

A Media-Based Measure of Presidential Candidate Ideology[†]

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Introduction: Measuring Presidential Ideology

Among students of American politics, a key challenge is the ability to identify, define, operationalize, and measure the dominant dimension or dimensions of political contention. Particularly among scholars of American political institutions, the ability to measure the ideological positions of actors in the system – and to do so in ways that are reliable, valid, and comparable across time and space – is central to the empirical study of those institutions.

Perhaps nowhere is the challenge more keenly felt than in the institution of the presidency. While scholars have in recent years made great gains in our ability to measure the ideology of members of Congress (Poole and Rosenthal 1985, 1997; Clinton et al. 2004) and the Supreme Court (Martin and Quinn 2002; Clark and Lauderdale 2010; Zorn and Caldeira 2010), efforts to derive similar measures for presidents have been significantly fewer and less successful. The dominant approach has been to focus on presidential support for legislation in the U.S. Congress, either in part (Zupan 1992) or in its entirety (Poole and McCarty 1995; Bailey 2007) to discern presidential policy preferences.

But while legislation-based measures are useful in some respects, they also have significant drawbacks. Chief among these is the limiting (and potentially biasing) effects of the Congressional agenda on our ability to infer presidential preferences: Because presidents do not generally (and, in most instances, cannot) take positions on most bills that are introduced, the possibility of selection bias in the results of such measures must be considered. Relatedly, presidential position-taking is in many cases also endogenous to that agenda: presidents are able informally to “introduce” and “sponsor” legislation (with the assistance of sympathetic members) which itself shapes the Congressional agenda. Missing from these measures, then, is the sort of exogeneity achieved in (e.g.) Segal and Cover’s (1989) measure of Supreme Court ideology. Finally, it is worth noting that such measures are necessarily limited to presidents who are actually elected to office; this latter fact severely limits their usage in models of electoral politics, where one would ideally locate all candidates for the

office in an ideological space.

Our goal here is to take a first step toward overcoming these current deficiencies in the measurement of presidential policy preferences. To that end, we offer a measure of presidential candidates' ideology for all major- and important third-party candidates who ran in presidential general elections between 1932 and 2008. As we describe below, our measure is reliable, valid, and maps closely to existing measures. In addition, however, it is largely exogenous to president's policy actions, making it potentially valuable as a explication thereof; moreover, it is available for all *candidates* for president, whether or not they were elected to the office.

Data and Methodology

We begin with a discussion of the data on which our measure is based, which consist of every endorsement made by a daily newspaper in every presidential general election from 1932 to 2008. For the years 1932-2004, we obtained these data from *Editor and Publisher* (various years), which publishes a list of those endorsements following each general election. These endorsements include third-party candidates, and also indicate instances in which a paper opted not to endorse any candidate.¹ Data from 2008 were obtained from *Editor and Publisher's* website, which was updated continuously before and immediately after the 2008 election. All told, these data represent endorsements by 2613 daily newspapers for 45 candidates (20 Democrats, 20 Republicans, and five independents); after accounting for missing data, this yields a total of 35,507 endorsements for analysis.²

¹We omit from our analysis one instance (by the Richmond, Kentucky *Register*) of support for Adlai Stevenson in 1948 (a year in which Stevenson did not run for president) and one endorsement (by the Hartford City, Indiana *News-Times*) of Libertarian candidate David Bergland in 1984. Both were the sole instances of support for each candidate that year, making estimation of their positions unwise, if not impossible.

²Note that we treat "consolidation" of newspapers as a "new" paper: when the *Atlanta Journal* and the *Atlanta Constitution* merged to become the *Atlanta Journal-Constitution* in 2001, we treat the latter paper as completely distinct from the first two. We do this because

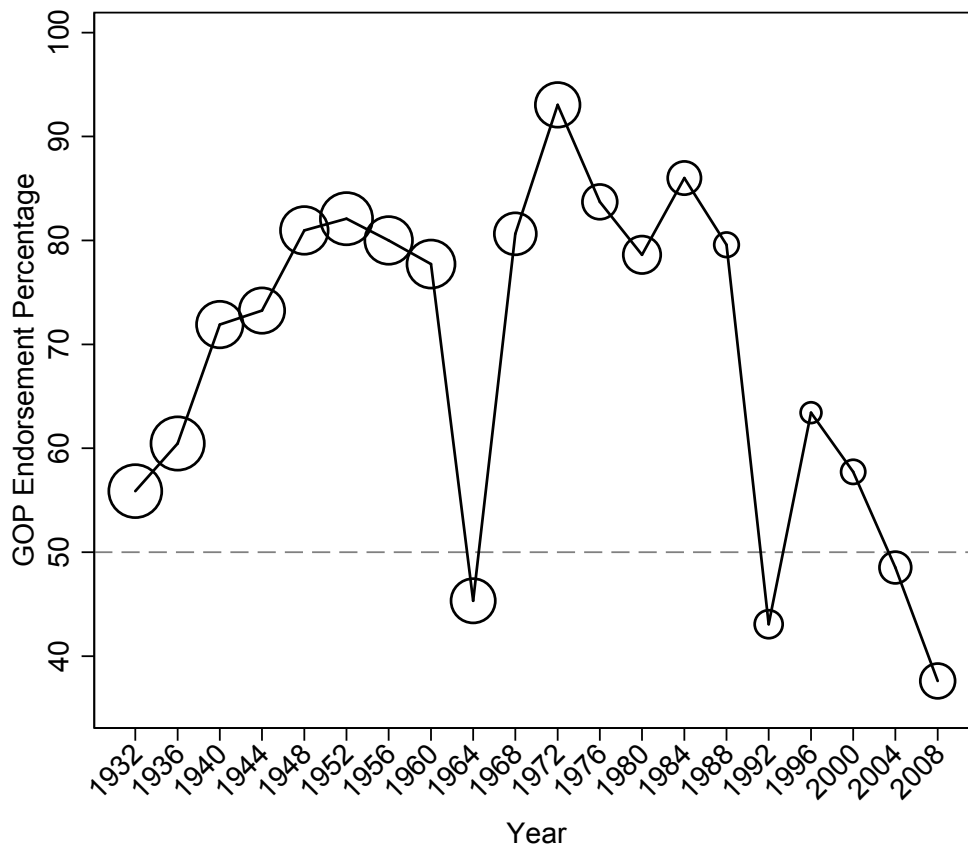
Daily newspaper endorsements are an especially promising source of information on presidential policy preferences. Newspapers existed in nearly every community in the U.S. during the period under study: the number of endorsements by state range from a low of 18 (in Hawaii) to a high of 1,247 (for California) over the period studied. As we discuss below, the newspapers in our data also cover the range of the political spectrum, from the far right to the far left. The large numbers of such endorsements, combined with the range over which their positions vary, allows us to obtain a high degree of reliability in the measures we derive.

Figure 1 plots aggregate percentages of (two-party) support for Republican nominees by daily newspapers between 1932 and 2008. Three things immediately stand out. First, overall levels of support for Republicans were, for most of the 20th century, substantially higher than for Democrats. This large-scale result is consistent with other, narrower studies (e.g., Ansolabehere et al. 2006; Larcinese et al. 2007) which show that, in general, the newspaper industry generally favored Republicans over Democrats for most of the 1900s. Moreover, newspaper support for the GOP increased steadily throughout the 1930s and 1940s, even as voters returned Democrats to office four consecutive times.

A notable exception to this trend occurred in 1964, when Republican nominee Barry Goldwater received only 46 percent of newspaper endorsements nationwide. Not surprisingly, this reflected in part Goldwater's perceived extremism; however, it also signaled the larger-scale shift of the South away from the Democratic Party and towards the Republicans. Besides Arizona (75 percent), newspaper support for Goldwater tended to be substantially higher in the states of the old Confederacy – including Mississippi (81 percent), Georgia (55

it is impossible to assess, in any given case, what the effect of such a merger will be on the editorial positions of the subsequent publication. This inflates somewhat the total number of daily newspapers recorded in the data, but also results in higher levels of missing data for those papers (since, for the example given above, the *AJC* is recorded as having missing endorsements from 1932 to 2000, while the *Journal* and the *Constitution* are recorded as missing in 2004 and 2008).

Figure 1: Republican Endorsement Percentages, 1932-2008



Note: Figure plots the percentage of daily newspapers endorsing the Republican general election candidate, as a percentage of all papers endorsing a major-party candidate. Circle sizes are proportional to numbers of papers, and range from a low of 175 (in 1996) to a high of 1151 (in 1936). See text for details.

percent), and Alabama (54 percent) – than elsewhere in the country.³

A third clear trend in Figure 1 is the decline in numbers of daily newspapers themselves. Note that the size of the plotted circles are proportional to the number of newspapers making endorsements that year; those numbers range from a high of 1151 (in 1936) to a low of 175 in 1996. A linear fit to those numbers suggests that, at least in terms of papers endorsing presidential candidates, the number of such papers declined by roughly twelve per year over

³Recall that, outside of his home state of Arizona, the only states Goldwater carried were all in the Deep South: Louisiana, Mississippi, Alabama, Georgia, and South Carolina.

the period studied.

The endorsement percentages in Figure 1 provide a useful overview of trends in such behavior over time. Interestingly, those trends appear to track with overall levels of support for the president (or the president’s party). From 1940 onward, we can obtain data on presidential approval for the incumbent. For each election from 1940-2008, we record the generic Gallup presidential approval percentage for the survey conducted closest (but prior) to the general election. Since most newspapers make their endorsements within one week of the general election, we can use these numbers to see whether endorsement support is related to public approval for the incumbent.

Figure 2 plots the results of this analysis, comparing endorsement percentages for the incumbent party’s candidate with the approval of the incumbent. The linear fit is:

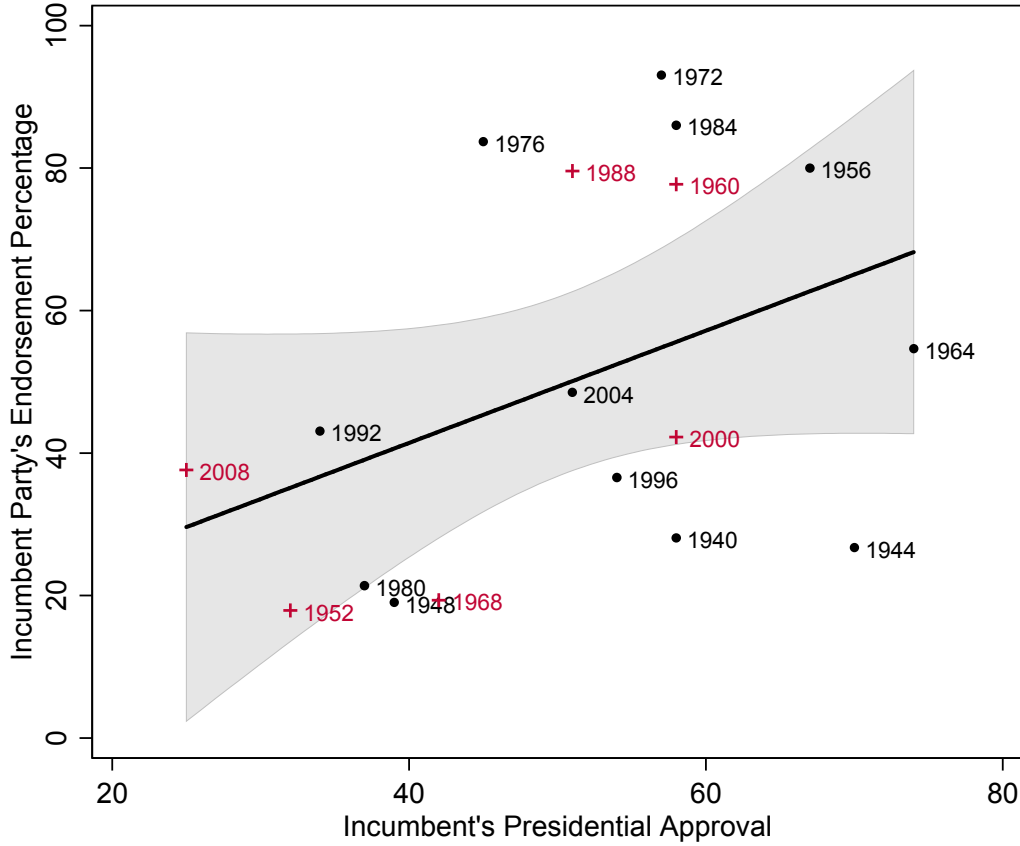
$$\text{Endorsement Percentage}_t = 9.9 + 0.79(\text{Presidential Approval}_t) + u_t \quad (1)$$

$$t = 1.8, p = 0.04, R^2 = 0.16$$

That is, each percentage increase in presidential approval prior to the election translates into an expected increase of nearly one percent in newspaper endorsements. This “pooled” effect is more-or-less consistent irrespective of whether the incumbent president himself is actually running for reelection or not.

Our central purpose for these endorsement data is to create a measure of ideology for the presidential general election nominees/candidates. To that end, we adopt an item-response approach, rooted in a standard spatial model of individual choice (Luce 1959). More specifically, we estimate a two-parameter item-response model, treating candidates as “respondents” and newspapers as “items;” details are presented in the Appendix. This approach has been widely used in the estimation of ideal points for (e.g.) members of Congress (Clinton et al. 2004; Jeong 2008) and the Supreme Court (Martin and Quinn

Figure 2: Incumbent Endorsement Percentage by Incumbent Presidential Approval



Note: Figure plots incumbent party candidate’s endorsement percentage against the incumbent president’s approval rating. Black circles are elections in which the incumbent president is seeking reelection; red crosses are those in which the incumbent is not seeking reelection. Solid line is the linear fit; the grey area denotes the 95 percent pointwise confidence interval. See text for details.

2001). It allows us to derive not only estimates of the ideological positions of the candidates themselves, but also measures of precision for those estimates (in the form of percentiles of the posterior draws) and estimates of “item parameters” (here, ideological locations of daily newspapers) as well.

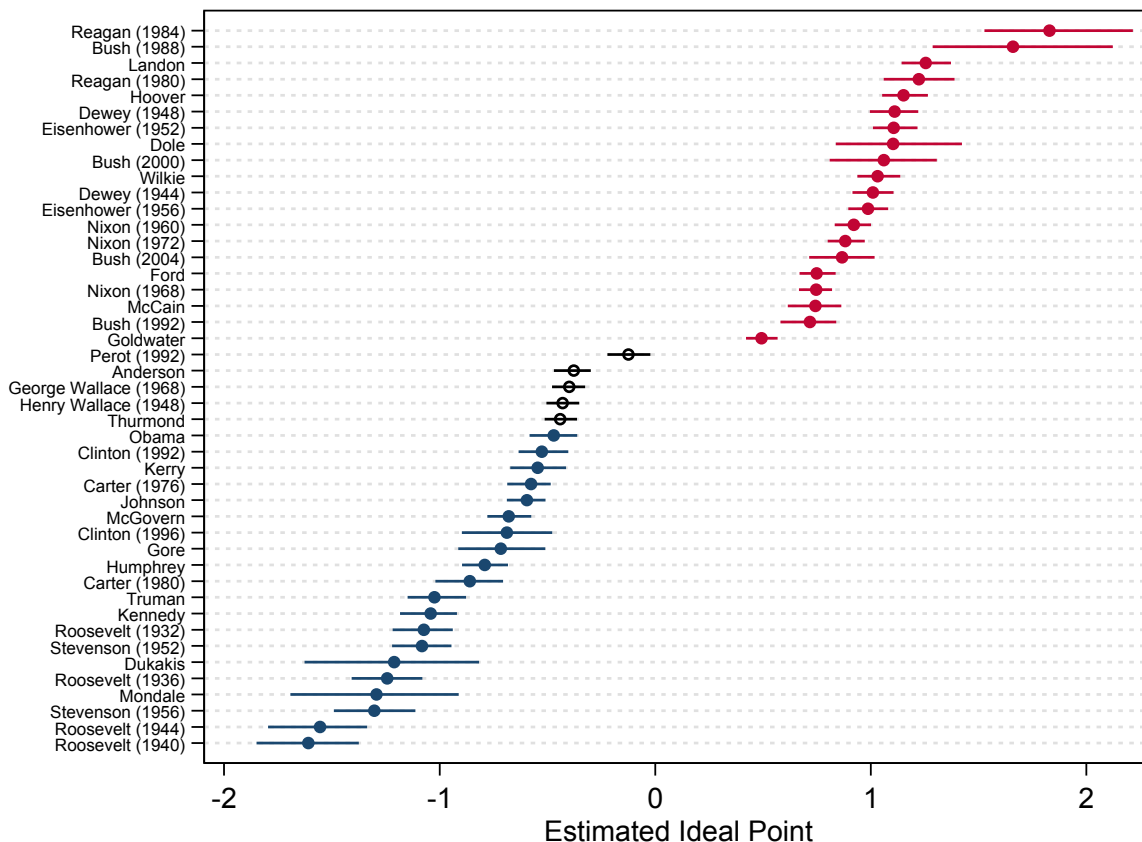
Presidential Ideology, 1932-2008

Our endorsement-based estimates of presidential candidate ideology are presented in Figure 3, which plots the estimated candidate parameters along with their 95 percent posterior intervals. The estimates largely comport with expectations: Democrats are consistently and significantly to the left of Republicans, with a significant gap between the parties and the five independent candidates falling in the “middle.” Our estimates indicate that, by a significant degree, the two most conservative candidates of the past 80 years were George H. W. Bush in 1988 and Ronald Reagan in 1984. Alf Landon, Reagan (in 1980), Herbert Hoover, and Thomas Dewey (in 1948) are also counted among the most conservative Republicans. Interestingly, the most moderate Republican by our measure is Barry Goldwater. As we note above, Goldwater was the first Republican nominee to garner significant endorsements in the Deep South, while his perceived extremism worried many moderate Republicans in the North and Midwest. We suspect that the tendency for mostly Democratic-backing newspapers in those states to side with Goldwater (together with his abandonment by many traditionally-Republican northern papers) is behind this counterintuitive result.

On the Democratic side, four of the most liberal eight spots are occupied by FDR, and two by Adlai Stevenson; together with Michael Dukakis and Walter Mondale, these make up the most liberal candidates. By contrast, we locate Jimmy Carter (in 1976), John Kerry, Bill Clinton (in 1992), and Barack Obama as the most moderate of the Democratic nominees, along with Bill Clinton (in 1992) and John Kerry. The five independent candidates in our data all fall between the Democrats and Republicans, with H. Ross Perot ranking as the most conservative and Strom Thurmond the most liberal; as with Goldwater, this latter result is likely a function of his endorsement by traditionally-Democratic newspapers in the Deep South. There is a clear separation between Republican and Democratic candidates, with the independents generally shading toward the Democrats.

Some general trends in the movement of candidates are also apparent. Considering only

Figure 3: Estimated Presidential Candidate Ideal Points, 1932-2008

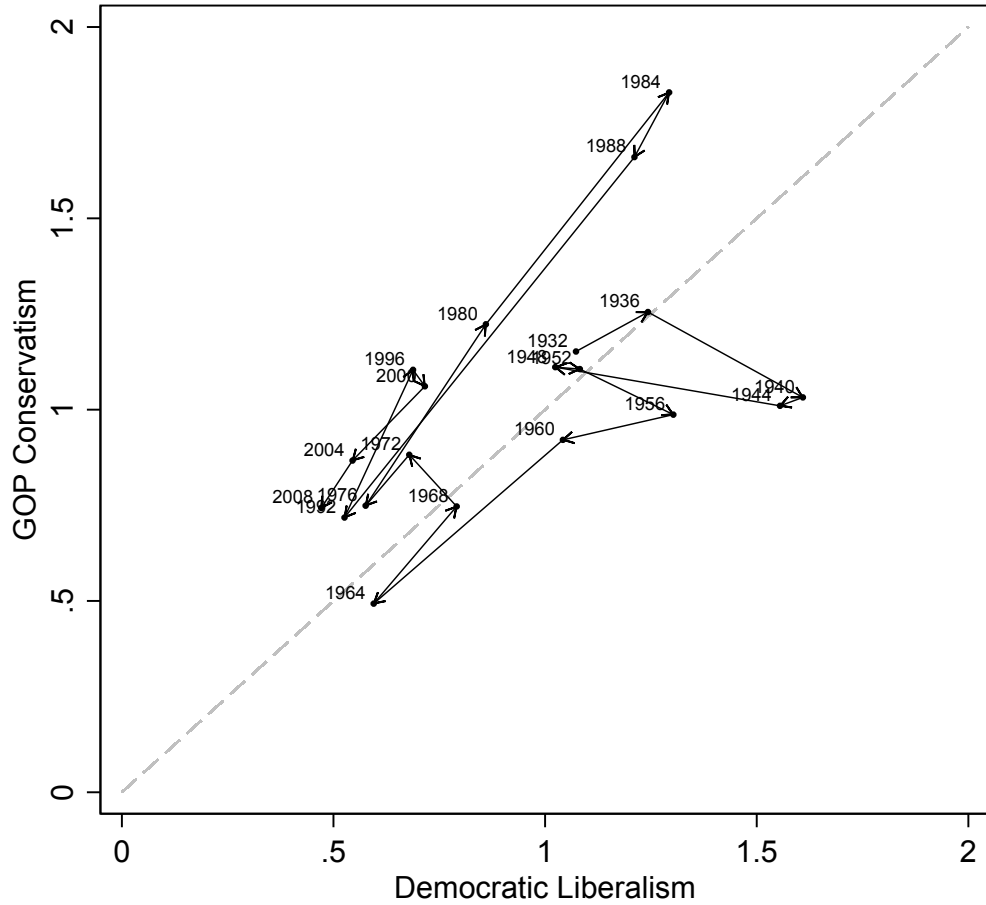


Note: Figure plots presidential candidates' ideal point estimates along with 95 percent credible intervals. Red points indicate Republicans, blue indicate Democrats, and hollow/black indicate independents. See text for details.

candidates who sought election more than once, we note that roughly the same number (4 of 10) became more extreme – Roosevelt and Carter became more liberal, while Nixon and Reagan grew more conservative – as stayed roughly the same (5 of 10). Only one candidate – President George H. W. Bush – became significantly more moderate, and his change may be largely a function of his relatively extreme starting position.

Yet another interesting dynamic is the relationships between the ideological positions of the two major-party candidates in each election. Figure 4 presents the estimated ideal points of the Democratic and Republican candidates plotted against each other for each of

Figure 4: Democratic Liberalism and Republican Conservatism, 1932-2008



Note: Figure plots GOP candidate ideal point estimates against Democratic estimates. Democratic estimates have the sign reversed to reflect liberalism; dashed line is a 45-degree line. See text for details.

the 20 elections in our data. In Figure 4, we rescale the measure for Democrats by reversing the sign, so that higher values correspond to higher levels of liberalism for Democratic candidates. Viewed in this way, the upper-right corner of the graph corresponds to elections with two relative “extremists,” while the lower-left corner corresponds to races with two relative moderates. The trace line with arrows tracks the changes in the positions of the two major-party candidates over time.

Figure 4 reveals two important dynamics of our measures. First, we note a strong positive

correlation between the degree of liberalism of the Democratic nominee and the degree of conservatism of the Republican. The Pearson’s correlation between the two measures is 0.57 ($p < .01$, $N = 20$), suggesting that elections tend to be contested between two relative party “extremists” or two “moderates,” but rarely one of each. Second, the trend over time is an interesting one: both Democratic and Republican candidates grew (simultaneously) more moderate throughout the 1950s, 1960s, and 1970s, only to become more extreme in the 1980s and then return to relative moderation in the 1990s and 2000s. We will return to the determinants of the candidates’ ideological positions – and to the effects of those positions on general election outcomes – in the analyses below.

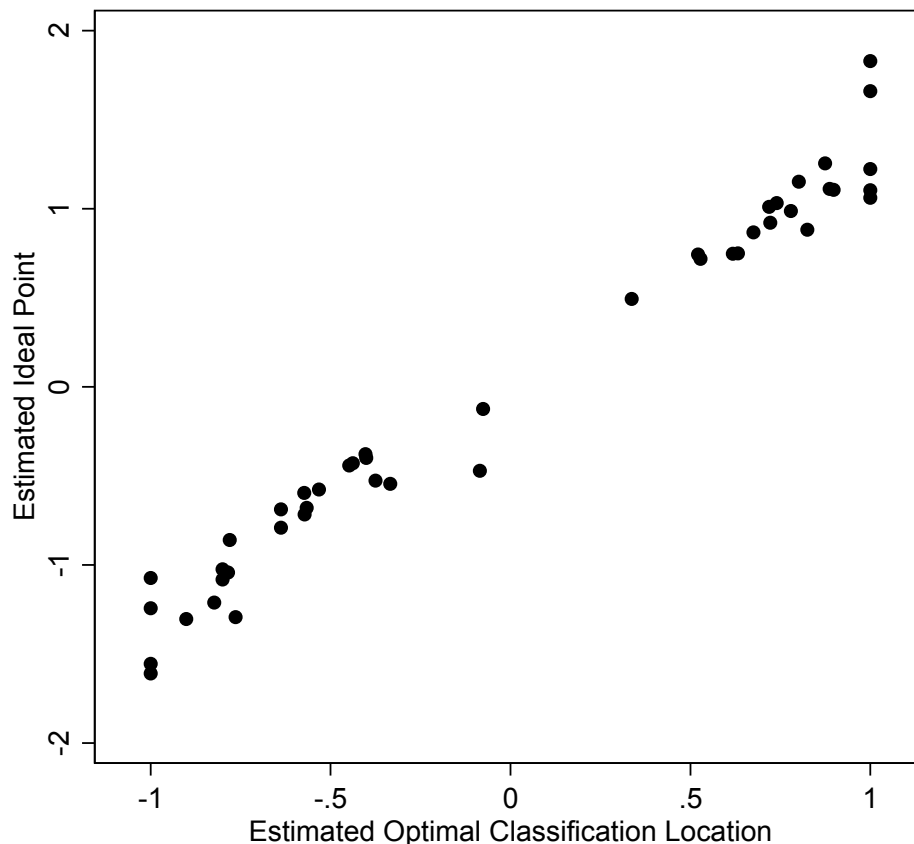
While we are generally pleased with the face validity of our measure, it is nonetheless desirable to investigate its internal and external validity. By “internal” validity, we refer here to the sensitivity of the measure to changes in modeling and estimation; our assessment of external validity is accomplished via comparison to two widely-used alternative measures of presidential ideology.

Internal Validity

One potential concern with our measure is that it is largely a function of our chosen method of estimation. To assess this possibility, we compare our IRT-based measure to one based on Poole and Rosenthal’s (1985, 1991, 1997) optimal classification (OC, also known as W-NOMINATE) method. We estimate one-dimensional OC scores for our 45 candidates, using the same endorsement data. A comparison of the estimated positions generated by each method is plotted in Figure 5.

The most striking aspect of Figure 5 is the close correspondence between the ideal point estimates derived by the two methods. Over all, the two measures correlate at $r = 0.99$ (Spearman’s $\rho = 0.98$, $N = 45$); the corresponding party-specific correlations are $r = 0.87$ for Democratic nominees ($N = 20$), $r = 0.82$ for Republicans ($N = 20$), and $r = 0.99$ for

Figure 5: Ideological Positions and General Election Outcomes



Note: Figure plots our ideal point estimates against those estimated using Poole and Rosenthal's (1997) optimal classification estimator. See text for details.

independents ($N = 5$). The high degree of correlation suggests that the point estimates obtained by our IRT-based approach are not being primarily driven by our choice of estimator.⁴ While we reserve judgment about the relative merits of the two approaches, the fact that both arrive at the same general conclusions about the positioning of the candidates is comforting.

⁴At the same time, note that the standard error estimates (not shown) for the ideal points are, in relative terms, generally smaller than those for the OC estimates.

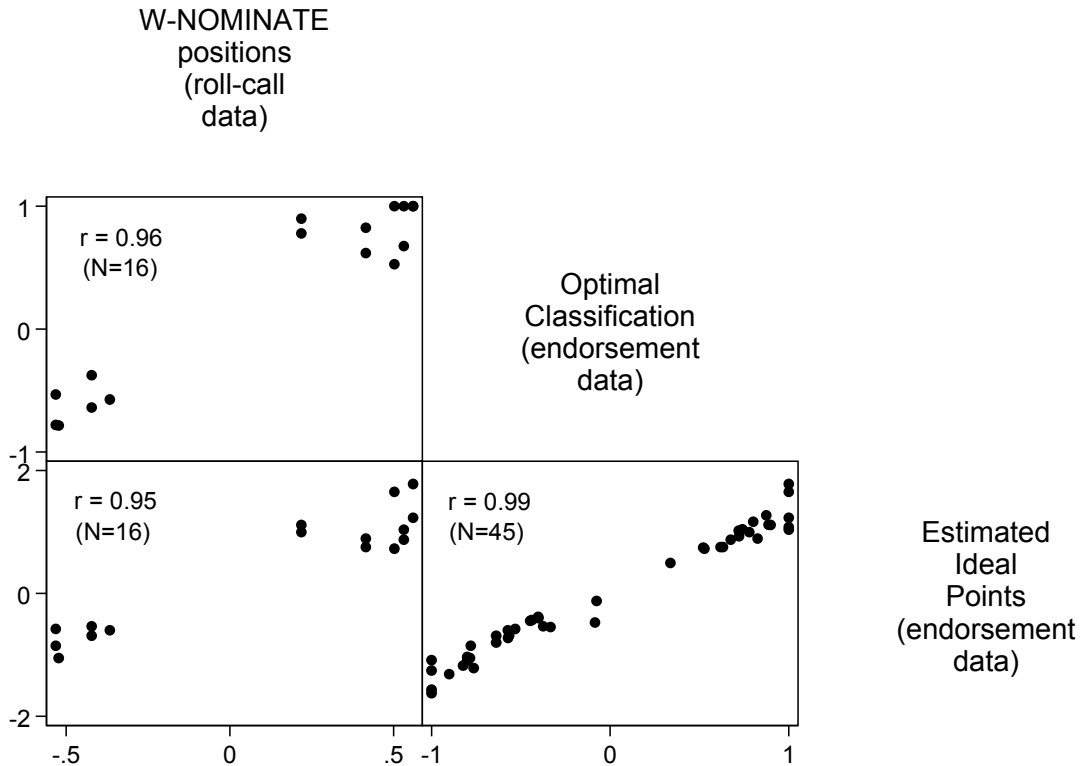
External Validity

To assess the external validity of our measure, we compare our ideal point estimates to two other widely-used measures of presidential ideology. The first of these are Poole and Rosenthal’s presidential W-NOMINATE scores (Poole and McCarty 1995). These scores are derived from presidential positions on Congressional roll call votes, and estimated via Poole and Rosenthal’s (1997) optimal classification method, and have been widely accepted and used in empirical studies of Congress and the presidency (e.g., Jenkins and Sala 1998; Lindquist and Klein 2006; Nemacheck 2008). They thus differ from our estimates both in their method and their data; as a result, they provide an external metric by which we can assess the validity of our estimates.

Figure 6 plots three measures: our IRT-based ideal point estimates, the estimates based on application of the OC algorithm to the endorsements data (as in Figure 5), and the first-dimension W-NOMINATE scores for presidents Eisenhower through Bush (43). As in Figure 5, the most striking finding is the high levels of correlation across the three measures: while the two endorsement-based measures correlate strongly, the correlations are equally high between them and that rooted in Presidential positions on Congressional roll calls. The most substantial differences are between presidents of different parties; indeed, the within-party correlations between our ideal points and the presidential W-NOMINATE scores are more modest ($r = 0.29$ for Republican presidents and 0.57 for Democratic ones).

Our second comparison is to presidential ADA-support scores (Zupan 1992; Grafton and Permaloff 2004). These scores are based on the widely-known Americans for Democratic Action (ADA) ratings, and reflect the proportion of ADA-supported bills which also command the support of the president. This measure thus reflects the degree of policy liberalism of each president, as manifested in his support for (or opposition to) liberal policy initiatives in Congress. Unlike presidential W-NOMINATE scores, however, ADA support scores vary from one year to the next.

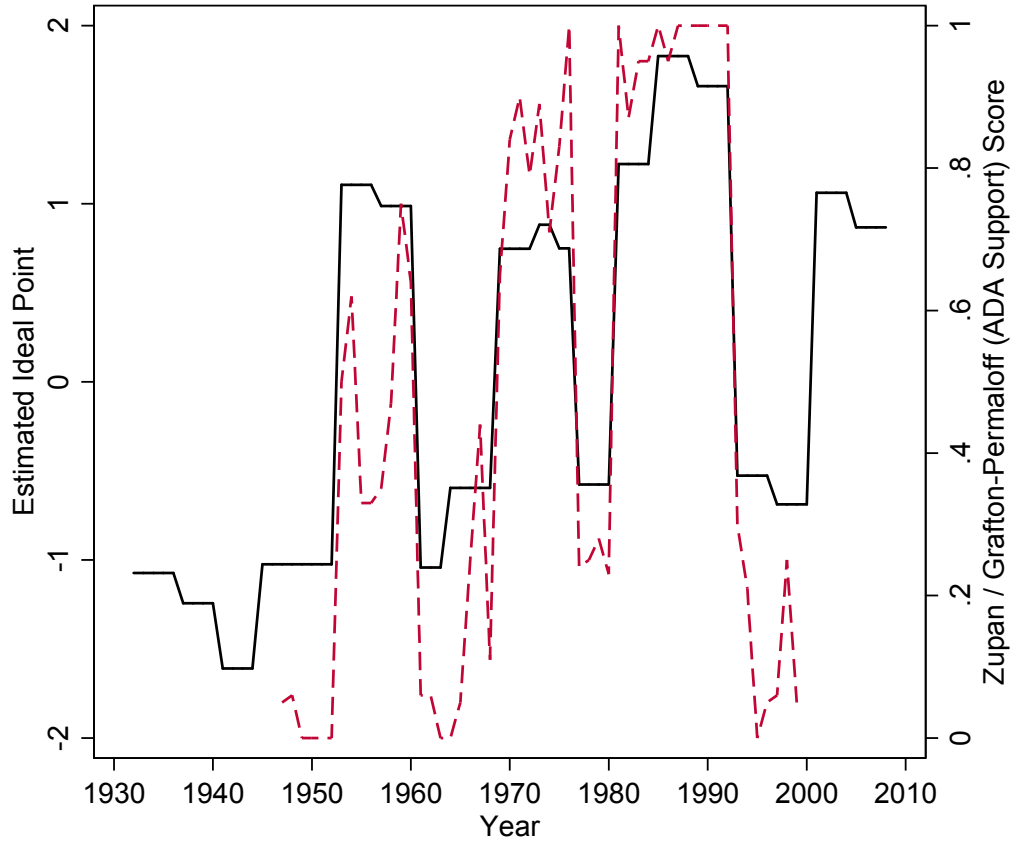
Figure 6: Ideological Positions and General Election Outcomes



Note: The figure plots our ideal point estimates against those based on Poole and Rosenthal's (1997) optimal classification estimator applied to our endorsement data, and conventional presidential W-NOMINATE scores based on presidential positions on roll call votes in Congress. See text for details.

Figure 7 plots both our ideal point estimates for each sitting president over time, along with a similar plot for the ADA support scores (here inverted, so that higher values reflect less support for the ADA and correspondingly more conservative positions). The Pearson's correlation between the two measures is 0.91 ($N = 53, p < .001$), and the pattern of the relationship over time is clear: more liberal presidents (by our measure) are also more supportive of the ADA's positions. Moreover, the degree of support also scales to the relative liberalism of each president, with the highest levels occurring for presidents Kennedy, Johnson, and

Figure 7: Ideological Positions and General Election Outcomes



Note: Figure plots ideal point estimates (solid line) and Zupan (1992) scores (dashed line) by year. $r = 0.91$. See text for details.

Clinton, and the lowest for presidents Reagan and Bush (41).

Taken together, the analyses here support the validity of our measure of presidential ideology. In particular, the close correspondence between our measure and those based on alternative data sources suggests that our measure does a good job of capturing both within- and across-party variation in the policy positions of candidates. Equally important, and in contrast to those alternatives, our measure is largely exogenous to the policy process itself, a fact that renders it of great potential value in applied settings.

Applications: Three Examples

Finally, we briefly consider three applications of the measures developed above. In the first, we take our measures as the central variable of interest, and ask the question: To what extent do the ideological positions of major-party nominees for president reflect changes in overall levels of liberalism and conservatism in the populace? Our second example treats the candidates' positions as a key covariate, and examines the relationship between candidates' ideological positions and their success in the general election. Finally, we briefly describe a potentially important by-product of our analysis: in addition to ideal points for candidates, our model also estimates ideological positions for individual newspapers, in the form of item parameters. All three analyses are necessarily preliminary; nonetheless, they serve to demonstrate the potential value of the measure we derive here.

Nominee Ideology and Public Opinion

A key question in studies of representation is whether and to what extent the policy preferences of officeholders (and, by extension, candidates for those offices) reflect those of the public at large. While numerous studies have examined the connection between public opinion and representation in Congress (Miller and Stokes 1963; Erikson 1978; Bartels 1991) and in the presidency (e.g., Stimson 1999), to date few have done so in a manner that considers presidential candidates.

Here, we consider the relationship, if any, between the ideological preferences of the major-party presidential candidates and that of the public at large. Our central variable of interest, then, is the ideal point estimates we derived above. For nominees of each party, we estimate a simple model of ideological responsiveness, of the following form:

$$\text{Ideology}_t = \beta_0 + \beta_1(\text{Opposition Party Ideology}_t) + \beta_2(\text{Mass Ideology}_t) + u_t$$

Table 1: Nominee and Mass Ideology, 1932-2008

Variable	GOP Conservatism	Democratic Liberalism
(Constant)	2.26 (0.56)	-1.93 (0.70)
Democratic Liberalism	0.72* (0.12)	-
GOP Conservatism	-	0.81* (0.18)
Public Liberalism	-0.05* (0.01)	0.05* (0.02)
ρ	0.25	0.22
R^2	0.64	0.68

Note: $N = 17$. Cell entries are coefficient estimates from a Prais-Winsten regression; standard errors are in parentheses. Asterisks indicate $p < .05$ (two-tailed). See text for details.

That is, we allow each major party nominee’s position to vary as a function of (a) the opposing party’s nominee’s position, and (b) the overall liberalism or conservatism of the public at large. We measure ideology by our ideal point measures for each party’s nominee (rescaled to reflect increasing liberalism for Democrats and increasing conservatism for Republicans), and mass ideology as the percentage of members of the public who self-identify as “liberal” (as derived in Ellis and Stimson 2007). Our general expectations are that parties will be more willing to nominate more ideologically extreme candidates if their opponents also do so, and that both parties will respond (at the margin) to shifts in mass ideology.

The results of our estimation appear in Table 1, which report the results of a Prais-Winsten regression for Democratic and Republican candidates’ ideal points on each other plus our measure of public liberalism. As we expect – and as Figure 4 reflects – both parties tend to nominate more ideologically extreme candidates when their opposition does so as well. Since both sets of measures share a common (albeit arbitrary) scale, we can compare the estimates directly; doing so indicates that Democrats’ responsiveness to Republican nominees is very slightly greater in magnitude than the reverse. The effects of *Public Liberalism* are

also as expected: as the public self-identifies as liberal in greater numbers, the expected conservatism of the GOP nominee declines, while the expected liberalism of the Democratic candidate increases.

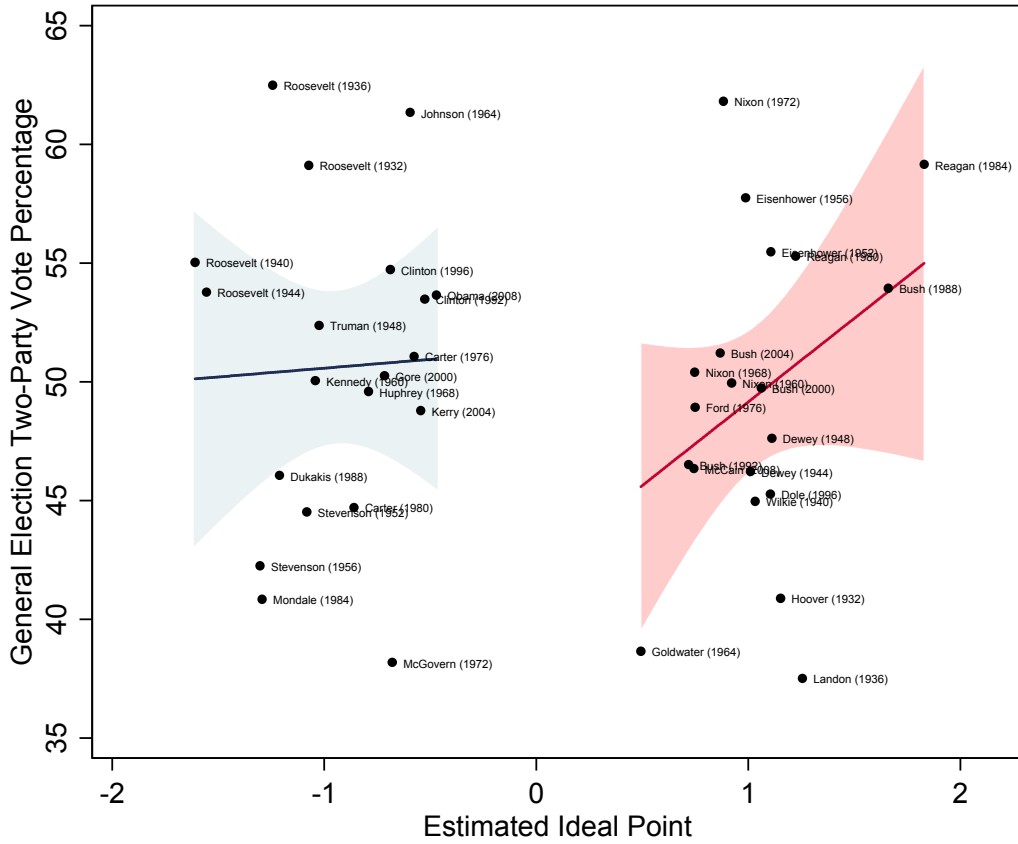
Both regressions fit the data reasonably well for such sparse specifications. While we are loathe to draw too many conclusions from this relatively simple set of estimates, we nonetheless view these findings as providing at least initial support for the prospect that, in making their selections for president, political parties respond to ideological shifts in the public.

Candidate Ideology and General Election Performance

Beyond the question of nominee choice, our data also allow us to test models of general election outcomes. In particular, we can examine whether and how candidates' ideological positions relate to their success or failure in the general election. Here, we do so by analyzing the association between each nominee's estimated ideal point and the fraction of the two-party vote each received in the general election. Figure 8 presents separate such analyses for Democratic and Republican candidates since 1932; the regression lines are linear fits, along with 95 percent confidence intervals.

The central conclusion of Figure 8 is that, while ideological location has little or no impact on the electoral fortunes of Democrats, Republicans tend to do better with more extreme candidates than with moderates. While the linear relationship for Democratic nominees is essentially zero, that for Republicans is positive and marginally differentiable from zero ($\hat{\beta}_1 = 7.0$, $t = 1.5$). Note that while a one-unit change in our ideal point measures corresponds to one standard deviation in the overall measure, the within-party variance is much smaller ($\sigma = 0.35$ for Democrats and 0.31 for Republicans). Thus, the magnitude of any predicted changes are actually quite small; even president George H. W. Bush's large

Figure 8: Ideological Positions and General Election Outcomes



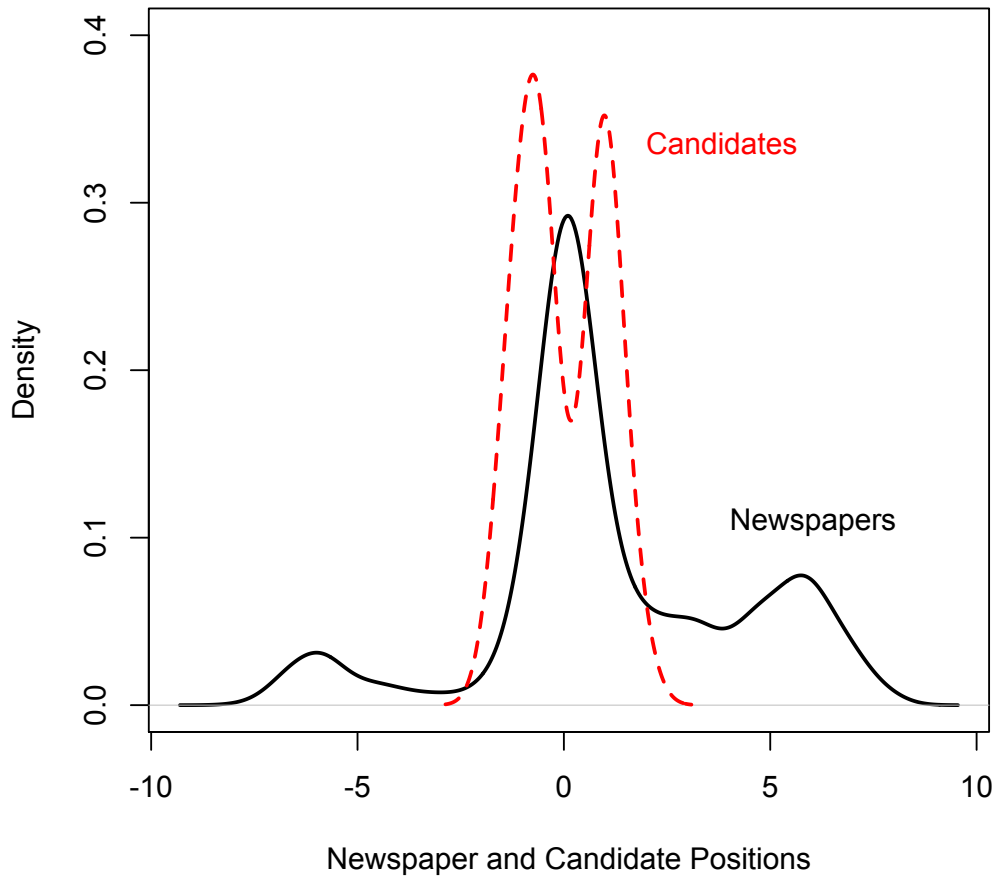
Note: Figure plots the two-party percentage of the general election vote received by each candidate against their estimated ideal points. Lines are linear fits, by party; regions are 95 percent pointwise confidence intervals. See text for details.

apparent shift from 1988 to 1992 corresponds to an expected increase of 6.5% in his general election vote.

Measuring the Positions of Media

Finally, note that our approach to estimating presidential candidates' positions also yields estimates of the model's "item parameters." Here, those correspond to the ideological positions of each of the approximately 2600 daily newspapers in our sample. Those positions are scaled on the same metric as the ideal point estimates of the presidential candidates, and

Figure 9: Candidate and Newspaper Ideological Positions, 1932-2008



Note: Figure plots densities of candidate (red dashed line, $N = 45$) and newspaper (solid black line, $N = 2613$) ideal points. Higher values indicate greater conservatism. See text for details.

can thus be directly compared to them.

While a complete exposition of our newspaper locations is beyond the scope of our paper, Figure 9 shows density plots for the ideal point locations of the 45 presidential candidates in our data (the dashed line) and for the 2613 newspapers in our estimation (solid line). Once again, several conclusions arise from the plot. Presidential nominees, unsurprisingly, tend to be bimodally distributed, with clusters of Republican candidates on the right and Democrats on the left. By contrast, newspapers' ideologies are unimodal, with a central mode between

those of the two parties' candidates, and almost exactly equidistant between them. We also note a substantial "tail" of newspapers to the right of the presidential candidates; this reflects the presence of consistently Republican newspapers over the period studied. Interestingly, we see only a very small similar cluster of solidly Democratic papers on the left; we suspect that this difference is due to the fact that the most solidly Democratic papers early in our period of study were those in the Deep South, and that nearly all of those papers moved to the right (i.e., began endorsing Republicans) sometime during the past 40 years.

The analysis in Figure 9 is, of course, only the beginning of what one might do with the newspaper ideology scores we estimate. A great deal of attention has recently been paid to estimating the positions of media outlets; prominent examples include Ansolabehere et al. (2006), Permaloff and Grafton (2006), Larcinese et al. (2007), Ho and Quinn (2008), and Groseclose (2011). We anticipate being able to contribute to this burgeoning literature as well.

Concluding Thoughts and Future Directions

We offer here a new, media-based measure of the ideological positions of U.S. presidential candidates from 1932 to the present. While our audit of that measure support its face and construct validity, and our applications suggest its potential for use in future work on American political elections and institutions, we nonetheless believe that a number of important questions and challenges remain.

One such question can be summarized simply: Does one dimension capture enough? Certainly the political landscape – both for presidential candidates and for daily newspapers – have changed in the past eight decades. Moreover, a number of other large-scale studies (e.g. Poole and Rosenthal 1997; Stimson 1999) have indicated that the American polity is organized around more than one dominant dimension of political contention. While they are too preliminary to discuss here, preliminary results using our data that allow for a two-

dimensional structure (using Poole and Rosenthal’s optimal classification method) yields dimensions that are similar in substance to the first two dimensions of Poole and Rosenthal’s (1997) W-NOMINATE scores for the U.S. Congress.

Methodologically, our approach makes what is known as the local item independence assumption. Formally, this means that items (in our case, newspapers’ endorsement decisions) are conditionally independent of one another. We can foresee two aspects of our data that make this assumption unlikely to be met in practice. First, it was commonplace in the first half of the twentieth century for larger cities and towns to have two newspapers, one of which tended to be more liberal, the other more conservative. To the extent that this was the case, it is likely that the responses of those papers are to some extent dependent on one another, even after holding constant the relative positions of the papers and candidates.

Second, and perhaps of greater concern, is the fact that a single paper’s endorsements within a given election cannot be assumed to be independent of each other. While for most of our years of analysis we have information on papers that did not endorse any candidate (“independent” papers, in *Editor and Publisher’s* nomenclature), it is never the case that a paper endorses both major party candidates. Put differently, a paper’s decision to endorse (say) the Democratic candidate precludes them from also endorsing the Republican. As a result, local item independence is likely violated across candidates for a given newspaper in a particular year. One consequence of this is to induce the estimated candidate positions to be “mirror images” of one another: a particular paper’s decision to endorse one candidate is also a decision not to endorse the other, with the result that the estimated ideal points will be inversely related to a greater extent than they might be if local independence held (for example, as in Figure 4). In future work, we plan to investigate models that relax the local item independence assumption; one promising line of research in this vein is the psychometric literature on “testlet theory” (e.g., Wainer et al. 2007).

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