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Ranked Choice Voting in the 2011 San Francisco Municipal Election Final Report

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We present here a final analysis of voters' usage of the ranked choice ballot in the 2011 San Francisco Municipal Election. Unlike our previous report, which concentrated primarily on political outcomes, this paper focuses on voters' usage of the ballot and tendencies to overvote, undervote, and rank candidates for three citywide offices: Sheriff, District Attorney, and Mayor. This study combines individual ballot records with county voter file data to allow for a systematic analysis of the relationship between various demographic factors and variations in observed voting behaviors. Additional data are presented in the appendix, including voter turnout by neighborhood in comparison to previous citywide elections in 2008 and 2010.

Our analysis indicates that overall, the vast majority of voters in San Francisco cast valid ballots in the 2011 election and most voters utilized the full complement of available rankings. However, we find substantial and statistically significant differences in rates of overvotes (voter errors that can invalidate a ballot) and undervotes (effectively skipping a race), and the usage of rankings by precinct that correlate with demographic factors.

More specifically, precincts with higher proportions of Asian and Pacific Islander, Latino, and older voters were disproportionately likely to make mistakes on the ballot. And more progressive precincts, as measured by the Progressive Voter Index, were also more likely to have ballots containing overvotes. Higher rates of rolloff (voting in the mayoral election but not the District Attorney or Sheriff race, respectively) were found in precincts with greater proportions of Asian and Pacific Islander voters and lower in precincts with higher proportions of African Americans. The results for the rankings are more mixed, however generally, precincts with higher concentrations of older voters, moderate voters, Latino, and Asian and Pacific Islander voters were more likely to vote for only one candidate rather than ranking up to the three allowable preferences.

Voter turnout in San Francisco was generally low in 2011. And compared with previous citywide elections in 2010 and 2008, the electorate had a higher proportion of older voters and Asian and Pacific Islander voters.

METHODOLOGY

For this report, we use the final ballot image data published by the San Francisco Department of Elections that provide individual level-information about voters' usage of the ranked choice ballot. Because the Department of Elections maintained a consistent ID across all three races, data from these three races are merged to discern how an individual voter voted in the three citywide candidate races.

Individual demographic data are drawn from the San Francisco Voter File that contains names, ages, and geographic markers for each registrant. Using the method conceived by Enos (2010), we conduct a Bayesian probability to infer individual race based upon United States Census name/race data and zip code demography. Gender is inferred from the registrant's name and both age and party identification are drawn directly from this registration data. Because it is impossible to connect individual registrants in the Voter File with the images of their ballots, for the statistical analysis we aggregate both sets of data to the precinct level and distinguish between absentee and election day voters. Precinct-level PVI data are from the 2011 PVI report We utilize negative binomial regression models to estimate the various influences of demographic and political characteristics on observed behaviors with the ranked choice ballot. This largely replicates a study of ranked choice voting in San Francisco by Neely and Cook (American Politics Research, 2008).

OVERVOTES

Overvotes are ballots that contain more than one mark in a single column. Under San Francisco's policy, not all ballots containing overvotes are invalidated. For instance, if a voter in the mayoral election cast a valid first choice vote for Ed Lee before casting an overvote in the second choice column, the ballot would accrue to Ed Lee's vote total. Accordingly, we distinguish between "overvotes" and those that are "invalidated" or "exhausted" by overvotes in this section.

Overall, of the nearly 200,000 voters who came to the polls in 2011, only 108 cast a ballot that contained overvotes in all three candidate races. The vast majority of voters made no such errors on their ballots. In total, 1.3 percent of voters cast an overvote in one of the three races (1.1 percent of voters had their ballots invalidated by overvote). Rates of overvotes were higher in the mayoral election (0.7%) than in the District Attorney (0.5%) or Sheriff (0.4%) race. These figures are relatively low for San Francisco in comparison with previous elections. For instance, in the 2010 supervisorial elections, 1.2% of voters cast an overvote in the single contest. Importantly, however, the likelihood of overvoting is not randomly distributed across the population. We find both geographic and demographic concentrations

¹ The Census provides a list of the 100,000 most common names in the United States, by race. These data can be used to assign a probability of a race for most given American surnames. These are combined with the known ethnic breakdowns of zip codes to assign the likely race of each surname: white, black, Asian/Pacific Islander, Hispanic, Native American, and multiple race. The most recent California name data are from the 2000 Census, but we were able to update the data with 2010 zip code racial percentages. This technique yielded a strong match in over 80% of the names in the California voter file.

² A strong match by gender is yielded in over 95% of cases.

of overvotes. For instance, the rate of overvoting was as high as 9.3 percent in one San Francisco precinct. And of the 12 precincts with the highest rates of overvotes, 7 are located in the Western Addition/Japantown. Our statistical analysis of overvotes shows that precincts with higher proportions of Asian and Pacific Islander voters, Latino voters, and voters over 60 had higher overvote rates. More progressive precincts had more errors.³

Overvotes in Any of the Three Candidate Races (Mayor, District Attorney, Sheriff)⁴

(Intercept)	-0.549
pct_api	0.907**
pct_black	0.279
pct_latino	3.086**
pct_female	-0.335
pct_over60	2.607**
[AbsenteeDum=0]	-0.033
[AbsenteeDum=1]	0 ^a
PVI_11	0.007**
(Scale)	.457 ^b
model chi-2	231.186**
N	817
** - p<.01	

This pattern also holds for ballots exhausted by overvote. The below table shows the results of that analysis and the consistent pattern of correlation with age, ethnicity, and ideology.

Mayoral Ballots Exhausted by Overvote

(Intercept)	-2.431**
pct_api	1.298**
pct_black	0.688
pct_latino	3.573**
pct_female	0.073
pct_over60	3.395**
[AbsenteeDum=0]	0.082
[AbsenteeDum=1]	0^{a}
PVI_11	0.013**
(Scale)	1 ^b
model chi-2	136.986**
N	
** - p<.01	

³ It is important to acknowledge that these results are subject to the fallacy of ecological inference – that conclusions about individual behaviors should not be drawn from aggregate data. In keeping with established academic practice, we are instead making inferences about individual precincts rather than individual voters.

⁴ These tables give coefficients and standard errors for each of the predictor variables. Coefficients can be interpreted as log-odds ratios.

In short, voter error is considerably more common in some precincts than in others. It is worth noting that in the academic literature, overvotes are typically correlated with ballot features and voting technologies ("connect the arrow" systems have relatively high rates of overvotes) rather than demographic characteristics of the population.

UNDERVOTES

Undervotes occur when voters choose to skip a given contest. Colloquially, this is often referred to as "rolloff" or "dropoff." Previous research by Neely and Cook show that in early ranked choice elections in San Francisco, undervoting was less common in downballot races conducted under ranked choice voting than in the past and that precincts with higher proportions of African American, Asian, and Latino voters had lower rates of undervoting. Accordingly, we repeat that analysis here.

In the 2011 election, undervoting was generally uncommon. 93.7 percent of those who cast ballots for Mayor also voted for District Attorney and 93.5 percent voted for Sheriff. Again, we find demographic differences. In both cases, precincts with higher numbers of Asian and Pacific Islander voters were more likely to undervote in the two races and those with higher proportions of African Americans were less likely to do so. Results for other groups are mixed, but often predictable: progressive precincts were less likely to have undervotes in the Sheriff contest and absentees generally had lower rates of undervotes (but only reaching statistical significance in the Sheriff race).

Mayoral Ballots Exhausted by Overvote

	District Attorney Undervote	Sheriff Undervote
	·	
(Intercept)	2.091**	2.256**
pct_api	1.647**	1.215**
pct_black	-1.692**	-1.575**
pct_latino	-0.523	-0.086
pct_female	0.422	0.127
pct_over60	-0.013	0.65
[AbsenteeDum=0]	-0.047	-0.152
[AbsenteeDum=1]	Oª	O ^a
PVI_11	0.003	0
(Scale)	1 ^b	1 ^b
model chi-2	91.913**	99.785**
N	817	817
** - p<.01		

USE OF RANKINGS

The ballot format permits voters to rank up to three preferences in each race, but this ranking is optional; ballots containing fewer than three rankings are not disqualified. And in races with more than three candidates, it is possible for a voter to rank three choices and have the ballot "exhausted" by virtue of it not accruing to any candidate in the final round of tallying votes. Accordingly, in this section, we examine two types of ranking behaviors: bullet voting (ranking only one candidate out of the universe of candidates), and ranking three candidates, with particular attention to voters who ranked three candidates and had their ballot exhausted.

Again, most voters effectively utilized the option to rank more than one candidate on their ballot. Citywide, 8.8 percent of voters only ranked one candidate in each of the three elections. Voters were considerably more likely to rank one candidate in the Sheriff's race (37.9%) than in the Mayoral election (20.4%). Conversely, voters were more likely to rank three candidates in the Mayoral election (72.5%) than in the District Attorney (51.8%) or Sheriff (41.9%) races, respectively. 22.5% of those who ranked three choices in the mayoral election (over 30,000 voters) had their fully ranked ballot exhausted.

Ranking behaviors correlate strongly with the racial, ethnic, and age composition of the precinct. The appendices provide more detail on these points, but generally speaking, bullet voting was most common in precincts with higher proportions of Asian and Pacific Islander, Latino, and older voters; and less common among more progressive precincts and those with higher proportions of African Americans. Absentee voters were less likely to bullet vote.

Though the statistical analyses suggest strong correlations between use of the ranked choice ballot and various demographic characteristics, it remains indeterminate as to why these patterns are uncovered. There are many reasons a voter might rank fewer than three candidates – that the voter lacked information about other candidates, that s/he found no other candidates acceptable, that s/he was unaware of the option to rank three candidates, or that s/he was persuaded by a "vote for one" endorsement or campaign, among other factors. Future research is needed to discern more clearly whether variations in the number of rankings expressed by a voter is indicative of confusion or error, and whether this might to be an area of concern for election administrators.

VOTER PARTICIPATION IN THE 2011 ELECTION

Citywide, turnout was considerably lower in 2011 (42.5%) than in either the midterm election of 2010 (61.0%) or the 2008 presidential election (81.3%). Accordingly, the composition of the electorate was starkly different in comparison to previous years. In 2011, over 38% of voters were over age 60. In the high turnout presidential election of 2008, that figure was closer to 29%. Interestingly, the proportion of the electorate identified as white was lower in 2011 than in previous years. Latinos and African Americans also comprised a smaller share of the electorate, while Asian and Pacific Islander voters increased from 23% to 28% of the electorate.



FUTURE RESEARCH

As noted above, the ballot image data reported herein are instructive and highly suggestive that different populations have different experiences with the ranked choice ballot. However, absent further research, including some combination of survey research and an experimental research design it is not possible to reach definitive conclusions about the implementation of this voting system. In our view, there are several issues that require further exploration:

First, are there specific strategies that might be utilized by the city that would mitigate disparities in overvoting? Our data reveal particular geographic and demographic communities that are more likely to cast invalid ballots. Would changes in ballot design, voter education and outreach, or assistance at the polling place reduce these disparities or is this a more systematic issue?

Second, while we find substantial differences in the degree to which voters fully utilize the opportunity to articulate preference rankings in the individual races, is this indicative of voter familiarity with the complex ballot? Given the structure and logic of ranked choice ballots to produce an "instant runoff", it is important to determine why some voters are more likely to rank three choices than others and whether there might be strategies to encourage more voters to fully articulate their preferences if indeed they have ordered preferences that are not expressed on the ballot.

Third, the 2011 election was the first citywide election in which a large number of voters ranked three candidates but had their votes exhausted as a result of their ballot not indicating a preference for one of the two final candidates. Would an expansion of the number of available rankings increase the ability of individual voters to express their preferences, or would the additional columns create additional confusion and result in an increased number of errors? Or might it have little or no difference?



APPENDIX ONE: History of Ranked Choice Voting in the San Francisco Bay Area

Bay Area Ranked Choice Elections Decided on First Ballot (2004-2011)

Year	Race	Cand.	Victor	Leader	1stPlace	2ndPlace	Diff%	Final%	Second%	Margin
2004	SF-D2	5	Alioto-Pier	Alioto-Pier	61.3%	16.8%	44.5%	61.3%	16.8%	44.5%
2004	SF-D3	4	Peskin	Peskin	62.6%	17.8%	44.8%	62.6%	17.8%	44.8%
2004	SF-D9	7	Ammiano	Ammiano	50.7%	22.1%	28.7%	50.7%	22.1%	28.7%
2005	SF-CityAtty	1	Herrera	Herrera	98.1%	1.9%	96.1%	98.1%	1.9%	96.1%
2005	SF-Treasurer	3	Cisneros	Cisneros	61.4%	24.5%	36.8%	61.4%	24.5%	36.8%
2006	SF-Assessor	1	Ting	Ting	98.6%	1.4%	97.1%	98.6%	1.4%	97.1%
2006	SF-D10	7	Maxwell	Maxwell	56.2%	12.0%	44.2%	56.2%	12.0%	44.2%
2006	SF-D2	2	Alioto-Pier	Alioto-Pier	80.1%	16.4%	63.7%	80.1%	16.4%	63.7%
2006	SF-D8	3	Dufty	Dufty	66.2%	29.1%	37.2%	66.2%	29.1%	37.2%
2006	SF-PubDef	1	Adachi	Adachi	98.9%	1.2%	97.7%	98.9%	1.2%	97.7%
2007	SF-DistrictAtty	1	Harris	Harris	98.5%	1.5%	97.0%	98.5%	1.5%	97.0%
2007	SF-Mayor	12	Newsom	Newsom	73.7%	26.1%	47.6%	73.7%	26.1%	47.6%
2007	SF-Sheriff	2	Hennessy	Hennessy	73.7%	26.1%	47.6%	73.7%	26.1%	47.6%
2008	SF-D4	3	Chu	Chu	52.4%	31.2%	21.2%	52.4%	31.2%	21.2%
2008	SF-D5	3	Mirkarimi	Mirkarimi	77.4%	16.8%	60.6%	77.4%	16.8%	60.6%
2008	SF-D7	3	Elsbernd	Elsbernd	71.1%	18.7%	52.4%	71.1%	18.7%	52.4%
2009	SF-CityAtty	1	Herrera	Herrera	96.8%	3.2%	93.7%	96.8%	3.2%	93.7%
2009	SF-Treasurer	1	Cisneros	Cisneros	97.7%	2.9%	94.8%	97.7%	2.9%	94.8%
	Berkeley-									
2010	Auditor	1	Hogan	Hogan	97.8%	2.2%	95.5%	97.8%	2.2%	95.5%
2010	Berkeley-D1	4	Maio	Maio	65.5%	22.4%	43.1%	65.5%	22.4%	43.1%
2010	Berkeley-D4	4	Arreguin	Arreguin	53.5%	31.4%	22.0%	53.5%	31.4%	22.0%
2010	Berkeley-D8	3	Wozniak	Wozniak	61.0%	19.3%	41.7%	61.0%	19.3%	41.7%
2010	Oak-Auditor	2	Ruby	Ruby	66.9%	31.8%	35.1%	66.9%	31.8%	35.1%
2010	Oak-D2	2	Kernighan	Kernighan	65.7%	33.8%	31.9%	65.7%	33.8%	31.9%
2010	Oak-D6	3	Brooks	Brooks	64.2%	21.4%	42.7%	64.2%	21.4%	42.7%
2010	OUSD - D2	1	Kakashiba	Kakashiba	97.7%	2.3%	95.4%	97.7%	2.3%	95.4%
2010	OUSD - D4	2	Yee	Yee	68.7%	30.5%	38.1%	68.7%	30.5%	38.1%
2010	OUSD - D6	1	Dobbins	Dobbins	97.5%	2.5%	94.9%	97.5%	2.5%	94.9%



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2010	SF-Assessor	2	Ting	Ting	79.7%	20.0%	59.7%	79.7%	20.0%	59.7%
2010	SF-D4	1	Chu	Chu	98.6%	1.4%	97.1%	98.6%	1.4%	97.1%
2010	SF-PubDef	1	Adachi	Adachi	98.9%	1.2%	97.7%	98.9%	1.2%	97.7%
2010	SL-D1	2	Gregory	Gregory	65.0%	33.6%	31.4%	65.0%	33.6%	31.4%
2010	SL-D3	1	Souza	Souza	97.1%	2.9%	94.3%	97.1%	2.9%	94.3%
2010	SL-D5	2	Cutter	Cutter	53.1%	45.8%	7.4%	53.1%	45.8%	7.4%

Bay Area Ranked Choice Elections Decided by Instant Runoff Procedure (2004-2011)

											Actual	Change from
Year	Race	Cand.	Victor	Leader	1stPlace	2ndPlace	Diff%	Final%	Second%	Margin	%	Initial
2004	SF-D1	7	McGoldrick	McGoldrick	41.1%	31.2%	9.9%	54.0%	46.0%	8.0%	47.7%	-1.9%
2004	SF-D11	8	Sandoval	Sandoval	32.2%	18.5%	13.8%	58.3%	41.7%	16.7%	46.1%	2.9%
2004	SF-D5	22	Mirkarimi	Mirkarimi	28.4%	14.6%	13.8%	50.6%	27.9%	22.8%	NA	8.9%
2004	SF-D7	13	Elsbernd	Elsbernd	33.2%	21.5%	11.8%	56.9%	43.1%	13.8%	43.7%	2.0%
2005	SF-Assessor	4	Ting	Ting	47.7%	36.2%	11.6%	51.1%	41.9%	9.3%	55.2%	-2.3%
2006	SF-D6	8	Daly	Daly	48.8%	39.8%	9.1%	50.8%	41.4%	9.4%	NA	0.4%
2006	SF-D4	6	Jew	Jew	26.2%	26.0%	0.3%	52.5%	47.5%	5.0%	42.3%	4.8%
2008	SF-D1	9	Mar	Mar	40.5%	33.9%	6.6%	50.7%	49.3%	1.3%	45.7%	-5.3%
2008	SF-D3	9	Chiu	Chiu	37.7%	23.2%	14.6%	59.4%	40.6%	18.7%	49.9%	4.2%
2008	SF-D9	7	Campos	Campos	35.8%	28.9%	6.9%	53.8%	46.2%	7.7%	47.7%	0.7%
2008	SF-D11	9	Avalos	Avalos	28.2%	24.2%	4.0%	52.9%	47.1%	5.9%	41.4%	1.9%
2010	Berkeley-D7	4	Worthington	Worthington	49.7%	34.4%	15.3%	50.1%	34.6%	15.5%	NA	0.2%
2010	Oak-D4	7	Schaaf	Schaaf	41.7%	22.9%	18.8%	53.1%	29.6%	23.4%	NA	4.6%
2010	Oak-Mayor	10	Quan	Perata	24.5%	33.7%	-9.3%	51.0%	49.0%	1.9%	45.3%	11.2%
2010	SF-D6	14	Kim	Kim	31.4%	26.9%	4.5%	54.1%	45.9%	8.2%	42.1%	3.7%
2010	SF-D8	4	Weiner	Weiner	42.4%	35.6%	6.8%	55.4%	44.6%	10.8%	52.2%	4.0%
2010	SF-D2	6	Farrell	Reilly	40.3%	41.1%	-0.8%	50.6%	49.4%	1.1%	47.4%	2.0%
2010	SL-Mayor	5	Cassidy	Santos	35.2%	35.5%	-0.3%	50.6%	49.4%	1.1%	45.7%	1.5%
2010	SF-D10	21	Cohen	Kelly	11.8%	12.1%	-0.3%	52.7%	47.3%	5.4%	24.4%	5.7%
2011	SF-Mayor	16	Lee	Lee	31.1%	18.7%	12.4%	60.4%	39.6%	20.9%	44.2%	8.4%
2011	SF-DistrictAtty	5	Gascon	Gascon	41.9%	23.2%	18.7%	62.8%	37.2%	25.5%	55.1%	6.9%
2011	SF-Sheriff	4	Mirkarimi	Mirkarimi	38.0%	28.3%	9.7%	53.2%	46.9%	6.3%	46.9%	-3.4%

APPENDIX TWO: Summary Table of Negative Binomial Event Count Models

	Overvotes in any race: Mayor, DA, Sheriff	One vote in each of three races: Mayor, DA, Sheriff	Voted in Mayoral, not DA	Voted in Mayoral, not Sheriff	Overvote in any of three rankings - Mayoral	Ballot exhausted by overvote - Mayoral	Ranked one choice - Mayoral	Ranked three choices - Mayoral	Ranked three in Mayoral – had exhausted ballot
(Intercept)	-0.549	2.83	2.091	2.256	-2.115	-2.431	3.259	5.136	4.739
pct_api	0.907	0.462	1.647	1.215	1.229	1.298	0.743	0.629	-0.344
pct_black	0.279	-0.461	-1.692	-1.575	0.62	0.688	-0.443	-1.503	-1.338
pct_latino	3.086	1.102	-0.523	-0.086	3.649	3.573	0.918	0.242	-1.419
pct_female	-0.335	-0.086	0.422	0.127	0.11	0.073	0.011	-0.124	-1.046
pct_over60	2.607	1.327	-0.013	0.65	3.378	3.395	1.176	-0.102	0.463
[AbsenteeDum=0]	-0.033	-0.139	-0.047	-0.152	0.001	0.082	-0.137	-0.209	-0.311
[AbsenteeDum=1]	0 ^a	0 ^a	0 ^a	0 ^a	0 ^a	0 ^a	0 ^a	0 ^a	0 ^a
PVI_11	0.007	-0.007	0.003	0	0.012	0.013	-0.005	0.002	-0.008
(Scale)	.457 ^b	.257 ^b	1 ^b	1 ^b	1 ^b	1 ^b	1 ^b	1 ^b	1 ^b
model chi-2	231.186	332.287	91.913	99.785	150.901	136.986	88.147	39.477	76.752
N	817	817	817	817	817	817	817	817	817

	Ranked one choice - DA	Ranked one choice - Sheriff	Vote for progressive first in each of three races: Mayor, DA, Sheriff	Vote for moderate first in each of three races: Mayor, DA, Sheriff	Vote for SFBG slate for Mayor	Vote for DCCC slate for Mayor	Gascon and Onek are not ranked - first, second, or third	Cunnie and Mirkarimi are not ranked - first, second, or third
(Intercept)	4.481	4.098	1.951	5.268	0.401	1.273	3.294	3.589
pct_api	0.013	0.065	-0.25	1.024	-0.029	-0.163	1.443	1.495
pct_black	-1.108	-1.497	-2.353	-0.971	-3.256	-2.358	-0.758	-1.006
pct_latino	0.368	0.391	0.692	-0.109	0.344	1.849	-0.013	0.82
pct_female	-0.389	0.39	0.714	-0.727	0.926	0.841	0.277	-0.061
pct_over60	0.586	0.095	-0.613	0.267	-0.667	-0.546	0.64	0.67
[AbsenteeDum=0]	-0.272	-0.118	0.155	-0.44	0.317	0.244	-0.028	-0.225
[AbsenteeDum=1]	0 ^a	0 ^a	0 ^a	0 ^a	0 ^a	O ^a	0 ^a	0 ^a
PVI_11	-0.006	0.003	0.024	-0.016	0.024	0.022	-0.004	-0.007
(Scale)	1 ^b	1 ^b	1 ^b	1 ^b	1 ^b	1 ^b	1 ^b	1 ^b
model chi-2	55.649	24.797	283.876	221.355	271.316	263.791	110.99	170.708
N	817	817	817	817	817	817	817	817
	red - p<.05	blue - p<.01	a-set to zero because parameter is redundant	b-Fixed at displayed value				

APPENDIX THREE: 2011 Ranked Choice Voting Descriptive Statistics

	Overall	Mayor	District Attorney	Sheriff
Voters	197,243	195,238	184,046	183,611
Three Overvotes	108	N/A	N/A	N/A
Three Bullet Votes	17,387	N/A	N/A	N/A
Undervote - District Attorney	12,360	N/A	N/A	N/A
Undervote - Sheriff	12,818	N/A	N/A	N/A
Any Overvote	2,530	1,383	935	657
Exhausted by Overvote	2,249	1,098	685	466
Ranked None	N/A	2,488	13,443	13,824
Ranked One	N/A	39,835	48,011	69,642
Ranked Two	N/A	22,330	40,470	36,779
Ranked Three	N/A	141,589	95,318	76,997
Ranked Three Exhausted	N/A	31,826	2,517	0
	Overall	Mayor	District Attorney	Sheriff
Voters	197,243	195,238	184,046	183,611
Three Overvotes	0.1%	N/A	N/A	N/A
Three Bullet Votes	8.8%	N/A	N/A	N/A
Undervote - District Attorney	6.3%	N/A	N/A	N/A
Undervote - Sheriff	6.5%	N/A	N/A	N/A
Any Overvote	1.3%	0.7%	0.5%	0.4%
Exhausted by Overvote	1.1%	0.6%	0.4%	0.3%
Ranked None	N/A	1.3%	7.3%	7.5%
Ranked One	N/A	20.4%	26.1%	37.9%
Ranked Two	N/A	11.4%	22.0%	20.0%
Ranked Three	N/A	72.5%	51.8%	41.9%
Ranked Three Exhausted	N/A	22.5%	2.6%	0.0%



APPENDIX FOUR: 2010 Ranked Choice Voting Descriptive Statistics

COMBINED					% of The	ose Votin	ıg		% of thos Ballots	e casting V	alid
	Oakland	San Leandro	San Francisco	Total	Oak%	SL%	SF%	Total	Oak%	SL%	SF%
Ballots	122,268	23,494	113,068	258,830							
Roll Off	2,306	955	14,109	17,370	1.9%	4.1%	12.5%	6.7%	N/A	N/A	N/A
OV Error	1,067	89	1,367	2,523	0.9%	0.4%	1.2%	1.0%	N/A	N/A	N/A
Ranked Three	95,691	13,636	50,972	160,299	78.3%	58.0%	45.1%	61.9%	80.5%	60.7%	52.2%
Ranked One	17,021	5,450	28,278	50,749	13.9%	23.2%	25.0%	19.6%	14.3%	24.3%	29.0%
ABSENTEE											
	Oakland	San Leandro	San Francisco	Total	Oak%	SL%	SF%	Total	Oak%	SL%	SF%
Ballots	64,697	13,711	55,755	134,163							
Roll Off	964	384	5,127	6,475	1.5%	2.8%	9.2%	4.8%	N/A	N/A	N/A
OV Error	741	42	629	1,412	1.1%	0.3%	1.1%	1.1%	N/A	N/A	N/A
Ranked Three	50,574	8,421	25,719	84,714	78.2%	61.4%	46.1%	63.1%	80.3%	63.4%	51.4%
Ranked One	8,325	2,958	14,614	25,897	12.9%	21.6%	26.2%	19.3%	13.2%	22.3%	29.2%

REGULAR											
	Oakland	San Leandro	San Francisco	Total	Oak%	SL%	SF%	Total	Oak%	SL%	SF%
Ballots	57,571	9,783	57,313	124,667							
Roll Off	1,342	571	8,982	10,895	2.3%	5.8%	15.7%	8.7%	N/A	N/A	N/A
OV Error	326	47	738	1,111	0.6%	0.5%	1.3%	0.9%	N/A	N/A	N/A
Ranked Three	45,117	5,215	25,253	75 <i>,</i> 585	78.4%	53.3%	44.1%	60.6%	80.7%	56.9%	53.1%
Ranked One	8,696	2,492	13,664	24,852	15.1%	25.5%	23.8%	19.9%	15.6%	27.2%	28.7%

APPENDIX FIVE: Turnout Figures for 2011, 2010, 2008, Citywide and by Neighborhood

Demographic Profile of the Citywide Electorate 2008, 2010, and 2011

	2011	2010	2008
Gender			
Female	48.3%	48.7%	50.3%
Male	51.7%	51.3%	49.7%
Partisan Affiliation			
Democratic Party	59.4%	59.7%	58.7%
Decline to State	26.6%	26.3%	27.6%
Republican Party	9.9%	9.8%	9.4%
Other party	4.0%	4.3%	4.3%
Age			
19-29	7.6%	11.6%	10.0%
30-39	16.0%	20.6%	23.3%
40-49	18.8%	19.8%	20.6%
50-59	19.4%	17.9%	16.7%
60-69	18.6%	15.3%	14.2%
70+	19.5%	14.8%	15.3%
Race and Ethnicity			
White	59.3%	63.4%	61.1%
Asian and Pacific Islander	28.1%	22.9%	23.9%
Latino	8.3%	9.0%	9.7%
African American	3.5%	3.9%	4.4%
Other	0.7%	0.8%	0.9%
Total Voters	195,681	283,384	366,039



APPENDIX SIX: Turnout Demographic Figures for 2011, 2010, 2008, Citywide and by Neighborhood

Neighborhood	Voters	Voters	Voters	Female	Female	Female	Male	Male	Male	Democratic Party	Democratic Party	Democratic Party
	2011	2010	2008	2011	2010	2008	2011	2010	2008	2011	2010	2008
Bayview/Hunter's Point	5274	7643	10,670	54.8%	55.5%	56.4%	45.2%	44.5%	43.6%	66.7%	69.1%	70.7%
Bernal Heights	7236	10156	12,512	51.3%	52.3%	52.5%	48.7%	47.7%	47.5%	69.6%	69.4%	67.8%
Castro/Eureka Valley	9394	13885	16,294	32.6%	34.2%	35.9%	67.4%	65.8%	64.1%	72.9%	71.2%	69.7%
Chinatown	2711	3004	4,171	54.2%	52.8%	54.5%	45.8%	47.2%	45.5%	41.5%	42.5%	42.3%
Excelsior/OMI	13390	17032	22,881	52.4%	52.7%	53.3%	47.6%	47.3%	46.7%	57.7%	59.9%	59.7%
FinDist/Barbary Coast	1169	1576	1,974	48.0%	48.1%	48.3%	52.0%	51.9%	51.7%	54.0%	55.0%	52.2%
Glen Park/Diamond Hgts	4835	6771	7,990	42.4%	42.7%	43.7%	57.6%	57.3%	56.3%	69.7%	68.8%	67.8%
Haight/Cole Valley	3514	5735	7,258	46.6%	48.5%	50.1%	53.4%	51.5%	49.9%	66.8%	65.3%	63.1%
Hayes Valley	4631	7497	9,942	40.5%	42.6%	44.8%	59.5%	57.4%	55.2%	65.5%	64.0%	63.5%
Inner Richmond/USF	6034	8595	11,392	51.4%	52.3%	53.1%	48.6%	47.7%	46.9%	56.5%	57.5%	56.2%
Inner Sunset	3821	6013	7,693	50.7%	51.8%	53.0%	49.3%	48.2%	47.0%	62.6%	62.3%	60.5%
Marina/Cow Hollow/Pac												
Heights/Presidio	17220	28545	37,848	51.7%	52.6%	54.8%	48.3%	47.4%	45.2%	54.1%	52.7%	51.9%
Merced/SFSU/Sunnyside	8577	11736	15,299	51.1%	51.2%	53.6%	48.9%	48.8%	46.4%	56.8%	56.9%	57.0%
Mission	12295	18640	23,511	47.1%	47.4%	48.9%	52.9%	52.6%	51.1%	63.8%	63.5%	61.5%
Nob Hill	2208	3364	4,621	49.7%	50.3%	53.5%	50.3%	49.7%	46.5%	50.9%	52.8%	51.5%
Noe Valley	8412	12508	14,757	47.6%	48.4%	49.2%	52.4%	51.6%	50.8%	71.4%	69.6%	67.7%
North Beach/Telegraph Hill	2950	4258	5,721	48.2%	48.6%	49.8%	51.8%	51.4%	50.2%	55.1%	56.4%	54.0%
Outer Richmond	10993	14879	19,614	51.0%	51.3%	52.8%	49.0%	48.7%	47.2%	54.6%	55.6%	54.5%
Outer Sunset/Parkside	18200	23596	31,012	50.8%	50.5%	51.9%	49.2%	49.5%	48.1%	50.1%	51.4%	50.6%
Polk Gulch/Russian Hill	5729	8656	11,659	45.7%	46.6%	48.8%	54.3%	53.4%	51.2%	55.6%	55.4%	55.6%
Portola/VisValley/Crocker	9526	12069	15,979	52.5%	52.7%	53.6%	47.5%	47.3%	46.4%	55.5%	57.8%	58.5%
Potrero/Dogpatch	4327	6442	8,899	46.8%	47.2%	48.0%	53.2%	52.8%	52.0%	66.4%	63.9%	62.1%
SOMA/Mission Bay/Treasure Isl	7414	12134	14,878	40.7%	40.3%	42.7%	59.3%	59.7%	57.3%	55.2%	55.4%	55.6%
Tenderloin	4960	7553	10,010	37.4%	38.1%	40.8%	62.6%	61.9%	59.2%	56.9%	58.5%	58.6%
West of Twin Peaks	12000	16908	20,591	49.1%	49.7%	50.7%	50.9%	50.3%	49.3%	56.7%	57.7%	56.6%
Western												
Addition/Fillmore/Japantown	8861	14189	18,863	50.4%	50.5%	52.8%	49.6%	49.5%	47.2%	64.9%	63.8%	63.0%
Citywide	195681	283384	366,039	48.3%	48.7%	50.3%	51.7%	51.3%	49.7%	59.4%	59.7%	58.7%

	Republican	Republican	Republican	Decline	Decline	Decline	Other	Other	Other			
Neighborhood	Party	Party	Party	to State	to State	to State	party	party	party	18-29	18-29	18-29
	2011	2010	2008	2011	2010	2008	2011	2010	2008	2011	2010	2008
Bayview/Hunter's Point	4.1%	4.7%	4.0%	26.5%	23.3%	22.1%	2.7%	2.9%	3.1%	8.7%	12.1%	12.9%
Bernal Heights	4.3%	4.3%	4.5%	20.7%	21.2%	22.5%	5.4%	5.1%	5.2%	6.7%	8.5%	7.4%
Castro/Eureka Valley	4.4%	4.4%	4.3%	18.1%	20.1%	21.5%	4.6%	4.3%	4.5%	6.4%	9.9%	5.9%
Chinatown	7.7%	9.0%	8.1%	48.6%	45.3%	46.4%	2.1%	3.2%	3.2%	5.8%	10.5%	10.4%
Excelsior/OMI	7.4%	7.6%	7.4%	31.4%	28.9%	29.2%	3.5%	3.6%	3.7%	8.5%	11.6%	11.7%
FinDist/Barbary Coast	15.8%	16.8%	15.9%	26.9%	25.4%	28.9%	3.3%	2.8%	3.0%	4.6%	7.6%	7.1%
Glen Park/Diamond Hgts	8.0%	7.7%	7.7%	18.4%	19.5%	20.8%	3.9%	4.0%	3.8%	3.2%	5.3%	4.6%
Haight/Cole Valley	4.8%	4.7%	4.6%	22.2%	24.1%	26.3%	6.2%	5.8%	6.0%	9.8%	14.3%	9.9%
Hayes Valley	3.0%	3.5%	3.1%	25.4%	26.4%	27.0%	6.1%	6.2%	6.4%	12.6%	18.5%	12.1%
Inner Richmond/USF	10.6%	9.7%	9.4%	29.1%	28.6%	30.2%	3.9%	4.2%	4.1%	11.2%	16.4%	15.5%
Inner Sunset	6.5%	6.4%	6.3%	25.4%	26.1%	27.8%	5.4%	5.2%	5.3%	11.3%	16.5%	12.1%
Marina/Cow Hollow/Pac												
Heights/Presidio	20.5%	19.5%	18.7%	22.1%	24.2%	26.0%	3.3%	3.5%	3.5%	6.2%	10.7%	7.9%
Merced/SFSU/Sunnyside	15.6%	14.7%	13.2%	24.4%	24.5%	26.1%	3.2%	3.8%	3.7%	7.1%	13.7%	17.6%
Mission	4.1%	4.2%	4.1%	26.2%	26.3%	28.1%	5.9%	6.0%	6.3%	11.6%	15.1%	10.5%
Nob Hill	16.9%	15.4%	13.9%	28.7%	27.8%	30.3%	3.6%	4.0%	4.3%	8.6%	15.5%	12.6%
Noe Valley	5.7%	5.5%	5.5%	18.7%	21.0%	22.6%	4.1%	3.9%	4.2%	5.4%	8.0%	5.9%
North Beach/Telegraph Hill	11.4%	11.0%	10.5%	30.1%	28.8%	31.4%	3.4%	3.8%	4.0%	6.2%	11.3%	9.3%
Outer Richmond	11.7%	11.5%	11.0%	30.2%	28.9%	30.6%	3.5%	4.1%	4.0%	6.7%	10.0%	9.4%
Outer Sunset/Parkside	12.0%	11.8%	11.3%	34.3%	32.8%	34.1%	3.6%	4.0%	4.0%	7.5%	11.7%	11.0%
Polk Gulch/Russian Hill	12.5%	12.2%	11.5%	27.6%	27.8%	28.4%	4.3%	4.7%	4.5%	6.7%	12.4%	10.0%
Portola/VisValley/Crocker	8.4%	8.7%	8.3%	33.3%	30.5%	30.1%	2.8%	3.0%	3.0%	8.1%	10.3%	11.0%
Potrero/Dogpatch	6.1%	6.0%	5.8%	22.5%	24.8%	26.5%	5.0%	5.3%	5.6%	5.3%	8.5%	5.8%
SOMA/Mission Bay/Treasure Isl	9.1%	9.7%	9.4%	31.8%	30.6%	30.8%	4.0%	4.3%	4.3%	7.3%	11.8%	8.3%
Tenderloin	7.4%	7.0%	6.5%	29.9%	28.9%	29.6%	5.7%	5.5%	5.3%	7.5%	12.5%	12.4%
West of Twin Peaks	17.6%	16.5%	15.9%	22.7%	22.4%	24.1%	3.1%	3.4%	3.4%	5.9%	8.2%	8.0%
Western												
Addition/Fillmore/Japantown	7.0%	6.7%	6.3%	23.3%	24.5%	25.4%	4.8%	5.1%	5.4%	9.0%	13.4%	10.5%
Citywide	9.9%	9.8%	9.4%	26.6%	26.3%	27.6%	4.0%	4.3%	4.3%	7.6%	11.6%	10.0%

Neighborhood	30-39	30-39	30-39	40-49	40-49	40-49	50-59	50-59	50-59	60-69	60-69	60-69
	2011	2010	2008	2011	2010	2008	2011	2010	2008	2011	2010	2008
Bayview/Hunter's Point	11.0%	13.9%	16.5%	16.7%	18.5%	18.3%	22.9%	22.3%	21.0%	19.4%	16.9%	14.8%
Bernal Heights	19.2%	22.3%	21.7%	22.9%	24.7%	25.7%	21.8%	20.2%	19.4%	17.3%	14.6%	14.6%
Castro/Eureka Valley	20.1%	23.9%	25.8%	25.2%	26.1%	27.3%	21.9%	19.7%	19.5%	16.3%	13.0%	13.1%
Chinatown	8.0%	11.5%	15.7%	11.0%	12.2%	12.0%	14.3%	14.0%	12.7%	20.0%	16.6%	14.0%
Excelsior/OMI	11.7%	13.8%	16.2%	17.1%	17.6%	16.8%	20.9%	20.4%	18.7%	20.7%	18.3%	17.1%
FinDist/Barbary Coast	10.4%	14.2%	17.1%	10.9%	12.4%	14.2%	14.3%	15.1%	15.5%	25.5%	23.2%	20.0%
Glen Park/Diamond Hgts	12.0%	16.2%	16.8%	21.9%	23.5%	24.2%	23.2%	22.3%	21.4%	21.6%	18.7%	17.8%
Haight/Cole Valley	23.1%	29.6%	33.5%	23.1%	22.1%	24.3%	17.0%	14.7%	13.7%	17.4%	12.9%	11.8%
Hayes Valley	27.1%	30.5%	34.9%	19.8%	20.1%	22.1%	17.1%	14.1%	13.7%	13.3%	9.8%	9.9%
Inner Richmond/USF	17.1%	21.6%	23.8%	18.7%	18.8%	19.8%	17.7%	16.2%	14.7%	17.1%	13.9%	13.1%
Inner Sunset	22.1%	27.3%	30.9%	19.3%	18.6%	20.4%	17.2%	15.1%	14.1%	17.8%	13.6%	13.0%
Marina/Cow Hollow/Pac												
Heights/Presidio	16.1%	23.5%	28.7%	17.9%	19.6%	21.4%	16.6%	14.9%	13.3%	18.8%	14.9%	12.6%
Merced/SFSU/Sunnyside	10.3%	12.0%	13.4%	16.1%	17.1%	15.9%	21.2%	20.0%	17.7%	21.9%	18.2%	16.5%
Mission	27.0%	30.3%	32.8%	22.6%	22.1%	23.8%	15.3%	13.9%	13.5%	12.5%	10.2%	9.9%
Nob Hill	14.0%	20.7%	27.3%	13.6%	15.1%	16.2%	18.0%	14.9%	13.7%	20.7%	16.0%	13.7%
Noe Valley	18.8%	24.1%	24.6%	22.8%	24.4%	26.0%	21.2%	19.0%	18.6%	19.2%	15.3%	15.0%
North Beach/Telegraph Hill	14.3%	20.1%	24.5%	15.0%	16.9%	17.7%	17.5%	16.5%	14.9%	21.1%	17.1%	15.2%
Outer Richmond	12.4%	16.5%	18.8%	17.5%	19.2%	19.7%	20.5%	19.6%	17.9%	21.0%	17.1%	16.4%
Outer Sunset/Parkside	12.0%	15.2%	17.7%	17.3%	18.1%	17.9%	20.8%	19.8%	18.3%	20.0%	16.8%	15.9%
Polk Gulch/Russian Hill	15.2%	20.9%	26.3%	14.9%	16.5%	17.8%	19.1%	16.6%	15.0%	19.4%	16.1%	14.1%
Portola/VisValley/Crocker	10.6%	12.7%	15.5%	16.5%	17.7%	16.8%	21.4%	21.0%	19.5%	20.0%	17.8%	16.4%
Potrero/Dogpatch	22.9%	29.2%	29.6%	26.1%	25.7%	29.1%	19.2%	17.0%	16.2%	16.4%	12.6%	11.8%
SOMA/Mission Bay/Treasure Isl	22.6%	28.7%	31.2%	20.6%	21.0%	23.6%	17.7%	16.1%	14.9%	14.0%	10.7%	10.4%
Tenderloin	13.9%	17.0%	20.7%	15.5%	17.2%	16.4%	21.1%	20.3%	17.8%	19.2%	16.4%	15.8%
West of Twin Peaks	10.1%	13.4%	14.2%	17.8%	19.2%	19.1%	22.2%	22.0%	20.7%	21.9%	19.1%	18.4%
Western												
Addition/Fillmore/Japantown	19.7%	25.2%	29.0%	17.9%	18.1%	19.6%	14.6%	13.2%	12.5%	16.1%	12.8%	11.2%
Citywide	16.0%	20.6%	23.3%	18.8%	19.8%	20.6%	19.4%	17.9%	16.7%	18.6%	15.3%	14.2%

Neighborhood	70+ 2011	70+ 2010	70+ 2008	White 2011	White 2010	White 2008	Asian and Pacific Islander 2011	Asian and Pacific Islander 2010	Asian and Pacific Islander 2008	Latino 2011	Latino 2010	Latino 2008
Bayview/Hunter's Point	21.2%	16.4%	16.5%	5.1%	4.3%	5.0%	33.0%	24.5%	21.1%	9.6%	10.7%	11.4%
Bernal Heights	12.1%	9.7%	11.2%	69.6%	69.9%	66.6%	10.3%	8.9%	9.4%	18.6%	19.7%	22.4%
Castro/Eureka Valley	10.1%	7.3%	8.4%	85.6%	85.5%	84.5%	6.8%	6.6%	6.8%	6.4%	6.7%	7.3%
Chinatown	41.0%	35.2%	35.2%	18.7%	28.6%	28.2%	79.8%	69.6%	69.9%	1.3%	1.6%	1.6%
Excelsior/OMI	21.1%	18.4%	19.5%	32.0%	34.1%	32.6%	42.3%	36.1%	35.5%	20.5%	23.9%	25.6%
FinDist/Barbary Coast	34.3%	27.5%	26.2%	72.7%	74.2%	70.2%	24.6%	21.8%	24.9%	2.1%	3.1%	3.8%
Glen Park/Diamond Hgts	18.1%	13.9%	15.3%	78.1%	78.6%	76.8%	13.7%	12.2%	13.5%	7.2%	8.1%	8.2%
Haight/Cole Valley	9.6%	6.4%	6.7%	86.8%	88.0%	86.6%	6.0%	5.7%	6.6%	5.1%	4.7%	4.9%
Hayes Valley	10.1%	6.9%	7.3%	77.1%	77.8%	76.3%	9.1%	8.4%	8.9%	7.2%	6.9%	7.3%
Inner Richmond/USF	18.1%	13.1%	13.3%	57.6%	63.7%	61.0%	38.3%	31.3%	33.6%	3.7%	4.5%	4.6%
Inner Sunset	12.3%	8.9%	9.5%	71.7%	74.6%	71.7%	22.3%	20.1%	22.6%	4.7%	4.4%	4.6%
Marina/Cow Hollow/Pac												
Heights/Presidio	24.5%	16.5%	16.1%	83.9%	85.2%	83.6%	11.9%	10.3%	11.6%	2.8%	3.1%	3.3%
Merced/SFSU/Sunnyside	23.4%	19.0%	18.8%	59.0%	61.0%	58.6%	29.5%	25.1%	26.9%	7.7%	9.7%	10.3%
Mission	10.9%	8.4%	9.4%	63.9%	65.5%	63.3%	11.0%	10.1%	9.5%	23.2%	22.5%	25.0%
Nob Hill	25.1%	17.8%	16.6%	59.9%	68.6%	67.4%	36.0%	26.9%	27.6%	3.3%	3.8%	4.0%
Noe Valley	12.6%	9.1%	9.9%	83.9%	83.4%	82.4%	7.5%	7.5%	7.9%	7.7%	8.3%	8.5%
North Beach/Telegraph Hill	25.8%	18.2%	18.4%	63.1%	70.0%	67.4%	34.7%	26.9%	29.1%	1.8%	2.6%	2.9%
Outer Richmond	21.9%	17.5%	17.7%	48.6%	55.8%	53.1%	47.8%	40.0%	42.3%	2.8%	3.5%	3.8%
Outer Sunset/Parkside	22.4%	18.5%	19.1%	41.4%	47.9%	45.0%	54.6%	47.4%	49.8%	3.1%	3.8%	4.1%
Polk Gulch/Russian Hill	24.7%	17.6%	16.8%	66.3%	72.3%	71.4%	29.2%	22.3%	22.3%	3.6%	4.5%	5.0%
Portola/VisValley/Crocker	23.3%	20.5%	20.7%	17.1%	17.5%	16.9%	53.3%	47.2%	44.2%	16.4%	20.0%	21.8%
Potrero/Dogpatch	10.2%	7.1%	7.5%	78.0%	78.9%	76.7%	11.4%	10.8%	11.1%	7.9%	7.6%	8.5%
SOMA/Mission Bay/Treasure Isl	17.8%	11.7%	11.6%	58.0%	63.1%	62.4%	27.7%	22.0%	22.5%	7.7%	7.8%	8.4%
Tenderloin	22.8%	16.6%	16.8%	59.5%	63.4%	63.5%	25.6%	20.5%	20.2%	8.8%	9.2%	9.3%
West of Twin Peaks	22.2%	18.2%	19.5%	66.8%	69.1%	66.4%	28.5%	25.5%	28.0%	3.6%	4.3%	4.5%
Western												
Addition/Fillmore/Japantown	22.6%	17.2%	17.2%	72.5%	74.7%	74.3%	15.4%	12.7%	12.4%	5.3%	5.7%	5.7%
Citywide	19.5%	14.8%	15.3%	59.3%	63.4%	61.1%	28.1%	22.9%	23.9%	8.3%	9.0%	9.7%

Neighborhood	African American 2011	African American 2010	African American 2008	Other 2011	Other 2010	Other 2008
Bayview/Hunter's Point	51.2%	59.4%	61.6%	1.2%	1.1%	0.9%
Bernal Heights	0.7%	0.8%	0.9%	0.8%	0.8%	0.8%
Castro/Eureka Valley	0.7%	0.6%	0.8%	0.5%	0.5%	0.6%
Chinatown	0.1%	0.0%	0.1%	0.1%	0.1%	0.2%
Excelsior/OMI	4.5%	5.3%	5.7%	0.6%	0.6%	0.7%
FinDist/Barbary Coast	0.1%	0.2%	0.6%	0.5%	0.7%	0.5%
Glen Park/Diamond Hgts	0.4%	0.4%	0.6%	0.7%	0.8%	0.9%
Haight/Cole Valley	1.5%	1.0%	1.3%	0.7%	0.6%	0.7%
Hayes Valley	5.8%	5.9%	6.4%	0.7%	0.9%	1.1%
Inner Richmond/USF	0.1%	0.1%	0.2%	0.3%	0.4%	0.6%
Inner Sunset	0.3%	0.2%	0.3%	0.9%	0.8%	0.8%
Marina/Cow Hollow/Pac						
Heights/Presidio	0.9%	0.9%	0.9%	0.5%	0.5%	0.6%
Merced/SFSU/Sunnyside	2.5%	2.7%	2.6%	1.3%	1.4%	1.5%
Mission	1.2%	1.2%	1.4%	0.7%	0.7%	0.8%
Nob Hill	0.2%	0.1%	0.3%	0.7%	0.7%	0.7%
Noe Valley	0.2%	0.1%	0.4%	0.7%	0.7%	0.8%
North Beach/Telegraph Hill	0.2%	0.1%	0.2%	0.2%	0.3%	0.4%
Outer Richmond	0.1%	0.0%	0.1%	0.6%	0.7%	0.7%
Outer Sunset/Parkside	0.1%	0.0%	0.1%	0.8%	0.9%	1.0%
Polk Gulch/Russian Hill	0.4%	0.3%	0.5%	0.5%	0.6%	0.8%
Portola/VisValley/Crocker	12.6%	14.7%	16.4%	0.6%	0.6%	0.7%
Potrero/Dogpatch	2.1%	2.1%	3.0%	0.5%	0.5%	0.6%
SOMA/Mission Bay/Treasure Isl	4.4%	4.6%	4.4%	2.2%	2.5%	2.3%
Tenderloin	5.3%	5.9%	5.7%	0.8%	1.0%	1.3%
West of Twin Peaks	0.2%	0.2%	0.2%	0.8%	0.9%	0.9%
Western						
Addition/Fillmore/Japantown	6.1%	6.2%	6.8%	0.7%	0.6%	0.7%
Citywide	3.5%	3.9%	4.4%	0.7%	0.8%	0.9%