

PVI 3.0: REVISING & UPDATING THE PROGRESSIVE VOTING INDEX (PVI) WITH MAP, TABLES, AND PRECINCT SCORES

by

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SUMMARY

This report revises and updates the Progressive Voting Index (PVI) for San Francisco precincts. As with earlier editions of the PVI, we believe this latest version continues to be a good single-number summary of overall ideological voting tendencies in the city's precinct electorates. We hope it will also continue to prove useful to professionals in campaign consulting and targeting work, and that journalists, academics, and other political junkies like ourselves will at least find it interesting.

We believe the new PVI improves upon the old PVI in several ways. It incorporates more recent information on a greater number and wider range of ballot issues. It focuses strictly on local ballot measures, and it covers a longer period of elections. And it provides a complete set of scores for all current precincts (November 2004 boundaries).

The old PVI scores were based on an analysis of precinct voting on 22 selected local and state ballot propositions over five elections from March 2000 to November 2002. Thanks to the careful work of Marc Salomon, those old PVI scores were effectively converted and reassigned from old to new precincts under the DOE's recent revision and renumbering of the city's precinct map. The conversion could not be made for some precincts, however, and no attempt was made to convert the raw precinct data for the 22 items that made up the old index; only the old PVI score survived the translation from the old precinct map to the new one. Thus, for better or worse, a single number, the PVI score, was left standing to capture and compress a precinct's history of voting on 22 ballot issues over five elections.

The new PVI scores are based on an analysis of 25 selected local ballot measures presented to voters over five elections from November 2003 through June 2006. To construct this revised and updated PVI, we used more rigorous criteria for selecting index items, and we used the same statistical methods to analyze the precinct voting data and compute precinct PVI scores. (For those who are interested in the methodological details, see the "Methods" section below.) Table 1 below lists the 25 ballot proposition items we used to construct the new PVI.

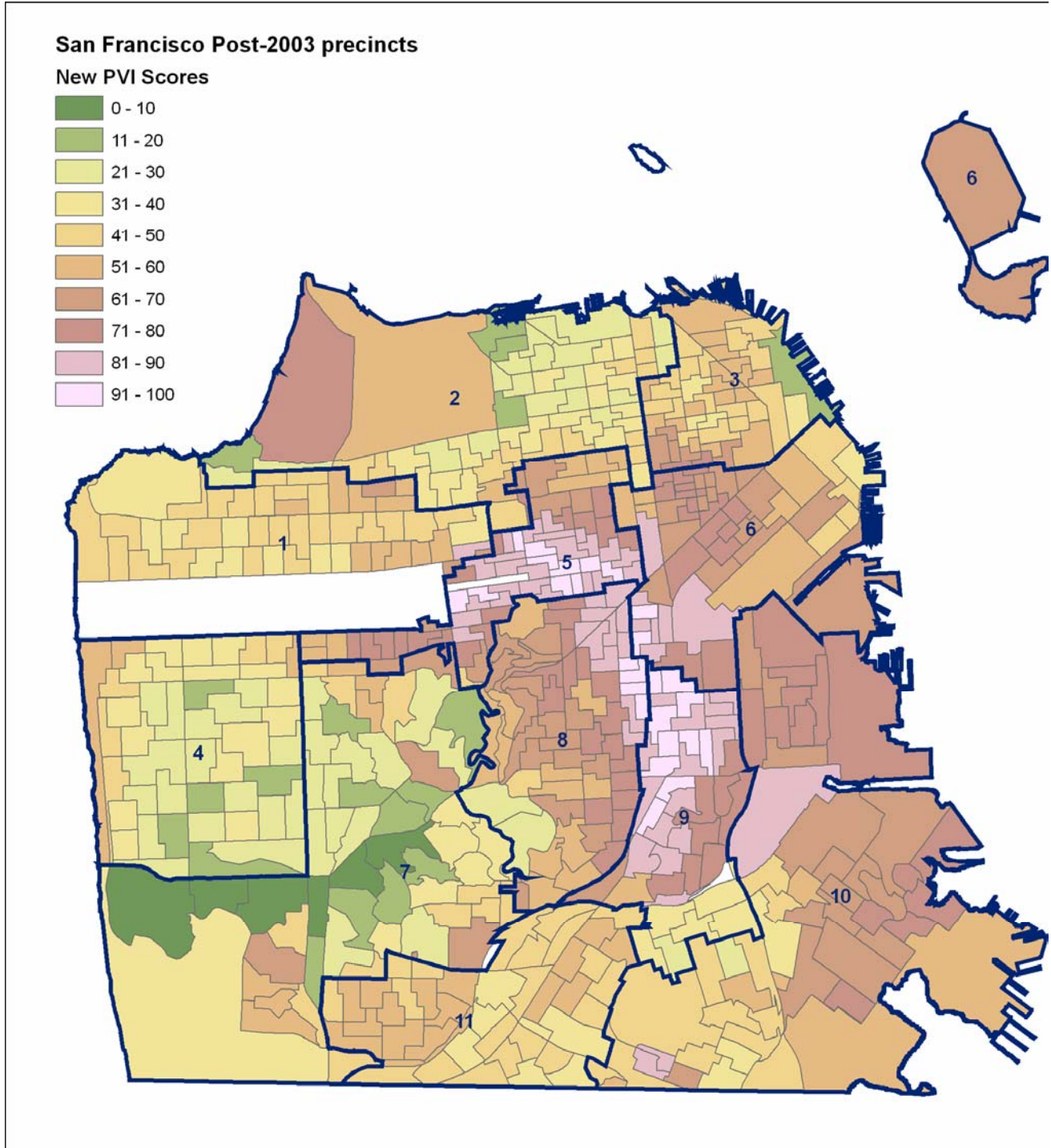
Table 1: Local ballot measures from 2003 – 2006 used in the new PVI

Month	Year	Letter	Subject	Pass/Fail	Percent
NOV	2003	A	School Bonds	P	70.6%
NOV	2003	E	Ethics Reform	P	61.9%
NOV	2003	H	Police Commission / Office of Citizen Complaints	P	51.9%
NOV	2003	I	Child Care for Low Income Families	P	59.9%
NOV	2003	J	Facilities for the Homeless	P	58.7%
NOV	2003	K	Sales Tax for Transportation	P	74.8%
NOV	2003	L	Minimum Wage	P	59.6%
NOV	2003	M	Aggressive Solicitation Ban	P	59.7%
MAR	2004	D	Equal Treatment of Domestic Partners	P	65.1%
MAR	2004	E	Requests for City Records Containing Private Information	P	52.2%
MAR	2004	I	Replacement of Diesel Buses*	P	67.5%
NOV	2004	A	Affordable Housing Bonds	F	64.2%
NOV	2004	B	Historical Preservation Bonds*	F	57.4%
NOV	2004	C	Health Service System	P	56.3%
NOV	2004	D	Changes to City Charter	F	42.1%
NOV	2004	F	Noncitizen Voting in School Board Elections	F	48.6%
NOV	2004	G	Health Plans for City Residents	P	66.8%
NOV	2004	K	Business Tax	F	45.3%
NOV	2004	N	Withdrawing U.S. Military Personnel from Iraq	P	63.3%
NOV	2005	C	Ethics Commission Budget	F	40.3
NOV	2005	D	MTA Appointments	F	35.55
NOV	2005	H	Firearm Ban	P	57.79
NOV	2005	I	Military Recruitment	P	59.15
JUN	2006	A	Homicide Prevention Council	F	49.21
JUN	2006	B	Ellis Act Disclosures	P	52.21

For those of you who prefer to skip all this tech talk and simply want to lay your eyes and hands on the data, feel free to jump ahead to Appendix B. There you will find a spreadsheet that reports the new PVI scores, the old PVI scores, and other information (columns) for all city precincts (rows).

MAP PLUS GRAPHICAL & STATISTICAL ANALYSES OF THE NEW PVI SCORES

Map 1: The New PVI¹



¹ Formatted maps available upon request from Latterman

Comparison of Old PVI to New PVI

Figure 1 shows a correlation of the old PVI with the new PVI. Obviously, the results are extremely close. This indicates two things: our methodology was consistent from the old PVI, especially in carefully choosing the relevant issues. Second, this could indicate that for the most part, there has been little change in the electorate over the past five years, despite people of all political persuasions insisting the electorate is moving in their (or the other's!) direction.

Figure 1: Correlation of new PVI with old PVI. (R^2 is 0.95.)

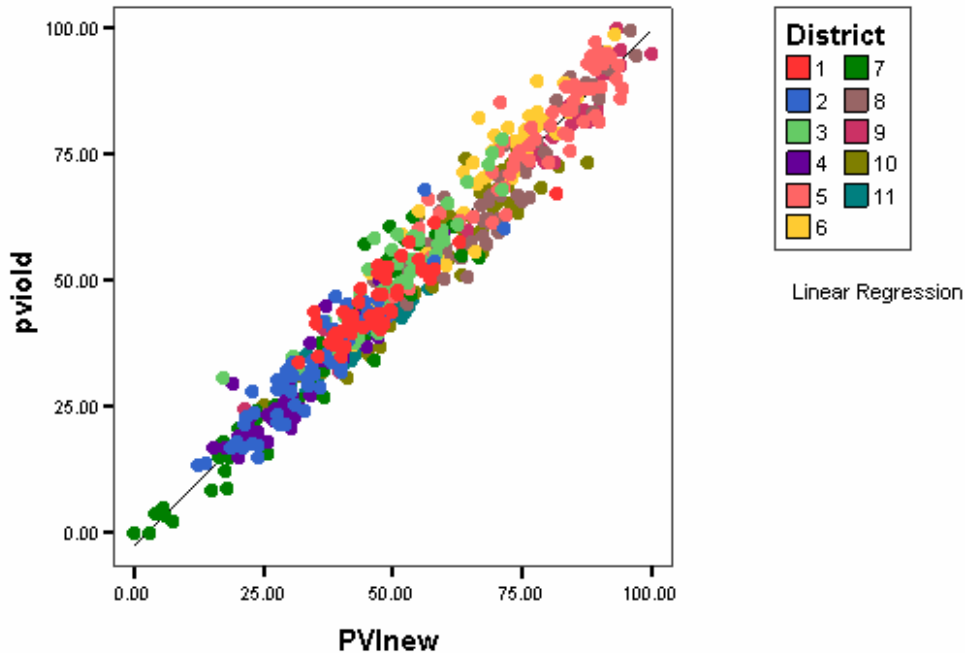


Figure 2 shows a district boxplot of old and new PVI values. This shows the overall similarity of the two scores, though with some slight variations. The box itself represents the interquartile range categorized by district (x axis). The line in the colored box is the median value, and the vertical lines represent the entire range. But, if there are outliers (values 1.5 times the IQ range), they are shown as circles. Notice the range within each district changes from the old PVI to the new PVI, though not by very much. Also, most of the districts are have a mean PVI a little higher than before (more liberal), *except* D3 (slightly), D5 (slightly), and D6 (more significantly). Table 2 shows summary statistics for the old and new PVI scores, categorized by district.

Figure 2: Boxplots of old and new PVI scores by district

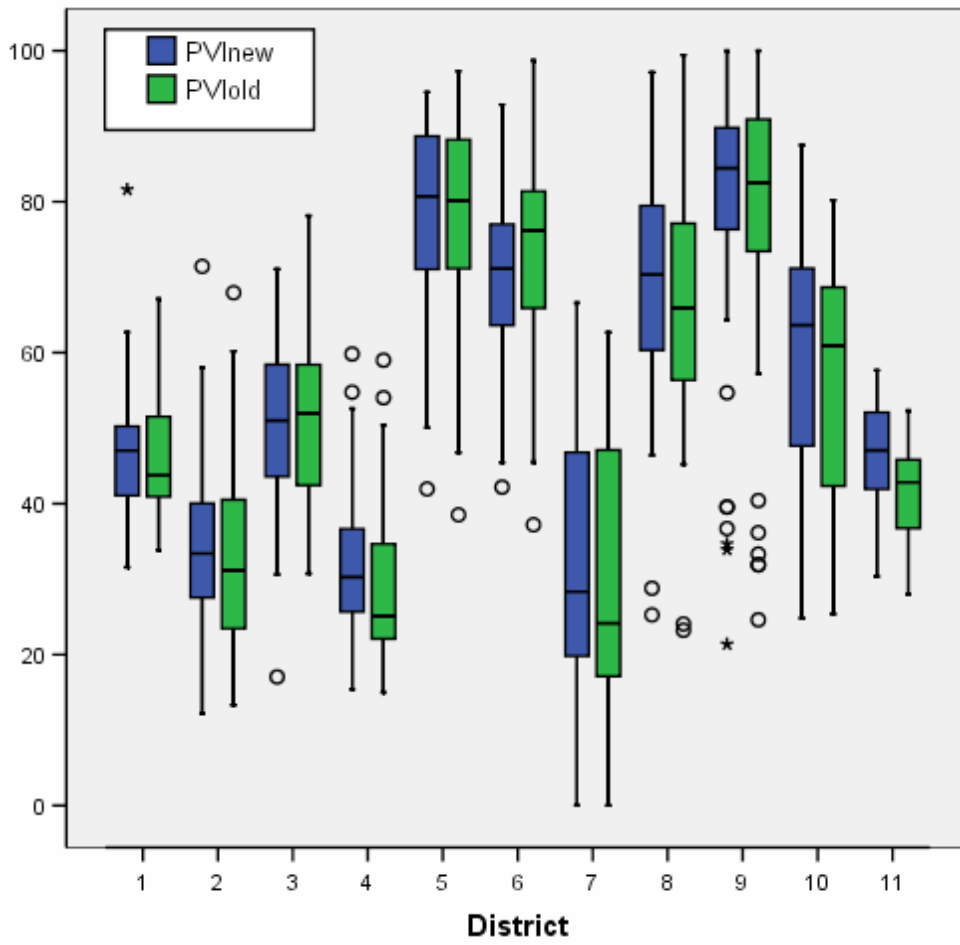


Table 2: Summary statistics, by district, of old and new PVI scores

District		PVInew	PVIold	District		PVInew	PVIold
1	N	49	47	7	N	59	53
	Mean	47.5	45.8		Mean	33.7	29.6
	Median	47.2	43.7		Median	31.1	24.2
	Minimum	31.6	33.9		Minimum	0.0	0.0
	Maximum	81.6	67.1		Maximum	67.1	62.7
	Range	50.1	33.2		Range	67.1	62.7
	Std. Deviation	9.3	7.3		Std. Deviation	17.6	18.5
2	N	59	57	8	N	65	63
	Mean	34.9	32.2		Mean	69.9	67.3
	Median	33.7	31.2		Median	68.7	65.9
	Minimum	12.2	13.3		Minimum	25.3	23.2
	Maximum	77.4	67.9		Maximum	97.1	99.5
	Range	65.3	54.6		Range	71.9	76.2
	Std. Deviation	12.4	11.5		Std. Deviation	14.1	15.8
3	N	45	45	9	N	41	41
	Mean	50.7	51.6		Mean	76.9	75.9
	Median	51.0	52.0		Median	84.5	82.5
	Minimum	17.0	30.7		Minimum	21.4	24.6
	Maximum	71.1	78.1		Maximum	100.0	100.0
	Range	54.0	47.4		Range	78.6	75.4
	Std. Deviation	10.9	11.5		Std. Deviation	19.8	20.2
4	N	46	46	10	N	53	50
	Mean	31.9	29.2		Mean	60.5	56.7
	Median	30.2	25.1		Median	63.2	60.9
	Minimum	15.4	15.0		Minimum	24.8	25.4
	Maximum	59.8	59.0		Maximum	87.5	80.2
	Range	44.4	44.0		Range	62.7	54.8
	Std. Deviation	9.9	10.5		Std. Deviation	14.6	14.9
5	N	66	59	11	N	43	42
	Mean	76.8	77.9		Mean	46.1	41.5
	Median	78.9	80.1		Median	47.2	42.8
	Minimum	41.9	38.5		Minimum	30.3	28.0
	Maximum	94.5	97.3		Maximum	57.6	52.3
	Range	52.6	58.8		Range	27.3	24.3
	Std. Deviation	13.0	13.7		Std. Deviation	7.6	6.1
6	N	51	44	Total	N	577	547
	Mean	68.7	72.8		Mean	54.7	52.9
	Median	69.9	76.1		Median	53.1	51.4
	Minimum	35.2	37.2		Minimum	0.0	0.0
	Maximum	92.9	98.7		Maximum	100.0	100.0
	Range	57.6	61.5		Range	100.0	100.0
	Std. Deviation	13.0	13.4		Std. Deviation	21.3	22.6

METHODS

A summary of steps taken in constructing the new PVI and PVI scores:

- (1) We started by restricting our analysis to the set of all local ballot propositions presented to San Francisco voters at elections from November 2003 through June 2006.
- (2) Each of us, independently, identified those propositions in the set which we believed to have face validity as indicators of progressive voting at the level of precinct electorates.
- (3) Each of us, independently, identified the same 23 propositions as plausible indicators of progressive voting, and we also agreed that most of the rest were not. On seven items, however, we disagreed, with one of us thinking an item should be included while the other did not. After discussing the pros and cons of each disputed item as a credible measure of progressive or ideological voting, and after conducting some construct validity tests on precinct data using the old PVI scores as a standard, we finally agreed to include two of them in our analysis, adding up to a total of 25 items for purposes of index construction. Table 1 above shows a list of the 25 items used to construct the new PVI.
- (4) Because voting results were not available for 23 precincts on the eight selected November 2003 items, we estimated precinct values for each proposition from the model fit produced by a multiple regression of the percent yes vote on voting for all 17 non-November 2003 propositions as predictors. The adjusted R-squares for the eight model fits ranged from .79 to .92, sufficiently high to give us confidence that the estimated November 2003 votes on those eight items in these 23 precincts were at least in the ballpark. (As another check, we computed an entirely separate PVI on all precincts using only the data for 2004-2006 elections. The results were very close (for the 23 precincts) to those produced by the method just described.) These precincts are highlighted in Appendix B.
- (5) Next, we computed an average interitem correlation of .773 and a Cronbach's Alpha Reliability coefficient of .988 based on an analysis of the 25 items for all precincts. Both results exceed the conventional threshold for concluding that index items are internally coherent and are measuring, to a greater or lesser degree, different facets of the same underlying concept (ideological voting behavior).
- (6) With the dataset now complete for all 25 items and all November 2004 precincts, we then ran a principal components factor analysis with varimax rotation on the precinct voting data. The analysis extracted two independent factors, the first with an eigenvalue of 19.6 and the second with an eigenvalue of 1.7. Table 3 reports the factor loadings for each factor on each item included in the index.

Table 3: New PVI Factor Loadings, Two Factors

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Uniqueness	
PY_1103_A	0.5138	0.7502	0.1732	School Bonds
PY_1103_E	0.6189	0.6271	0.2238	Ethics Reform
PY_1103_H	0.8148	0.5084	0.0777	Police Commission / OCC
PY_1103_I	0.8105	0.4989	0.0941	Child Care for Low Income Families
PY_1103_J	0.9075	0.3144	0.0776	Facilities for the Homeless
PY_1103_K	0.2999	0.8691	0.1547	Sales Tax for Transportation
PY_1103_L	0.9230	0.3006	0.0576	Minimum Wage
PY_1103_M	-0.7313	-0.4830	0.2318	Aggressive Solicitation Ban
PY_304_D	0.1348	0.9372	0.1034	Equal Treatment of Dom Partners
PY_304_E	0.6292	0.6763	0.1467	Requests for City Records Priv Info
PY_304_I	0.7397	0.5238	0.1784	Replacement of Diesel Buses
PY_1104_A	0.7341	0.5651	0.1418	Affordable Housing Bonds
PY_1104_B	0.4006	0.8392	0.1353	Historical Preservation Bonds
PY_1104_C	0.6942	0.6093	0.1469	Health Service System
PY_1104_D	0.7480	0.5553	0.1321	Changes to City Charter
PY_1104_F	0.8520	0.4526	0.0692	Noncit Voting in Sch Bd Elections
PY_1104_G	0.8955	0.3761	0.0566	Health Plans for City Residents
PY_1104_K	0.7104	0.5901	0.1471	Business Tax
PY_1104_N	0.9375	0.1847	0.0870	Withdrawing U.S. Military from Iraq
PY_1105_C	0.7578	0.5096	0.1660	Ethics Commission Budget
PY_1105_D	0.7584	0.3776	0.2823	MTA Appointments
PY_1105_H	0.5538	0.6030	0.3297	Firearm Ban
PY_1105_I	0.7934	0.5033	0.1171	Military Recruitment
PY_606_A	0.8924	0.1952	0.1656	Homicide Prevention Council
PY_606_B	0.8311	0.3281	0.2016	Ellis Act Disclosures

(7) We then attempted to interpret the “meaning” of the two factors in a way that made sense to us based on the pattern of factor loadings shown in Table 3 and on our own understanding and experience of San Francisco politics.

First, note in Table 3 that loadings highlighted in yellow indicate items that correlate strongly with one factor or the other but not both. Loadings highlighted in blue or green indicate items that are “factorially complex,” i.e., are correlated with both factors in greater (green) or lesser (blue) degree.

Second, interpreting these findings involves personal reflection and subjective judgment, just as was true in our initial selection of items to be included in or excluded from the index. Given the political sophistication of our readers, we claim no privileged expertise in this department, and we have no doubt that others will come up with better interpretations or at least view the same findings much differently. At any rate, first cut, here’s what we think.

Factor 1 clearly seems to us to tap a more traditional concept of liberal vs. conservative ideology defined primarily in terms of class and race. Precinct electorates that score highly on Factor 1 are more likely to vote pro-renter, pro-low-income wage earners, pro-childcare, pro-government provided health care, pro-immigrant, pro-community policing, etc. Factor 2 is harder to interpret

but clearly distinct from whatever is being tapped by Factor 1. The highest loading is on the domestic partners item, followed by sales tax for transportation improvements and historical preservation bonds. DeLeon, for one, is tempted to sort these out as “materialist” issues vs. “post-materialist” issues, as he did in his book *Left Coast City*, where he wrote about San Francisco’s “three lefts.” One might also distinguish between “traditional” liberalism vs. “cultural” or “quality-of-life” or even “life-style” liberalism based on these findings. Latterman agrees that the meaning of the first factor represents a more standard “left/right” ideological divide, with the highest loadings as homelessness, minimum wage, and the military. However, he feels the second factor is more difficult to discern. The second factor does seem to have more fiscal and procedural issues, the high loading on domestic partners notwithstanding (though that does have a financial aspect to it).

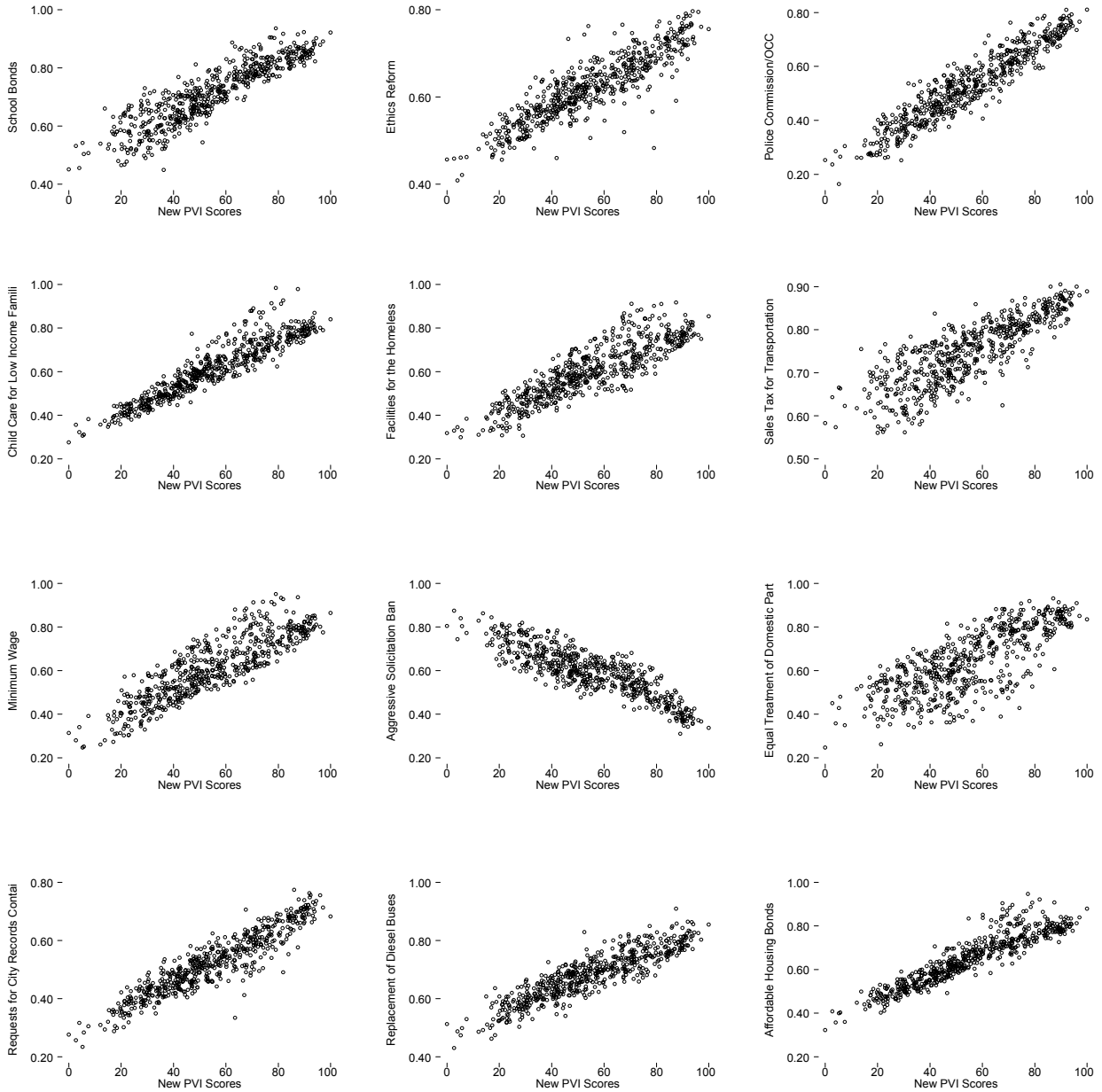
One last important point: We decided to give both these factors equal weight in constructing the final index. See step (8) below. That means a precinct must score high on both Factor 1 and Factor 2 to score high on the new PVI. Other analysts might prefer to give much more weight to one over the other. If that’s your inclination, we’ve made it possible for you to roll your own PVI index by reporting the raw precinct factor scores in Appendix B. There: we took a stab at making political sense of these numbers, and we encourage our readers to do the same.

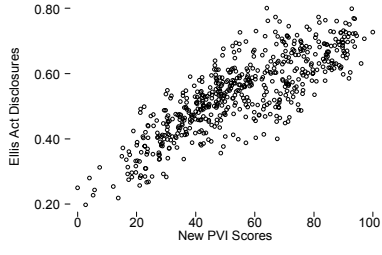
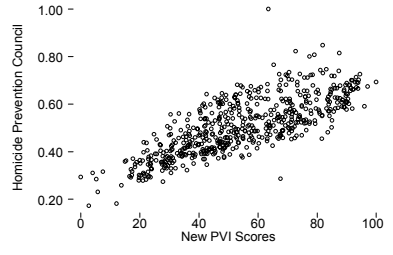
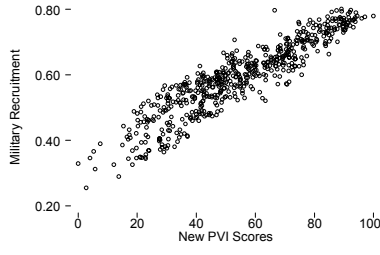
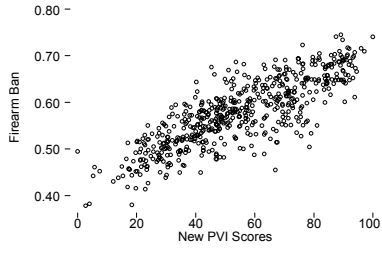
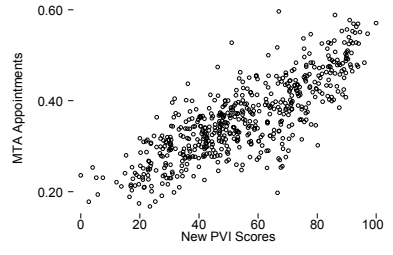
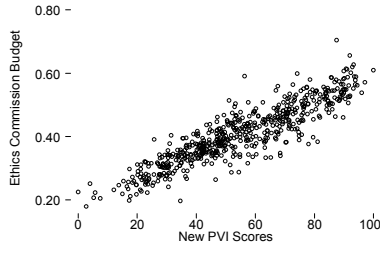
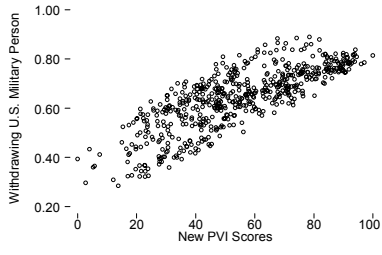
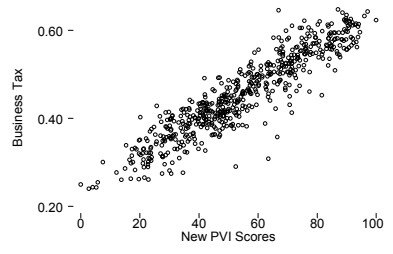
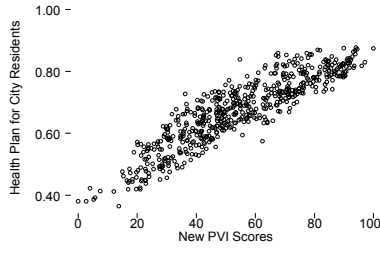
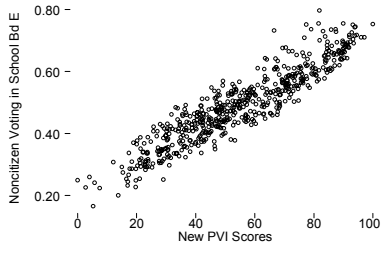
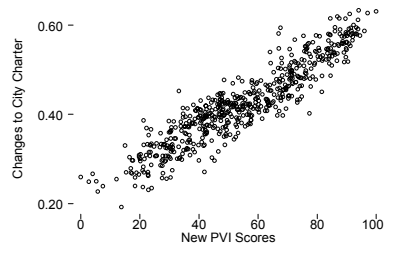
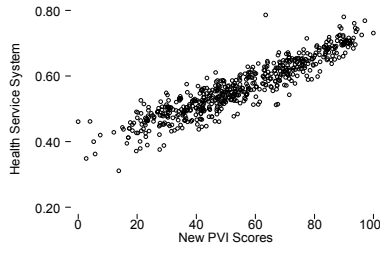
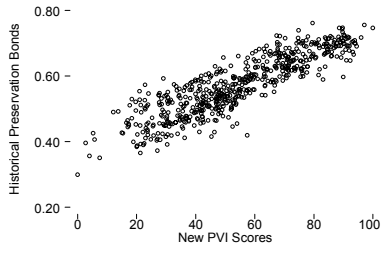
(8) As the last step in constructing the new PVI scores for San Francisco precincts, we (a) computed standardized factor scores for each precinct on Factor 1 and Factor 2; (b) summed each precinct’s Factor 1 and Factor 2 scores to get a total factor score, and (c) calibrated the total factor score to a zero to 100 scale, with zero assigned to the lowest-scoring (“most conservative”) precinct on this new PVI, and 100 assigned to the highest-scoring (“most progressive”) precinct.

(9) Finally, under the heading of validation and assessment, how well does the new PVI correlate with precinct voting on each of the 25 ballot propositions that make it up? Appendix A displays a tableau of 25 scatterplots of precinct data. Each plot shows the pattern of relationship between precinct voting percent yes on one of the 25 items (left axis) and the new precinct PVI scores (bottom axis). As can be seen, the single-number PVI score is quite robust and accurate in predicting precinct voting patterns on a wide range of local ballot proposition issues over the 2003-2006 election cycle.

APPENDIX A

SCATTERPLOTS OF VOTING ON 25 INDEX ITEMS WITH NEW PVI SCORES FOR SAN FRANCISCO PRECINCTS





APPENDIX B:

SPREADSHEET OF NEW PVI SCORES AND OTHER INFORMATION BY PRECINCT

Note: precincts with an asterisk are the precincts which did not exist in 2003, and these have partially interpolated PVI values.

Prec	District	PVInew	PVIold	Factor1	Factor2
1101	11	42	41	0.27	-1.1
1102	11	43	39	0.18	-0.93
1103	11	49	47	0.5	-0.89
1104	11	47	39	0.22	-0.73
1105	11	48	44	0.67	-1.12
1106	11	58	50	0.83	-0.64
1107	11	52	52	0.98	-1.15
1108	11	47	46	0.81	-1.31
1109	11	52	42	0.56	-0.76
1111	11	44	41	0.5	-1.19
1112	11	42	45	0.79	-1.66
1113	11	45	43	0.29	-0.96
1114	11	51	43	0.6	-0.87
1115	11	53	46	0.43	-0.53
1116	11	47	46	0.65	-1.17
1117	11	50	46	0.89	-1.18
1118	11	52	44	1.15	-1.32
1119	11	35	31	0.17	-1.44
1121	11	48	43	0.74	-1.18
1122	11	52	46	0.95	-1.13
1123	11	53	45	0.92	-1.03
1124	11	42	41	0.32	-1.17
1125	11	54	47	0.83	-0.89
1126	11	53	48	0.96	-1.06
1127	11	53	45	0.9	-1.04
1128	11	53	47	1.07	-1.19
1129	11	57	48	0.93	-0.8
1131	11	57	49	0.95	-0.78
1132	11	56	.	1.28	-1.17
1133	11	33	28	-0.07	-1.36
1134	11	41	37	0.67	-1.6
1135	11	43	35	0.35	-1.15
1136	11	33	35	0.4	-1.82
1137	11	30	35	0.31	-1.92
1138	11	42	39	0.41	-1.25

1139	11	47	45	0.76	-1.25
1141	11	50	43	0.83	-1.15
1142	11	37	34	0.35	-1.52
1143	11	46	40	0.58	-1.19
1144	11	41	34	0.86	-1.8
1145	11	31	31	-0.18	-1.41
1146	11	42	34	0.44	-1.29
1147	11	30	29	0.03	-1.64
2001	10	48	37	1.01	-1.48
2002	10	47	41	0.49	-1.01
2003	10	25	25	0.07	-2.05
2004	10	44	42	0.74	-1.45
2005	10	54	48	0.86	-0.9
2006	10	43	42	0.94	-1.74
2007	10	47	44	1.02	-1.53
2008	10	41	31	0.47	-1.36
2009	10	57	.	0.47	-0.29
2011	10	48	47	1.09	-1.56
2012	10	82	73	2.1	-0.3
2013	10	87	73	2.1	0.07
2014	10	67	56	1.57	-0.75
2015	10	45	35	1.28	-1.9
2016	10	36	35	0.6	-1.83
2017	10	32	31	0.74	-2.26
2018	10	42	41	0.79	-1.62
2019	10	40	40	0.44	-1.39
2101	1	40	40	-0.15	-0.83
2102	1	42	40	-0.85	0
2103	1	42	42	-0.6	-0.27
2104	1	48	52	-0.1	-0.32
2105	1	44	46	-0.67	-0.07
2106	1	50	44	-0.87	0.52
2107	1	44	48	-0.17	-0.56
2108	1	46	42	-0.36	-0.24
2109	1	51	48	-0.11	-0.14
2111	1	47	47	-0.33	-0.16
2112	1	51	47	-0.12	-0.14
2113	1	55	54	0.09	-0.07
2114	1	63	57	0.03	0.5
2115	1	56	52	-0.14	0.2
2116	1	51	55	0.21	-0.42
2117	1	49	50	-0.37	-0.03
2118	1	46	43	-0.26	-0.35
2119	1	38	38	-0.04	-1.09
2121	1	32	34	-0.13	-1.41
2122	1	48	40	-0.08	-0.39

2123	1	39	39	-0.26	-0.78
2124	1	50	44	0.04	-0.36
2125	1	42	43	-0.02	-0.79
2126	1	41	44	-0.24	-0.7
2127	1	42	42	-0.41	-0.41
2128	1	41	41	-0.12	-0.76
2129	1	47	53	-0.16	-0.34
2131	1	49	53	0.03	-0.42
2132	1	47	51	-0.52	0.02
2133	1	48	42	-0.29	-0.14
2134	1	40	35	-0.91	-0.07
2135	1	42	42	-0.07	-0.75
2136	1	41	37	-0.34	-0.59
2137	1	44	41	0	-0.69
2138	1	39	37	-0.37	-0.69
2139	1	35	35	-0.56	-0.72
2141	1	48	47	0.14	-0.59
2142	1	35	44	-0.52	-0.81
2143	1	47	43	-0.05	-0.46
2144	1	35	42	-0.65	-0.65
2145	1	39	40	-0.77	-0.29
2146	1	57	50	-0.06	0.24
2147	1	58	61	0.35	-0.14
2148	1	56	52	-0.15	0.2
2149	1	58	52	0.11	0.1
2150	1	53	58	-0.26	0.16
2151	1	82	67	0.72	1.06
2152*	1	67	.	-0.45	1.25
2200	2	20	18	-2.34	0.01
2201	2	29	21	-2.43	0.73
2202	2	27	23	-1.65	-0.15
2203	2	42	38	-1.08	0.22
2204	2	44	46	-1.25	0.56
2205	2	36	35	-1.42	0.2
2206	2	21	17	-2.12	-0.11
2207	2	33	24	-1.93	0.47
2208	2	23	28	-2.49	0.38
2209	2	36	29	-1.71	0.47
2211	2	37	35	-1.56	0.39
2212	2	38	34	-1.4	0.29
2213	2	37	42	-0.66	-0.52
2214	2	49	43	-1.05	0.64
2215	2	47	46	-1.32	0.82
2216	2	47	46	-1.32	0.82
2217	2	58	54	-0.36	0.57
2218*	2	43	.	-0.69	-0.11

2219*	2	77	.	0.8	0.71
2401	4	60	59	0.6	-0.26
2402	4	53	50	0.27	-0.41
2403	4	36	34	-0.01	-1.25
2404	4	36	35	-0.34	-0.89
2405	4	34	27	-0.66	-0.7
2406	4	45	37	0.06	-0.72
2407	4	43	43	0.01	-0.81
2408	4	55	54	0.41	-0.41
2409	4	48	50	0.09	-0.56
2411	4	37	45	0.13	-1.31
2412	4	38	34	-0.12	-1.01
2413	4	30	24	-0.57	-1.06
2414	4	34	37	-0.36	-1.02
2415	4	47	39	0.25	-0.75
2416	4	37	34	0.26	-1.45
2417	4	21	20	-0.06	-2.16
2418	4	22	21	-0.49	-1.67
2419	4	15	17	-1.2	-1.41
2421	4	24	20	-0.7	-1.35
2422	4	29	24	-0.36	-1.36
2423	4	31	27	-0.43	-1.16
2424	4	30	21	0.03	-1.64
2425	4	26	23	-0.22	-1.71
2426	4	31	24	-0.19	-1.38
2427	4	32	25	-0.23	-1.26
2428	4	40	35	-0.05	-0.89
2429	4	30	23	-0.08	-1.56
2431	4	27	24	-0.39	-1.44
2432	4	31	23	-0.32	-1.24
2433	4	19	29	-0.52	-1.85
2434	4	26	18	-0.33	-1.59
2435	4	38	36	0.08	-1.17
2436	4	28	24	-0.11	-1.66
2437	4	24	20	-0.31	-1.74
2438	4	20	19	-0.37	-1.93
2439	4	23	19	-0.32	-1.8
2441	4	36	35	0.13	-1.39
2442	4	30	30	-0.14	-1.51
2443	4	20	15	-0.34	-1.95
2444	4	27	22	-0.44	-1.41
2445	4	31	26	-0.25	-1.35
2446	4	29	26	-0.57	-1.13
2447	4	29	30	-0.06	-1.61
2448	4	22	23	-0.3	-1.85
2449	4	17	17	-0.95	-1.53

2451	4	27	25	-0.69	-1.13
2501*	5	68	.	0.12	0.78
2502*	5	64	.	0.48	0.14
2503	5	71	85	0.41	0.65
2504	5	59	63	0.06	0.24
2505	5	55	60	0.05	-0.03
2506	5	57	66	0.35	-0.2
2507	5	72	71	0.49	0.69
2508	5	71	78	0.34	0.77
2509	5	69	62	0.01	0.96
2511	5	74	75	0.39	0.86
2512	5	76	77	0.05	1.38
2513*	5	74	.	0.38	0.88
2514*	5	67	.	1.27	-0.46
2515	5	73	73	-0.21	1.46
2701	7	50	48	-0.26	-0.06
2702	7	58	59	-0.3	0.55
2703	7	62	61	-1.04	1.49
2704	7	23	24	-0.93	-1.14
2705	7	43	38	-0.8	0.01
2706	7	50	52	-0.5	0.22
2707	7	44	38	-0.75	0.07
2708	7	28	28	-1.1	-0.69
2709	7	20	18	-1.66	-0.65
2711	7	24	22	-1.06	-1
2712	7	20	21	-1.17	-1.11
2713	7	53	47	-0.3	0.22
2714	7	26	16	-1.49	-0.44
2715	7	21	19	-2.02	-0.18
2716	7	67	.	1.67	-0.85
2717	7	24	17	-1.26	-0.78
2718	7	27	25	-0.53	-1.3
2719	7	23	20	-1.09	-1
2721	7	17	15	-1.87	-0.66
2722	7	17	12	-1.7	-0.78
2723	7	23	21	-1.02	-1.08
2724	7	21	21	-1.19	-1.02
2725	7	28	21	-1.17	-0.58
2726	7	20	17	-1.75	-0.56
2727	7	32	26	-1.44	-0.09
2728	7	0	0	-1.48	-2.15
2729	7	7	2	-1.4	-1.73
2730*	7	49	.	0.28	-0.65
2731	7	4	4	-1.34	-2.01
2732	7	5	5	-2.33	-0.94
2733	7	18	9	-1.85	-0.6

2734	7	3	0	-2.4	-1.04
2735	7	6	3	-2.19	-1.05
2736	7	31	24	-1.45	-0.15
2737	7	31	24	-1.47	-0.1
2738	7	17	18	-1.97	-0.53
2739	7	18	15	-1.77	-0.63
2741	7	37	32	-1	-0.21
2742	7	34	31	-1.06	-0.28
2743	7	49	49	-0.25	-0.09
2744	7	36	38	-0.85	-0.41
2745	7	67	55	0.78	0.01
2746	7	15	8	-1.25	-1.38
2747	7	23	18	-1.66	-0.41
2748	7	46	34	-0.44	-0.12
2749	7	37	27	-0.47	-0.72
2751*	7	29	.	-1.09	-0.59
2752	7	43	44	-0.13	-0.68
2753	7	49	54	0.03	-0.42
2754*	7	64	.	1.61	-1.03
2755	7	63	55	0.14	0.41
2756	7	54	63	0.39	-0.46
2757	7	52	58	0.17	-0.32
2758	7	49	61	0.31	-0.66
2759	7	55	57	0.07	-0.05
2761	7	47	40	0.51	-1.03
2901	9	40	36	0.39	-1.39
2902	9	37	40	0.68	-1.87
2903	9	35	33	0.16	-1.49
2904	9	21	25	-0.08	-2.13
2905	9	40	32	0.45	-1.45
2906	9	34	32	0.78	-2.16
3001	10	64	74	-0.05	0.67
3002	10	73	72	-0.03	1.24
3003	10	76	80	0.8	0.62
3004	10	65	63	-0.37	1.05
3005	10	73	73	-0.28	1.49
3006	10	72	69	-0.04	1.22
3007	10	71	71	0.29	0.78
3008	10	71	72	0.06	1.03
3009	10	77	77	1.99	-0.48
3010	10	67	67	0.48	0.32
3011	10	74	76	0.12	1.17
3012	10	86	.	0.93	1.15
3013	10	61	63	1.39	-0.97
3014	10	68	69	1.97	-1.11
3015	10	79	68	2	-0.42

3016	10	79	75	2.22	-0.61
3017	10	49	47	1.21	-1.58
3018	10	58	49	0.78	-0.59
3019	10	69	64	1.51	-0.54
3020	10	70	65	1.78	-0.77
3021	10	63	60	1.4	-0.83
3022	10	60	61	1.1	-0.74
3023	10	49	41	1.45	-1.81
3024	10	61	54	1.29	-0.88
3025	10	67	60	1.7	-0.86
3026	10	74	63	2.08	-0.79
3027	10	71	68	1.8	-0.75
3028	10	36	32	0.86	-2.08
3029	10	52	.	1.13	-1.28
3031	10	63	51	1.12	-0.56
3032	10	65	59	1.29	-0.58
3033	10	68	68	1.73	-0.86
3034	10	55	63	1.22	-1.22
3035	10	73	65	1.84	-0.65
3036	10	59	54	1.14	-0.86
3101	1	64	.	-0.11	0.73
3200	2	71	60	0.16	0.95
3201	2	56	68	-0.73	0.83
3202	2	18	17	-1.95	-0.45
3203	2	22	23	-2.05	-0.14
3204	2	23	28	-2.06	-0.06
3205	2	40	32	-1.15	0.18
3206	2	28	28	-1.88	0.08
3207	2	12	13	-2.38	-0.44
3208	2	24	17	-1.78	-0.27
3209	2	29	30	-1.71	-0.02
3210	2	23	18	-1.82	-0.29
3211	2	34	33	-1.33	-0.01
3212	2	31	34	-1.3	-0.29
3213	2	28	22	-1.42	-0.32
3214	2	28	22	-1.87	0.09
3215	2	21	22	-2.64	0.41
3216	2	30	31	-1.64	0.03
3217	2	29	30	-1.61	-0.11
3218	2	34	34	-1.14	-0.22
3219	2	41	45	-1.08	0.17
3221	2	42	42	-1.51	0.66
3222	2	28	30	-2.19	0.4
3223	2	14	14	-2.81	0.1
3224	2	24	15	-2.41	0.38
3225	2	23	24	-2.2	0.09

3226	2	31	25	-1.98	0.41
3227	2	30	32	-1.79	0.12
3228	2	35	32	-1.28	-0.04
3229	2	45	43	-1.14	0.49
3231	2	34	29	-1.84	0.45
3232	2	30	28	-1.89	0.26
3233	2	28	22	-2.03	0.25
3234	2	33	31	-1.67	0.26
3235	2	48	43	-1.2	0.77
3236	2	44	41	-1.2	0.52
3237	2	40	33	-1.53	0.55
3238	2	38	38	-1.59	0.5
3239	2	39	40	-1.45	0.38
3241	2	49	43	-1.15	0.76
3242	2	45	44	-1.25	0.63
3243	2	39	47	-0.91	-0.15
3301	3	57	51	-0.01	0.16
3302	3	42	39	-1.07	0.2
3303	3	51	53	-0.44	0.19
3304	3	41	42	-1.34	0.43
3305	3	41	40	-1.08	0.19
3306	3	43	38	-1.16	0.37
3307	3	49	45	-0.31	-0.1
3308	3	53	52	-0.01	-0.07
3309	3	43	39	-1.3	0.55
3311	3	17	31	-2.29	-0.21
3312	3	56	54	-0.59	0.66
3313	3	47	40	-0.78	0.27
3314	3	45	52	-0.85	0.22
3315	3	31	35	-1.64	0.05
3316	3	53	49	0.35	-0.49
3317	3	54	54	0.42	-0.49
3318	3	55	58	0.31	-0.3
3319	3	59	60	0.43	-0.11
3321	3	59	59	0.18	0.12
3322	3	48	48	-0.16	-0.27
3323	3	49	49	-0.08	-0.32
3324	3	52	50	-0.32	0.13
3325	3	48	45	-0.21	-0.24
3326	3	51	49	1.08	-1.31
3327	3	54	59	1.07	-1.12
3328	3	47	58	0.69	-1.24
3329	3	37	42	-1.2	0.03
3331	3	51	59	0.07	-0.32
3332	3	63	61	0.4	0.12
3333	3	58	55	0.1	0.14

3334	3	38	35	-1.28	0.18
3335	3	32	32	-1.28	-0.22
3336	3	46	43	0.98	-1.54
3337	3	47	58	0.69	-1.24
3338	3	68	73	0.65	0.25
3339	3	64	69	0.51	0.14
3341	3	50	56	-0.37	0.04
3342	3	55	58	-0.02	0.03
3343	3	44	47	-0.61	-0.12
3344	3	40	38	-0.19	-0.77
3345	3	69	75	0.43	0.53
3346	3	59	57	-0.17	0.43
3347	3	60	65	0.32	0.06
3348	3	60	58	0.55	-0.22
3349	3	71	78	0.65	0.44
3351	3	71	68	0.53	0.55
3501	5	63	62	-0.27	0.81
3502	5	50	47	-0.7	0.39
3503	5	53	49	-0.92	0.79
3504	5	53	48	-0.39	0.28
3505	5	57	55	0.15	0.02
3506	5	42	39	-1.55	0.7
3507	5	65	62	0.35	0.36
3508	5	69	71	0.77	0.2
3509	5	70	68	1.28	-0.24
3510	5	73	73	1.17	0.06
3511	5	89	83	1.04	1.24
3512	5	94	86	1.39	1.21
3513	5	81	81	0.67	1.05
3514	5	87	82	0.97	1.15
3515	5	77	80	1.52	-0.06
3516	5	88	93	1.02	1.17
3517	5	93	90	1.18	1.37
3518	5	88	88	0.93	1.3
3519	5	80	73	0.59	1.1
3520*	5	84	.	0.81	1.15
3521	5	84	79	1.18	0.76
3522	5	72	68	1.53	-0.41
3523	5	74	76	1.08	0.22
3524	5	78	78	0.48	1.03
3525	5	81	83	0.76	0.96
3526	5	90	81	0.73	1.6
3527	5	94	93	1.25	1.32
3528	5	85	86	0.93	1.08
3529	5	90	93	1.14	1.2
3531	5	95	88	1.21	1.42

3532	5	85	84	1.15	0.83
3533	5	84	89	1	0.9
3534	5	91	95	0.87	1.52
3535	5	90	88	0.79	1.56
3536	5	86	88	0.47	1.58
3537	5	87	88	0.67	1.46
3538	5	84	76	0.68	1.27
3539	5	90	93	0.74	1.63
3541	5	92	94	1.28	1.2
3542	5	89	97	1.01	1.27
3543	5	90	94	1.28	1.06
3544	5	91	95	0.84	1.6
3545	5	89	92	0.74	1.54
3546	5	88	94	0.75	1.48
3547	5	85	89	0.66	1.35
3548	5	83	79	0.23	1.66
3549	5	70	76	-0.27	1.3
3551	5	84	84	0.18	1.74
3552	5	76	74	-0.02	1.45
3553	5	72	63	-0.36	1.49
3554*	5	61	.	-0.68	1.13
3555*	5	49	.	-1.11	0.75
3601	6	72	80	0.82	0.34
3602	6	72	77	0.74	0.37
3603	6	78	81	0.83	0.69
3604	6	69	76	1.04	-0.07
3605	6	68	71	1.07	-0.19
3606	6	66	69	1.02	-0.26
3607	6	66	69	1.02	-0.26
3608	6	57	55	0.03	0.09
3609	6	59	54	-0.21	0.48
3610*	6	76	.	1.68	-0.29
3611	6	76	76	0.98	0.42
3612	6	73	70	0.54	0.66
3613	6	73	71	1.17	0.06
3614	6	69	79	1.36	-0.38
3615	6	82	79	0.43	1.35
3616	6	65	74	0.4	0.32
3617	6	73	78	0.78	0.46
3618	6	75	78	1.06	0.28
3619	6	63	71	1.18	-0.6
3620	6	76	78	0.66	0.72
3621	6	76	79	1.43	-0.04
3622	6	86	86	0.97	1.08
3623	6	67	82	0.42	0.38
3624	6	75	80	0.9	0.48

3625	6	76	83	1.12	0.32
3626	6	71	68	1.4	-0.34
3627	6	60	53	0.94	-0.57
3628	6	51	59	-0.61	0.4
3629	6	42	37	-1.12	0.29
3630	6	70	76	0.86	0.15
3631	6	64	71	0.53	0.06
3632	6	91	95	1.23	1.19
3633	6	83	89	1.84	0.04
3634	6	84	84	1.09	0.84
3635	6	67	70	0.36	0.48
3636	6	78	83	1.25	0.29
3637	6	64	63	0.15	0.44
3638	6	56	52	0.25	-0.14
3639	6	55	64	-0.37	0.38
3640	6	45	52	-1.22	0.6
3641	6	66	56	-0.34	1.09
3642	6	47	45	-0.64	0.12
3643	6	62	.	-0.23	0.74
3644	6	93	99	1.49	1.04
3645	6	85	89	1.17	0.83
3646	6	78	89	1.06	0.47
3647	6	80	82	0.66	1
3648*	6	43	.	-1.11	0.33
3649*	6	90	.	1.5	0.84
3650*	6	50	.	-0.66	0.35
3651*	6	70	.	0.64	0.34
3652*	6	35	.	-1.66	0.37
3701*	7	35	.	-0.49	-0.84
3702*	7	47	.	-1.42	0.88
3703	7	44	57	-0.14	-0.54
3801	8	57	53	-1.09	1.24
3802	8	75	72	-0.28	1.61
3803	8	90	92	0.65	1.67
3804	8	84	90	0.57	1.38
3805	8	76	71	-0.21	1.61
3806	8	89	89	0.59	1.66
3807	8	85	84	0.37	1.63
3808	8	60	54	-1.07	1.44
3809	8	65	57	-0.75	1.45
3811	8	80	75	-0.17	1.82
3812	8	87	89	0.4	1.75
3813	8	89	92	0.77	1.51
3814	8	82	86	0.46	1.33
3815	8	81	80	0.56	1.15
3816	8	63	55	-0.96	1.51

3817	8	68	62	-0.61	1.52
3818	8	68	61	-0.69	1.6
3819	8	68	62	-0.65	1.51
3821	8	75	66	-0.13	1.47
3822	8	78	78	0.11	1.43
3823	8	75	74	-0.2	1.53
3824	8	89	84	0.76	1.49
3825	8	91	95	1.02	1.37
3826	8	52	52	-0.84	0.65
3827	8	63	56	-0.55	1.14
3828	8	70	62	-0.67	1.7
3829	8	67	59	-0.69	1.54
3831	8	54	62	-1.12	1.1
3832	8	74	67	-0.02	1.32
3833	8	97	94	0.98	1.83
3834	8	96	99	0.81	1.93
3835	8	53	54	-0.61	0.52
3836	8	58	53	-0.3	0.5
3837	8	60	56	-0.77	1.14
3838	8	63	55	-0.72	1.27
3839	8	67	65	-0.41	1.22
3841	8	72	70	-0.07	1.19
3842	8	76	66	-0.24	1.66
3843	8	90	86	0.8	1.53
3844	8	92	92	0.72	1.74
3845	8	68	57	-0.34	1.24
3846	8	68	66	-0.17	1.08
3847	8	69	67	-0.22	1.14
3848	8	79	75	0.22	1.42
3849	8	84	83	0.38	1.55
3851	8	71	71	-0.36	1.46
3852	8	46	50	-1.01	0.46
3853	8	59	64	-0.71	1.01
3854	8	60	50	-0.7	1.03
3855	8	60	66	-0.41	0.76
3856	8	71	70	-0.08	1.14
3857	8	25	23	-1.43	-0.52
3858	8	64	51	-0.37	0.99
3859	8	71	70	0.03	1.08
3861	8	71	77	0.21	0.89
3862	8	29	24	-1.37	-0.35
3863	8	53	45	-0.58	0.45
3864	8	67	62	-0.41	1.26
3865	8	71	67	0.2	0.85
3866	8	58	56	-0.46	0.65
3867	8	57	57	-0.43	0.58

3868	8	71	60	-0.08	1.13
3869*	8	68	.	-0.52	1.37
3871*	8	68	.	-0.01	0.89
3872	8	57	55	-0.29	0.45
3901	9	93	100	1.48	1.07
3902	9	92	92	1.37	1.13
3903	9	85	85	1.26	0.73
3904	9	92	93	1.17	1.28
3905	9	86	83	1.05	1.03
3906	9	92	92	1.56	0.91
3907	9	84	89	1.3	0.68
3908	9	84	84	1.26	0.67
3909	9	86	86	1.56	0.5
3911	9	90	94	0.99	1.33
3912	9	100	95	1.55	1.45
3913	9	91	95	1.63	0.77
3914	9	94	93	1.58	1.03
3915	9	87	82	1.32	0.84
3916	9	77	83	1.27	0.19
3917	9	94	96	1.42	1.17
3918	9	82	84	1.54	0.26
3919	9	88	82	1.06	1.12
3921	9	91	91	1.1	1.33
3922	9	90	91	0.97	1.39
3923	9	81	78	0.26	1.47
3924	9	80	81	0.63	1.02
3925	9	79	73	0.48	1.15
3926	9	76	74	0.61	0.82
3927	9	86	82	0.39	1.69
3928	9	90	84	0.82	1.5
3929	9	79	76	0.68	0.91
3931	9	87	84	1.08	1.05
3932	9	84	81	0.85	1.12
3933	9	77	75	0.84	0.64
3934	9	72	70	0.91	0.22
3935	9	64	60	0.66	-0.02
3936	9	55	57	0.36	-0.36
3937	9	76	76	0.83	0.58
3938	9	81	73	1.41	0.34