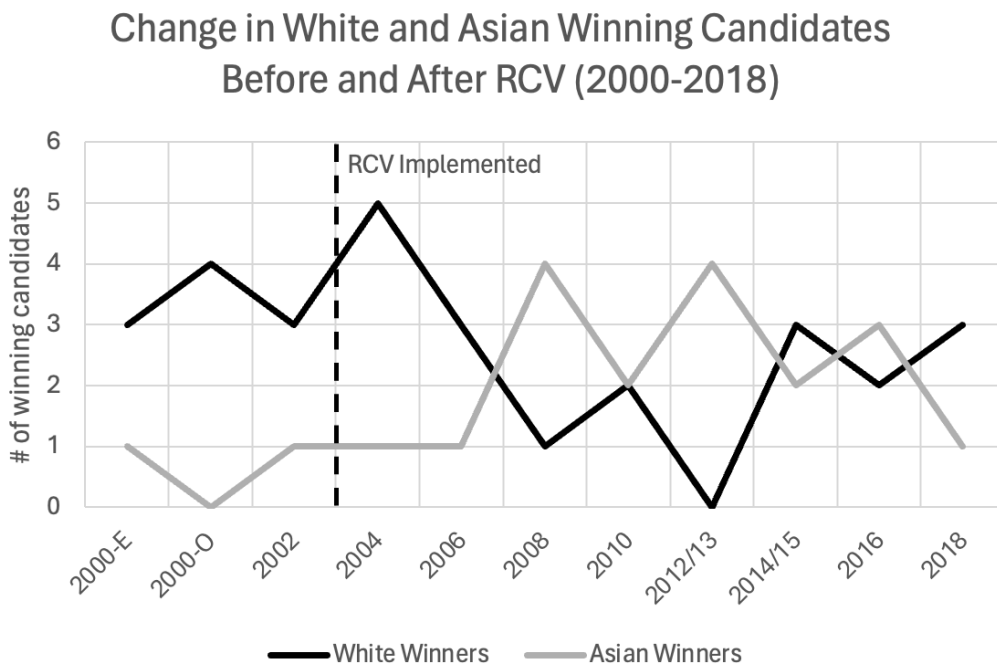

Figure 2. Change in # of White and Asian Winning Candidates (SF Elections 2024)

Figure 2 further demonstrates the demographic shifts between White and Asian elected supervisors. **Figure 2** shows this change year by year, with 2000 split into two cycles since all districts were contested instead of the usual half of districts. In the 2000-2006 cycles, significantly more White candidates were elected than Asian candidates, at ratios of 7:1 (2000), 3:1 (2002), and 5:1 (2004). In 2006, the second year of RCV, the ratio dropped again to 3:1 as the proportion of White winners decreased, while the number of Asian winners remained low. The ratio then flipped to 1:4 in 2008, with the number of Asian winners greatly outnumbering White winners. In the elections from 2014-2018, Asian and White winners reached a semi-equilibrium at 3:2 (2014/2015) and 2:3 (2016).

The move towards a semi-equilibrium between the number of White and Asian winners reflects positively on RCV. As mentioned earlier, these are the largest and most significant demographic groups in San Francisco. Under RCV elections, these groups eventually matched each other with representation on the Board of Supervisors. It can also be noted that Ed Lee, the first Asian American Mayor of San Francisco, was elected through an RCV race that went into 12 rounds. These have been incredibly important steps for ensuring fair and equal representation in San Francisco's government.

To further explore how RCV affected these elections, I wanted to focus on how all POC candidates performed in different districts. This led to **Figure 4** and **Figure 5,** which visualize how White candidates are performing in districts by their POC population share before and after RCV implementation. As mentioned earlier, a large source of the overrepresentation of White supervisors was their success in plurality and majority POC districts. Therefore, I want to see if RCV caused a change in the overall performance of White candidates in more POC districts. It is important to note these figures represent the vote share in the first round of each election. In a

notable number of races in this dataset, the candidate who receives the most initial votes ends up

losing the election. However, in order to be consistent in my comparison with pre-RCV data, I
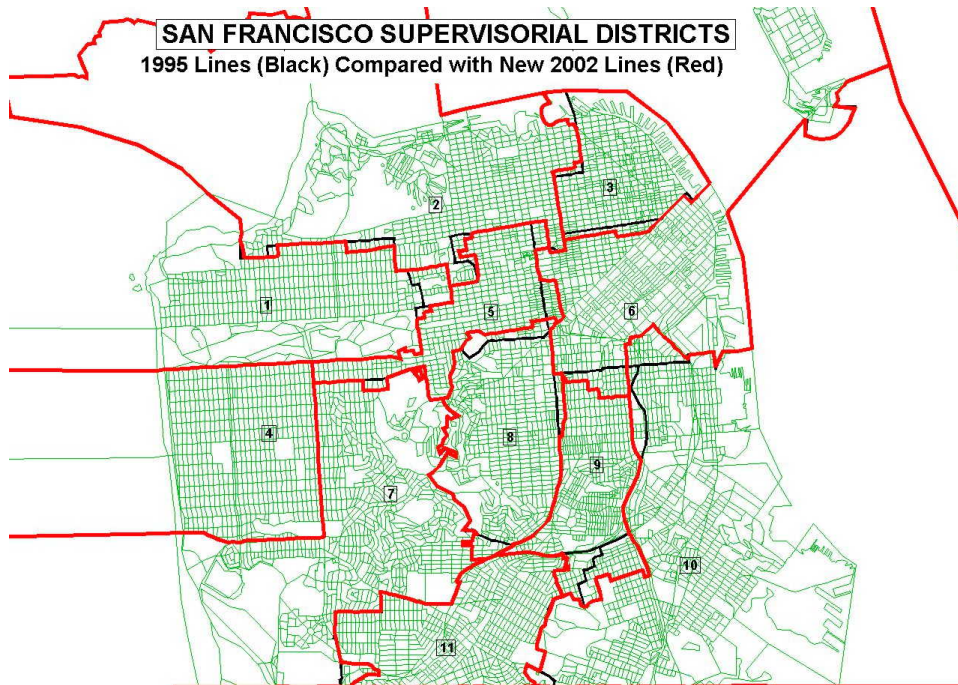
chose to only focus on the initial round of voting.

Figure 3. Comparison of San Francisco Supervisorial Districts (1995-2010). SOURCE: San Francisco General Services Agency 2002

In the pre-RCV period, the correlation coefficient between vote share for White

candidates and the district's population proportion POC is –0.43, indicating a moderate

relationship between the two. As **Figure 4** shows, generally the more POC a district is, the lower

the vote share received by White candidates. However, this relationship is not incredibly

consistent. During this period, eight races occurred in districts where over 60% of the population

was POC. Out of those eight races, in four of them White candidates collectively got above 75%

of the vote share. While **Figure 1** showed the overrepresentation of White winning candidates,

Figure 4 shows the overperformance of White candidates in White majority, White plurality, and

White minority districts. Besides heavily White districts, it is important to note a decent amount of POC candidates are running. But more White candidates are running and getting sizeable shares of the vote.
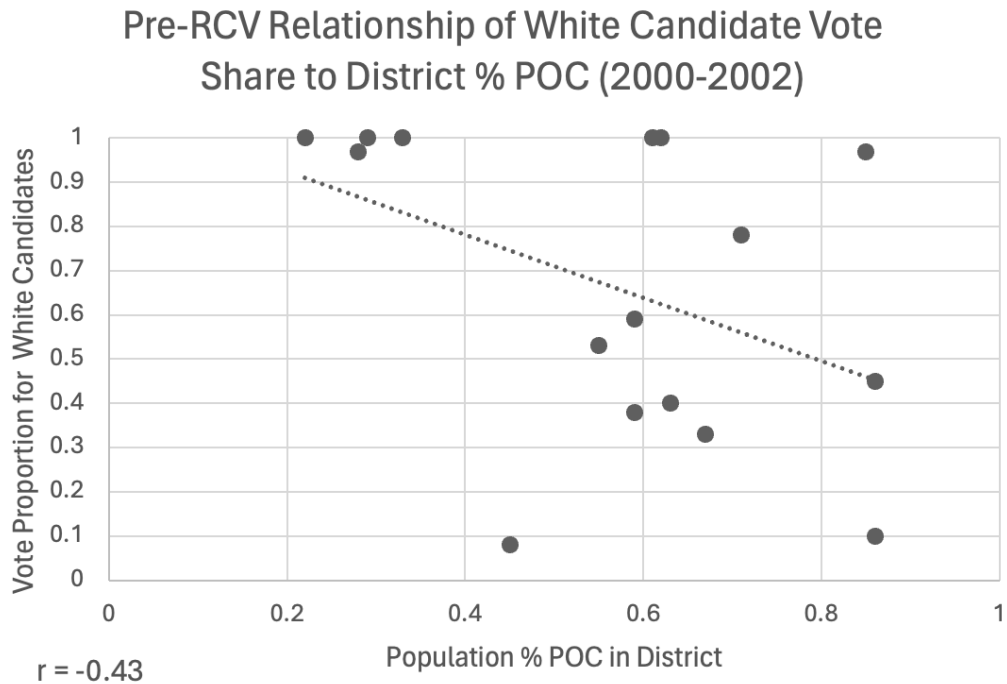

Figure 4. Pre-RCV Vote Share of White Candidates to District % POC (SF Elections 2024, SF GSA 2002, SF Chronicle 2022)

Not included in these four races, but a notable example of this phenomena occurred in District 3 during the 2000 cycle. District 3 is anchored by the Chinatown neighborhood, which is the highest proportion Asian American neighborhood in the city (Sumida 2022). However, 59% of the vote share went to White candidates, and was ultimately won by White candidate Aaron Peskin. It should be noted that an Asian candidate won District 3 in 2008 after Peskin retired. Inversely, there was only one race in a majority White district in which POC candidates got a majority of the vote share.
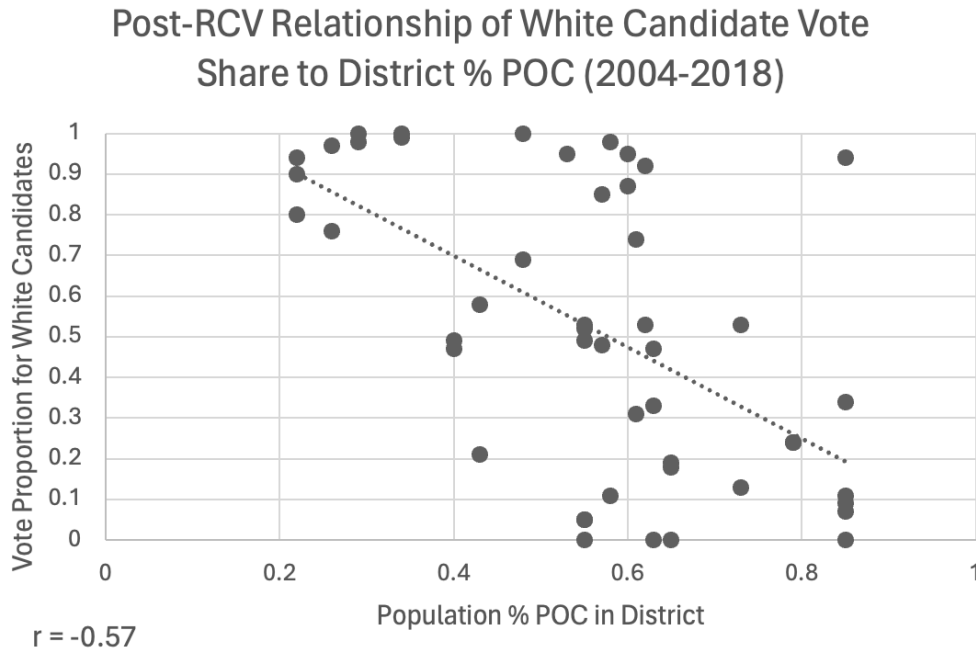
Figure 5. Post-RCV Vote Share of White Candidates to District % POC (SF Elections 2024, SF GSA 2002, SF Chronicle 2022)

In **Figure 5**, a much stronger correlation exists between White candidates receiving a lower share of the vote in higher proportion POC districts. This is affirmed by the new correlation coefficient of -0.57. This data shows that POC candidates are performing better overall, with more races giving POC candidates majority shares of the vote. This correlates with the overall increase of POC elected supervisors shown by **Figure 1** and **Figure 2**.

However, **Figure 5** does not show an incredibly large increase in overall POC candidate performance. Before RCV, POC candidates only got a majority of the vote share in 6 out of 16 races (37.5%), with it slightly increasing to 22 out of 48 (45.8%). This does not match with the fact that POC candidates have won 60.5% of races post-RCV. This discrepancy is explained when considering this data only accounts for the initial round of voting. Since the number of candidates in these races is high, the eventual winner might receive as little as 11.7% of the

initial vote (District 10 in 2010). Districts that are only 20%-40% POC are still giving almost their entire vote shares to White candidates and districts between 40%-60% POC, non-white candidates received a majority of the vote share in a smaller proportion of races (8 out of 17 races post-RCV, 2 out of 4 races pre-RCV). There are still three cases of +60% POC districts giving +80% of their vote to White candidates, but these are clear outliers greatly outnumbered by other cases.

This is the one area where the promise of ranked choice voting has not lived up to its potential. While the diversity of winning candidates greatly improved due to RCV, in initial voting rounds White candidates still tend to perform disproportionality better. I believe this is related to the fact that the overall number of candidates did not change. This study did not focus on candidate emergence, since the number of candidates actually went down after RCV was implemented (median of 6.5 candidates per race before, 5 after). It can likely be inferred that RCV did not significantly change who was running in supervisor races, but the different voting mechanism changed which candidates were winning. This is a very noteworthy dimension of RCV in San Francisco not captured by the studies mentioned in **Literature Review.** These findings come with the caveat that wru package used for some candidate demographics tended to confuse Black and White names.

Implications

Overall, this study showed that non-white and female candidates performed better across the board after RCV implementation, getting larger shares of the vote and winning more often. It also showed a trend towards candidate pools better representing their district's population. This proves the hypothesis of this paper correct. However, the caveats of this research are important to note. Like California, San Francisco is incredibly diverse, but with notable demographic

differences. While San Francisco has roughly similar proportions of White (38.3% to 34.7% statewide) and Black (5.2% to 6.5% statewide) residents to California, it is significantly more Asian (34.8% to 16.3% statewide) and less Hispanic (15.5% to 40.3% statewide) than the rest of the state (US Census 2023). This does not inherently have an impact on how RCV would work statewide, but large parts of the study focused on how RCV specifically uplifted Asian candidates. As mentioned earlier, the number of candidates remained high before and after RCV. This would likely not true for the rest of the state, as RCV traditionally causes the number of candidates to increase (FairVote 2024).

The next question is: how should we think about these findings in a policy context? This study, along with the other studies discussed in **Literature Review,** indicate that RCV increases the number of non-white and female candidates elected to local office. Many states are considering the idea of adopting RCV for state and federal races. Alaska and Maine currently use RCV statewide, and Oregon and Nevada voters will weigh in on ballot measures doing this in the 2024 Elections. On its own, this study does not justify the use of RCV statewide in California. The previously mentioned caveats show that San Francisco is not demographically or politically representative of the state as a whole. A more comprehensive study should be done into this relationship in the other 8 California cities that have or will use RCV. These cities range from large to small, and represent different regions such as the Bay Area, Los Angeles Metro, the Inland Empire, and Northern California. This study would provide the best insight into how statewide RCV would work in California.

However, this study could justify a re-evaluation of SB 212, the previously mentioned bill that would have expanded RCV to general law cities. In the Governor Gavin Newsom's 2019 veto message, he stated, "The state would benefit from learning more from charter cities who use

ranked choice voting before broadly expanding the system," (Office of Governor Gavin Newsom 2019). This study, plus the RepresentWomen and FairVote studies of RCV in the Bay Area, are sufficient evidence of a positive relationship between RCV and increased candidate diversity at the local level. This study focused on the largest legislative districts in California to use RCV, possibly boding well for implementation in other city council elections. However, a previously mentioned more comprehensive study of all cities would be stronger evidence.

Conclusion

Of this project, one could ask: why does this matter? This study looks at one type of elected office in California's fourth largest city. The findings of this paper are incredibly interesting, yet are not a definitive standalone statement on the viability of ranked choice voting everywhere in California or the United States. However, I believe the results of this study are important. San Francisco has the longest history with RCV out of any major American city. It is the largest in California to use the system, and its supervisor districts are the second largest municipal districts in the U.S. to use RCV. The results of this study show that RCV does accomplish its goal of electing more diverse candidates. Since San Francisco has adopted RCV, the number of Asian supervisors increased dramatically, going from being significantly underrepresented to matching their population share. Female representation on the Board also went up, while White Americans went from being very overrepresented to also matching their population share.

Finally, politicians from San Francisco play an outsized role in our state and national politics. From 2021-2023, the top officials in the U.S. Senate and House of Representatives, Vice President Kamala Harris and Speaker Nancy Pelosi, both got their start in local San Francisco politics. This dataset alone includes three current leading figures in state politics: Governor

Gavin Newsom, Treasurer Fiona Ma, and Senator Scott Wiener. A phrase California politicians love to use is, "as California goes, so goes the nation." Given the large influence of San Francisco on state politics, one could argue, "as San Francisco goes, so goes California." This gets to the heart of why evaluating how San Francisco elects its leaders is so important.

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