

Measuring Citizen and Government Ideology in the U.S. States: A Re-appraisal

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ABSTRACT

Berry et al.'s (1998) measures of U.S. state citizen and government ideology rely on unadjusted interest-group ratings for a state's members of Congress to infer information about (1) the ideological orientation of the electorates that selected them or (2) state legislators and the governor from the same state. Potential weaknesses in unadjusted interest-group ratings prompt the question: Are the Berry et al. measures flawed, and if so, can they be fixed by substituting alternative measures of a member's ideology? We conclude that a version of the Berry et al. state government ideology indicator relying on NOMINATE common space scores is marginally superior to the extant version. In contrast, we reaffirm the validity of the original state citizen ideology indicator and find that versions based on NOMINATE common space scores and adjusted ADA and COPE scores introduced by Groseclose, Levitt, and Snyder (1999) are weaker.

BERRY ET AL. (hereafter "BRFH") (1998) offer two measures of ideology in the American states, observed annually for years after 1959.¹ Their indicator of citizen ideology measures the average location of the active electorate in each state on a liberal-conservative continuum. Their government ideology indicator measures the average location of the elected officials in each state on the same continuum. The underlying continuum for both indicators is conceived as operational ideology (or policy mood)—the kinds of policies preferred—rather than self-identification (or symbolic ideology) (Berry et al. 2007; Stimson 1991). These ideology indicators have proven useful in analyzing the impact of public opinion or the policy preferences of elected officials on a wide variety of state policy outputs, including welfare reform

(Soss et al. 2001), antismoking legislation (Shipan and Volden 2006), educational allocations to local school districts (Wood and Theobald 2003), penal legislation (Langer and Brace 2005), judicial decisions (Songer and Ginn 2002), and economic regulation (Kim and Gerber 2005). The BRFH indicators of state ideology have also been employed as independent variables in studies of partisan conflict in state legislatures (Fiorina 1999; Meinke and Hasecke 2003) and cooperation between federal and state agencies in grant programs (Nicholson-Crotty 2004).²

Both BRFH measures rely on the ideological orientations of members of Congress, operationalized by interest-group ratings compiled by the Americans for Democratic Action (ADA) and the AFL-CIO Committee on Political Education (COPE). The government ideology measure assumes that state officials mirror their federal counterparts, i.e., that the average ideological position of state elected officials from each party matches the mean ideological position of that party's congressional delegation, as measured by ADA and COPE scores. The citizen ideology measure infers the ideological position of the electorate from the distribution of votes in congressional races and ADA/COPE scores for members of Congress, assuming that voters choose the candidate they perceive as having an ideology closest to their own (BRFH 1998).

In a separate development, several scholars have proposed alternative measures of the ideal points of members of Congress on a liberal-conservative dimension, presumed to represent their underlying policy orientations. Groseclose, Levitt, and Snyder (hereafter "GLS") (1999) maintain that interest-group ratings are not comparable from one session to the next nor between the House and Senate. They introduce a procedure for linearly transforming one year's interest-group scores to the scale for other years, so that scores can be compared over time and across chambers. Others have questioned the validity of interest-group ratings as measures of legislators' policy orientations because they are based on a small number of roll-call votes deemed important by the rating organizations (Snyder 1992; Herron 2000). Such criticism has prompted the development of alternative ideal point measures based on the full set of roll-call votes taken (Poole 1998; Bailey 2007).

Brace et al. (2007, 137) rely on GLS's (1999) criticism of unadjusted interest-group ratings to question the validity of the BRFH citizen ideology measure.³ This criticism and the recent empirical work on ideal points prompts the question: Can the validity of the BRFH indicators of state citizen and government ideology be improved by relying on ADA and COPE scores adjusted as proposed by GLS, or some other measure of the ideal points of members of Congress, instead of the unadjusted scores on which they currently rely? We contend that the answer to this question depends on the indicator being

considered. The BRFH measure of state government ideology is improved by employing an alternative indicator of legislators' ideal points (NOMINATE common space coordinates), but the citizen ideology indicator is not. Our contrasting recommendations reflect the different role of interest-group ratings in measures of government and citizen ideology. To clarify these differences, we begin with a discussion of the concept of a legislator's ideology and its different manifestations.

THREE ASPECTS OF A LEGISLATOR'S IDEOLOGY

Distinguishing among a legislator's ideal point, its public portrayals, and voters' perceptions of these portrayals is essential. In the political arena, a member's ideal point, or true policy preferences, might be portrayed to the electorate in various ways, and by various actors. Venerable literature exists on candidate positioning in U.S. congressional elections, beginning with the proposition that candidates present themselves to appeal to the median voter in their district or state (Downs 1957; Erikson, Wright, and McIver 1993; Ansolabehere, Snyder, and Stewart 2001). Recent studies complicate the picture, noting that many candidates in a competitive district assert strongly liberal or conservative views during the primary phase of a campaign, when they must appeal to party stalwarts, and then represent themselves as moderates to the general electorate (Aldrich 1995; Brady and Schwartz 1995). Thus, candidates do not simply express their true policy orientations in public life; they portray their issue positions differently, depending on whose approval is needed to win both nomination and election.

To be sure, candidates' abilities to reposition themselves are limited. Incumbents have less room to maneuver because they are more visible than challengers are. Too much movement will be criticized by opponents, interest groups, and the media, not to mention voters who dislike obvious "wafflers" or "flip-flopers" (Burden 2004, 215). Challengers have more freedom to reposition themselves because voters know less about their previous stances, but even they will be criticized for vagueness and vacillation. Hence, the difference between a candidate's personal ideology and his or her presentation is constrained.

Candidates might "spin" their policy orientations during a campaign, but they do not fully control the framing or public portrayal of their ideal points. Opponents will charge them with being too liberal or conservative for the districts they seek to represent. Interest groups will identify candidates who are friendly, or hostile, to their cause. Editorialists will label candidates in print, over the airwaves, and on the internet. The resulting portrait of a candidate's policy orientation is a composite image, with many actors adding

their perspective to the candidate's self-portrayal. Precisely because other political actors contribute to the public image of a candidate, there is bound to be a difference between a candidate's portrayal of his or her position and the voters' perception of that position.

The distinctions among a candidate's ideal point, the public portrayals of the candidate's position, and the voters' perceptions of this position explain why interest-group ratings play different roles in the BRFH measures of citizen and government ideology. In constructing their citizen ideology indicator, BRFH infer the ideology of the active electorate in congressional districts from ADA and COPE ratings of members of Congress and the distribution of votes for candidates in congressional elections, assuming that voters choose the candidate they perceive as having an ideology closest to their own. After estimating the ideology of citizens in each congressional district in this manner, scores are averaged across districts to produce a state-level measure. Thus, the BRFH indicator of state citizen ideology is valid only if ADA and COPE scores for members of Congress accurately reflect voters' perception of members' policy orientations on a continuum ranging from conservative to liberal.

In contrast, BRFH's measure of government ideology is constructed on the assumptions that the mean position of the members of a party in a state legislature is the same as the mean policy orientation of the party's U.S. representatives and senators and that the expected orientation of a governor is equal to the average orientation of state legislators from the same party. These assumptions, along with ADA and COPE scores for members of Congress, allow BRFH to compute separate scores for five actors: the governor and the Republican and Democratic delegations in each house of the state legislature. An average of these five policy orientation scores (weighted by the power each of the five actors is presumed to have over public policy decisions) yields the ultimate measure of state government ideology. Hence, ADA and COPE scores must reflect the true policy preferences of members of Congress—i.e., their ideal points on a policy continuum ranging from conservative to liberal—for the BRFH measure of government ideology to be valid.

In the sections below, we assess the suitability of both unadjusted ADA/COPE scores and two alternative measures of the ideology of members of Congress, for indicating both the ideal points of legislators and the public's perception of these positions. The first alternative adjusts ADA and COPE scores using the procedure recommended by GLS (1999). The second relies on Poole's (1998) first-dimension NOMINATE common space coordinates, which are derived from a comprehensive list of roll-call votes in Congress.⁴ We conclude that unadjusted ADA and COPE scores are less accurate reflections

of members' ideal points than GLS-adjusted scores and NOMINATE scores, but that the unadjusted interest-group ratings more accurately reflect the public's perception of members' ideologies than do the two alternatives. These conclusions—along with empirical analysis of versions of BRFH measures of citizen and government ideology derived from unadjusted interest-group ratings, GLS-adjusted ratings and NOMINATE scores—lead us to argue that (1) the validity of the BRFH measure of government ideology can be marginally improved by substituting NOMINATE scores for unadjusted ADA and COPE scores when constructing the indicator, but (2) the original BRFH measure of state citizen ideology derived from unadjusted ADA/COPE scores is more valid than versions based on GLS-adjusted or NOMINATE scores. Thus, we continue to recommend that researchers employ the original citizen measure.

THE U.S. STATE CITIZEN IDEOLOGY INDICATOR

To be valid, the BRFH indicator of citizen ideology must be derived from an accurate measure of the voters' perception of their congressional representative's position on a policy continuum ranging from conservative to liberal. These perceptions could be measured directly if we had representative surveys of the active electorate in each state asking respondents to offer impressions of their representative's position on a variety of policy issues. No such surveys exist, and implementing such surveys annually in all fifty states would be a massive undertaking. Therefore, we ask: Are any of the three candidates we consider—the unadjusted ADA/COPE scores used in the existing BRFH measure, the GLS-adjusted versions of these scores, or the NOMINATE scores—a suitable proxy for voters' perceptions of a legislator's ideology?

NOMINATE scores and GLS-adjusted interest-group ratings were developed as measures of legislators' ideal points, not voters' perception of these positions. Even if they were perfect measures of the intended concept, they would not be valid measures of voters' perceptions unless these perceptions coincide with their representative's true views. This would seem to require that voters have direct access to their legislator's ideal point, or that they be able to sift through the numerous competing portrayals from alternative sources to arrive at an accurate perception. The first is impossible, and the second seems improbable.

Of course, the limitations of NOMINATE and GLS scores as indicators of voters' perception of a legislator's ideal point do not imply that the unadjusted ADA and COPE scores used by BRFH are any better. Nonetheless, there remains reason to believe that unadjusted scores do constitute a superior proxy of voters' perception. The current version of BRFH's measure

of citizen ideology survives a battery of validity tests conducted by BRFH (1998) and, more recently, BRFH (2007). If unadjusted ADA and COPE scores were not a satisfactory proxy for voters' perception of a legislator's location on an ideological continuum, any measure of state citizen ideology constructed from them would likely have failed these tests.

A direct case can also be made for the claim that unadjusted ADA and COPE scores are a reasonable proxy. Public perceptions of a legislator's orientation are influenced by his or her votes on relevant legislation, as well as his or her framing of those votes in public speeches, mailings to constituents, and campaign commercials. Opponents might characterize the votes differently, citing interest-group ratings as evidence that a legislator is out of touch with his or her constituents. Political action committees do this, too. Therefore, voters are directly exposed to labels associated with ADA and COPE scores and, perhaps, even the scores themselves. Voters might receive the same information indirectly via media coverage of political campaigns that frequently repeat candidates' characterizations of each other. Finally, even if ADA and COPE ratings do not influence voters' perception of a legislator's position, the two should be related for other reasons. Although ADA and COPE tailor the legislation they choose for ratings to their organizational agendas, they concentrate on the same sort of bills that attract substantial attention in the media. Therefore, the roll-call votes used in ADA and COPE ratings overlap considerably with votes that are highly publicized and likely to affect voters' perceptions.

Thus, theoretical justification exists for asserting that GLS and NOMINATE scores, which are intended to measure the ideal points of members of Congress, are a poor proxy for voters' perceived orientations of these positions, while the unadjusted ADA and COPE scores used in the extant BRFH indicator of citizen ideology fulfill their intended role as a proxy for voters' perceptions of legislators' positions. We cannot test this proposition directly. Nonetheless, if the assertion is true, substituting either GLS or NOMINATE scores for the unadjusted interest-group ratings used to derive the BRFH citizen ideology measure would be a mistake. We now turn to empirical evidence on the consequences of such a substitution.

The most powerful empirical test for the validity of an indicator of a concept is one of convergent validity, wherein the indicator is compared to a different measure of the concept known or assumed to be valid. BRFH (1998; 2007) have shown that when the BRFH citizen ideology indicator is averaged across states (weighting by state population) to compute an annual national-level measure of citizen ideology, the resulting ideology indicator correlates strongly with Stimson's (1991) measure of national mood.⁵

The time-series correlation between the “national” BRFH indicator and the Stimson (1991) mood measure is 0.45 for the period 1960–99.⁶ We construct two alternative indicators of state citizen ideology identical to the original BRFH measure except that they rely on NOMINATE scores or GLS-adjusted ADA and COPE scores, rather than unadjusted ADA/COPE scores.⁷ We then aggregate these new state citizen ideology indicators to the national level. For the years between 1960 and 1999, the GLS version of the ideology indicator is correlated at -0.18 with national mood, while the NOMINATE version is correlated at 0.19 with mood. Thus, both of the alternative measures are weakly related to mood, and the GLS version is inversely related.⁸ Based on this evidence, we believe it would be a mistake to employ a revised BRFH measure of state citizen ideology relying on GLS or NOMINATE scores.⁹

An Additional Test of the U.S. State Citizen Ideology Indicator

We can also offer an indirect empirical test of the assumption underlying the original state citizen ideology indicator that unadjusted ADA and COPE scores for members of Congress validly reflect the public’s perception of members’ ideologies. This test relies on the logic of construct validity and on the assumption that a member of Congress is likely to stray farther from his or her ideal point in casting roll-call votes right before an election, when pressure exists to conform to the preferences of the median voter, than when an election is far away.¹⁰ We assume that, on average, the ideal points of Republican members of Congress are more conservative than the ideal point of the median voter and that the ideal points of Democratic members are more liberal. Under these assumptions, Republicans should seek to portray to the electorate a less conservative ideology and Democrats should try to cast their ideology as less liberal in election years than in non-election years. If members are successful in molding the public’s perception of them, the perceptions of their ideologies should also be less extreme in election years. Thus, if unadjusted interest-group ratings are a reasonable proxy for the public’s perception of members’ ideologies, average ADA and COPE scores for Democratic members should be lower in election years than in non-election years, and average scores for Republicans should be higher.

To test this, we use unadjusted ADA and COPE ratings for all members of the House of Representatives from 1965 to 2006. For ADA and COPE ratings separately and for Democratic and Republican members separately, we conduct difference in means tests to determine if ideology scores shift between non-election and election years in the direction that theory would suggest.¹¹ Using COPE scores, our expectation is confirmed for both parties. For Democrats, the mean COPE rating declines from 83.0 in non-election

years to 80.8 in election years; this decrease is statistically significant ($t=10.83$, $N=4,250$). Among Republicans, the mean COPE rating increases from 19.6 in non-election years to 21.2 in election years, which is also statistically significant ($t=5.63$, $N=3,517$). Using ADA scores, we find a somewhat smaller, yet statistically significant, increase in average ideology scores for Republicans (from 14.5 to 15.1, $t=2.95$, $N=3,928$). Among Democrats, the decrease in average ADA scores (71.2 to 69.1) is also statistically significant at standard levels ($t=10.19$, $N=4,249$). We believe that the consistency of results across the four contexts lends additional support to our claim for the validity of the original BRFH measure of state citizen ideology.

THE U.S. STATE GOVERNMENT IDEOLOGY INDICATOR

When constructing the BRFH state government ideology indicator, we need a measure of the ideal points of members of Congress that is comparable between chambers and across sessions. We begin by recognizing that all three options under consideration as an ideal point measure (unadjusted interest-group ratings, GLS-adjusted ratings, and NOMINATE scores) rest on questionable assumptions.

NOMINATE scores for a member of Congress are presumed to be invariant over a career, even when the member's district is redrawn or he or she becomes a senator representing a larger constituency. Similarly, although GLS-adjusted interest group ratings are not fixed for individual members, GLS's estimation procedure assumes that a legislator's *expected* ideal point is fixed and that all deviations over time from this expected value are "idiosyncratic." In other words, a deviation for a member at one period is uncorrelated with other members' deviations and with that member's deviations for other periods.

The assumption of longitudinal invariance remains open to question. We concede that a legislator's policy orientation will not likely vary greatly from one year to the next, but this does not suggest complete stability (Bailey 2007). Nevertheless, the assumption that legislators' ideal points are stable seems more plausible than the assumption underlying BRFH's measure of government ideology, which is that legislators' votes on the bills considered important by ADA and COPE always reflect the ideal points of representatives and senators. Hence, NOMINATE and GLS scores are likely better proxies than unadjusted interest-group ratings for ideal points, and accordingly, BRFH's indicator of government ideology would be improved by substituting GLS or NOMINATE scores for the unadjusted interest-group scores on which the extant measure relies.

To evaluate this claim, we construct alternative versions of the BRFH government ideology indicator, each of which follows the original except that

it is constructed from GLS or NOMINATE scores. The three measures—the original measure, the GLS measure, and the NOMINATE measure—correlate very highly across all years for which we can observe all three (1960–99). Pooling all state-years, the original and GLS measures correlate at 0.98; the GLS and NOMINATE measures at 0.91, and the original and NOMINATE at 0.89.¹² This outcome implies that even if the NOMINATE and GLS government ideology indicators prove superior to the original BRFH measure, the differences among the three are minimal, and thus, users of the extant measure probably have not been led astray in their substantive conclusions.

Nevertheless, different degrees of volatility exist in the measures. For each version of the BRFH indicator, and for each state, we examined each pair of successive years, computing the ratio of the larger and smaller scores. Then, for each version of the indicator, we pooled all pairs of years for all states and calculated the mean of the ratios of successive scores across the pairs. As computed, the lower the mean value, the less volatility in state government ideology exhibited by a version of the BRFH indicator. The results coincide with our expectations given the assumptions about stability underlying the alternative measures of the ideology of members of Congress. NOMINATE scores are invariant for each legislator, and the state government ideology indicator constructed with these scores reflects the least volatility (with a mean ratio of successive BRFH scores of 1.07). GLS constrain the expected true preference of a legislator to be constant, but allow the observed ideology score to vary, and the government ideology indicator based on GLS scores is more volatile (with a mean ratio of 1.31). Finally, the BRFH indicator based on unadjusted ADA and COPE scores is the most volatile (mean ratio of 1.41). Given these volatility differences, analysts can derive marginally different results depending on which of the three versions of the government ideology indicator they adopt. Consequently, it is worth assessing whether a shift to NOMINATE or GLS scores would, indeed, enhance the validity of the indicator.

Unfortunately, we are not aware of any direct measure of state government ideology that can serve as a “gold standard” for a test of convergent validity, as Stimson’s (1991) measure of policy mood does for citizen ideology. However, the BRFH government ideology measure is a weighted average of estimated ideological orientation scores for five state elite actors: the governor and the Democratic and Republican delegations in each house in the state legislature. Thus, if we can obtain extant measures of the ideology of state party elites, we can indirectly assess the convergent validity of the alternative measures of the BRFH government ideology indicator by determining the correlation between the extant measures of state party elite ideology and the component BRFH scores for Democratic and Republican elites that are averaged to yield BRFH’s government ideology indicator.

Four cross-sectional measures of the ideologies of elites in the two major parties developed by other scholars provide reasonable points of comparison. Two are indexes based on surveys of state party elites' policy positions: Uslander and Weber's (1978) survey of state legislators' opinions on 10 policy issues conducted in 50 states during 1974 and Paddock's (1998) survey of state party committee members in 20 states conducted in 1994. The other two benchmarks are based on content analysis of state party platforms: Paddock's (1998) comparison of platforms between 1990 and 1996 and Coffey's (2006) examination of 2002 platforms.¹³ We compare these four benchmark measures of party elite ideology to three indicators of the ideological positions of state legislative party delegations we construct using BRFH's methodology. The three indicators differ only in the measure of ideal points for members of Congress from which they are constructed: unadjusted ADA/COPE, GLS-adjusted ADA/COPE, or NOMINATE scores.

None of the four variables chosen as benchmarks is ideal, since all are observed for a single period, and none reflects the mean policy orientation of precisely the same state officials that the BRFH indicator seeks to observe. Nevertheless, as a set, the four measures range in year of observation across nearly three decades (1974 to 2002) and reflect the attitudes of a diverse group of party elites. Thus, if empirical results using the four measures are similar, this would yield valuable evidence about the relative validity of the three different versions of the BRFH indicator of state government ideology.

Table 1 presents the results of the convergent validity test. For Democrats and Republicans separately, the table shows correlations between each of the four benchmark measures of state elite ideology and the average (unadjusted, GLS or NOMINATE) BRFH score for the party delegation in the state legislature.¹⁴ Only slight differences occur across versions of the BRFH indicator in the strength of its correlation with the Uslander-Weber measure of state legislator ideology, with all six correlations between 0.62 and 0.70. This is also true of Paddock's party committee measure for Republicans, with all three correlations between 0.38 and 0.40. In all other cases, the NOMINATE version of the BRFH indicator correlates more strongly than the unadjusted and GLS versions with the benchmark elite ideology measures by nontrivial amounts. The Coffee measure for Democrats and the Paddock party platform measure for Republicans are the only instances in which the correlation of one version of the BRFH indicator with an elite ideology benchmark exceeds the correlations of both other versions by 0.10 or more, and in both cases, the NOMINATE version of the BRFH indicator has the strongest correlation.

From Table 1, we draw two conclusions. A modified version of the BRFH

Table 1. Assessment of the Convergent Validity of the Three Versions of the BRFH State Government Ideology Indicator Based on their Correlations with Four Measures of State Elite Ideology

Political Party	Benchmark Measure of State Elite Ideology			
	Uslaner and Weber: surveys of state legislators, 1974	Paddock: survey of party committee members, 1994	Paddock: party platforms, 1990–96	Coffey: party platforms, 2002
Unadjusted version of BRFH measure				
Democrat	0.67**	0.25	0.44**	0.26#
Republican	0.64**	0.38*	0.22#	0.22
GLS version of BRFH measure				
Democrat	0.70**	0.29	0.43**	—
Republican	0.66**	0.40*	0.19	—
NOMINATE version of BRFH measure				
Democrat	0.62**	0.36#	0.49**	0.36*
Republican	0.63**	0.39*	0.39**	0.27#
Sample Size	48	20	38	35 (D), 27 (R)

#p 0.10, *p<0.05, **p<0.01, (one-tailed)

Notes: (1) Each coefficient in the table is a correlation between a version of the BRFH elite ideology indicator and a measure of state elite ideology drawn from the state politics literature. (2) For the analysis involving Paddock's measure based on party platforms, each version of the BRFH elite ideology indicator is an unweighted average of BRFH scores over all years from 1990 to 1996, inclusive. (3) GLS-adjusted COPE scores are not available after 1999, accounting for the absence of correlations between the GLS version of the BRFH measure and the Coffee variable, which is measured in 2002.

government ideology indicator relying on NOMINATE scores for members of Congress is marginally superior to the original version based on unadjusted ADA and COPE scores. Nevertheless, the uniformly positive correlations between legislative delegation ideology scores based on the unadjusted ADA and COPE scores used by BRFH and the four benchmarks confirm our belief that users of the original BRFH measure are unlikely to reach the wrong substantive conclusions. We explore this further in the next section.

THE CONSEQUENCES OF SUBSTITUTING THE NOMINATE VERSION OF THE GOVERNMENT IDEOLOGY INDICATOR FOR THE ORIGINAL VERSION

To determine the impact of a shift from reliance on interest-group ratings for members of Congress to NOMINATE scores when constructing the BRFH state government ideology indicator, we identified all state-level policy studies published in several of the discipline's major journals from 2001 to 2006 that employ a measure of state elite ideology as an independent variable, and that

utilize a pooled cross-sectional time-series design.¹⁵ Sixteen articles satisfied these criteria, and we were able to obtain replication data for six, which are listed in the left-most column of Table 2. For each of the 19 dependent variables analyzed in these six studies, we replicated the econometric model estimated in the paper, substituting both the extant BRFH government ideology measure and the alternative NOMINATE version for the author's original measure(s) of elite ideology. The X-standardized coefficients for government ideology in all these replications are reported in Table 2.

None of the 19 models estimated yields a coefficient that differs in sign across the two versions of the BRFH measure. Furthermore, only one case [Fording's (2001) imprisonment rate model] presents a coefficient estimate that is statistically significant at the 0.05 level in the predicted direction with one version of the ideology indicator but not the other. Overall then, it appears that little difference exists, in practice, between the findings generated by the two versions. Nevertheless, of the eight models in which the coefficient for at least one version of the ideology indicator is statistically significant, four yield a coefficient that is at least 20 percent larger in magnitude with one version than the other (see the right-most column of the table). Thus, the choice to use one version over the other can lead to nontrivial differences in the magnitude of estimated effects. Interestingly, in six of the eight models wherein the coefficient for at least one version of the ideology indicator is statistically significant, the NOMINATE version yields the larger coefficient. Of course, we do not know the magnitude of the true effects of government ideology in these models, and so we cannot conclude that the larger coefficient estimates generated by the NOMINATE version are closer to their true values.

CONCLUSION

This reappraisal of BRFH's state citizen and government ideology indicators yields several conclusions. We reaffirm BRFH's (1998) claim of validity for their extant measure of citizen ideology, which relies on unadjusted ADA and COPE ratings for members of Congress. In contrast, convergent validity tests, using Stimson's national mood measure as a benchmark, indicate that substituting NOMINATE scores or GLS-adjusted interest-group ratings for unadjusted ratings results in much weaker measures. We contend that this occurs because unadjusted interest-group ratings are a better proxy for voters' perception of the ideological orientation of a member than are GLS-adjusted ratings and NOMINATE scores, which are designed to measure a member's ideal point.

Table 2. Summary of Replication Results

Dependent Variable	X-standardized Coefficients for Alternative Versions of the BRFH Government Ideology Indicator (t-ratios in parentheses)		Ratio of Largest to Smallest Coefficient Estimate
	Original	NOMINATE	
<i>Bailey and Rom (2004)</i>			
AFDC expenditures per capita	0.37* (3.42)	0.43* (4.23)	1.16
AFDC expenditures per recipient	8.17* (1.91)	10.34* (2.68)	1.27
AFDC maximum benefit levels	41.96* (2.09)	46.40* (2.52)	1.11
AFDC recipients per poverty population	0.56* (3.09)	0.54* (3.13)	1.04
Medicaid expenditures per capita	0.42 (0.73)	0.23 (0.44)	
Medicaid expenditures per recipient	WS	WS	
Medicaid recipients per poverty population	2.55* (3.40)	2.31* (3.00)	1.10
SSI expenditures per capita	WS	WS	
SSI expenditures per recipient	WS	WS	
SSI recipients per poverty population	WS	WS	
<i>Berry, Fording, and Hanson (2003)</i>			
Maximum AFDC benefit level	1.69 (0.68)	0.66 (0.29)	
<i>Fording (2001)</i>			
Change in AFDC recipient rate	WS	WS	
Change in state imprisonment rate	-44.70 (-1.43)	-87.94* (-2.84)	1.99
<i>Schildkraut (2001)</i>			
Adoption of English only law	-0.32 (-0.75)	-0.53 (-1.44)	
<i>Volden (2002)</i>			
Increase in AFDC maximum benefit level	WS	WS	
Years since last increase in AFDC benefit level	WS	WS	
<i>Yates and Fording (2005)</i>			
Change in black imprisonment rate	-5.63* (-1.68)	-6.90* (-2.11)	1.23
Change in white imprisonment rate	-0.76* (-1.85)	-0.92* (-2.29)	1.21
Level of racial disparity in imprisonment	WS	WS	

*p<0.05, one-tailed test

Notes: Largest coefficient in a row is in bold type. WS indicates "wrong sign," i.e., a coefficient estimate with a sign different from predicted in the study being replicated.

In contrast, we find that the validity of the BRFH measure of government ideology is slightly enhanced when modified to rely on NOMINATE common space coordinates for members of Congress instead of unadjusted interest-group ratings. While the differences are modest and not uniform, we find that several benchmark measures of state elite ideology tend to be more strongly correlated with the NOMINATE version of the BRFH indicator of state government ideology than with the extant version. This corresponds with our theoretical expectations because the validity of the BRFH government ideology indicator rests on ideology scores for members of Congress accurately reflecting members' ideal points; NOMINATE scores seem to accomplish this purpose better than unadjusted ADA/COPE scores. We must stress that numerous replications of published studies—wherein we compare results based on the extant government ideology indicator to those based on the NOMINATE version—show that the two indicators sometimes produce nontrivial differences in the magnitude of coefficient estimates, but they rarely yield fundamentally different substantive conclusions.

In view of this reappraisal, two versions of the government ideology indicator will be made available (in series starting from 1960) at www.uky.edu/~rford/stateideology.htm, one based on unadjusted ADA and COPE scores and the other on NOMINATE common space coordinates.¹⁶ On balance, we would recommend that most researchers rely on the NOMINATE version of the government ideology indicator in future research. However, the NOMINATE score for a member of Congress is invariant over time, even when he or she moves to a new chamber or his or her district is changed. Those who find this assumption too extreme might prefer the extant BRFH indicator. The most prudent approach would be to use both versions of the indicator and compare the results obtained. If our replication studies are representative, analysts will rarely find large differences in results, and in such cases, researchers can be assured that their results are robust, thereby enhancing confidence in substantive conclusions.

ENDNOTES

1. The measures were originally reported through 1993 but have since been updated through 2006 and are available at www.uky.edu/~rford/stateideology.htm.

2. Recently, scholars have made significant advancements in the measurement of state public opinion and state legislator ideal points (e.g., Bafumi and Herron 2007; Park, Gelman, and Bafumi 2004; Shor, Berry, and McCarty 2007). However, these alternative measures are currently available only for scattered states and/or years, thereby precluding their use in pooled cross-sectional time-series analysis. If valid direct measures of state citizen and

government ideology eventually become available for the 50 states over a sufficient period of years, we would certainly favor using them over BRFH's less direct proxies.

3. Both Brace et al.'s (2007) criticisms and BRFH's (2007) reply can be found in an exchange in the summer 2007 issue of *State Politics and Policy Quarterly*.

4. For convenience, we refer to the first-dimension NOMINATE common space coordinates simply as NOMINATE scores. Readers should understand that these differ from other kinds of NOMINATE scores: D, W, and DW (Poole 2006). Numerous scholars have proposed measures of legislator's ideal points (Jackson and Kingdon 1992; Hill, Hanna, and Shafqat 1997; Heckman and Snyder 1997; Burden, Caldeira, and Groseclose 2000; Bishin 2003; Clinton, Jackman, and Rivers 2004). We require a measure that is comparable across legislative sessions and chambers, and to our knowledge, besides Poole (1998) and GLS (1999), only Bailey (2007) proposes a measure claimed to be comparable in this fashion. We eliminate from consideration Bailey's measure because data for it are available only through 2002. In contrast, Poole's NOMINATE scores and ADA/COPE ratings (which can be adjusted using the GLS procedure) have been updated regularly and, thus, offer realistic alternatives on which to base the BRFH measure of citizen ideology.

5. Stimson (2004) distinguishes between two different conceptualizations of ideology. Symbolic ideology refers to the degree to which one identifies as a liberal or a conservative, while operational ideology reflects one's policy preferences. Stimson's policy mood is intended as a measure of operational ideology, as is BRFH's measure of citizen ideology (BRFH 2007). We rely on Stimson's measure of policy mood as a benchmark in our validity tests since it is the most widely accepted measure of operational ideology.

6. We restrict the period for these analyses to 1960–99 because GLS-adjusted ADA and COPE scores are not available after 1999. We are grateful to David Primo for constructing deflated COPE scores, using the same method reported in Groseclose, Levitt, and Snyder (1999).

7. ADA and COPE scores are coded so that higher scores denote greater liberalism (and display minimum and maximum values of 0 and 100, respectively). NOMINATE scores, however, are constructed as measures of a representative's conservatism. For this analysis, as well as all analyses reported below, we linearly transform GLS and NOMINATE versions of measures to take on the same range and direction as the original BRFH measures. Based on these final versions of the alternative measures, the correlation between the original BRFH measure and the GLS version is 0.97, while the correlation between the original and NOMINATE versions is 0.85 (based on common years 1960–99, N=2000).

8. We do not view Erikson, Wright, and McIver's (1993) cross-sectional measure of state ideology as a suitable benchmark for assessing the convergent validity of the various BRFH measures because the BRFH indicators are intended to measure policy mood, and Erikson, Wright, and McIver's indicator measures self identification.

9. Some might view correlations between the variants of BRFH's measure of state citizen ideology and Stimson's measure of national mood as reflecting reliability rather than validity. Campbell and Fiske (1959, 83) view "reliability and validity . . . as regions on a continuum," defining reliability "as the agreement between two efforts to measure the same [concept] through maximally *similar* methods," and validity "as the agreement between two attempts to measure the same [concept] through maximally *different* methods"[emphasis added]. Since the BRFH indicator of citizen ideology (and its variants) are based on information very different from Stimson's mood measure (which relies

on survey responses reflecting citizens' attitudes about public policy), we believe that our correlations are better characterized as validity tests than assessments of reliability. The same is true of the correlations between variants of BRFH's state government ideology measure and four benchmark measures presented below.

10. This is the reverse of ideological shirking: the propensity of retiring legislators to cast votes based on personal ideology instead of constituent preferences. Rothenberg and Sanders (2000) find evidence of shirking, but a reanalysis of their data by Carson et al. (2004) rejects that conclusion, as do most comparisons of voting by continuing and retiring legislators.

11. The results reported below are based on paired t-tests, where the observations represent differences in ideology scores between year one and year two within each Representative-term. Prior to 1965, ADA and COPE scores were reported only for the entire two-year term, rather than for each year of the term. Thus, we are unable to compare scores between election and non-election years prior to 1965. For all of the t-test results reported below, we restricted our samples to House members who received less than 100 percent of the two-party vote in the general election. We are able to replicate our results for samples that include candidates who ran unopposed, but as theory would suggest, the differences between election and non-election years are slightly smaller in magnitude.

12. The fact that all three indicators rely on common information about the seat shares of parties in the two houses of the state legislatures (which indicate the relative influence that party delegations have on public policy) contributes to the strong inter-correlations.

13. Two other possibilities for benchmark measures of elite ideology are based on self-identification: Cotter et al.'s (1984) measure of the ideology of county chairpersons in 1979–80 and a measure of the ideology of national convention delegates in 1972, 1976, and 1980 (Miller and Jennings 1987; Erikson, Wright, and McIver 1993). We deemed these inappropriate for our purposes because the BRFH ideology indicator taps policy mood rather than ideological self-identification (BRFH 2007).

14. To ensure comparability when computing BRFH scores, we average annual scores across the years for which the benchmark is measured.

15. The specific journals surveyed are *American Political Science Review*, *American Journal of Political Science*, *The Journal of Politics*, and *Political Research Quarterly*. We are grateful to Michael Bailey, Mark Rom, Deborah Schildkraut, and Craig Volden for providing data used in our replications.

16. To prevent confusion, researchers employing the measures should refer to either "the ADA/COPE measure of state government ideology" (citing BRFH 1998) or "the NOMINATE measure of state government ideology" (citing this article).

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