

# Ranked Choice Voting and Voter Turnout in San Francisco Elections

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## Abstract

We show that the use of Ranked Choice Voting (RCV) in San Francisco's November 2005 election increased voter participation in the decisive round of the Assessor-Recorder race by an estimated 2.7 times, or 120,000 voters. Moreover, our analysis shows that six out of twenty-five neighborhoods in San Francisco experienced an estimated tripling of voter participation or more due to RCV. In increasing order, these six neighborhoods are Western Addition (209% increase), Excelsior/Outer Mission, Ingleside, Mission, Bayview/Hunter's Point, and Visitation Valley (307% increase, or a quadrupling of voter turnout). Interestingly, these neighborhoods are among the poorest and most racially diverse in San Francisco.

## *Introduction*

The impact of Ranked Choice Voting (RCV) on San Francisco elections, and in particular its impact on minority and underrepresented communities, has been a subject of special interest in San Francisco since its first use in November 2004. San Francisco State's Public Research Institute, for example, has studied voter opinion of RCV in detail across different socioeconomic groups [1,2].

In this report we use election data rather than surveys to quantify the effect of RCV on voter participation in San Francisco's first citywide use of the system. Specifically, we focus on the November 2005 Assessor-Recorder race, which is the one race in the election that would have gone to a runoff in the absence of RCV. We estimate how RCV affected the number of voters deciding the final outcome of this race, and we determine where those effects are concentrated most.

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We summarize our findings in Chart 1 of the Appendix. The contents of Chart 1 and the methodology underlying it are explained in detail below.

### *Background*

Before the implementation of Ranked Choice Voting, San Francisco voters had to vote in a separate December runoff election whenever no candidate for some city office won by a majority (more than 50%) in the November election. These December runoffs often had very low voter turnouts. For instance, in the 2001 race for City Attorney, just 17% of the 450,000 registered voters turned out for the December runoff between City Attorney candidates Dennis Herrera and Jim Lazarus. In the end, only about 39,000 voters, or 9% of those registered, voted the winner into office. On top of that, a margin of victory of only 3,200 votes decided the election.

This changed after the passage of Ranked Choice Voting in San Francisco on March 5, 2002. Proposition A amended San Francisco's charter to require most city offices to be elected using Ranked Choice Voting. The measure passed 55% to 45%. San Francisco first used the system on November 2, 2004 to elect district Supervisors in seven out of the city's eleven districts: 1, 2, 3, 5, 7, 9, and 11. In four of these districts (1, 5, 7, and 11), no candidate won a majority of voters' top choices, and RCV averted the need for a separate runoff election.

San Francisco used RCV in a citywide race for the first time the following year. The election, a Statewide Consolidated Special Election, was held on November 8, 2005. In all, 229,714 voters out of 428,481 registered voters turned out for the election, for an overall turnout of 53.6% [3]. The election had 92,817 absentee voters, or 40.4% of those turning out. San Francisco used RCV to decide three citywide races: Assessor-Recorder (3 candidates on the ballot), Treasurer (4 candidates), and City Attorney (1 candidate). Only in the Assessor-Recorder race did no candidate win a majority of votes in the first round, so more than one round of counting was needed.

### *November 2005 Assessor-Recorder Race Summary*

We display the results for the Assessor-Recorder race by round in Table 2. Of those voting, 225,370 turned in the ballot card containing the Assessor-Recorder race, and 199,224, or 46.5% of registered voters, marked at least one choice for the race [4,5]. Over 99.6% of these participants cast a valid vote in the first round, with only 0.37% casting an overvote [5].

Front-runner Phil Ting led candidate Gerardo Sandoval in the first round 47% to 36%. Last-place candidate Ronald Chun trailed with 17%. Chun was eliminated in the first round with 75% of his supporters indicating a second preference. The votes of his supporters went two-to-one to Phil Ting. In the final round, Ting won not just a 58% majority of continuing votes, but also a 55% majority of the first round total. Citywide,

about 95% of the ballots counting towards a candidate in the first round counted towards some candidate in the second round [5].

### *Methodology*

In this section we measure the effect of Ranked Choice Voting on voter participation in the decisive round of the 2005 Assessor-Recorder race. To estimate the number of voters that would have cast a vote in 2005 if a December runoff had been used in place of RCV, we use data from the December 2001 runoff for City Attorney. The 2001 race for City Attorney is similar to the 2005 race for Assessor-Recorder because both elections took place in odd years, and in both cases the race was or would have been on the ballot by itself. The offices also have a similar public profile.

While voter demographics may have changed somewhat in the intervening four years (Visitation Valley, for instance, has 75% more registered voters), the 2001 election should provide a good baseline predictor. Moreover, there are indications that our methods may in fact understate any increases due to RCV.

Both anecdotal and hard evidence suggest that the 2001 December runoff between Dennis Herrera and Jim Lazarus was more heated than would be a 2005 December runoff between Phil Ting and Gerardo Sandoval. The closeness of the outcome in 2001 relative to the 2005 race bears this out. This would mean that our numbers overestimate December 2005 runoff participation, and underestimate any increase due to RCV. In addition, the high profile nature of the November 2005 Statewide Special Election may have increased voter registration figures relative to its November 2001 levels. This would also mean overestimated numbers for December 2005 runoff participation and underestimated increases due to RCV.

Table 3 shows the estimated number of votes cast in a hypothetical December 2005 runoff between Phil Ting and Gerardo Sandoval, using the December 2001 election as a predictor. We display these numbers by neighborhood. We use the neighborhood classification provided by the Department of Elections [7]. The Department divides San Francisco's approximately 580 precincts into twenty-five neighborhoods of varying size.

Column 1 shows the neighborhoods arranged in order of their Column 4 voter participation rate. Column 2 is the number of registered voters at the time of the December 2001 election [6]. Column 3 is the number of votes cast in the election [6]. Since not all voters mark their ballot, this number is slightly less than the voter turnout for the election (by less than 0.8% for the city). Column 4 is the percent voter participation obtained by dividing Column 3 by Column 2. Column 5 is the number of registered voters during the November 2005 election [3,4]. Finally, the last column is the estimated number of votes cast in a December 2005 runoff. We obtain this by multiplying the November 2005 registration totals in Column 5 by the 2001 runoff participation percent recorded in Column 3.

To compare voter turnout in a runoff election to voter turnout in the final round of an RCV race, we use votes cast rather than the number of voters showing up to vote. This gives a more accurate comparison because not every voter in an RCV election chooses one of the two finalists as a later choice. Indeed, because of roll-off, not every voter chooses a candidate even in the first round (in any election, RCV or not). Using voter turnout would inflate the results in favor of RCV.

Table 2 shows the estimated change in voter participation due to RCV in the decisive round of the 2005 Assessor-Recorder race. Column 1 shows the neighborhoods arranged in decreasing order of the increase in Column 5. Column 2 carries over the values from Column 6 in Table 1, the estimated votes cast in a December 2005 runoff. Column 3 is the actual number of votes counting towards candidates in the first round of the Assessor-Recorder RCV election. Column 4 is the number of votes counting towards either Phil Ting or Gerardo Sandoval in the final and decisive round.

We calculated the numbers in Columns 3 and 4 using the RCV Ballot Detail Report posted on the Department of Elections web site [5] in combination with the Precinct-Neighborhood key [7]. All ballot images in the Ballot Detail Report are tagged by a precinct label. The Neighborhood key allows one to connect each ballot to the correct neighborhood.

Column 5 is the ratio of the number of votes counting towards a candidate in the final runoff round of the RCV election (Column 4) to the same number for a December runoff (Column 2). Column 5 is obtained by dividing Column 4 by Column 2. Column 6 is the plain difference between those two numbers, or the increase in votes cast due to RCV.

### *Findings*

The percent of registered voters voting for some candidate in the December 2001 runoff averaged 16.5% citywide, ranging from 9.5% for Visitation Valley to 25.0% for West of Twin Peaks. For a December 2005 runoff, this translates to an estimated 70,611 votes cast citywide for either Ting or Sandoval. See Column 6 in Table 3 for these numbers.

Table 4 compares these numbers to RCV. The number of votes cast citywide for either Ting or Sandoval in the final round of the RCV tally in November 2005 was 189,314, a 168% increase over the estimated number for a December runoff. In absolute terms, voters cast an estimated 118,000 additional votes in the decisive round.

The increase in votes cast by neighborhood ranged from 91% for Sea Cliff/Presidio Heights (a slightly less than doubling) to 307% for Visitation Valley (a slightly more than quadrupling). All neighborhoods except for Sea Cliff experienced a doubling of votes cast, and six experienced a more than a tripling of votes cast. These six neighborhoods are Western Addition, Excelsior (Outer Mission), Ingleside, Mission, Bayview/Hunter's Point, and Visitation Valley. The ratios for these neighborhoods appear in bold in Table 4. From the totals in Column 6, we estimate that these six neighborhoods saw over 35,000 more voters casting a vote for a candidate in the final round.

### *Conclusion*

Overall, Ranked Choice Voting increased the number of decisive votes cast in races that required a runoff by an estimated 168% as compared to the old December runoff system. Here we speculate on the reasons for this increase and on how this number might be changed by other factors.

While turnout in a December runoff depends on interest in perhaps just one race between two candidates (as in the 2001 City Attorney race and the 2005 Assessor-Recorder race), RCV allows interest in all issues on the November ballot to translate directly into increased participation in the final round of the city races. Though voters may be driven to the polls by issues on the November ballot, once there, it is a simple matter to indicate a first, second, and possibly later choices for each city race. As a consequence, higher profile November elections (like Presidential elections) are likely to experience even greater increases due to RCV than those recorded here.

Perhaps unsurprisingly, then, the neighborhoods with the largest percent increases in voter participation due to RCV (Column 5, Table 2) are also the neighborhoods with the lowest rates of voter participation in December runoff elections (Column 4, Table 1). These neighborhoods are also generally recognized as among the most racially diverse and socioeconomically disadvantaged in San Francisco.

These results have important implications for using RCV to increase voter participation among poor, minority, and other low-turnout voting communities. This connection deserves further study and attention.

### **Bibliography**

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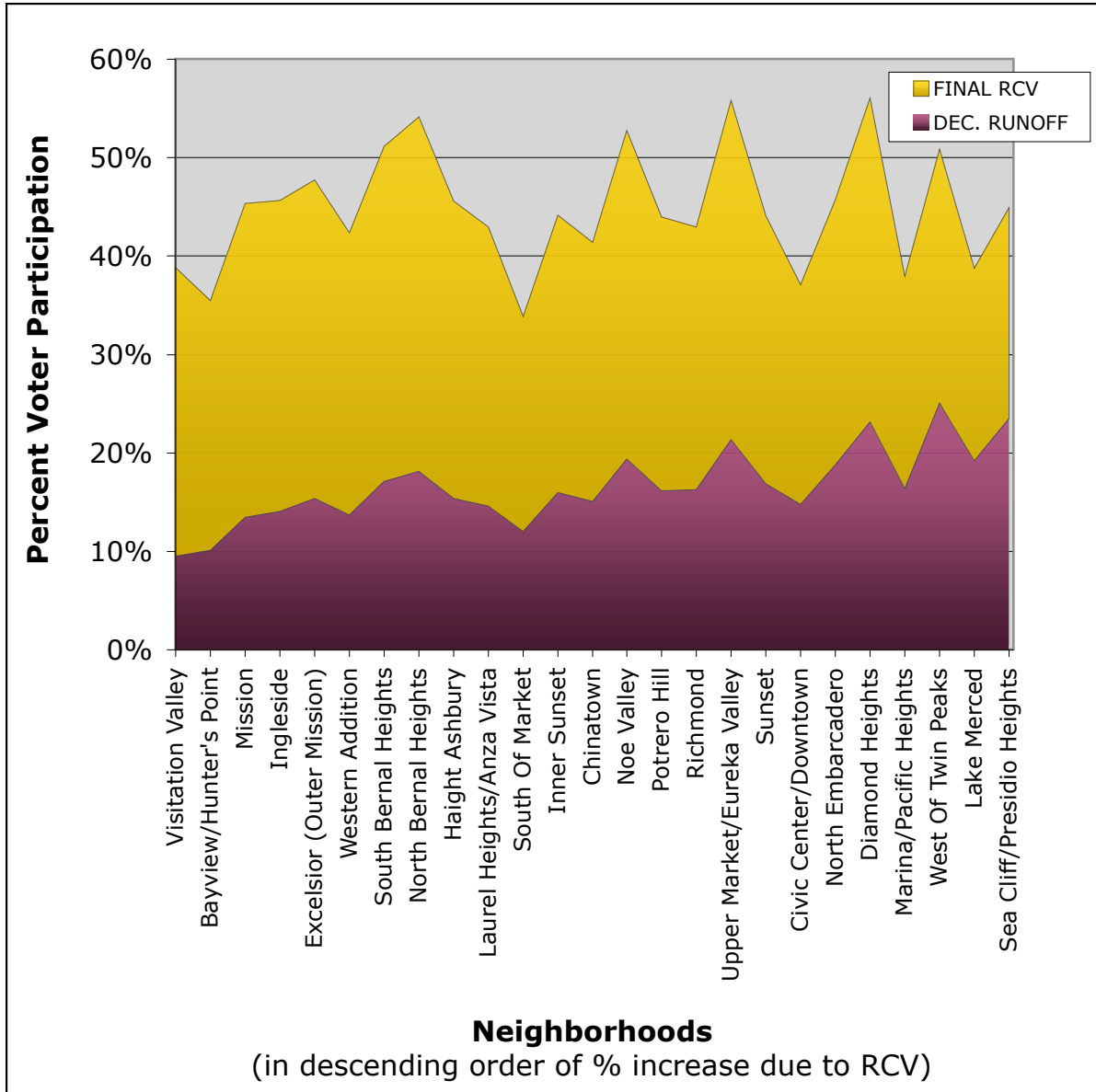
[7] San Francisco Precinct-Neighborhood key, San Francisco Department of Elections.

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# Appendix

## Chart 1

Final Round Participation in 2005 SF Assessor-Recorder Race:  
Actual RCV vs. Estimated December Runoff



## Table 2

November 2005 RCV Results for San Francisco Assessor-Recorder Race \*

<b>Candidate</b>		<b>Pass 1</b>	<b>Pass 2</b>
PHIL TING	(Winner 58.133%)	94,062	110,053
GERARDO SANDOVAL		71,850	79,261
RONALD CHUN		33,294	
ANTHONY FABER (WRITE-IN)		18	
	Continuing ballots	199,224	189,314
	Exhausted votes	0	9,844
	Overvotes	748	814
	Undervotes	25,398	25,398
	<b>Total ballots</b>	<b>225,370</b>	<b>225,370</b>

\* As of this writing, the San Francisco Department of Elections is incorrectly reporting exhausted vote totals on its web site. Here we report corrected totals. We also break out overvote and undervote (blank ballot) totals for each round. We computed these totals from the RCV Detail Reports posted on the Department web site.

**Table 3**

## San Francisco December Runoff Turnout

Neighborhoods *	2001 December Runoff			% Casting Vote	2005 December Runoff (Hypothetical)		
	Registered	Votes Cast			Registered	Projected Votes Cast	
Visitation Valley	5,796	552		9.5%	10,183	970	
Bayview/Hunter's Point	18,191	1,836		10.1%	15,991	1,614	
South Of Market	12,031	1,448		12.0%	14,833	1,785	
Mission	29,932	4,022		13.4%	27,240	3,660	
Western Addition	29,940	4,100		13.7%	27,753	3,801	
Ingleside	11,399	1,603		14.1%	10,080	1,418	
Laurel Heights/Anza Vista	10,063	1,470		14.6%	9,053	1,322	
Civic Center/Downtown	25,655	3,787		14.8%	23,648	3,491	
Chinatown	17,945	2,709		15.1%	16,538	2,497	
Excelsior (Outer Mission)	35,763	5,499		15.4%	27,036	4,157	
Haight Ashbury	14,929	2,296		15.4%	13,276	2,042	
Inner Sunset	12,136	1,936		16.0%	9,050	1,444	
Potrero Hill	7,726	1,250		16.2%	8,655	1,400	
Richmond	33,203	5,400		16.3%	32,574	5,298	
Marina/Pacific Heights	41,807	6,864		16.4%	36,377	5,972	
Sunset	38,217	6,448		16.9%	36,999	6,242	
South Bernal Heights	7,787	1,331		17.1%	8,542	1,460	
North Bernal Heights	7,566	1,373		18.1%	7,788	1,413	
North Embarcadero	5,988	1,125		18.8%	5,694	1,070	
Lake Merced	8,004	1,535		19.2%	8,153	1,564	
Noe Valley	17,155	3,325		19.4%	15,559	3,016	
Upper Market/Eureka Valley	17,513	3,741		21.4%	18,048	3,855	
Diamond Heights	7,138	1,651		23.1%	6,740	1,559	
Sea Cliff/Presidio Heights	9,011	2,117		23.5%	8,040	1,889	
West Of Twin Peaks	29,066	7,280		25.0%	30,631	7,672	
<b>Total</b>	453,961	74,698		<b>16.5%</b>	428,481	<b>70,611</b>	

\* Listed in increasing order of Column 4 (% Casting Vote).

**Table 4**

## San Francisco RCV/December Runoff Comparison

Neighborhoods *	2005 December Runoff	2005 November RCV			RCV/December Runoff Comparison of Votes Cast	
	Projected Votes Cast	1st Round Votes Cast	Final Round Votes Cast	Percent Ratio	Estimated Increase	
Visitation Valley	970	4,235	3,951	<b>407.3%</b>	2,981	
Bayview/Hunter's Point	1,614	6,059	5,675	<b>351.6%</b>	4,061	
Mission	3,660	12,667	12,347	<b>337.3%</b>	8,687	
Ingliside	1,418	4,776	4,603	<b>324.6%</b>	3,185	
Excelsior (Outer Mission)	4,157	13,518	12,904	<b>310.4%</b>	8,747	
Western Addition	3,801	12,184	11,762	<b>309.4%</b>	7,961	
South Bernal Heights	1,460	4,511	4,370	299.3%	2,910	
North Bernal Heights	1,413	4,332	4,214	298.2%	2,801	
Haight Ashbury	2,042	6,182	6,054	296.5%	4,012	
Laurel Heights/Anza Vista	1,322	4,080	3,886	293.9%	2,564	
South Of Market	1,785	5,293	5,024	281.5%	3,239	
Inner Sunset	1,444	4,150	3,993	276.5%	2,549	
Chinatown	2,497	7,298	6,850	274.3%	4,353	
Noe Valley	3,016	8,428	8,212	272.3%	5,196	
Potrero Hill	1,400	3,942	3,804	271.7%	2,404	
Richmond	5,298	14,890	13,984	263.9%	8,686	
Upper Market/Eureka Valley	3,855	10,312	10,075	261.3%	6,220	
Sunset	6,242	17,512	16,301	261.2%	10,059	
Civic Center/Downtown	3,491	9,254	8,771	251.2%	5,280	
North Embarcadero	1,070	2,759	2,602	243.2%	1,532	
Diamond Heights	1,559	3,939	3,779	242.4%	2,220	
Marina/Pacific Heights	5,972	14,847	13,804	231.1%	7,832	
West Of Twin Peaks	7,672	16,741	15,580	203.1%	7,908	
Lake Merced	1,564	3,436	3,158	201.9%	1,594	
Sea Cliff/Presidio Heights	1,889	3,879	3,611	191.2%	1,722	
<b>Total</b>	70,611	199,224	189,314	<b>268.1%</b>	<b>118,703</b>	

\* Listed in decreasing order of Column 5 (Percent Ratio).