

# A Preliminary Look at the San Francisco RCV Results, November 2, 2004 General Election.

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## Introduction

As the analysts and pundits dissect the results from the recent election, I wanted to take an initial statistical look at the returns from the districts in which RCV voting was employed: 1, 5, 7, and 11. In districts 2, 3, and 9, the incumbents won on the first round, negating the need for RCV.

These data are as of the **11/5/2004**<sup>1</sup> passes. I realize the results will continue to change slightly as the provisional ballots and the remaining absentee ballots are counted by DOE. Still, after examining the first couple RCV iterations, it is unlikely the results will change enough to alter the outcome, except perhaps at the margins. It is important to note that I also only use ballots where three different candidates were ranked, so some ballots, including bullet ballots, are not counted here.

Researchers in San Francisco will be undertaking serious examinations of RCV. This includes, for example, the Policy Research Institute at SFSU. Their exit polling data should help shed light on the mechanics of RCV. Nonetheless, I wanted to analyze the *political* results of RCV. I do not discuss the philosophy behind RCV, or whether it is a good system or not. Serious questions will have to be addressed, however. For example, did confusion over the voting disproportionately affect certain segments of the population? A thorough examination of rejected and exhausted ballots will shed some light on this.

In the final summation, RCV is another voting method in which the voters pick their preferred candidates. The primary difference between RCV and what we have seen in the past is that voters are voting for a *slate* of candidates.<sup>2</sup> Because this specifically is what is different about this election, it is where I concentrate my analysis. I examine such questions as: What slates did people vote? Were some slates consistently more popular than others? Did any of the slate campaigning, like the collaborative in D5, work? There are other interesting important facets to examine in the future, but this is where I thought I would begin.

This is presented to stimulate discussion on the recent RCV results. As usual, there will no doubt be people who can interpret these results better than I can, and I invite them to contact me and join in the research.

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<sup>1</sup> DOE updated D5 and D7 on 11/10/04. The changes from the previous results were ~1%, so as I had already completed my analysis, I went with the earlier returns without compromising the results.

<sup>2</sup> In this paper, I generally mean **slate** to mean the three-choice ballot people voted.

I also include an Appendix A, containing 4 District maps (1, 5, 9, 11), and the percentages of the first choice finisher by precinct (initial first place vote only). I don't analyze these, but I present them because people tell me they like them. Subsequent analyses will follow with additional precinct, demographic, and PVI data.

## D1

Jake McGoldrick won handily in D1, which is mainly the Richmond. He was on 56% on all slates (whether it was 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup>), and won with 55% after RCV passes were completed. In the first round, he took 41% of first choice votes to Lillian Sing's 31%.

Figure 1 shows the frequency of all slates that the voters chose in D1. There were 209 total slates. This graph is meant to show where the natural break in the data is, to give a sense of the more frequent slates. These slates (in D1, 37) are shown in order with their frequencies and cumulative frequencies (Figure 2). The top fifteen slates in Figure 2 are color coded to where the candidates are the same, just in a different order. I present these tables for the 4 RCV districts presented in this paper.

Figure 1: D1 slate frequency

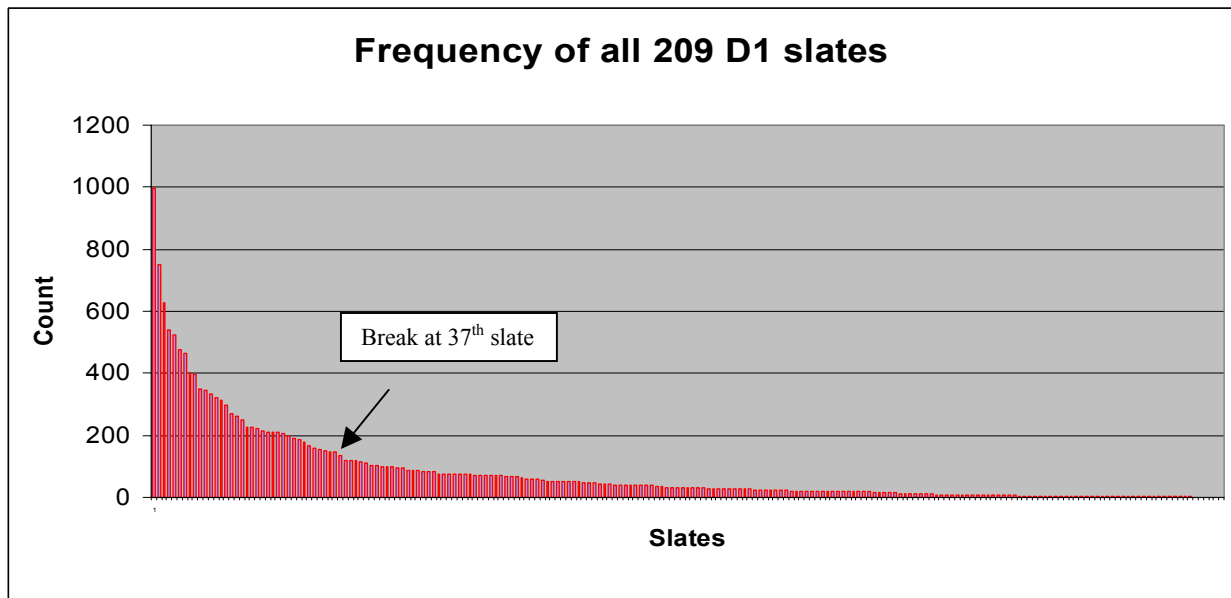


Figure 2: 37 Most frequent D1 slates.

|   | Slate (choice 1, 2, 3)                         | Frequency | Percent | Cumulative Percent |
|---|--|-----------|---------|--------------------|
|   | Total  | 17100     | 100     |                    |
| 1 | JAKE MCGOLDRICK    LILLIAN SING    MATT TUCHOW | 999       | 5.8     | 5.8                |
| 2 | LILLIAN SING    ROSE TSAI    MATT TUCHOW       | 750       | 4.4     | 10.2               |
| 3 | JAKE MCGOLDRICK    MATT TUCHOW    LILLIAN SING | 626       | 3.7     | 13.9               |
| 4 | JAKE MCGOLDRICK    MATT TUCHOW    DAVID HELLER | 539       | 3.2     | 17.0               |

|    |                              |                 |                 |     |     |      |
|----|------------------------------|-----------------|-----------------|-----|-----|------|
| 5  | JAKE MCGOLDRICK              | MATT TUCHOW     | LEANNA DAWYDIAK | 523 | 3.1 | 20.1 |
| 6  | LILLIAN SING                 | ROSE TSAI       | JAKE MCGOLDRICK | 477 | 2.8 | 22.9 |
| 7  | LILLIAN SING                 | JAKE MCGOLDRICK | MATT TUCHOW     | 466 | 2.7 | 25.6 |
| 8  | JAKE MCGOLDRICK              | LEANNA DAWYDIAK | MATT TUCHOW     | 402 | 2.4 | 28.0 |
| 9  | JAKE MCGOLDRICK              | DAVID HELLER    | MATT TUCHOW     | 397 | 2.3 | 30.3 |
| 10 | LILLIAN SING                 | MATT TUCHOW     | JAKE MCGOLDRICK | 348 | 2.0 | 32.3 |
| 11 | JAKE MCGOLDRICK              | LILLIAN SING    | ROSE TSAI       | 344 | 2.0 | 34.3 |
| 12 | LILLIAN SING                 | JAKE MCGOLDRICK | ROSE TSAI       | 335 | 2.0 | 36.3 |
| 13 | LILLIAN SING                 | MATT TUCHOW     | DAVID HELLER    | 320 | 1.9 | 38.2 |
| 14 | LILLIAN SING                 | MATT TUCHOW     | LEANNA DAWYDIAK | 314 | 1.8 | 40.0 |
| 15 | LILLIAN SING                 | MATT TUCHOW     | ROSE TSAI       | 298 | 1.7 | 41.7 |
| 16 | JAKE MCGOLDRICK              | MATT TUCHOW     | ROSE TSAI       | 271 | 1.6 | 43.3 |
| 17 | LILLIAN SING                 | DAVID HELLER    | MATT TUCHOW     | 264 | 1.5 | 44.9 |
| 18 | JAKE MCGOLDRICK              | DAVID HELLER    | LEANNA DAWYDIAK | 250 | 1.5 | 46.3 |
| 19 | JAKE MCGOLDRICK              | LILLIAN SING    | DAVID HELLER    | 227 | 1.3 | 47.7 |
| 20 | LILLIAN SING                 | LEANNA DAWYDIAK | MATT TUCHOW     | 227 | 1.3 | 49.0 |
| 21 | JAKE MCGOLDRICK              | LILLIAN SING    | LEANNA DAWYDIAK | 223 | 1.3 | 50.3 |
| 22 | JAKE MCGOLDRICK              | DAVID HELLER    | LILLIAN SING    | 213 | 1.2 | 51.5 |
| 23 | LILLIAN SING                 | ROSE TSAI       | LEANNA DAWYDIAK | 210 | 1.2 | 52.8 |
| 24 | MATT TUCHOW                  | JAKE MCGOLDRICK | LILLIAN SING    | 210 | 1.2 | 54.0 |
| 25 | JAKE MCGOLDRICK              | LEANNA DAWYDIAK | LILLIAN SING    | 209 | 1.2 | 55.2 |
| 26 | LILLIAN SING                 | DAVID HELLER    | LEANNA DAWYDIAK | 208 | 1.2 | 56.4 |
| 27 | MATT TUCHOW                  | LILLIAN SING    | JAKE MCGOLDRICK | 198 | 1.2 | 57.6 |
| 28 | LILLIAN SING                 | ROSE TSAI       | DAVID HELLER    | 192 | 1.1 | 58.7 |
| 29 | ROSE TSAI                    | LILLIAN SING    | MATT TUCHOW     | 188 | 1.1 | 59.8 |
| 30 | JAKE MCGOLDRICK              | LEANNA DAWYDIAK | DAVID HELLER    | 180 | 1.1 | 60.9 |
| 31 | JAKE MCGOLDRICK              | ROSE TSAI       | MATT TUCHOW     | 165 | 1.0 | 61.8 |
| 32 | LILLIAN SING                 | JAKE MCGOLDRICK | LEANNA DAWYDIAK | 157 | 0.9 | 62.7 |
| 33 | MATT TUCHOW                  | LILLIAN SING    | LEANNA DAWYDIAK | 155 | 0.9 | 63.7 |
| 34 | MATT TUCHOW                  | LILLIAN SING    | DAVID HELLER    | 151 | 0.9 | 64.5 |
| 35 | JAKE MCGOLDRICK<br>FREEBAIRN | MATT TUCHOW     | JEFFREY S.      | 147 | 0.9 | 65.4 |
| 36 | LILLIAN SING                 | JAKE MCGOLDRICK | DAVID HELLER    | 147 | 0.9 | 66.3 |
| 37 | LILLIAN SING                 | LEANNA DAWYDIAK | DAVID HELLER    | 136 | 0.8 | 67.1 |

In Figure 2, I color code the top fifteen slates where the candidates are the same. McGoldrick, despite active campaigning against him by several moderate candidates and a robust Independent Expenditure effort, is on 11 of the top 12 most frequent slates. Sing is only on 6 of the top ten most frequent slates.

One interesting slate is the second most frequent, which saw Rose Tsai, who overall didn't do that well, follow Lillian Sing. This argues for an Asian identity vote. This is bolstered by an examination of Figure 3, which is a crosstab of the first choice vote (rows) with the second choice vote (columns). Tsai took 30% of Sing's second place vote (and 39% of her third choice vote – (Figure 4). Conversely, Sing received 47% of Tsai's second place vote.



**Figure 4: D1 choice 1 vs. choice 3 crosstab**

| CHOICE_1 * CHOICE_3<br>Crosstabulation |                      |                   |              |                 |                      |                 |              |             |           |         |
|--|----------------------|-------------------|--------------|-----------------|----------------------|-----------------|--------------|-------------|-----------|---------|
|  |                      |                   | CHOICE_3     |                 |                      |                 |              |             |           | Total   |
|  |                      |                   | DAVID HELLER | JAKE MCGOLDRICK | JEFFREY S. FREEBAIRN | LEANNA DAWYDIAK | LILLIAN SING | MATT TUCHOW | ROSE TSAI |         |
| CHOICE_1                               | DAVID HELLER         | Count             |              | 228.0           | 99.0                 | 231.0           | 275.0        | 354.0       | 145.0     | 1332.0  |
|  |                      | % within CHOICE_1 |              | 17.1            | 7.4                  | 17.3            | 20.6         | 26.6        | 10.9      | 100.0   |
|  |                      | % within CHOICE_3 |              | 11.2            | 13.7                 | 8.5             | 12.3         | 7.6         | 6.7       | 7.8     |
|  | JAKE MCGOLDRICK      | Count             | 1048.0       |                 | 370.0                | 1087.0          | 1165.0       | 2029.0      | 796.0     | 6495.0  |
|  |                      | % within CHOICE_1 | 16.1         |                 | 5.7                  | 16.7            | 17.9         | 31.2        | 12.3      | 100.0   |
|  |                      | % within CHOICE_3 | 40.7         |                 | 51.2                 | 39.9            | 52.0         | 43.7        | 36.9      | 38.0    |
|  | JEFFREY S. FREEBAIRN | Count             | 11.0         | 13.0            |                      | 12.0            | 14.0         | 20.0        | 18.0      | 88.0    |
|  |                      | % within CHOICE_1 | 12.5         | 14.8            |                      | 13.6            | 15.9         | 22.7        | 20.5      | 100.0   |
|  |                      | % within CHOICE_3 | 0.4          | 0.6             |                      | 0.4             | 0.6          | 0.4         | 0.8       | 0.5     |
|  | LEANNA DAWYDIAK      | Count             | 174.0        | 167.0           | 42.0                 |                 | 167.0        | 248.0       | 133.0     | 931.0   |
|  |                      | % within CHOICE_1 | 18.7         | 17.9            | 4.5                  |                 | 17.9         | 26.6        | 14.3      | 100.0   |
|  |                      | % within CHOICE_3 | 6.8          | 8.2             | 5.8                  |                 | 7.5          | 5.3         | 6.2       | 5.4     |
|  | LILLIAN SING         | Count             | 802.0        | 1034.0          | 92.0                 | 896.0           |              | 1713.0      | 847.0     | 5384.0  |
|  |                      | % within CHOICE_1 | 14.9         | 19.2            | 1.7                  | 16.6            |              | 31.8        | 15.7      | 100.0   |
|  |                      | % within CHOICE_3 | 31.1         | 50.7            | 12.7                 | 32.9            |              | 36.9        | 39.3      | 31.5    |
|  | MATT TUCHOW          | Count             | 391.0        | 405.0           | 90.0                 | 360.0           | 459.0        |             | 216.0     | 1921.0  |
|  |                      | % within CHOICE_1 | 20.4         | 21.1            | 4.7                  | 18.7            | 23.9         |             | 11.2      | 100.0   |
|  |                      | % within CHOICE_3 | 15.2         | 19.9            | 12.4                 | 13.2            | 20.5         |             | 10.0      | 11.2    |
|  | ROSE TSAI            | Count             | 151.0        | 191.0           | 30.0                 | 137.0           | 161.0        | 279.0       |           | 949.0   |
|  |                      | % within CHOICE_1 | 15.9         | 20.1            | 3.2                  | 14.4            | 17.0         | 29.4        |           | 100.0   |
|  |                      | % within CHOICE_3 | 5.9          | 9.4             | 4.1                  | 5.0             | 7.2          | 6.0         |           | 5.5     |
| Total                                  |                      | Count             | 2577.0       | 2038.0          | 723.0                | 2723.0          | 2241.0       | 4643.0      | 2155.0    | 17100.0 |
|  |                      | % within CHOICE_1 | 15.1         | 11.9            | 4.2                  | 15.9            | 13.1         | 27.2        | 12.6      | 100.0   |
|  |                      | % within CHOICE_3 | 100.0        | 100.0           | 100.0                | 100.0           | 100.0        | 100.0       | 100.0     | 100.0   |

McGoldrick did as well for a moderate’s second choice as many of the other moderates. McGoldrick received 21% of Sing’s second place vote, and 26% of Tuchow’s. Meanwhile, Tuchow received 24% of Sing’s second place vote, but Sing did receive 32% of Tuchow’s second place vote.

Tuchow, for a relative newcomer, did well in this election, finishing third. He received more second choice votes (24%) and more third choice votes (27%) than Sing (20% and 13%, respectively). Tuchow also received more second and third place votes than McGoldrick – although McGoldrick’s name had already been spent on many more first place choices. Tuchow ran more of a grassroots campaign than Sing, who relied more heavily on downtown cooperation, and had recently moved in to D1 to run for office. It is entirely possible that Tuchow would have had a better chance in a traditional runoff than Sing.

It appears as if there was no moderate “bloc” in D1. McGoldrick figured favorably in the majority of ballots, including those that had two moderates as the other choices. Tsai didn’t really peel (Asian) votes away from Sing, as she received a large part of Tsai’s second place votes. Since Tsai left the field early, these votes were redistributed to Sing. McGoldrick simply had too many first choice votes for the candidates to overcome easily, an seemingly inherent advantage with RCV to be played out in other precincts.

## D5

Ross Mirkarimi won in D5, which saw 22 candidates from all walks of life. He was on 51% on all slates, and is leading at time of press with 50% after all RCV passes were completed. In the first round, he took 29% of first choice votes to second place finisher Robert Haaland's 15%.

D5 was the most highlighted of the RCV precincts due to the number of candidates and the unprecedented amount of cooperation among the candidates. Several groups of candidates ran together, such as the politically moderate "Mod Squad", including Francis Somsel, Andrew Sullivan, Tys Sniffen, and Jim Siegel. Several Greens ran, including Lisa Feldstein and Susan King, but from the beginning, the race shaped up to be Mirkarimi, well-known from the Matt Gonzalez for Mayor campaign, and Haaland, a longtime transgender and tenants' rights activist.

Feldstein received considerable press and name recognition from her time working for City Government, as did Supervisor Daly aide Bill Barnes. DCCC member Dan Kalb also had some name recognition. This race was generally positive – even called boring - with many cross-candidate events, often at the club owned by candidate Michael O'Connor. Although less relevant in D5, Mayor Newsom endorsed Andrew Sullivan, one-time head of Rescue MUNI, and youthful Nick Waugh, fresh off the Howard Dean for President campaign.

Voters, in the end, voted heavily on name recognition and endorsements. Figure 5 shows the break of the most popular slates (40 of them) and Figure 6 shows what those slates were. The most striking feature of the slate list is that each combination of Mirkarimi, Haaland, and Feldstein – six them – finished in the top 9 (colored red). This most frequent slate was 9% of all the slates, which is a huge margin compared to any other District. The highest combination of the Mod Squad finished 13<sup>th</sup>. In contrast, the highest combination of all Greens was the 5<sup>th</sup> most frequent slate. Dan Kalb, though finishing 9<sup>th</sup>, was on the 2<sup>nd</sup>, 11<sup>th</sup>, and 12<sup>th</sup> of the most frequent slates. Reasons for this frequency pattern are explained below.

Figure 5: D1 slate frequency

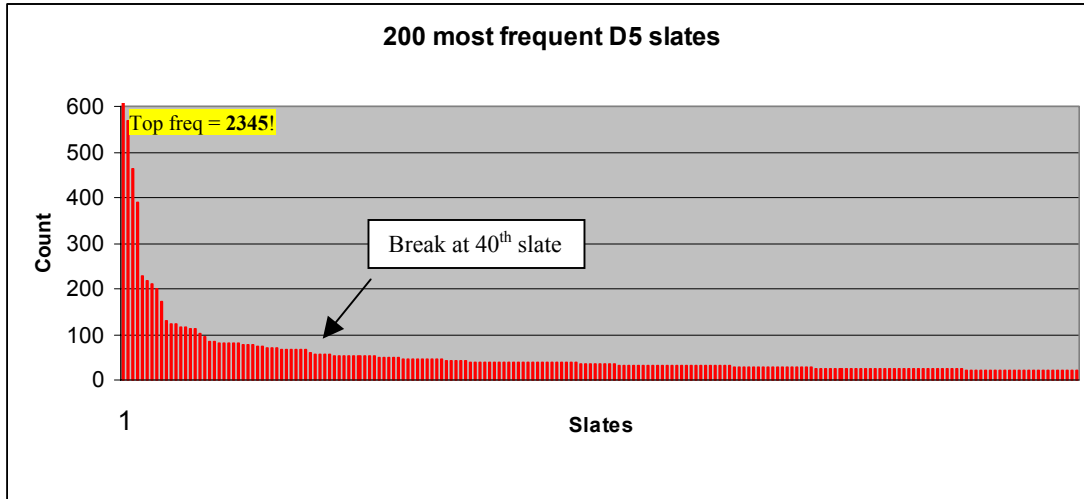


Figure 6: 40 most frequent D5 slates

|    | Slate (choice 1, 2, 3)                       | Frequency | Percent | Cumulative Percent |
|----|--|-----------|---------|--------------------|
|    | Total  | 25891     | 100     |                    |
| 1  | ROSS MIRKARIMI ROBERT HAALAND LISA FELDSTEIN | 2325      | 9.0     | 9.0                |
| 2  | ROBERT HAALAND DAN KALB BILL BARNES          | 567       | 2.2     | 11.2               |
| 3  | ROSS MIRKARIMI LISA FELDSTEIN ROBERT HAALAND | 464       | 1.8     | 13.0               |
| 4  | ROBERT HAALAND ROSS MIRKARIMI LISA FELDSTEIN | 389       | 1.5     | 14.5               |
| 5  | ROSS MIRKARIMI LISA FELDSTEIN SUSAN C. KING  | 227       | 0.9     | 15.3               |
| 6  | ROBERT HAALAND LISA FELDSTEIN ROSS MIRKARIMI | 218       | 0.8     | 16.2               |
| 7  | LISA FELDSTEIN ROSS MIRKARIMI ROBERT HAALAND | 212       | 0.8     | 17.0               |
| 8  | ROSS MIRKARIMI ROBERT HAALAND NICK WAUGH     | 199       | 0.8     | 17.8               |
| 9  | LISA FELDSTEIN ROBERT HAALAND ROSS MIRKARIMI | 172       | 0.7     | 18.4               |
| 10 | ROSS MIRKARIMI ROBERT HAALAND BILL BARNES    | 131       | 0.5     | 18.9               |
| 11 | ROSS MIRKARIMI LISA FELDSTEIN DAN KALB       | 123       | 0.5     | 19.4               |
| 12 | ROSS MIRKARIMI ROBERT HAALAND DAN KALB       | 122       | 0.5     | 19.9               |
| 13 | JIM SIEGEL ANDREW SULLIVAN TYS SNIFFEN       | 117       | 0.5     | 20.3               |
| 14 | ROSS MIRKARIMI DAN KALB LISA FELDSTEIN       | 116       | 0.4     | 20.8               |
| 15 | ROSS MIRKARIMI LISA FELDSTEIN NICK WAUGH     | 114       | 0.4     | 21.2               |
| 16 | ROSS MIRKARIMI NICK WAUGH ROBERT HAALAND     | 114       | 0.4     | 21.7               |
| 17 | ROBERT HAALAND LISA FELDSTEIN DAN KALB       | 102       | 0.4     | 22.1               |
| 18 | ROSS MIRKARIMI NICK WAUGH LISA FELDSTEIN     | 95        | 0.4     | 22.4               |
| 19 | ROBERT HAALAND ROSS MIRKARIMI NICK WAUGH     | 85        | 0.3     | 22.8               |
| 20 | ROBERT HAALAND ROSS MIRKARIMI DAN KALB       | 83        | 0.3     | 23.1               |
| 21 | ANDREW SULLIVAN NICK WAUGH ROSS MIRKARIMI    | 81        | 0.3     | 23.4               |
| 22 | ROSS MIRKARIMI DAN KALB ROBERT HAALAND       | 81        | 0.3     | 23.7               |
| 23 | ROSS MIRKARIMI LISA FELDSTEIN BILL BARNES    | 81        | 0.3     | 24.0               |
| 24 | NICK WAUGH ROSS MIRKARIMI ROBERT HAALAND     | 79        | 0.3     | 24.3               |
| 25 | ROBERT HAALAND BILL BARNES ROSS MIRKARIMI    | 79        | 0.3     | 24.6               |
| 26 | ANDREW SULLIVAN NICK WAUGH JIM SIEGEL        | 77        | 0.3     | 24.9               |
| 27 | ANDREW SULLIVAN NICK WAUGH LISA FELDSTEIN    | 77        | 0.3     | 25.2               |
| 28 | NICK WAUGH ROSS MIRKARIMI LISA FELDSTEIN     | 74        | 0.3     | 25.8               |
| 29 | ROSS MIRKARIMI BILL BARNES ROBERT HAALAND    | 72        | 0.3     | 26.1               |
| 30 | ROSS MIRKARIMI BILL BARNES LISA FELDSTEIN    | 71        | 0.3     | 26.4               |
| 31 | ROSS MIRKARIMI ROBERT HAALAND SUSAN C. KING  | 70        | 0.3     | 26.6               |
| 32 | ROBERT HAALAND ROSS MIRKARIMI BILL BARNES    | 69        | 0.3     | 26.9               |
| 33 | ANDREW SULLIVAN NICK WAUGH ROBERT HAALAND    | 68        | 0.3     | 27.2               |
| 34 | ROSS MIRKARIMI SUSAN C. KING LISA FELDSTEIN  | 68        | 0.3     | 27.4               |

|    |                |                |                 |    |     |      |
|----|----------------|----------------|-----------------|----|-----|------|
| 35 | NICK WAUGH     | ROBERT HAALAND | ROSS MIRKARIMI  | 67 | 0.3 | 27.7 |
| 36 | ROBERT HAALAND | LISA FELDSTEIN | BILL BARNES     | 66 | 0.3 | 27.9 |
| 37 | ROBERT HAALAND | LISA FELDSTEIN | SUSAN C. KING   | 66 | 0.3 | 28.2 |
| 38 | ROBERT HAALAND | LISA FELDSTEIN | NICK WAUGH      | 65 | 0.3 | 28.4 |
| 39 | ROSS MIRKARIMI | ROBERT HAALAND | ANDREW SULLIVAN | 61 | 0.2 | 28.7 |
| 40 | ROSS MIRKARIMI | ROBERT HAALAND | ANDREW SULLIVAN | 61 | 0.2 | 28.7 |

I surmise that due to the large number of candidates, and relatively similar political position of many of them, residents voted on name recognition, and on the popular SF Bay Guardian slate, which is especially in liberal D5. SFBG endorsed Mirkarimi, Haaland, and Feldstein in that order. Due to the overwhelming number of candidates, the SFBG slate probably meant more than usual for this election. Moreover, the SF Democratic Party Slate, consisting of Haaland, Kalb, and Bill Barnes, proved important as that slate was the second most frequent.

Surprisingly, Lisa Feldstein did not come in third overall – Nick Waugh did. He received the late endorsement of Newsom and had a strong volunteer base from the Dean campaign. Sullivan, the other moderate of choice, came in fifth. It is noteworthy that two moderates finished in the top five finishers.

Figures 7 and 8 of first choice versus second choice and first choice versus third choice, respectively.<sup>3</sup> There is no shortage of information to be gleaned from these crosstabs, but some things struck me as interesting, which could help to explain the results.

- Haaland received 43% of Mirkarimi’s second choice vote; Mirkarimi received 24% of Haaland’s. Mirkarimi supporters were more willing to give Haaland their vote than the other way around. However, in the third choice as well, as 14% of Haaland vote went to Mirkarimi and 13% of Mirkarimi’s vote went to Haaland.
- 40% of all of the second choice votes that Feldstein received came from Mirkarimi.
- Waugh received 31% of Sullivan’s second choice. Sullivan received 14% of Waugh’s second choice.
- For many moderates, D5 was something of a lost cause. Still, if moderates wanted their vote to count, they knew that they’d probably have to choose between Haaland or Mirkarimi as one of them would be the likely winner. Look at the table below, examining the second and third choices of people who voted for Sullivan and Waugh:

<sup>3</sup> These were too big to easily get them on this document as a table, so I pasted them as a bitmap. Please email me if you want me to send you the files as data. Marc Salomon also has a synopsis of these data at [cyber.net/rcv/d5.html](http://cyber.net/rcv/d5.html) (and other district data, substituting for D5).

| 1 <sup>st</sup> choice | 2 <sup>nd</sup> choice |               | 3 <sup>rd</sup> choice |               |
|------------------------|------------------------|---------------|------------------------|---------------|
|                        | % for Mirkarimi        | % for Haaland | % for Mirkarimi        | % for Haaland |
| Sullivan               | 9.0                    | 6.2           | 12.0                   | 9.2           |
| Waugh                  | 20.1                   | 13.2          | 13.8                   | 11.9          |

It appeared that Mirkarimi made a conscious effort to run more to the center, and it may have paid off. Effectively, moderates chose Mirkarimi in their runoff between Mirkarimi and Haaland. It didn't make too much of a difference in this particular race, but had the race been closer, moderates could have made the difference for a Green close to Matt Gonzalez, a nice irony brought about by RCV.

Figure 7: D5 choice 1 vs. choice 2 crosstab

| CHOICE_1 * CHOICE_2 Crosstabulation |                     |                   | CHOICE_2        |             |               |          |               |                 |          |            |             |              |                |                     |            |                   |               |                 |              |                |                |               |             | Total         |          |        |
|-------------------------------------|---------------------|-------------------|-----------------|-------------|---------------|----------|---------------|-----------------|----------|------------|-------------|--------------|----------------|---------------------|------------|-------------------|---------------|-----------------|--------------|----------------|----------------|---------------|-------------|---------------|----------|--------|
|                                     |                     |                   | ANDREW SULLIVAN | BILL BARNES | BRETT WHEELER | DAN KALB | EMMETT GILMAN | FRANCIS SOMESEL | H. BROWN | JIM SIEGEL | JOSEPH BLUE | JULIAN DAVIS | LISA FELDSTEIN | MICHAEL E. O'CONNOR | NICK WAUGH | PATRICK M. CIOCCA | PHILLIP HOUSE | PHOENIX STREETS | ROB ANDERSON | ROBERT HAALAND | ROSS MIRKARIMI | SUSAN C. KING | TYS SNIFFEN | VIVIAN WILDER | WRITE-IN |        |
| CHOICE_1                            | ANDREW SULLIVAN     | Count             |                 |             | 67.0          | 50.0     | 99.0          | 11.0            | 69.0     | 2.0        | 232.0       | 38.0         | 12.0           | 160.0               | 51.0       | 543.0             | 5.0           | 2.0             | 29.0         | 6.0            | 111.0          | 160.0         | 29.0        | 96.0          | 8.0      | 1780.0 |
|                                     |                     | % within CHOICE_1 |                 |             | 3.8           | 2.8      | 5.6           | 0.6             | 3.9      | 0.1        | 13.0        | 2.1          | 0.7            | 9.0                 | 2.9        | 30.5              | 0.3           | 0.1             | 1.6          | 0.3            | 6.2            | 9.0           | 1.6         | 5.4           | 0.4      | 100.0  |
|                                     |                     | % within CHOICE_2 |                 |             | 5.1           | 7.0      | 4.8           | 2.7             | 18.4     | 2.4        | 23.5        | 7.8          | 2.8            | 5.0                 | 7.0        | 24.7              | 4.7           | 3.3             | 4.2          | 2.6            | 2.3            | 4.9           | 2.6         | 14.6          | 4.2      | 6.9    |
| CHOICE_1                            | BILL BARNES         | Count             | 46.0            |             | 51.0          | 97.0     | 22.0          | 21.0            | 7.0      | 33.0       | 52.0        | 18.0         | 161.0          | 27.0                | 93.0       | 6.0               | 49.0          | 10.0            | 185.0        | 215.0          | 61.0           | 17.0          | 14.6        | 15.0          | 1186.0   |        |
|                                     |                     | % within CHOICE_1 | 3.9             |             | 4.3           | 8.2      | 1.9           | 1.8             | 0.6      | 2.8        | 4.4         | 1.5          | 13.6           | 2.3                 | 7.8        | 0.5               | 4.1           | 0.8             | 15.6         | 18.1           | 5.1            | 1.4           | 1.3         | 1.3           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 3.3             |             | 7.2           | 4.7      | 5.5           | 5.6             | 8.5      | 3.3        | 10.7        | 4.1          | 5.1            | 3.7                 | 4.2        | 5.6               | 7.2           | 4.3             | 3.8          | 6.6            | 5.4            | 5.4           | 2.6         | 7.9           | 4.6      |        |
| CHOICE_1                            | BRETT WHEELER       | Count             | 36.0            | 48.0        |               | 44.0     | 12.0          | 9.0             | 2.0      | 26.0       | 7.0         | 22.0         | 63.0           | 28.0                | 60.0       | 3.0               | 1.0           | 24.0            | 15.0         | 45.0           | 122.0          | 25.0          | 6.0         | 4.0           | 602.0    |        |
|                                     |                     | % within CHOICE_1 | 6.0             | 8.0         |               | 7.3      | 2.0           | 1.5             | 0.3      | 4.3        | 1.2         | 3.7          | 10.5           | 4.7                 | 10.0       | 0.5               | 0.2           | 4.0             | 2.5          | 7.5            | 20.3           | 4.2           | 1.0         | 0.7           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 2.5             | 3.6         |               | 2.1      | 3.0           | 2.4             | 2.4      | 2.6        | 1.4         | 5.1          | 2.0            | 3.8                 | 2.7        | 2.8               | 1.7           | 3.5             | 6.4          | 0.9            | 3.7            | 2.2           | 0.9         | 2.1           | 2.3      |        |
| CHOICE_1                            | DAN KALB            | Count             | 69.0            | 76.0        | 73.0          |          | 9.0           | 28.0            | 2.0      | 33.0       | 12.0        | 16.0         | 141.0          | 19.0                | 105.0      | 4.0               | 5.0           | 36.0            | 9.0          | 153.0          | 194.0          | 68.0          | 17.0        | 17.0          | 1086.0   |        |
|                                     |                     | % within CHOICE_1 | 6.4             | 7.0         | 6.7           |          | 0.8           | 2.6             | 0.2      | 3.0        | 1.1         | 1.5          | 13.0           | 1.7                 | 9.7        | 0.4               | 0.5           | 3.3             | 0.8          | 14.1           | 17.9           | 6.3           | 1.6         | 1.6           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 4.9             | 5.8         | 10.2          |          | 2.2           | 7.5             | 2.4      | 3.3        | 2.5         | 3.7          | 4.4            | 2.6                 | 4.8        | 3.7               | 8.3           | 5.3             | 3.8          | 3.2            | 5.9            | 6.0           | 2.6         | 8.9           | 4.2      |        |
| CHOICE_1                            | EMMETT GILMAN       | Count             | 11.0            | 5.0         | 8.0           | 10.0     |               | 6.0             | 4.0      | 27.0       | 6.0         | 9.0          | 44.0           | 8.0                 | 16.0       | 4.0               |               | 10.0            |              | 24.0           | 48.0           | 15.0          | 9.0         | 5.0           | 269.0    |        |
|                                     |                     | % within CHOICE_1 | 4.1             | 1.9         | 3.0           | 3.7      |               | 2.2             | 1.5      | 10.0       | 2.2         | 3.3          | 16.4           | 3.0                 | 5.9        | 1.5               |               | 3.7             |              | 8.9            | 17.8           | 5.6           | 3.3         | 1.9           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 0.8             | 0.4         | 1.1           | 0.5      |               | 1.6             | 4.9      | 2.7        | 1.2         | 2.1          | 1.4            | 1.1                 | 0.7        | 3.7               |               | 1.5             |              | 0.5            | 1.5            | 1.3           | 1.4         | 2.6           | 1.0      |        |
| CHOICE_1                            | FRANCIS SOMESEL     | Count             | 38.0            | 13.0        | 7.0           | 15.0     | 10.0          |                 | 1.0      | 29.0       | 15.0        | 2.0          | 13.0           | 20.0                | 13.0       | 3.0               | 1.0           | 10.0            |              | 1.0            | 12.0           | 25.0          | 11.0        | 3.0           | 252.0    |        |
|                                     |                     | % within CHOICE_1 | 15.1            | 5.2         | 2.8           | 6.0      | 4.0           |                 | 0.4      | 11.5       | 6.0         | 0.8          | 5.2            | 7.9                 | 5.2        | 1.2               | 0.4           | 4.0             |              | 0.4            | 4.8            | 9.9           | 4.0         | 4.4           | 1.2      | 100.0  |
|                                     |                     | % within CHOICE_2 | 2.7             | 1.0         | 1.0           | 0.7      | 2.5           |                 | 1.2      | 2.9        | 3.1         | 0.5          | 0.4            | 2.7                 | 0.6        | 2.8               | 1.7           | 1.5             | 0.4          |                | 0.2            | 0.9           | 0.9         | 1.7           | 1.6      | 1.0    |
| CHOICE_1                            | H. BROWN            | Count             | 1.0             | 6.0         | 1.0           | 1.0      |               | 1.0             | 1.0      | 2.0        | 4.0         | 5.0          | 2.0            | 2.0                 | 2.0        | 4.0               | 5.0           | 1.0             | 4.0          | 4.0            | 3.0            | 0.8           | 1.0         | 3.0           | 35.0     |        |
|                                     |                     | % within CHOICE_1 | 2.9             | 17.1        | 2.9           | 2.9      |               | 2.9             | 2.9      | 5.7        | 11.4        | 14.3         | 5.7            | 0.3                 | 0.3        | 0.3               | 0.3           | 0.3             | 1.7          | 1.7            | 1.7            | 0.1           | 0.1         | 0.2           | 1.6      | 100.0  |
|                                     |                     | % within CHOICE_2 | 0.1             | 0.5         | 0.1           | 0.0      |               | 0.1             | 0.4      | 0.9        | 0.9         | 0.2          | 0.2            | 0.3                 | 0.3        | 0.3               | 0.3           | 0.3             | 0.3          | 0.3            | 0.3            | 0.3           | 0.1         | 0.1           | 0.2      | 0.1    |
| CHOICE_1                            | JIM SIEGEL          | Count             | 297.0           | 23.0        | 23.0          | 34.0     | 19.0          | 86.0            | 3.0      |            | 53.0        | 15.0         | 58.0           | 78.0                | 8.0        | 4.0               |               | 19.0            | 10.0         | 44.0           | 119.0          | 25.0          | 100.0       | 6.0           | 1101.0   |        |
|                                     |                     | % within CHOICE_1 | 27.0            | 2.1         | 2.1           | 3.1      | 1.7           | 7.8             | 0.3      | 4.8        | 1.4         | 5.3          | 7.1            | 7.7                 | 0.4        | 0.4               |               | 1.7             | 0.9          | 4.0            | 10.8           | 2.3           | 9.1         | 0.5           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 21.0            | 1.7         | 3.2           | 1.7      | 4.7           | 22.9            | 3.7      | 10.9       | 3.5         | 1.8          | 10.7           | 3.9                 | 3.7        | 2.8               | 4.3           | 0.9             | 3.6          | 2.2            | 15.2           | 2.2           | 15.2        | 3.2           | 4.3      |        |
| CHOICE_1                            | JOSEPH BLUE         | Count             | 26.0            | 48.0        | 12.0          | 14.0     | 14.0          | 12.0            | 8.0      | 38.0       |             | 9.0          | 78.0           | 27.0                | 36.0       | 7.0               | 3.0           | 26.0            | 6.0          | 45.0           | 66.0           | 17.0          | 6.0         | 3.0           | 501.0    |        |
|                                     |                     | % within CHOICE_1 | 5.2             | 9.6         | 2.4           | 2.8      | 2.8           | 2.4             | 1.6      | 7.6        | 7.6         |              | 1.8            | 15.6                | 5.4        | 7.2               | 1.4           | 0.6             | 5.2          | 1.2            | 9.0            | 13.2          | 3.4         | 1.2           | 0.6      | 100.0  |
|                                     |                     | % within CHOICE_2 | 1.8             | 3.6         | 1.7           | 0.7      | 3.5           | 3.2             | 9.8      | 3.8        |             | 2.1          | 2.5            | 3.7                 | 1.6        | 6.5               | 5.0           | 3.8             | 2.6          | 0.9            | 2.0            | 1.5           | 0.9         | 1.6           | 2.0      |        |
| CHOICE_1                            | JULIAN DAVIS        | Count             | 5.0             | 6.0         | 18.0          | 17.0     | 8.0           | 9.0             | 4.0      | 9.0        | 3.0         |              | 34.0           | 14.0                | 20.0       | 3.0               | 2.0           | 15.0            | 7.0          | 18.0           | 46.0           | 28.0          | 9.0         | 6.0           | 281.0    |        |
|                                     |                     | % within CHOICE_1 | 1.8             | 2.1         | 6.4           | 6.0      | 2.8           | 3.2             | 1.4      | 3.2        | 1.1         |              | 12.1           | 5.0                 | 7.1        | 1.1               | 0.7           | 5.3             | 2.5          | 6.4            | 16.4           | 10.0          | 3.2         | 2.1           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 0.4             | 0.5         | 2.5           | 0.8      | 2.0           | 2.4             | 4.9      | 0.9        | 0.6         |              | 1.1            | 1.9                 | 0.9        | 2.8               | 3.3           | 2.2             | 3.0          | 0.4            | 1.4            | 2.5           | 1.4         | 3.2           | 1.1      |        |
| CHOICE_1                            | LISA FELDSTEIN      | Count             | 126.0           | 176.0       | 49.0          | 174.0    | 67.0          | 17.0            | 6.0      | 64.0       | 54.0        | 42.0         |                | 36.0                | 203.0      | 6.0               | 5.0           | 68.0            | 13.0         | 429.0          | 557.0          | 189.0         | 48.0        | 18.0          | 2348.0   |        |
|                                     |                     | % within CHOICE_1 | 5.4             | 7.5         | 2.1           | 7.4      | 2.9           | 0.7             | 0.3      | 2.7        | 2.3         | 1.8          |                | 1.5                 | 8.6        | 0.3               | 0.2           | 2.9             | 0.6          | 18.3           | 23.7           | 8.0           | 2.0         | 0.8           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 8.9             | 13.3        | 6.9           | 8.4      | 16.7          | 4.5             | 7.3      | 6.5        | 11.1        | 9.7          |                | 4.9                 | 9.2        | 5.6               | 8.3           | 9.9             | 5.6          | 8.9            | 17.1           | 16.8          | 7.3         | 9.5           | 9.2      |        |
| CHOICE_1                            | MICHAEL E. O'CONNOR | Count             | 34.0            | 19.0        | 9.0           | 28.0     | 16.0          | 16.0            | 1.0      | 82.0       | 15.0        | 29.0         | 47.0           |                     | 29.0       | 2.0               | 12.0          | 10.0            | 8.0          | 50.0           | 83.0           | 45.0          | 72.0        | 6.0           | 613.0    |        |
|                                     |                     | % within CHOICE_1 | 5.5             | 3.1         | 1.5           | 4.6      | 2.6           | 2.6             | 0.2      | 13.4       | 2.4         | 4.7          | 7.7            |                     | 4.7        | 0.3               | 2.0           | 1.6             | 1.3          | 8.2            | 13.5           | 7.3           | 11.7        | 1.0           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 2.4             | 1.4         | 1.3           | 1.4      | 4.0           | 4.3             | 1.2      | 8.3        | 3.1         | 6.7          | 1.5            |                     | 1.3        | 1.9               | 20.0          | 1.5             | 3.4          | 1.0            | 2.5            | 4.0           | 10.9        | 3.2           | 2.4      |        |
| CHOICE_1                            | NICK WAUGH          | Count             | 288.0           | 105.0       | 83.0          | 155.0    | 19.0          | 17.0            | 6.0      | 76.0       | 48.0        | 32.0         | 214.0          | 55.0                |            | 14.0              | 29.0          | 76.0            | 29.0         | 274.0          | 416.0          | 99.0          | 44.0        | 23.0          | 2073.0   |        |
|                                     |                     | % within CHOICE_1 | 13.9            | 5.1         | 4.0           | 7.5      | 0.9           | 0.8             | 0.3      | 3.7        | 2.3         | 1.5          | 10.3           | 2.7                 |            | 0.7               | 3.7           | 3.7             | 1.4          | 13.2           | 20.1           | 4.8           | 2.1         | 1.1           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 20.4            | 8.0         | 11.6          | 7.5      | 4.7           | 4.5             | 7.3      | 7.7        | 9.9         | 7.4          | 6.7            | 7.5                 |            | 13.1              | 11.1          | 12.4            | 12.4         | 5.7            | 12.8           | 8.8           | 6.7         | 12.1          | 8.1      |        |
| CHOICE_1                            | PATRICK M. CIOCCA   | Count             | 10.0            | 3.0         | 3.0           | 2.0      | 2.0           | 1.0             | 1.0      | 5.0        | 3.0         | 3.0          | 4.0            | 3.0                 | 3.0        |                   |               |                 | 6.0          | 2.0            | 3.0            | 7.0           | 2.0         | 2.0           | 2.0      | 67.0   |
|                                     |                     | % within CHOICE_1 | 14.9            | 4.5         | 4.5           | 3.0      | 3.0           | 1.5             | 1.5      | 7.5        | 4.5         | 4.5          | 6.0            | 4.5                 | 4.5        |                   |               |                 | 9.0          | 3.0            | 4.5            | 10.4          | 3.0         | 3.0           | 3.0      | 100.0  |
|                                     |                     | % within CHOICE_2 | 0.7             | 0.2         | 0.4           | 0.1      | 0.5           | 0.3             | 1.2      | 0.5        | 0.6         | 0.7          | 0.7            | 0.1                 | 0.4        | 0.1               |               |                 | 0.9          | 0.9            | 0.1            | 0.2           | 0.2         | 0.3           | 1.1      | 0.3    |
| CHOICE_1                            | PHILLIP HOUSE       | Count             | 1.0             | 1.0         | 1.0           |          | 3.0           | 1.0             | 3.0      | 1.0        | 1.0         | 3.0          | 1.0            | 2.0                 | 2.0        |                   |               |                 | 1.0          | 2.0            | 1.0            | 3.0           | 1.0         | 1.0           | 1.0      | 37.0   |
|                                     |                     | % within CHOICE_1 | 2.7             | 2.7         | 2.7           |          | 8.1           | 2.7             | 8.1      | 2.7        | 2.7         | 8.1          | 24.3           | 5.4                 | 5.4        |                   |               |                 | 2.7          | 5.4            | 2.7            | 8.1           | 2.7         | 2.7           | 2.7      | 100.0  |
|                                     |                     | % within CHOICE_2 | 0.1             | 0.1         | 0.1           |          | 0.7           | 0.3             | 3.7      | 0.1        | 0.2         | 0.7          | 0.3            | 0.3                 | 0.1        |                   |               |                 | 0.1          | 0.9            | 0.9            | 0.1           | 0.2         | 0.2           | 0.5      | 0.1    |
| CHOICE_1                            | PHOENIX STREETS     | Count             | 12.0            | 30.0        | 27.0          | 21.0     | 12.0          | 6.0             | 3.0      | 10.0       | 20.0        | 14.0         | 43.0           | 12.0                | 37.0       | 6.0               | 2.0           |                 |              | 17.0           | 48.0           | 89.0          | 31.0        | 18.0          | 8.0      | 466.0  |
|                                     |                     | % within CHOICE_1 | 2.6             | 6.4         | 5.8           | 4.5      | 2.6           | 1.3             | 0.6      | 2.1        | 4.3         | 3.0          | 9.2            | 2.6                 | 7.9        | 1.3               | 0.4           |                 |              | 3.6            | 10.3           | 19.1          | 6.7         | 3.9           | 1.7      | 100.0  |
|                                     |                     | % within CHOICE_2 | 0.8             | 2.3         | 3.8           | 1.0      | 3.0           | 1.6             | 3.7      | 1.0        | 4.1         | 3.2          | 1.4            | 1.6                 | 1.7        | 5.6               | 3.3           |                 |              | 7.3            | 10             | 2.7           | 2.8         | 2.7           | 4.2      | 1.8    |
| CHOICE_1                            | ROB ANDERSON        | Count             | 6.0             | 7.0         | 18.0          | 14.0     | 2.0           | 1.0             | 7.0      | 12.0       | 2.0         | 16.0         | 14.0           | 22.0                | 13.0       |                   | 4.0           | 14.0            |              | 26.0           | 24.0           | 19.0          | 14.0        | 7.0           | 244.0    |        |
|                                     |                     | % within CHOICE_1 | 2.5             | 2.9         | 7.4           | 5.7      | 0.8           | 0.4             | 2.9      | 4.9        | 0.8         | 6.6          | 5.7            | 9.0                 | 5.3        |                   | 0.8           | 1.6             | 5.7          |                | 10.7           | 9.8           | 7.8         | 5.7           | 2.9      | 100.0  |
|                                     |                     | % within CHOICE_2 | 0.4             | 0.5         | 2.5           | 0.7      | 0.5           | 0.3             | 8.5      | 1.2        | 0.4         | 3.7          | 0.4            | 3.0                 | 0.6        |                   | 1.9           | 6.7             |              | 0.5            | 0.7            | 1.7           | 2.1         | 3.7           | 1.0      |        |
| CHOICE_1                            | ROBERT HAALAND      | Count             | 131.0           | 309.0       | 63.0          | 792.0    | 41.0          | 10.0            | 3.0      | 70.0       | 51.0        | 45.0         | 649.0          | 68.0                | 284.0      | 12.0              | 5.0           | 82.0            | 36.0         |                | 881.0          | 135.0         | 41.0        | 22.0          | 3730.0   |        |
|                                     |                     | % within CHOICE_1 | 3.5             | 8.3         | 1.7           | 21.2     | 1.1           | 0.3             | 0.1      | 1.9        | 1.4         | 1.2          | 17.4           | 1.8                 | 7.6        | 0.3               | 0.1           | 2.2             | 1.0          |                | 23.6           | 3.6           | 1.1         | 0.6           | 100.0    |        |
|                                     |                     | % within CHOICE_2 | 9.3             | 23.4        | 8.8           | 38.4     | 10.2          | 2.7             | 3.7      | 7.1        | 10.5        | 10.4         | 20.5           | 9.3                 | 12.9       | 11.2              | 8.3           | 12.0            | 15.4         |                | 27.0           | 12.0          | 6.2         | 11.6          | 14.6     |        |
| CHOICE_1                            | ROSS MIRKARIMI      | Count             | 221.0           | 343.0       | 164.0         | 424.0    | 109.0         | 41.0            | 13.0     | 151.0      | 87.0        | 94.0         | 1273.0         | 200.0               | 560.0      | 18.0              | 15.0          | 157.0           | 35.0         | 3255.0         |                | 284.0         | 133.0       | 17.0          | 7594.0   |        |
|                                     |                     | % within CHOICE_1 | 2.9             | 4.5         | 2.2           | 5.6      | 1.4           | 0.5             | 0.2      | 2.0        | 1.1         | 1.2          | 16.8           |                     |            |                   |               |                 |              |                |                |               |             |               |          |        |

Figure 8: D5 choice 1 vs. choice 3 crosstab

| CHOICE_1 * CHOICE_3 Crosstabulation |                    |                   | CHOICE_3        |             |               |          |               |                 |          |            |             |              |                |                    |            |                   |               |                 |              |                |                |               |             |               |          | Total |        |
|-------------------------------------|--------------------|-------------------|-----------------|-------------|---------------|----------|---------------|-----------------|----------|------------|-------------|--------------|----------------|--------------------|------------|-------------------|---------------|-----------------|--------------|----------------|----------------|---------------|-------------|---------------|----------|-------|--------|
|                                     |                    |                   | ANDREW SULLIVAN | BILL BARNES | BRETT WHEELER | DAN KALB | EMMETT GILMAN | FRANCIS SOMESEL | H. BROWN | JIM SIEGEL | JOSEPH BLUE | JULIAN DAVIS | LISA FELDSTEIN | MICHAEL E O'CONNOR | NICK WAUGH | PATRICK M. CIOCCA | PHILLIP HOUSE | PHOENIX STREETS | ROB ANDERSON | ROBERT HAALAND | ROSS MIRKARIMI | SUSAN C. KING | TYS SNIFFEN | VIVIAN WILDER | WRITE-IN |       |        |
| CHOICE_1                            | ANDREW SULLIVAN    | Count             |                 | 101.0       | 66.0          | 120.0    | 18.0          | 77.0            | 6.0      | 194.0      | 61.0        | 33.0         | 184.0          | 63.0               | 203.0      | 28.0              | 5.0           | 30.0            | 27.0         | 163.0          | 214.0          | 41.0          | 133.0       | 13.0          |          |       | 1780.0 |
|                                     |                    | % within CHOICE_1 |                 | 5.7         | 3.7           | 6.7      | 1.0           | 4.3             | 0.3      | 10.9       | 3.4         | 1.9          | 10.3           | 3.5                | 11.4       | 1.6               | 0.3           | 1.7             | 1.5          | 9.2            | 12.0           | 2.3           | 7.5         | 0.7           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 |                 | 5.1         | 7.1           | 6.8      | 4.0           | 17.7            | 4.7      | 19.8       | 11.8        | 5.7          | 3.8            | 9.0                | 10.3       | 15.1              | 3.8           | 3.6             | 5.3          | 6.4            | 9.3            | 2.7           | 15.2        | 3.9           |          |       | 6.9    |
| CHOICE_1                            | BILL BARNES        | Count             | 52.0            |             | 54.0          | 103.0    | 28.0          | 28.0            | 15.0     | 27.0       | 24.0        | 28.0         | 130.0          | 44.0               | 94.0       | 4.0               | 1.0           | 68.0            | 20.0         | 181.0          | 164.0          | 87.0          | 19.0        | 15.0          |          |       | 1186.0 |
|                                     |                    | % within CHOICE_1 | 4.4             |             | 4.6           | 8.7      | 2.4           | 2.4             | 1.3      | 2.3        | 2.0         | 2.4          | 11.0           | 3.7                | 7.9        | 0.3               | 0.1           | 5.7             | 1.7          | 15.3           | 13.8           | 7.3           | 1.6         | 1.3           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 4.8             |             | 5.8           | 5.8      | 6.3           | 6.5             | 11.7     | 2.8        | 4.7         | 4.9          | 2.7            | 6.3                | 4.7        | 2.2               | 0.8           | 8.2             | 3.9          | 7.1            | 7.1            | 5.8           | 2.2         | 4.5           |          |       | 4.6    |
| CHOICE_1                            | BRETT WHEELER      | Count             | 34.0            | 36.0        |               | 53.0     | 14.0          | 7.0             | 1.0      | 22.0       | 18.0        | 23.0         | 70.0           | 25.0               | 56.0       | 2.0               | 3.0           | 19.0            | 13.0         | 72.0           | 73.0           | 43.0          | 9.0         | 9.0           |          |       | 602.0  |
|                                     |                    | % within CHOICE_1 | 5.6             | 6.0         |               | 8.8      | 2.3           | 1.2             | 0.2      | 3.7        | 3.0         | 3.8          | 11.6           | 4.2                | 9.3        | 0.3               | 0.5           | 3.2             | 2.2          | 12.0           | 12.1           | 7.1           | 1.5         | 1.5           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 3.2             | 1.8         |               | 3.0      | 3.1           | 1.6             | 0.8      | 2.2        | 3.5         | 4.0          | 1.5            | 3.6                | 2.8        | 1.1               | 2.3           | 2.3             | 2.6          | 2.8            | 3.2            | 2.8           | 2.8         | 1.0           | 2.7      |       |        |
| CHOICE_1                            | DAN KALB           | Count             | 58.0            | 95.0        | 65.0          |          | 18.0          | 23.0            | 8.0      | 34.0       | 20.0        | 29.0         | 151.0          | 26.0               | 106.0      | 9.0               | 9.0           | 25.0            | 31.0         | 118.0          | 148.0          | 72.0          | 25.0        | 16.0          |          |       | 1086.0 |
|                                     |                    | % within CHOICE_1 | 5.3             | 8.7         | 6.0           |          | 1.7           | 2.1             | 0.7      | 3.1        | 1.8         | 2.7          | 13.9           | 2.4                | 9.8        | 0.8               | 0.8           | 2.3             | 2.9          | 10.9           | 13.6           | 6.6           | 2.3         | 1.5           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 5.4             | 4.8         | 7.0           |          | 4.0           | 5.3             | 6.3      | 3.5        | 3.9         | 5.0          | 3.1            | 3.7                | 5.4        | 4.9               | 6.8           | 3.0             | 6.1          | 4.6            | 6.4            | 4.8           | 2.9         | 4.8           |          |       | 4.2    |
| CHOICE_1                            | EMMETT GILMAN      | Count             | 18.0            | 16.0        | 11.0          | 16.0     |               | 10.0            | 5.0      | 21.0       | 11.0        | 7.0          | 29.0           | 9.0                | 18.0       | 2.0               | 4.0           | 10.0            | 3.0          | 26.0           | 26.0           | 18.0          | 5.0         | 4.0           |          |       | 269.0  |
|                                     |                    | % within CHOICE_1 | 6.7             | 5.9         | 4.1           | 5.9      |               | 3.7             | 1.9      | 7.8        | 4.1         | 2.6          | 10.8           | 3.3                | 6.7        | 0.7               | 1.5           | 3.7             | 1.1          | 9.7            | 9.7            | 6.7           | 1.9         | 1.5           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 1.7             | 0.8         | 1.2           | 0.9      |               | 2.3             | 3.9      | 2.1        | 2.1         | 1.2          | 0.6            | 1.3                | 0.9        | 1.1               | 3.0           | 1.2             | 0.6          | 1.0            | 1.1            | 1.2           | 0.6         | 1.2           |          |       | 1.0    |
| CHOICE_1                            | FRANCIS SOMESEL    | Count             | 24.0            | 17.0        | 7.0           | 17.0     | 15.0          |                 | 1.0      | 26.0       | 17.0        | 7.0          | 13.0           | 19.0               | 17.0       | 6.0               |               | 5.0             | 4.0          | 15.0           | 21.0           | 8.0           | 9.0         | 4.0           |          |       | 252.0  |
|                                     |                    | % within CHOICE_1 | 9.5             | 6.7         | 2.8           | 6.7      | 6.0           |                 | 0.4      | 10.3       | 6.7         | 2.8          | 5.2            | 7.5                | 6.7        | 2.4               |               | 2.0             | 1.6          | 6.0            | 8.3            | 3.2           | 3.6         | 1.6           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 2.2             | 0.9         | 0.8           | 1.0      | 3.4           |                 | 0.8      | 2.7        | 3.3         | 1.2          | 0.3            | 2.7                | 0.9        | 3.2               |               | 0.6             | 0.8          | 0.6            | 0.9            | 0.5           | 1.0         | 1.2           |          |       | 1.0    |
| CHOICE_1                            | H. BROWN           | Count             | 3.0             | 2.0         | 2.0           | 1.0      | 3.0           | 1.0             |          | 3.0        | 1.0         | 3.0          | 2.0            | 1.0                | 1.0        | 3.0               | 1.0           | 1.0             | 3.0          | 1.0            | 4.0            | 3.0           | 1.0         | 1.0           |          |       | 35.0   |
|                                     |                    | % within CHOICE_1 | 8.6             | 5.7         | 5.7           | 2.9      | 8.6           | 2.9             |          | 8.6        | 2.9         | 8.6          | 5.7            | 2.9                | 2.9        | 8.6               | 2.9           |                 | 8.6          | 2.9            | 11.4           |               | 8.6         | 2.9           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 0.3             | 0.1         | 0.2           | 0.1      | 0.7           | 0.2             |          | 0.3        | 0.2         | 0.5          | 0.0            | 0.1                | 0.1        | 1.6               |               | 0.1             | 0.1          | 0.2            | 0.2            |               | 0.2         | 0.3           |          |       | 0.1    |
| CHOICE_1                            | JIM SIEGEL         | Count             | 133.0           | 44.0        | 41.0          | 47.0     | 20.0          | 73.0            | 3.0      |            | 40.0        | 18.0         | 71.0           | 75.0               | 103.0      | 11.0              |               | 3.0             | 28.0         | 24.0           | 106.0          | 22.0          | 181.0       | 8.0           |          |       | 1101.0 |
|                                     |                    | % within CHOICE_1 | 12.1            | 4.0         | 3.7           | 4.3      | 1.8           | 6.6             | 0.3      | 3.6        | 1.6         | 6.4          | 6.8            | 9.4                | 1.0        | 0.3               | 2.5           |                 | 2.2          | 4.5            | 9.6            | 2.0           | 16.4        | 0.7           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 12.4            | 2.2         | 4.4           | 2.7      | 4.5           | 16.8            | 2.3      | 3.1        | 1.5         | 10.7         | 5.2            | 5.9                | 2.3        | 3.4               | 4.7           | 2.0             | 4.6          | 1.5            | 20.7           | 2.4           | 20.7        | 2.4           |          |       | 4.3    |
| CHOICE_1                            | JOSEPH BLUE        | Count             | 25.0            | 30.0        | 19.0          | 31.0     | 17.0          | 16.0            | 2.0      | 25.0       |             | 9.0          | 48.0           | 24.0               | 38.0       | 8.0               | 6.0           | 42.0            | 14.0         | 51.0           | 36.0           | 30.0          | 17.0        | 13.0          |          |       | 501.0  |
|                                     |                    | % within CHOICE_1 | 5.0             | 6.0         | 3.8           | 6.2      | 3.4           | 3.2             | 0.4      | 5.0        |             | 1.8          | 9.6            | 4.8                | 7.6        | 1.6               | 1.2           | 8.4             | 2.8          | 10.2           | 7.2            | 6.0           | 3.4         | 2.6           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 2.3             | 1.5         | 2.1           | 1.8      | 3.8           | 3.7             | 1.6      | 2.5        |             | 1.6          | 1.0            | 3.4                | 1.9        | 4.3               |               | 4.5             | 5.0          | 2.8            | 2.0            | 1.6           | 2.0         | 1.9           |          |       | 2.0    |
| CHOICE_1                            | JULIAN DAVIS       | Count             | 12.0            | 14.0        | 18.0          | 14.0     | 11.0          | 4.0             | 5.0      | 10.0       | 7.0         |              | 22.0           | 16.0               | 12.0       | 7.0               | 3.0           | 11.0            | 14.0         | 24.0           | 29.0           | 33.0          | 12.0        | 2.0           |          | 1.0   | 281.0  |
|                                     |                    | % within CHOICE_1 | 4.3             | 5.0         | 6.4           | 5.0      | 3.9           | 1.4             | 1.8      | 3.6        | 2.5         |              | 7.8            | 5.7                | 4.3        | 2.5               | 1.1           | 3.9             | 5.0          | 8.5            | 10.3           | 11.7          | 4.3         | 0.7           |          | 0.4   | 100.0  |
|                                     |                    | % within CHOICE_3 | 1.1             | 0.7         | 1.9           | 0.8      | 2.5           | 0.9             | 3.9      | 1.0        | 1.4         |              | 0.5            | 2.3                | 0.6        | 3.8               | 2.3           | 1.3             | 2.8          | 0.9            | 1.3            | 2.2           | 1.4         | 0.6           |          | 100.0 | 1.1    |
| CHOICE_1                            | LISA FELDSTEIN     | Count             | 117.0           | 157.0       | 97.0          | 201.0    | 54.0          | 38.0            | 10.0     | 63.0       | 52.0        | 46.0         |                | 47.0               | 216.0      | 11.0              | 12.0          | 76.0            | 33.0         | 419.0          | 410.0          | 172.0         | 73.0        | 44.0          |          |       | 2348.0 |
|                                     |                    | % within CHOICE_1 | 5.0             | 6.7         | 4.1           | 8.6      | 2.3           | 1.6             | 0.4      | 2.7        | 2.2         | 2.0          |                | 2.0                | 9.2        | 0.5               | 0.5           | 3.2             | 1.4          | 17.8           | 17.5           | 7.3           | 3.1         | 1.9           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 10.9            | 8.0         | 10.5          | 11.4     | 12.1          | 8.8             | 7.8      | 6.4        | 10.1        | 8.0          |                | 6.7                | 10.9       | 5.9               | 9.1           | 9.1             | 6.5          | 16.5           | 17.7           | 11.4          | 8.4         | 13.3          |          |       | 9.2    |
| CHOICE_1                            | MICHAEL E O'CONNOR | Count             | 30.0            | 19.0        | 22.0          | 24.0     | 15.0          | 14.0            | 4.0      | 86.0       | 19.0        | 34.0         | 30.0           |                    | 27.0       | 10.0              | 5.0           | 29.0            | 29.0         | 53.0           | 59.0           | 36.0          | 38.0        | 10.0          |          |       | 613.0  |
|                                     |                    | % within CHOICE_1 | 4.9             | 3.1         | 3.6           | 3.9      | 2.4           | 2.3             | 0.7      | 14.0       | 3.1         | 5.5          | 8.2            |                    | 4.4        | 1.6               | 0.8           | 4.7             | 4.7          | 8.6            | 9.6            | 5.9           | 6.2         | 1.6           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 2.8             | 1.0         | 2.4           | 1.4      | 3.4           | 3.2             | 3.1      | 8.8        | 3.7         | 5.9          | 1.0            |                    | 1.4        | 5.4               | 3.8           | 3.5             | 5.7          | 2.1            | 2.6            | 2.4           | 4.3         | 3.0           |          |       | 2.4    |
| CHOICE_1                            | NICK WAUGH         | Count             | 122.0           | 145.0       | 103.0         | 189.0    | 30.0          | 26.0            | 7.0      | 88.0       | 45.0        | 60.0         | 256.0          | 60.0               |            | 13.0              | 6.0           | 79.0            | 55.0         | 246.0          | 286.0          | 147.0         | 77.0        | 33.0          |          |       | 2073.0 |
|                                     |                    | % within CHOICE_1 | 5.9             | 7.0         | 5.0           | 9.1      | 1.4           | 1.3             | 0.3      | 4.2        | 2.2         | 2.9          | 12.3           | 2.9                |            | 0.6               | 0.3           | 3.8             | 2.7          | 11.9           | 13.8           | 7.1           | 3.7         | 1.6           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 11.4            | 7.4         | 11.1          | 10.7     | 6.7           | 6.0             | 5.5      | 9.0        | 8.7         | 10.4         | 5.3            | 8.5                |            | 7.0               | 4.5           | 9.5             | 10.8         | 9.7            | 12.4           | 9.7           | 8.8         | 9.9           |          |       | 8.1    |
| CHOICE_1                            | PATRICK M. CIOCCA  | Count             | 3.0             | 1.0         |               | 1.0      | 3.0           | 4.0             |          | 7.0        | 3.0         | 5.0          | 2.0            | 4.0                | 6.0        |                   |               |                 | 2.0          | 4.0            | 7.0            | 4.0           | 4.0         | 7.0           |          |       | 67.0   |
|                                     |                    | % within CHOICE_1 | 4.5             | 1.5         |               | 1.5      | 4.5           | 6.0             |          | 10.4       | 4.5         | 7.5          | 3.0            | 6.0                | 9.0        |                   |               |                 | 3.0          | 6.0            | 10.4           | 6.0           | 6.0         | 10.4          |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 0.3             | 0.1         |               | 0.1      | 0.7           | 0.9             |          | 0.7        | 0.6         | 0.9          | 0.0            | 0.6                | 0.3        |                   |               |                 | 0.2          | 0.8            | 0.3            | 0.2           | 0.3         | 0.8           |          |       | 0.3    |
| CHOICE_1                            | PHILLIP HOUSE      | Count             | 2.0             |             | 1.0           | 3.0      | 1.0           | 1.0             |          | 1.0        | 2.0         | 4.0          | 3.0            | 1.0                |            |                   | 1.0           |                 |              | 3.0            | 2.0            | 5.0           |             | 1.0           |          |       | 37.0   |
|                                     |                    | % within CHOICE_1 | 5.4             |             | 2.7           | 8.1      | 2.7           | 2.7             |          | 2.7        | 5.4         | 10.8         | 8.1            | 2.7                |            |                   | 2.7           |                 |              | 8.1            | 5.4            | 13.5          |             | 13.5          |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 0.2             |             | 0.1           | 0.2      | 0.2           | 0.2             |          | 0.1        | 0.4         | 0.7          | 0.1            | 0.1                |            |                   | 0.5           |                 |              | 0.6            | 0.1            | 0.2           |             | 0.3           |          |       | 0.1    |
| CHOICE_1                            | PHOENIX STREETS    | Count             | 13.0            | 32.0        | 22.0          | 32.0     | 11.0          | 6.0             | 6.0      | 13.0       | 13.0        | 9.0          | 64.0           | 17.0               | 33.0       | 4.0               | 8.0           |                 | 21.0         | 42.0           | 53.0           | 38.0          | 18.0        | 11.0          |          |       | 466.0  |
|                                     |                    | % within CHOICE_1 | 2.8             | 6.9         | 4.7           | 6.9      | 2.4           | 1.3             | 1.3      | 2.8        | 2.8         | 1.9          | 13.7           | 3.6                | 7.1        | 0.9               | 1.7           |                 | 4.5          | 9.0            | 11.4           | 8.2           | 3.9         | 2.4           |          |       | 100.0  |
|                                     |                    | % within CHOICE_3 | 1.2             | 1.6         | 2.4           | 1.8      | 2.5           | 1.4             | 4.7      | 1.3        | 2.5         | 1.6          | 1.3            | 2.4                | 1.7        | 2.2               | 6.1           |                 | 4.1          | 1.7            | 2.3            | 2.5           | 2.1         | 3.3           |          |       | 1.8    |
| CHOICE_1                            | ROB ANDERSON       | Count             | 3.0             | 5.0         | 21.0          | 18.0     | 2.0           | 1.0             | 6.0      | 17.0       | 3.0         | 18.0         | 12.0           | 16.0               | 22.0       | 8.0               | 2.0           | 12.0            |              |                | 15.0           | 17.0          | 32.0        | 7.0           | 7.0      |       |        |

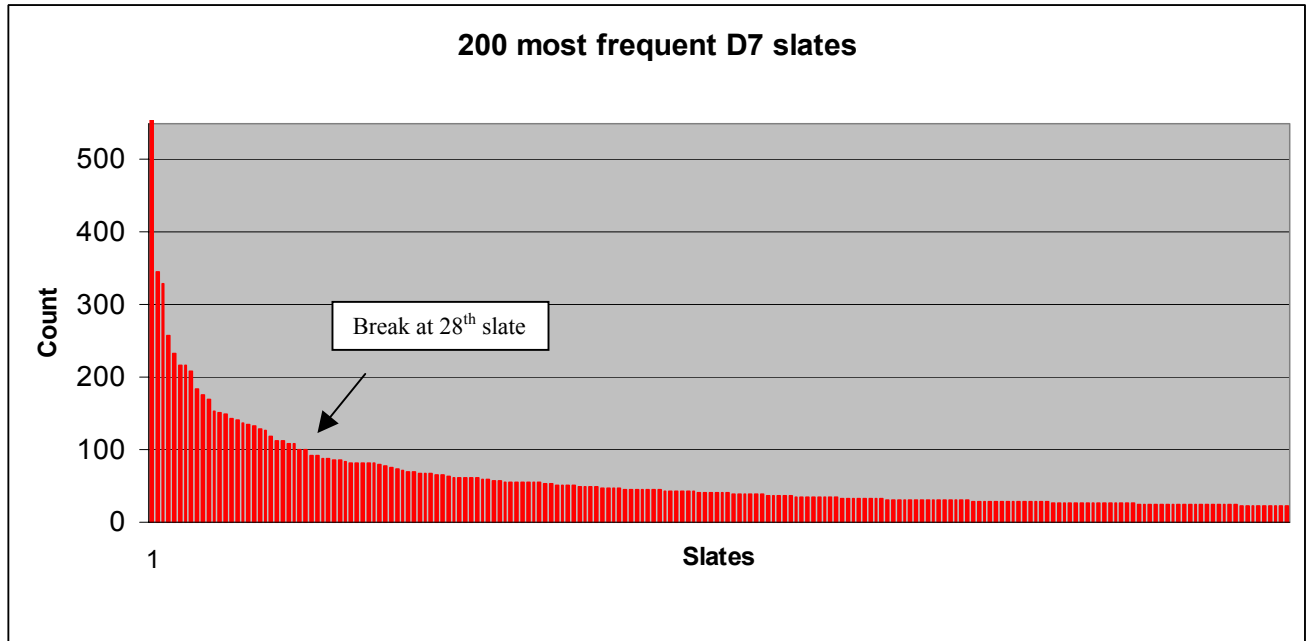
D7

Sean Elsbernd had a relatively strong challenge in neighborhood-strong D7. Yet, he finished as the clear winner in an RCV contest. He was on 56% on all slates, and won with 56% after RCV passes were completed, to Christine Linnenbach's 45%. In the first round, he took 33% of first choice votes to Linnenbach's 22%.

Elsbernd had only been on the Board a few months, picked by Newsom to succeed Tony Hall. By the end of the D7 race, there had developed a type of anti-Elsbernd (perhaps more anti-downtown) solidarity among the other candidates. This does appear to play out in the second and third choices for people who voted other than Elsbernd for their first choice.

Figure 9 shows the frequencies of all the slates. The break, a bit less clear here, is at the 28<sup>th</sup> most frequent slate. Figure 10 shows the top 28 most frequent slates, with the top 10 appropriately color coded.

**Figure 9: D7 slate frequency**



**Figure 10: 28 Most frequent D7 slates.**

|   | Slate (choice 1, 2, 3)  | Frequency | Percent | Cumulative Percent |
|---|---|-----------|---------|--------------------|
|   | Total   | 19136     | 100     |                    |
| 1 | SEAN R. ELSBERND    CHRISTINE LINNENBACH    MILTON "RENNIE" O'BRIEN | 345       | 1.8     | 1.8                |
| 2 | SEAN R. ELSBERND    CHRISTINE LINNENBACH    VERNON C. GRIGG III     | 329       | 1.7     | 3.5                |
| 3 | SEAN R. ELSBERND    VERNON C. GRIGG III    CHRISTINE LINNENBACH     | 257       | 1.3     | 4.9                |

|    |                      |                         |                         |     |     |      |
|----|----------------------|-------------------------|-------------------------|-----|-----|------|
| 4  | SEAN R. ELSBERND     | CHRISTINE LINNENBACH    | GREGORY CORRALES        | 233 | 1.2 | 6.1  |
| 5  | CHRISTINE LINNENBACH | SEAN R. ELSBERND        | VERNON C. GRIGG III     | 216 | 1.1 | 7.2  |
| 6  | SEAN R. ELSBERND     | MILTON "RENNIE" O'BRIEN | CHRISTINE LINNENBACH    | 216 | 1.1 | 8.3  |
| 7  | CHRISTINE LINNENBACH | VERNON C. GRIGG III     | SEAN R. ELSBERND        | 209 | 1.1 | 9.4  |
| 8  | CHRISTINE LINNENBACH | SHAWN REIFSTECK         | SEAN R. ELSBERND        | 183 | 1.0 | 10.4 |
| 9  | SEAN R. ELSBERND     | GREGORY CORRALES        | CHRISTINE LINNENBACH    | 175 | 0.9 | 11.3 |
| 10 | CHRISTINE LINNENBACH | SEAN R. ELSBERND        | MILTON "RENNIE" O'BRIEN | 170 | 0.9 | 12.2 |
| 11 | SEAN R. ELSBERND     | CHRISTINE LINNENBACH    | MICHAEL PATRICK MALLEN  | 153 | 0.8 | 13.0 |
| 12 | SEAN R. ELSBERND     | CHRISTINE LINNENBACH    | ISAAC WANG              | 151 | 0.8 | 13.8 |
| 13 | CHRISTINE LINNENBACH | SEAN R. ELSBERND        | GREGORY CORRALES        | 149 | 0.8 | 14.6 |
| 14 | VERNON C. GRIGG III  | CHRISTINE LINNENBACH    | SEAN R. ELSBERND        | 144 | 0.8 | 15.3 |
| 15 | CHRISTINE LINNENBACH | SHAWN REIFSTECK         | MILTON "RENNIE" O'BRIEN | 142 | 0.7 | 16.1 |
| 16 | SEAN R. ELSBERND     | PAT LAKEY               | CHRISTINE LINNENBACH    | 138 | 0.7 | 16.8 |
| 17 | SEAN R. ELSBERND     | CHRISTINE LINNENBACH    | SHAWN REIFSTECK         | 134 | 0.7 | 17.5 |
| 18 | SEAN R. ELSBERND     | MILTON "RENNIE" O'BRIEN | GREGORY CORRALES        | 133 | 0.7 | 18.2 |
| 19 | SEAN R. ELSBERND     | GREGORY CORRALES        | MILTON "RENNIE" O'BRIEN | 128 | 0.7 | 18.8 |
| 20 | CHRISTINE LINNENBACH | MILTON "RENNIE" O'BRIEN | SEAN R. ELSBERND        | 126 | 0.7 | 19.5 |
| 21 | CHRISTINE LINNENBACH | SHAWN REIFSTECK         | VERNON C. GRIGG III     | 119 | 0.6 | 20.1 |
| 22 | VERNON C. GRIGG III  | SEAN R. ELSBERND        | CHRISTINE LINNENBACH    | 113 | 0.6 | 20.7 |
| 23 | SEAN R. ELSBERND     | CHRISTINE LINNENBACH    | PAT LAKEY               | 112 | 0.6 | 21.3 |
| 24 | SEAN R. ELSBERND     | CHRISTINE LINNENBACH    | ART BELENSON            | 109 | 0.6 | 21.9 |
| 25 | SEAN R. ELSBERND     | GREGORY CORRALES        | MICHAEL PATRICK MALLEN  | 109 | 0.6 | 22.4 |
| 26 | SEAN R. ELSBERND     | MICHAEL PATRICK MALLEN  | CHRISTINE LINNENBACH    | 101 | 0.5 | 23.0 |
| 27 | SEAN R. ELSBERND     | ISAAC WANG              | CHRISTINE LINNENBACH    | 100 | 0.5 | 23.5 |
| 28 | CHRISTINE LINNENBACH | GREGORY CORRALES        | SEAN R. ELSBERND        | 92  | 0.5 | 24.0 |

Elsbernd was on the top 14 slates, indicating that he did have strong support among D7 voters. However, Linnenbach was on the top 17 most frequent slates in one place or another. Linnenbach did finish with 44% of votes to Elsbernd's 56%. Moreover, she was on 54% of all slates. In a real runoff setting, she may have had a legitimate shot at winning. Moreover, Linnenbach had more total second and third place votes than Elsbernd. Finishing 3<sup>rd</sup> through 5<sup>th</sup> was Isaac Wang, Greg Corrales, and Rennie O'Brien.

Vernon Grigg, who finished 6<sup>th</sup>, did quite well in the most frequent slates, but did not garner the support from the candidates who finished in the middle of the pack. Looking at the crosstab of first choice versus second choice votes (Figure 9), Grigg received 15% of Linnenbach's second choice votes, and 10% of Elsbernd's. However, he did not fare as well with the other candidates.

Elsbernd and Linnenbach did to some extent trade votes, where Linnenbach received 28% of Elsbernd's second choice votes, while Elsbernd received 22% of Linnenbach's second choice votes. Because these were the top two finishers, these votes never came into play. Linnenbach received strong second choice votes from Mallen, Grigg, Reifstick, and Parker as well. Elsbernd also did well with Grigg, Parker, and Benelson. However, Elsbernd was able to win on a strong first place vote, similar to D1, despite not doing as well with the second and third choice votes.





D11

Gerardo Sandoval won easily in D11, after perhaps the most negative campaign in the City. He was on 57% on all slates (whether it was 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup>), and is leading with 59% at the time of press.<sup>4</sup> In the first round, he took 32% of first choice votes to Myrna Lim’s 18%.

Sandoval’s competition was splintered, and that may have accounted for his relatively easy win. Figure 13 shows the frequency of all slates that the voters chose in D11. Here, the break is at 29 slates. Figure 14 displays the 29 most frequently voted slates, color-coded at the top to show like combinations.

Figure 13: D7 slate frequency

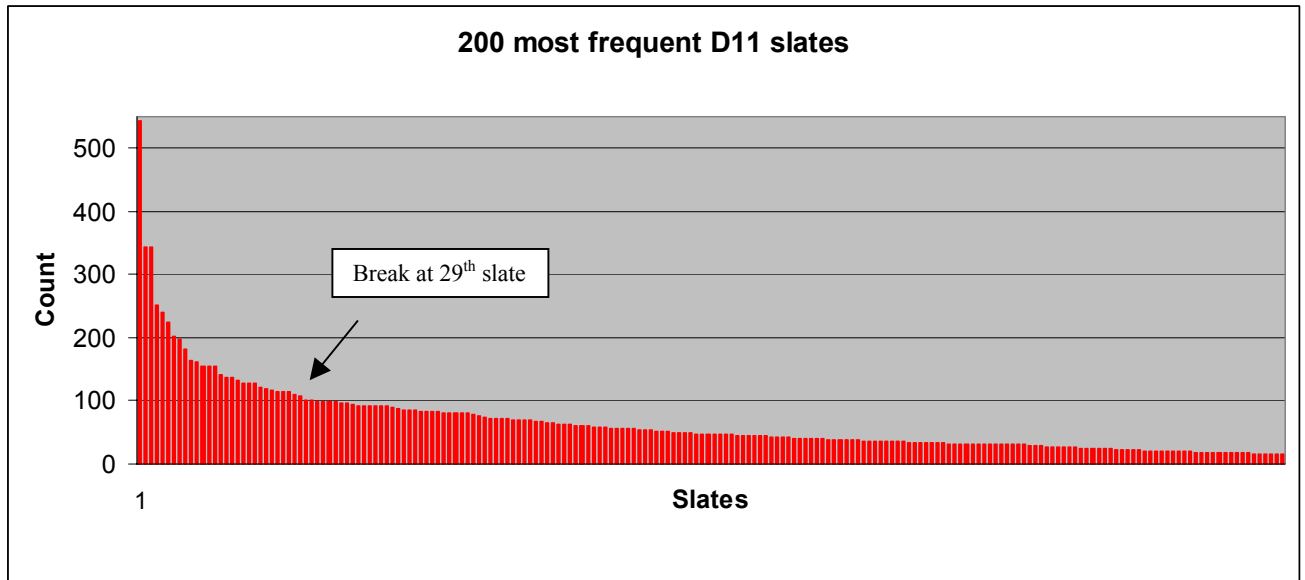


Figure 14: 29 most frequent D11 slates

|    | Slate (choice 1, 2, 3)                                   | Frequency | Percent | Cumulative Percent |
|----|--|-----------|---------|--------------------|
| 1  | GERARDO SANDOVAL JOSE MEDINA ROLANDO A. BONILLA          | 543       | 3.8     | 3.8                |
| 2  | GERARDO SANDOVAL JOSE MEDINA ANITA GRIER                 | 343       | 2.4     | 6.2                |
| 3  | GERARDO SANDOVAL ROLANDO A. BONILLA JOSE MEDINA          | 343       | 2.4     | 8.6                |
| 4  | GERARDO SANDOVAL JOSE MEDINA REBECCA REYNOLDS SILVERBERG | 252       | 1.8     | 10.4               |
| 5  | JOSE MEDINA GERARDO SANDOVAL ROLANDO A. BONILLA          | 241       | 1.7     | 12.1               |
| 6  | GERARDO SANDOVAL ANITA GRIER JOSE MEDINA                 | 224       | 1.6     | 13.7               |
| 7  | GERARDO SANDOVAL JOSE MEDINA MYRNA VIRAY LIM             | 201       | 1.4     | 15.1               |
| 8  | ROLANDO A. BONILLA GERARDO SANDOVAL JOSE MEDINA          | 197       | 1.4     | 16.5               |
| 9  | GERARDO SANDOVAL REBECCA REYNOLDS SILVERBERG JOSE MEDINA | 182       | 1.3     | 17.8               |
| 10 | GERARDO SANDOVAL MYRNA VIRAY LIM JOSE MEDINA             | 163       | 1.1     | 18.9               |
| 11 | MYRNA VIRAY LIM TOM YUEN ANITA GRIER                     | 161       | 1.1     | 20.0               |
| 12 | GERARDO SANDOVAL ROLANDO A. BONILLA MYRNA VIRAY LIM      | 156       | 1.1     | 21.1               |

<sup>4</sup> Exhausted ballots account for the different proportions, as Sandoval has 59% of remaining ballots.

|    |                    |                             |                             |     |     |      |
|----|--------------------|-----------------------------|-----------------------------|-----|-----|------|
| 13 | MYRNA VIRAY LIM    | ANITA GRIER                 | TOM YUEN                    | 156 | 1.1 | 22.2 |
| 14 | GERARDO SANDOVAL   | REBECCA REYNOLDS SILVERBERG | ANITA GRIER                 | 154 | 1.1 | 23.3 |
| 15 | ANITA GRIER        | MYRNA VIRAY LIM             | TOM YUEN                    | 142 | 1.0 | 24.3 |
| 16 | MYRNA VIRAY LIM    | GERARDO SANDOVAL            | JOSE MEDINA                 | 138 | 1.0 | 25.3 |
| 17 | TOM YUEN           | MYRNA VIRAY LIM             | ANITA GRIER                 | 137 | 1.0 | 26.3 |
| 18 | GERARDO SANDOVAL   | ANITA GRIER                 | REBECCA REYNOLDS SILVERBERG | 132 | 0.9 | 27.2 |
| 19 | ANITA GRIER        | GERARDO SANDOVAL            | JOSE MEDINA                 | 127 | 0.9 | 28.1 |
| 20 | MYRNA VIRAY LIM    | GERARDO SANDOVAL            | ROLANDO A. BONILLA          | 127 | 0.9 | 29.0 |
| 21 | ROLANDO A. BONILLA | JOSE MEDINA                 | GERARDO SANDOVAL            | 127 | 0.9 | 29.9 |
| 22 | JOSE MEDINA        | GERARDO SANDOVAL            | ANITA GRIER                 | 121 | 0.9 | 30.7 |
| 23 | JOSE MEDINA        | ANITA GRIER                 | REBECCA REYNOLDS SILVERBERG | 119 | 0.8 | 31.5 |
| 24 | MYRNA VIRAY LIM    | REBECCA REYNOLDS SILVERBERG | ANITA GRIER                 | 117 | 0.8 | 32.4 |
| 25 | GERARDO SANDOVAL   | MYRNA VIRAY LIM             | ANITA GRIER                 | 114 | 0.8 | 33.2 |
| 26 | MYRNA VIRAY LIM    | JOSE MEDINA                 | GERARDO SANDOVAL            | 114 | 0.8 | 34.0 |
| 27 | MYRNA VIRAY LIM    | TOM YUEN                    | GERARDO SANDOVAL            | 114 | 0.8 | 34.8 |
| 28 | ANITA GRIER        | MYRNA VIRAY LIM             | REBECCA REYNOLDS SILVERBERG | 109 | 0.8 | 35.5 |
| 29 | GERARDO SANDOVAL   | MYRNA VIRAY LIM             | TOM YUEN                    | 108 | 0.8 | 36.3 |

Sandoval was placed on all of the top 10 slates. Interestingly, so was Jose Medina, a former Supervisor, who came in third. Lim, who came in second, was only first listed on the seventh most frequent slate. The most common slate overall, with a combination of Sandoval, Bonilla, and Medina, could be a Latino identity vote, but more research will be required as D11 is a very heterogeneous district.

The crosstabs of the first versus second choice (Figure 15) and first versus third choices (Figure 16) are listed below. Sandoval received a good part of all of the other candidates' second choice vote, including 31% of Medina's and 28% of Rolando Bonilla's. Lim received her highest percentage of second choice votes from Anita Grier.

Medina actually had the highest number of second and third choice votes, but had not received enough first choice votes to have much of a chance. Lim did receive more second and third choice votes than Sandoval, but this is not surprising considering she had many more potential second and third choice votes because Sandoval took many more first-place votes. Sandoval had too large of a lead after the first round to lose in an RCV scenario. And considering he only did slightly worse than Lim for second and third votes, he likely would have defeated her easily in a real runoff.





## Final thoughts

The incumbents won in every district, except D5, but considering Mirkarimi was closely associated with Gonzalez, he was similar to being an incumbent, and won just as handily. It is difficult to say if RCV helps an incumbent per se, but considering that each candidate who won the first place vote won the election by a similar margin, a runner-up in the first choice vote would need a very strong second place vote to make up the difference.

RCV does seem to benefit the first place finisher. Each first place finisher won their respective elections. Since in San Francisco second place finishers have won in a runoff (Dufty, 2002; McGoldrick and Sandoval, 2000), one can argue that RCV changes the dynamics of elections considerably, as candidates no longer have to redefine themselves and expand their voting base. RCV helps the incumbent indirectly, therefore, as RCV helps the first place finishers, and that is usually the incumbent if for no other reason high name recognition.

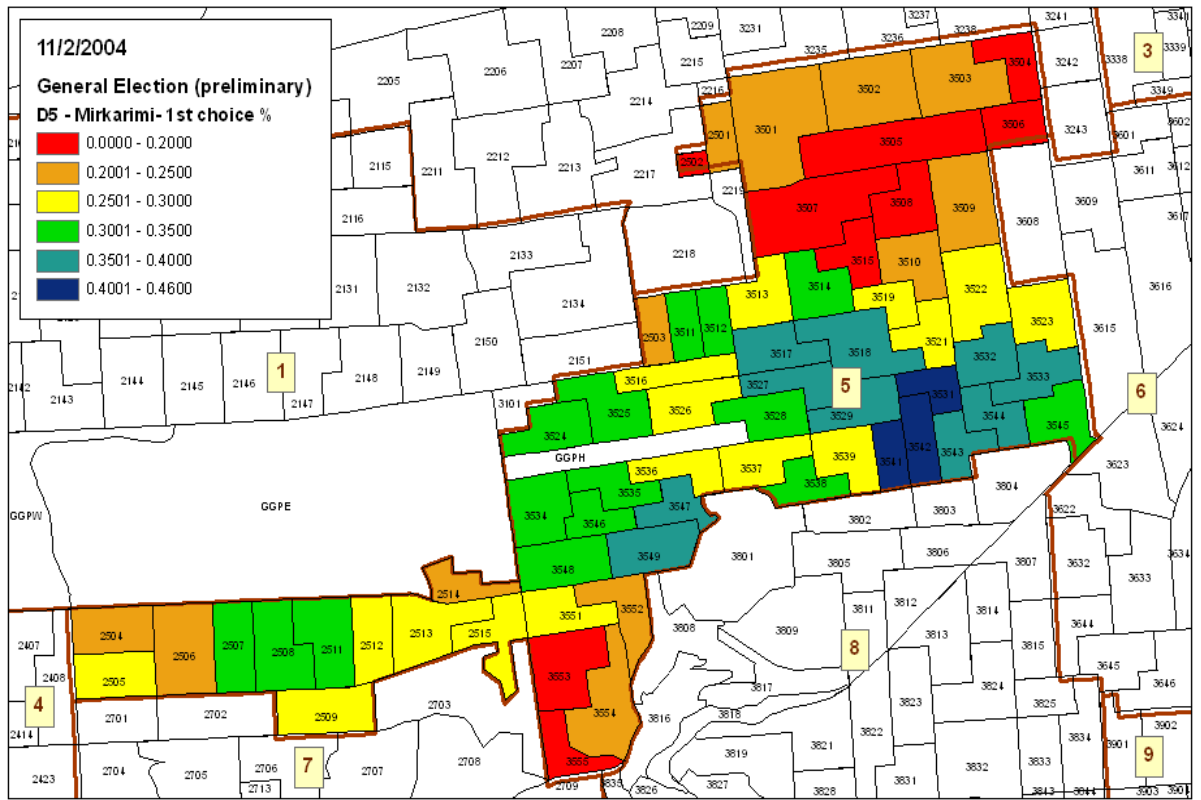
I think Linnenbach may have had a chance to win a D7 runoff, considering she was the strongest second-place finisher. I believe Sandoval, McGoldrick, and Mirkarimi would have won runoffs, based on their strong second place showings from the other major candidates. For D1, Tuchow likely may have had a better chance against McGoldrick than Sing, despite a potential Asian identity vote. In D5, the moderates would have helped Mirkarimi, and in D11, Sandoval had too much broad support and no strong challenger. In D2, D3, and D9, RCV didn't make any difference, and the outcome would have likely been the same without RCV. There may have been a greater difference, actually, as some voters wouldn't have voted their conscience on other candidates.

The Citywide slates, like the SFBG and the DCCC seemed to make a difference this time around, especially in D5. One interesting study will be to look at all the Citywide slates, and their sphere of influence, while comparing it to the election results.

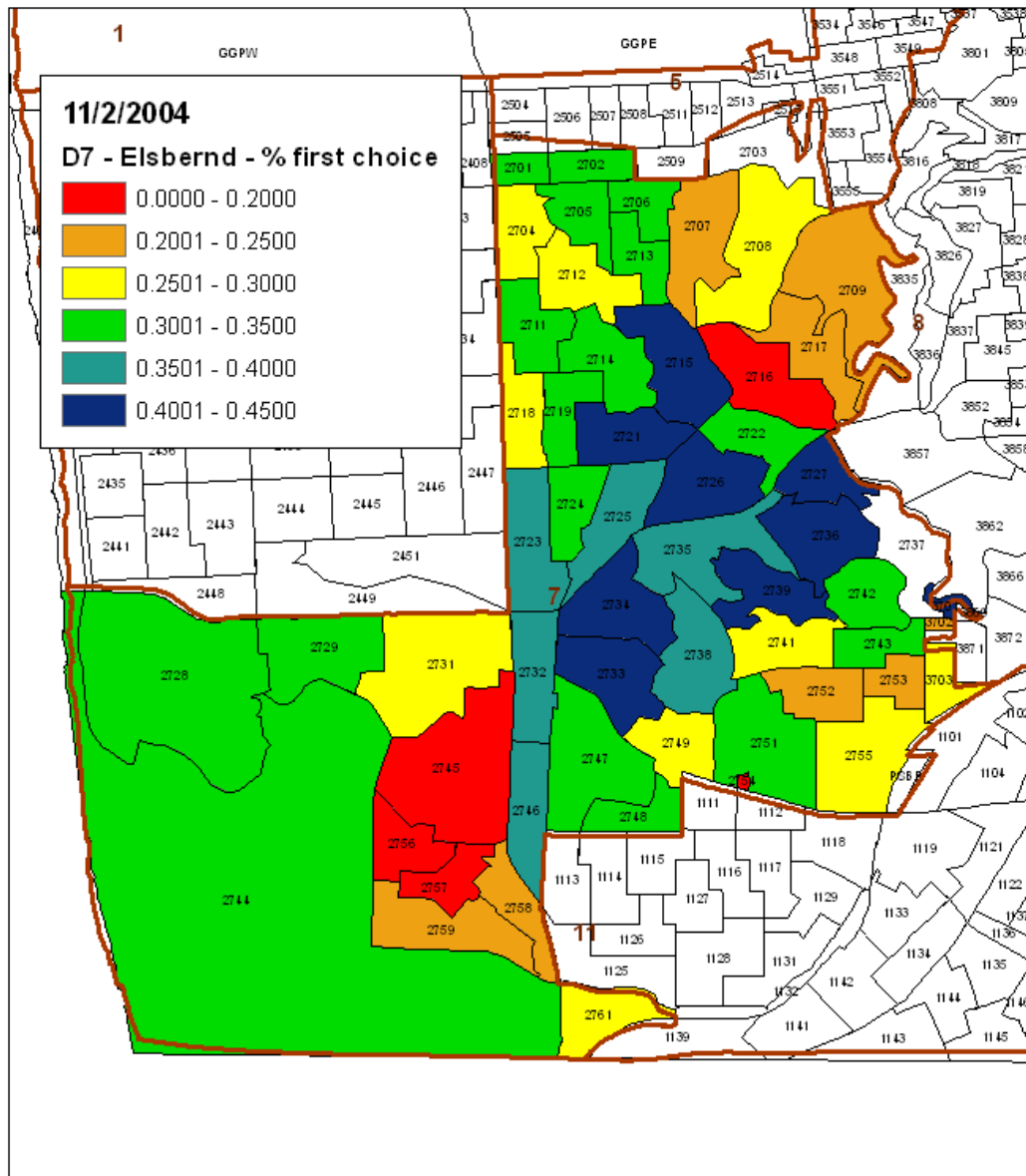
Much more work needs to be done to examine the results carefully. I am looking at the political angle, but what is much more important is to see if this system worked for the voters, and if RCV's complexity affected voting patterns, especially in minority communities or communities where DOE wasn't able to hold as many educational forums.

Also, it will be interesting to study the various demographics of San Francisco, and neighborhoods, to examine how they voted. This can be accomplished after the preliminary statement of vote is released by DOE.

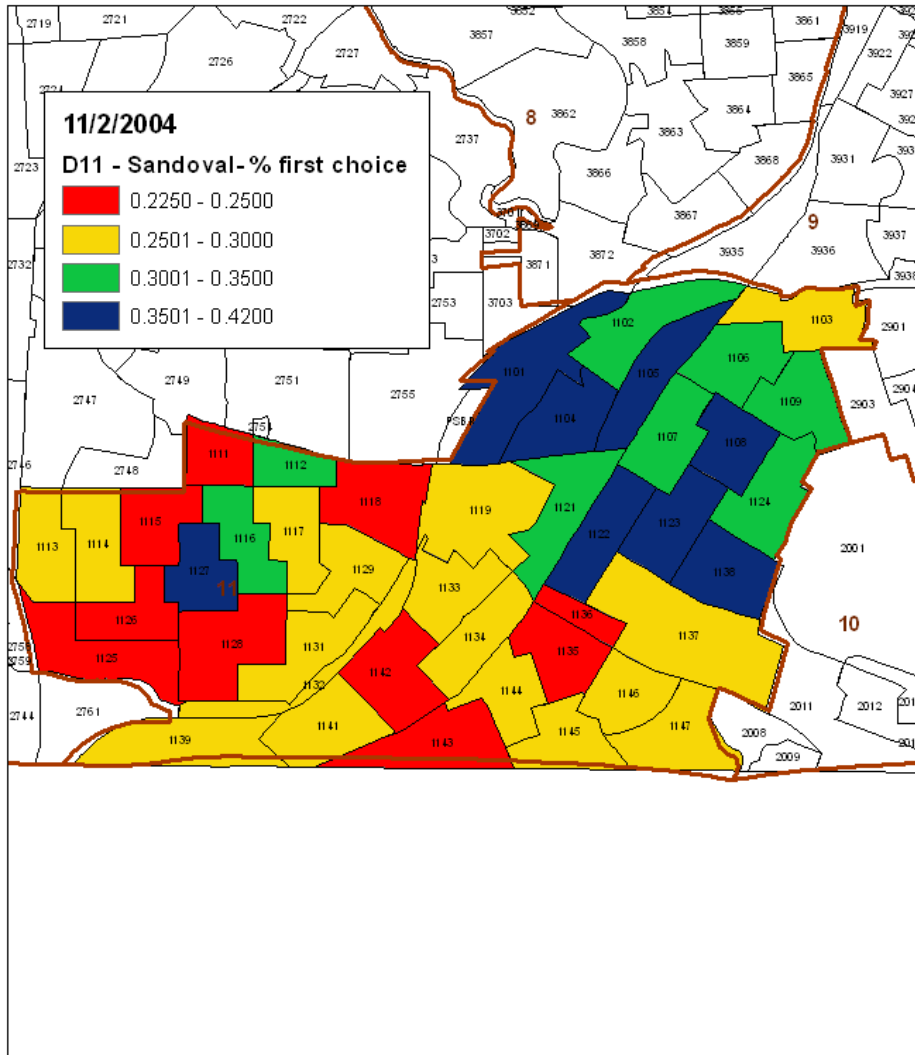




D5: Ross gets a mandaight.



D7: A new Sheriff of Sherwood.



D7: OhMI, Mission Completed.