Public Opinion in the U.S. States: 1956 to 2010

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Abstract
In this article, we create, validate, and analyze new dynamic measures of state partisanship, state policy mood, and state political ideology. The measures of partisanship and policy mood begin in 1956 and the measure of ideology begins in 1976. Our approach uses the advantages of two leading techniques for measuring state public opinion—multilevel regression and poststratification (MRP) and survey aggregation. The resulting estimates are based on nearly 500 different surveys with a total of more than 740,000 respondents. After validating our measures, we show that during the last half century, policy preferences in the states have shifted in important and sometimes surprising ways. For example, we find that differences in political attitudes across time can be as important as differences across states.

Keywords
issue preferences, public opinion, voting behavior, political behavior, survey research, methodology, ideology

Red State, Blue State, Rich State, Poor State—The title of Gelman et al.’s (2008) important book draws attention to the significance of the states in U.S. politics. This is with good reason. Presidential candidates, after all, first compete in state primaries and again in the general election for the plurality of votes in each state. Senators, of course, also depend on state constituencies. And states obviously matter in more direct ways. State policies dictate education standards, eligibility requirements for social services, business license requirements, sales tax rates, the definition of marriage, and the use of capital punishment.

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Given the number and importance of political decisions made at the state level, it is not surprising that scholars have paid increasing attention to measuring public opinion in the states. The challenge results because state-level opinion polls do not exist for many states and national polls are not intended to produce valid state-level estimates (Parry, Kisida, and Langley 2008). The pioneering work of Wright, Erikson, and McIver (1985; see also Erikson, Wright, and McIver 1993; 2007) circumvented this problem by pooling numerous national polls together to generate reasonably large samples for each state. This aggregation strategy has been used to produce general measures of political ideology and partisanship (e.g., Erikson, Wright, and McIver 1993) as well as specific policy preferences (Brace et al. 2002; Norrander 2001). More recently, Carsey and Harden (2010) have extended the aggregation method by relying on massive data sets, such as the Cooperative Congressional Election Study (CCES) and the National Annenberg Election Survey (NAES).

Another important advance in the study of state opinion has come from reweighting national surveys to reflect state demographic characteristics (Kastellec, Lax, and Phillips 2010; Lax and Phillips 2009b; Pacheco 2011; Park, Gelman, and Bafumi 2004; 2006; Pool, Abelson, and Popkin 1965; Weber et al. 1972). Park, Gelman, and Bafumi (2004) and Lax and Phillips (2009b) have shown that national surveys can produce valid and reliable estimates of state opinion with a two-step process called multilevel regression and poststratification (MRP). In the first step, a multilevel regression model is fit to estimate the relationship between individual demographic and geographic variables and the survey response. In the second step, the regression estimates are used to predict responses for each demographic–geographic respondent type, which are then poststratified (i.e., weighted) based on census data.

We seek to build on the growing state opinion literature in three ways. First, we use the advantages of MRP and aggregation, relying on information from more than 740,000 respondents. Second, we extend the typical period of analysis of state opinion and generate annual time series that begin in 1956. Finally, in addition to reducing sampling error by aggregating across surveys and using MRP, we show that for some measures of public opinion, we can also reduce measurement error by incorporating multiple question items into our estimates (Ansolabehere, Rodden, and Snyder 2008). These approaches enable us to generate dynamic state-level measures of partisanship and the public’s policy mood—a measure of support for more or less government (Stimson 1991)—from 1956 to 2010 and a state-level measure of political ideology from 1976 to 2010.

We hope that our dynamic state-level measures of policy mood, partisanship, and ideology will become important resources for scholars. We also make important substantive contributions to the study of state politics in this article. In particular, we show that across almost all states, political attitudes have become more conservative since the 1960s. Furthermore, in many cases, these shifts are substantial, suggesting that differences in political attitudes over time may be as important (or more important) than differences across states. Finally, the article makes a methodological contribution to the study of state public opinion. As we discuss in the “Conclusions and Implications” section, we believe our attention to sampling error and measurement error offers a
strategy for generating over time state-level estimates of the public’s policy preferences in more specific policy areas. The article proceeds as follows. The subsequent section details the data we use and our application of MRP. We then validate our opinion measures, relying on existing estimates of state partisanship and ideology (Carsey and Harden 2010; Pacheco 2011) as well as data from 428 different state opinion polls. After documenting important patterns of opinion change in the states, we conclude by discussing the implications of our measurement strategy and avenues for future research.

**Measuring State Opinion**

Our aim is to generate valid dynamic measures of partisanship, political ideology, and policy mood for each state. The partisanship and policy mood series extend from the 1950s to 2010. Due to data limitations, the political ideology series begins in 1976. We focus on these three measures of political attitudes for several reasons. The role of partisanship in U.S. politics has been increasing since the 1970s. Thus, dynamic state-level measures of partisanship are important for a variety of research areas, such as the partisan composition of the states (Glaeser and Ward 2006), shifting patterns of partisan voting in the states (Hopkins and Stoker 2011), and whether the polarization of state politicians (Shor and McCarty 2011) has led or followed state publics. Policy mood, which measures the public’s relative support for New Deal/social-welfare-type policies (Ellis and Stimson 2012; Stimson 1991), offers a key measure of public opinion. At the national level, the public’s policy mood influences election outcomes (Stimson, MacKuen, and Erikson 1995), policy outputs (Stimson, MacKuen, and Erikson 1995), party identification (Ellis 2010), and Supreme Court decisions (Casillas, Enns, and Wohlfarth 2011; McGuire and Stimson 2004). A dynamic state-level measure of policy mood will allow scholars to assess whether the influence of the public’s policy liberalism extends to state political outputs. Finally, we focus on self-identified political ideology (i.e., whether individuals identify as liberal or conservative) because ideology has become a central factor in the study of state (Erikson, Wright, and McIver 1993; 2006) and national politics (Ellis and Stimson 2009; 2012).

Our measurement strategy follows several steps. First, we used the University of Connecticut’s Roper Center for Public Opinion Research, the American National Election Studies (ANES), and the General Social Survey (GSS) to identify every public opinion poll that includes at least one survey question used by Stimson (1999) to measure policy mood and for which individual data (including state of residence) are available. Because we are interested in measuring over time opinion, we only retained questions that were asked at three or more time points. This left us with 73 distinct questions that were asked a total of 1,082 times in 322 different surveys. The resulting database includes responses from more than half-a-million respondents. This is an impressive amount of information. However, even more surveys have asked about party identification. For years, when we had fewer than 10,000 respondents, we identified additional surveys that asked the party identification question. Thus, we were able to add approximately 200,000 additional respondent observations for the party...
identification estimates. With these additions, we have an average of 13,478 respondents per year and a minimum of 9,649 respondents per year. Since 1976, almost all surveys that ask about party identification also ask about political ideology. Our ideology series begins in 1976 and includes almost the same number of respondents (per year) as the party identification series.7

With these sample sizes, we could simply pool the data by year and calculate the responses by state. However, our second step uses MRP to improve our estimates of state-level opinion. Our approach is similar to that of Lax and Phillips (2009b). First, we estimate a multilevel model of individual survey response. Opinion is modeled as a function of gender (female or male), race (black, white, or other), age (18–29, 30–44, 45–64, or 65+), education (less than high school, high school, some college, college graduate, or more), state, and region (Northeast, Midwest, South, West, or D.C.).8 The individual responses are modeled as nested within states nested within region. The state of the respondent is used to estimate state-level effects, which themselves are modeled as a function of region and state vote in the previous presidential election.9 Thus, our model of individual survey response incorporates individual and regional characteristics.10 Based on this model, we then predict, for each demographic–geographic respondent (e.g., female, African American, 18–29, college degree, California), the probability of a liberal response to each opinion question each year. The result is a predicted response for each demographic–geographic respondent type to each question each year it was asked. Finally, we poststratify (i.e., weight) each demographic–geographic respondent type by the percentage of each type in the state population. These weights allow us to estimate the percentage of respondents within each state who support the liberal position on each of our questions for each year the question was asked.11 MRP has been shown to recover valid state-level opinion estimates, even from a single national survey (Lax and Phillips 2009b; Park, Gelman, and Bafumi 2006). Thus, the combination of our large annual sample sizes with MRP offers an ideal measurement strategy.

The application of MRP to party identification and political ideology is straightforward. For each year, we pool responses to these questions and then use the process described above to estimate the percentage of self-identified Democrats and liberals in each state.12 Our estimate of policy mood requires two steps. First, as described above, we estimate the percentage of liberal responses to each of the questions related to policy mood. This produces 73 different opinion series for each state.13 Then, for each state, we use Stimson’s (1991) Wcalc algorithm to combine these series into an over time measure of state policy mood. This algorithm uses a three-step process. First, because we are interested in over time variation in policy mood, it scales each question series to a common metric. Second, the algorithm uses a factor-analytic approach to generate a measure of policy mood based on the common over time variance of the individual series. Third, the means and standard deviations of the original series (weighted by their contribution to the resulting policy mood series) are used to place the resulting measure of policy mood on a meaningful metric.14 In addition to its substantive importance for U.S. politics, policy mood is advantageous because this measure incorporates information from multiple survey questions at each time point,
which reduces measurement error that would occur if we relied on a single survey item to measure the public’s preferences (e.g., Ansolabehere, Rodden, and Snyder 2008).

**Validation Strategy**

Because comparable over time measures of state policy mood do not exist, our validation begins with our estimates of state partisanship. We believe we are the first to generate dynamic measures of state partisanship since the 1950s, but for more recent years, we are able to compare our state partisanship estimates with existing measures of state partisanship. Because more surveys have asked about partisanship than about the policy questions that comprise our measure of policy mood, we restrict our validation of partisanship to only the same surveys we used to generate policy mood. Although our final measures of state partisanship are based on **all** our data, if we are able to validate our partisanship measures based on this more limited selection of surveys, we will have strong evidence to support the validity of the data and methods used to estimate policy mood.

First, we compare our measures of state partisanship with state opinion polls. We focus on six states—North Carolina, Illinois, New Jersey, Georgia, Michigan, and California. We select these states because they represent the most complete time series available for state opinion data—a total of 428 different surveys reflecting 432,950 total respondents and 150 years of observations. In addition, these states vary in terms of their region, population, and partisanship. Thus, we are able to test that our estimates are valid across a variety of contexts. The overall correlation across all states and years (N = 150) is \( r = .78 \). This correlation is impressive because it indicates that our estimates track the over time changes in state-level partisanship.

Figure 1 shows how our partisanship estimates compare with the state polls. The dashed line indicates the percent Democrat based on the state opinion polls and the gray region around this dashed line represents the margin of sampling error for the survey. The solid black line reflects our MRP estimates. We do not report confidence intervals around our estimates because evaluating whether our point estimate falls outside the margin of error of the state poll offers a more conservative test than a comparison of confidence intervals. Changes in how the California Field Poll coded responses to the partisanship question complicate the comparison with our estimates, so we begin by focusing on the other five states (Figures 1a–1e). First, notice that consistent with the high correlation reported above, our estimates correspond closely with the levels in each state and with the over time trajectories. On average, our estimates are just 1.3 percentage points outside the margin of error. Furthermore, when our estimates are outside the margin of error, they are typically very close—75% of our estimates are within 2.5 percentage points of the margin of error, 85% are within 3.1 percentage points, and 95% of the observations are within 4.1 percentage points of the margin of error. While our estimates do not perfectly recover the partisanship based on state polls, the close correspondence between our measures and the state polls offers evidence of the validity of our strategy.
As noted above, we discuss California separately because a change in the response coding of the California Field Poll affects the results of this state opinion series. Figure 1f reports two California polls, the Field Poll (1957–2006) and the Public Policy Institute of California (PPIC) Survey (1998–2009). Overall, we see a general correspondence between the California state polls and our estimates \( r = .73 \). In

**Figure 1.** The percentage of Democrats in six states, based on state polls and MRP estimates using national surveys.

*Note. MRP = multilevel regression and poststratification; PPIC = Public Policy Institute of California.*
particular, our estimates reflect the declining proportion of Democratic identifiers in the 1970s and 1980s. This is an important validation of the over time measure. Furthermore, as we show in Supplementary Appendix 3, the difference between our estimates and the Field Poll estimates during the 1960s results because of a change in how the Field Poll coded independent leaners from 1962 to 1973. Thus, our estimates for California appear to be accurate for most of the 50 years of comparison.

To further validate our estimates, we turn to the measures of partisanship and ideology generated by Carsey and Harden (2010) and Pacheco (2011). These measures have stood up to a variety of validity tests, indicating that they are well suited to serve as benchmarks for our estimates. Furthermore, the two measures rely on different methodological approaches and data. Similar to our strategy outlined above, Pacheco used a version of MRP to generate state-level estimates from national surveys. Carsey and Harden, by contrast, took advantage of the massive sample sizes in the NAES ($N = 81,422$ in 2004) and the CCES ($N = 36,420$ in 2006). If we have recovered valid measures of state partisanship, our estimates should correspond closely with these measures.

Table 1 reports the correlations between the estimates of the percent Democrat in each state based on the 2004 NAES and 2006 CCES, Pacheco’s (2011) 2004 and 2006 estimates, and our MRP estimates of 2004 and 2006. First, notice that the correlations range from $r = .74$ to .91. These high values are exactly what we would expect if each measure offers a valid estimate of state partisanship. The highest correlation ($r = .91$) is between Pacheco’s 2004 and 2006 estimates. The lowest correlations are between the CCES estimates and our estimates ($r = .77$ and .74) and the CCES estimates and Pacheco’s estimates ($r = .81$ and .80). While these correlations are still impressive, the lower values may reflect factors unique to the CCES, such as the Internet-based sample. We can also use these data to validate our measures of state political ideology. Table 2 reports the correlations between our measures of state political ideology and measures of ideology generated by Pacheco (2011) and Carsey and Harden (2010). We again see strong correlations, suggesting all three measures offer valid measures of state political ideology.

Whether we examine state-level surveys or existing measures of state partisanship and ideology, the evidence above suggests that we have successfully recovered
dynamic measures of state-level opinion. As an additional validation check, for our measures of partisanship, ideology, and policy mood, we take the weighted average (based on the state population) of our state-level estimates to generate national-level estimates for each series. If our state-level estimates are valid, we would expect that our national-level estimates (based on the state-level estimates) should match existing national-level measures. Figure 2 compares our national-level estimates of partisanship, policy mood, and political ideology with MacKuen, Erikson, and Stimson’s (1989) updated Macropartisanship; Stimson’s (1991) updated policy mood; and Ellis and Stimson’s (2012) political ideology. The series track almost in tandem. The over time correlations are \( r = 0.91 \) for Macropartisanship, 0.79 for mood, and 0.73 for ideology. Recall that our national-level estimates are based entirely on the weighted average of our state estimates. These aggregate patterns offer further support for our measurement strategy.

**Over Time Shifts in State Partisanship, Policy Mood, and Political Ideology**

To gain a sense of how political attitudes have changed in the states, Figure 3 reports the partisanship (percent Democrat) and policy mood in the early-1960s and the early-2000s and political ideology (percent liberal) in the late-1970s and the early-2000s. In each subfigure, the hollow dots correspond with the earlier time period and the solid dots correspond with the later time period. The solid horizontal lines reflect 95% uncertainty estimates. States are ordered on the \( y \)-axis from most conservative (top) to most liberal (bottom) based on values from the first time point (1960s for partisanship and policy mood and 1970s for ideology).

We begin by discussing our partisanship estimates, which appear in Figure 3a. The estimates have high face validity. In the early-1960s, Southern states, such as Arkansas, Georgia, and Louisiana, are the most Democratic. The partisanship estimates for the early-2000s also coincide with expectations, as Washington, D.C., Maryland, and West Virginia are the most Democratic, and Wyoming, Utah, and Idaho are the least Democratic. Also of note, our estimates suggest that the percentage of Democratic

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*Note. N = 49 (the NAES does not include Hawaii or Alaska but does include Washington, D.C.). All correlations are significant at \( p < .05 \). MRP = multilevel regression and poststratification; NAES = National Annenberg Election Survey; CCES = Cooperative Congressional Election Study.*
Figure 2. Comparison between our state-level estimates aggregated to the national level and existing national-level estimates of Macropartisanship, policy mood, and political ideology.
Figure 3. Over time shifts in partisanship, policy mood, and ideology, by state.

Note. Horizontal bars reflect 95% uncertainty estimates.
identifiers has declined in almost all states. Some of this decline results because the overall proportion of party identifiers decreased during this period (as the proportion of individuals identifying as independent increased). However, this partisan change is also consistent with the over time trajectory of Macropartisanship in Figure 2, which shows that the proportion of Democrats relative to the proportion of Republicans has also decreased. This pattern is also consistent with the conservative shift in policy mood that appears in Figure 3b.

Looking at Figure 3b, we see that in the early-1960s, Washington, D.C., Connecticut, and Michigan correspond with the most liberal policy mood, and Hawaii, South Carolina, and Wyoming reflect the most conservative policy mood. In the 2000s, the most liberal policy mood appears in Washington, D.C., New Jersey, Delaware, New York, and Massachusetts. We find the least liberal policy mood in Wyoming, Idaho, and North Dakota. These estimates align with contemporary views of state political environments. Also of note is the degree to which almost all states have shifted toward a more conservative policy mood (the average shift is 14 percentage points). In fact, the policy mood for Massachusetts and New York in the early-2000s is estimated to be more conservative than the policy mood of almost all states in the early-1960s. Although not all of these differences are statistically significant, we do estimate that the policy mood in Massachusetts in the early-2000s was significantly more conservative than the policy mood of some Southern states in the 1960s, such as North Carolina and Arkansas. At first glance, this conservative shift in policy mood across all states, indicating widespread decreases in support for New Deal/social-welfare-type policies, may be surprising. However, as we report in Figure 4, an examination of individual survey questions reinforces this conclusion. All regions of the country appear to have expressed significantly more support for redistributive policies in the 1960s.

Figure 3c presents our estimates for political ideology. Looking at the estimates for the late-1970s, we see that Washington, D.C. and states typically thought of as liberal,
such as Hawaii, New York, and California, occupy the most liberal positions, and states typically viewed as conservative, such as South Dakota, North Dakota, and Alabama, occupy the most conservative positions. Consistent with our estimates for partisanship and policy mood, we see that most states have shifted in a conservative direction. However, the shifts are not as large. Part of this difference stems from a different period of comparison (i.e., a 20-year difference instead of 40-year difference). Nevertheless, our results for the late-1970s and early-2000s are broadly consistent with past research that has suggested that political ideology in the states was relatively stable during this period (Brace et al. 2004; Erikson, Wright, and McIver 2006). Some significant shifts have occurred (for 12 states, the 95% uncertainty estimates do not overlap), but the average shift across states is just 3.1% and the ordinal positions of the states have remained roughly consistent ($r = .82$). Of course, Figure 3 only reports results at two periods of time. For each of the series, our annual measures allow an examination of short-term shifts that may be masked by focusing on two time periods.

**Shifts in Policy Mood**

Figure 3b shows that the policy mood in all states shifted substantially in the conservative direction between the early-1960s and early-2000s. In fact, we estimate the policy mood of almost all states in the early-2000s to be more conservative than the most conservative state in the early-1960s. The magnitude of these shifts begs the question: Did policy mood really shift this much? While we believe that the many validation tests in the first part of the article offer compelling support for our data and measurement strategies, we decided to further scrutinize this finding by examining two scope of government questions from the ANES. We select these questions because they were asked in the early-1960s and early-2000s, matching the periods compared in Figure 3b. Furthermore, the focus of these questions on the government’s role in social policy provision makes them ideal indicators of policy mood (Ellis and Stimson 2012; Stimson 1991).

Our aim is to see whether these questions, when analyzed by region, lead to a different conclusion than our results based on policy mood in Figure 3b. The answer is a clear “no.” Figure 4a shows that agreement with the statement “The Government in Washington is *not* Getting too Powerful” declined by more than 10 percentage points during this period and this decline is evident across all regions of the country (we do not examine specific states because our intent is to see whether patterns in the raw data match our mood estimates). A similar pattern emerges in Figure 4b. Across all regions, we see substantial declines in the percentage agreeing that the Government in Washington is *not* getting too powerful. Considering the Civil Rights Act of 1964 was enacted in July of that year, it is not surprising that in late-1964, those in the South were more likely to respond that the Government in Washington was getting too powerful. What is striking, however, is that despite this fact, in 2000, for every region of the country, the percentage responding that the government was
not getting too strong was significantly less than the corresponding percentage in Southern states in 1964. Whether we analyze individual survey questions or our policy mood estimates, all regions of the country appear more liberal in their attitudes toward the federal government’s role in society during the 1960s. While the general liberal mood of the early-1960s is well known, we believe the similar patterns across geographic region are an important finding. Many scholars have devoted attention to understanding political attitudes across the states. These results suggest that over time shifts in political attitudes within states may be just as important as the differences across states.

**Comparison with Other Measures**

We also consider how our measures of state policy mood and state ideology compare with Berry et al.’s (1998) measure of state citizen ideology. The Berry et al. (1998; Berry, Ringquist, Fording, and Hanson [BRFH]) measure uses ideological ratings of members of Congress to estimate state ideology. This measure is perhaps the most important over time measure of state ideological preferences (e.g., Langer and Brace 2005; Meinke and Hasecke 2003; Soss et al. 2001) and has been viewed as an indicator of state ideology (Berry et al. 1998) and state policy mood (Berry et al. 2007; Berry et al. 2010). Thus, it is useful to consider how our measures of state policy mood and political ideology compare with this measure. As we discuss below, there are reasons to expect that our measures will sometimes differ from the Berry et al. (1998) measure.

One difference may stem from redistricting and increased vote access since the start of the BRFH series in 1960. In 1962, the Supreme Court’s decision in *Baker v. Carr* led to “one-person, one-vote,” which (along with subsequent Supreme Court decisions) ended the practice of malapportionment. This change benefited urban and suburban voters, who were previously often underrepresented. Because suburban and urban voters had different policy preferences, party identification, and partisan voting behaviors than those in rural areas (Ansolabehere and Snyder 2004), even if a state’s policy preferences remained unchanged, different district compositions would produce different electoral and policy outcomes (McCubbins and Schwartz 1988). As the BRFH measures rely on the votes of members of Congress to estimate citizen ideology, citizen ideology might appear increasingly liberal, not because opinions changed but because the relative weight of urban, suburban, and rural preferences had changed. The Voting Rights Act of 1965 may have produced a similar effect. The two decades following the Voting Rights Act saw a dramatic increase in the proportion of African American legislators elected in Southern states (Grofman and Handley 1991). Again, even if state ideology remained constant, the composition of those elected, and thus the votes on the policies the interest groups evaluated, could differ. In sum, because the BRFH measure is based on interest group ratings of legislative votes, it captures changes in citizen preferences and institutional changes that influence who is elected.

We might expect the changes brought on by *Baker v. Carr* and the Voting Rights Act to have a particularly large effect on Southern states. Indeed, for Southern states,
the average over time correlation between the BRFH measure and our measures of policy mood and ideology is negative ($r = -0.33$ and $-0.11$, respectively). The average over time correlation between the two measures for the rest of the states is $r = 0.13$ and $0.21$ for mood and ideology, respectively. To get a further sense of the relationship between our state estimates and the BRFH measures, Figure 5 plots our policy mood and political ideology estimates alongside the BRFH measures for North Carolina, Mississippi, New Hampshire, and Wyoming. We focus on these states because they highlight some of the similarities and differences between the three measures. To facilitate over time comparison, within each state, the series have been scaled to a common mean.\textsuperscript{34}

Figures 5a and 5b show that in New Hampshire and Wyoming, for most of the period of analysis, BRFH’s measure has moved roughly in tandem with policy mood and political ideology.\textsuperscript{35} The similarities in these figures are consistent with previous

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\caption{Comparison of state policy mood, state political ideology, and Berry et al.’s (1998) state citizen ideology in New Hampshire, Wyoming, North Carolina, and Mississippi. Note. To facilitate over time comparison, in each subfigure, the series have been scaled to a common mean. Thus, the relative position of the series on the y-axis is not comparable and the observed variance in the series should not be compared across states. BRFH = Berry, Ringquist, Fording, and Hanson.}
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research suggesting that the BRFH measure corresponds with ideology (Berry et al. 1998) as well as with policy mood (Berry et al. 2007; Berry et al. 2010). Figures 5c and 5d show, by contrast, that the relationship between the BRFH measure and our measures differs substantially in some states. As noted above, it is the Southern states where we would expect reapportionment and the Voting Rights Act to have the largest effect on who is elected. Consistent with this expectation, we see striking differences between our measures and the BRFH measure in North Carolina and Mississippi. According to the BRFH measure, these states were at their most conservative in the late-1960s and have steadily become more liberal in the subsequent decades. The BRFH measure correlates with mood and ideology at $r = -0.67$ and $-0.23$ in North Carolina and $r = -0.65$ and $-0.17$ in Mississippi. Although we do not know with certainty the source of these differences, the shifts in district size and expanded access to the vote may help explain why the BRFH measure differs substantially from policy mood and ideology in these states.

Several other patterns in Figure 5 also warrant discussion. First, our measure of ideology and our measure of policy mood appear to move in similar ways within states. While policy mood and self-identified political ideology are typically viewed as distinct concepts (Ellis and Stimson 2012), these over time similarities are not surprising. Ellis and Stimson (2012, 119, 186–87) found that the two concepts “appear to be broad indicators of the same general changes in mass political sentiment” and that these commonalities have increased since the 1970s. The second pattern of note is that ideology and mood move in important ways across time. In particular, the relative stability of political ideology between the late-1970s and early-2000s, which we observed in Figure 3c, conceals shifts in ideology within this period. Finally, looking across subfigures, we see similar over time trajectories across states. Although some differences do exist, the public’s policy mood and ideological liberalism appear to rise and fall together across different states. These similarities are consistent with the findings of Page and Shapiro (1992, 313) who concluded that “regional and community groupings generally move together (or stay the same) in opinion.” This result is also consistent with past research that shows that different demographic groups typically update their policy mood in parallel (Enns and Kellstedt 2008; Enns and Wlezien 2011; Kelly and Enns 2010). Even at the state level, it appears that “aggregate opinion change . . . can largely be understood in terms of homogenous movements across the whole population” (Page and Shapiro 1992, 317).

Conclusions and Implications

American voters elect more than 7,000 state legislators, and each year, these representatives pass an even greater number of laws. Yet, those seeking to account for the role of public opinion in state political processes have been hard-pressed to find the required data. We build on recent advances in the measurement of state-level public opinion to create and validate new over time measures of state partisanship, policy mood, and political ideology. Specifically, our measures take advantage of data aggregation (e.g., Erikson, Wright, and McIver 1993) and MRP (e.g., Lax and Phillips 2007).
2009b; Park, Gelman, and Bafumi 2004). Furthermore, we are able to reduce measurement error by aggregating multiple survey items into a single measure of policy mood (Ansolabehere, Rodden, and Snyder 2008; Stimson 1991). The result is the first annual time series of state opinion that extends from the 1950s to 2010.

We hope that these measures can be applied to many questions that are of central interest to state politics scholars as well as those interested in representation more broadly. For example, the measures of state opinion may contribute to important bodies of research on state elections (Ansolabehere and Snyder 2002; Carsey and Wright 1998; Fowler 2005), state policy outputs (Jacoby and Schneider 2001; 2009; Kelly and Witko 2012), state interest group strength (Monogan, Gray, and Lowery 2009), and even state court decisions (Brace and Boyea 2008; Brace and Hall 1997). Furthermore, we believe the measures of state partisanship we have generated will greatly increase our understanding of the partisan composition of the states (Glaeser and Ward 2006) and the polarization of state political elites (Shor and McCarty 2011).

We also hope that the methods we have brought together offer a template for generating dynamic state-level measures of policy preferences in more specific policy areas. In some cases, general measures like mood or partisanship may not be ideal for capturing specific attitudes (Brace et al. 2002; Norrander 2001). At the national level, many important over time measures of policy-specific opinion have been generated by combining responses from related survey opinions. These include measures of racial policy liberalism (Kellstedt 2003), the public’s punitiveness (Enns 2010), support for the death penalty (Baumgartner, De Boef, and Boydstun 2008), and economic evaluations (McAvoy and Enns 2010). A key insight from our approach is that incorporating many question items from various surveys, as in these national-level series, reduces sampling error by increasing the number of observations and reduces measurement error by relying on multiple indicators of opinion. Thus, from a methodological standpoint, this approach is ideally suited for generating dynamic state-level estimates of policy-specific opinion. Furthermore, because state governments influence these policy domains in important ways, these also represent important substantive areas to study at the state level. In sum, given the availability of individual-level data from the University of Connecticut’s Roper Center, the MRP methods advanced by Park, Gelman, and Bafumi (2004) and Lax and Phillips (2009b), and Stimson’s (1991) Wcalc algorithm, which estimates latent opinion series from survey questions that have been asked at multiple time points, it is now possible to estimate valid over time opinion for a multitude of policy areas. We believe continued developments in the measurement of state public opinion, such as those provided here, will help scholars overcome previous data challenges, continuing the strong tradition of studying the states to not only better understand state-level political processes but also advance the study of U.S. politics and representation more broadly.

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Authors’ Note
The supplementary appendix and all data and materials necessary to reproduce the numerical results are available on these websites: http://falcon.arts.cornell.edu/pe52/ and http://dvn.iq.harvard.edu/dvn/dv/Enns. A previous version of this article was presented at the 2012 Annual Meeting of the Midwest Political Science Association and the 2012 Annual Meeting of the Southwestern Political Science Association, where it won the Allan Saxe Award for the best paper on state and local politics.

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Notes
1. Warshaw and Rodden (2012) have also shown that multilevel regression and poststratification (MRP) can be used to produce valid estimates of district-level preferences.
2. Policy mood has also been shown to correspond with the votes of individual Supreme Court justices, and particularly with the justice that casts the pivotal “swing” vote (Enns and Wohlfarth 2013).
3. Stimson (1991) reported two dimensions of policy mood. The first, as discussed above, corresponds with preferences for the size and scope of government. Although the second dimension is not as clearly defined as the first dimension, the second dimension has been described as “the social compassion side of liberalism” (Erikson, MacKuen, and Stimson 2002, 209–10). Our focus in this article is on the first dimension, but we have estimated the second dimension and made these data publicly available (http://dvn.iq.harvard.edu/dvn/dv/Enns).
5. Although Stimson’s (1991) policy mood is considered a measure of the public’s preferences for more or less government, Stimson includes all available survey questions that relate to domestic policy or government spending. This approach minimizes researcher discretion in the selection of questions with little to no empirical cost (Stimson 1991, 40). Because our goal is to replicate Stimson’s (1991) policy mood, we follow his example and include all available policy questions that were asked at multiple time points and for which individual-level data are available. These 73 questions represent a substantial portion of the
questions Stimson used to estimate mood. Although recent estimates of mood incorporate more survey question items, Stimson’s (1999, 143–49) original mood estimates incorporated 77 separate items. Furthermore, mood has been successfully replicated with as few as 11 question items from the GSS (Ellis, Ura, and Robinson 2006).

6. Specific details on the number of questions, surveys, and respondents from each year used to estimate policy mood are reported in Table A-1 in Supplementary Appendix 4.

7. Prior to 1976, the political ideology question was asked less frequently and when it was asked, necessary individual-level data, such as each respondent’s state, are typically not available, so we do not estimate state ideology prior to this year. Specific details on the number of questions, surveys, and respondents from each year used to estimate partisanship and ideology are reported in Table A-2 in Supplementary Appendix 4.

8. When survey questions come from more than one poll, we also included an indicator to account for each poll in the model. The decision to treat Washington, D.C., as a separate region follows Park, Gelman, and Bafumi (2006, 377).

9. Presidential vote is based on two-party vote share. Because Washington, D.C., did not receive presidential electoral votes until 1961, for years prior to 1964, we assign Washington, D.C., its average vote share from the 1964 and 1968 presidential elections.

10. All models were estimated with GLMER in R. Our decision to nest states within region follows previous applications of MRP (Lax and Phillips 2009a; 2009b; Park, Gelman, and Bafumi 2006). As Kastellec, Lax, and Phillips (2009, 4) explained, including region as a group-level predictor “increases the amount of pooling done by the multilevel model, giving more precise estimates, especially for states with small populations.”

11. The state population estimates that we use come from the Integrated Public Use Microdata Series (IPUMS) at the University of Minnesota (http://usa.ipums.org), which include 1% census samples for 1950, 1960, and 1970; 5% samples for 1980, 1990, and 2000; and 1% American Community Survey (ACS) samples for 2005–10. We relied on 1% samples when those were the only ones available. Between census years, we used linear interpolation to estimate state population characteristics.

12. We also estimated the percentage of Republicans and conservatives in each state.

13. These questions were asked a total of 1,082 times, for an average of 15 observations per question series.

14. Supplementary Appendix 5 offers a more detailed discussion of the Wcalc algorithm. Additional details can also be found in Stimson (1991) and http://www.unc.edu/~jstimson/Software.html. Although our data include surveys from 1953, we report our mood estimates beginning in 1956, because the samples from the previous years are small. However, because Wcalc smoothes the estimates across years to reduce sampling error, our 1956 estimates include information from previous time periods. We used Wcalc5, which is the most recent version of the algorithm. The software is available from James Stimson’s website: http://www.unc.edu/~jstimson/Software.html.

15. The measure of state ideology generated by Berry et al. (1998) has been considered a proxy for Stimson’s (1991) policy mood (Berry et al. 2007; Berry et al. 2010). In addition, Carsey and Harden (2010) have developed measures of social policy mood for 2004 and 2006. As we discuss in the “Over Time Shifts in State Partisanship, Policy Mood, and Political Ideology” section, these measures are important indicators of state opinion, but they are not ideally suited to validate our estimates of state policy mood. We are able, however, to use Carsey and Harden’s estimates of partisanship and ideology to validate our partisanship and ideology measures because our partisanship and ideology questions match theirs.
16. Because multiple surveys were often conducted in the same year, the number of surveys exceeds the number of years. See Supplementary Appendix 2 for full details on the state poll data, which were obtained from the University of North Carolina’s Odum Institute Data Archive, the Michigan State University Institute for Public Policy and Social Research, the California Field Poll, and the Public Policy Institute of California (PPIC).

17. Recall that these partisanship estimates are based only on the surveys for which we have a question that relates to policy mood. Not surprisingly, when we include all available data for which we have partisanship questions, our estimates further improve. For example, 90% of these estimates are less than 3 percentage points outside the margin of error of the state polls.

18. The California Field Poll was also conducted in 1956. We do not report these results, because the sample only included 274 respondents and the percent Democrat was an implausible 16%. The partisanship question in the PPIC Survey differs from the other state polls in that it asks about party registration, but this difference is unlikely to affect the results. Finkel and Scarrow (1985, 628) showed that in states such as California, which do not require voters to register with a party, the two question wordings (i.e., party identification and party registration) do not produce substantively different results.

19. Carsey and Harden (2010) calculated the mean partisanship and ideology score for each state. Because our measures estimate the percentage of Democrats in each state, in Table 1, we rely on the percentage of Democratic identifiers based on the National Annenberg Election Survey (NAES) and Cooperative Congressional Election Study (CCES) instead of Carsey and Harden’s estimates of mean partisanship.

20. This high correlation is not surprising, because, to reduce sampling error, each estimate incorporates 3 years of data (Pacheco 2011). Thus, Pacheco’s (2011) 2004 and 2006 partisanship measures share some common data points.

21. The CCES sample size, which is less than half that of the NAES, may also contribute to these slightly lower correlations.

22. Again, because we estimate percentages, we rely on the percent liberal based on the CCES and NAES instead of the mean ideology scores generated by Carsey and Harden (2010).

23. Carsey and Harden (2010) also used CCES and NAES data to generate estimates for 2000 and 2008. The correlations between our estimates for percent Democrat and estimates from these data are \( r = .83 \) and \( .79 \) in 2000 and 2008, respectively. The corresponding correlations for percent liberal are \( r = .85 \) and \( .87 \). Pacheco (2011) has generated partisanship and ideology estimates for every year from 1978 to 2006. Our estimates correspond closely with hers throughout this period. For partisanship, the average annual correlation is \( r = .81 \) with a maximum correlation of .90 in 1986 and a minimum of .67 in 1987. For ideology, the average annual correlation is \( r = .69 \) with a maximum of .89 in 2004 and a minimum of .49 in 1996.

24. Furthermore, as mentioned above, the use of multiple questions to generate the policy mood estimates further reduces measurement error.

25. MacKuen, Erikson, and Stimson (1989) measured Macropartisanship as the percent Democrat out of percent Democrat plus percent Republican. We follow this convention when generating our measure of Macropartisanship. To facilitate over time comparison, for our estimates of policy mood and political ideology, we shifted our series by the average difference between our series and the corresponding national-level estimate.

26. From 1956 to 2004, the correlation for policy mood is \( r = .86 \). As a comparison, past attempts to replicate Stimson’s policy mood with national-level surveys have typically
obtained correlations around $r = .85$ (Enns and Kellstedt 2008; Enns and Wlezien 2011).

27. For percent Democrat and percent liberal, we used the boot command in R to estimate uncertainty around our predictions. Specifically, we conducted 1,000 bootstrap replications of our MRP estimates and then identify the 95% uncertainty interval based on a bootstrapped standard error. Bootstrap replications are stratified by state to account for the empirical density of observations within each state. For our policy mood estimates, we use the confidence intervals reported by Jim Stimson’s Bootstrap Wcalc, which resamples for each data point in the mood index. We use 1,000 bootstrap samples for these uncertainty estimates.

28. Our estimate of West Virginia as among the most Democratic states is consistent with Carsey and Harden (2010; Figure 1).

29. The policy mood estimate for Washington, D.C., is nearly identical for the early-1960s and early-2000s, so only a solid dot is evident. The conservative result for Hawaii is somewhat surprising and may reflect the small number of respondents from Hawaii, as evident from the large uncertainty estimates.

30. Northeast = CT, ME, MA, NH, NJ, NY, PA, RI, and VT; Midwest = IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, and WI; South = AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, and WV; and West = AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, and WY. Because D.C., DE, and MD are typically more liberal, we omit these from the analysis to ensure that the “liberalism” of the Southern states is not inflated. Percentages include “don’t know” responses and are weighted with the ANES weight variable.

31. The focus of these questions on the Government in Washington offers an important reminder that we are not trying to measure support for state-specific policies. Rather, we are generating state-level measures of Stimson’s policy mood, which emphasizes the federal government.

32. In addition, we compared our measures with Carsey and Harden’s (2010) measures of state social policy mood, which are based on a factor analysis of social policy questions. Our estimates correlate with theirs at $r = .57$, .66, and .63 for 2004, 2006, and 2008, respectively. Given the different questions used to estimate the measures, these correlations are quite impressive.

33. Specifically, Berry et al. (1998) used the Americans for Democratic Action (ADA) and the American Federation of Labor–Congress of Industrial Organizations (AFL-CIO) Committee on Political Education (COPE) ratings of whether members of Congress voted in a liberal or conservative direction on key legislative items to identify the ideological position of each member of Congress. Berry et al. (1998) then estimated citizen ideology at the district level based on the ideology score for the district’s incumbent (based on the interest group ratings), the estimated ideology score for the challenger the incumbent faced in the previous election, and the previous election results (which indicate district support for the two ideological positions). District ideology is then averaged to generate state citizen ideology scores.

34. Figure 5 is designed to allow over time comparison of the series within each state. Because each series has been scaled to a common mean (based on the years the three series overlap), the relative position of the series on the $y$-axis is not informative. In addition, the observed variance of series should not be compared across states. The updated Berry et al. (1998) data can be accessed from http://rcfording.wordpress.com/state-ideology-data/.

35. In New Hampshire, the BRFH (Berry, Ringquist, Fording, and Hanson) measure correlates with mood and ideology at $r = .51$ and .54, respectively. The corresponding correlations...
for Wyoming are .61 and .15. The strongest correlations between the BRFH measure and mood and the BRFH measure and ideology occur in Alaska ($r = .82$ and .61, respectively).

36. Another possible reason for differences between the BRFH measure and policy mood stems from the fact that the BRFH measure captures more than policy mood. According to Stimson (1991), policy mood measures liberal and conservative preferences along New Deal/social-welfare-type policies. While many of the ADA and COPE ratings reflect these issues, not all do. For example, the ADA ratings include votes on civil rights, gun control, capital punishment, and same-sex marriage (http://www.adaction.org/pages/publications/voting-records.php). Because Berry et al. (1998, 334) computed the average of ADA and COPE scores, their measures will include information from all votes coded by these groups. By contrast, because Stimson’s (1991) Wcalc algorithm uses a factor-analytic approach to identify common over time variance among question items, the resulting measure of policy mood will only incorporate information from questions that share common over time dynamics. Thus, citizen ideology, as measured by BRFH, reflects a broader scope of issues than policy mood. Of course, for some applications, the broader scope of the BRFH measures may be an advantage.

37. The measure of policy mood does not include the political ideology question, so the over time similarities do not reflect common question items.

References


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