

Updating PAJID Scores for State Supreme Court Justices (1970-2019)

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Abstract

We build upon Brace, Langer, and Hall's (2000) original measure of American state supreme court justice ideology—the PAJID scores. To do so, we gather new data on 1,666 state supreme court justices who served between 1970 and 2019 and update the PAJID scores throughout this period. Testing indicates that PAJID scores are a valid measure of state supreme court justices' policy preferences and compare favorably, though less efficiently, to others such as Bonica and Woodruff (2015) and Windett, Harden, and Hall (2015). Given limited data availability for other ideological measures pre-1990 and post-2010, we conclude that these updated PAJID scores should prove attractive to scholars studying state courts during these periods and among those who desire additional state supreme court ideological data for robustness checks.

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I. Introduction

Judicial ideology is a cornerstone of the public law literature and plays an important role in models of behavior as well as the separation of powers (Segal and Spaeth 2002). Scholars first measured judicial attitudes among members of the U.S. Supreme Court (e.g., Schubert 1965; Segal and Cover 1989; Martin and Quinn 2002), but have since measured ideology in the lower federal courts as well as the state supreme courts. Importantly, the first systematic effort to measure the political attitudes of American state supreme court justices emerged with Brace, Langer, and Hall's (2000) party-adjusted surrogate judge ideology (PAJID) scores.

The intuition underlying PAJID scores is that, unlike federal jurists who are Executive-nominated and Senate-confirmed, state supreme court justices are selected both by appointment and election methods. Therefore, by using ideological information about the preferences of those who choose judges—voters in states that elect judges and political elites in states that appoint them—in addition to information about the party of a given judge, it is possible to create a surrogate measure for a given judge's political preferences.

One drawback to the PAJID scores is that they rely upon indirect information (ideological estimates for voters and elites) to make inferences about judicial attitudes. In recent years, newer methods emerged that use more direct information about judicial attitudes. Bonica and Woodruff (2015) use campaign donations/receipts to model ideology while Windett, Harden, and Hall (2015) use state supreme court case votes to estimate temporally dynamic estimates. The Bonica and Woodruff (2015) estimates provide data for most state supreme court justices after 1990 while the Windett, Harden, and Hall (2015) estimates provide data for justices between 1995 and 2010. These estimates have proven to be reliable indicators of judicial attitudes, and like PAJID, have helped advance the contemporary study of state judicial politics.

Despite these methodological improvements, a persistent problem remains in the state courts literature regarding how to account for judicial ideology for datasets that pre-date 1990 and post-date 2010 (e.g., Curry and Hurwitz 2016). The original PAJID scores cover the earlier years (1970 to 1993), while the other measures collectively cover more recent years. To capture ideology over the full range of time, a PAJID update is the most practical approach. While other measures of state supreme court ideology require onerous data collection efforts, PAJID estimates rely solely upon three pieces of information: (1) A justice’s political partisanship, (2) The method by which members on a given court are selected, and (3) The ideology of those tasked with choosing state supreme court justices.

Given this, we provide updated PAJID scores for state supreme court justices serving between 1970 and 2019. Our efforts yield a dataset with a total of 17,092 unique justice-year observations with complete PAJID data for 96.2 percent of all observations or 1,666 individuals. Statistical testing indicates that these updated PAJID scores are valid measures of state supreme court ideology and compare favorably, though less efficiently, to other, more recent measures. We believe that these updated estimates will prove attractive to scholars who either want to perform robustness checks with other measures of state supreme court ideology, or who study state high courts outside of the years 1990 to 2010 for which other data is sparse.

2. Updating the PAJID Scores

To update PAJID scores, we replicate Brace, Langer, and Hall’s (2000) original methodology using more recent data. First, we identified 1,666 unique individuals who worked on each state supreme court between 1970 and 2019 in the 50 American states. We then coded a dichotomous variable equal to “1” if a justice was a Democrat at the time of their selection, “0” otherwise. We also

identified whether a state supreme court selects its members via popular election or elite appointment at the time a justice was selected.

The final variable in our PAJID update relies upon Berry et al.’s (2010) measure of state citizen and elite ideology in a given state and year (“Berry scores”).¹ Berry scores are measured on a scale from 0 to 100, where smaller values represent conservatism and larger values represent liberalism. For states using elective judicial selection methods, we incorporate Berry et al.’s (2010) citizen ideology value, and for states using appointive selection methods, we incorporate Berry et al.’s (2010) elite ideology value. We label either of these measures as a “preferences” indicator.

The first step in calculating the PAJID scores is to estimate a logistic regression that models the likelihood a given judge, j , is a Democrat given the preferences of their selectors:

$$\widehat{Pr}(Democrat_j = 1) = \Lambda^{-1}(\hat{\beta}_0 + \hat{\beta}_1 Preferences_j). \tag{1}$$

Using Equation (1), we then calculate the predicted probability a given judge is a Democrat, $\hat{p}_j = \widehat{Pr}(Democrat_j = 1)$. Next, using \hat{p}_j , we calculate a pseudo-residual that is the difference between a justice’s partisanship and the predicted probability they are a Democrat:

$$\tilde{u}_j = Democrat_j - \hat{p}_j. \tag{2}$$

Equation (2) simply measures the degree to which the preferences of a given judge’s selectors fails to account for their partisanship.

¹ The original PAJID scores were constructed using data from Berry et al. (1998). Nevertheless, recent improvements in measurement caused the authors to reconstruct their scores in Berry et al. (2010). We therefore utilize the more recent measure of state ideology.

Finally, a justice's PAJID score is calculated accordingly:

$$PAJID_j = (Preferences_j * \tilde{u}_j) + Preferences_j. \tag{3}$$

The logic of Equation (3) is as follows. If the preferences of selectors in Equation (1) perfectly predicted partisanship, we would arrive at a value of $\tilde{u}_j = 0$, and no adjustment would be necessary to an individual's PAJID score given the preferences of their selectors. Now, provided we find some $\tilde{u}_j > 0$, this would mean that we have a Democratic judge, but our model under-predicted the likelihood of them being a Democrat. Equation (3) would then add to a judge's preferences an amount proportional to the size of the error in \tilde{u}_j . A similar logic holds for calculating the preferences of Republican judges with $\tilde{u}_j < 0$.

3. Assessing the Validity of the Updated PAJID Scores

In Figure 1, we present median PAJID scores for each state supreme court between 1970 and 2019. Geographic and temporal trends speak to the face validity of the updated scores. For example, southern justices are approximately 21.6 percent less liberal compared to their counterparts in northern states ($t = 7.53$). Within the South itself, ideological trends are consistent with contemporaneous phenomena. For example, throughout the Deep South courts dominated by Democrats in the 1980s and 1990s became more liberal as their state parties became more African American, only to become dramatically more conservative amidst the realignment that brought Republicans to power in the 2000s (Black and Black 2002).

Similarly, states known more recently for "progressive" politics such as Colorado, Washington, and Oregon appear more liberal over time. Washington serves as a good example. During the 1970s and 1980s, when the state tended to vote for Republican candidates for offices

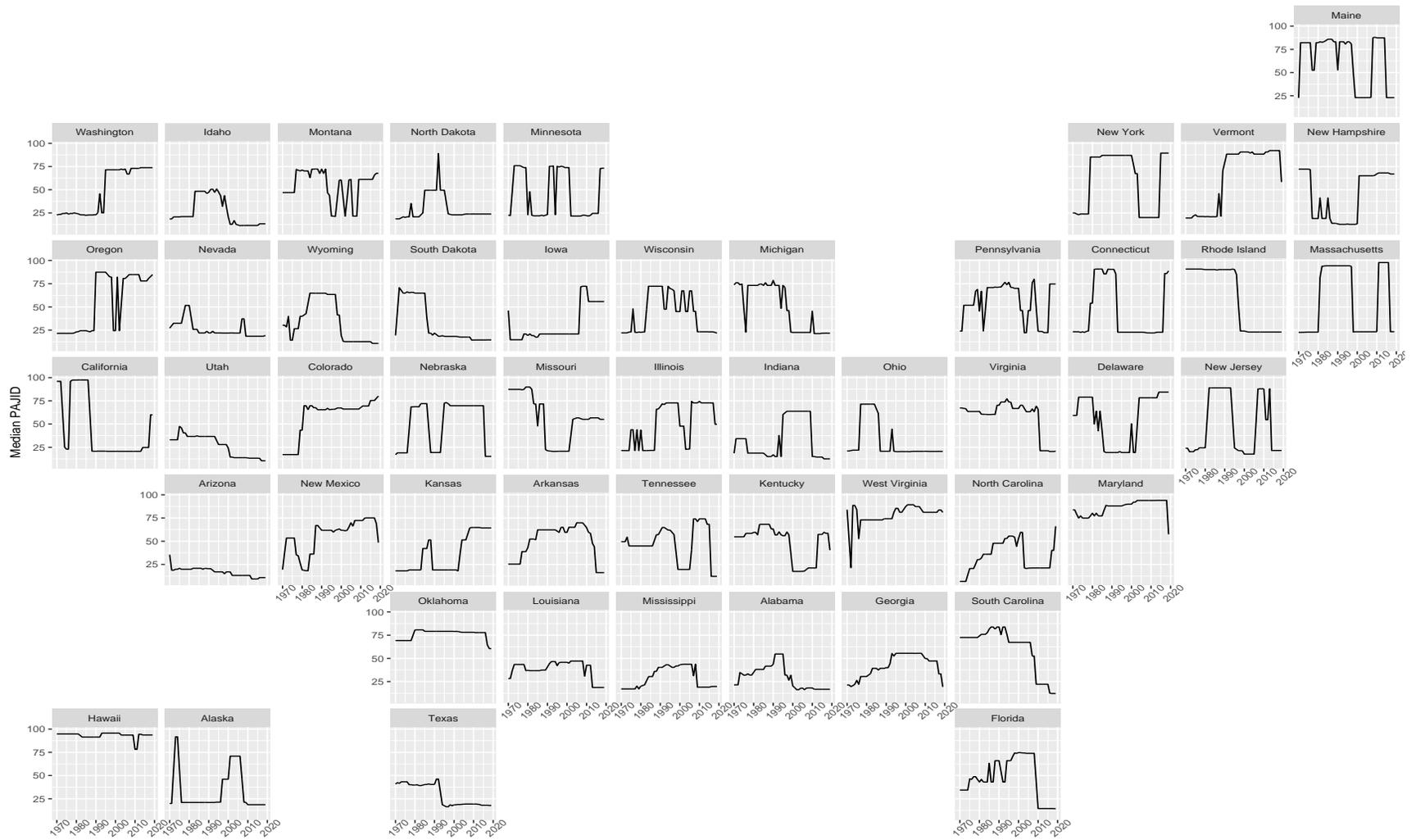


Figure 1: Median state supreme court PAJID scores by state (1970-2019)

like the American presidency, the average justice's PAJID score was 39.1. Since 1990, as the state has become more Democratic, the average justice's PAJID score increased by 24.7 points to 63.8 ($t = 9.58$). Indeed, across all states and years, Democratic justices have a mean PAJID score of 68.0 compared to just 19.2 among Republicans—a 254.7 percent difference ($t = 68.2$). Given that the updated PAJID scores comport with general expectations and knowledge of state political trends, we conclude they are facially valid measures of state supreme court ideology.

Beyond facial validity, we also examine convergence validity in our updated PAJID estimates. Convergence validity assesses whether a given measure of a concept is associated with other common measures of that concept. To do so, we examine how PAJID scores compare with (1) Partisanship, (2) Ideology as measured by Bonica and Woodruff (2015), and (3) Ideology as measured by Windett, Harden, and Hall (2015). We present the results of this analysis in Table 1, which contains correlation coefficients among the variables of interest.

First, the results demonstrate a strong, positive correlation ($r = 0.84$) between a justice's PAJID score and partisanship. This is intuitive given that PAJID scores are calculated using a judge's partisanship. Next, we find that that PAJID scores are negatively associated with Bonica and Woodruff (BW) and Windett, Harden and Hall's (WHH) estimates. This is also expected, given that PAJID is measured on a conservative-to-liberal scale, while the other two are measured on a liberal-to-conservative scale. It is worth noting that the strength of association between Bonica and Woodruff (BH) and Windett, Harden and Hall's (WHH) scores are relatively higher compared to either's association with PAJID. This likely reflects the differences in how these measures are estimated compared to PAJID. Even still, the degree of strength that PAJID correlates with these more recent ideological scores indicates relative convergence.

Table 1: Convergence validity analysis of state supreme court justice preferences

	PAJID	Democrat	BW ('15)	WHH ('15)
PAJID	1.00			
Democrat	0.84	1.00		
BW ('15)	-0.58	-0.53	1.00	
WHH ('15)	-0.47	-0.39	0.73	1.00

Notes: Table entries represent Pearson's correlation coefficients.

Our final validity check examines the construct validity of the updated PAJID scores. Construct validity assesses whether a given measure is associated with outcomes in a theoretically related concept. Drawing upon literature related to the attitudinal and strategic models which hold that judges' votes in cases are a function of their policy preferences, we examine whether updated PAJID scores are reliable predictors of judicial behavior. We also consider how favorably they compare to other, more recent ideological indicators.

For this analysis, we used a novel dataset of state supreme court cases related to abortion and capital punishment. To populate our sample, we searched Westlaw using keycite terms related to abortion and death penalty cases heard in the state supreme courts between 1970 and 2018. Our data include 218 cases (144 abortion and 74 death penalty), with a total of 1,543 judge-votes. Each justice's vote is coded as either liberal (pro-abortion or anti-death penalty) or conservative (anti-abortion and pro-death penalty). Among all votes, 51.7 percent were in a conservative direction while 48.3 percent were in a liberal direction.

Next, we employed logistic regression to model the likelihood a state supreme court justice cast a liberal vote in each case. Our primary focus is the effect of a justice's policy preference upon their vote. We estimate four separate logistic regressions using a different preference measure in each. We additionally controlled for the case issue area (abortion or death penalty), institutional selection methods (appointed or elected), along with fixed effects for the year a case occurred and the court that decided it. The results from these models appear in Table 2.

Table 2: Construct validity analysis of justice voting across four preference measures

	PAJID	Democrat	BW ('15)	WHH ('15)
Preferences	0.008* (0.003)	0.514* (0.140)	-0.436* (0.117)	-1.399* (0.413)
Controls	<i>Included in every model</i>			
N	1,459	1,493	1,061	374
χ^2	374.22*	381.64*	296.63*	106.51*
PRE	0.405	0.390	0.390	0.375

Notes: Table entries represent logistic regression coefficients (standard errors in parentheses). The dependent variable is whether a justice cast a liberal vote in a given decision (“1” if yes, “0” otherwise). Asterisks denote statistical significance ($p < 0.05$).

Our results demonstrate that the updated PAJID scores, in addition to each of the other three measures, is significantly associated with judicial voting behavior—a strong indication of construct validity. There are comparable proportional reductions in error (PRE) across all four models, which would seem to indicate that each preference measure captures a similar phenomenon. Given heterogeneous sample sizes, however, we also examine the change in the predicted probability of a liberal vote across our preference measures. For the sake of comparison, we examine changes in the predicted probability of a liberal vote given a shift in a preference measure from its minimum to its maximum.

The simplest measure under consideration is partisanship. A shift from minimum to maximum partisanship (Republican to Democrat) is associated with a 23.6 percent predicted change in the probability that a state supreme court justice casts a liberal vote, *ceteris paribus*. Next, a change from PAJID’s minimum to maximum is associated with a 35.3 percent predicted change in the probability of a liberal vote. A similar shift in Bonica and Woodruff’s (BW) measure is associated with a 123.8 percent predicted change in vote choice. Finally, a similar change in Windett, Harden and Hall’s (WHH) measure is associated with a 421.7 percent change in vote choice.

From the above results, we reaffirm Windett, Harden and Hall’s (2015) conclusion regarding the efficiency of those scores compared to other alternatives. Nevertheless, WHH scores are only available for 25.6 percent of the observations in Table 2. While Bonica and Woodruff’s (2015)

measure is the next most discriminating, it also has limits given sparse availability prior to 1990. Consequently, we conclude that if either of these former measures are of limited availability, PAJID scores are more efficient compared to rote partisanship, and are of sufficient predictive power to offer additional robustness checks on more sophisticated measures.

4. Discussion

In this work, we have updated Brace, Langer and Hall's (2000) PAJID measure of state supreme court justice ideology between 1970 and 2019. Through a series of validity tests, we offer these scores as valid and comparable to other measures of judicial ideology. While PAJID scores are not as methodologically sophisticated or discriminating as more recent efforts (Bonica and Woodruff 2015; Windett, Harden and Hall 2015), they are more readily available and of greater use compared to dichotomous measures of justice partisanship. Of the 17,092 justice-year observations we identified, updated PAJID scores are available for 96.2 percent of justice-years. By comparison, Bonica and Woodruff (2015) measures are available for 65.9 percent of all justice-years, while Windett, Harden and Hall's (2015) measure is available for only 31.7 percent. While PAJID may not be the most sophisticated measure of judicial ideology, updated PAJID ideology data should interest scholars who examine state supreme courts pre-1990 or post-2010, or who desire additional data for robustness checks.

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