# PRECEDENT AND PROCEDURAL DUE PROCESS: POLICYMAKING IN THE FEDERAL COURTS

### INTRODUCTION

It is obvious, although perhaps not readily admitted, that the courts play a central role in making policy. Each disposition that becomes part of a legal doctrine affects the interpretation of previous authority and influences future dispositions—that is the nature of precedent. Given this characteristic, it is also true that the district and circuit courts play a profoundly important role; the sheer number of cases those courts hear means that their influence is far-reaching. The U.S. Supreme Court may be more visible and more academically attended to, but it is the lower courts that handle the bulk of the work in the legal system. Consequently, in order to understand how the courts influence policy, it is critically important to study the dispositions of the district and circuit courts.

Despite the central role of the lower courts, the state of the scholarship in this area is such that they are largely ignored—especially the federal district courts. A fair number of books and articles deal with decision-making in the Supreme Court; fewer focus on the courts of appeals. Those that do tend to consider abstract questions, looking at how "the courts" make decisions and how "law" is formulated. My interest is both broader and more specific. I am interested in how both the district and circuit courts use and apply Supreme Court precedent as they are judging; I am interested in whether and how the courts apply any or all of the broader theoretical conceptions of how to use precedent while they complete their daily work.

Precedent is a unique political institution. It is a foundational and familiar piece of U.S. law, but at the same time, it remains somewhat mystical. The legal realists helped to begin a more grounded and pragmatic study of precedent and its uses, forcing scholars to abandon the idea that law was imbued with a "pristine autonomy" and recognize precedent as a policy tool.<sup>1</sup> But in many aspects of the culture, the idea still prevails that applying precedent in some mechanistic manner will yield an objectively correct legal result.

This reverence of precedent as an institution means that it remains rather insulated from public scrutiny. Because it is relatively difficult to understand and learn precedent, only the controversial cases tend to draw much public attention. Thus, the majority of the judiciary's cases goes unscrutinized by the public.<sup>2</sup>

It is those largely unscrutinized cases with which I am concerned. It is relatively easy to discover how courts operate in the more controversial substantive areas. But what happens in the vast majority of cases that draw no public scrutiny? How do courts operate between Supreme Court cases providing direction in the area?

In order to understand how the lower courts behave between major pronouncements from the Supreme Court, I have examined decisions that fall under the rubric of procedural due process. I have chosen to use procedural due process because it is an important area of law—one that pits individual liberties questions against concerns about workable and efficient government. Procedural due process has an added benefit—it is something that the courts deal with regularly.

<sup>1.</sup> ROBERT C. POST, CONSTITUTIONAL DOMAINS: DEMOCRACY, COMMUNITY, MANAGEMENT 1 (1995).

<sup>2.</sup> For a discussion on extracting precedent from judicial opinions, see Evan H. Caminker, *Precedent and Prediction: The Forward-Looking Aspects of Inferior Court Decisionmaking*, 73 TEX. L. REV. 1, 10–16 (1994).

Because lower courts behave differently in different substantive areas, primarily because of perceived differences in expertise in certain areas,<sup>3</sup> it is important to consider an area where most judges believe they are competent enough to handle the cases without deferring widely to someone viewed as an expert.

My study involved a statistical analysis of 252 cases from the federal district courts and the federal courts of appeals. The sample includes 152 cases from the courts of appeals and 100 federal district court cases. After reading those cases, I coded them using fourteen variables that appeared frequently in the Supreme Court opinions that set the rules of the doctrine. The data are divided into five subsets to correspond to the time periods surrounding these "signpost" cases, which I describe in more detail below. I then built a series of models to identify trends among the different cases. These models indicate that the lower courts respond to guidance and trends from the Supreme Court. Thus, my research suggests that, at least in the realm of procedural due process, courts do not flout precedent, even if they disagree with it. This finding is not shocking in itself, but in a time when many judges are maligned as rogue politicos, it is contrary to prevailing wisdom.

This paper proceeds in three general parts. In Part I, I explore the theory and explain the background legal framework of judicial decision-making and the policymaking role of the courts. In Part II, I explain procedural due process in considerably more detail, focusing in particular on the signpost cases. Finally, in Part III, I present my examination of the lower court cases and discuss my research and conclusions more broadly to consider how what I have found comports with generally accepted theories about how courts behave.

# I. BACKGROUND AND THEORY

The structure of the judicial system ensures that the lower courts play a central role in shaping the law. Since the lower courts hear cases first, they are left to grapple with any points unanswered in current precedent. Sheer numbers amplify the impact that lower courts have on shaping policy; because the Supreme Court simply cannot hear all the cases that might affect doctrine, it is often the lower courts that determine the direction the doctrine will move. Thus, as David Klein notes, the lower courts may "possess the power to affect legal policy independently and substantially."<sup>4</sup>

<sup>3.</sup> David Klein argues that courts behave differently depending on how well suited they believe themselves to be to handle the problems facing them. Courts repeatedly handle certain types of cases. Search and seizure, for example, is very common in the federal courts. Since judges face these types cases so regularly, the vast majority of judges do not perceive that judges on superior courts or particular judges of coordinate rank have any expertise advantage that deserves deference. In cases where judges are less surefooted, however, they are more likely to take advantage of the apparent expertise of their colleagues. In some antitrust or environmental cases, judges believe the complexity of the field requires them to rely on perceived experts. DAVID E. KLEIN, MAKING LAW IN THE UNITED STATES COURTS OF APPEALS 67–68 (2002).

<sup>4.</sup> KLEIN, *supra* note 3, at 4 (2002). Klein writes:

The truth, well known but often overlooked in the media and even in serious scholarship, is that lower court judges play a major role in the development of legal doctrine. Issues reach them first, and higher courts might not address those issues for years afterward if in fact they ever do. Furthermore, in many systems courts of equal authority are not bound to heed, or even take note of, one another's decisions when deciding their own cases, even when they are constructing legal policy from the same statutes, constitutional provisions, or higher court precedents.

Scholars have developed a number of theories about how courts (and the judges who sit on them) approach legal problems. In this Part, I first explain some of those theories about decision-making in a hierarchical system. I then move on to describe research on judicial decision-making in particular. I close with a consideration of the role that precedent plays in a hierarchical system.

# A. Decision-making in a Hierarchical Judicial System

A study of judicial decision-making first requires recognition of a simple fact: the motivations that might influence decision-making operate on a number of levels, from that of the individual judge to larger institutional and structural concerns. A judge might be influenced by her own nuances, which might lead to a decision-making style that diverges widely from her colleagues. But on the other hand, general norms about what it means to judge well might have an equalizing effect.<sup>5</sup> And the two things operating together are likely to combine to yield an altogether different impact. Given the nature of human reasoning, this complex interplay of factors ought to come as no surprise. Some observers, scholars and laypersons alike, however, have a tendency to view legal reasoning as essentially divorced from human reasoning. That is, they seem to believe that something inherent in the nature of legal reasoning elevates it to something more scientific.

Decision-making theory is a broad, rich area of scholarship—one that could easily consume the majority of any paper. My goal here is not to recount the whole of the field but instead to provide the background necessary to examine my data. In particular, I consider the two major models of judicial decision-making: the precedent and proxy models.

# 1. THE PRECEDENT MODEL OF JUDICIAL DECISION-MAKING

Most scholars who study judicial decision-making at the level of the inferior courts adhere to the "precedent model" of decision-making, and my work suggests that this approach is generally correct although perhaps not fully descriptive.<sup>6</sup> The precedent model is the classical model; it is the idea that judges apply their best understanding of the law to the unique facts before them. The role of the judge under the precedent model is to identify relevant sources of guiding authority and then "apply some combination of various methods of interpretation in order to discern the meaning of those sources."<sup>7</sup> The lower courts do not, under the precedent model, speculate as to what their reviewing courts will do.

Id. at 5.

7. *Id.* at 9.

Caminker writes that "inferior federal courts, as a matter of empirical fact, play a far more important role in the actual lives of citizens than does the Supreme Court." Caminker, *supra* note 2, at 3. *See also*, Frank B. Cross, *Decisionmaking in the U.S. Circuit Courts of Appeals*, 91 CAL. L. REV. 1457, 1459–60 (2003).

<sup>5.</sup> KLEIN, *supra* note 3, at 138–43.

<sup>6.</sup> Caminker, *supra* note 2, at 8. Caminker makes this point as he criticizes it; he seeks to apply what he calls the "proxy" model. He writes:

<sup>[</sup>T]he overwhelming consensus reflected by judicial and academic discourse holds that lower courts ought to define the law merely by interpreting existing precedents, without considering what their higher courts would likely do on appeal.

This model, which I have simplified somewhat for explanatory purposes, suits many system observers, for it seems to add certainty and objectivity to the law. It is, after all, the model of common-law precedent. If all judges do is apply existing law to the issues presently before them, then it seems that judges are not engaging in ideological or political activities on the bench. But even though this model is a familiar one, it remains complex. The persuasive value of nonbinding precedent, the process judges actually go through in making such an application, and the appropriate role of precedent in the U.S. legal system are important aspects of this model to be considered.<sup>8</sup>

One problem with the precedent model—at least with a simple understanding of the precedent model—is that it sometimes creates a misleading appearance of precision in the law. It almost gives the impression of legal science—of the possibility of a nearly mathematical certainty in the law. That is, a possible way to view decision-making in this model is that precedent supplies equations, and the new cases supply the facts to fill out those equations. The judge's role, then, is simply to crunch the numbers, which if she followed the proper procedures should be legally "correct." But law is obviously not math. Even a precedent-model sympathizer would recognize that before a judge can solve the problem, she has to choose which equations to apply. The analogy is also limited more fundamentally, in that facts simply are not numbers. Thirteen mathematicians working out one equation will compute the same answer, because numbers will mean the same thing to them regardless of their experiences or ideological bents. Factors along those lines, however, do affect whether a judge is sympathetic to an immigrant's claim of persecution or to a drug-addicted defendant's plea for leniency.

Recognizing that judges are *human* decision-makers implicates core questions about the use of precedent. Some classical realists took the human aspect of judging quite far, concluding that what really mattered in determining the outcome of a case was what the judge had for breakfast.<sup>9</sup> That, I think, is unsatisfactory. The question the realists asked to conclude that decision-making is essentially idiosyncratic was something like this: if all judges are to do is apply the law as it stands, then how can law be so imprecise? What intrigues me, however, are the similarities. First—is law really that imprecise? And second—if not, (as I suspected it was not and as my data suggest it is not) what is it about precedent that leads to so much similarity in the law?

One explanation that is particularly persuasive in theory and that bears out in my research is that precedent *limits* judicial decision-making—that is, it constrains interpretation by providing a common interpretive framework.<sup>10</sup> In the abstract, this explanation makes sense—readers of case law know that most judges generally do not openly flout the law on the books. Fear of overruling likely contributes to the phenomenon of pushing the bounds of the law or distinguishing cases instead of open disavowal. But something more is going on too: most would agree that it simply is not good judging to ignore or defy precedent.

Those who subscribe to the precedent model also believe that predictions of future judicial behavior generally do not affect decision-making. That is, (returning once again to the mathematical analogy), just as proving Riemann's hypothesis will not affect what two plus two

<sup>8.</sup> *Id*.

<sup>9.</sup> See generally Brian Leiter, American Legal Realism, in THE BLACKWELL GUIDE TO PHILOSOPHY OF LAW & LEGAL THEORY (W. Edmundson & M. Golding eds., 2003).

<sup>10.</sup> Caminker, *supra* note 2, at 10; *see also* Mark J. Richards & Herbert M. Kritzer, *Jurisprudential Regimens in Supreme Court Decision Making*, AM. POL. SCI. REV., Vol. 96, No. 2, at 305 (June 2002).

equals, neither should the possibility that the Supreme Court might conclude that an individual's fundamental liberty interest precludes legislatures from criminalizing homosexual sodomy affect whether a law preventing gay couples from adopting children may stand. But that does not seem reasonable. Courts must pay attention to legal developments; that is one of the only things that would justify distinguishing certain precedent based on things like its age. It is only valid for a district judge, in particular, to use that type of reasoning if the judge believes that a reviewing court would overrule the precedent. And, in fact, thinking about how the particular case at bar fits into the larger legal scheme is a central component of judging.

In sum, the precedent model tells only part of the story. These cases are not decided in isolation; they relate to society and to one another. These relationships lead to inconsistency in decision-making because they are not abstract; the culture and context of the cases affects the outcome. Appellate judges will consider how lower judges are likely to interpret the opinion and will in turn craft the opinion in a way most likely to obtain compliance. Or, conversely, if the law needs developing or is particularly controversial, an appellate judge might craft the opinion in such a way as to leave more room for interpretation by the district courts.<sup>11</sup> The district court judges must then fill in the blanks. Accordingly, even in a precedent-model system, some predictive or proxy decision-making certainly takes place.

# 2. THE PROXY MODEL OF JUDICIAL DECISION-MAKING

While it is plain that judges do engage in predictive reasoning, even if they do not articulate their processes, the proxy model remains more controversial than the precedent model. Lower court judges applying the proxy model must apply the rule that they predict a reviewing court would apply. The U.S. Supreme Court is the most relevant court for all decision-makers of lower rank; all judges would likely consider how the Justices would resolve the case if they heard it. Thus, the proxy model is a top-down model of decision-making.<sup>12</sup>

But although the proxy model is more predictive, its point is not to decentralize the power in the federal judicial system. That is, under the proxy model, the lower courts are not part of any design to distribute the Supreme Court's power. The lower courts exist only because resource constraints prevent the Supreme Court from hearing all cases filed; they "are merely intended to facilitate universal access to the Court's edicts."<sup>13</sup>

Some scholars consider the proxy model controversial because it contemplates a different type of role for judges. Where the precedent model more directly suggests precision in the law and implies that there is such a thing as an independently ascertainable correct answer, the proxy model explicitly incorporates guesswork and prediction. Instead of applying settled rules to new facts, judges are hypothesizing as to what the new rules might be.

As discussed above, if the judicial system is conceptualized in terms of the precedent model, then a logical and justifiable facet of the lower courts' role is to predict the Supreme Court's decisions, which requires prediction and application of the Court's decision-making process. This process requires a holistic approach to the Court's decisions and is based on the notion that the key piece of previous court opinions is the case rule. All that matters for the

<sup>11.</sup> Caminker, *supra* note 2, at 11–12; *see also* KLEIN, *supra* note 3, at 134–36 (discussing intercourt dynamics).

<sup>12.</sup> Caminker, *supra* note 2, at 16.

<sup>13.</sup> *Id*.

lower court judge is the rule of law for which the case stands. This description is rigid, and its strict application does not accurately describe the reality of the precedent model. But in theory, that *is* the precedent model.

Lower courts applying the proxy model, on the other hand, must absolutely eschew such a rigid approach to judging. The strict rules of cases are themselves narrow, regardless of how broad they may be in scope. In *Brandenburg v. Ohio*,<sup>14</sup> for example, the rule that government may not proscribe speech unless is incites imminent lawless action and is likely to incite such action promulgates a neat legal test. But divorced from the context of the case, it is nearly impossible to understand how to apply the test itself. The context of the opinion is critical; it is necessary to go to the dicta of the case to understand the scope of that test. Certainly, it would be necessary to do so, even in applying the precedent model. But a proxy decision-maker must do much more. Since the task of the proxy decision-maker is essentially to predict the next doctrinal development, it is necessary to consider speech doctrine as a whole, American speech ideals themselves, and established patterns by the relevant decision-makers: the Justices.<sup>15</sup>

The proxy model is controversial for many scholars because it appears to turn the concept of adjudication on its head. Judges are supposed to adjudicate, the criticism goes, based on what the law *is*, not based on what they think the law might become. A judge applying the proxy model is accordingly undermining precedent, or the very thing that gives law any sense of determinacy. As with a rigid precedent-model approach, this criticism reflects a rigid and perhaps outdated concept of the nature of the judicial system. Some prediction is simply inevitable.<sup>16</sup>

# 3. JUDICIAL DECISION-MAKING ON AN INDIVIDUAL LEVEL

Although the abstract theories help to explain the process of judicial decision-making, it is important to recognize, as the realists did, that judges are individuals with their own idiosyncrasies. I do not mean to suggest that judges are unprincipled, nor do I mean to ascribe such a suggestion to the realists. My research, which is consistent with other work in the field, suggests that while personal ideology cannot be discounted, judges do tend to follow precedent and that decisions follow apparent ideological trends from the reviewing courts.<sup>17</sup> These observations suggest a blend between precedent and proxy reasoning. The question again becomes why.

A few scholars have studied this question extensively. David Klein, for example, has considered how appellate judges use their power to shape law and why they act as they do in certain circumstances.<sup>18</sup> He specifically studied how judges use nonbinding precedent, whether they follow the lead of certain judges, and what factors made them more or less likely to do so.

In one study, Klein conducted an empirical and interview study of lawmaking in the U.S. courts of appeals and concluded that although the decision-making process is complex and

<sup>14.</sup> **395** U.S. **444** (1969)

<sup>15.</sup> Caminker explains the proxy model in considerably more detail. *See* Caminker, *supra* note 2, at 16–22 (1994)

<sup>16.</sup> *Id.* at 22–23.

<sup>17.</sup> David E. Klein & Robert J. Hume, *Fear of Reversal as an Explanation of Lower Court Compliance*, 37 LAW & SOC'Y REV. 579, 579 (2003) (citing a variety of empirical studies).

<sup>18.</sup> KLEIN, *supra* note 3, at 4.

multifaceted, some common themes do emerge.<sup>19</sup> One important predictor of judicial decisionmaking that Klein reported was, perhaps unsurprisingly, ideology.<sup>20</sup> That is, Klein found that much of the time, judges voted as one would expect them to vote given their political affiliation or given the party identity of the president who appointed them.

These conclusions are in line with those of the attitudinalists—most notably Harold Spaeth and Jeffrey Segal. Attitudinalism is essentially the empirical version of legal realism; the theory uses social science to confirm that policy preferences are the driving force behind judicial decisions. Spaeth and Segal, in their seminal work applying the attitudinal model to the Supreme Court, identified a statistically significant correlation with apparent ideologies of the Justices and the outcome of cases.<sup>21</sup> The core of this model is that a judge's own values play a central factor in judicial decision-making. While the force of precedent may influence a judge, it will not in the end keep her from acting in accordance with her policy preferences. Spaeth and Segal focused primarily on how the Justices voted, as opposed to the content of the opinions. After identifying the ideological positions of the Justices, Spaeth and Segal found that the Justices frequently voted as their ideologies predicted. Other scholars—notably Daniel R. Pinello's ambitious meta-analysis of studies from 1959 through 1998 have confirmed Spaeth and Segal's results and extended the theory to the lower courts.<sup>22</sup>

Cass Sunstein, David Schkade, and Lisa Michelle Ellman attempted to tease out some nuances of ideology and found evidence supporting hypotheses that in many substantive areas of law, a judge's votes can be predicted by the party of the appointing president, that a judge's ideological tendencies will often be amplified if the panel has two other judges appointed by an appointing president of the same political party, and that a judge's ideological tendencies will often be dampened if the panel has no other judge appointed by an appointing president of the same political party.<sup>23</sup> This study also concluded that although ideology is generally a good predictor of how a judge will vote, it failed to predict accurately in criminal appeals, takings claims, and Commerce Clause challenges. Additionally, in cases involving abortion and the death penalty, only the ideology of the judge seemed to matter; that is, panel composition did not seem to play a role in how a judge voted.<sup>24</sup> Ideology, then, must tell only part of the story.

Scholars have noted that other factors—other more normative factors—may have a far greater impact in judicial decision-making. Some of these factors help to explain why ideology does not seem to matter much in the three substantive areas identified in the Sunstein study. Klein notes that judges crafting new legal rules will consider how favorably that rule will likely be treated in the future.<sup>25</sup> This consideration is important; it is a process a judge goes through to check her legal reasoning. That is, if the judge does not believe that the new rule will stand up to

<sup>19.</sup> *Id.* at 7–8.

<sup>20.</sup> *Id.* at 133.

<sup>21.</sup> JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT & THE ATTITUDINAL MODEL REVISITED 110–14 (2002).

<sup>22.</sup> Daniel R. Pinello, *Linking Party to Judicial Ideology in American Courts: A Meta-Analysis*, 20 JUST. SYS. J. 219 (1999); *see also* Emerson H. Tiller & Frank B. Cross, *What is Legal Doctrine?*, 100 NW. U. L. REV. 517 (2006) (discussing trends in legal scholarship, particularly with regard to the role of ideology in decision-making); Barry Friedman, *The Politics of Judicial Review*, 84 TEX. L. REV. 257, 272–74 (2005).

<sup>23.</sup> Cass Sunstein, David Schkade & Lisa Michelle Ellman, *Ideological Voting on Federal Courts of Appeals: A Preliminary Analysis*, 90 VA. L. REV. 301, 333–47 (2004).

<sup>24.</sup> *Id.* at 306.

<sup>25.</sup> KLEIN, *supra* note 3, at 81, 134.

criticism from her colleagues, that might be an indication that her reasoning is suffering from some flaw that must be remedied; it might be an indication that she is not reasoning in a "good" or proper legal manner. Barry Friedman described an emerging consensus among positive scholars that precedent carries substantial weight in the lower courts and possibly in the Supreme Court as well.<sup>26</sup>

Building in part on this consensus, some positive scholars have examined how the precedent or proxy models are used in practice. That is, if precedent matters to judges (as it surely must), how do they use it? Klein's work casts doubt on the notion that lower-court judges engage in predictive reasoning per se. He writes, "For their part, circuit judges seemed to act with little regard for what the Supreme Court might think. The Supreme Court's past views, as expressed in precedents, counted for a good deal in both the interviews and the written opinions; its current or future views mattered far less."<sup>27</sup> He does note that judges do engage in some predictive reasoning, but his research suggests that, by and large, precedent as it stands is really what matters.

Given this conclusion, Klein considered under what circumstances and to what degree judges rely on precedent. He considered a number of factors, including ideological distance from the authoring judge, perceived expertise and prestige of the authoring judge, existence of dissents, level of existing support for the rule, and decisional difficulty.<sup>28</sup> His empirical study found that the ideological distance variable significantly affected whether a judge followed or distinguished precedent; that perceived expertise was significant in technical cases in which judges believed themselves not to be expert (such as antitrust); and that perceived prestige of an authoring judge had its strongest effect in cases where a relatively new judge relied upon the opinion of an established and prestigious judge. The results for the effects of nonunanimous precedent, existing support for the rule, and decisional difficulty were ambiguous.<sup>29</sup>

In addition to those variables, some scholars theorize that fear of reversal plays an important role.<sup>30</sup> Klein and Hume, however, analyzed search and seizure cases from 1961 to 1990 to conclude that fear of reversal cannot account for widespread circuit compliance with precedent.<sup>31</sup> They note that judges, instead of acting more cautiously in the cases that seemed to have a better chance of attracting Supreme Court review, were less likely to decide these cases as the Supreme Court predictably would.<sup>32</sup> Thus, the congruence among opinions cannot be explained away simply by invoking fear of reversal.<sup>33</sup> Certainly, as precedent-model enthusiasts would assert, this congruence is attributable at least in part to processes of reasoning.<sup>34</sup> It is

- 26. Friedman, *supra* note 22, at 274–75
- 27. KLEIN, *supra* note 3, at 134.
- 28. *Id.* at 63–72.
- 29. *Id.* at 81–85.
- 30. See generally Klein & Hume, supra note 17.
- 31. *Id.* at 579.
- 32. *Id.* at 597.

33. Some possible reasons for this congruence include ideology, timesaving decisional shortcuts, and attempts to reach legally sound decisions. For further discussion, see *id*. at 601–02.

34. KLEIN, *supra* note 3, at 138–42. Judges have similar ideas about what it means to judge and what it means to engage in sound legal reasoning. Given the ideas are similar, it is not terribly surprising that opinions converge.

sensible that judges, who have similar training, applying the analogic process of legal reasoning would arrive at similar conclusions in cases with well-settled rules.

All this individual-level background work can be expanded out to a more abstract examination of what drives judicial decisions. Frank Cross uses four constructs to categorize decision-making: the legal model, the political or attitudinal model, the strategic model, and the litigant-driven model.<sup>35</sup> His work, like that of Klein and Hume, suggests that judges use a blend of prediction and precedent in their work but are by and large constrained by ideas about what constitutes effective judging.

The legal model holds that the legal reasons that a judge articulates in cases reflect the actual logic that the judge followed in deciding the case. The political or attitudinal model states that a judge's ideological preferences drive the outcomes of the cases. The strategic model builds on the political model to suggest that although judges use their own ideological predilections to decide cases, they do so in a sophisticated manner and consider external responses to their decisions. Finally, the litigant-driven model teaches that judicial outcomes are determined by the strategic assessments of the litigating parties and their incentives.<sup>36</sup>

Cross used data on the U.S. courts of appeals to build a number of models to test each of these theories.<sup>37</sup> The study revealed that the hypotheses that judges use the legal and political decision-making models are supported by the data, but the strategic and litigant-driven models are not. Thus, the data suggest that judges are influenced both by concerns about what makes good law (legal decision-making) and what makes good policy (political and ideological decision-making).

# 4. INSTITUTIONAL DECISION-MAKING

The scholarship that I have presented thus far focuses on the judiciary and its internal operations; they consider decision-making from the perspective of the judges and their relationships with each other and with other components of the judiciary. Although this work is critically important to understanding how the judiciary operates, it only tells part of the story.<sup>38</sup> In order to gain a rich understanding of the courts and their role in the policymaking process, it is important to consider how judges conceive of their work in the political sphere. John Ferejohn and Bill Eskridge's work in modeling the lawmaking and decision-making process between Congress and the president as a sequential game has, I think, important implications for the judiciary.<sup>39</sup> The game theoretic aspects of this model are complex; it is not necessary to have a technical understanding of the model to appreciate its application to the courts. Accordingly, I focus on a qualitative summary, which is more useful for the purposes of my research.

The model is relatively straightforward from a qualitatively theoretical standpoint. The theory begins at the status quo—at events in place absent any legislation aimed at a particular

<sup>35.</sup> Cross, *supra* note 4, at 1461–62; *see also* Frank B. Cross, *Explaining U.S. Circuit Court Decision Making*, 88 JUDICATURE 30 (2004).

<sup>36.</sup> Cross, *supra* note 4, at 1461–62.

<sup>37.</sup> *Id.* at 1497–1514.

<sup>38.</sup> Studying judicial decision-making empirically is also not without criticism. *See, e.g.*, Harry T. Edwards, *The Effects of Collegiality on Judicial Decision Making*, 151 U. PA. L. REV. 1639, 1656 (2003); Harry T. Edwards, *Collegiality and Decision Making on the D.C. Circuit*, 84 VA. L. REV. 1335 (1998).

<sup>39.</sup> William Eskridge, Jr. & John Ferejohn, *The Article I, Section 7 Game*, 80 GEO. L.J. 523 (1992).

problem.<sup>40</sup> Representatives with policy preferences diverging from that status quo will attempt to write new legislation, which requires working with committees. Draft legislation, in order to pass in the House, must appeal to the median legislator. It also must appeal to the Senate, for the bill must pass that chamber as well. Both the House and the Senate must consider how the president will act, and as the president has veto power, they must act accordingly. "Each participant in the game wants to impose its own policy preferences on federal statutory policy, but in most cases none will act in a way that subjects it to an immediate override. Each participant anticipates the moves that will be made by the next participants."<sup>41</sup>

This model applies to the courts, I think, in that judges consider which institution is best suited to take the next step on a particular issue.<sup>42</sup> One question constantly involved in judicial decision-making is whether intervening is an appropriate thing for a court to do. This consideration comes up more significantly in rights cases or in cases with a countermajoritarian thrust to them. The very nature of that consideration reveals that courts engage in at least some type of strategic or institutional decision-making.

For example, imagine a case where a court is asked to review the application of a broadly sweeping statute in a particular case. Some judges would argue that it is the court's duty to apply the statutes as written so as not to expand the reach of statutes beyond which Congress did not intend.<sup>43</sup> If the statute suffered a constitutional infirmity, then the judge has no recourse but to invalidate it; so-called judicial surgery is an inappropriate technique. Other judges would argue that the judges have more flexibility. They believe that courts are partners in the interpretive enterprise, and it is wholly appropriate—even commanded—that they interpret statutes in a reasonable manner to effectuate the obvious goals of Congress.<sup>44</sup>

The policy consideration here is important. If a judge invalidates the statute, it is no longer law. Thus, whatever Congress was attempting to regulate goes unregulated. It is possible, of course, that Congress will immediately attend to the flawed statute and revise it to comport with constitutional standards. But it is also possible that the statute will fall to the bottom of Congress's agenda. Who the next decision-maker will be is an important consideration; the answer influences what the law will look like and whether there will be a law at all.

A case example might make this point more clear. In *United States v. Marshall*,<sup>45</sup> the Seventh Circuit considered whether a statute prescribing mandatory minimum sentencing terms for certain weights of drugs should include the weight of the carrier medium.<sup>46</sup> The statute did not contain a limiting principle per se, but it did specifically exclude the carrier medium for certain drugs. In an en banc decision written by Judge Easterbrook, the Seventh Circuit decided

43. See generally Frank H. Easterbrook, Statutes' Domains, 50 U. CHI. L. REV. 533 (1983).

<sup>40.</sup> *Id.* Eskridge's legislation text provides an accessible summary of this article. WILLIAM N. ESKRIDGE, PHILIP P. FRICKEY & ELIZABETH GARRETT, LEGISLATION 76–78 (2001).

<sup>41.</sup> Eskridge & Ferejohn, *supra* note 39, at 77.

<sup>42.</sup> *Id.* at 75–76.

<sup>44.</sup> See, e.g., HENRY M. HART & ALBERT M. SACKS, THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW 1374–80 (Eskridge & Frickey, eds. 1994).

<sup>45. 908</sup> F.2d 1312 (1990). *See also* Caminker, *supra* note 2, at 31–32 (1994) (discussing statutory reconstruction in the Supreme Court).

<sup>46. 908</sup> F.2d at 1314–15.

to include the weight of the carrier medium for LSD in making the weight calculations.<sup>47</sup> Judge Posner dissented, arguing the statute violated the Equal Protection Clause and must, therefore, be unconstitutional.<sup>48</sup> Both Judge Easterbrook's and Judge Posner's opinions represent relatively formalistic approaches to statutory interpretation. They reach their conclusions without explicit regard for who the next decision-maker would be, and without regard for any institutional constraints that the next decision-maker might face.

Judge Cummings, however, took a slightly different approach in his dissent. He looked more carefully at different types of legislative history and concludes that Congress simply could not have intended the statutory calculation to include the carrier medium. He then proceeded to revise the statute in a way that would comport with his perception of Congress's goals. This willingness to examine the history certainly offers insight into Judge Cummings's interpretive approach, and it also reveals a certain type of institutional reasoning and even deference. In some situations, what Congress was trying to do might be so obvious that it is actually more deferential to perform judicial surgery than it is to send it back to Congress for revision. The opinion, by reading in the limiting factor, recognizes that Congress is faced with monumental time and political constraints. It shows that the judge recognizes that at this particular juncture, the court is best suited to correct the obvious mistake and move on. His opinion, then, represents more of a partnership approach to the law than does the Easterbrook majority or the Posner dissent.

This sequential game functions on a court-to-court level as well. When a reviewing court remands a case, the appellate judge must decide what to say—what type of instructions to provide the district court. Some reviewing courts are very explicit but others simply send the case back to the trial court. In cases that do not involve direct review, courts may consider which jurisdiction might get the next case on a particular issue. Since the court currently hearing a case may not be able to bind the next court, the judges will consider how to craft precedent so that its persuasive value is most likely to encourage that court to adopt its reasoning.

# B. The Role of Precedent and Interaction Among the Courts in a Hierarchical System

The question of proper use of precedent is always complicated. In studying across courts, the jurisdictional questions are very important, and the role of precedent becomes quite complex. The simple proposition that precedent from superior courts binds a lower court is certainly true, but it is not particularly helpful in a broader sense. Distinguishing prior cases and arguing that prior holdings were misunderstood or no longer apply is, after all, the nature of lawyering.

Given that precedent is both so central and so malleable, it is important to consider the role of precedent in a hierarchical judicial system. Precedent is the fundamental way that judges talk to one another in the professional realm. Judges not only decide cases but also use the opinions to expand on the concepts articulated and propose justifications for the rules set forth. Opinion writing certainly is an important part of legal reasoning, but it is also an important part of dialectical policymaking in the courts.

But why the U.S. legal system relies so heavily on precedent is not obvious. The idea that courts should respect past decisions dates at least back to medieval times, although the

<sup>47.</sup> *Id*.

<sup>48.</sup> *Id.* at 1317–18.

nature of the reliance has shifted over the years.<sup>49</sup> Precedent does, of course, provide some sense of certainty and rightness in the law. Relying on that which has come before cuts against the perception that all judges are doing in deciding cases is writing new law. It indicates that there are rules to the game and a common language among professionals. In a system with such power, these indications are important to its legitimacy.<sup>50</sup>

The role of precedent in a hierarchical judicial system also implicates important questions about the nature of judicial power. It is possible to conceive of a system with a strong adherence to precedent as one that empowers the judges who hold the power to bind more than it does with the lower court judges. The lower courts, under this conception, may seem to be mere vessels for the superior courts.

But even under an aggressive precedent system, this conception of the lower courts is not necessary or self-evident. For one, courts do not necessarily use precedent in this manner; the lower courts have a good deal of flexibility in applying even binding law. And second, a system that relies on precedent reflects an idea of the hierarchical judicial system that views judges as partners in the lawmaking enterprise. Again, "[t]he contours of a system of precedential authority are not natural but contingent and pragmatically determined."<sup>51</sup>

The backward-focused nature of precedent can make some more pragmatic jurists and scholars uncomfortable. If the goal is to apply the law as it is understood to the current situation so as to reach the best resolution possible, then it seems that the past is, in some ways, the wrong lens to use. The maxim that one should not forget history is true in law as well, but understanding precedent does not explain reverence for the past. The hierarchical system could be one where judges looked to see what became of the cases that came before but then applied new models to predict future outcomes. And even in a system that relies on precedent, it may be that the judges do just that.

# C. What Is Missing From Research on the Lower Courts

This paper represents an attempt to study the nature of precedent empirically—that is, to use statistics and law to obtain an understanding of how judges actually use precedent and to opine as to why they use it as they do. Scholars have studied in much detail all that I have discussed in this Part. But although the scholarship on these topics is rich, it is by and large abstract. The most extensive scholarship focuses on "the court" as an abstract institution. Scholars who do focus on the courts as comprised of live decision-makers with a variety of motives tend to focus mostly on the Supreme Court or on the courts of appeals.<sup>52</sup> How different courts interact—including those of like and of disparate rank—is generally less studied.

In order to understand this interaction, this study focuses on how the district and appellate courts use and apply Supreme Court precedent, and how in turn those courts shape the law. This examination requires a substantive area of law with relatively straightforward rules and a number of cases with significant precedential importance. These cases—which I have called signpost cases—are those cases that represent some affirmative rule or pronouncement from the Supreme

<sup>49.</sup> Richard W. Murphy, *Separation of Powers and the Horizontal Force of Precedent*, 78 N.D. L. REV. 1075, 1085 (2003). Murphy provides a detailed history of precedent in early American history.

<sup>50.</sup> For discussion on this point, see Caleb Nelson, *Stare Decisis and Demonstrably Erroneous Precedents*, 87 VA. L. REV. 1, 3–4 (2001)

<sup>51.</sup> Caminker, *supra* note 2, at 32.

<sup>52.</sup> *E.g.*, Richards & Kritzer, *supra* note 10; SEGAL & SPAETH, *supra* note 21.

Court regarding the nature of the substantive law. They are the cases where the Supreme Court speaks on an issue to resolve a tension or prescribe some type of new procedure. An area of substantive law particularly well suited for such a study is procedural due process.

Procedural due process is an ideal focus because courts face these problems often. Because judges do address procedural due process issues on a fairly regular basis, they are generally quite comfortable with the subject matter and more confident in their own expertise. While some judges will defer more readily to colleagues they perceive as experts in more abstruse substantive areas of law, more judges are comfortable with their skill in disposing of procedural due process cases and therefore less likely to defer to perceived experts. Thus, the pattern of relying on precedent is less likely to be biased by deference to experts.<sup>53</sup> Before explaining my results, I first offer a sketch of my selection procedure and of the signpost cases themselves.

# II. PROCEDURAL DUE PROCESS: THE SUBSTANTIVE AREA AND THE SUPREME COURT SIGNPOSTS

Procedural due process is an important area of law because it forces courts to confront a key question that is central to American constitutional history: what comprises constitutionally protected liberty and property under the Fifth and Fourteenth Amendments? The answer to this question is significant in the field of procedural due process and in many other substantive areas of law. Procedural due process cases, much like more widely studied and criticized cases in the field of substantive due process, ultimately require courts to define the flexible concepts of liberty and property. Moreover, these cases require that judges grapple with fundamental background questions of *how* to define those terms—that is, as Sullivan and Gunther point out in their casebook, courts must "identify the appropriate sources for giving content to the meaning of liberty and property."<sup>54</sup>

Procedural due process is text-based and therefore seemingly more straightforward and uncontroversial than substantive due process. The relevant portion of the Fifth Amendment provides that "No person shall be . . . deprived of life, liberty, or property, without due process of law."<sup>55</sup> Likewise, the relevant portion of the Fourteenth Amendment mandates that "No . . . State [shall] deprive any person of life, liberty, or property, without due process of law."<sup>56</sup> But even though the textual basis for procedural due process is relatively bounded, the field of potential cases is vast and involves related fields of law, many of which are quite complex.<sup>57</sup>

In order to limit any bias that might result from sampling different subsets of procedural due process, I limited my inquiry to benefits and right-to-hearing cases, which tend to involve the same considerations and are again relatively straightforward. Given that the time in which cases were decided is important to a consideration of whether the lower courts respond to or fuel doctrinal changes, I also considered the development of the doctrine in this area. Historically, the scope of procedural due process has been rather narrow. While substantive due process considers the general ability to legislate on a particular issue or in a particular manner,

<sup>53.</sup> Klein points out that this deference can be problematic. KLEIN, *supra* note 3, at 63–66; 93–96.

<sup>54.</sup> KATHLEEN M. SULLIVAN & GERALD GUNTHER, CONSTITUTIONAL LAW 590 (14th ed. 2001).

<sup>55.</sup> U.S. CONST. amend. V.

<sup>56.</sup> U.S. CONST. amend. XIV, § 1.

<sup>57.</sup> ERISA, for example, often interacts with procedural due process.

procedural due process is concerned primarily with the procedures the government used in arriving at some factual or legal decision.<sup>58</sup> In the 1970s, however, the procedural due process cases—particularly the right to hearing cases—took a different tack. Starting in the early 1970s, the Supreme Court in right-to-hearing case increasingly found the claimed interest, albeit significant to the individual, not included within the constitutional notion of "liberty" or "property" to begin with. That is, the focus changed from whether the government had used fair procedures to whether the end toward which the procedures were directed was itself worthy of constitutional concern.

My final sample involved a total of 252 cases from the federal courts allocated across the years in which the Supreme Court decided the procedural due process signpost cases. The sample includes 152 cases from the U.S. courts of appeals and 100 cases from the U.S. district courts. The sample is divided about equally among the five time periods built around the signposts. Before explaining my sampling procedure and research in more detail, it is important to understand how the Supreme Court has shaped the field. Toward that end, I consider the general doctrine of procedural due process as it evolved in the Supreme Court but focus on how developments affect benefits and right-to-hearing cases. In the interest of completeness, this general exposition of the law contains more cases than those I use as Supreme Court signposts. Understanding the rich doctrine requires a more complete inquiry; considering the development of the law in a meaningful manner demands an abridged one.

# *A. Pre*-Goldberg: *The Right to a Meaningful Hearing*

The early procedural due process cases display a more technical due process jurisprudence; courts were primarily concerned with the types of procedures government bodies used to arrive at some decision. Much of the early controversy centered on adequacy of notice for widely recognized liberty or property interests.<sup>59</sup> Traditional property ownership, family rights, and predetention hearings were the themes of the day.

A typical case is *Armstrong v. Manzo*, where the Supreme Court held that a provision in Texas's adoption law that permitted adoption without the consent of the biological father where the father did not contribute substantially to the support of the child for a specified time period violated the biological father's due process rights.<sup>60</sup> In *Armstrong*, the Court expressed particular concern with the lack of advance notice to the biological father, writing that failure to give the petitioner notice of the pending proceeding violated "the most rudimentary demands of due process law."<sup>61</sup> The Court further noted that the Texas court was wrong in its decision that permitting the biological father to make a motion to set aside the decree corrected the constitutional mistake.<sup>62</sup> The error in that decision, according to the Court, was that the cure for the constitutional wrong placed a higher burden on the biological father; he had to overcome an

61. *Id.* at 550; *see also id.* at 548 ("During this entire period the petitioner was not given, and did not have, the slightest inkling of the pendency of these adoption proceedings.")

62. *Id.* at 550–51.

<sup>58.</sup> See, e.g., Peter J. Rubin, Square Pegs and Round Holes: Substantive Due Process, Procedural Due Process, and the Bill of Rights, 103 COLUM. L. REV. 833, 847–49 (2003).

<sup>59.</sup> *E.g.*, Schroeder v. City of New York, 371 U.S. 208 (1962) (regarding riparian rights); Walker v. Hutchinson City, 352 U.S. 112 (1956) (regarding trespass); New York v. New York, N.H. & H.R. Co., 344 U.S. 293 (1953) (regarding railroad liens).

<sup>60.</sup> **380** U.S. 545, 546-47 (1965).

adverse decree.<sup>63</sup> Thus, the legal procedures employed to adjudicate this adoption were unequal and unfair to the interested parties.

# *B.* What is a Meaningful Hearing in the Context of the New Property?: Goldberg and Charles Reich

The focus on the procedures themselves began to relax when the Court began to refine its concepts of liberty and property. The landmark case in the field of procedural due process is the 1970 case, *Goldberg v. Kelly*,<sup>64</sup> which established that procedural due process required pretermination hearings for welfare recipients that permitted them to provide oral testimony *before* their public assistance payments were discontinued.<sup>65</sup> Driving the determination in this case was a broader and more fluid notion of what constitutes "property" in the modern administrative state.

Pre-*Goldberg*, the Court established that "[t]he fundamental requisite of due process of law is the opportunity to be heard"<sup>66</sup> and that the hearing must be "at a meaningful time and in a meaningful manner."<sup>67</sup> Part of the *Goldberg* revolution was the notion that in order for a hearing to be meaningful in the welfare context, it had to take place *before* those benefits were terminated. The Court held that in public benefits cases, due process principles "require that a recipient have timely and adequate notice detailing the reasons for a proposed termination, and an effective opportunity to defend by confronting any adverse witnesses and by presenting his own arguments and evidence orally."<sup>68</sup>

In his majority opinion, Justice Brennan cited Charles Reich's influential scholarship, which argued that property in the modern administrative state no longer consisted solely of common-law concepts such as land ownership and bundle-of-sticks type property.<sup>69</sup> Instead, Reich argued and Brennan agreed, contemporary society is built on entitlements. Entitlements including government subsidies, social security, and welfare benefits, are not gratuities provided by the government out of its beneficence. Instead, "to the recipients [the entitlements] are essential, fully deserved, and in no sense a form of charity."<sup>70</sup> This argument swayed Brennan, who wrote, "the crucial factor in this context . . . is that termination of aid pending resolution of a controversy over eligibility may deprive an eligible recipient of the very means by which to live while he waits."<sup>71</sup>

66. Grannis v. Ordean, 234 U.S. 385, 394 (1914).

67. *Armstrong*, 380 U.S. at 552. For criticism of the Brennan's use of the Reich concept, see generally Richard A. Epstein, *No New Property*, 56 BROOK. L. REV. 747 (1990).

68. *Goldberg*, 397 U.S. at 267–68.

69. *Id.* at 263 n.8. *See also*, Charles Reich, *Individual Rights and Social Welfare: The Emerging Legal Issues*, 74 YALE L.J. 1245 (1965); Charles Reich, *The New Property*, 73 YALE L.J. 733 (1964).

70. Reich, *supra* note 69, at 1255.

71. *Goldberg*, 397 U.S. at 264.

<sup>63.</sup> *Id.* at 551.

<sup>64.</sup> **397** U.S. **254** (1970)

<sup>65.</sup> *Id.* at 264–65.

*Goldberg* is commonly considered the high-water mark of procedural due process law.<sup>72</sup> Almost immediately, the Court added qualifications to the *Goldberg* pretermination hearing principle that significantly limited the doctrine's reach. In the end, it may be that the case promised a much broader right than it actually delivered.<sup>73</sup>

# C. The Retreat from Goldberg: Deference to the State and the Concern for Workable Government

# 1. DEFINING PROPERTY AND LIBERTY IN THE MODERN ADMINISTRATIVE STATE

*Goldberg* marked an expansive concept of property and a correspondingly stringent view of what was necessary to satisfy the due process clause of the federal Constitution. The next cases in line are the related but opposite cases of *Board of Regents v. Roth*<sup>74</sup> and *Perry v. Sindermann.*<sup>75</sup> In *Roth*, the Supreme Court reversed a summary judgment decision from the Western District of Wisconsin, which ordered university officials to provide an untenured assistant professor with reasons for not rehiring him. The district court also required that the university provide Roth with an opportunity to be heard.<sup>76</sup> The Supreme Court noted that "the range of interests protected by procedural due process is not infinite,"<sup>77</sup> and held that since "[t]he State, in declining to rehire the respondent, did not make any charge against him that might seriously damage his standing and associations in the community," "did not base the nonrenewal of his contract on a charge, for example, that he had been guilty of dishonesty, or immorality," and did not impose any stigma on him, his due process rights were not violated by a termination without opportunity to be heard.<sup>78</sup>

In *Perry*, however, the Court reached the opposite result. The facts are virtually the same, but with one distinguishing feature: the college's perceived de facto tenure system. While Roth was employed as an untenured professor for only one term, Sindermann had worked in the state college system for ten years, four as a junior college professor.<sup>79</sup> Sindermann publicly criticized some of the college's policies, and he specifically advocated changing the college from a two-year junior college to a four-year college, which the regents opposed.<sup>80</sup> After these disagreements, the board of regents voted not to renew his contract, which had remained a one-year contract that was continuously renewed.<sup>81</sup> After voting not to renew, the board of regents

- 74. 408 U.S. 564 (1972).
- 75. 408 U.S. 593 (1972).
- 76. *Roth*, 408 U.S. at 569.
- 77. *Id.* at 570.
- 78. *Id.* at 573–75.
- 79. *Perry*, 408 U.S. at 594–95.
- 80. *Id.* at 595.
- 81. *Id*.

<sup>72.</sup> See, e.g., Timothy Zick, Statehood as the New Personhood: The Discovery of Fundamental "States' Rights," 46 WM. & MARY L. REV. 213, 252 n.177 (2004).

<sup>73.</sup> This statement is obviously not intended to denigrate the importance of *Goldberg*. Epstein put it nicely: "Although thundering greatness shall forever elude it, *Goldberg* nonetheless rates at the very top of the second tier of great Supreme Court cases, those which organize and structure a large portion of the ongoing dialogue within the legal system." Epstein, *supra* note 67, at 747.

issued a press release that set forth allegations of Sindermann's perceived insubordination.<sup>82</sup> He received no opportunity for a hearing to challenge the basis of the nonrenewal.<sup>83</sup> The Court held that the lack of contractual tenure did not defeat Sindermann's procedural due process claim; the college's de facto tenure system created a sufficient interest.<sup>84</sup> Thus, "'property' interests subject to procedural due process protection are not limited by a few rigid technical forms. Rather, 'property' denotes a broad range of interests that are secured by 'existing rules or understandings.'"<sup>85</sup> Thus, after *Roth* and *Perry*, the property focus shifted to whether rules or mutually explicit understandings supported entitlement claims.<sup>86</sup>

But sometimes, mutually explicit understandings do not give rise to a constitutional procedural due process concern. In *Arnett v. Kennedy*, a plurality of the Supreme Court held that an act that conferred to employees a right not to be discharged but for cause and detailing procedures did *not* create an expectancy of job retention that implicated procedural due process protection beyond that extended in the act.<sup>87</sup> The conception of property coming out of *Arnett* was slightly different from those cases that had come before; the contours of the property right depended on the underlying law creating it. That is, where the statute created the right asserted and provided limitations and procedures to the right, a claimant could not take advantage of the statute's protection and simultaneously attack its procedural safeguards. The property conferred by the statute was no broader than the text delineated. It was in *Arnett* that then-Justice Rehnquist authored his often-cited conclusion that "where the grant of a substantive right is inextricably intertwined with the limitations on the procedures which are to be employed in determining that right, a litigant in the position of appellee must take the bitter with the sweet."<sup>288</sup>

The distinction among these cases is quite fine—some would argue imperceptible. It becomes difficult at this point in the doctrine's development to generalize what types of interests might be sufficient and how to understand the differences. *Arnett* and *Perry* are particularly difficult to reconcile. Here, then, it is important to note an assumption or at least an intricacy in this research: studying how courts use Supreme Court precedent assumes that the lower courts can extract the rules from the cases. It is in eras when such a task is difficult or impossible that courts are starkly faced with the choice of how to use precedent.

The Court retreated from *Arnett*'s bitter-with-the-sweet principle about ten years later in *Cleveland Board of Education v. Loudermill*.<sup>89</sup> The *Loudermill* Court held that although state law remains the primary focus for determining whether a property right exists, the procedures in the state law creating the property rights are not the source of the constitutionally required procedures. Thus, even though state law plays a central role, federal constitutional law will decide the procedural due process query.<sup>90</sup>

- 85. *Id.* at 601 (citing *Roth*, 408 U.S. 564).
- 86. Id. (citing Roth, 408 U.S. 564).
- 87. 416 U.S. 134, 151–54 (1974).
- 88. *Id.* at 153–54.
- 89. 470 U.S. 532 (1985).
- 90. *Id.* at 538–40.

<sup>82.</sup> *Id*.

<sup>83.</sup> Id.

<sup>84.</sup> *Id.* at 600–01.

# 2. SHIFT IN FOCUS FROM DEFINING THE RIGHT TO CONSIDERING THE PROCESS: *MATHEWS*

Two years after *Arnett*, the Court decided *Mathews v. Eldridge*,<sup>91</sup> which is generally considered as high profile and influential as *Goldberg*.<sup>92</sup> Its holding, however, was quite different. While *Goldberg* required pretermination hearings for welfare recipients, *Mathews* held that pretermination evidentiary hearings were not required for social security recipients. The focus of the case was different; prior to *Mathews*, the Court was primarily concerned with defining what constituted liberty or property itself. The secondary question, which is of equal importance, is what process is actually due.

*Mathews* leads the inquiry that courts apply when a case involves a constitutionally protected interest. In this case, no one disputed that termination of social security benefits was entitled to procedural due process. The issue instead was whether the agency's existing administrative procedures provided sufficient process before beneficiaries could be deprived of those benefits and what process is due prior to the initial termination of benefits.<sup>93</sup> The Court explained that its procedural due process jurisprudence "underscore[s] the truism that" "due process is flexible and calls for such procedural protections as the particular situation demands."<sup>94</sup> The Court also elucidated its test to apply in assessing whether the demands of procedural due process have been met. Specifically, courts should consider three factors: (1) the private interest that will be affected by the official action; (2) the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and (3) the government's interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.<sup>95</sup>

The Court then proceeded to apply its factors, and concluded that only in *Goldberg* had a pretermination hearing been necessary.<sup>96</sup> After pointing out that *Goldberg* was peculiar in its line of procedural due process, the Court concluded that the unique financial need is what drove the decision.<sup>97</sup> Since the social security benefits in *Mathews* were unrelated to financial need, the administrative procedures in place, which did not include a pretermination hearing, were sufficient.<sup>98</sup> The *Mathews* framework and its concomitant reasoning remain the relevant framework with which to approach procedural due process problems.

93. *Mathews*, 424 U.S. at 332–33.

94. Id. at 334 (citing Cafeteria Workers v. McElroy, 367 U.S. 886 (1961); Morrissey v. Brewer, 408 U.S. 471 (1972)).

95. *Id.* at 335.

96. *Id.* at 340.

97. *Id.* at 340–41 ("As *Goldberg* illustrates, the degree of potential deprivation that may be created by a particular decision is a factor to be considered in assessing the validity of any administrative decisionmaking process.")

98. *Id.* at 340.

<sup>91. 424</sup> U.S. 319 (1976).

<sup>92.</sup> For a discussion on *Mathews*, see Jerry L. Mashaw, *The Supreme Court's Due Process Calculus for Administrative Adjudication in* Mathews v. Eldridge: *Three Factors in Search of a Theory of Value*, 44 U. CHI. L. REV. 28 (1976).

# 3. POST-*MATHEWS* CONSIDERATION OF WHAT CONSTITUTES A LIBERTY OR PROPERTY INTEREST

The procedural due process cases in the late 1970s and beyond typically divide the Court on whether the asserted interest is a protected liberty or property interest. In *Paul v. Davis*,<sup>99</sup> for example, a divided Court held that a plaintiff whom the local police identified as an "active shoplifter" did not have a sufficient liberty or property interest in his reputation alone.<sup>100</sup> In seeking to define the contours of the right, the Court wrote:

It is apparent from our decisions that there exists a variety of interests which are difficult of definition but are nevertheless comprehended within the meaning of either "liberty" or "property" as meant in the Due Process Clause. These interests attain this constitutional status by virtue of the fact that they have been initially recognized and protected by state law, and we have repeatedly ruled that the procedural guarantees of the Fourteenth Amendment apply whenever the State seeks to remove or significantly alter that protected status.<sup>101</sup>

When "a right or status previously recognized by state law was distinctly altered or extinguished," this alteration of status was sufficient to implicate procedural due process concerns.<sup>102</sup> A simple reputational interest, however, did not rise to that level. The reputational interest is one of a number of interests that states may protect through tort law.<sup>103</sup> "[A]ny harm or injury to that interest, even where as here inflicted by an officer of the State, does not result in a deprivation of any 'liberty' or 'property."<sup>104</sup>

DeShaney v. Winnebago County Social Services<sup>105</sup> is an example of a procedural due process case that sharply divided the Supreme Court. In this case, Joshua DeShaney sued the Winnebago County Department of Social Services for failing to protect him from severe abuse at the hands of his custodial father. The department had received a number of complaints and took steps to protect Joshua but had failed to remove him from the home. His father eventually beat him so severely he fell into a coma and became profoundly retarded. The Court held that the Due Process Clause did not impose a special duty on the state where the state had not created the danger. The dissenters believed that the state had indeed created the harm in that they failed to respond adequately to complaints. A reasonable citizen would believe that she had done all she could to protect Joshua by reporting the abuse. Thus, the state's procedures eliminated any further chance of citizen intervention. Its inadequate response ensured that Joshua would receive no help.

Finally, the most significant recent case in the procedural due process right to hearing line of cases came in 1997, with *Gilbert v. Homar*.<sup>106</sup> *Gilbert* involved a tenured public

100. *Id.* at 694–95. The police distributed to local merchants a flyer that identified the plaintiff and others as active shoplifter and included his much shot. *Id.* at 694–95.

<sup>99. 424</sup> U.S. 693 (1976).

<sup>101.</sup> *Id.* at 710–11.

<sup>102.</sup> *Id.* at 711.

<sup>103.</sup> *Id.* at 712.

<sup>104.</sup> *Id*.

<sup>105.</sup> DeShaney v. Winnebago County Social Servs., 489 U.S. 189 (1989).

<sup>106. 520</sup> U.S. 924 (1997).

employee who was suspended without pay after his arrest in a drug raid.<sup>107</sup> The criminal charges against the complainant were eventually dismissed, but his suspension remained in effect.<sup>108</sup> He was ultimately demoted from a university security officer to a groundskeeper.<sup>109</sup> After receiving this notice, he challenged his suspension without pay, arguing that he should have been permitted to be heard before the suspension.<sup>110</sup>

In its analysis, the Court assumed that the suspension was sufficient to implicate a property right.<sup>111</sup> The Court then cited a string of cases establishing that procedural due process challenges must be considered in light of their circumstances. In this case, the Court recognized that although the complainant did have an interest in his job and his compensation, his interests must be balanced against the state's significant interest in immediately suspending employees who occupy positions of great public trust and high public visibility when felony charges are filed against them.<sup>112</sup> Since the risk of erroneous deprivation was not great and the likelihood that additional procedures would be valuable was slim, the complainant's procedural due process rights were not violated in this case.<sup>113</sup>

# D. Summarizing the Sketch of Supreme Court Procedural Due Process Precedent

In sum, procedural due process law now first considers whether there is a liberty or property interest at stake. Courts then apply the *Mathews* test to determine whether the procedures posed are adequate to meet the constitutional mandate. The Court is, however, deferential to the government in circumstances where the state must act quickly or where imposing pretermination procedures would prove particularly onerous. The analysis is importantly fact-centric; courts continuously adapt the test to apply to the circumstances they face.

My study is divided into five time periods built around four signpost cases. These cases, which generally represent a rule or policy change, include *Goldberg* (1970), *Mathews* (1976), *DeShaney* (1989), and *Gilbert* (1997). *Goldberg*, as I explained above, was a watershed case in the field of procedural due process. It reaffirmed the approach of courts that had been reading liberty and property broadly, and it directed those who had interpreted the terms more narrowly to adopt a more dynamic approach. *Goldberg* is a strong signpost case simply because it represented a fundamental change in the law. *Mathews*, on the other hand, makes a good signpost because it represents a retrenchment; it halts the potentially broad sweep of *Goldberg*. The 1980s were a fairly quiet period of procedural due process law in the Supreme Court; most of the innovation took place in the lower federal courts. I chose to use *DeShaney* as a Supreme Court signpost because it represented a good span of time after *Mathews* and because *DeShaney* was controversial. Given the general lack of Supreme Court guidance on procedural due process in the 1980s and the general unpopularity of the *DeShaney* holding, I believed that it would be interesting to see how lower courts responded to an opinion with which they may have disagreed.

108. *Id.* at 927.

109. *Id.* at 928.

- 110. *Id*.
- 111. *Id.* at 929.
- 112. *Id.* at 932.
- 113. *Id.* at 932–33.

Finally, *Gilbert* again represents another tightening of the procedural due process doctrine and provides a significant range of years to look at the development of the case law since its issuance.

# III. AN EMPIRICAL CONSIDERATION OF PROCEDURAL DUE PROCESS IN THE LOWER FEDERAL COURTS

# *A.* Sampling Method

In building my study, I sampled 252 cases from the federal district courts and the federal courts of appeals. The sampling technique I used is probably closest to stratified random sampling. In order to build my sample, I conducted simple terms searches for procedural due process cases involving benefits or hearings in the Westlaw database for cases in the relevant jurisdictions. My criterion for cases chosen was only that they actually involve procedural due process. That is, I did not read the cases prior to sampling and drop some on the basis that their treatment of the issues was somehow deficient. The stratified aspect enters in that I attempted to choose an approximately equal number of cases decided in the relevant jurisdictions.

My sample includes 152 cases from the courts of appeals. Since there are twelve circuits including the District of Columbia Circuit but excluding the Federal Circuit,<sup>114</sup> I sampled between twelve and twenty cases from each circuit depending on the applicability and relevance of the cases in those circuits. I excluded the Federal Circuit because it is a court of special jurisdiction, and I hypothesized that the special rules and case load could skew the data.

I also sampled 100 federal district court cases. My initial goal was to obtain an even geographic spread across the jurisdictions. This strategy, however, proved untenable. Certain jurisdictions adjudicated far more right-to-hearing and benefit-type cases than did other jurisdictions. This phenomenon likely results from forum selection and the demographics of the citizenry. Thus, instead of focusing on geography, which is interesting from a socio-legal standpoint, I focused instead on cases with the most useful substantive legal issue. The district court cases, then, are closer to a random draw from the relevant databases instead of a stratified random sample.

In order to code the cases, I used fourteen variables that appeared frequently in the Supreme Court signpost opinions. As I described above, the signpost cases I chose were *Goldberg* (1970); *Mathews* (1976); *DeShaney* (1989); and *Gilbert* (1997). I divided the data into five subsets, one for each of the periods between the signpost cases, one small subset for "prehistorical" purposes, and one modern trends subset that suggest where the courts are heading with these issues. The pre-1970 sample contains only a few iterations, so any statistics on it are suspect. But the utility of that subset lies not in any rigorous statistical analysis. Instead, the point of the data is to set the stage for the major signpost periods.

In approaching the variable formulation, I was particularly interested in ascertaining what patterns of decisions and combinations of variables emerged in the lower court cases. I wanted to understand whether the lower courts defer readily to Supreme Court precedent or whether they

<sup>114.</sup> The U.S. Court of Appeals for the Federal Circuit is a national court of limited jurisdiction. The Federal Circuit hears disputes regarding international trade, government contracts, patents, trademarks, certain money claims against the United States government, federal personnel, and veterans' benefits. Although some of those cases may involve procedural due process, sampling cases from the court would introduce bias given its specialized nature.

attempt to distinguish precedent. I wanted to know whether the lower courts function as doctrine innovators that may or may not drive Supreme Court precedent.<sup>115</sup> Similarly, I wanted to know whether the district courts were any less willing to defer to doctrine innovations by the court of appeals that were not grounded in a Supreme Court opinion. Finally, I considered whether courts were more likely to defer to the government in cases where the due process issue was one of the adequacy of existing procedures as opposed to the existence of a liberty or property interest itself.

The variables, which are all coded as binary variables, include the dependent variable of whether there was a procedural due process violation,<sup>116</sup> and independent variables for whether the case was a district court of appeals opinion, <sup>117</sup> the year of decision, <sup>118</sup> presence or absence of a wealth indicator,<sup>119</sup> whether the government or entity used officially documented procedures,<sup>120</sup> whether the court included language regarding feasibility of alternative procedures,<sup>121</sup> whether the court included language regarding hardship on the plaintiff,<sup>122</sup> whether the case involved some type of "wrongful" act by the plaintiff that might terminate benefits,<sup>123</sup> whether the case involved a liberty or property interest that was clearly delineated by the U.S. Supreme Court,<sup>124</sup> whether the case involved a liberty or property interest that was clearly delineated by the U.S. Court of Appeals,<sup>125</sup> and whether the case involved an interest the court considered extremely important but was not previously defined as such by a court with binding authority.<sup>126</sup>

I also included variables as to whether the disposition included a concurring or dissenting opinion. This variable was far less prevalent in the district courts, as a single judge presides over the vast majority of district court cases. A handful, however, were heard by the three-judge panels.

The final variables that the models include are time variables. I broke the cases into five separate time periods to study the effects of the signpost cases. The first time period is pre-Goldberg;<sup>127</sup> the second is Goldberg to Mathews,<sup>128</sup> the third is Mathews to DeShaney,<sup>129</sup> the fourth is *DeShaney* to *Gilbert*,<sup>130</sup> and the final timeframe is *Gilbert* and beyond.<sup>131</sup>

See KLEIN, supra note 3, at 107–30 (discussing anticipation of Supreme Court decisions). 115.

117. DistCt, coded 1 if the case was a district court opinion, 0 if the case was a court of appeals opinion.

- 118. Year, coded by year
- Wealthindic, coded 1-0 119.
- 120. officialprocedures, coded 1-0
- 121. altfeasibility, coded 1-0
- 122. hardship, coded 1-0
- 123. wrongact, coded 1-0
- sctclearlibpropinterest, coded 1-0 124.
- ctaclearlibpropinterest, coded 1-0 125.
- eximportant, coded 1-0 126.
- time0, coded 1-0 (pre-1970) 127.
- time1, coded 1-0 (1970-1975) 128.
- time2, coded 1-0 (1976-1988) 129.
- time3, coded 1-0 (1989-1996) 130.

Pdpviolation, coded 1-0. 116.

# B. Statistical Approach

After building the dataset, I estimated twenty-five models using the logit method.<sup>132</sup> It is helpful to think of the models in five sets, as the five sets themselves contain a different combination of variables, and the models within those sets estimate the effects of the signpost cases.

Set one of these models predicts whether the case contained a procedural due process violation throughout the signpost periods depending on whether the deciding court was a district or circuit court, whether the opinions contained concurrences or dissents, whether the case involved the presence of a wealth indicator, whether the case contained language regarding hardship on the plaintiff, whether the government used official procedures in reaching its decision, whether the case contained language regarding the feasibility of using alternative procedures, whether the case involved some type of wrong act by the plaintiff, and whether the case involved a liberty or property interest that the Supreme Court had clearly defined in the past.

Set two of these models predicts whether the case contained a procedural due process violation throughout the signpost periods using the same variables above except it replaces the Supreme Court liberty or property interest with cases where a U.S. court of appeals had clearly defined in the past.

Set three involves cases where neither the Supreme Court or a U.S. court of appeals has defined the interest in question as a liberty or property interest but the opinion identifies the interest at stake as some other extremely important interest. Set four predicts whether the case contained a procedural due process violation throughout the signpost periods depending on the previously described variables but combines cases where the Supreme Court has clearly defined a liberty or property interest and the case contains language regarding some other extremely important interest. Set five predicts violations in cases where a U.S. court of appeals has clearly defined the liberty or property interest and there is language regarding some other extremely important interest.

Each of these sets then runs iterations of the model against the time variables. The five iterations per set allowed me to drop a timeframe variable so that I could compare the activity of the courts to that dropped timeframe. That is, in the first iteration of set one, I dropped the pre-1970 timeframe variable. Thus, the results of that iteration compare to the pre-1970 likelihood of procedural due process violations.

<sup>131.</sup> time4, coded 1-0 (1997 and beyond)

<sup>132.</sup> I used Stata 7 to conduct my estimations. Stata's logit function, which I used, reports results in coefficient metrics. The logistic function, which I did not use, reports in odds ratios. The statistical output is available *infra* at Appendix A. My research plan, as I explain, used five iterations per model. This approach is not strictly necessary; it is quite possible to employ only one model and interpret the numbers against one dropped variable. I elected, however, to use multiple iterations in order to make the effect of the timeframe variables more explicit. While the iterations contain some redundancy, they should contain no bias. For an explanation of the theoretical principles behind these models, see, for example, Peter Kennedy, *A Guide to Econometrics* 233–34 (4th ed. 2001) (discussing dichotomous dependent variables), and Michael O. Finkelstein & Bruce Levin, *Statistics for Lawyers* 257–74 (providing an overview of sampling) & 458–72 (discussing logit and probit regression models).

# C. The Results

### 1. SET ONE

In the first set of models—where the model examines whether the cases involve a procedural due process violation depending on whether the opinion comes from a district court, has a concurrence or dissent, involves wealth indicators, includes language involving hardship or alternative feasibility, whether the government used official procedures, whether the plaintiff committed a wrong act, and when the Supreme Court has held that the interest in question is a constitutionally protected liberty or property interest—the timeframe variable does not strongly affect whether there is a procedural due process violation. Compared to the pre-1970 cases, the timeframe variable has no statistically significant effect on whether the case results in a procedural due process violation. That is, cases pre-1970 are about as likely to involve procedural due process violations as those cases post-1970. Variables that are statistically significant include the existence of a dissent, language regarding hardship on the plaintiff, discussion of alternative feasibility, and whether there is a Supreme Court liberty or property interest. In the pre-1970 cases, the presence of a dissent made it more likely that the case had been adjudicated to find a procedural due process violation. Language regarding the hardship on the defendant and the presence of a clearly articulated liberty or property interest by the Supreme Court also increase the chances of a procedural due process violation in the pre-1970 period.

In general, the direction of the effect of these variables makes sense. It is logical that if a court took the time to discuss hardship on the plaintiff, then the judges displayed some type of sympathy toward the plaintiff that would likely result in finding a violation. Likewise, the alternative feasibility variable is sensible as well; it is a reasonable argument that if the court took time to include language on alternative feasibility, it is probable that the court believed other measures would have imposed a great burden on the government. Thus, the direction of that variable makes sense.

In cases where the Supreme Court decided that the interest in question was a constitutionally protected liberty or property interest, the likelihood of a procedural due process violation increased. This finding suggests that judges are acting judicially—that they are following the precedent of the reviewing courts.

In the second iteration, the time variables are significant. As in the pre-1970 period, the presence of a dissent, language regarding hardship on the plaintiff, and the presence of a clearly defined liberty or property interest by the Supreme Court all increase the likelihood of an adjudication of a procedural due process violation while language about the alternative feasibility for the government decreases the likelihood. Compared to the 1970 to 1975 period, however, procedural due process violations were less likely to occur during 1976 to 1989 and 1997 to present.

These results are sensible. The 1970 to 1975 period is the immediate aftermath of *Goldberg*; it is sensible that courts were more willing to read the doctrine broadly as they defined the boundaries of the case. *Mathews*, on the other hand, was sharply restrictive; it is sensible that immediately after that opinion, the lower courts interpreted the Supreme Court to be reining in the doctrine. During the 1980s, the Supreme Court allowed the lower courts more freedom with regard to procedural due process, and it seems sensible that those courts were more willing to return to a broader interpretation. Finally, *Gilbert* is another restrictive opinion, so a restrictive reaction is expected.

It is interesting that neither wealth indicators of wrong acts of the plaintiff show up as statistically significant. Much of *Goldberg*'s rhetoric centered on the idea of the extreme need of welfare beneficiaries, that the government could not deprive beneficiaries of the very means by which they live while it sorted out its administrative issues. Given the strength of that rhetoric, I expected the presence of a wealth indicator to affect whether a judge found a procedural due process violation. The same is true of the wrong act variable.

The third, fourth, and fifth iterations of the first set provide the inverse of what I have already described. The bottom line is that courts were most likely to find procedural due process violations during the time period between *Goldberg* and *Mathews*, which is what one would expect in the abstract.

# 2. Set two

Set two, which contains the same variables as set one except that the clear liberty or property interest defined by the Supreme Court has been replaced with a clear liberty or property interest defined by a court of appeals, contains similar results. This set of estimations does, however, contain some very important differences.

First, unlike the Supreme Court variable, the court of appeals variable does not significantly affect whether a court is likely to find a procedural due process violation. One would expect that the likelihood of procedural due process violations to increase if a court of appeals has determined that the liberty or property interest at stake is constitutionally significant. The variable, however, is not statistically significant, which suggests that perhaps other courts do not imbue nonbinding precedent with all that much persuasive authority. This finding also suggests that the innovative power of the lower courts might be rather low.

Second, the presence of a wealth indicator and the presence of official procedures are statistically significant variables. In these cases, the presence of a wealth indicator increases the likelihood that the court will find a procedural due process violation. One possible reason to explain why the wealth indicator might be significant here but not in situations where the Supreme Court has spoken to the liberty or property interest issue might be the idea of innovation. When the Supreme Court has not spoken on a liberty or property issue—or if it has decided that there is no liberty or property interest at stake (which my variables contemplate)— the lower courts might be more affected by a wealth indicator. Abject poverty might inspire sympathy that leads the court to be more solicitous of the procedural due process issue.

The official procedures variable, however, is more difficult to explain. The data suggest that where courts recognize that the government has used official procedures, the more likely they are to find a procedural due process violation. In the abstract, I would expect that a court might be more deferential to the government when it has official procedures in place. It is again possible, however, that the courts discuss the official procedures only when they are insufficient. This discussion would explain why presence of the language suggests an increased likelihood of finding a violation.

The timeframe variables have roughly the same effect in set two as they do in set one. Most procedural due process violations occur during the years between 1970 and 1975 and again between 1989 through 1997. The 1989 through 1997 timeframe did not show up as statistically significant in set one. This result suggests that the lower courts were more likely to find procedural due process violations when the Supreme Court had not spoken on the interest at stake in the aftermath of *DeShaney*.

# 3. SET THREE

In some cases, judges recognized that no court had described the interest at stake as a constitutionally protected liberty or property interest but still believed that the interest was significant. These judges sometimes attempted to bring the interest under the rubric of the constitutionally protected interests, but in other cases simply discussed the centrality of the issue. The estimations in set three attempt to understand the significance of these extremely important interests to judges.

These models also may reveal something about how the lower courts function as policy innovators. In most of these cases, the interest has not yet been recognized as constitutionally significant. The judicial action in these cases, however, might be the first step toward constitutionalizing the interest.

The results of these estimations are largely the same as the models in set two. Again, the statistically significant variables include the presence of a dissent, wealth indicators, language regarding hardship, language regarding official procedures, and language regarding feasibility of alternative measures. The presence of each variable but the alternative feasibility measures makes it more likely that there will be a procedural due process violations. The alternative feasibility variable again makes it less likely that there will be a violation.

The extremely important interest variable also significantly affects whether the court will find a procedural due process violation. This result is to be expected; if a court is taking time to identify an extremely important interest, then the court likely thinks that interest is important enough to justify requiring more on the pretermination end. If the court does not find the interest asserted compelling, then it is more likely that they will simply dismiss it out of hand.

Importantly, the district court variable is significant. If the case is heard in the district court, it is more likely to result in a finding of a procedural due process violation over all the relevant timeframes. Thus, it appears that the district courts are either more solicitous of plaintiffs in procedural due process suits than are the appellate courts or that the district courts are more innovative in finding procedural due process violations in cases where the interest involved is not a constitutionally protected liberty or property interest. That can be phrased differently, of course; it is possible that the courts of appeals adhere more strictly to established precedent than do the district courts in cases that might forge new ground in procedural due process law. This result may make good sense; the precedential sweep of an appellate opinion is much broader than a district court opinion. The place for innovation and testing of these new interests may properly be the district courts where erroneous findings can be dislodged more easily and ignored by other courts if prudent.

The timeframe variables again display a similar pattern. Cases decided between 1976 and 1989 and after 1997 are less likely to result in findings of procedural due process violations than are cases decided between 1970 and 1975. Cases decided between 1989 and 1996 are more likely to result in violations than are cases decided between 1975 and 1988. Thus, the lower courts seem to be following the guidance set forth in the Supreme Court signposts.

# 4. SETS FOUR AND FIVE

The estimations in sets four and five attempt to understand a pattern that I noticed in coding cases. Sometimes the judges decided a case based on a clear liberty or property interest as defined by either the Supreme Court or a court of appeals, but the judges still include language

about extremely important interests at stake for the plaintiff. The extremely important interest is in some cases directly related to the already protected interest. In others, however, the extremely important interest is cumulative; not only do the litigants have some protected property right, some other issue is implicated.

To pick up this effect, I estimated models with combined liberty or property interests and extremely important interests. The results of these models are very similar to the results in sets one and two respectively. The statistically significant variables are the same, with the exception of the timeframe variables and the addition of the extremely important interest variable, which is statistically significant in both sets. That is, the combination of a Supreme Court-defined liberty or property interest and some other extremely important interest results in a greater likelihood of finding a procedural due process violation for both variables. The combination of a court of appeals-defined liberty or property interest and some other extremely important interest results in a greater likelihood of finding a procedural due process violation, but only for the extremely important interest variable. Thus, we again see a situation where an interest recognized by the court of appeals does not significantly affect whether another court will find that interest constitutionally significant enough to result in a procedural due process violation.

When the judicially defined liberty or property interest variable is combined with the extremely important interest variable, it affects the significance of the timeframe variables in set four. Whereas in set one, the period between 1976 and 1989 had fewer violations than 1970 to 1975, this result is no longer significant. The years after *Gilbert* (post-1997) still have fewer violations than the years between *Goldberg* and *Mathews*. However, when the 1970 to 1975 timeframe is compared to the other variables, procedural due process violations are significantly more likely during that timeframe. Set five's timeframe variables are identical to their set three counterparts.

# 5. OTHER TRENDS

In no model did the wrong act variable show up as statistically significant. This result is not necessarily what I expected, given the Court's focus on the importance of allowing oral hearings in certain termination cases. Language in *Goldberg* and *Mathews* in particular discussed that where issues of reputation might influence outcome, the target was entitled to explain her side in person. But the variable could cut the other way as well. If a court perceives the plaintiff as an outlaw or engaged in some other type of bad behavior, then the court might be less sympathetic to the procedural due process claims. Thus, the effects might cancel each other out, which would explain the statistical insignificance of the variable.

The timeframe variables suggest that the lower courts seem to respond to the Supreme Court signpost cases. When the Supreme Court expanded procedural due process in *Goldberg*, the lower courts responded by more readily finding procedural due process violations. When the Court restricted the doctrine in *Mathews*, the lower courts found violations in fewer cases than they had in the past. When the Court remained silent on procedural due process issues for quite some time and issued only a relatively unpopular case, the lower courts developed and expanded the doctrine until the Court again restricted things in *Gilbert*. Thus, my data suggest that the lower courts act judicially and are responsive to the guidance set forth by the Supreme Court. They certainly are willing to innovate, but they tend to do so within the clearly established bounds of the reviewing courts.

### D. Summary and Situating the Results in the Scholarship

The broadest conclusion to draw from this research is that, in general, courts act as a precedent-model adherent would expect. Courts are more likely to find that a procedural due process violation occurred where the Supreme Court has said that the liberty or property interest at stake is protected. The presence of a dissent is also important, suggesting that the lower courts respond more innovatively to mixed precedent. That is, when the signals are unclear, the lower courts take a more active role in shaping the doctrine. The other important factors include wealth indicators, language regarding hardship, language regarding official procedures, and language regarding feasibility of alternative measures. These factors are in line with Supreme Court precedent, suggesting that the lower courts are using the relevant tests—or at least paying homage to them in their opinions.

This remark raises an important point. The numbers do suggest that the courts are engaged in precedential reasoning, since the language of the opinions tracks the language of the relevant precedent. It is possible, of course, that the courts engaged in this type of reasoning to mask their true intent to advance their policy preferences. But the timeframe variables add an important contour to this point: the courts were more likely to find procedural due process violations in the post-*Goldberg*, pre-*Mathews* era. That is, the courts responded to Supreme Court precedent, both when it suggested the need for broad interpretation and when it reined in the boundaries. Thus, at least in the realm of procedural due process, the naked attitudinal model fails to tell the entire story.

But neither do the courts appear to adhere to a pure precedential model. If the courts did behave in this fashion, one would expect precedent from the courts of appeals to have a statistically significant impact. The fact that it does not indicates that the courts are disagreeing with one another and engaging in a dialogue about what the law is. This dialogue necessarily involves some predictions about how the Supreme Court would move the doctrine given the chance.

Moreover, the data—and the nature of the opinions themselves—suggest that there is some objective notion as to what constitutes "good" legal reasoning. The opinions quite consistently engage in the same type of reasoning, regardless of the results reached. That is, the opinions invoke and explain the relevant tests and usually try to fit the facts to the test or find distinctions to justify a departure. Fear of reversal might play a role, as an opinion flagrantly disregarding the rules is begging to be overturned. But more that that seems to be at play. Judges rarely criticize the existing law; instead, they write and apply it as though it is objectively correct. Precedent is critical, because it is law. This conclusion too suggests the precedent model is at least the fundamental model at work in the system.

## IV. CONCLUSION

Thus, my data suggest that the precedent model is the model that the lower federal courts apply most often. While some evidence suggests that the district courts are willing to act as policy innovators, most estimations indicate that the lower courts respond to guidance and trends from the Supreme Court. My research suggests that in the realm of procedural due process, courts do not flout precedent, even if they disagree with it.

This finding does not mean the lower courts blindly follow precedent, only that they proceed rather cautiously in making new law. The conclusion that judges act judicially is not

monumental in the abstract. But in the contemporary political climate, which commonly assails judges for being activist and ignoring majority will, the conclusion is somewhat surprising.

This research is only the first step to a broader consideration of policymaking in the federal courts. My research has examined the relatively straightforward issues involved in procedural due process. New questions surround policymaking activity in more substantively complex areas of law and those more politically charged. Studying those areas in depth will provide a more complete picture of how the lower federal courts conceptualize their policy role and engage in the lawmaking enterprise.

# APPENDIX A: STATISTICAL OUTPUT<sup>†</sup>

- . sort year\_dummy
- . summarize year\_dummy

Variable	Obs	Mean	Std.	Dev.	Min	Max
year dummy	252	2.638889	1.1	 5379	0	

#### SET ONE

#### Iteration One:

. logit pdpviolation time1 time2 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est

Iteration	0:	log	likelihood	=	-169.03059
Iteration	1:	log	likelihood	=	-116.36278
Iteration	2:	log	likelihood	=	-110.9378
Iteration	3:	log	likelihood	=	-110.40469
Iteration	4:	log	likelihood	=	-110.39486
Iteration	5:	log	likelihood	=	-110.39485

Logit estimates	Number of obs	=	250
	LR chi2(13)	=	117.27
	Prob > chi2	=	0.0000
Log likelihood = -110.39485	Pseudo R2	=	0.3469

pdpviolation		Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
time1 time2 time3 time4	- + -       	1.334633 .1127769 .5380236 1440759	1.23881 1.204758 1.220381 1.192928	1.08 0.09 0.44 -0.12	0.281 0.925 0.659 0.904	-1.093389 -2.248505 -1.853879 -2.482172	3.762656 2.474059 2.929926 2.19402
distct concurrence <b>dissent</b>	   	1349282 5177296 2.08967	.3994376 .7365692 .9218529	-0.34 -0.70 <b>2.27</b>	0.736 0.482 0.023	9178116 -1.961379 .282871	.6479552 .9259194 <b>3.896468</b>
wealthindic hardship	 	.0577264 2.054924	.3807509 .4837297	0.15 4.25	0.879 0.000	6885316 1.106831	.8039844 3.003017
officialpr~s altfeasibi~y wrongact sctclearli~t cons	     	1250649 -1.641658 .2747244 3.154515 -3.264901	.5138251 .541169 .354431 .540912 1.344072	-0.24 -3.03 0.78 5.83 -2.43	0.808 0.002 0.438 0.000 0.015	-1.132144 -2.70233 4199476 2.094346 -5.899234	.8820139 580986 .9693964 4.214683 6305682

Output from Stata 7. Statistically significant variables are denoted with boldface.

#### Iteration Two:

. logit pdpviolation time0 time2 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5:	log likeliho log likeliho log likeliho log likeliho log likeliho log likeliho	pod = -169.01 pod = -116.3 pod = -110.4 pod = -110.4 pod = -110.3 pod = -110.3	3059 6278 9378 0469 9486 9485			
Logit estimate	es			Numbe LR ch Prob	r of obs = i2(13) = > chi2 =	250 117.27 0.0000
Log likelihood	A = -110.39485	5		Pseud	o R2 =	0.3469
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Conf	. Interval]
time0	-1.334633	1.23881	-1.08	0.281	-3.762656	1.093389
time2	-1.221856	.5584027	-2.19	0.029	-2.316306	1274072
time3	/96609/	.5936409	-1.34	0.180	-1.960125	.366905
time4	- <b>1.478709</b>	.5486496	-2.70	0.007	-2.554043	<b>4033758</b>
distat	- 1349282	3994376	-0.34	0.736	- 9178116	6479552
concurrence	5177296	.7365692	-0.70	0.482	-1.961379	.9259194
dissent	2.08967	.9218529	2.27	0.023	.282871	3.896468
wealthindic	.0577264	.3807509	0.15	0.879	6885316	.8039844
hardship	<b>2.054924</b>	. <b>4837297</b>	<b>4.25</b>	<b>0.000</b>	1.106831	<b>3.003017</b>
officialpr~s   altfeasibi~y   wrongact	1250649 -1.641658 2747244	.5138251 . <b>541169</b> 354431	-0.24 -3.03	0.808 0.002 0.438	-1.132144 -2.70233 - 4199476	.8820139 580986
sctclearli~t	<b>3.154515</b>	.540912	<b>5.83</b>	0.000	<b>2.094346</b>	<b>4.214683</b>
cons	-1.930268	.6919204	-2.79	0.005	-3.286407	<b></b> 5741285

#### Iteration Three:

. logit pdpviolation time0 time1 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5:	log likeliha log likeliha log likeliha log likeliha log likeliha log likeliha	bod = -169.0 bod = -116.3 bod = -110. bod = -110.4 bod = -110.3 bod = -110.3	3059 6278 9378 0469 9486 9485			
Logit estimate	es			Numbe LR ch Brob	r of obs = i2(13) =	250 117.27
Log likelihood	d = -110.39483	ō		Pseud	o R2 =	0.3469
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Conf	. Interval]
time0 time1 time3 time4 distct concurrence <b>dissent</b> wealthindic <b>hardship</b> officialpr~s <b>altfeasibi~y</b>	<pre>1127769 1.221856 .4252467256852813492825177296 2.08967 .0577264 2.05492412506491250649 -1.641658</pre>	1.204758 .5584027 .5074594 .4359131 .3994376 .7365692 .9218529 .3807509 .4837297 .5138251 .541169	-0.09 2.19 0.84 -0.59 -0.34 -0.70 2.27 0.15 4.25 -0.24 -3.03	0.925 0.029 0.402 0.556 0.736 0.482 0.023 0.879 0.000 0.808 0.002	-2.474059 .1274072 5693555 -1.111227 9178116 -1.961379 .282871 6885316 1.106831 -1.132144 -2.70233	2.248505 2.316306 1.419849 .5975211 .6479552 .9259194 3.896468 .8039844 3.003017 .8820139 580986
wrongact sctclearli~t _cons	.2747244 3.154515 -3.152124	.354431 . <b>540912</b> .6599129	0.78 <b>5.83</b> -4.78	0.438 <b>0.000</b> 0.000	4199476 2.094346 -4.445529	.9693964 <b>4.214683</b> -1.858718

#### Iteration Four:

. logit pdpviolation time0 time1 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5:	log likelih log likelih log likelih log likelih log likelih log likelih	<pre>ood = -169.0 ood = -116.3 ood = -110. ood = -110.4 ood = -110.3 ood = -110.3</pre>	3059 6278 9378 0469 9486 9485			
Logit estimate	es			Numbe LR ch Prob	er of obs = i2(13) =	250 117.27
Log likelihood	d = -110.3948	5		Pseud	lo R2 =	0.3469
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Conf.	[Interval]
time0 <b>time1</b> time3 time4 distct	<pre>1127769 1.221856 .4252467 .25685281349282</pre>	1.204758 . <b>5584027</b> .5074594 .4359131 .3994376	-0.09 <b>2.19</b> 0.84 -0.59 -0.34	0.925 0.029 0.402 0.556 0.736	-2.474059 . <b>1274072</b> 5693555 -1.111227 9178116	2.248505 2.316306 1.419849 .5975211 .6479552
concurrence dissent wealthindic hardship officialpr~s	<pre>5177296 2.08967 .0577264 2.0549241250649</pre>	.7365692 .9218529 .3807509 .4837297 .5138251	-0.70 2.27 0.15 4.25 -0.24	0.482 0.023 0.879 0.000 0.808	-1.961379 .282871 6885316 1.106831 -1.132144	.9259194 3.896468 .8039844 3.003017 .8820139
altfeasibi~y wrongact sctclearli~t cons	-1.641658 .2747244 3.154515 -3.152124	.541169 .354431 .540912 .6599129	-3.03 0.78 5.83 -4.78	0.002 0.438 0.000 0.000	-2.70233 4199476 2.094346 -4.445529	580986 .9693964 4.214683 -1.858718

#### Iteration Five:

•

. logit pdpviolation time0 time1 time2 time3 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5:	log likelih log likelih log likelih log likelih log likelih log likelih	ood = -169.0         ood = -116.3         ood = -110.         ood = -110.4         ood = -110.3         ood = -110.3	3059 6278 9378 0469 9486 9485			
Logit estimate	es			Numbe LR ch Prob	er of obs = ii2(13) = > chi2 =	250 117.27
Log likelihood	d = -110.3948	5		Pseud	lo R2 =	0.3469
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Conf	. Interval]
time0 <b>time1</b> time2	<pre>.1440759 .14<b>78709</b> .2568528</pre>	1.192928 .5486496 .4359131	0.12 <b>2.70</b> 0.59	0.904 <b>0.007</b> 0.556	-2.19402 .4033758 5975211	2.482172 2.554043 1.111227
time3 distct	.6820995 1349282	.487403 .3994376	1.40 -0.34	0.162	2731929 9178116	1.637392 .6479552
concurrence dissent wealthindic	<ul> <li>5177296</li> <li>2.08967</li> <li>.0577264</li> </ul>	.7365692 .9218529 .3807509	-0.70 <b>2.27</b> 0.15	0.482 0.023 0.879	-1.961379 .282871 6885316	.9259194 <b>3.896468</b> .8039844
<pre>hardship officialpr~s altfeasibi~y</pre>	<pre>l 2.054924  1250649   -1.641658</pre>	.4837297 .5138251 .541169	<b>4.25</b> -0.24 <b>-3.03</b>	<b>0.000</b> 0.808 <b>0.002</b>	1.106831 -1.132144 -2.70233	3.003017 .8820139 580986
wrongact <b>sctclearli~t</b> _cons	<pre>.2747244 3.154515 .3.408977</pre>	.354431 . <b>540912</b> .6711258	0.78 <b>5.83</b> -5.08	0.438 <b>0.000</b> 0.000	4199476 <b>2.094346</b> -4.724359	.9693964 <b>4.214683</b> -2.093594

#### Set Two

#### Iteration One: . logit pdpviolation time1 time2 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter > est Iteration 0: log likelihood = -169.03059Iteration 1: $\log$ likelihood = -136.57547 Iteration 2: log likelihood = -135.4814 Iteration 3: log likelihood = -135.4686 Iteration 4: log likelihood = -135.4686 Number of obs = 25067.12Logit estimates 0.0000 Prob > chi2 = Log likelihood = -135.4686Pseudo R2 = 0.1986 \_\_\_\_\_ P>|z| [95% Conf. Interval] pdpviolation | Coef. Std. Err. Z \_\_\_\_\_\_ time1 | 1.188452 1.205485 0.99 0.324 -1.174256 3.55116 .0356656 0.03 0.976 -2.288753 1.185949 time2 | 2.360084 0.79 0.427 time3 | -1.400174 .9529942 1.200618 0.79 0.427 -1.400174 -0.03 0.977 -2.334257 3.306163 2.266865 time4 | -.0336961 1.173777 .3453598 1.99 0.046 distct | .6882161 .0113233 1.365109 .6647698 -0.12 0.902 -1.384974 1.220876 concurrence | -.0820492 dissent | 1.554792 .0178893 3.091694 .7841484 1.98 0.047 .5795827 1.71 0.087 -.0844958 wealthindic | .3388218 1.243661 4.23 0.000 2.00 0.045 -1.96 0.050 1.760441 .4157874 .9455129 .0163713 hardship | 2.57537 .4088889 1.619186 officialpr~s | .8177788 .0012254 altfeasibi~y | -.9188401 .4694298 -1.838906 wrongact | .4402515 .3195875 1.38 0.168 -.1861284 1.066631 ctaclearli~t | .7802598 1.387583 0.56 0.574 -1.939353 3.499872 cons | -2.42289 1.261263 -1.92 0.055 .0491402 -4.89492 \_\_\_\_\_

<pre>Iteration Two: . logit pdpvid &gt; indic hardshi &gt; est</pre>	olation time( ip officialpr	) time2 time3 cocedures alt	3 time4 c tfeasibil	listct c Lity wron	oncurrence o gact ctacles	dissent wealth arlibpropinter
Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4:	log likeliho log likeliho log likeliho log likeliho log likeliho	pod = -169.03 pod = -136.57 pod = -135.4 pod = -135.4 pod = -135.4	3059 7547 4814 4686 4686			
Logit estimate: Log likelihood	s = -135.4686	5		Numbe LR ch Prob Pseud	r of obs = i2(13) = > chi2 = o R2 =	= 250 = 67.12 = 0.0000 = 0.1986
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Con:	f. Interval]
<pre>time0   time2   time3   time3   time4   distct   concurrence   dissent   wealthindic   hardship   officialpr~s   altfeasibi~y   wrongact   ctaclearli~t  cons  </pre>	-1.188452 -1.152786 2354578 -1.222148 .6882161 0820492 1.554792 .5795827 1.760441 .8177788 9188401 .4402515 .7802598 -1.234438	1.205485 .4726881 .5057791 .4599841 .3453598 .6647698 .7841484 .3388218 .4157874 .4088889 .4694298 .3195875 1.387583 .5346389	-0.99 -2.44 -0.47 -2.66 1.99 -0.12 1.98 1.71 4.23 2.00 -1.96 1.38 0.56 -2.31	0.324 0.015 0.642 0.008 0.046 0.902 0.047 0.087 0.087 0.087 0.000 0.045 0.050 0.168 0.574 0.021	-3.55116 -2.079238 -1.226767 -2.1237 .0113233 -1.384974 .0178893 0844958 .9455129 .0163713 -1.838906 1861284 1861284 939353 -2.282311	1.174256 2263348 .755851 3205957 1.365109 1.220876 3.091694 1.243661 2.57537 1.619186 .0012254 1.066631 3.499872 1865651

#### Iteration Three:

. logit pdpviolation time0 time1 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter > est Iteration 0: log likelihood = -169.03059 Iteration 1: log likelihood = -136.57547 Iteration 2: log likelihood = -135.4814 Iteration 3: log likelihood = -135.4686

Iteration 4:	log likelihood =	-135.4686			
Logit estimate	S		Number of obs	=	250
			LR chi2(13)	=	67.12
			Prob > chi2	=	0.0000
Log likelihood	= -135.4686		Pseudo R2	=	0.1986

pdpviolation		Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
time0	- + -   	0356656 1.152786	1.185949 . <b>4726881</b>	-0.03 <b>2.44</b>	0.976 0.015	-2.360084 . <b>2263348</b>	2.288753 2.079238
time3	i	.9173286	.4544557	2.02	0.044	.0266119	1.808045
time4		0693617	.3916451	-0.18	0.859	836972	.6982486
distct	Ì	.6882161	.3453598	1.99	0.046	.0113233	1.365109
concurrence		0820492	.6647698	-0.12	0.902	-1.384974	1.220876
dissent	Ι	1.554792	.7841484	1.98	0.047	.0178893	3.091694
wealthindic	Ι	.5795827	.3388218	1.71	0.087	0844958	1.243661
hardship	Ι	1.760441	.4157874	4.23	0.000	.9455129	2.57537
officialpr~s	Ι	.8177788	.4088889	2.00	0.045	.0163713	1.619186
altfeasibi~y	Ι	9188401	.4694298	-1.96	0.050	-1.838906	.0012254
wrongact		.4402515	.3195875	1.38	0.168	1861284	1.066631
ctaclearli~t		.7802598	1.387583	0.56	0.574	-1.939353	3.499872
_cons		-2.387225	.5083967	-4.70	0.000	-3.383664	-1.390785

#### Iteration Four:

. logit pdpviolation time0 time1 time2 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter
> est

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4:	log likelih log likelih log likelih log likelih log likelih	pod = -169.0 pod = -136.5 pod = -135. pod = -135. pod = -135.	3059 7547 4814 4686 4686				
Logit estimate Log likelihood	s . = −135.468	6		Numbe LR ch Prob Pseud	er of obs 12(13) > chi2 lo R2	= = =	250 67.12 0.0000 0.1986
pdpviolation	Coef.	Std. Err.	Z	P> z	 [95۶]	Conf.	Interval]
<pre>time0   time1   time2   time4   distct   concurrence   dissent   wealthindic   hardship   officialpr~s   altfeasibi~y   wrongact   ctaclearli~t  cons  </pre>	9529942 .2354578 9173286 9866903 .6882161 0820492 1.554792 .5795827 1.760441 .8177788 9188401 .4402515 .7802598 -1.469896	1.200618 .5057791 .4544557 .4430233 .3453598 .6647698 .7841484 .3388218 .4157874 .4088889 .4694298 .3195875 1.387583 .5355274	-0.79 0.47 -2.02 -2.23 1.99 -0.12 1.98 1.71 4.23 2.00 -1.96 1.38 0.56 -2.74	0.427 0.642 0.044 0.026 0.046 0.902 0.047 0.087 0.000 0.045 0.050 0.168 0.574 0.006	-3.306 755 -1.808 -1. .0113 -1.384 .0178 0844 .9455 .0163 -1.838 1861 -1.939 -2.51	163 851 <b>045</b> <b>855</b> 233 974 <b>893</b> 958 129 713 906 284 353 951	1.400174 1.226767 0266119 1183805 1.365109 1.220876 3.091694 1.243661 2.57537 1.619186 .0012254 1.066631 3.499872 4202816

#### Iteration Five:

•

. logit pdpviolation time0 time1 time2 time3 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter
> est

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4:	log likeliha log likeliha log likeliha log likeliha log likeliha	bod = -169.0 bod = -136.5 bod = -135. bod = -135. bod = -135.	3059 7547 4814 4686 4686				
Logit estimate	es			Numbe LR ch Prob	r of obs i2(13) > chi2	= = =	250 67.12 0.0000
Log likelihood	a = -135.468	6		Pseud	.o R2	=	0.1986
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% C	conf.	Interval]
time0   time1   time2   time3   distct   concurrence   dissent   wealthindic   hardship   officialpr~s   altfeasibi~y   wrongact	.0336961 1.222148 .0693617 .9866903 .6882161 0820492 1.554792 .5795827 1.760441 .8177788 9188401 4402515	1.173777 .4599841 .3916451 .4430233 .3453598 .6647698 .7841484 .3388218 .4157874 .4088889 .4694298 .3195875	0.03 2.66 0.18 2.23 1.99 -0.12 1.98 1.71 4.23 2.00 -1.96 1 38	0.977 0.008 0.859 0.026 0.046 0.902 0.047 0.087 0.087 0.000 0.045 0.050 0.168	-2.2668 .32059 69824 .11838 .01132 -1.3849 .01788 08449 .94551 .01637 -1.8389 - 18612	65 957 86 305 33 974 993 958 29 13 906 84	2.334257 2.1237 .836972 1.855 1.365109 1.220876 3.091694 1.243661 2.57537 1.619186 .0012254 1.066631
ctaclearli~t   cons	.7802598	1.387583 .5091943	0.56 -4.82	0.574	-1.9393 -3.4545	53 89	3.499872 -1.458584

#### Set Three:

#### Iteration One: . logit pdpviolation time1 time2 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact eximportant Iteration 0: log likelihood = -168.50495Iteration 1: log likelihood = -134.82882 Iteration 2: log likelihood = -133.46312 Iteration 3: log likelihood = -133.4423 Iteration 4: log likelihood = -133.4423 Number of obs = 249 LR chi2(13) = 70.13 Logit estimates 0.0000 Prob > chi2 = Log likelihood = -133.4423Pseudo R2 = 0.2081 \_\_\_\_\_ pdpviolation | Coef. Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_\_ time1 | 1.088071 1.212977 0.90 0.370 -1.289321 3.465463 time2 | .0103122 1.192672 0.01 0.993 -2.327282 2.347906 time3 | .9290202 1.207459 0.77 0.442 time4 | -.0623998 1.180096 -0.05 0.958 distct | .790259 .350573 2.25 0.024 urrence | .020539 .6688212 0.03 0.976 -1.437556 3.295596 -2.375346 2.250546 .1031485 1.477369 concurrence | 0.03 0.976 -1.290326 1.331404 dissent | 1.698723 .7782188 .1734418 3.224003 2.18 0.029 wealthindic | .577021 .3418219 1.69 0.091 -.0929377 1.24698 hardship | 1.641176 .420326 3.90 0.000 .817352 2.465 officialpr~s | .8737504 .4181316 2.09 0.037 .0542275 1.693273 altfeasibi~y | -1.011117 .4807629 -2.10 0.035 -1.953395 -.0688395 wrongact | .4079289 .3213811 1.27 0.204 -.2219664 1.037824 .mportant | 1.269013 .6612072 1.92 0.055 -.0269296 2.564955 eximportant | 1.269013 .6612072 \_cons | -2.503521 1.271444 -1.97 0.049 -4.995505 -.0115375

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#### Iteration Two:

. logit pdpviolation time0 time2 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact eximportant Iteration 0: log likelihood = -168.50495Iteration 1: log likelihood = -134.82882 Iteration 2: log likelihood = -133.46312 Iteration 3: log likelihood = -133.4423Iteration 4: log likelihood = -133.4423 Number of obs = 249 LR chi2(13) = 70.13 Prob > chi2 = 0.0000 Logit estimates Log likelihood = -133.4423Pseudo R2 = 0.2081 \_\_\_\_\_ \_\_\_\_\_ pdpviolation | Coef. Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_+\_\_\_\_+\_\_\_\_\_\_\_ time0 |-1.0880711.212977-0.900.370-3.4654631.289321time2 |-1.077759.4797279-2.250.025-2.018008-.1375095 time3 | -.1590509 .5107047 -0.31 0.755 -1.160014 .8419119 time4 | -1.150471 .4636163 -2.48 0.013 -2.059142 -.2417997 

 2.25
 0.024
 .1031485

 0.03
 0.976
 -1.290326

 2.18
 0.029
 .1734418

 1.69
 0.091
 -.0929377

 distct | .790259 1.477369 .350573 concurrence | .020539 .6688212 1.331404 dissent | 1.698723 .7782188 .1734418 3.224003 wealthindic | .577021 .3418219 hardship | 1.641176 .420326 1.24698 .817352 2.465 .0542275 1.693273 3.90 0.000 

 marcsmp
 1.041170
 .420320
 3.90
 0.000
 .817352
 2.465

 officialpr~s
 .8737504
 .4181316
 2.09
 0.037
 .0542275
 1.693273

 altfeasibi~y
 -1.011117
 .4807629
 -2.10
 0.035
 -1.953395
 -.0688395

 wrongact
 .4079289
 .3213811
 1.27
 0.204
 -.2219664
 1.037824

 eximportant
 1.269013
 .6612072
 1.92
 0.055
 -.0269296
 2.564955

 \_cons
 -1.41545
 .5516685
 -2.57
 0.010
 -2.4967
 -.3341998

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#### Iteration Three:

. logit pdpviolation time0 time1 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact eximportant Iteration 0: log likelihood = -168.50495 Iteration 1: log likelihood = -134.82882 Iteration 2: log likelihood = -133.46312 Iteration 3: log likelihood = -133.4423Iteration 4: log likelihood = -133.4423Number of obs = Logit estimates 249 Number of obs = 249 LR chi2(13) = 70.13 Prob > chi2 = 0.0000 Log likelihood = -133.4423Pseudo R2 = 0.2081 \_\_\_\_\_ pdpviolation | Coef. Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_+\_\_\_\_+\_\_\_\_\_\_\_ time0 | -.0103122 1.192672 -0.01 0.993 -2.347906 2.327282 time1 | 1.077759 .4797279 2.25 0.025 .1375095 2.018008 

 time4 |
 -.072712
 .3933834
 -0.18
 0.853

 distct |
 .790259
 .350573
 2.25
 0.024

 .0224546 1.814961 -.8437293 .6983052 **2.25 0.024** 0.03 0.976 .1031485 1.477369 .020539 .6688212 concurrence | -1.290326 1.331404 2.18 0.029 .1734418 1.69 0.091 -.0929377 dissent | 1.698723 .7782188 .1734418 3.224003 wealthindic | .577021 .3418219 hardship | 1.641176 .420326 1.24698 .817352 2.465 .0542275 1.693273 3.90 0.000 

 nardship |
 1.641176
 .420326
 3.90
 0.000
 .817352
 2.465

 officialpr~s |
 .8737504
 .4181316
 2.09
 0.037
 .0542275
 1.693273

 altfeasibi~y |
 -1.011117
 .4807629
 -2.10
 0.035
 -1.953395
 -.0688395

 wrongact |
 .4079289
 .3213811
 1.27
 0.204
 -.2219664
 1.037824

 eximportant |
 1.269013
 .6612072
 1.92
 0.055
 -.0269296
 2.564955

 \_cons |
 -2.493209
 .5211303
 -4.78
 0.000
 -3.514606
 -1.471812

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#### Iteration Four:

. logit pdpviolation time0 time1 time2 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact eximportant Iteration 0: log likelihood = -168.50495 Iteration 1: log likelihood = -134.82882 Iteration 2: log likelihood = -133.46312 Iteration 3: log likelihood = -133.4423Iteration 4: log likelihood = -133.4423Number of obs = Logit estimates 249 Number of obs = 249 LR chi2(13) = 70.13 Prob > chi2 = 0.0000 Log likelihood = -133.4423Pseudo R2 = 0.2081 \_\_\_\_\_ pdpviolation | Coef. Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_+\_\_\_\_+\_\_\_\_\_\_\_ time0 | -.9290202 1.207459 -0.77 0.442 -3.295596 1.437556 time1 | .1590509 .5107047 0.31 0.755 -.8419119 1.160014 time2 | -.918708 .4572805 -2.01 0.045 -1.814961 -.0224546 time4 | -.99142 .4432408 -2.24 0.025 -1.860156 -.1226841 

 2.24
 0.023
 1.000130

 2.25
 0.024
 .1031485

 0.03
 0.976
 -1.290326

 2.18
 0.029
 .1734418

 1.69
 0.091
 -.0929377

 distct | .790259 .350573 1.477369 .020539 .6688212 concurrence | 1.331404 dissent | 1.698723 .7782188 .1734418 3.224003 wealthindic | .577021 .3418219 hardship | 1.641176 .420326 1.24698 .817352 2.465 .0542275 1.693273 3.90 0.000 

 nardsnip |
 1.041170
 .420320
 3.90
 0.000
 .817352
 2.465

 officialpr~s |
 .8737504
 .4181316
 2.09
 0.037
 .0542275
 1.693273

 altfeasibi~y |
 -1.011117
 .4807629
 -2.10
 0.035
 -1.953395
 -.0688395

 wrongact |
 .4079289
 .3213811
 1.27
 0.204
 -.2219664
 1.037824

 eximportant |
 1.269013
 .6612072
 1.92
 0.055
 -.0269296
 2.564955

 \_cons |
 -1.574501
 .5439305
 -2.89
 0.004
 -2.640585
 -.5084167

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#### Iteration Five:

. logit pdpviolation time0 time1 time2 time3 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact eximportant Iteration 0: log likelihood = -168.50495Iteration 1: log likelihood = -134.82882 Iteration 2: log likelihood = -133.46312 Iteration 3: log likelihood = -133.4423Iteration 4: log likelihood = -133.4423Number of obs = 249 LR chi2(13) = 70.13 Duch > chi2 = 0.0000 Logit estimates Log likelihood = -133.4423Pseudo R2 = 0.2081 \_\_\_\_\_ \_\_\_\_\_ pdpviolation | Coef. Std. Err. z P>|z| [95% Conf. Interval] \_\_\_\_\_+\_\_\_\_+\_\_\_\_\_\_\_ time0 | .0623998 1.180096 0.05 0.958 -2.250546 2.375346 time1 | 1.150471 .4636163 2.48 0.013 .2417997 2.059142 0.18 0.853 time2 | .072712 .3933834 -.6983052 .8437293 .1226841 1.860156 .99142 .4432408 time3 | 2.24 0.025 **2.25 0.024** 0.03 0.976 distct | .790259 .350573 1.477369 .1031485 -1.290326 1.331404 .1734418 3.224003 1.24698 .817352 2.465 .0542275 1.693273 

 narosnip |
 1.0411/0
 .420326
 3.90
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 .817352
 2.465

 officialpr~s |
 .8737504
 .4181316
 2.09
 0.037
 .0542275
 1.693273

 altfeasibi~y |
 -1.011117
 .4807629
 -2.10
 0.035
 -1.953395
 -.0688395

 wrongact |
 .4079289
 .3213811
 1.27
 0.204
 -.2219664
 1.037824

 eximportant |
 1.269013
 .6612072
 1.92
 0.055
 -.0269296
 2.564955

 \_cons |
 -2.565921
 .5221017
 -4.91
 0.000
 -3.589222
 -1.54262

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#### Set Four

# Iteration One: . logit pdpviolation time1 time2 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter > est eximportant Iteration 0: log likelihood = -168.50495 Iteration 1: log likelihood = -111.68152 Iteration 2: log likelihood = -104.16018 Iteration 3: log likelihood = -102.86365 Iteration 4: log likelihood = -102.76719 Iteration 5: log likelihood = -102.76619

Logit estimates	Number of obs	=	249
	LR chi2(14)	=	131.48
	Prob > chi2	=	0.0000
Log likelihood = -102.76619	Pseudo R2	=	0.3901

Iteration 6: log likelihood = -102.76619

pdpviolation		Coef.	Std. Err.	Z	₽> z	[95% Conf.	Interval]
time1	-+-	1.088405	1.256339	0.87	0.386	-1.373975	3.550784
time2		.1275675	1.21896	0.10	0.917	-2.261551	2.516686
time3		.3819142	1.23704	0.31	0.758	-2.04264	2.806469
time4		2348824	1.208451	-0.19	0.846	-2.603403	2.133638
distct		.0264787	.4090754	0.06	0.948	7752943	.8282518
concurrence		4038879	.7828901	-0.52	0.606	-1.938324	1.130549
dissent	Ι	2.469546	1.052691	2.35	0.019	.4063106	4.532782
wealthindic		.0378734	.3917092	0.10	0.923	7298626	.8056093
hardship	Ι	1.728565	.4917256	3.52	0.000	.7648004	2.692329
officialpr~s		2334184	.5431164	-0.43	0.667	-1.297907	.8310701
altfeasibi~y	Ι	-1.792751	.5697734	-3.15	0.002	-2.909486	6760154
wrongact		.1910731	.3650195	0.52	0.601	524352	.9064982
sctclearli~t	Ι	4.052446	.7407699	5.47	0.000	2.600563	5.504328
eximportant	Ι	3.018099	.9084399	3.32	0.001	1.23759	4.798609
_cons		-4.013088	1.453437	-2.76	0.006	-6.861773	-1.164403

#### Iteration Two:

. logit pdpviolation time0 time2 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est eximportant

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5: Iteration 6:	log likelih log likelih log likelih log likelih log likelih log likelih	ood = -168.5 ood = -111.6 ood = -104.1 ood = -102.8 ood = -102.7 ood = -102.7 ood = -102.7	0495 8152 6018 6365 6719 6619 6619			
Logit estimate	es			Numbe	r of obs =	249 131 48
				Prob	> chi2 =	0 0000
Log likelihood	d = -102.7661	9		Pseud	$ 0 R^2 =$	0.3901
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
time0	-1.088405	1.256339	-0.87	0.386	-3.550784	1.373975
time2	9608371	.583786	-1.65	0.100	-2.105037	.1833625
time3	7064904	.6099192	-1.16	0.247	-1.90191	.4889293
time4	-1.323287	.5662723	-2.34	0.019	-2.43316	2134136
distct	.0264787	.4090754	0.06	0.948	7752943	.8282518
concurrence	4038879	.7828901	-0.52	0.606	-1.938324	1.130549
dissent	2.469546	1.052691	2.35	0.019	.4063106	4.532782
wealthindic	.0378734	.3917092	0.10	0.923	7298626	.8056093
hardship	1.728565	.4917256	3.52	0.000	.7648004	2.692329
officialpr~s	2334184	.5431164	-0.43	0.667	-1.297907	.8310701
altfeasibi~y	-1.792751	.5697734	-3.15	0.002	-2.909486	6760154
wrongact	.1910731	.3650195	0.52	0.601	524352	.9064982
sctclearli~t	4.052446	.7407699	5.47	0.000	2.600563	5.504328
eximportant	3.018099	.9084399	3.32	0.001	1.23759	4.798609
_cons	-2.924684	.8705011	-3.36	0.001	-4.630835	-1.218533

#### Iteration Three:

. logit pdpviolation time0 time1 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est eximportant

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5: Iteration 6:	log log log log log log	likelih likelih likelih likelih likelih likelih likelih	1000d = 1000d = 1000d = 1000d = 1000d = 1000d =	-168.5 -111.6 -104.1 -102.8 -102.7 -102.7 -102.7	50495 58152 16018 36365 76719 76619 76619							
Logit estimate	es						Numl LR (	ber chi2	of ol 2(14)	os = =		249 131,48
							Prol	b >	chi2	=	(	0.0000
Log likelihood	d = -	102.7661	.9				Psei	udo	R2	=	(	0.3901
pdpviolation	   +	Coef.	Std.	Err.		z	P> z		[95	& Conf.	Inte	erval]
time0		1275675	1.2	21896	-0.	10	0.917		-2.52	16686	2.2	261551
time1	۱.	9608371	.58	3786	1.	65	0.100		183	33625	2.3	105037
time3	.	2543467	.523	36024	0.	19	0.627		771	18952	1.2	280589
time4		3624499	.453	35099	-0.	30	0.424		-1.25	51313	.52	264131
distct	.	0264787	.409	0754	0.	06	0.948		77	52943	. 82	282518
concurrence		4038879	.782	28901	-0.	52	0.606		-1.93	38324	1.1	130549
dissent	2	.469546	1.05	52691	2.	35	0.019		.400	63106	4.5	532782
wealthindic	.	0378734	.391	7092	0.	10	0.923		729	98626	.80	056093
hardship	1	.728565	. 491	.7256	3.	52	0.000		.764	48004	2.0	692329
officialpr~s		2334184	.543	31164	-0.	43	0.667		-1.29	97907	.83	310701
altfeasibi~y	-1	.792751	. 569	97734	-3.	15	0.002		-2.90	09486	6	760154
wrongact	.	1910731	.365	0195	0.	52	0.601		52	24352	.90	064982
sctclearli~t	4	.052446	.740	07699	5.	47	0.000		2.60	00563	5.5	504328
eximportant	3	.018099	. 908	84399	3.	32	0.001		1.2	23759	4.'	798609
	-3	.885521	.830	)8631 	-4.	58 	0.000		-5.52	13983	-2.2	257059

#### Iteration Four:

. logit pdpviolation time0 time1 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est eximportant

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5: Iteration 6:	log log log log log log	likelih likelih likelih likelih likelih likelih likelih	1000d = 1000d = 1000d = 1000d = 1000d = 1000d =	-168.5 -111.6 -104.1 -102.8 -102.7 -102.7 -102.7	50495 58152 16018 36365 76719 76619 76619							
Logit estimate	es						Numl LR (	ber chi2	of ol 2(14)	os = =		249 131,48
							Prol	b >	chi2	=	(	0.0000
Log likelihood	d = -	102.7661	.9				Psei	udo	R2	=	(	0.3901
pdpviolation	   +	Coef.	Std.	Err.		z	P> z		[95	& Conf.	Inte	erval]
time0		1275675	1.2	21896	-0.	10	0.917		-2.52	16686	2.2	261551
time1	۱.	9608371	.58	3786	1.	65	0.100		183	33625	2.3	105037
time3	.	2543467	.523	36024	0.	19	0.627		771	18952	1.2	280589
time4		3624499	.453	35099	-0.	30	0.424		-1.25	51313	.52	264131
distct	.	0264787	.409	0754	0.	06	0.948		77	52943	. 82	282518
concurrence		4038879	.782	28901	-0.	52	0.606		-1.93	38324	1.1	130549
dissent	2	.469546	1.05	52691	2.	35	0.019		.400	63106	4.5	532782
wealthindic	.	0378734	.391	7092	0.	10	0.923		729	98626	.80	056093
hardship	1	.728565	. 491	.7256	3.	52	0.000		.764	48004	2.0	692329
officialpr~s		2334184	.543	31164	-0.	43	0.667		-1.29	97907	.83	310701
altfeasibi~y	-1	.792751	. 569	97734	-3.	15	0.002		-2.90	09486	6	760154
wrongact	.	1910731	.365	0195	0.	52	0.601		52	24352	.90	064982
sctclearli~t	4	.052446	.740	07699	5.	47	0.000		2.60	00563	5.5	504328
eximportant	3	.018099	. 908	84399	3.	32	0.001		1.2	23759	4.'	798609
	-3	.885521	.830	)8631 	-4.	58 	0.000		-5.52	13983	-2.2	257059

#### Iteration Five:

•

. logit pdpviolation time0 time1 time2 time3 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact sctclearlibpropinter
> est eximportant

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Iteration 5: Iteration 6:	log likelil log likelil log likelil log likelil log likelil log likelil	$\begin{array}{rcl} nood &=& -168.5\\ nood &=& -111.6\\ nood &=& -104.5\\ nood &=& -102.5\\ nood &=& -102.5\\ nood &=& -102.5\\ nood &=& -102.5\\ \end{array}$	50495 68152 16018 36365 76719 76619 76619			
Logit estimate	es			Numbe LR cl	er of obs = ni2(14) =	249 131.48
				Prob	> chi2 =	0.0000
Log likelihood	d = -102.7663	19		Pseud	lo R2 =	0.3901
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
time0	.2348824	1.208451	0.19	0.846	-2.133638	2.603403
time1	1.323287	.5662723	2.34	0.019	.2134136	2.43316
time2	.3624499	.4535099	0.80	0.424	5264131	1.251313
time3	.6167966	.5009081	1.23	0.218	3649652	1.598558
distct	.0264787	.4090754	0.06	0.948	7752943	.8282518
concurrence	4038879	.7828901	-0.52	0.606	-1.938324	1.130549
dissent	2.469546	1.052691	2.35	0.019	.4063106	4.532782
wealthindic	.0378734	.3917092	0.10	0.923	7298626	.8056093
hardship	1.728565	.4917256	3.52	0.000	.7648004	2.692329
officialpr~s	2334184	.5431164	-0.43	0.667	-1.297907	.8310701
altfeasibi~y	-1.792751	.5697734	-3.15	0.002	-2.909486	6760154
wrongact	.1910731	.3650195	0.52	0.601	524352	.9064982
sctclearli~t	4.052446	.7407699	5.47	0.000	2.600563	5.504328
eximportant	3.018099	.9084399	3.32	0.001	1.23759	4.798609
_cons	-4.247971	.8510349	-4.99	0.000	-5.915968	-2.579973

#### Set Five

#### Iteration One: . logit pdpviolation time1 time2 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter > est eximportant Iteration 0: log likelihood = -168.50495Iteration 1: log likelihood = -134.71498 Iteration 2: log likelihood = -133.3247Iteration 3: log likelihood = -133.30226 Iteration 4: log likelihood = -133.30225 Logit estimates Number of obs = 249 70.41 LR chi2(14) = 0.0000 = Prob > chi2 Log likelihood = -133.30225Pseudo R2 = 0.2089 \_\_\_\_\_ P>|z| pdpviolation | [95% Conf. Interval] Coef. Std. Err. Z \_\_\_\_\_\_ time1 | 1.088267 1.21351 0.90 0.370 -1.290169 3.466703 0.01 0.989 0.77 0.438 .0157067 1.193089 -2.322704 2.354118 time2 | time3 |.93614791.2079980.770.438-1.431484time4 |-.07842081.180921-0.070.947-2.392983 3.30378 2.236141 distct | .7998597 .3513352 2.28 0.023 .1112553 1.488464 concurrence | .0561615 .6757996 0.08 0.934 -1.268381 1.380704 dissent | .0170406 3.166459 1.59175 .8034378 1.98 0.048 wealthindic | .5860855 .3424508 hardship | 1.637784 .4204478 1.71 0.087 -.0851058 1.257277 hardship | 1.637784 .4204478 3.90 0.000 officialpr~s | .869813 .4179616 2.08 0.037 altfeasibi~y | -1.006703 .4808225 -2.09 0.036 .8137211 .0506233 2.461846 1.689003 -1.949097 -.0643079 wrongact | .3939872 .3223238 1.22 0.222 -.2377558 1.02573 .7606805 1.460791 0.52 0.603 -2.102417 ctaclearli~t | 3.623778 eximportant | 1.266209 .6635819 1.91 0.056 -.0343875 2.566806 \_cons | -2.506526 1.272275 -1.97 0.049 -5.000138 -.012913

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# Iteration Two: . logit pdpviolation time0 time2 time3 time4 distct concurrence dissent wealth > indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter > est eximportant Iteration 0: log likelihood = -168.50495Iteration 1: log likelihood = -134.71498 Iteration 2: log likelihood = -133.3247Iteration 3: log likelihood = -133.30226 Iteration 4: log likelihood = -133.30225 Number of obs = 249 LR chi2(14) = 70.41 Prob > chi2 = 0.0000 Logit estimates Log likelihood = -133.30225Pseudo R2 = 0.2089 \_\_\_\_\_ pdpviolation | Coef. Std. Err. z P>|z| [95% Conf. Interval]

time0		-1.088267	1.21351	-0.90	0.370	-3.466703	1.290169
time2	Τ	-1.07256	.4800266	-2.23	0.025	-2.013395	1317255
time3		152119	.5106059	-0.30	0.766	-1.152888	.8486501
time4	Τ	-1.166688	.4654938	-2.51	0.012	-2.079039	2543367
distct	Ι	.7998597	.3513352	2.28	0.023	.1112553	1.488464
concurrence		.0561615	.6757996	0.08	0.934	-1.268381	1.380704
dissent	Т	1.59175	.8034378	1.98	0.048	.0170406	3.166459
wealthindic	Т	.5860855	.3424508	1.71	0.087	0851058	1.257277
hardship	Ι	1.637784	.4204478	3.90	0.000	.8137211	2.461846
officialpr~s	Τ	.869813	.4179616	2.08	0.037	.0506233	1.689003
altfeasibi~y	Τ	-1.006703	.4808225	-2.09	0.036	-1.949097	0643079
wrongact		.3939872	.3223238	1.22	0.222	2377558	1.02573
ctaclearli~t		.7606805	1.460791	0.52	0.603	-2.102417	3.623778
eximportant	Τ	1.266209	.6635819	1.91	0.056	0343875	2.566806
_cons		-1.418259	.551549	-2.57	0.010	-2.499275	3372426

#### Iteration Three:

. logit pdpviolation time0 time1 time3 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter
> est eximportant

Iteration 0: Iteration 1: Iteration 2: Iteration 3:	log likeliho log likeliho log likeliho log likeliho	pod = -168.50 pod = -134.72 pod = -133.30 pod = -133.30 pod = -133.30	0495 1498 3247 0226				
Logit estimate	iog likelind es	50d = -133.30	JZZJ	Numbe	r of obs	=	249
Log likelihood	d = -133.3022	5		LR ch Prob Pseud	li2(14) > chi2 lo R2	= =	70.41 0.0000 0.2089
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% (	Conf.	Interval]
time0	0157067	1.193089 4800266	-0.01	0.989	-2.354	 118 255	2.322704
time3	.9204413	.4571768	2.01	0.044	.0243	912	1.816491
time4	0941274	.3958257	-0.24	0.812	8699	315	.6816767
distct	<b>.7998597</b>	.3513352	2.28	0.023	.1112	<b>553</b>	1.488464
dissent	1 59175	. 6757996 8034378	0.08 1 98	0.934	-1.268	381 406	<b>3 166459</b>
wealthindic	.5860855	.3424508	1.71	0.087	0851	058	1.257277
hardship	1.637784	.4204478	3.90	0.000	.8137	211	2.461846
officialpr~s	.869813	.4179616	2.08	0.037	.0506	233	1.689003
altfeasibi~y	-1.006703	.4808225	-2.09	0.036	-1.949	097	0643079
wrongact	.3939872	.3223238	1.22	0.222	2377	558	1.02573
ctaclearli~t	.7606805	1.460791	0.52	0.603	-2.102	417	3.623778
eximportant	1.266209	.6635819	1.91	0.056	0343	875	2.566806
_cons	-2.490819	.5217225	-4.77	0.000	-3.513	376	-1.468262

#### Iteration Four:

. logit pdpviolation time0 time1 time2 time4 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter
> est eximportant

Iteration 0: Iteration 1: Iteration 2: Iteration 3: Iteration 4: Logit estimate	log likeliho log likeliho log likeliho log likeliho log likeliho	bod = -168.50 bod = -134.72 bod = -133.20 bod = -133.30 bod = -133.30	0495 1498 3247 0226 0225	Numbe LR ch	er of obs	=	249 70.41
Log likelihood	a = -133.30225	5		Prob Pseud	> chi2 lo R2	= =	0.0000 0.2089
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% C	onf.	Interval]
<pre>time0   time1   time2   time4   distct   concurrence   dissent   wealthindic   hardship   officialpr~s   altfeasibi~y   wrongact   ctaclearli~t   eximportant   cons  </pre>	9361479 .152119 9204413 -1.014569 .7998597 .0561615 1.59175 .5860855 1.637784 .869813 -1.006703 .3939872 .7606805 1.266209 -1.570378	1.207998 .5106059 .4571768 .4459741 .3513352 .6757996 .8034378 .3424508 .4204478 .4179616 .4808225 .3223238 1.460791 .6635819 .5439566	-0.77 0.30 -2.01 -2.27 2.28 0.08 1.98 1.71 3.90 2.08 -2.09 1.22 0.52 1.91 -2.89	0.438 0.766 0.044 0.023 0.934 0.048 0.087 0.000 0.037 0.036 0.222 0.603 0.056 0.004	-3.303 84865 -1.8164 -1.8886 .11125 -1.2683 .01704 08510 .81372 .05062 -1.9490 23775 -2.1024 03438 -2.6365	78 01 91 62 53 81 06 58 11 33 97 58 17 75 13	1.431484 1.152888 0243912 1404755 1.488464 1.380704 3.166459 1.257277 2.461846 1.689003 0643079 1.02573 3.623778 2.566806 5042423

#### Iteration Five:

. logit pdpviolation time0 time1 time2 time3 distct concurrence dissent wealth
> indic hardship officialprocedures altfeasibility wrongact ctaclearlibpropinter
> est eximportant

Iteration 0: Iteration 1: Iteration 2: Iteration 3:	log likelih log likelih log likelih log likelih	ood = -168.50 ood = -134.71 ood = -133.30 ood = -133.30	)495 498 3247 )226			
Iteration 4:	log likelih	ood = -133.30	)225			
Logit estimate	es			Numbe LR ch Prob	er of obs = i2(14) = > chi2 =	249 70.41 0.0000
Log likelihood	A = -133.3022	5		Pseud	lo R2 =	0.2089
pdpviolation	Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
time0   time1   time2   time3   distct   concurrence	.0784208 1.166688 .0941274 1.014569 .7998597 .0561615	1.180921 .4654938 .3958257 .4459741 .3513352 .6757996	0.07 2.51 0.24 2.27 2.28 0.08	0.947 0.012 0.812 0.023 0.023 0.934	-2.236141 .2543367 6816767 .1404755 .1112553 -1.268381	2.392983 2.079039 .8699315 1.888662 1.488464 1.380704
dissent   wealthindic   hardship   officialpr~s   altfeasibi~y   wrongact   ctaclearli~t   eximportant	1.59175 .5860855 1.637784 .869813 -1.006703 .3939872 .7606805 1.266209	.8034378 .3424508 .4204478 .4179616 .4808225 .3223238 1.460791 .6635819	1.98 1.71 3.90 2.08 -2.09 1.22 0.52 1.91	0.048 0.087 0.000 0.037 0.036 0.222 0.603 0.056	.0170406 0851058 .8137211 .0506233 -1.949097 2377558 -2.102417 0343875	3.166459 1.257277 2.461846 1.689003 0643079 1.02573 3.623778 2.566806
_cons	-2.584946	.5249092	-4.92	0.000	-3.613749	-1.556143