Fall Line Analytics

PVI 6.0: Revised 2015 San Francisco Progressive Voter Index and changes in the San Francisco electorate

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Summary

The San Francisco Progressive Voter Index (PVI) is a single-number summary index of San Francisco "ideological" voting trends in each city precinct. The PVI ranks each precinct from 0-100, where lower numbers indicate more conservative precincts and higher numbers represent more liberal precincts. The PVI is maintained and updated in order to provide political professionals, researchers, the media, and other political junkies with tools to help understand San Francisco's complex political climate. [1]

This report revises and improves upon the most recent 2011 (5.0) version. The 2015 PVI relies on 14 local ballot measures from November 2012 through November 2014. Unlike all of previous PVIs except the original and 2006, this index has no overlapping measures with the previous PVI version. This is primarily because of precinct and district changes after San Francisco's 2012 Redistricting efforts.

The PVI itself is an indexed factor analysis score based on recent ballot measure results. I keep the same methodology as 2011 and all previous versions. The PVI is derived from the summation of two rotated factor scores of the chosen issues. Each factor is weighted equally and has a defensible ideological interpretation that San Francisco political workers would understand. Moreover, internal statistical metrics indicate strong reliability; that is, the chosen measures are internally consistent vis-à-vis San Francisco politics and how they are typically interpreted. A table of PVI values is in Appendix 3.

By and large, the results are very similar to those of earlier versions; in fact, it leads us to question just how much San Francisco has changed politically in a decade. For the first time, District 4 is the most conservative district, while other changes are partially due to redistricting and partially but subtly due to changing demographics and political realities in San Francisco. Demographic correlations with PVI reveal similar trends to past years, but one interesting finding is that there is evidence that newer residents in San Francisco, especially in District 6, vote more conservatively than the longer-residence voters around them. While this has been noted anecdotally and in some ballot measure results, this is some of the first strong quantitative evidence for this trend.

It is important to point out that the PVI is a *relative* index, only considering the precincts against each other, based on our own political nuances. It is difficult to use this index to say that a precinct – or even the city - is moving in any particular direction in a true absolute sense. To do this, there would have to be comparisons with other state or national political trends.

[1] The PVI was originally created by Prof. Rich DeLeon (now Emeritus) of San Francisco State University. I am grateful for his ongoing guidance and support for the continuation of the project. I'm also grateful to Marc Salomon and Alex Lantsberg, for their review of this draft.

Methodology

The methodology for the 2015 PVI is the same as all of the previous efforts. A detailed description of the technique is given in Appendix 1. It is extremely important to keep the methodology consistent from version to version - not only in the factor analysis technique but also in the number of issues used, timeframe covered, and attempt to overlap issues from the previous version. The 2015 PVI used 14 ballot measures over a period of two years. That was fewer than most PVIs but within the range of the number of issues used previously. There was no overlap with earlier PVI versions because of redistricting, but this also occurred in 2006.[2] Table 1 shows a summary chart of PVI component statistics. Only by maintaining consistency can the PVI be used to accurately measure changes in the San Francisco electorate over time.

Table 1: Details for the 2015 PVI and previous versions

PVI year	# of issues	Timeframe covered	Issues overlapped from previous PVI
Original	10	Nov 2000 - Nov 2001 (1 yr, 2 elections)	-
2004	19	Nov 2000 - Nov 2002 (2 yrs, 4 elections)	10
2006	25	Nov 2003 - Jun 2006 (2.5 yrs, 5 elections)	0
2008	20	Nov 2004 - Jun 2008 (3.5 yrs, 6 elections)	9
2011	20	Nov 2007 - Nov 2010 (3 yrs, 6 elections)	5
2015	14	Nov 2012 – Nov 2014 (2 yrs, 4 elections)	0

Table 2 shows the issues that were utilized in constructing the 2015 PVI. The most important factor in choosing a ballot measure is that it somehow encompasses the San Francisco left-right political divide, as understood by most San Francisco political workers.[3] It is clear that for this version of the PVI, representing the past couple years, there weren't a large number of measures that were easily placed as a clear-cut left vs right issue. A few examples were the housing tax and the minimum wage increase from November 2014. Thus, it was somewhat difficult to select issues for the 2015 PVI. All of the chosen issues were, though, defensible on theory, especially in how various San Francisco political factions view the role of government in citizens' lives. Different combinations of issues were considered, and the final selection is based on theory, election results, and correlations with previous PVIs. I used the 2011 PVI, transformed to post-2012 precinct lines, to help choose the measures for the 2015 PVI. All of the measures had a Pearson correlation with the 2011 PVI of over 0.6.

[2] The 2011 PVI was transformed to post-June 2012 precincts, but the transformation is not considered strong enough to use those pre-2012 measures here in the construction of a new PVI. The 2011 PVI, however, was used to help determine which issues to use for the 2015 PVI.

[3] There will be no end to the debate as to what 'left-right' actually means in a San Francisco context, but *in general* it refers to opinions of fiscal, social, land use, and governmental matters. By and large, the 'left' is more willing to support taxes and bonds, funding for social services, a more active role for the government, tighter land use restrictions, and more liberal social views as understood nationally (i.e., homelessness, military, etc). To anyone outside of San Francisco politics, it's really just left vs. more left. However, many cities deal with similar issues.

Table 2: Measures in the 2015 PVI

Month	Year	Measure	Title	% Yes (Bold = FAIL)
NOV	2012	A	City College Parcel Tax	72.90%
NOV	2012	B	Clean and Safe Neighborhood Parks Bonds	72.11%
NOV	2012	C	Housing Trust Fund	65.15%
NOV	2012	E	Gross Receipts Tax	70.75%
NOV	2012	G	Policy Opposing Corporate Personhood	80.99%
JUN	2014	A	Earthquake Safety and Emergency Response Bond	79.04%
JUN	2014	B	Voter Approval for Waterfront Development	58.88%
NOV	2014	A	Transportation and Road Improvement Bond	71.87%
NOV	2014	B	Adjusting Transportation Funding for Population Growth	56.13%
NOV	2014	C	Children's Fund; Public Education Enrichment Fund; Children and Families Council; Rainy Day Reserve	61.39%
NOV	2014	D	Retiree Health Benefits for Former Redevelopment Agency and Successor Agency Employees	56.13%
NOV	2014	G	Additional Transfer Tax on Residential Property Sold Within 5 Years of Purchase	**46.09%**
NOV	2014	J	Minimum Wage Increase	77.43%
NOV	2014	K	Affordable Housing Policy Statement	65.56%

It is important to note that just because an issue had strong overall support or strong overall opposition in San Francisco, doesn't mean it doesn't fit on to the left-right divide. For instance, most bond measures pass with over 70% of the vote, which means they're pretty much supported by everyone. Still, a conservative precinct could vote for it at 55% and a progressive precinct could support it at 90%, representing a true 35 percentage point swing.

I very much wished to include a measure from the November 2013 race in order to have each election in the timeframe represented. Unfortunately, there was no suitable measure in 2013 that either correlated well enough to the 2011 PVI, or had any defensible left-right theoretical argument. By the way, this was the 8 Washington election, and while many readers may think this was a natural measure for inclusion in the PVI, it actually had enough broad support so that it didn't fit into a typical left-right narrative. This was the same for the Beach Chalet measures in November 2014. However, the waterfront development measure (Prop B) from June 2014 did make the cut, since its passage fell upon somewhat more traditional political lines.

Results

Map 1 shows the 2015 PVI for the city of San Francisco. Figure 2 shows a correlation of the 2011 PVI with the new PVI. The results are close ($R^2 = 0.83$), but not as strong as previous years' correlations. I believe this is the case because of the changing precinct lines from 2011 to 2012, and that 2011 precincts – when transformed into current precincts – don't perfectly match up.

Map 1: 2015 San Francisco PVI

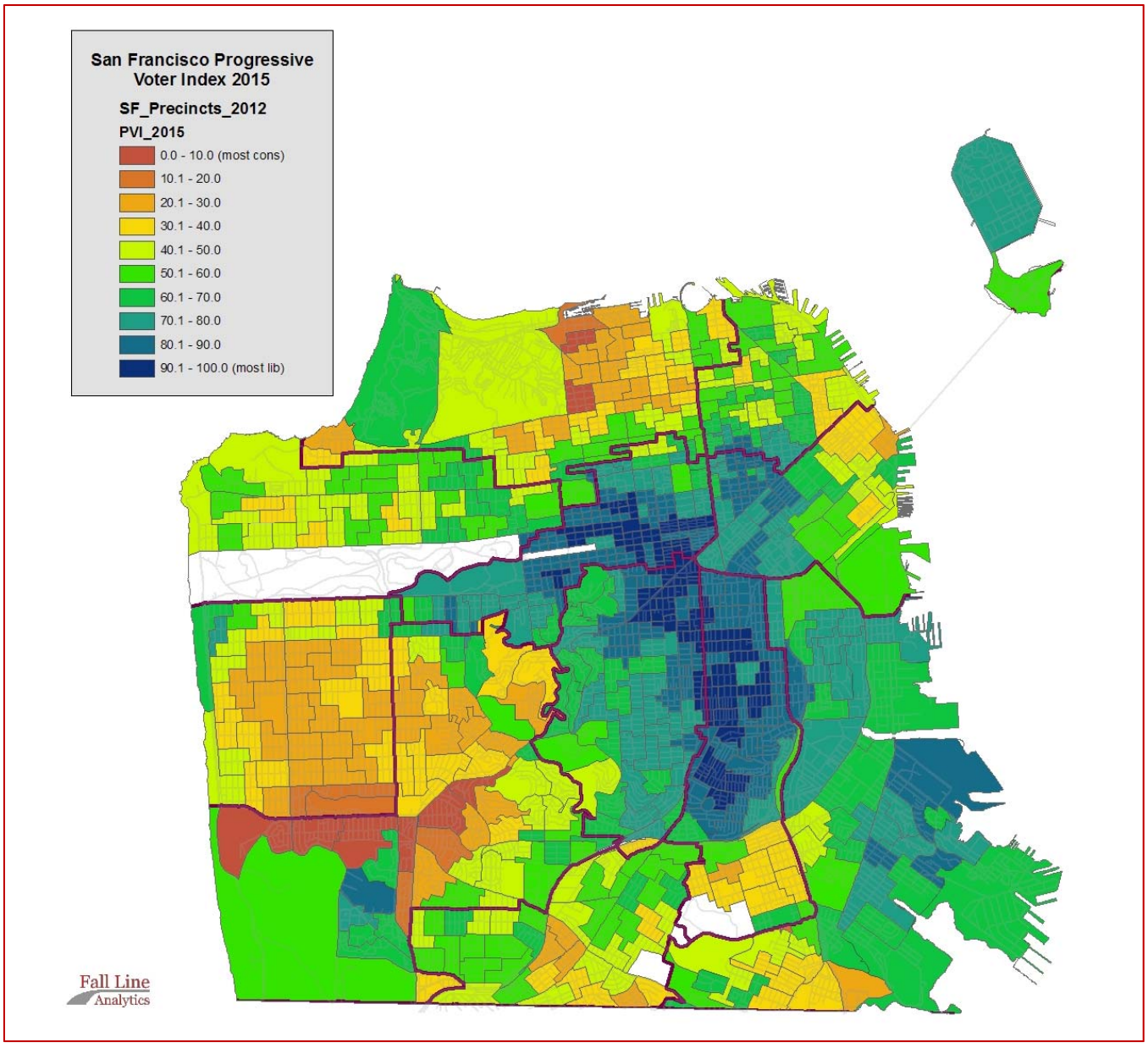


Figure 1: Correlation of 2015 vs. 2011 PVI. $R^2 = 0.83$, indicating a good correlation but suffering from an imperfect precinct match

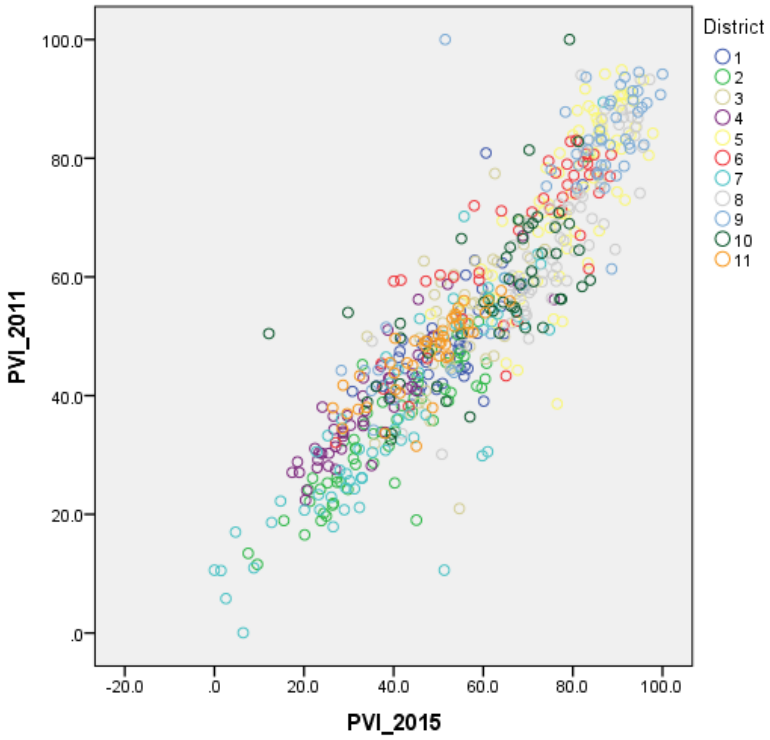
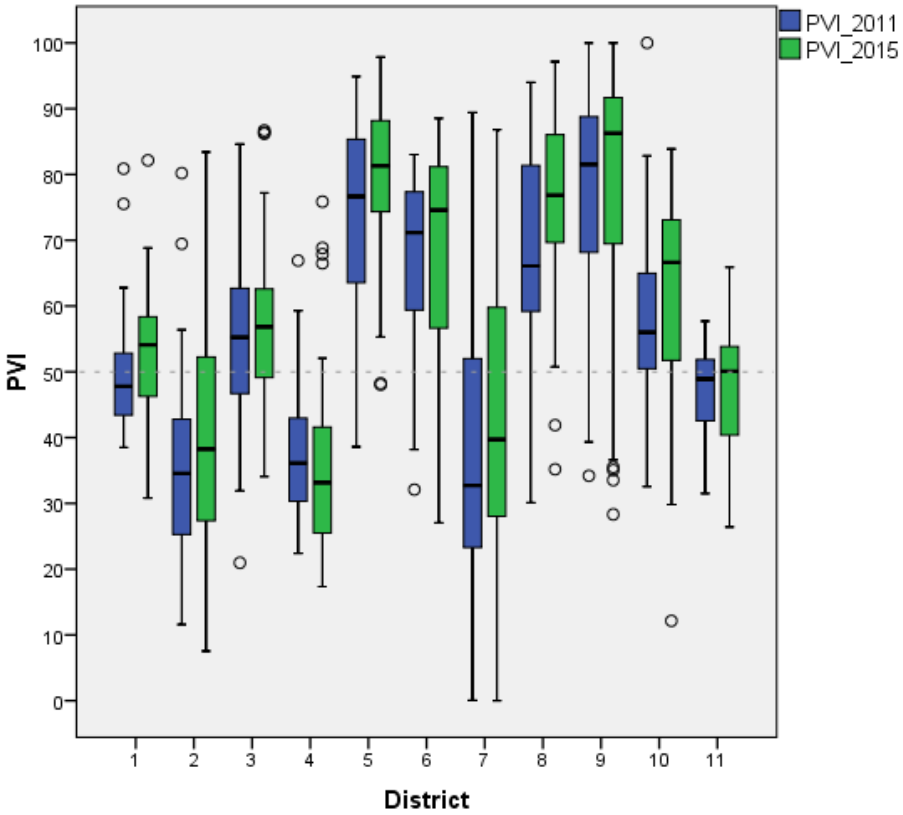


Table 3 shows the summary statistics for the 11 districts, as well as the summary statistics for the previous two iterations of the PVI. Figure 2 shows a boxplot of PVI values for the 11 districts for the 2015 and 2011 PVIs.

Table 3: Summary statistics for the San Francisco districts for the 2015 PVI and the previous two PVIs.

District	Stats	2008 PVI	2011 PVI	2015 PVI	District	Stats	2008 PVI	2011PVI	2015 PVI
1	N	49	49	48	7	N	59	59	62
	Mean	49.3	49.8	52.6		Mean	34.7	37.1	40.6
	Median	47.0	48.3	54.1		Median	30.3	33.2	39.7
	Range	43.3	43.1	51.4		Range	78.6	89.4	86.8
	Minimum	37.8	37.8	30.8		Minimum	0.0	0.0	0.0
	Maximum	81.1	80.9	82.2		Maximum	78.6	89.4	86.8
	Std. Error of Mean	1.2	1.3	1.4		Std. Error of Mean	2.3	2.3	2.6
2	N	60	60	62	8	N	65	65	69
	Mean	32.8	34.1	39.6		Mean	66.4	67.3	77.4
	Median	31.9	33.7	38.2		Median	64.5	65.3	76.8
	Range	70.6	68.6	75.9		Range	73.7	63.2	62.0
	Minimum	9.3	11.6	7.5		Minimum	22.2	30.1	35.2
	Maximum	79.9	80.2	83.4		Maximum	96.0	93.3	97.2
	Std. Error of Mean	1.7	1.6	1.9		Std. Error of Mean	1.9	1.6	1.5
3	N	46	46	45	9	N	41	41	52
	Mean	52.1	53.4	57.8		Mean	77.5	77.2	77.4
	Median	52.4	54.2	56.8		Median	84.7	83.1	86.3
	Range	61.4	57.1	52.6		Range	73.1	60.3	71.7
	Minimum	11.8	21.0	34.1		Minimum	26.9	34.2	28.3
	Maximum	73.2	78.1	86.7		Maximum	100.0	94.5	100.0
	Std. Error of Mean	1.8	1.8	1.8		Std. Error of Mean	2.8	2.6	2.9
4	N	46	46	48	10	N	53	57	50
	Mean	37.0	37.7	35.2		Mean	62.4	57.0	61.9
	Median	35.8	35.4	33.1		Median	64.2	56.3	66.6
	Range	41.3	44.5	58.5		Range	60.3	68.3	71.7
	Minimum	22.2	22.4	17.4		Minimum	32.8	31.7	12.1
	Maximum	63.5	66.9	75.9		Maximum	93.2	100.0	83.9
	Std. Error of Mean	1.4	1.4	2.0		Std. Error of Mean	1.6	1.8	2.3
5	N	66	66	71	11	N	43	43	44
	Mean	74.3	74.7	79.8		Mean	50.3	47.4	47.3
	Median	77.8	77.1	81.3		Median	50.7	49.1	50.1
	Range	56.9	56.3	49.8		Range	30.2	26.2	39.5
	Minimum	37.1	38.6	48.0		Minimum	30.8	31.5	26.4
	Maximum	94.0	94.9	97.9		Maximum	61.0	57.7	65.9
	Std. Error of Mean	1.7	1.7	1.3		Std. Error of Mean	1.1	1.0	1.5
6	N	52	59	43	Total	N	580	591	594
	Mean	66.3	68.2	67.9		Mean	55.1	55.2	58.8
	Median	68.2	72.7	74.6		Median	54.8	54.2	59.0
	Range	68.9	61.9	61.5		Range	100.0	100.0	100.0
	Minimum	27.3	32.1	27.0		Minimum	0.0	0.0	0.0
	Maximum	96.2	94.0	88.5		Maximum	100.0	100.0	100.0
	Std. Error of Mean	1.7	1.9	2.5		Std. Error of Mean	0.9	0.8	0.9

Figure 2: Boxplot showing district aggregations of the 2015 and 2011 recent PVIs



Discussion

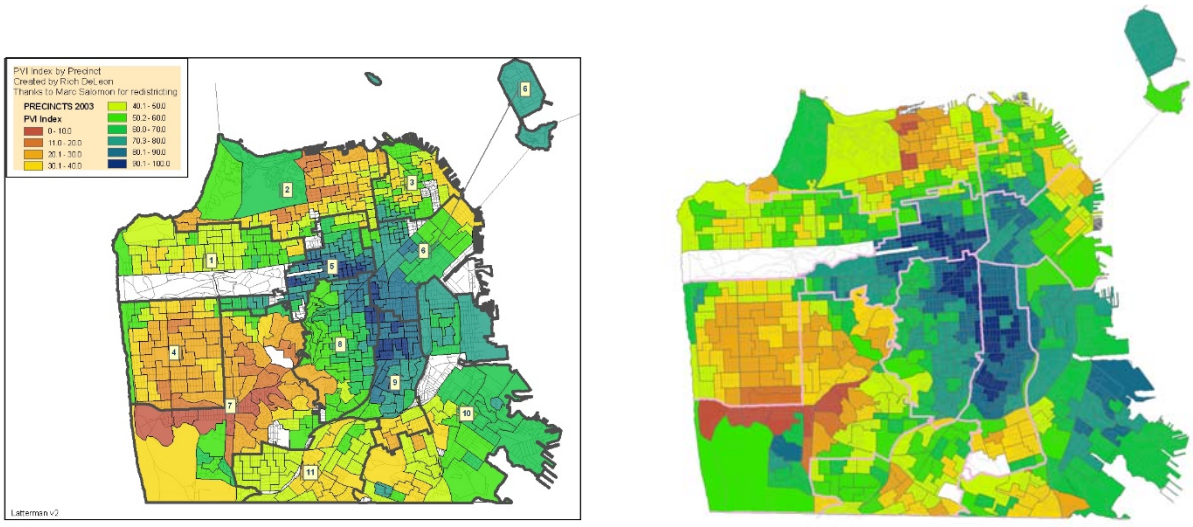
Because of the recent precinct and district line shift, it is difficult to make direct comparisons with this PVI and previous PVIs like I've done in past years. Many of the districts increased their PVI number so it would be easy (but probably wrong) to say the city has become more liberal overall. It must be remembered that the PVI is a relative index and the precinct scoring pertains to the precincts being compared to *each other*. It likely means that more precincts and neighborhoods are voting similarly, indicating a centering of the body politic.

District 8 appears to have made the biggest change relative to the other precincts, where its PVI score increased by 10 points, and D8 didn't change all that much during redistricting. D8 also exhibits less of the east-west gradient that it has in previous years, mainly because Diamond Heights has higher PVI scores for whatever reason. Most other districts remain about the same, or their PVI score has gone up or down slightly.

I think we're seeing the continued polarization of the city geographically, with a more liberal central core and more conservative outer neighborhoods. But this is how it's been for many years. Figure 3 shows two maps side by side: the PVI map from Prof. DeLeon's and my 2004 PVI report, and the current

map, set to the same scale.[4] These maps are very, very similar, and in the scheme of things, shows the city hasn't changed all that much politically – at least in a relative sense – during the past decade.

Figure 3: Maps of the 2004 (a) and 2015 PVI (b), respectively, set to the same scale. Blue = more liberal



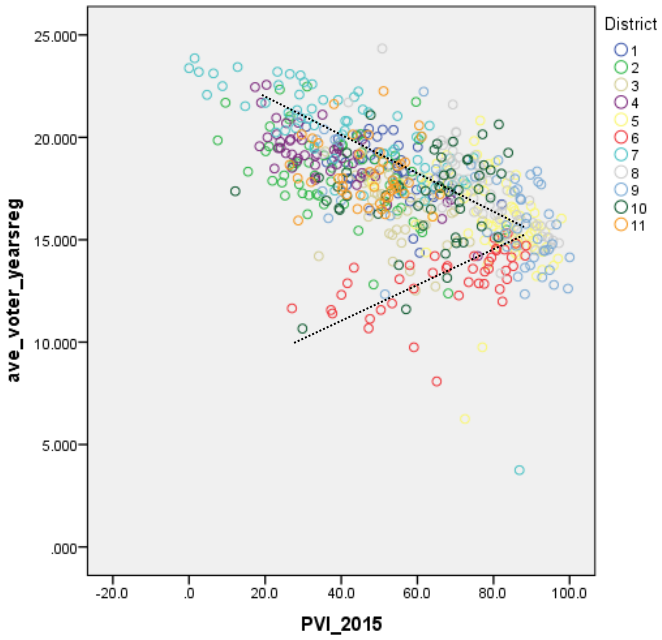
a b

I also examined several demographic variables from the US Census and the San Francisco Voter file to look at trends, similar to that of 2004. Overall most of the demographic voting trends in San Francisco haven't changed much. PVI correlates inversely with age, income, homeownership, and Asian population. There's no strong correlation with variables such as percent children and education (these correlations are shown in Appendix 2). The OLS model we ran from 2004 would hold just as well today, but since so many of these variables are covariate I didn't create an OLS model this time.

But there was one new analysis I found intriguing. Many political workers are interested in finding out how "the new residents" to San Francisco vote. There has been an influx of many new residents in San Francisco during the past five years or so, and there's been much speculation as to how they vote and if they'll change politics in San Francisco. Many of these new residents have moved to Districts 6 and 9. Figure 4 shows a correlation of PVI and the average number of years – per precinct – that residents have lived in San Francisco, based on original voter registration date.

[4]http://static1.squarespace.com/static/524b503ee4b09b795faf6469/t/52670a1ee4b03cb52f5cecc0/1382484510402/DeLeon+Latterman+New+PVI+Report+April+2004.pdf

Figure 4: PVI correlated to the percent average of original registration date for its voters



Generally, as residents live in San Francisco longer, they vote more conservatively. This is covariate with age and is not a surprise. However, there are several precincts in D6, and a few in D9 and D10, which have a clear reverse trend. Precincts with a lower average residence time in San Francisco seem to be more conservative. D6 is on the lower end of mean residence time anyway, but D6 residents who have been there the longest are Tenderloin and Soma residents. Recent voters in certain Soma and Mission Bay precincts vote decidedly more conservatively. This is some of the first quantitative evidence for a trend that many San Franciscans seem to have predicted.

As a final note, the PVI itself has no intrinsic meaning - it's a metric of how San Francisco voters vote on a scale that we ourselves have devised. Issues, or even candidates if it's used that way, have no inherent PVI; voters of a particular political leaning either vote for a measure or against it. We then use the PVI to try to figure out who actually voted for a measure or a candidate. If precincts of PVI = 60 (liberal) vote for tenant protections for a numbers of year, then shift their position, we can infer that some liberals have changed their minds on the issue over time. But even that definition of "liberals" is ours, on a unique San Francisco scale. In short, don't overthink what the PVI represents.

Appendix 1: Detailed methodology

Below are the steps taken in creating the PVI. The methodology is very similar to that of 2011 and all prior years.

1. The timeframe for the initiatives was chosen to be from November 2012 to November 2014, around 2 years. This represented all elections since redistricting in 2012. Furthermore, all of these elections occurred after San Francisco came out of its last recession, so this PVI is truly a 'current' look at the electorate.

2. For each PVI there appears to be fewer ideological issues on the ballot. Instead, many deal with good governance, bonds, or labor issues. I played around with many combinations of issues, using internal consistency metrics and theory to select the final menu. Table 1 shows the issues that were selected. I very much wanted to include a measure from 2013 so each election in the timeframe was covered, but there was simply no suitable issue. The Prescription Price Purchasing measure was close, but including it in the index actually weakened the internal validity of the PVI (see below), so it was omitted.

3. The issues chosen correlated well with the earlier PVI, and then were defensible because they could be interpreted along some kind of left-right San Francisco ideological spectrum. I obviously have no control over what appears on the ballot for any given time cycle, so we have to accept what's there as issues that reflect the current mood of the electorate, either through the initiative process or vis-à-vis elected representatives. This, for example, is why we see so many housing measures on the ballot, whether or not they were suitable for this particular PVI.

4. For a reliability test, the final issues list had a Cronbach's Alpha of 0.97, and an inter-item correlation of 0.73. These are excellent values, and indicate that we're looking at all of the chosen issues through the same "left-right" lens. Including other measures into this PVI would have weakened the overall internal reliability.

5. When the list was complete, I ran a principal components factor analysis with varimax rotation. The solutions revealed two factors (groupings of issues), with rotated eigenvalues of 6.5 and 5.0 (unrotated = 10.5 and 1.0). Table 4 shows the loadings on each rotated factor.

Table 4: Rotated factor loadings for the 2015 measures

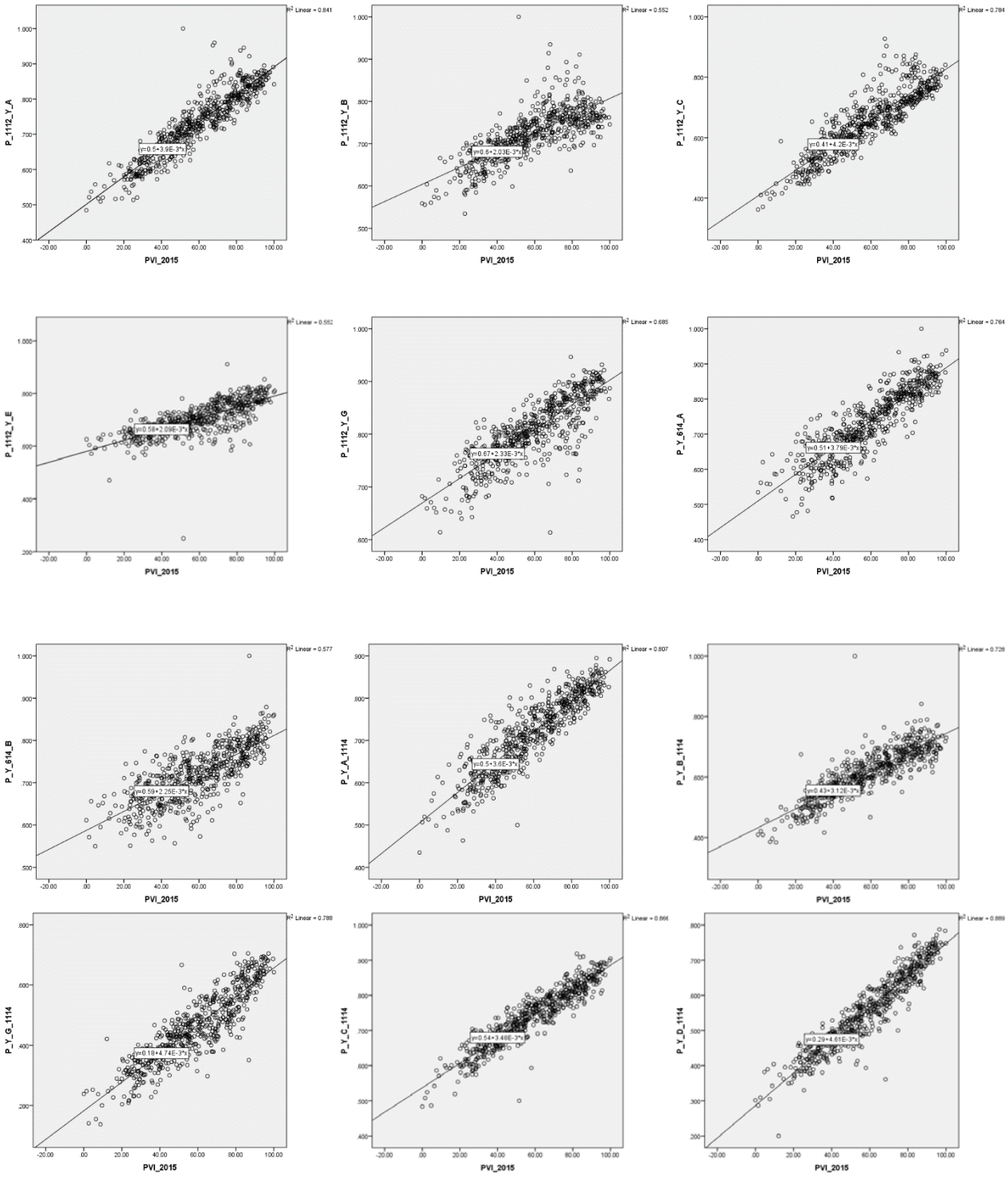
Issue	Factor 1	Factor 2
City College Parcel Tax	0.843	0.455
Clean and Safe Neighborhood Parks Bonds	0.882	0.168
Housing Trust Fund	0.871	0.381
Gross Receipts Tax	0.163	0.887
Policy Opposing Corporate Personhood	0.336	0.835
Earthquake Safety and Emergency Response Bond	0.596	0.640
Voter Approval for Waterfront Development	0.402	0.672
Transportation and Road Improvement Bond	0.655	0.616
Adjusting Transportation Funding for Population Growth	0.773	0.434
Children's Fund; Public Education Enrichment Fund; Children and Families Council; Rainy Day Reserve	0.701	0.615
Retiree Health Benefits for Former Redevelopment Agency and Successor Agency Employees	0.622	0.711
Additional Transfer Tax on Residential Property Sold Within 5 Years of Purchase	0.630	0.626
Minimum Wage Increase	0.753	0.582
Affordable Housing Policy Statement	0.873	0.349

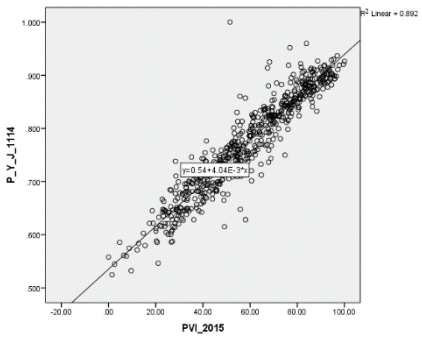
6. In previous years, Prof. DeLeon and I have tried to interpret the factor loadings into categories of overall issues that the voters care about. I didn't try it this time, because there was pretty much one primary grouping (Parks Bond seemed to be the one outlier).

7. Standardized factor scores were constructed for both factors in each precinct. These two scores were summed, and then calibrated to the familiar 0-100 scale. 0 was assigned to the most "conservative" precinct and 100 was assigned to the most "liberal" precinct. The resulting 0-100 scale is the PVI.

8. To test the new PVI, I correlated it with each of its constituent issues (14 of them). By inspection, and by the R^2 value, the new PVI matches very well, collectively, to its components (Figure 4). Seems legit.

Figure 5: Individual correlations of constituent issues vs. the 2015 PVI. R^2 included.

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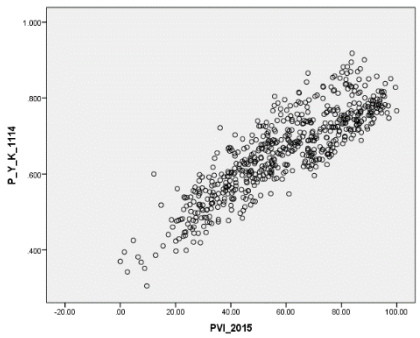
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60.00
80.00
100.00

Appendix 2: Selected demographic correlations with PVI.

Note: Data points are precincts, and selected demographic are precinct percentages or precinct mean values

Figure 6: PVI correlation with age; age value represented mean age per precinct according to San Francisco voter file

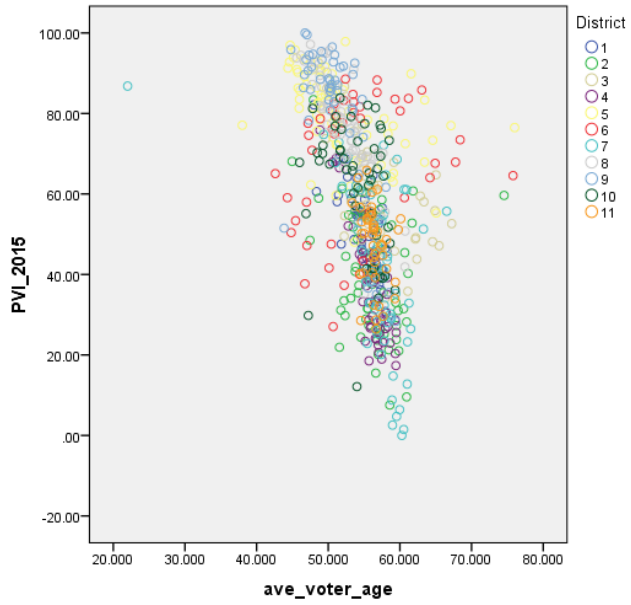


Figure 7: PVI correlation with homeownership; value is precinct percentage of population that lives in owner-occupied unit from the US Census

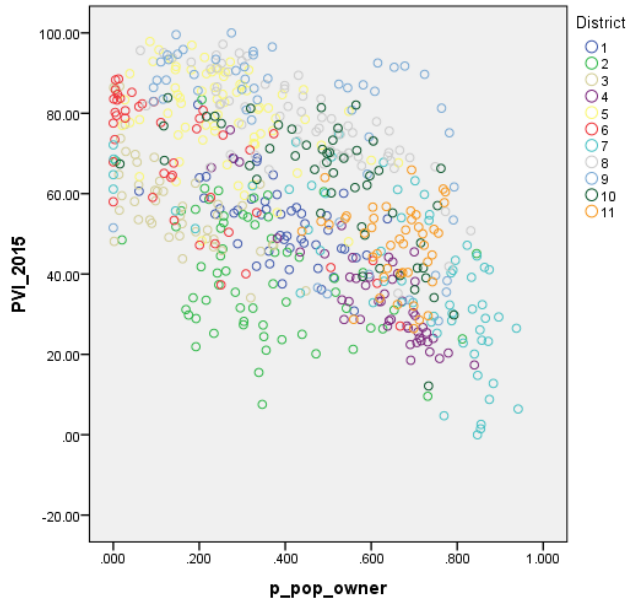


Figure 8: PVI correlation with Over 18 API population; value is precinct percentage of API from the US Census

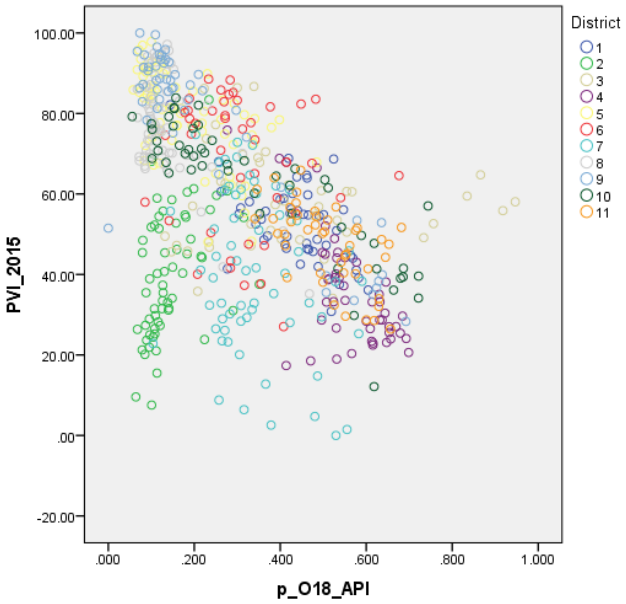


Figure 9: PVI correlation with income; value is median household income per precinct

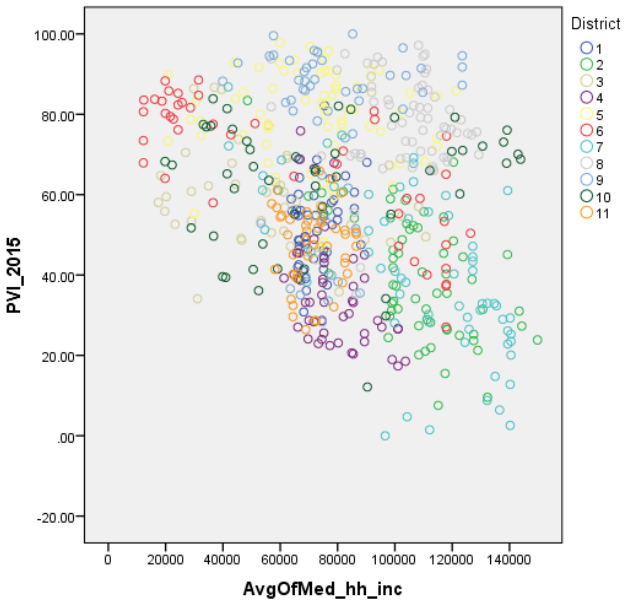


Figure 10: PVI correlation with education; value is precinct percentage people with a Bachelors degree or higher from the US Census

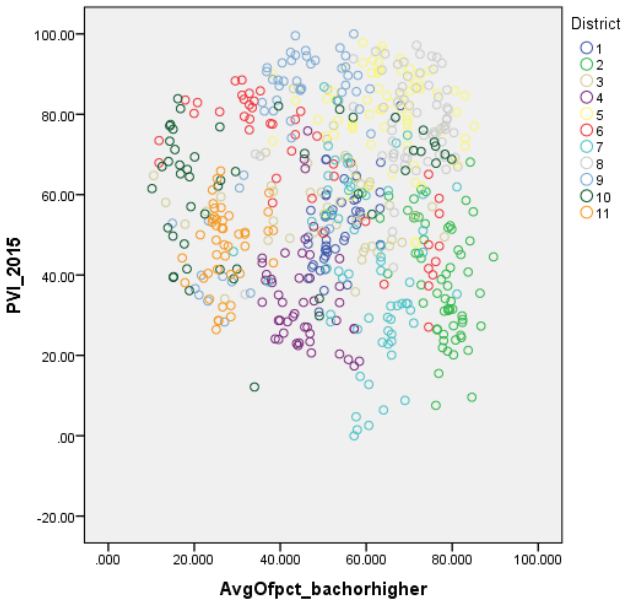
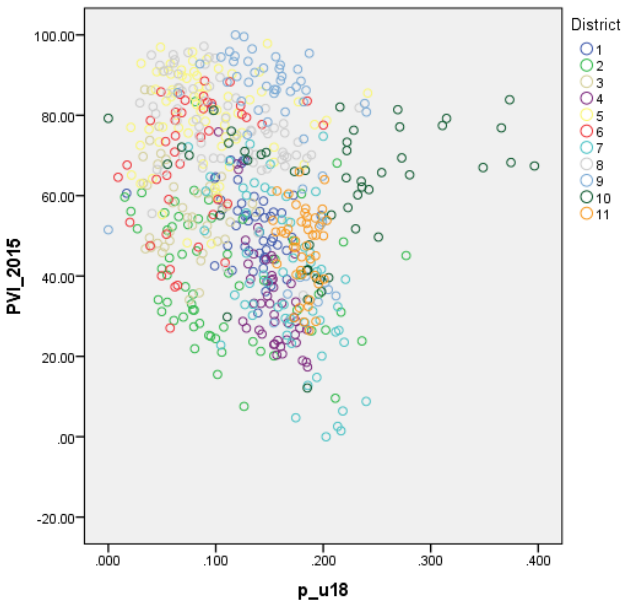


Figure 11: PVI correlation with kids; value is precinct percentage of under 18 population from US Census



Appendix 3: PVI data by precinct

Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015
1101	40.3454	1153	40.404	7046	41.477	7329	34.078	7529	95.7817
1102	50.1779	1154		7047	39.0472	7331	48.1249	7531	92.7811
1103	47.1664	4001		7048	61.4974	7332	69.7451	7532	80.0157
1104	50.6286	7001	70.2369	7049	39.5771	7333	58.2468	7533	86.3357
1105	50.1857	7002	55.1175	7051	39.4022	7334	69.0445	7534	87.1543
1106	43.0187	7003	68.8026	7052	34.119	7335	46.7645	7535	89.8347
1107	51.1078	7004	70.0412	7053	29.8089	7336	45.8183	7536	86.9017
1108	60.4495	7005	76.0712	7054	65.7466	7337	43.8006	7537	89.2179
1109	44.743	7006	81.2377	7101	82.1507	7338	52.6285	7538	85.667
1111	47.5172	7007	70.7593	7201	51.4069	7339	67.8384	7539	91.2718
1112	51.6741	7008	73.0875	7202	33.0322	7341	77.205	7541	83.5157
1113	48.6827	7009	66.0134	7203	51.7656	7342	63.1236	7542	93.5299
1114	52.3085	7011	79.2074	7204	52.2601	7343	86.2022	7543	90.3188
1115	50.969	7012	71.009	7205	45.4175	7344	62.5983	7544	90.8437
1116	55.6974	7013	72.0912	7206	54.7899	7345	73.7451	7545	86.4249
1117	54.747	7014	67.8297	7207	56.0786	7346	86.7065	7546	84.6272
1118	57.7707	7015	79.2468	7208	60.7397	7347	86.3907	7547	90.8706
1119	65.9102	7016	60.1929	7209	59.6366	7348	70.4931	7548	85.2589
1121	28.5487	7017	82.063	7301	53.534	7349	62.1727	7549	78.4875
1122	26.4168	7018	47.7277	7302	47.1376	7501	48.034	7551	74.0654
1123	56.7772	7019	66.2721	7303	52.529	7502	48.2492	7552	85.8836
1124	54.4385	7021	71.2304	7304	62.3536	7503	62.9937	7553	80.5043
1125	47.1288	7022	76.2792	7305	45.6426	7504	67.9019	7554	75.6855
1126	51.5614	7023	77.114	7306	48.6367	7505	76.5022	7555	72.055
1127	32.0792	7024	68.2461	7307	57.3389	7506	78.4322	7556	68.2949
1128	28.7019	7025	76.8724	7308	47.2146	7507	78.7172	7557	67.6747
1129	44.2538	7026	41.5177	7309	49.4996	7508	55.2961	7601	78.7975
1131	33.9801	7027	64.4391	7311	57.006	7509	65.121	7602	84.7288
1132	41.3878	7028	81.4025	7312	35.8011	7511	64.2218	7603	88.5405
1133	38.0755	7029	77.4512	7313	50.5213	7512	73.3457	7604	83.2856
1134	40.1389	7031	57.0181	7314	59.4801	7513	89.8668	7605	85.8259
1135	29.6219	7032	73.3196	7315	60.8125	7514	83.3521	7606	79.4689
1136	32.4041	7033	65.1853	7316	53.4481	7515	74.6022	7607	82.913
1141	53.5325	7034	83.8726	7317	54.6707	7516	72.4978	7608	67.9031
1142	53.8309	7035	69.394	7318	48.7862	7517	84.7085	7609	73.4592
1143	63.9942	7036	51.7403	7319	50.9633	7518	81.4636	7611	80.6489
1144	56.6448	7037	67.3973	7321	49.124	7519	93.9094	7612	64.0494
1145	61.1537	7038	49.6859	7322	55.8459	7521	90.8114	7613	88.3127
1146	53.0913	7039	41.3842	7323	56.8311	7522	90.234	7614	80.2218
1147	53.8549	7041	12.1434	7324	60.637	7523	90.8936	7615	83.5474
1148	39.2276	7042	55.1839	7325	54.5579	7524	83.8383	7616	73.4884
1149	49.9971	7043	62.1429	7326	60.5575	7525	97.8538	7617	83.7306
1151		7044	66.9888	7327	58.0584	7526	92.9126	7618	74.9113
1152	45.0416	7045	36.1233	7328	64.7473	7528	76.9004	7619	77.7074

Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015
7621	76.1414	7807	93.0202	7856	74.761	7929	85.4761	9118	37.5436
7622	85.2125	7808	85.4489	7857	77.1855	7931	81.2709	9119	46.2187
7623	82.3361	7809	95.6249	7858	92.7332	7932	75.1436	9121	36.1399
7624	81.6485	7811	93.817	7859	70.2197	7933	51.4947	9122	41.0791
7625	64.5753	7812	91.0115	7861	73.3076	7934	96.528	9123	42.5182
7626	47.5304	7813	92.444	7862	70.8464	7935	91.4411	9124	41.9431
7627	37.3059	7814	81.8795	7863	81.7171	7936	91.7609	9125	56.0991
7628	80.7402	7815	78.6389	7864	76.0011	7937	89.7023	9126	39.1555
7629	78.715	7816	80.3931	7865	79.2423	7938	86.2098	9127	47.7151
7631	70.8758	7817	94.9749	7866	41.8848	7939	92.5253	9128	46.3431
7632	74.5825	7818	90.2977	7867	69.3106	7941	85.6356	9129	54.7818
7633	59.0533	7819	83.0846	7868	70.1303	7942	74.1057	9131	48.7126
7634	67.6256	7821	74.8951	7869	68.9512	7943	64.8517	9132	68.6871
7635	53.3524	7822	82.1567	7871	66.7032	7944	87.0801	9133	64.6553
7636	50.3928	7823	86.0587	7872	70.8132	7945	80.8181	9134	47.5374
7637	41.6198	7824	81.5742	7873	77.9218	7946	53.4465	9135	41.3999
7638	27.0452	7825	91.2422	7874	70.1086	7947	39.9344	9136	54.4997
7639	37.6835	7826	94.4777	7875	69.6075	7948	39.66	9137	44.6991
7641	43.3426	7827	95.0565	7901	88.2161	7949	28.3188	9138	47.2723
7642	65.0664	7828	65.9817	7902	86.4107	7951	33.5358	9139	30.7971
7643	55.2859	7829	69.1832	7903	92.7919	7952	35.0493	9141	44.0455
7644	47.179	7831	83.5879	7904	88.2549	7953	35.506	9142	54.8656
7645	40.0435	7832	78.9712	7905	83.3555	7954		9143	50.8862
7646	59.0756	7833	87.2191	7906	95.859	7955	38.3206	9144	49.4435
7647	77.5486	7834	97.1671	7907	93.4164	7956	36.6015	9145	60.0972
7648	57.98	7835	69.6601	7908	83.5128	7957	61.6605	9146	68.832
7701	61.9195	7836	66.4975	7909	99.9999	7958	52.8696	9147	59.7715
7702	35.2544	7837	75.1926	7911	85.9429	9001	63.5559	9148	58.0824
7703	55.7133	7838	68.239	7912	93.3755	9101	52.5285	9149	68.0388
7704	28.3823	7839	66.2865	7913	78.3327	9102	46.4917	9151	56.5456
7705	30.1945	7841	84.2833	7914	95.4099	9103	45.6996	9152	60.5955
7706	41.0882	7842	82.3613	7915	88.4939	9104	55.1725	9201	68.103
7707	44.4939	7843	86.5409	7916	94.4842	9105	49.5719	9202	48.4784
7708	47.1508	7844	94.2004	7917	94.7188	9106	55.0398	9203	15.4953
7709	67.7894	7845	75.6084	7918	91.583	9107	54.9201	9204	23.6534
7711	59.7823	7846	69.9494	7919	99.5626	9108	55.8987	9205	40.2376
7712	69.1645	7847	76.2739	7921	82.9273	9109	48.5929	9206	7.5421
7713		7848	76.8465	7922	90.6275	9111	56.2498	9207	24.433
7801	69.2738	7849	81.1519	7923	88.65	9112	58.662	9208	29.7959
7802	69.3294	7851	50.7676	7924	80.8363	9113	55.7064	9209	25.2194
7803	66.9324	7852	55.5595	7925	89.6434	9114	63.9594	9211	21.9054
7804	73.1251	7853	67.3698	7926	94.5556	9115	64.2444	9212	31.1395
7805	86.906	7854	76.3854	7927	87.245	9116	58.9228	9213	33.4714
7806	89.446	7855	75.4217	7928	86.331	9117	53.715	9214	21.0178

Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015	Prec	PVI_2015
9215	20.1366	9405	33.124	9501	67.2045	9727	2.568
9216	27.3657	9406	45.4656	9502	62.2701	9728	12.7629
9217	31.5622	9407	48.9183	9503	77.6813	9729	6.4154
9218	37.3179	9408	66.4827	9504	76.9955	9731	8.7938
9219	41.8245	9409	67.8786	9505	74.9176	9732	22.8154
9221	9.5825	9411	75.8611	9506	85.5254	9733	61.0028
9222	21.2496	9412	45.5041	9507	81.0237	9734	26.4953
9223	24.9866	9413	39.223	9508	96.9426	9735	23.2334
9224	31.5101	9414	44.0714	9509	81.3119	9736	39.1602
9225	34.0827	9415	33.1657	9511	84.6027	9737	43.4015
9226	28.9169	9416	40.1312	9512	82.7221	9738	51.2996
9227	31.0225	9417	25.4309	9513	91.645	9739	72.1379
9228	23.8312	9418	23.4047	9514	77.0745	9741	86.8081
9229	45.0764	9419	20.3347	9515	59.5826	9742	14.7658
9231	60.4538	9421	27.0345	9516	61.9489	9743	68.6003
9232	40.3384	9422	39.2215	9517	79.6706	9744	61.1265
9233	26.5618	9423	38.698	9518	82.4842	9745	64.7053
9234	35.4722	9424	24.0866	9519	72.2681	9746	29.3025
9235	26.3518	9425	29.6541	9521	77.5952	9747	54.7647
9236	31.4716	9426	27.049	9522	75.5811	9748	40.2834
9237	38.9225	9427	20.6184	9701	62.0201	9749	45.8296
9238	27.3026	9428	33.1988	9702	72.8364	9751	41.6553
9239	28.2084	9429	23.0855	9703	38.191	9752	40.9421
9241	35.4609	9431	22.4382	9704	45.6515	9753	53.3428
9242	44.5114	9432	30.39	9705	60.0524	9754	63.2065
9243	45.4001	9433	28.7184	9706	74.7858	9755	54.0014
9244	54.4444	9434	33.2321	9707	28.0338	9756	38.305
9245	58.5607	9435	38.1213	9708	51.0216	9801	35.1874
9246	40.7363	9436	28.693	9709	29.4612		
9247	46.2099	9437	22.9275	9711	32.2745		
9248	55.7346	9438	28.3715	9712	28.981		
9249	48.798	9439	25.5507	9713	25.2782		
9251	44.1744	9441	43.0226	9714	20.0848		
9252	37.5576	9442	44.1905	9715	23.5116		
9253	52.7647	9443	38.9213	9716	32.9569		
9254	54.2213	9444	35.0443	9717	32.8866		
9255	61.2995	9445	26.5377	9718	31.2593		
9256	58.9559	9446	26.6721	9719	32.3699		
9257	83.4093	9447	28.6592	9721	26.0864		
9258	54.1531	9448	33.5677	9722	32.8751		
9401	68.8278	9449	23.9604	9723	-0.0003		
9402	52.0534	9451	18.9565	9724	1.4742		
9403	45.0329	9452	18.5258	9725	4.7153		
9404	37.1809	9453	17.3558	9726	61.0667		