Economic Voting and Economic Inequality: US Presidential Elections, 1952-2012

Suzanne Linn and Jonathan Nagler

American Politics Research, 2017.

Supplemental Online Appendix

1 Expansion of the Model

We now consider whether or not it matters whether the voter considers Y'_t or $Y'_{j,t}$, and show that given the change in levels of inequality, for most evaluative rules considering Y'_t is not equivalent to considering $Y'_{j,t}$.

If the voter follows Rule 1 (only comparing current economic performance to some fixed reference), then the only way considering Y'_t and $Y'_{j,t}$ is equivalent is if s_j is constant over time (in the short run). That is because if the voter does consider s_j, then it suggests that she would evaluate $Y'_{j,t}$ rather than Y'_t. But

$$Y'_{j,t} \quad = \quad \frac{(Y_t \times s_{j,t} \; - \; Y_{t-1} \times s_{j,t-1})}{Y_{t-1} \times s_{j,t-1}} \tag{1}$$

If $s_{j,t} \; = \; s_{j,t-1}$, then s_j drops out of this expression, and $Y'_t \; = \; Y'_{j,t}$. However, we know that in fact for the bottom income quintile, this condition has not been met. The share of income going to the bottom quintile has been shrinking, and generally $s_{j,t} < s_{j,t-1}$ for the bottom income quintile. This suggests that generally $Y'_{j,t}$ would be less than Y'_t for the bottom of the income distribution; and if voters in the bottom quintile look at the income going to their group; they would be less likely to vote for the incumbent than they would if they looked at changes in aggregate income.

However, note that *if* $s_{j,t}$ were to be constant over some period, than it would not matter which value voters looked at Y'_t or $Y'_{t,j}$ if they follow Rule 1. And this applies to each

of the 4 rules we list: the voter would only reach the same conclusion using Y'_t and $Y'_{j,t}$ *if* s_j were constant over time. Note that this suggests that *if* inequality *stops* increasing (not that it decreases, just that it stops increasing) *and* if s_j does not vary across parties – then we could use either Y'_t or $Y'_{j,t}$ in our models and it would not matter. Whichever the voter looked at would be observationally equivalent. But we note that s_j might not only vary over time, it might vary across parties. This further suggests that if a voter used Rule 2: $Y'_{t,IP} \neq Y'_{t,OP}$ even if there was not a secular change in s_j - but rather cross-party differences in s_j.

There is an alternative scenario under which Y'_t and $Y'_{j,t}$ would *not* be equivalent even if $s_{j,t} = s_{j,t-1}$. Say a voter in the bottom quintile follows a variant of rule 4 above, where she has a longer historical memory and compares current performance to economic performance going all the way back to 1950. And say that, consistent with US economic history, the share of income going to the voter's quintile was approximately .04 prior to the mid 1970s (so $s_{j,t} = .04$ for $k \geq 20$), but the share going to the voter's quintile decreased to a value closer to .03 since the mid 1970s (so $s_{j,t} = .03$ for $k < 20$). If this is the case then then while the instantaneous rate of change of Y_t will equal the instantaneous rate of change of $Y_{t,j}$, the comparison of the current rate of change of $Y_{t,j}$ to earlier rates of change of $Y_{t,j}$ will be quite poor compared to comparisons of the current rate of change of Y_t to earlier rates of change of $Y_{j,t}$. Thus the poorer voters will be more likely than richer voters to perceive current rates of income growth as anemic compared to earlier rates of change, and thus will be more eager to vote out the incumbent.[1]

[1]However, as all estimates of voters memory suggest that they do *not* weight growth over a very long period, we do not report estimates of such a model below.

Table 1: Incumbent 2-Party Party Vote Shares: Aggregate and by Quintile

Year	Incumbent Party	Aggregate	Bottom Quintile	Second Quintile	Third Quintile	Fourth Quintile	Top Quintile
1952	Dem	0.419	0.439	0.482	0.445	0.412	0.324
1956	Rep	0.596	0.569	0.583	0.557	0.589	0.648
1960	Rep	0.508	0.528	0.527	0.430	0.472	0.588
1964	Dem	0.675	0.722	0.704	0.775	0.644	0.551
1968	Dem	0.462	0.508	0.459	0.439	0.522	0.377
1972	Rep	0.643	0.576	0.611	0.678	0.632	0.731
1976	Rep	0.490	0.404	0.417	0.509	0.550	0.636
1980	Dem	0.439	0.553	0.487	0.430	0.389	0.323
1984	Rep	0.582	0.435	0.568	0.586	0.644	0.684
1988	Rep	0.537	0.402	0.501	0.556	0.567	0.638
1992	Rep	0.456	0.317	0.415	0.489	0.489	0.542
1996	Dem	0.551	0.672	0.591	0.539	0.510	0.457
2000	Dem	0.504	0.609	0.516	0.498	0.474	0.448
2004	Rep	0.514	0.395	0.467	0.535	0.557	0.588
2008	Rep	0.489	0.372	0.472	0.520	0.518	0.516
2012	Dem	0.505	0.589	0.526	0.492	0.493	0.511

Vote shares for the incumbent party as computed by authors (see text for details).