Dissensual Decision-Making: Revisiting the Demise of Consensual Norms within the U.S. Supreme Court

Marcus E. Hendershot
Department of Political Science
University of Florida

Mark S. Hurwitz
Department of Political Science
Western Michigan University

Drew Noble Lanier
Department of Political Science
University of Central Florida

Richard L. Pacelle, Jr.
Department of Political Science
Georgia Southern University

Manuscript Dated: 11/17/2011

Version: 2.12

This analysis seeks to understand the decline of Supreme Court consensual norms often attributed to the failed leadership of Chief Justice Stone. A new unit of analysis—justice-level dissent and concurrence rates—supports an alternative view of observed increases in dissensual decision-making. When these measures are estimated with time-series techniques, results offer evidence of multiple changepoints in this norm of the Court that both lead and lag Stone's elevation. Broader contextual explanations related to the alteration of the Court's discretionary issue agenda, and its ideological and demographic composition, also contribute to fractures in the once unanimous voting coalitions.

> *Stone's leadership appears to be a prime cause of the Court changing from an institution emphasizing consensus to one characterized by a high level of individual expression.*
>
> *Walker, Epstein, and Dixon (1988, 384)*

Institutional changes in decision-making norms are questions of broad interest to political scientists of numerous subfields, but perhaps none is as peculiar as the one that challenges those scholars interested in the Supreme Court. Current accounts of the demise of the Court's norm of consensus all begin with a common conceptualization. Namely, this norm emerged with Chief Justice Marshall's early abandonment of *seriatim* opinions, which was a strategic attempt to establish legitimacy for a judicial branch lacking implementation powers. The practice of speaking with one voice became institutionalized and then endured in the form of unanimous opinions that obscured private disagreement taking place during conference discussions (Epstein, Segal and Spaeth 2001). In the first half of the twentieth century, the norm of consensus was shattered when justices publicly began disclosing internal conflicts in the form of concurring and dissenting opinions. And, this newly-visible conflict was the impetus for legal realist critiques (*e.g.*, Pritchett 1948), thus making it a topic of considerable importance for our knowledge of judicial decision-making.

Clearly, the seminal approach to this topic can be found in Walker, Epstein and Dixon's (1988) analysis. Utilizing an opinion-based measure of the proportion of cases with at least one concurring or dissenting opinion (Blaustein and Mersky 1978), the authors separately evaluate a number of competing hypotheses including: 1) the Judiciary Act of 1925 (hereafter, the "Judges' Bill"), which established the discretionary docket (Halpern and Vines 1977); 2) changes in Court caseload; 3) promotion of a sitting associate to chief justice; 4) alteration of the composition of

the bench; and, 5) the varying leadership (Danelski 1960; 1986) capabilities of the chief justice. In this instance, the failed social and task leadership of Chief Justice Stone—who as an associate justice bridled under the no-dissent norm and refused to enforce it—ascends to prominence as the explanation for the growing level of dissensus on the Court (*see* above caption).

Although Walker, Epstein and Dixon caution against singular focus upon the Stone-did-it narrative,[1] it has become a cornerstone of the conventional wisdom for understanding this historical transformation; despite the fact that other studies challenge the inference with time-series intervention techniques that examine these same opinion-based measures. For example, Haynie (1992) moves the transition point earlier, suggesting that the leadership of Chief Justice Hughes also played a significant role. Caldeira and Zorn (1998) add considerable nuance by modeling the cointegration that exists between concurrence and dissent relationships, with results showing that transformation exhibits a long run dynamic along with chief justice-specific variance, including significant effects for Chief Justice Hughes. Most recently, however, Spirling (2007) has applied a new Bayesian changepoint technique to these series and identified the point of transition as the 1941 term, which once again places the onus on Stone's failed leadership.

These conflicting conclusions regarding trends in the Court's dissensual decision-making are in one sense the product of competing research designs. Walker, Epstein and Dixon (1988), for instance, address a wide array of potential hypotheses, but lack a multivariate estimation strategy to test the strength of each against the other. Haynie (1992), Caldeira and Zorn (1998) and Spriling (2007) exhibit methodological rigor with respect to the timing of changes, but do not delve into the range of possible explanations that Walker, Epstein and Dixon propose. Whether the failed leadership of Stone is a simplistic explanation, or represents a straw man, past studies

of the decline of consensual norms have been wanting in some regard. Either such studies did not account for all of the variables or they failed to assess them simultaneously. Thus, an opportunity exists to further our understanding of the consensual norms of the Court with a new research design that addresses differing aspects of current strategies.

We further suspect that these alternative accounts are not solely a function of varying research designs, but may be due to a less-than-ideal measurement of the *breadth* of dissensus within the Court. Opinion-based measurement offers a valid means of capturing one component of consensus (*i.e.,* a lack of unanimity) and may even hold some advantages at addressing the intensity of dissensus at the individual justice level.[2] Within annual-macro studies, however, it can act to overstate levels of disagreement, since the existence of a concurring or dissenting opinion essentially models a single justice-level vote. Because other justices' support for concurring and dissenting positions is not captured, opinion-based measures contain an upward bias with respect to the levels of dissensus within the Court. For an opinion-based measure, a largely unified Court that includes a consistently obstinate dissenter operationally is equivalent to a sharply divided Court that decides all cases by a 5-4 minimum winning coalition.

A second issue with opinion-based measurement is the reliability of the measurement strategy across sample periods. The aggregation of the Blaustein and Mersky (1978) and Spaeth (2009) data on decisional outcomes tends to incorporate underlying disparities in case types that adversely affects the variables modeled by current studies.[3] The historical nature of this question requires a sufficiently long period of analysis, but it also encompasses several changes in working practices of the Court. The most obvious institutional adjustment is the transition to a discretionary docket, which represents a primary hypothesis; but, other less salient norm (such as opinion format and the issuance of signed opinions) may equally be important. Clear indicators

of oral argument dates do not arise until the 1899 term and, in general, signed opinions were much more prevalent in the period before the Judges' Bill. In conjunction, these two norms suggest that existing opinion-based measures may subsume early cases that are more akin to modern day *per curiam* opinions and, thus, the current measurement strategy likely is temporally biased.

To address these issues, we have conducted an intensive data-gathering effort to construct annual justice-level concurrence and dissent rates for orally argued cases between 1899 and 2004. A plot of the existing opinion-based, and new justice-level, rates of dissent for the Court can be found in Figure 1, which depicts a temporal bias within current measures that may hold considerable implications for our knowledge of consensual norms.

[INSERT FIGURE 1 ABOUT HERE]

In practice, an opinion-based measure should always be greater than a corresponding justice-level rate (*see* Supplemental Appendix A, Supplemental Figure1, and Supplemental Tables 1 and 2 for additional discussion and analysis of opinion-based measures). While this is the case for decision-making both during and after the Stone Court, the preceding period shows that a justice-level rate actually is greater than the opinion-based measure. This methodological disparity, which coincides with the Stone Court, is evidence that the term-by-term samples of decisions differ between the Blaustein and Mersky (1978) data and more recent Spaeth (2009) data. When viewing dissenting behavior on the basis of opinion production, a sharp break at the beginning of the Stone Court is observed in the opinion measure. With an alternative unit of analysis and more consistent sample construction, however, the plot reveals a more incremental rate of change across the Hughes, Stone and Vinson Courts. Therefore, we believe a broader account of change in the norm of consensus is warranted.

In the following analysis, we sketch out a new narrative of this seminal event. Utilizing the methodology that Spirling (2007) employed, we find evidence that changes in dissenting behavior take place both at the end of the Hughes Court *and* during the Stone Court. Changes in the rate of concurring votes are found under Chief Justice Stone and later under Chief Justice Warren. The application of traditional Box-Jenkins (1976) techniques to these new series suggests that this transformation in decision-making is associated with the discretionary docket and agenda change, the demographic and ideological constructs of the Court, and differences attributable to the leadership styles of Chief Justices Stone and Burger.

HYPOTHESES FOR THE DEMISE OF CONSENSUAL NORMS

Although prior studies conflict over the sources and timing of the Court's movement toward dissensual decision-making, they have adequately identified a number of suspects that are implicated in this mystery. Therefore, our focus in this instance is to adapt and modify these working hypotheses, associating them with valid explanatory variables and simultaneously evaluating them to leverage their independent effects upon the decline of the norm of consensus.

The Judges' Bill and the Discretionary Docket

Of the existing explanations, the influence of the Judges' Bill has created the greatest disagreement among scholars. Halpern and Vines (1977) have primarily advocated this perspective, which asserts that it was the Court's new-found authority to control its docket that acted as the mechanism behind the subsequent growth of dissenting and concurring opinions. In many ways, other scholars' differing views turn on the issue of timing. Walker, Epstein and Dixon (1988) note that substantial increases in dissent take place as many as 15 years after the adoption of the Judges' Bill (*see* opinion-based rate in Figure 1 above), suggesting that the

legislation did not have an immediate effect. However, we also know that adjustment to the Court's docket was incremental. Shifts in exigent and volitional agendas (Pacelle 1991; Lanier 2003), and the Court's role-change from economic policy maker to arbiter of civil liberties and rights disputes, took place over an extended period. Concurrent with the showdown over New Deal economic regulation (*e.g.,* the Court-packing episode and "switch in time that saved nine" (McKenna 2002)), the Court signaled that such a change was forthcoming.

In the now-famous Footnote 4 of *United States v. Carolene Products* (1938), then Associate Justice Stone argued that the Court should adopt a dual standard of review. In economic regulation cases, the Court should follow judicial restraint. But in civil rights and individual liberties cases, the Court should exercise judicial activism such that the interests of political minorities could be protected. This so-called "preferred position" doctrine moved from a footnote, to a dissent, and eventually to a majority opinion (Pacelle 1991). From this perspective, the heightened variance in the justice-level dissent rate taking place at this time (*see* Figure 1 above) provides visual clues that agenda formation may prove to be a more robust explanation of the demise of consensual norms than currently thought.

Demand for Litigation and "Hard Cases"

Passage of the Judges' Bill may be crucial from a slightly different stance, since it acted, in part, to erode existing constraints on the justices' freedom to pen dissenting and concurring opinions. When the final determination of more routine matters was relegated to the circuit courts of appeals, the time resources necessary to voice public disagreement became available to the Court. Subsequent increases in the demand of litigation through *certiorari* then presented it with a menu of more challenging (and, thus, contentious) disputes to resolve. With the Court's docket responding to the percolation taking place in lower courts, it increasingly comprised so-

called “hard cases” (Perry 1991), and the emergence of distinct voting blocs may be associated with changes in the relative difficulty of questions to consider. Therefore, in addition to changes in the issue types under consideration (*i.e.*, a transition from economic regulation to civil liberties and rights), a growing docket of potentially more vexing questions offers an alternative explanation for the demise of consensual norms.

Associate Justice Demographic and Ideological Composition

Distinct from those rationales involving the Court’s docket are hypotheses associated with the composition of the Court itself. The appointment of youthful, inexperienced, and therefore dissent-prone associate justices (Walker, Epstein and Dixon 1988) during the Stone Court is thought to have created an atmosphere in which disagreement could no longer be contained within conference. The concepts of youth and inexperience obviously exhibit considerable levels of correlation with each other (*i.e.*, those lacking experience tend to be youthful).[4] Given its stronger theoretical foundation, we emphasize the levels of judicial experience found throughout the sample period, since it is not only youthfulness but a lack of prior judicial background that may make a difference here (*e.g.*, Justices Black, Douglas, Frankfurter and others were drawn from executive and legislative branches).

This particular mix of new justices lacked the socialization that they might have received as lower court judges and such inexperience can serve cross purposes with respect to the working norms of the Court. Being less indoctrinated with institutional expectations of behavior, inexperienced justices could be more susceptible to the goal of speaking and being heard (Maveety, Turner and Way 2010). From the alternative perspective, the literatures on freshman, or acclimation effects (*e.g.*, Snyder 1958), indicate that the opinion writing of newly-appointed justices is constrained as they adjust to their new positions and that they may defer to more

experienced members of the Court. If the latter is in fact the case, then we should expect greater levels of individual expression as the level of experience among the associate justices increases.

The exogeneity of the dissent-prone justice hypothesis may be somewhat uncertain, since these same appointments take place within a period of historic inter-branch conflict. Franklin Roosevelt's Court-packing plan and observed changes in the vetting of nominees (Abraham 2008) point to strategic efforts to reshape the judicial branch and make its rulings more consistent with the tenets of the new majoritarian alliance (Dahl 1957). The addition of new and inexperienced justices to the bench offers a demographic explanation of this transformation, but the ideological preferences of these appointees are significant, too. The common law system and institutional adherence to precedent would presage greater levels of disagreement as these newly-appointed liberal justices sought to overturn existing conservative precedents.

Interestingly, justices allude to such effects in the period just prior to the Stone Court. In *Graves v. N.Y. ex rel O'Keefe* (1939, 487), Justice Frankfurter writes separately and speaks to the Court's past use of *seriatim* opinions within the context of reversals of precedent:

> I join in the Court's opinion but deem it appropriate to add a few remarks. The volume of the Court's business has long since made impossible the early healthy practice whereby the Justices gave expression to individual opinions. But the old tradition still has relevance when an important shift in constitutional doctrine is announced after a reconstruction in the membership of the Court. Such shifts of opinion should not derive from mere private judgment. They must be duly mindful of the necessary demands of continuity in civilized society. A reversal of a long current of decisions can be justified only if rooted in the Constitution itself as an historic document designed for a developing nation.

Thus, efforts to confer legitimacy on emerging New Deal economic precedents, and to legitimize subsequent forays into liberties and rights issue areas, may provide another compositional explanation.

Given focus upon the role of dissent in the rise of legal realist views of decision-making, it is somewhat unusual that this ideological hypothesis has not become a more central focus of the literature in this area. However, support for ideological influences within the demise of the consensual norm can be found (Hurwitz and Lanier 2004; Goff 2006) as well as in contemporary studies of collegial decision-making (Maltzman, Spriggs and Wahlbeck 2000). Accordingly, we hypothesize not only that the relative experience of the associate justices can explain this transition in part, but also that disparity in their ideological preferences may explain increases in the rates of dissenting and concurring votes.

The Idiosyncrasies of the Chief Justice

The conventional wisdom on this topic emphasizes the characteristics of the presiding chief justice. Danelski (1960; 1986) maintained that Stone's lack of leadership skills was largely responsible for the norm's decline, contending that the social and task leadership of Stone's predecessor, Hughes, were outstanding. From this standpoint, it is chief justices' abilities to effectively frame cases within conference and clear the docket (*i.e.*, task leadership) and, at the same time, to alleviate the inevitable tension that arises from the decision-making process (*i.e.*, social leadership) that contribute to unanimous outcomes.

The chief justice almost certainly exerts considerable influence in the establishment of a congenial work environment and in the transmission of Court norms during periods of membership change. Yet this position holds institutional advantages, such as priority in vote order and opinion assignment, that can either contribute or detract to a unified Court. As

Johnson, Spriggs and Wahlbeck (2005) show, the strategic use of passing votes to maintain control over opinion assignment can engender bitterness (*e.g.*, the Burger Court) and fair-play approaches contribute to greater levels of amiability (*e.g.*, the Rehnquist Court).

Past attention on Chief Justice Stone's role in the demise of consensual norms make the leadership hypothesis crucial to this study and we approach it in a two-fold manner. First, we take advantage of the justice-level unit of analysis to separately evaluate the idiosyncrasies of the chief justice position. By segregating separate series attributable to the chief and associate justices, we explore any institutional disparities in chief justice dissensus. Second, we introduce interventions for changes in chief justice leadership that will capture idiosyncratic relationships attributable to specific chief justices after controlling for competing hypotheses.

RESEARCH DESIGN

Since the effect of the Judges' Bill is a primary point of contention (*see* Halpern and Vines 1977), we focus on those cases in which the Court exhibited its greatest discretion. While the Court was burdened with a mandatory docket prior to the advent of the contemporary *certiorari* process, it still maintained some discretion over the way it could approach its workload. Although limited, the Court exhibited control over those cases it deemed worthy of oral argument and, as today, we expect that these orally-argued cases were the most salient and pressing disputes on the docket. Together, then, we argue that the most valid unit of measurement for study of the demise of consensual norms is a justice-level measurement of dissent and concurrence voting behavior within those cases granted oral argument.

To generate such measures, we have undertaken an intensive data-gathering effort to generate the population of orally-argued Supreme Court decisions between 1899 and 2004.[5] We

began by conducting Westlaw searches to identify cases receiving an oral argument before 1953.[6] The results of these searches were then merged with two databases: the Wood *et al.* (1998a; 1998b) data for terms between 1899 and 1940, and the Wood (1994) data for terms between 1941 and 1952. The merged dataset was then reconciled and all unmatched cases were crosschecked against Westlaw to determine whether an oral argument occurred. Any missing case was coded and added to the database and a search for duplicate entries was conducted with additional entries eliminated. The Spaeth (2009) database was then employed for the term years 1953 to 2004. Cases that received an oral argument and contained justice-level voting breakdowns were included in the analysis.[7] Following this search, the outcome of each case was reconciled with the justice-level votes and any discrepancy was corrected by referencing the opinion through Westlaw.[8] These data were then used to create the Court-level rates of concurrence and dissent for each term, as well as concurrence and dissent rates for the associate justices (*see* Figure 2) and the chief justice (*see* Figure 3). Both of these figures indicate that substantial increases in concurring and dissenting votes take place *prior* to the Stone Court.

[INSERT FIGURES 2 AND 3 ABOUT HERE]

We analyze our newly-generated data with two different time-series techniques. First, we replicate the changepoint analysis of Spirling (2007) with Martin, Quinn, and Park's (2011) Bayesian application. We then evaluate hypotheses related to agenda transformation, workload, demographic and ideological composition of the bench, and chief justice leadership with traditional Box-Jenkins ARIMA (1976) specifications for the Court-level, associate justice, and chief justice rates. This Box-Jenkins methodology is dependent upon the estimation of stationary series and both the dependent and independent variables exhibit unit-root, or trend, relationships. To account for this lack of stationarity, we take advantage of fractional differencing techniques

(DeBoef and Granato 1997) that are more suitable to long memory processes such as the behavior that underlie these forms of dissensual decision-making. A complete discussion of the fractional differencing related to this analysis can be found in Supplemental Appendix B and Supplemental Tables 3 and 4.

Independent Variable Construction

The data-gathering effort used to generate the above dependent variables also provides a more valid means to evaluate the effect of agenda transformation following the Judges' Bill, which eventually brought about changes in the Court's long-run docket. Issue coding for these orally argued cases is used to control for the Court's varying attention to economic issues and civil liberties and rights disputes (Pacelle 1991; Lanier 2003). We divide the orally-argued docket into five categories that identify the number of criminal, civil liberties and rights, economic, institutional power, and original/miscellaneous cases heard in each term.[9] These series are plotted in Figure 4, where the long-run transformation of the Court's agenda is evident. Economic issues account for the vast majority of orally argued cases in the period both before and after the 1925 Judges' Bill, but the Stone and Vinson Courts jointly represent a period of transition, reflecting the decline in attention to economic issues that precedes modern concentration on criminal and civil liberties disputes.

[INSERT FIGURE 4 ABOUT HERE]

In order to capture effects related to workload and demand for litigation, we control for the number of docketed cases for each term of the Court (Epstein *et al.* 2007, 62*)*. Demand for litigation incrementally increases from approximately 700 cases to 8,500 by the end of the sample. To adjust parameter scale, the raw docket measure is divided by 1000 in the following model results.

To assess the experience hypothesis, we used the Federal Judicial Center's biographical database to quantify the levels of associate justice experience on the Court at the beginning of each term.[10] We present the mean experience measure in Figure 5. The Stone Court clearly represents an outlier in terms of experience; the mean values are the lowest of any other set of natural courts. In addition to this variable, we include an exponentially declining intervention[11] series that identifies changes in chief justice leadership (Lanier 2011). This measure controls for freshman effects related to a general change in leadership of the Court. Supplementing this acclimation series are separate intervention controls[12] for each chief justice after Fuller that capture residual variance that coincides with the leadership of subsequent chief justices (*i.e.*, from Chief Justice White through Chief Justice Rehnquist).[13]

[INSERT FIGURE 5 ABOUT HERE]

The final independent variable captures changes in the ideological context of the Court. The sample period in our analysis limits the use of conventional measures of justices' preferences (*e.g.*, Segal and Cover 1989). Accordingly, we incorporate an alternative measure of ideological disparity through an adaptation of the Poole and Rosenthal (1997) DW Nominate values. We use the mean first dimension position of the appointing president's party in the Senate as a proxy for each justice's ideological position. These positions were then used to calculate the standard deviation of the collective of associate justices. This series also is presented in Figure 5, which shows the Hughes, Stone, and Vinson Courts embodying a period of considerable ideological flux. The Taft and Hughes Courts exhibit considerable amounts of dispersion among the associates, but FDR's subsequent series of appointments acted to reconstitute the Court and the standard deviation value collapses until an alternating series of Democratic and Republican appointments reestablishes degrees of dispersion within the modern era.

CHANGES IN THE COURT'S NORM OF CONSENSUS

Estimation results of the changepoint analysis can be found in Supplemental Table 5 and are graphically presented in Figure 6. Overall, neither of the newly-generated series exhibits a singular break in equilibrium. Changes in the propensity to dissent take place both in the 1938 and 1943 terms, indicating that the Court's norm of consensus was first challenged by growing levels of dissent in the later years of the Hughes Court. Dissent then reaches a more contemporary level three years after the inception of the Stone Court. Unlike the rapid fire changes exhibited in the dissent rate, the Court's concurrence activity reflects an extended period of transformation. A new equilibrium is established in 1942, or the second year of the Stone Court, and then reaches more contemporary levels 22 years later, during the last half of the Warren Court.

[INSERT FIGURE 6 ABOUT HERE]

Our initial evidence suggests that the Court's decision-making under Stone's leadership was different than his predecessors. Levels of dissent and concurrence both reach new equilibria, but the first assault on the longstanding norm of consensus actually took place in 1938. This was a period of inter-branch conflict and realization of the Court's new discretion in constructing its docket. Modern levels of support for concurring opinions transpire during the Warren Court's attention to a civil liberties agenda made possible, in part, by this new discretion. The short and sharp interval of change in dissent that traverses the Hughes and Stone Courts and the extended period of transformation in concurrence activity both point to broader explanations for the demise of the norm of consensus.

SOURCES OF DISSENT

To evaluate these broader influences, we now turn to a Box-Jenkins (1976) analysis of annual changes in Court-level, associate justice, and chief justice level dissent rates from 1899 to 2004. These results are presented in Table 1.

[INSERT TABLE 1 ABOUT HERE]

Starting with the dissent rate for the Court as a whole, we find significant parameters for the effects of agenda transformation (Pacelle 1991; Lanier 2003). Increases in the numbers of civil liberties cases are positively related to growth in the rate of dissent and greater attention to the Court's criminal agenda shows a similar but slightly less robust relationship. Economic cases, and to a lesser extent issues of institutional power, exhibit negative relationships, meaning that greater attention to these issues tended to suppress dissent on the Court. Thus, the Court's transfer of economic cases to an exigent agenda and a growing focus on civil liberties issues concomitantly contribute to the growth of dissent on the Court.

Strong support for the workload hypotheses is not found in these estimates, but the composition of the Court is a factor. Growth in ideological dispersion among the associate justices is significantly related to increases in the dissent rate, meaning that ideological polarization contributes to the production of dissent. Evidence of a freshman effect and chief justice specific variance is found. Transition in leadership of the Court induces a short, and then exponentially declining, decrease in the level of dissent that suggests a period of acclimation.

Intervention controls for the chief justices generally reflect the increased variance of the dissent rate over time, but they do offer some leverage on the relative differences between chief justices' leadership of the Court with respect to Chief Justice Fuller, who represents the null category of the model specification. The intervention parameters double in magnitude between

Chief Justice Hughes and Chief Justice Stone. After controlling for agenda change, workload, and compositional explanations, Stone is in fact unique with respect to his predecessor. Relating this to leadership capability, it would seem that Stone either lacked the social and task skills necessary to reinforce the norm of consensus or, as suggested, simply refused to enforce it (Bartee 1984; Mason 1956).[14]

As one might expect, models attributable to associate justices emulate the Court-level specification, but the segregation of the associate justices improves model performance, meaning that there are institutional differences in dissent with respect to the chief justice. Probability tests for the agenda change parameters are consistent in direction, but reveal more robust significance relationships that show the increasing attention to criminal and civil liberties issues, and corresponding decline in economic and institutional power cases, contribute to greater dissent from the associates specifically.

Ideological polarization continues to be a factor in the production of dissent, but the model now yields some evidence for an effect related to justice experience. Greater levels of associate justice experience are positively related to increases in the dissent rate.[15] This is opposite to the dissent-prone justice expectation and would indicate that associate justices are less willing to abide by the no dissent norm as they gain experience on the Court and its membership remains stable. Similarly, some marginal evidence for a positive effect of demand for litigation and the hearing of "hard cases" on the dissent rate now exists in this specification.

The isolation of the chief justice dissent rate presents an alternative view with respect to model performance. Annual time series techniques do not perform as well[16] for this singular justice rate, but they do provide a handful of useful insights. Effects related to the alteration of the Court's agenda are absent with the exception of economic cases where the parameter shows a

positive relationship. Whereas economic cases tend to suppress the level of dissent at the Court and associate justice level, they exacerbate dissent within this chief justice series. At first blush, this could appear to be an aberration, but it more likely is specific to the New Deal era when inter-branch conflict over economic policy was at a peak. The initial spike in the chief justice dissent rate (*see* Figure 3 above) takes place at this time, suggesting that Chief Justice Hughes may have been caught between a bloc of holdover justices (*e.g.,* the Four Horsemen) and FDR's New Deal appointees. Thus, the result alludes to an initial fracturing of the norm of consensus by the chief justice as he led the Court through a set of volatile economic disputes.

The remaining findings show a strong freshman effect for the chief justice, where newly appointed leaders of the Court hold their dissents as they acclimate. The individual intervention parameters again show a sizeable increase in the magnitude between the Hughes and Stone Courts, but also show a substantial growth in parameter scale between the Warren and Burger Courts. Like Stone, Chief Justice Burger is often cited for his lack of leadership on the Court (Maltz 2000; Kobylka 1989) and our results provide evidence of unique approaches to the leadership role for both.

SOURCES OF CONCURRENCE

Concurrences may represent a form of judicial egocentrism (Caldeira and Zorn 1998) and our results manifest their idiosyncratic nature in contrast to concurrent patterns of dissent. Systematic relationships within the concurrence series generally are weaker and confined to the Court-level and associate justice estimates. The associate justice results (*see* Table 2) again mimic and offer some improvement over the Court level estimates, so they are the most relevant.

[INSERT TABLE 2 ABOUT HERE]

Associate justice estimates provide some support for the effects of agenda transformation. Greater attention to institutional power issues significantly decreases the rate of concurrence. Increases in the number of economic cases similary yield a negative and borderline significant finding. Parameters controlling for attention to civil liberties and criminal issues both exhibit null relationships. It appears that a general restructuring of the Court's agenda affected the rate of concurrence, but it is not necessarily closely tied to the core components of the Court's modern agenda. Ideological dispersion among the associate justices was a significant source of growing dissent, but similar effects are not found within concurrence activity. Thus, it seems that production and support for concurring opinions may be related to non-attitudinal aspects, such as the maintenance of legal doctrine and circuit management (Corley 2010).

However, like the above findings for dissent, growing levels of experience on the Court do contribute to increases in the associate justice concurrence rate. Together these results indicate that a general fracturing of majority coalitions takes place as members of the Court gain experience and its membership remains stable. Support for an acclimation effect under new chief justices actually is more robust in terms of concurrence activity. While some evidence of a tendency for associates to hold their dissents during a change in leadership of the Court could be found, it seems that the justices are more willing to forgo opportunities, albeit temporarily, to write and support concurrences in such instances.

Finally, the chief justice specific parameters provide some insight on long run changes in concurrence and leadership capabilities. Parameters for the chief justice interventions again reflect a substantial increase in concurrence activity under Chief Justice Stone's leadership. This is to be expected given the preceding changepoint analysis (*see* Figure 6 above), but a similar increase is not found for Chief Justice Warren. In fact, his parameter exhibits a reduction in

scale versus his predecessor, Vinson. After controlling for agenda, workload, and Court composition, it seems that the establishment of modern concurrence levels did not take place during Warren's leadership. Instead, the subsequent increase associated with Chief Justice Burger would indicate that his leadership may have been responsible for cutting the remaining threads of the norm of consensus.

DISCUSSION AND CONCLUSIONS ON THE STONE HYPOTHESIS

Our results suggest a more complete account of those factors behind the demise of consensual norms upon the Court. Although the Judges' Bill and the movement to a discretionary docket *is* substantively important, it does not represent an immediate cataclysmic event. Instead, it is an influence that can be found both in the Hughes and Stone Courts, where the roots of this decline tend to be distinct, and one that continues into the subsequent Vinson and Warren Courts.

The altered political context stemming from the Great Depression and the subsequent New Deal realignment established a new American majoritarian alliance. From Dahl's (1957) perspective, it would have been the Court's task to use its discretionary docket to confer legitimacy on the new forms of economic regulation that were then emerging from the elected branches. However, a dated and highly experienced collection of associate justices (*see* Figure 5 above) comprising Republican *laissez fare* appointees held fast to established precedents that would nullify federal intervention within the economy. The Court-packing episode and the "switch in time that saved nine" (McKenna 2002) alleviated this salient inter-branch conflict, but ideological polarization and distinct voting blocs (*i.e.*, the Four Horseman versus FDR's new appointees) more frequently placed Chief Justice Hughes in a minority position (*see* Figure 3) on

these economic cases. As a leader facing threats to the Court's legitimacy and norm of consensus, Hughes appears to have placed greater emphasis on the former, which conflicted with his duty of encouraging unanimity.

The fracturing of the majority coalition under Hughes previously was obscured by the use of opinion-based measures of dissent that placed the onus for declines in unanimity squarely on Chief Justice Stone's lack of leadership skills. These results do confirm that Stone was unique, and potentially lacking, with respect to his predecessors. In fact, these results suggest that several factors could have engendered a return to equilibrium with respect to consensual decision-making. A new series of FDR appointees acted to reduce levels of ideological polarization and in time his justices constituted the Court. In contrast to the dissent-prone justice hypothesis, the addition of these inexperienced justices potentially would have curtailed the production of separate opinions, but it seems reasonable to expect that such an effect would have been predicated on stronger leadership from the center chair.

Nonetheless, other factors taking place in this period would contribute to dissensual opinions both under Stone and into the foreseeable future. The seeds that Stone himself planted in Footnote 4 would come to fruition in the Court's charting of a new course wherein it realized the potential of the discretionary docket by creating agenda space for civil liberties and criminal cases (s*ee* Figure 4 above). The rise of novel, contentious civil rights and individual liberties cases against a back drop of world war certainly contributed to the rise of dissenting behavior. But the call to arms that was Footnote 4 meant that the Court initially would be systematically and incrementally ridding itself of economic disputes by settling the law and delegating them to others. As this process was being consummated, publicly salient individual rights cases drove new wedges into a collective of associate justices that was appointed primarily on criteria related

to economic policy (Abraham 2008). Throughout the Stone, Vinson, and Warren Courts, then, an increasingly experienced Court established new equilibria for rates of dissent and concurrence.

The eventual death knell of the norm of consensus, however, seems to have taken place under the leadership of Chief Justice Burger, who too is seen as a lacking social and task leader. After controlling for agenda transformation, workload, and compositional explanations, the associate justice concurrence rate reveals yet another significant increase that represents the rise of the modern choral-Court (Maveety, Turner and Way 2010). Still, other factors continue to support these historically high levels of dissensus. The alternating series of Democratic and Republican Party appointees help maintain levels of ideological polarization that feeds dissent. In addition, a modern and more systematic vetting process for nominees, which places emphasis on candidates with prior judicial experience and clear decision-making track records, contributes to the individual expression found within modern dissenting and concurring coalitions.

As a consequence of being in the center chair, Stone principally has been held responsible for all of these institutional changes. We conclude that *Chief Justice* Stone was not a solitary source of dramatic changes in the dynamics of Supreme Court decision-making. We do find evidence consistent with a lack of social and task leadership, but these are perhaps no better or worse than those of Chief Justice Burger. He did, however, play a central part in this change. The number of unanimous decisions declined in part because of the increased discretion that the Court had over its docket whereby consensual easy cases could be relegated to the lower courts. The Court was increasingly consistent in its regulation and federalism decisions, paving the way for more attention to individual rights and liberties once the New Deal transition took hold. Ironically, *Associate Justice* Stone was the driving force behind the inception of the preferred position

doctrine, which changed the dominant philosophy of the Court and helped transform its agenda. These new issues arising in a time of a hot war and a cold war created conditions that led to sustained growth in concurring and dissenting votes. We believe it is less Stone's failure as a chief justice than his initiative in changing the paradigm of the Court that launched a thousand separate opinions.

ENDNOTES

[1] Walker, Epstein and Dixon (1988, 384) offer a qualification of their primary conclusion: "[I]t is doubtful that Stone's leadership alone can account for the abrupt alteration in Court behavior. Other conditions, which coincided with Stone's elevation, substantially enhanced the impact of his leadership style and may have been necessary, if not sufficient, factors in producing the radical change in Court norms."

[2] Opinion-based measurement may offer relative advantages in studying the intensity of disagreement for individual justices, since the act of writing a separate opinion can be seen as a stronger form of dissensus than merely signing onto the dissenting or concurring opinion.

[3] The *Supreme Court Compendium* (Epstein *et al*. 2007, 231), which offers the opinion-level data, notes issues of measurement error: "Due to ambiguity in the description of data prior to the 1946 term, we cannot determine whether data represent the number of dissenting opinions or the number of cases with dissenting opinions. Hence, the proportion may not be comparable across all terms." This, in fact, is the case as a comparison of existing opinion-based measures versus alternative justice-level rates reveals sample disparities in the period prior to Justice Stone's leadership of the Court.

[4] The Pearson correlation coefficient between the first-differenced age and experience mean values is inordinately high at .86, which could introduce problems of multicollinearity.

[5] The beginning of the sample is governed by the change in opinion format at the 1899 term and covers decisions from the middle of the Fuller Court through the Rehnquist Court.

[6] The Spaeth (2009) database begins in 1953 or the first term of the Warren Court. The Westlaw search was conducted for Supreme Court decisions with date fields set to October 1st and

September 30th of each term and with the search terms “argued” and “decided” within a single paragraph (e.g., "ARGUED" /P "DECIDED" & da(aft 10/01/1899 & bef 9/30/1900)).

[7] These cases reference the case level unit of analysis (ANALU = 0) and comprise the Court’s formally decided cases – orally argued cases with signed opinions, orally argued per curiams and judgments of the Court (DEC_TYPE 1, 6, and 7 respectively). Cases decided by an equally divided Court (DEC_TYPE 5) clearly are relevant to this study, but typically do not identify justice-level votes and are excluded from the analysis.

[8] These votes were segregated into four categories on the basis of the Spaeth (2009) coding scheme. Support for the majority opinion is identified by VOTE types 1 and 6. Concurring votes are identified by VOTE types 3 and 4. Dissenting votes are identified by VOTE types 2, 7, and 8, and non-participation is represented by VOTE type 5.

[9] These categories are based upon the Spaeth (2009) issue area categories (ISSUE and VALUE). Criminal cases are identified by 1 (criminal procedure). Civil liberties and rights cases are identified by 2 (civil rights), 3 (First Amendment), 4 (Due Process), and 5 (privacy). Economic cases are identified by 6 (attorneys), 7 (unions), 8 (economic activity), and 12 (federal taxation). Institutional power cases are identified by 9 (judicial power) and 10 (federalism). The original docket cases are identified by 11 (interstate relations), 13 (miscellaneous), and 14 (separation of powers), which the Wood, *et al* (1998a; 1998b) database codes.

[10] The Federal Judges’ Biographical Database can be found on the Federal Judicial Center’s website (www.fjc.gov). The experience measure includes the years of judicial experience at any level (*i.e.*, local, state, or federal service) and increased with each year of service on the Court.

Any existing vacancies at the beginning of the term were coded as missing observations, meaning that a midterm appointee is recorded at the beginning of the justice's first full term.

[11] This series is created by the function: exp(1)/exp(chief justice's year of service). It takes on a value of 1 in each chief justice's first year of service and exponentially declines to the end of the chief justice's service on the Court.

[12] Some debate exists over the use of dichotomous interventions in time-series analysis because of their effects on residual diagnostics and the bluntness of theoretical connection (i.e., the ability to parse variance with respect to something ambiguous like leadership capability). Continuous independent variables are preferred, but previous works (Haynie 1992; Caldeira and Zorn 1988) adopt them and we replicate the practice. The results of the intervention controls offer a sense of changes in dissensual rates with a null category of Chief Justice Fuller, after controlling for agenda change, ideological disparity, associate justice experience, and a uniform chief justice freshman effect. Most of the intervention parameters show some level of statistical significance, so the interpretation of these relationships is predicated on changes in the parameter scale or the incremental increases of the parameters corresponding to new leadership of the Court.

[13] The Stone narrative suggests that his prior service as an associate justice played a role in the demise of the norm of consensus. Using the chief justice interventions, one can gain some insight on this through the evaluation of the other elevated chief justices (*i.e.*, White and Rehnquist) in the following results, which do not tend to support the hypothesis.

[14] Fractional differencing adequately controls for the presence of autoregressive relationships within the dissent series, but a lagged residual control (*i.e.*, the MA(1) term) is statistically significant, indicating that a serial residual component can still be found within the series. In this

instance, it is equivalent to a random walk relationship that allows for amounts of exponential smoothing and growth within the Court's dissent rate as interventions occur.

[15] The parameter for justice experience in the associate justice estimation would be significant at the traditional .05 significance level with a single tailed test. The control for the number of cases on the Court's docket would be significant at a relaxed .10 significance level with a single tailed test.

[16] In addition to the lack of previously significant parameters for the agenda, workload, and composition parameters, the significance of the MA(1) serial component in this specification is much weaker, which indicates that chief justice dissent is a more simple random walk process. The same could be said of the following concurrence rate models. While it is possible to drop the MA(1) parameter in each instance, we continued to include it as it proved beneficial when conducting and evaluating the residual diagnostics.

REFERENCES

Abraham, Henry J. 2008. *Justices, Presidents, and Senators: A History of the U.S. Supreme Court Appointments from Washington to Bush II. 5th ed.* Lanham: Rowman & Littlefield.

Bartee, Alice Fleetwood. 1984. *Cases Lost, Causes Won*. New York: St. Martin's.

Blaustein, Albert P., and Roy M. Merskey. 1978. *The First One Hundred Justices: Statistical Studies on the Supreme Court of the United States*. Hamden: Archon Books.

Box, George E.P. and Gwilym M. Jenkins. 1976. *Time Series Analysis: Forecasting and Control*. San Francisco: Holden

Caldeira, Gregory A., and Christopher J.W. Zorn. 1998. "Of Time and Consensual Norms in the Supreme Court." *American Journal of Political Science* 42 (July): 874-902.

Corley, Pamela C. 2010. *Concurring Opinion Writing on the U.S. Supreme Court*. State University of New York Press, 2010.

Dahl, Robert A. 1957. "Decision-Making in a Democracy: The Supreme Court as a National Policy-Maker." *Journal of Public Law* 6: 279-95.

Danelski, David J. 1960. "The Influence of the Chief Justice in the Decisional Process of the Supreme Court." In, *Courts, Judges, and Politics,* eds. Walter F. Murphy and C. Herman Pritchett. 4th ed. New York: Random House.

Danelski, David J. 1986. "Causes and Consequences of Conflict and Its Resolution in the Supreme Court." In *Judicial Conflict and Consensus: Behavioral Studies of American Appellate Courts*, eds. Sheldon Goldman and Charles M. Lamb. Lexington: University Press of Kentucky.

De Boef, Suzanna, and Jim Granato. 1997. "Near-Integrated Data and the Analysis of Political Relationships." *American Journal of Political Science* 41 (April):619-40.

Epstein, Lee, Jeffrey A. Segal, and Harold J. Spaeth. 2001. "The Norm of Consensus on the Supreme Court." *American Journal of Political Science* 45 (April): 362-77.

Epstein, Lee, Jeffrey A. Segal, Harold J. Spaeth, and Thomas G. Walker. 2007. *The Supreme Court Compendium: Data, Decisions and Developments, 4th ed*. Washington, DC: CQ Press.

Goff, Brian. 2006. "Supreme Court Consensus and Dissent: Estimating the Role of the Selection Screen." *Public Choice* 127 (June): 375-91.

Graves v. N.Y. ex rel. O'Keefe. 1939. 306 U.S. 466.

Halpern, Stephen C. and Kenneth N. Vines. 1977. "Institutional Disunity, the Judges' Bill and the Role of the Supreme Court." *Western Political Quarterly* 30 (December): 471-83.

Haynie, Stacia L. 1992. "Leadership and Consensus on the U.S. Supreme Court." *Journal of Politics* 54 (November): 1158-69.

Hurwitz, Mark S. and Drew Noble Lanier. 2004. "I Respectfully Dissent: Consensus, Agendas, and Policymaking on the U.S. Supreme Court, 1888–1999." *Review of Policy Research* 21 (May): 429-45.

Johnson, Timothy R., James F. Spriggs II, and Paul J. Wahlbeck. 2005. "Passing and Strategic Voting on the U.S. Supreme Court." *Law & Society Review* 39 (June): 349-77.

Kobylka, Joseph 1989. "Leadership on the Supreme Court: Chief Justice Burger and Establishment Clause Litigation." *Western Political Quarterly* 42 (December): 545-69.

Lanier, Drew Noble. 2003. *Of Time and Judicial Behavior: U.S. Supreme Court Agenda-Setting and Decision-Making, 1888-1997*. Susquehanna: Susquehanna University Press.

Lanier, Drew Noble. 2011. "Acclimation Effects and the Chief Justice: The Influence of Tenure on the Decisional Behavior of the Court's Leader, 1888-2007." *American Politics Research* 39 (July): 682-723.

Maltz, Earl M. 2000. *The Chief Justiceship of Warren Burger, 1969-1986.* Columbia: University of South Carolina Press.

Maltzman, Forrest; James F. Spriggs II, and Paul J. Wahlbeck 2000. *Crafting Law on the Supreme Court: The Collegial Game*. New York: Cambridge University Press.

Martin, Andrew D., Kevin M. Quinn, and Jong Hee Park. 2011. "MCMCpack: Markov chain Monte Carlo in R." *Journal of Statistical Software* 42 (June).

Mason, Alpheus T. 1956. *Harlan Fiske Stone: Pillar of the Law.* New York: Viking.

Maveety, Nancy, Charles C. Turner, and Lori Beth Way. 2010, "The Rise of the Choral Court: Use of Concurrence in the Burger and Rehnquist Courts." *Political Research Quarterly* 63 (September): 627-39.

McKenna, Marian C. 2002. *Franklin Roosevelt and the Great Constitutional War: The Court-Packing Crisis of 1937.* New York: Fordham University Press.

Pacelle, Richard L., Jr. 1991. *The Transformation of the Supreme Court's Agenda: From the New Deal to the Reagan Administration*. Boulder: Westview.

Perry, H. W., Jr. 1991. *Deciding to Decide: Agenda Setting in the United States Supreme Court*. Cambridge: Harvard University Press.

Poole, Keith T., and Howard Rosenthal. 1997. *Congress: A Political-Economic History of Roll Call Voting.* New York: Oxford University Press.

Pritchett, C. Herman. 1948. *The Roosevelt Court: A Study in Judicial Politics and Values, 1937-1947*. New York: Macmillan.

Segal, Jeffrey A., and Albert D. Cover. 1989. Ideological Values and the Votes of U.S. Supreme Court Justices. *American Political Science Review* 83 (June): 557-65.

Snyder, Eloise C. 1958. "The Supreme Court as a Small Group." *Social Forces* 36 (March): 232-

38.

Spaeth, Harold J. 2009. *The Original United States Supreme Court Judicial Database 1953-2008 Terms*. East Lansing: Michigan State University.

Spirling, Arthur. 2007. "Bayesian Approaches for Limited Dependent Variable Change Point Problems." *Political Analysis* 15 (September): 387-405.

United States v. Carolene Products Co. 1938. 304 U.S. 144.

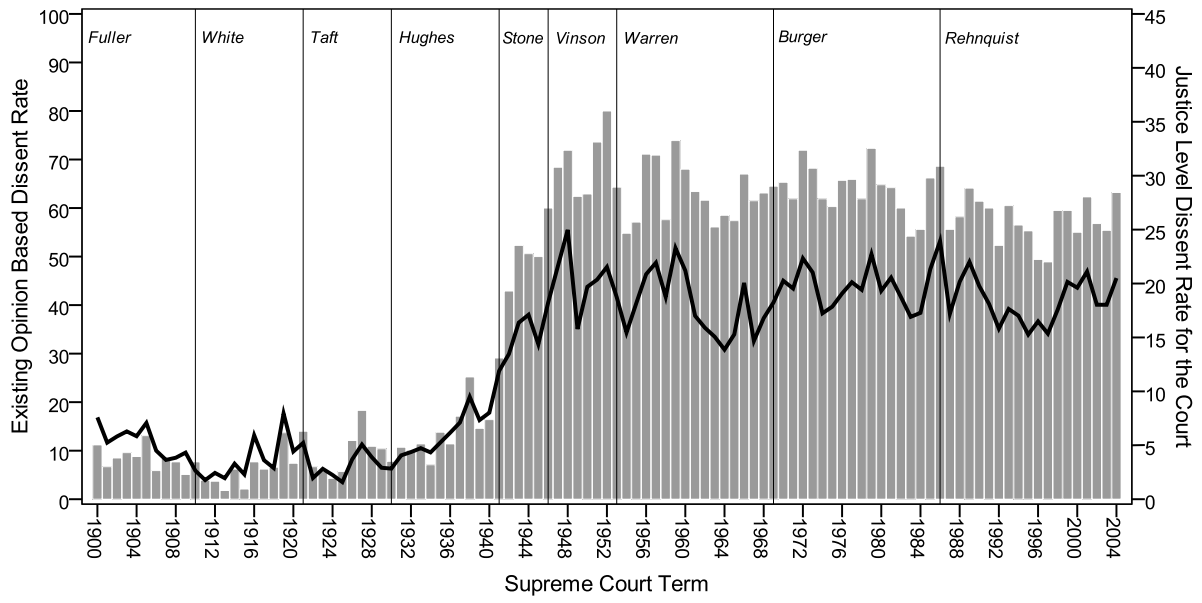
Walker, Thomas G., Lee Epstein, and William J. Dixon. 1988. "On the Mysterious Demise of Consensual Norms in the United States Supreme Court." *Journal of Politics* 50 (May): 361-89.

Wood, Sandra L. 1994. *In the Shadow of the Chief: The Role of the Senior Associate Justice on the United States Supreme Court*. Unpublished Ph.D. Dissertation, University of Minnesota

Wood, Sandra L., Linda Camp Keith, Drew Noble Lanier, and Ayo Ogundele. 1998a. "Acclimation Effects for Supreme Court Justices: A Cross Validation, 1888-1940." *American Journal of Political Science* 42 (April): 690-97.

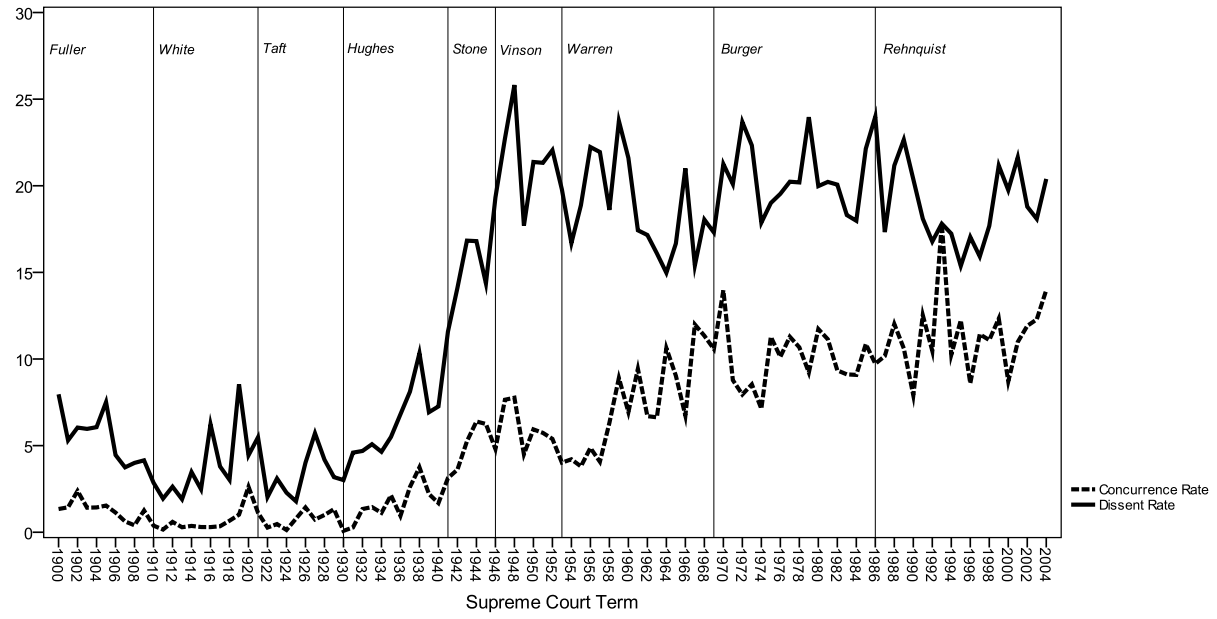
Wood, Sandra L., Linda Camp Keith, Drew Noble Lanier, and Ayo Ogundele. 1998b. "The Supreme Court 1888-1940: An Empirical Overview." *Social Science History* 22 (Summer): 201-24.

Figure 1: Court-Level Dissent - Opinion Measures Versus Justice Level Votes



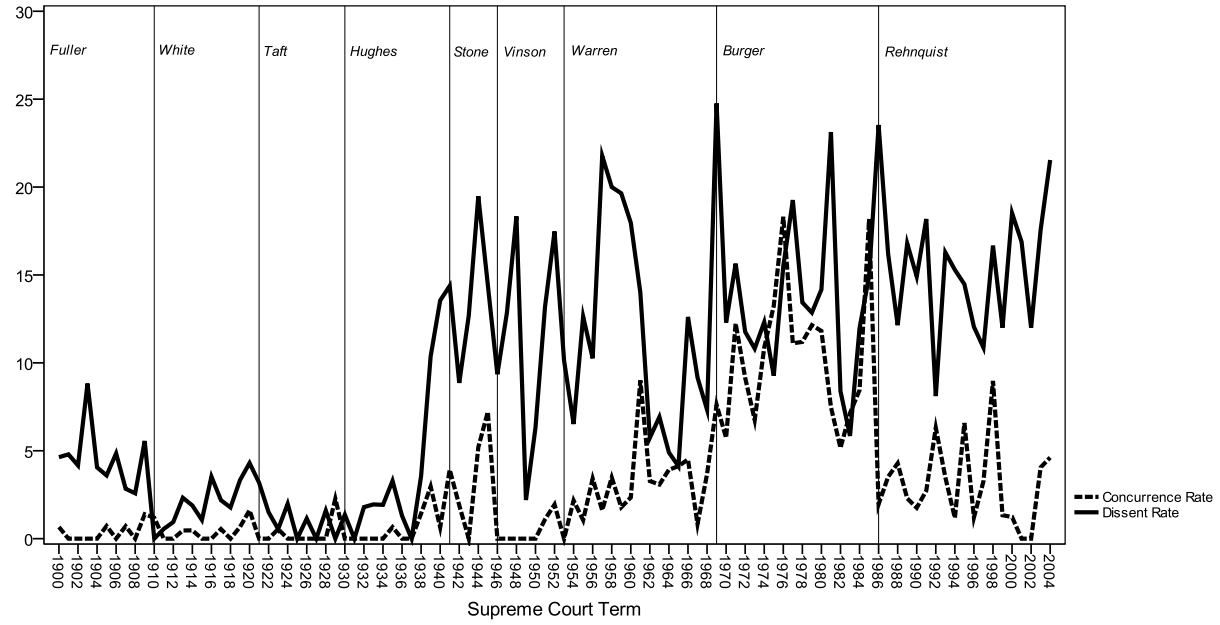
Note: The existing opinion-based series is expressed as bars, as derived from the *Supreme Court Compendium* (Epstein *et al.* 2007), and represents the proportion of cases with at least one dissenting opinion in each term. The justice-level series is expressed as a linear projection and is the number of dissenting votes in orally argued cases expressed as a proportion of all votes cast in each term. The alternative scales represent the theoretical maximum values of the two measures. Opinion-based measures have a maximum value of 100%, since all decisions potentially may have a dissenting opinion. At the justice level the greatest value of dissent would be roughly 45% or the possibility that all decisions are decided by a 5-4 minimum winning coalition.

Figure 2: Associate Justice Dissent and Concurrence Rates in Orally Argued Cases



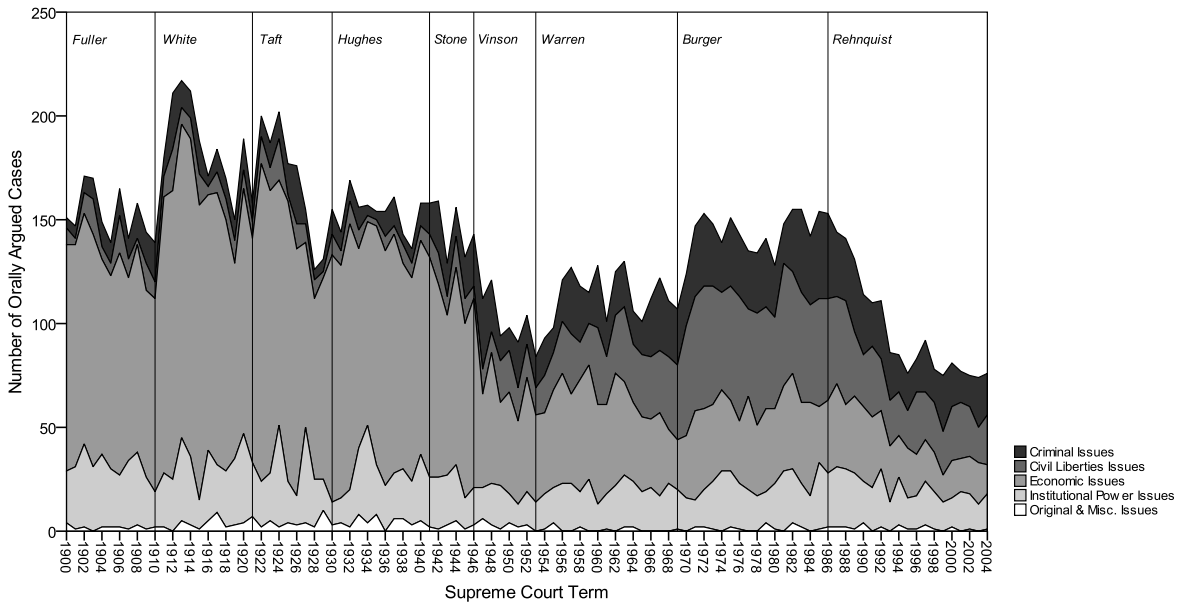
Note: Projections represent the number of associate justice dissenting votes and concurring votes expressed as a proportion of all associate justice votes cast in each term.

Figure 3: Chief Justice Dissent and Concurrence Rates in Orally Argued Cases



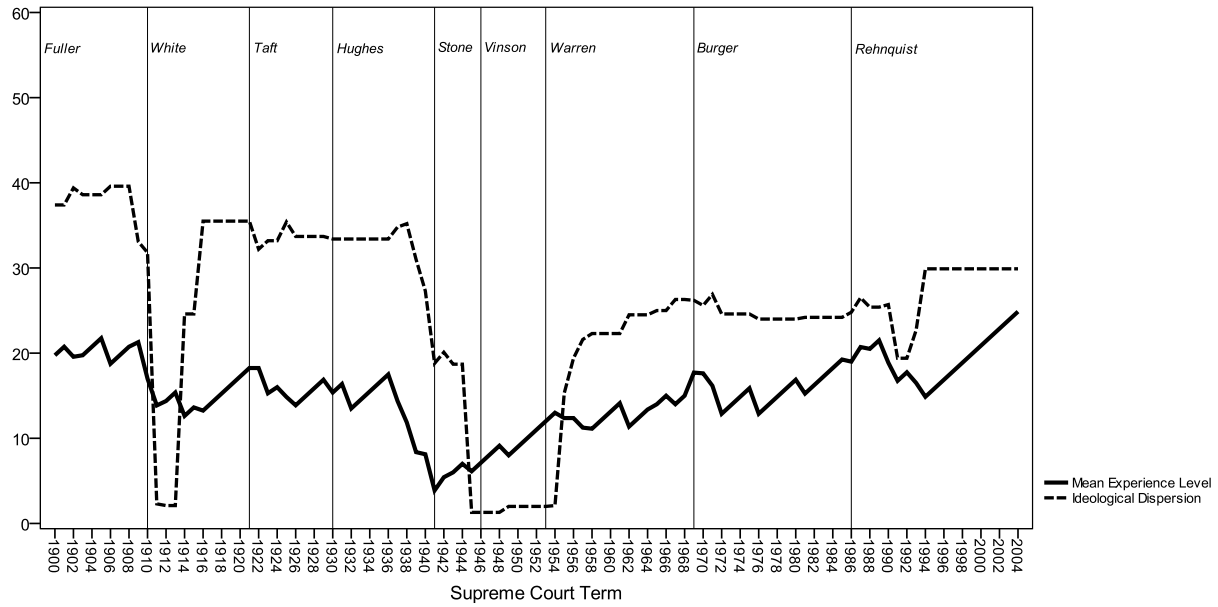
Note: Projections represent the number of chief justice dissenting votes and concurring votes expressed as a proportion of all chief justice votes cast in each term.

Figure 4: Supreme Court Agenda Transformation



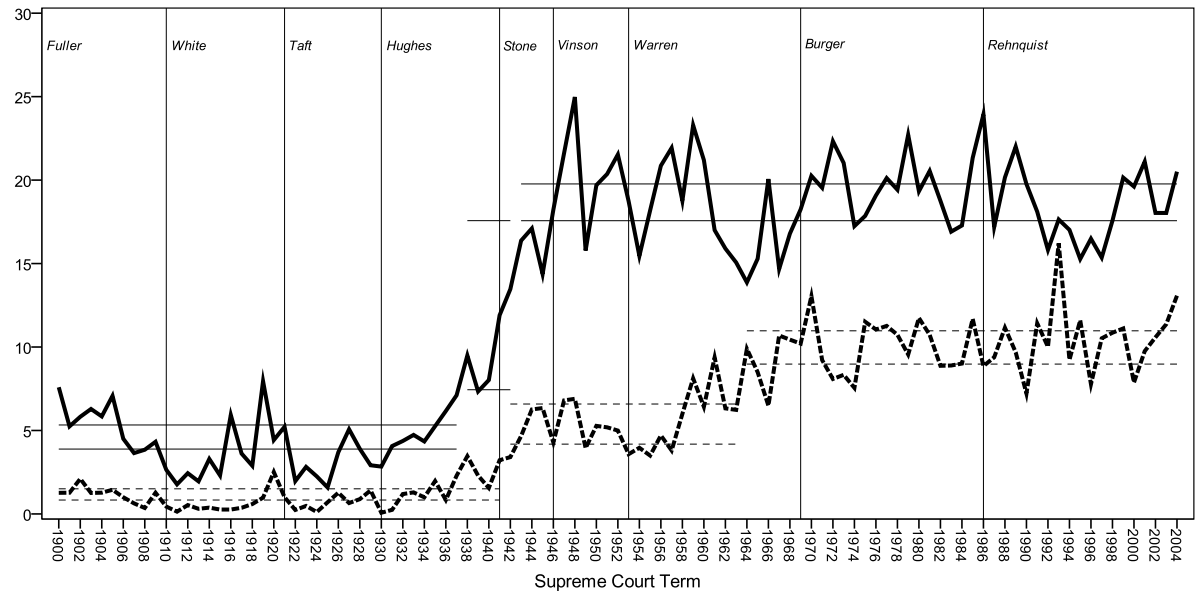
Note: Sample represents all orally argued cases. The Spaeth *Supreme Court Database* (2009) coding scheme is used to identify issue types. Civil liberties issues are an aggregate category of civil rights, First Amendment, Due Process, and privacy cases. Economic issues are an aggregate category of union, economic activity, federal taxation, and attorney cases. Institutional power issues are an aggregate category of judicial power and federalism cases. Original issues are an aggregate category of interstate relations, separation of powers, and miscellaneous cases.

Figure 5: Associate Justice Experience and Ideological Dispersion



Note: Data on justice experience are derived from the *Federal Judicial Center* and includes prior years of service as a judge at the local, state, and federal levels and are calculated at the beginning of each term of the Court. Ideological measurements are based upon the first dimension Poole and Rosenthal (1997) DW Nominate values, with each justice's position identified by the appointing presidential party mean in the Senate. The standard deviation values are calculated at the beginning of each Court term and are multiplied by 100 for scale.

Figure 6: Changepoint Analysis of Supreme Court Dissent and Concurrence



Note: Projections represent the number of dissenting votes (solid lines) and concurring votes (dashed lines) expressed as a proportion of all votes cast in each term. 95% confidence intervals are presented for each series and are derived from a Bayesian Poisson Changepoint analysis (Martin, Quinn and Park 2011). Information on the specification can be found in a web appendix – Supplemental Table 3.

Table 1: Box-Jenkins Estimates of Dissent Rates in Orally Argued Cases 1899–2004

	Court-level Estimates			Associate Justice Estimates			Chief Justice Estimates		
	β	(s.e.)	ρ	β	(s.e.)	ρ	β	(s.e.)	ρ
Criminal Cases	.06	.036	.10	.07	.030	.03	-.04	.088	.66
Civil Liberties Cases	.05	.015	.001	.07	.018	.000	.03	.036	.43
Economic Cases	-.04	.021	.05	-.05	.021	.02	.04	.023	.07
Institutional Power Cases	-.04	.022	.10	-.05	.026	.09	-.02	.027	.45
Original & Misc. Cases	.12	.134	.38	.15	.123	.22	-.20	.266	.46
Cases on Docket[a]	1.07	.892	.24	1.18	.832	.16	.49	2.240	.83
AJ Ideology $_{(\text{std dev})}$[b]	.11	.018	.000	.12	.015	.000	-.01	.038	.74
AJ Experience $_{(\text{mean})}$	.16	.138	.24	.20	.109	.07	.10	.253	.70
CJ Freshman Effect	-2.11	1.211	.09	-1.79	1.184	.14	-8.07	1.154	.000
CJ White	5.16	1.433	.001	5.48	1.544	.001	3.54	2.296	.13
CJ Taft	6.36	2.348	.01	6.36	2.420	.01	10.89	2.576	.000
CJ Hughes	8.48	3.054	.01	8.23	3.040	.01	16.31	3.66	.000
CJ Stone	16.64	4.470	.000	16.69	4.244	.000	28.47	4.962	.000
CJ Vinson	21.74	5.026	.000	22.61	4.628	.000	32.02	6.033	.000
CJ Warren	21.80	6.622	.001	22.72	6.042	.000	35.62	6.701	.000
CJ Burger	24.75	7.553	.002	23.53	6.947	.001	60.17	8.007	.000
CJ Rehnquist	29.60	8.898	.001	27.32	8.217	.001	78.09	9.228	.000
Constant Value	-.31	.282	.28	-.38	.282	.18	1.27	.476	.01
MA(1)	-.35	.126	.01	-.40	.117	.001	.16	.111	.17
N observations		104			104			104	
R^2 value		.30			.35			.26	
Durbin Watson Statistic		1.96			1.97			2.01	
Breusch-Godfrey Test		.39	.96		.32	.98		.59	.84
White Heteroskedasticity		.68	.83		.61	.89		1.05	.42

Note: Estimations conducted after fractionally differencing of the series. Newey-West HAC consistent/pre-whitened standard errors (AIC; 4 lags) are presented along with two-tailed probability tests. [a] Series divided by 1000 for parameter scale. [b] Series multiplied by 100 for parameter scale. Breusch-Godfrey serial correlation test with 11 lags (H_0: residuals do not exhibit serial correlation). White Heteroskedasticity test (H_0: residuals are homoskedastic).

Table 2: Box-Jenkins Estimates of Concurrence Rates in Orally Argued Cases 1899–2004

	Court-level Estimates			Associate Justice Estimates			Chief Justice Estimates		
	β	(s.e.)	ρ	β	(s.e.)	ρ	β	(s.e.)	ρ
Criminal Cases	.01	.028	.84	-.00	.031	.97	.04	.034	.27
Civil Liberties Cases	.00	.032	.96	-.01	.026	.79	.04	.057	.55
Economic Cases	-.01	.011	.21	-.02	.011	.11	.00	.027	.92
Institutional Power Cases	-.03	.021	.11	-.04	.018	.02	.01	.027	.74
Original & Misc. Cases	-.18	.143	.22	-.22	.171	.19	.07	.073	.31
Cases on Docket[a]	.79	1.91	.68	1.07	.948	.26	-.55	1.329	.68
AJ Ideology (std dev)[b]	-.01	.026	.61	-.00	.020	.90	-.09	.073	.23
AJ Experience (mean)	.14	.054	.01	.16	.075	.03	.01	.173	.96
CJ Freshman Effect	-2.45	.501	.000	-2.53	.625	.000	-2.69	3.379	.43
CJ White	1.42	.913	.12	1.85	1.020	.07	-1.28	4.108	.76
CJ Taft	2.93	1.361	.03	3.54	1.431	.02	-.35	6.348	.96
CJ Hughes	3.21	1.825	.08	3.71	1.924	.06	.25	8.679	.98
CJ Stone	6.23	2.199	.01	6.69	2.440	.01	4.68	11.668	.69
CJ Vinson	7.65	2.677	.01	8.75	2.889	.003	2.20	14.393	.88
CJ Warren	7.19	3.316	.03	7.93	3.818	.04	3.29	17.563	.85
CJ Burger	11.22	3.908	.01	11.95	4.566	.01	9.96	20.772	.63
CJ Rehnquist	13.14	4.630	.01	15.22	5.382	.01	1.25	22.862	.96
Constant Value	.85	.252	.001	.97	.316	.003	.45	.317	.16
MA(1)	-.23	.241	.35	-.24	.184	.19	.04	.140	.78
N observations		104			104			104	
R^2 value		.16			.16			.27	
Durbin Watson Statistic		1.98			2.00			2.01	
Breusch-Godfrey Test		1.14	.35		1.22	.29		1.84	.06
White Heteroskedasticity		.47	.97		.46	.97		.50	.96

Note: Estimations conducted after fractionally differencing of the series. Newey-West HAC consistent/pre-whitened standard errors (AIC; 4 lags) are presented along with two-tailed probability tests. [a] Series divided by 1000 for parameter scale. [b] Series multiplied by 100 for parameter scale. Breusch-Godfrey serial correlation test with 11 lags (H_0: residuals do not exhibit serial correlation). White Heteroskedasticity test (H_0: residuals are homoskedastic).