

Political Changes from the old PVI to the 2003-2006 PVI

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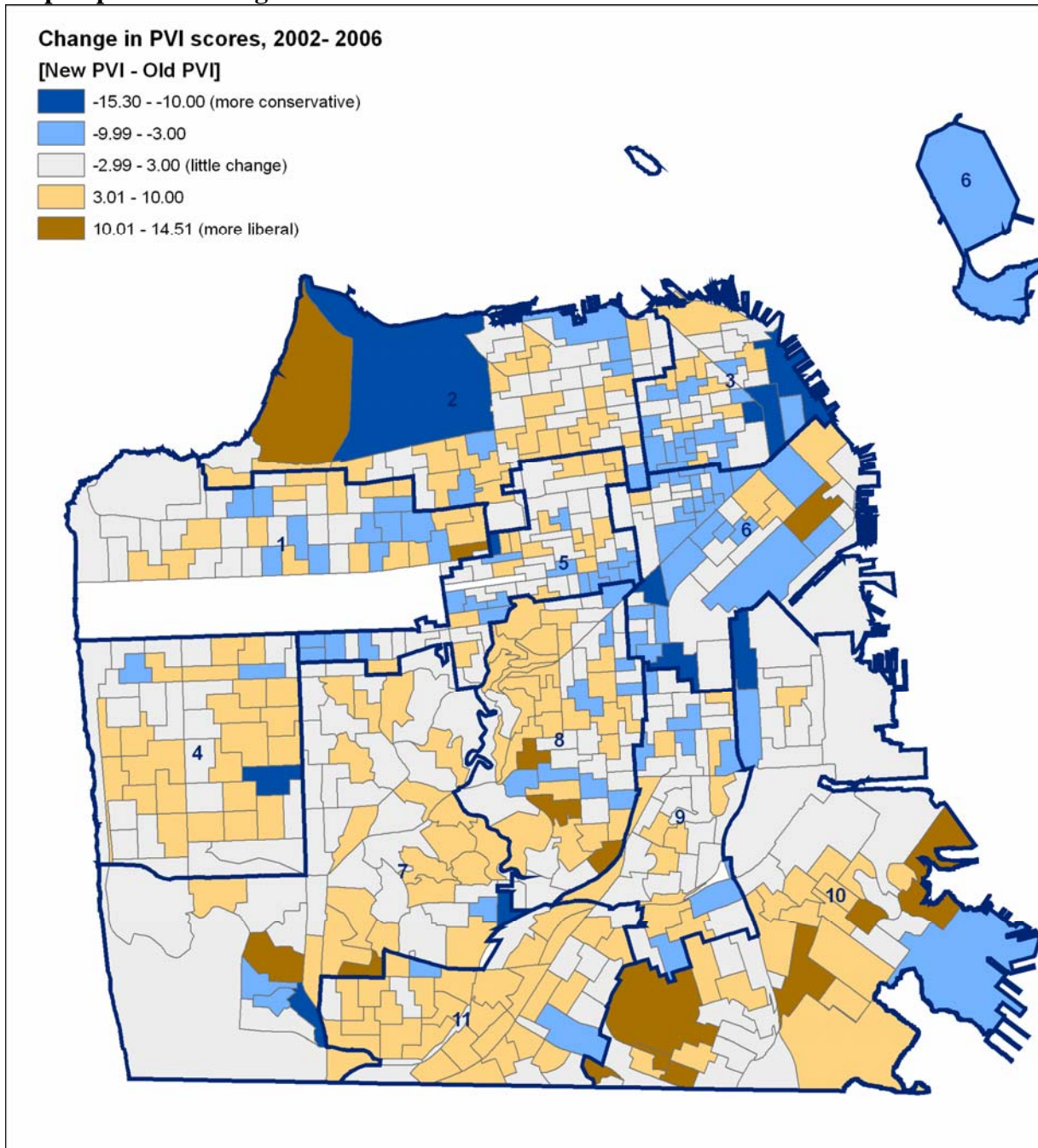
I wanted to take a closer look at the changes in San Francisco from the old PVI to the most recent 2006 PVI, by precinct and by district.

By now, I hope we have convinced you that the methodology and validity of the new PVI is extremely close to the older PVI indices originally created by Rich DeLeon. This is best evidenced by the R^2 of 0.95 in the correlation of the old PVI to the new PVI. Therefore, it should be analytically valid to directly compare the older PVI to the new one, even though the issues in the past few years aren't exactly the same as the issues a few years before that. Also please keep in mind that the PVI is an *index*; it compares precincts to each other. There is no "absolute" metric of progressivism or conservatism. Certainly one couldn't use a San Francisco scale anywhere else in the county. Thus, any change from the new PVI is measuring the change in how precincts compare to *each other*.

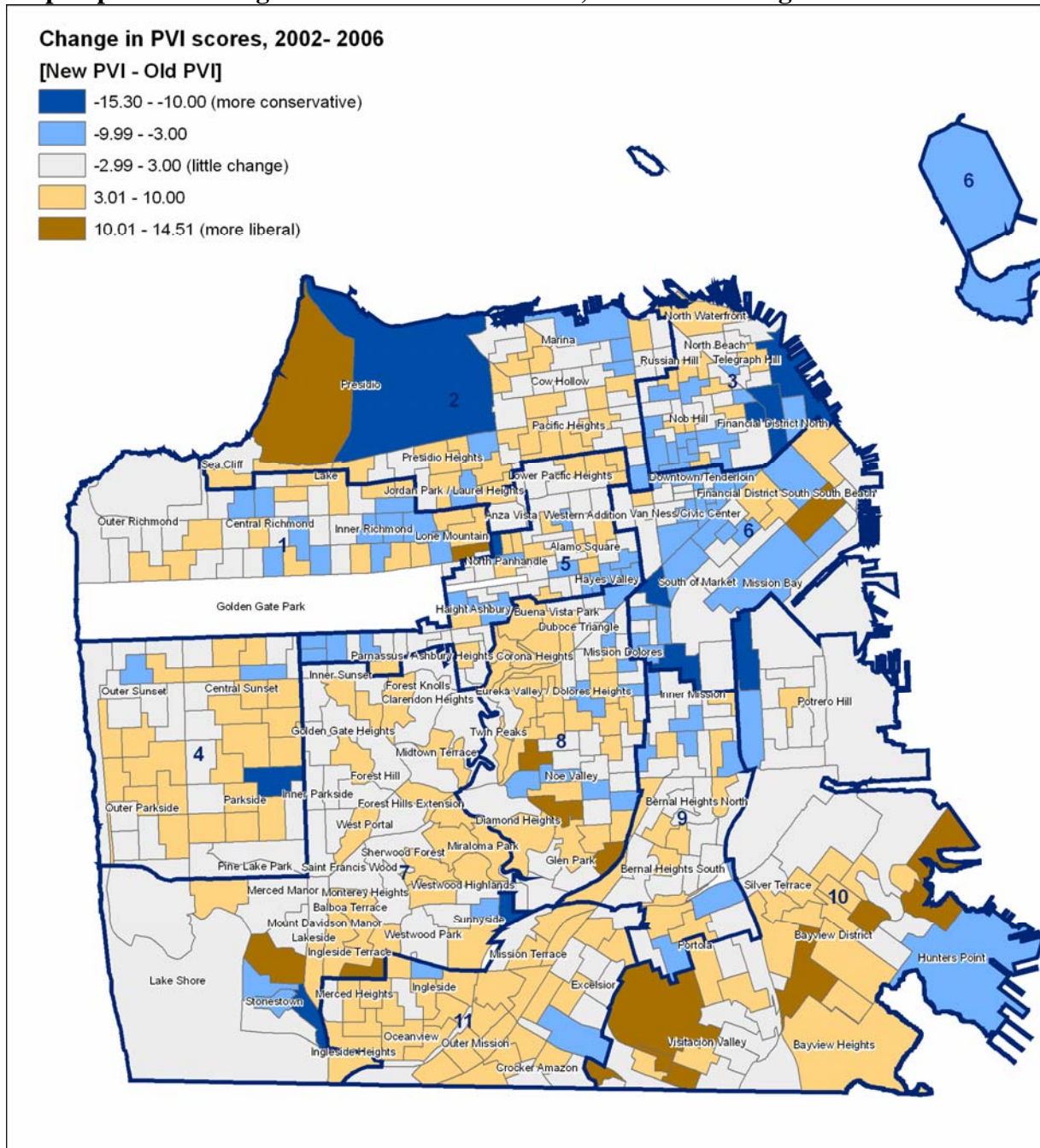
Map 1 shows the change from the old PVI to the new PVI, by precinct. The formula is [new PVI – old PVI], so that if a precinct has become more liberal it's a positive number, and if it's more conservative it's a negative number. Overall, it's important to note, there isn't that much change citywide. Changes are subtle. Qualitatively, we see a belt of more conservative precincts in D6, and D3, as well as a smattering in D5, D8, and D1. Mainly, though, we see a slight move toward more liberal precincts, mainly in D2, 4, 8, 10, and 11. Note D8 was probably the most liberal of these to begin with.

Looking at neighborhoods (Map 2 is the same map with the neighborhood names), we can see that the Bayview and Visitation Valley in D10 moved leftward relatively strongly. Also moving leftward, but less strongly, include OMI, the Castro, and many of the more conservative neighborhoods in the hills of D7 and Pacific Heights. Moving to the right are SOMA and Mission Bay, the downtown areas with new office-to-condo residences, the Tenderloin, Hunter's Point, and the Inner Richmond. It is interesting how Bayview and Hunter's Point have different values even though they have similar citywide concerns.

Map 1: precinct change from old PVI to new PVI



Map 2: precinct change from old PVI to new PVI, labeled with neighborhoods

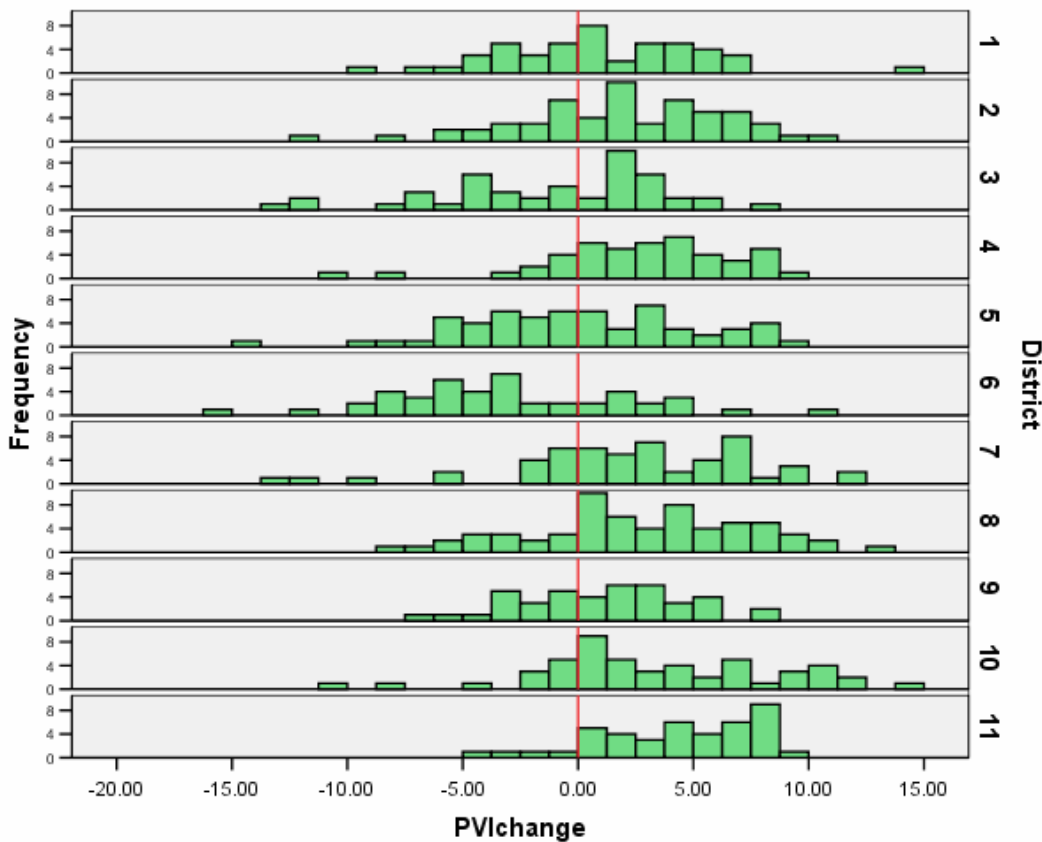


The main new PVI paper has the overall summary statistics of all the districts. Overall, there isn't much change in the most liberal and the most conservative districts from the old PVI to the new PVI. But it is noteworthy to look at changes. Table 1 has the summary *change* statistics by district. Figure 1 shows a precinct histogram, by district, of the change values. Here, you can see what precincts move more liberally or more conservatively in their entirety, or if they split among their various precincts. For instance, nearly all of D10 have higher new PVI values, while D3 is pretty mixed.

Table 1: District-level statistics of PVI change

District	N	Mean	Median	Minimum	Maximum	Std. Deviation
1	47	.8765	.4821	-8.96	14.51	4.36918
2	58	1.7983	1.7810	-11.79	11.25	4.43978
3	46	-1.1186	.0279	-13.69	7.53	4.86853
4	46	2.7175	2.8551	-10.52	9.66	4.02003
5	59	.0702	-.0644	-14.67	8.96	4.84956
6	45	-2.8954	-3.0575	-15.30	10.36	5.09418
7	53	2.3549	2.6251	-12.57	12.22	5.15251
8	63	2.7054	2.6208	-7.81	13.41	4.78275
9	41	.9536	1.3585	-6.81	7.70	3.63260
10	50	3.4959	2.5147	-10.13	14.25	5.11707
11	42	4.3539	4.8434	-4.52	9.19	3.43369
Total	550	1.4271	1.6175	-15.30	14.51	4.95377

Figure 1: Histogram of PVI change, grouped by district



D11 had the overall largest mean change, with a PVI increase of 4 points. We saw from the maps a lot of this came from OMI. The second largest positive change came in D10, with a mean of about 3.5 points. On the other side, D6 had the largest negative change, moving over 4 points more conservatively. Obviously, much of this came from the Mission Bay area.

Finally, I ran many different regression models to try to see what demographic characteristics may have most contributed to change in the past 6 years or so. The data source, as usual, is the 2000 Census, and it is clear that the further we move away from 2000, the less reliable the

variables are as the city changes. Still, these are still the best data available and provide good approximations for explaining the changes we see, and we all understand anyway much of this is an exercise in generalizations.

Most models were not that reliable, meaning much of the change we see inside San Francisco is not attributable directly to any one group of people. Table 2 shows the results of one reliable model, boiled down to a few variables. But notice that even for this model, the explanatory power is slight, with an R^2 of 0.130.¹

Table 2: OLS model of PVI change (model $R^2 = 0.130$)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	-1.036	.424		-2.442	.015
	% Homeowner	6.349	.762	.337	8.329	.000
	% black	5.459	1.531	.144	3.566	.000
	% Latino	-3.250	1.468	-.089	-2.213	.027

a Dependent Variable: PVIchange

Both homeowners and African-Americans have exhibited slightly more liberal voting patterns, while Latinos have shown to vote slightly more conservatively. Much of this can be explained by the maps, which reveal a more conservative Inner Mission and more liberal Bayview. However, these are more “liberal” or more “conservative” by a matter of degrees. The fact that there is some evidence that homeowners are voting a bit more liberally is extremely interesting. It has always been assumed that with new homeownership in San Francisco, voting trends will become more conservative. And we do see more conservative trends where *new* homes are being built, like in D3 and D6. But in other areas of condos and TICs, like the Castro, the trend is more liberal voting patterns. Yet, Hayes Valley has become a bit more conservative. More research is needed here since this is obviously one of the hotter topics in San Francisco politics.

¹ Even looking at dozens of bivariate correlations, nearly all of the usual demographic variables didn’t correlate that strongly to PVI change. Homeownership definitely correlated positive with change ($R = 0.341$), and income correlated slightly (but statistically significantly) positively with change. This was not an expected result.