
STUDYING ADMINISTRATIVE LAW: A METHODOLOGY FOR, AND REPORT ON, NEW EMPIRICAL RESEARCH

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This article reports on an empirical study of some broad trends in federal administrative law that was recently concluded. Although the complete study is published elsewhere,¹ we also report our findings here for two reasons. First, we hope to broaden the audience for this research, especially among practicing administrative lawyers. We believe that the study provides some important and intriguing new perspectives on a number of issues: the changing style of appellate decisions in administrative law; the evolution of administrative law since the mid-1960s; the patterns of remands to administrative agencies; and the effects of the Supreme Court's *Chevron* decision. Second, we wish to call particular attention to the methodology of our study in the hope that other researchers will use it to probe additional questions of interest to administrative lawyers and scholars.²

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¹Schuck & Elliott, *To the Chevron Station: An Empirical Study of Federal Administrative Law*, 1990 DUKE L.J. ____.

²One of us (Schuck) has already undertaken additional empirical research that employs similar methodology, this time focusing on judicial review of immigration and asylum decisions.

This article, which consists essentially of excerpts from the long published study, is divided into three parts. In Part I, we introduce our study by placing it in a larger intellectual context. Part II describes our research methodology. Part III summarizes the study's principal findings.

I.

We began with a puzzling fact. Although the study of administrative law started in earnest more than fifty years ago, we still know little about what is perhaps the central question in that field: how does judicial review *actually* affect agency decisionmaking? This question goes to the fundamental nature and quality of the modern administrative state, yet academic specialists have largely neglected it;³ the subject remains a matter for uninformed speculation.⁴

Despite (or perhaps because of) the lack of data, strong opinions on this question are common. Our conversations and our reading persuade us that every self-respecting administrative lawyer has firm, if not always articulate or even consistent, convictions about the effect of judicial review upon agencies. Proof for this assertion abounds. Lawyers and their clients devote vast resources to challenging agency actions in the courts.⁵ With Talmudic intensity, legions of legal scholars analyze the language and logic of judicial opinions in administrative law cases in their classrooms and professional journals.⁶ Agencies

³The few exceptions in the legal literature involve a consideration of this question in quite particular contexts. See, e.g., Williams, *Hybrid Rulemaking Under the Administrative Procedure Act*, 42 U. CHI. L. REV. 401, 425-36 (1975) (discussing response by three agencies to judicial interpretation of APA requiring more formal procedures in informal rulemaking by EPA); Leventhal, *Environmental Decision Making and the Role of the Courts*, 122 U. PA. L. REV. 509, 554-55 (1974) (discussing EPA's response to remand in *International Harvester* case). A broader empirical study of the court-agency relationship, Gardner, *Federal Courts and Agencies: An Audit of the Partnership Books*, 75 COLUM. L. REV. 800 (1975), focuses upon judicial strategies of supervision rather than upon how agencies respond to remands. See generally P. SCHUCK, *SUING GOVERNMENT: CITIZEN REMEDIES FOR OFFICIAL WRONGS* 3-12, 125-81 (1983), and sources cited therein.

Some political scientists have examined this question. See, e.g., R. MELNICK, *REGULATION AND THE COURTS: THE CASE OF THE CLEAN AIR ACT* (1983); S. WASBY, *THE SUPREME COURT IN THE FEDERAL JUDICIAL SYSTEM* (2d ed. 1987).

⁴This irony, of course, is common to all fields, not just law. By some perversity of intellectual inquiry, the most interesting and important questions in life are usually the most elusive and opaque.

⁵The number of administrative law cases in the federal appellate courts is large and growing. See Schuck & Elliott, *supra* note 1, at Chart 1.

⁶There are several publications devoted exclusively to administrative law doctrine. See, e.g., the *Administrative Law Review* (published by the American Bar Association) and the *Administrative Law Journal* of the American University. There are also numerous specialized journals concerned with judicial review of agency decisions in particular policy areas (e.g., *Journal of Air Law and Commerce*; *Journal of Energy Law and Policy*), and at least one leading law review publishes an annual administrative law issue (the April issue of the *Duke Law Journal*).

themselves exhibit much concern about how reviewing courts respond to their handiwork. Manifestly, the “experts” act as if judicial review of agency action was worth fighting, writing, and worrying about. They believe, in short, that what courts say to agencies matters, and matters deeply.

But although there may be widespread agreement that judicial review of agency action matters, there is no consensus about precisely *how* and *under what circumstances* it matters. As Jerry Mashaw and David Harfst recently put it, “The normative expectations of administrative lawyers have seldom been subjected to empirical verification of a more than anecdotal sort.”⁷ And different observers evidently rely upon different anecdotes.

Most administrative law writers and teachers—and virtually all of them at one time or another—seek assiduously to expand and fine-tune judicial review of agency action, usually advocating a variety of institutional and doctrinal reforms for those purposes.⁸ They suppose, at least by implication, that what courts do matters substantively—that when a court decides that an agency erred or failed adequately to support its action, the court’s ruling actually (and not just normatively) controls the agency’s subsequent behavior in that case. This behavioral supposition, after all, is one of the *raison d’être* of most of administrative law. The conventional explanation for judicial review of agency action is the need to confine agencies to their legal authority. To deny that courts actually perform this task is to raise dark and difficult questions about the compatibility of the administrative state with the rule of law.⁹

On the other hand, academic discussion of this question (sometimes by the very same writers) often proceeds as if the axiom of judicial control of agency action were empirically false.¹⁰ Certain inexorable conditions, it is said, limit the capacity of reviewing courts to shape an agency’s conduct. Pointing to factors such as the narrow “bite” of legal doctrine, the political context of administrative decisionmaking, judicial deference to agency expertise, the scope of agency discretion, an agency’s control of its agenda, the limited resources of litigants, and the protracted nature of agency proceedings, these commentators em-

⁷Mashaw & Harfst, *Regulation and Legal Culture: The Case of Motor Vehicle Safety*, 4 YALE J. ON REG. 257, 275 (1987).

⁸*E.g.*, Strauss, *The Place of Agencies in Government, Separation of Powers and the Fourth Branch*, 84 COLUM. L. REV. 573 (1984); K. DAVIS, *DISCRETIONARY JUSTICE—A PRELIMINARY INQUIRY* (1969).

⁹*See, e.g.*, Monaghan, *Marbury and the Administrative State*, 83 COLUM. L. REV. 1 (1983).

¹⁰K. DAVIS, *supra* note 8, at 27, 216 (agency discretion limits effectiveness of judicial review).

phasize that in practice if not in principle, an agency usually has the last word as well as the first.¹¹

Which of these views is correct? We suspected that there was considerable truth in both of them—that judicial review “matters” in all cases (if only because review causes delay and additional cost before the agency’s action can be implemented), but that it has different effects depending upon a variety of factors. That much, of course, can be confidently asserted about virtually any legal phenomenon as complex as the interaction between courts and agencies. The more interesting and challenging questions are whether research is capable of identifying those factors and effects, discerning significant patterns in the relationship among them, and deriving systematic conclusions that can illuminate the ways in which reviewing courts actually shape agency behavior.

Believing that such a possibility must at least be entertained, we undertook a large-scale empirical study of how federal agency actions fare when they are directly reviewed by appellate courts. Although we were especially interested in the fate of cases that a reviewing court remands to the initiating agency for further proceedings, we anticipated that such a study could also be designed to generate data bearing upon a number of other important, albeit subsidiary, features of administrative law.

In the course of our study, we came to appreciate all too well how problematic such research must inevitably be. The government does publish data on the number, type, and judicial disposition of the administrative cases that are appealed to the federal courts.¹² But those data, while useful, are too highly aggregated to answer most of the more refined questions that we hoped to answer. We were therefore obliged to gather our own data in ways that are described below in Part II, consoling ourselves with the conviction that on questions of this importance and interest, even imperfect information is better than perfect ignorance.

II.

We began our study with four principal objectives in mind. First, we hoped to *describe* the general parameters of judicial review of federal administrative action. While recognizing the diversity of agencies, agency actions, reviewing courts, and judicial dispositions of agency

¹¹See generally M. SHAPIRO, *THE SUPREME COURT AND ADMINISTRATIVE AGENCIES* (1968). Practitioners, needless to say, find themselves on all sides of this question; their positions depend not only upon their experiences and orientations but also upon whether they are seeking to persuade their clients to challenge or to defend the agency’s position.

¹²See, e.g., ADMINISTRATIVE OFFICE OF THE U.S. COURTS, *ANNUAL REPORT OF THE DIRECTOR*.

cases, we attempted to render that diversity manageable by focusing our attention upon some broad categories of information. For example, we wanted to establish the number of agency decisions that are reviewed by the courts of appeal; the proportion of those cases that are affirmed, reversed, and remanded by the courts; the frequency with which remanded cases are remanded for particular reasons; and the distribution of these variables among the different federal agencies and courts of appeals. At the same time, we hoped to shed light upon some ancillary, but potentially interesting attributes of judicial review of agency decisions, such as the length and footnoting of judicial opinions, the number of split decisions, the size of appellate panel, the type of agency proceeding being reviewed, and the frequency with which the courts applied different standards of review. To that end, we decided to read a large,¹³ representative¹⁴ sample of opinions in which federal courts of appeal engaged in direct review¹⁵ of agency action.

Second, we hoped to reveal some of the *dynamic* patterns of administrative law by gathering these kinds of data for cases decided over a period of time that would bracket the two decades, 1965 to 1985, during which judicial review of agency action, by most accounts, experienced transformative conceptual and doctrinal changes.¹⁶ We therefore decided to read opinions rendered during five discrete time periods. Four of them were six-month periods: in 1965, just before that transformation is thought to have begun; in 1974-75, at a midway point during that twenty-year period; in 1984, after the transformation would have concluded and just before *Chevron* was decided; and in 1985, after the Supreme Court reaffirmed and clarified *Chevron*. The fifth time period covered two months in early 1988, which was selected in order to learn whether the observed changes during the 1984-85 period had endured.

The 1984-85 period had the virtue of being close enough to the present to reflect the current state of administrative law (at least as revealed by our data), while also being distant enough from the present to facilitate our most important and most elusive objective: to reveal

¹³The total number of cases in our 1965-1985 sample was 2325, consisting of 372 decided in 1965, 277 decided in 1974-75, and 1676 decided in 1984-85. The number of cases in our 1988 sample was 147. The grand total, therefore, was 2472 cases. The data sets, and the reasons for constituting them as we did, are explained *infra*.

¹⁴Our sample included cases from each of the 16 appellate courts (the District of Columbia Circuit, the eleven numbered circuits, the Court of Claims, the Court of Customs and Patent Appeals, the Federal Circuit, and the Temporary Emergency Court of Appeals) which heard direct appeals from executive branch agencies during the period under study. A list of the agencies, together with their coding keys, is appended as Appendix A.

¹⁵We excluded all cases, such as Social Security Act adjudications, that had come to the courts of appeal through the federal district courts or through specialized judicial tribunals such as the U.S. Tax Court.

¹⁶See Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667 (1975).

what actually happens when appellate courts remand cases to federal agencies for further proceedings. For this purpose, it was necessary that enough time had elapsed since the remand for the vast majority of remanded cases to have reached their conclusions so that we could analyze them as part of our data set.¹⁷

In order to learn what had transpired after the cases were remanded to the agencies, we conducted telephone (and occasionally personal) interviews with the lawyer who represented the agency and with the lawyer who represented the petitioner, in each of the roughly 180 cases during the 1984-85 period in which a court of appeal had remanded the case to the agency for further proceedings.¹⁸ Those interviews were designed to elicit data bearing upon two "facts": the specific post-remand events (about which there was seldom much disagreement between the opposing lawyers), and the parties' evaluation of the outcomes (about which disagreement was more common) that could not always be resolved by attempting to integrate the lawyers' differing perceptions.

Our final objective explains why we defined and divided the 1985 period precisely as we did. By doing so, we hoped to learn how the Court's *Chevron* decision, as clarified and reaffirmed eight months later in *Chemical Manufacturers Association v. Natural Resources Defense Council*,¹⁹ had affected appellate court review of agency action. In *Chevron* the Supreme Court sent a strong signal to the courts of appeal that they should be more deferential in reviewing interpretations of statutes by administrative agencies.

Even before we initiated our study, *Chevron* had occasioned a great deal of published commentary, most of it viewing (and often denounc-

¹⁷When we ended the data collection in early 1988, two categories of remanded cases remained incomplete: (1) those in which the lawyers had not provided all of the necessary information during the initial and follow-up interviews, and (2) those that had still been "open" (i.e., post-remand activity was still ongoing) at that point. In an effort to include these cases in our data set, we made one final pass at them in August, 1988, well after we had begun our preliminary data analysis. Even at that late date, some three to five years after the remand, we found that a certain number of cases remained in one or both of these categories. We had to drop them from the data set, at least as far as our analyses of post-remand events and evaluation of outcomes were concerned.

¹⁸At the written request of the Administrative Conference of the U.S., each federal agency identified a contact person within the agency (usually in the general counsel's office) who would help to facilitate the data gathering for the study. The identity of the agency's and petitioner's lawyers was also usually obtainable from the published opinions.

We generally sought to interview the most junior lawyer listed there. Our assumption—that this would be the lawyer closest to, and most knowledgeable about, the details of the case—proved to be generally correct. Sometimes, of course, the lawyers who were in the best position to answer our questions were no longer employed by the agency or firm. In those cases, the interviewer attempted to locate that lawyer and when that effort failed, the interviewer was almost always able to obtain the desired information from someone else in the agency or law firm who was (or after reviewing the file could become) familiar with the matter.

¹⁹470 U.S. 116 (1985).

ing) the decision as a watershed administrative law ruling that would encourage reviewing courts to defer to agency interpretations and policy directions, and thereby slow if not reverse the more intrusive patterns of judicial review that had gathered force during the preceding two decades. For that reason, we read cases covering the six-month period preceding *Chevron* and the six-month period following *Chemical Manufacturers Association*.²⁰

For purposes of managing and analyzing our data set, we initially divided it into seven subsets of cases, each with its own computerized (Lotus 1-2-3) data file. These seven files were: (1) the 1965 cases (remand and non-remand),²¹ which we called "65CASES"; (2) the 1974-75 cases (remand and non-remand),²² which we called "75CASES"; (3) the 1984 non-remand cases (defined as those which an appellate court had disposed of without remanding them to the agency), which we called "84CASES"; (4) the 1984 remand cases (defined as those which an appellate court had, in the first instance, remanded to the agency for further proceedings),²³ which we called "84REMAND"; (5) the 1985 non-remand cases, which we called "85CASES"; (6) the 1985 remand cases,²⁴ which we called "85REMAND"; and (7) the 1988 cases,²⁵ which we called "88CASES." Then, to facilitate those analyses for which the distinctions between remand and non-remand cases or between pre-*Chevron* and post-*Chevron* cases were not relevant, we aggregated the 1984 and 1985 cases by creating (8) a merged file of all 1984 cases, which we called "84MERGE"; (9) a merged file of all 1985 cases, which we called "85MERGE"; and (10) a file further combining these merged files, which we called "8485ALL." These ten files contained data that had been generated in two ways: by analyzing the published opinions (with respect to all 1965 and 1974-75 cases and the 1984-85 non-remand cases), and by that kind of opinion analysis plus

²⁰Although this means that we actually read cases covering *five* time periods, we treat the two six-month periods during 1985 as a single time period for purposes other than that of analyzing the effects of *Chevron*.

²¹The 1965 sample covered cases decided during the six-month period between January 1 and June 30, 1965.

²²The 1974-75 sample covered cases decided during the six-month period between October 15, 1974 and April 15, 1975. The latter date was selected as the cutoff date in order to just antedate the Supreme Court's decision on April 16, 1975 in *Natural Resources Defense Council v. Train*, 421 U.S. 60 (1975), a case which anticipated *Chevron* in mandating deference to agency constructions of statutes.

²³The 1984 sample (both non-remand and remand cases) covered cases decided during the six-month period between December 25, 1983 and June 25, 1984, the day *Chevron* was decided.

²⁴The 1985 sample (both non-remand and remand cases) covered cases decided during the six-month period between February 28, 1985 (the day after *Chemical Manufacturers* was decided) and August 31, 1985.

²⁵The 1988 sample covered cases decided during the two-month period between March 1, 1988 and April 30, 1988.

subsequent telephone interviews (with respect to the 1984 and 1985 remand cases).²⁶

The 1676 appellate cases that we analyzed for the 1984-85 period were generated in the first instance by almost 50 different administrative agencies.²⁷ Among other things, we hoped to learn whether different agencies generated different patterns of appellate review and handled remands differently. For two reasons, we found it useful to group the agencies for analytical purposes. First, relatively few agencies accounted for a high proportion of the cases studied while the great majority of agencies produced very few.²⁸ This meant that analyzing the agencies individually would often preclude statistically significant findings, while grouping them into larger clusters might avoid this problem. Second, we believed that certain groupings would help us to discern broad patterns that might otherwise remain obscured. Accordingly, we devised nine agency groups and allocated each agency in our data set to one of them.²⁹

The case analyses, interviews, and data recordation were performed under our supervision from early 1987 to March 1989 by a group of

²⁶These data had been recorded by the researchers on individual coding sheets, one for each case. The final coding sheet, which is reproduced as Appendix B, differs from several earlier versions, but only slightly. The changes were made in order to (1) add some items of information that could be adduced entirely from analysis of the published opinions (e.g., item AA relating to the standard of review); (2) refine some of the data categories (e.g., item K relating to the number of judges; item N relating to the result code); (3) correct obvious errors; and (4) permit computer programming. A coding key was also prepared to facilitate the uniform coding of the data.

²⁷The number of agencies was smaller during the two earlier periods covered by the study, partly because fewer appellate cases were decided during those periods and partly because there were then fewer agencies. Because of the temporal parameters of our data set, some relatively low-volume agencies (e.g., the Consumer Product Safety Commission) do not have any cases in the data set.

²⁸Three sources of agency cases—the Merit Systems Protection Board, the National Labor Relations Board, and the Immigration and Naturalization Service (sometimes through the Board of Immigration Appeals)—together accounted for approximately 57% of the cases decided during the 1984–85 study period. Before the creation of the MSPB, the NLRB generated the most cases, accounting for 31.7% of the total in 1965 and 41.5% in 1975.

²⁹We formed these groups and assigned particular agencies to them on the basis of a combination of analytical criteria and the frequency with which certain agencies appeared in our data set. The groups are: (1) the National Labor Relations Board; (2) health, safety, and environment regulatory agencies; (3) other regulatory agencies; (4) the Immigration and Naturalization Service and the Board of Immigration Appeals; (5) the Merit Systems Protection Board, which accounted for by far the largest number of cases (27.5% in the 1984–85 period); (6) the Department of Labor; (7) executive departments other than the Department of Labor; (8) the Patent Office; and (9) all other agencies. The agencies included in each group are listed in Appendix A. These designations are arbitrary in the sense that they represent only one of many ways in which the caseload could have been sliced. The labels used for some of these groups are also crude. Thus, for example, the Federal Mine Safety and Health Review Commission and the Occupational Safety and Health Review Commission, which are included in group (2), are not really regulatory agencies. And although the Federal Aviation Administration and the Occupational Safety and Health Administration certainly fit well in this group, we coded them instead to the departments of Transportation and Labor, respectively.

law students at Georgetown and then at Yale, each of whom had completed a basic course in administrative law.³⁰ Once the data had been gathered, coded, and error-corrected, they were entered into a computer and preliminarily analyzed.

Like all teachers and practitioners of administrative law, we did not

³⁰We took a number of precautions to satisfy ourselves that the students' analyses of the published opinions and their coding of the data were reasonably accurate and uniform.

There was little risk of error with respect to most of the data collected from the published opinions, which data were objective and straightforward in nature. Only two pieces of data in the opinions could not be coded without some exercise of judgment: the type of agency proceeding (item M on the coding sheet) and—a more difficult characterization—the reasons for remands (item N).

In order to achieve a high level of uniformity in characterizing the type of agency proceeding, we reviewed with the students the differences between adjudication, rule-making, and ratemaking, and discussed the kinds of agency actions that might fall into the "other" category. We then instructed each of the students to read a random sample of cases, classify the type of agency proceeding involved in each, and bring any disputed classifications to us, whereupon we met as a group and resolved the few disputes in a way that further clarified the categories for the students.

Characterizing the reasons for remands was (because the courts' published opinions were not always entirely clear on the point) more difficult and we therefore felt obliged to be even more circumspect. First, we instructed all students to read a classic article by the late Judge Henry Friendly, which had elaborated the taxonomy of remands that we had found useful and wished to employ in the study. We then discussed that taxonomy as a group at some length. Friendly, *Chenery Revisited: Reflections on Reversal and Remand of Administrative Orders*, 1969 DUKE L.J. 199. Before permitting the students to read any of the cases to be covered by the study, we asked each of them to read and to complete coding sheets for an identical random sample of cases and then to meet among themselves to discuss any instances in which some or all of them had classified the reasons for a particular remand differently. After that, we met as a group to discuss those differences as well as any uncertainties that remained. We also encouraged the students to raise with us any questions that might arise when they analyzed the cases covered by the study, and we resolved those questions in weekly meetings that both of us and all of the students (with occasional exceptions) attended. After the students had completed all of the case analyses and coding sheets, we asked a lawyer with extensive administrative law experience in a federal agency to review for accuracy each of the cases and the students' coding sheets, making changes where appropriate. In addition, the authors reviewed each of the cases and coding sheets as to which that lawyer had raised any question, and we made the appropriate changes.

The authors adopted two additional reliability checks that should be standard procedure for studies of this kind. First, we each read several volumes of the Federal Reporter and checked our codings of the cases against those that the research assistants had compiled, going over any discrepancies with them in order to resolve any apparent misapprehensions. Second, we generated a list of key words and phrases that could be the basis for a computerized search for the cases that should be in our data sets. We then tested the reliability of this search technique by comparing its outputs to the cases contained in the relevant volumes of the Federal Reporter, enabling us to refine further the list of key words and phrases. Because this technique holds much promise for future research of this kind, we describe it in some detail in Appendix C.

Coding the data generated by the telephone interviews usually required only that the students accurately transcribe what the lawyers told them, not that they exercise independent judgment. The opposing lawyers seldom told them inconsistent things and when they did, the students simply recorded those differences on the coding sheet.

Given the large number of cases in the data set and the limited experience of the students, we suspect that even these precautions failed to detect some errors. Nevertheless, we believe that the number of such errors cannot be large enough to affect the general conclusions that we have reached from our analysis.

come to the subject without preconceptions. Indeed, we began with a variety of beliefs, ranging from weak intuitions to firm convictions about what we would find. These beliefs formed the basis for a number of preliminary hypotheses concerning a range of administrative law phenomena that we hoped our data would illuminate. Most of these hypotheses—and certainly the more important ones from our point of view—relate to judicial remands. They concern, for example, how court size, agency type, proceeding type, and other such variables affect remands; how agencies respond to remands of various kinds; how long different administrative proceedings take to complete; and how these relationships have changed over time. Our data set, however, also enabled us to cast some light upon the evolution of certain other features of administrative law that are not specific to judicial remands, including the “style” of judicial opinions and some of the institutional structures within which administrative law is generated.

Much of our data was in aggregated form. Although we disaggregated it at many points—by agency, circuit, proceeding type, court size, time period, and disposition on appeal (itself broken down into several categories and subcategories), for example—our classification of the cases employed variables that could be gleaned from the face of the opinions themselves, from an analysis of the content of those opinions, or (in the case of the discussion of post-remand events) from information obtained from lawyers, some of which is undeniably impressionistic.

We were acutely aware that these variables did not capture all or even most of the factors that explain why reviewing courts and agencies decide as they do. The list of other factors that also powerfully shape their decisions would surely be a long one. It would certainly include factors such as the political environment in which the agency operates, the quality of the agency’s personnel, lawyering, and other resources vis-à-vis those of private parties, the legal culture surrounding the agency, the respect in which it is held by litigants and reviewing courts, its technical competence, its statutory framework, and the like.³¹

Although such factors would unquestionably help one to predict and explain agency and reviewing court behavior, we did not discuss them much in our study because they were tangential to our purposes. Our intention was not to analyze the behavior of particular agencies or reviewing courts (although we devoted some attention to trends in the D.C. Circuit). Instead, our purposes were to uncover broad patterns and general trends in administrative law and, with respect to our dis-

³¹To cite just one example, Professor Linda Hirshman notes that the fact that NLRB orders have no effect until they are enforced by the circuit court “creates a culture among labor lawyers of considering all NLRB orders as very tentative, [which] would have a big effect on the statistics throughout [this study]. They should be resisted much more often and reversed . . . more often.” Letter from Linda Hirshman to E. Donald Elliott (Jan. 18, 1990).

cussion of *Chevron*, to gauge how an unusually controversial administrative law decision of the Supreme Court has actually affected reviewing court (and indirectly, agency) behavior. Our data, we think, were quite adequate for those purposes.

III.

Our study had four broad objectives. First, we hoped to produce some baseline information about the character, magnitude, and consequences of judicial review of federal agency decisions. Second, by comparing this information at different points during a period spanning two decades (1965–85) in which the court-agency relationship is widely thought to have undergone a transformation, we hoped to discern changes in these parameters over time. Third, we hoped to learn more about remands, especially about what actually happens when the cases go back to the agencies that originated them. Finally, we hoped to gauge the effectiveness of the Supreme Court's highly controversial effort in *Chevron* to regulate the court-agency relationship through a change in legal doctrine.

Although we believe that our analysis increases our understanding on each of these points, we regard our findings as more suggestive than conclusive. Like the data on which they are based, these findings are incomplete and in some cases impressionistic. They cannot, nor do they purport to, begin to capture the rich complexity and diversity of federal administrative law. In this regard, detailed case studies can provide far more textured accounts of court-agency relationships than our data permit.³²

But such texture and detail come at a price. Being agency-specific, they can tell us little about the larger patterns which the broad spectrum of federal agencies and courts trace on the political-legal landscape. These larger patterns can only be discerned through the kind of panoramic, systemic, inevitably imprecise bird's-eye view attempted here. That view requires that a much richer database be amassed and a greater analytical effort mounted.³³

We organize this summary of our principal findings around the four goals of the study.

³²See, e.g., R. MELNICK, *supra* note 3 (Environmental Protection Agency); J. MASHAW, BUREAUCRATIC JUSTICE (1983) (Social Security Administration); J. MASHAW & D. HARFEST, REGULATING THE FREEDOM MACHINE (forthcoming, 1990) (National Highway Traffic Safety Administration). See also D. Rosenbloom, The Federal Labor Relations Authority (1988) (unpublished manuscript). See also research mentioned *supra* note 2.

³³The data compiled by the Administrative Office of the United States Courts is useful but is only a starting point for analysis. An earlier recommendation by the Administrative Conference of the United States looked in this direction. ACUS Recommendation No. 69-6, Compilation of Statistics on Administrative Proceedings by Federal Departments and Agencies, 1 C.F.R. § 305.69-6 (1988).

THE CHANGING STYLE OF APPELLATE OPINIONS

Our first finding, based on data published by the Administrative Office of the U.S. Courts, is well known: the administrative law caseload in the circuit courts has increased rapidly and, at least as measured by what the Office calls "merits terminations" (as distinguished from filings), fairly steadily. Less well known (but also based on that published data) is that this larger caseload constitutes a rather small and steadily shrinking portion of the circuit courts' dockets—only 7% in 1987.

A striking finding with possibly large implications for administrative law concerns the phenomenon of "table decisions"—summary decisions for which no reasoning or factual description is published in the Federal Reporter.³⁴ Today, the majority of administrative law cases are disposed of in this way. In 1985, almost 60% of all dispositions were by these "table decisions," compared to 38% in 1975 and an unknown number in 1965.

This phenomenon has begun to receive attention from academic commentators,³⁵ yet its significance for administrative law is not yet clear. It is tempting to speculate on how the predominance of table decisions has affected the affirmance rate, yet even the direction of causality remains uncertain. As one might expect, most of these table decisions are affirmances, although a surprisingly large number are

³⁴Some of the circuits have recently begun to provide to LEXIS and WESTLAW memoranda and opinions underlying these decisions.

³⁵See, e.g., Songer, *Criteria for Publication of Opinions in the U.S. Courts of Appeals: Formal Rules Versus Empirical Reality*, 73 JUDICATURE 307 (1990); Robel, *The Myth of the Disposable Opinion: Unpublished Opinions and Government Litigants in the U.S. Courts of Appeals*, 87 MICH. L. REV. 940 (1989); Weaver, *The Precedential Value of Unpublished Judicial Opinions*, 39 MERCER L. REV. 477 (1988); R. POSNER, *THE FEDERAL COURTS: CRISIS AND REFORM* 120-24 (1985). See also Justice Stephens' opinion in *County of Los Angeles v. Kling*, 474 U.S. 936, 940 (1985); Reynolds & Richman, *An Evaluation of Limited Publication in the United States Courts of Appeals: The Price of Reform*, 48 U. CHI. L. REV. 573 (1981); Note, *Unreported Decisions in the U.S. Courts of Appeals*, 63 CORNELL L. REV. 129 (1977). See also Judge Wald's separate statement in *National Classification Comm. v. United States*, 765 F.2d 164, 172-75 (D.C. Cir. 1985); Ginsburg, *The Obligation to Reason Why*, 37 U. FLA. L. REV. 205, 218-23 (1985); D. STIENSTRA, *UNPUBLISHED DISPOSITIONS: PROBLEMS OF ACCESS AND USE IN THE COURT OF APPEALS* (1985).

There has also been criticism of rules in some circuits that permit a party to request publication of an opinion. See Reynolds & Richman, *Non-Precedential Precedent—Limited Publication and No-Citation Rules in the United States Courts of Appeals*, 78 COLUM. L. REV. 1167, 1179 n.72 (1978). There has been somewhat more commentary on the impact of publication rules in particular circuits. See Comment, *A Snake in the Path of the Law: The 9th Circuit's Non-Publication Rule*, 39 U. PITT. L. REV. 309 (1977); Reynolds & Richman, *Limited Publication in the Fourth and Sixth Circuits*, 1979 DUKE L.J. 807.

For commentary on the impact of limited publication in state courts of appeal, see Newbern & Wilson, *Rule 21: Unprecedented and the Disappearing Court*, 32 ARK. L. REV. 37 (1978); Render, *On Unpublished Opinions*, 73 KY. L.J. 145 (1984-85); Andreani, *Independent Panels to Choose Publishable Opinions: A Solution to the Problems of California's Selective Publication System*, 12 PAC. L. J. 727 (1981).

not.³⁶ The dramatically increased use of table dispositions may *reflect* an increase in affirmances caused by other factors; in this view, table decisions are simply a less time-consuming way to clear judicial dockets than writing full published opinions. On the other hand, table decisions may be a *cause* of a higher affirmance rate, rather than (or as well as) an effect. In this view, docket considerations motivate reviewing courts to dispose of cases summarily, and summary dispositions can be accomplished most readily through affirmance rather than reversal or remand. Unfortunately, our data do not permit us to determine which of these views is correct, although the significant number of table decisions that do *not* affirm tends to undercut the latter.

The potential importance of table decisions, however, goes well beyond its positive association with the affirmance rate. This method of promulgating decisions raises fundamental questions of legal process, legitimacy, and public perception. When courts dispose of a large number of agency cases summarily and without opinion, administrative law is to that extent deprived of the benefits of reasoned justification. In that event, it loses the salutary intellectual discipline and normative significance that opinion writing imposes and its processes and outcomes appear arbitrary. Without reason-giving, administrative law becomes even more opaque and incoherent than it already is. On the other hand, routine cases should be handled routinely and busy courts should not have to expend scarce time and effort belaboring the obvious and familiar. Because table decisions' domination of the administrative law caseload has occurred swiftly and without adequate reflection, it is by no means clear that the current practice strikes the optimal balance between these competing considerations. This phenomenon clearly warrants further investigation.

Our findings concerning opinion length and footnoting are of lesser importance, of course, but a few of them are nevertheless of some interest for what they may reveal about the emerging style of administrative law opinion-writing and the effect of docket pressures. In general, opinions written in the mid-1980s were much shorter on average than those written a decade earlier, although this effect is almost entirely due to the effect on averages of the courts' increased use of table decisions. The D.C. Circuit writes longer and more heavily footnoted opinions than the other circuits; in this respect it is even more of an outlier than it was in 1975.

Of greater significance perhaps is our finding that consensus within circuit courts, as measured by the proportion of one-opinion cases, increased in all circuits between 1965 and 1975 and remained unchanged a decade later even when table decisions are excluded. In-

³⁶According to one study, almost 25% of the circuit court decisions reversing, vacating, or denying a lower court or agency decision in 1984 were unpublished; the figure for the sixth circuit was 41.9%. D. STIENSTRA, *supra* note 35, at Table 3.

cluding them, of course, would dramatically strengthen this consensus index. Maintenance of this level of consensus at a time (1984-85) well into an administration that was determined to appoint federal judges of a different ideological stripe is impressive. Again, the D.C. Circuit was an outlier; in all periods its consensus level was lower than that in the other circuits. Yet even the D.C. Circuit's consensus level appeared to increase between 1975 and 1984-85, although more recent appointments to that court may well have reduced that consensus.

THE AGES OF ADMINISTRATIVE LAW

The most important finding that emerges from our twenty-year punctuated longitudinal analysis is that the circuit courts are affirming agency decisions at a steadily increasing rate, a rate that approximated 76% in 1984-85 and reached over 81% in 1985 just after *Chevron*. When we measure the petitioners' probability of success—combining the reversals and the 40% of the remands in which the lawyers report a “major change” in the agency's position on remand—we find that it was about 12% in 1985, a figure that our 1988 data suggest may have increased slightly as *Chevron's* effect weakened. A success rate of only 12% raises an important question about why petitioners appeal as frequently as they do. We speculated that with respect to some but not all agencies, the explanation may partly be found in the possibilities for using appeals to delay the effect of agency action. This question clearly warrants further research.

Our findings concerning the growth of rulemaking were somewhat surprising. Although rulemaking's share of the administrative law caseload increased twentyfold between 1965 and 1984-85, it still constituted only 6.5% in the latter period. Even more striking is the fact that when we excluded from our analysis agencies that apparently never used rulemaking and examined only those that sometimes use it, rulemaking's share was still only 9.4% in 1984-85, a share that was actually *lower* than it had been in 1975. We speculated that reviewing courts' imposition of adjudicatory-type procedural and evidentiary burdens on rulemaking during this period may have had the perverse effect of discouraging its use.

This finding relates to our finding concerning the agency composition of the administrative law caseload, which has changed dramatically since 1965. A docket once dominated by labor and patent cases is now dominated by labor, personnel, and immigration cases—virtually all of which are adjudications. Agencies that engage in “social regulation” accounted for less than 4% of the caseload in 1984-85. When we examined the circuit court composition of the caseload, we found that the D.C. Circuit's share of the national administrative law docket remained remarkably stable over the twenty-year period, comprising about 12% in 1984-85. The Federal Circuit's share of 36% was the largest, distantly followed by the Ninth Circuit (15%). Another

striking finding was the steady decline in, and the rarity of, *en banc* decisions, especially outside the Federal Circuit. Only about 2% of the cases were heard *en banc* in 1984–85.

REMANDS AND THE *CHEVRON* EFFECT

If our data on dispositions and the use of table decisions indicate a growing tendency of reviewing courts to defer to agencies, our data on remands also suggest that the Supreme Court's *Chevron* decision has reinforced that deference, pushing the overall affirmance rate to levels higher than those that prevailed in 1965, 1975, and 1984 just before *Chevron* was decided. Affirmances increased by almost 15% after *Chevron*, and both remands and reversals declined by roughly 40%. The post-*Chevron* affirmance rates, we found, were bimodally distributed; one group of agencies clustered around 80%, while another group clustered around 60%. We suggested that the different subject matters with which these two groups of agencies are concerned, reflected in the fact that the first group relies almost exclusively on adjudication while the other sometimes uses rulemaking, might help explain this distribution.

When we refined our analysis of remands in order to appraise *Chevron*'s effect more precisely, four findings of interest emerged. First, more of the increased affirmances after *Chevron* "came from" reduced reversals than from reduced remands. This "outcome displacement effect" was fully consistent with the purpose of *Chevron*, which was to make it harder for reviewing courts to reverse for agency errors of law. Second, *Chevron* was immediately followed by a large decline in substantive law remands—the kind that *Chevron* aimed to discourage—while the remands remained constant. Although these data would seem to establish that *Chevron* also had a pronounced "reasons displacement effect," they are actually more equivocal than that. Third, the increase in affirmance rates after *Chevron* had eroded by 1988; the affirmance rate in 1988 had slipped to 75.5%, roughly halfway between the pre- and post-*Chevron* rates. Fourth, the remand rate increased significantly between 1985 and 1988, although fewer of the increased remands "came from" reversals than *Chevron*'s logic had led us to expect.

These findings suggest that *Chevron* affected outcomes differentially and that those outcome effects differed over time. The expected affirmance-increasing effect occurred immediately but had weakened by 1988, while the expected remand-increasing effect did not occur immediately but was evident in 1988. These findings are consistent with the notions that *Chevron* achieved its intended goal in the short run, and that post-*Chevron* developments, including the Supreme Court's own weakening of *Chevron* in subsequent cases and the lower courts' strategic responses to these decisions, frustrated those purposes as time passed.

When we disaggregated the data on the effects of *Chevron* by examining particular circuits and agencies, two other striking findings emerged. We found that the D.C. Circuit, whose affirmance rates had been lower than those of the other circuits throughout the twenty-year period and were far lower by the time *Chevron* was decided, responded to *Chevron* by affirming even less often than before, in sharp contrast to the other circuits which responded to the decision by increasing their already high affirmance rates. And the “outcome displacement effect” of *Chevron* turned out to vary considerably among the agency groups; the affirmance rate actually *declined* for the immigration agency and the “other regulatory” group.

Taken as a whole, our findings with respect to the effects of *Chevron* on remands, although not unequivocal, support a general conclusion of some significance to the analysis of legal process in administrative law. On the evidence of this study, the Supreme Court is able to effectively shape the court-agency relationship through the kind of relatively broad, open-textured rule adopted in *Chevron*. For reasons that we explained in the full-length published study, including the quite different experience following the Court’s *Vermont Yankee* decision, this conclusion was unexpected.

WHAT HAPPENS AFTER REMAND

Our data concerning the response of agencies to judicial remands yield one especially interesting finding. Our prediction that agencies would manage to find ways to reaffirm their original decisions—what we called “the agency gets the last word” hypothesis—was *not* borne out. In approximately 40% of the remands, the agencies adopted “major changes” and most appeared to do so primarily *because* of the remand (i.e., on the basis of the old administrative record).

This 40% figure is much higher than we expected. But it does of course mean that 60% of the remands did not result in any “major changes.” This means that petitioners succeeded in obtaining a major change in the agency’s position in only about 12% of the cases—the 8% in which the circuit court reversed the agency outright, plus 40% of the 9% of the cases in which the court remanded and the agency on remand adopted a major change.

Appendix A - Agencies and Agency Groupings

1. *National Labor Relations Board*

NLRB National Labor Relations Board

2. *Health and Environment*

AEC/NRC Atomic Energy Commission/Nuclear Regulatory Commission

EPA	Environmental Protection Agency
FDA	Food & Drug Administration
FMSHRC	Federal Mine Safety & Health Review Commission
OSHRC	Occupational Safety & Health Review Commission

3. *Other Regulatory Agencies*

CAB	Civil Aeronautics Board
CFTC	Commodity Futures Trading Commission
FCC	Federal Communications Commission
FEC	Federal Elections Commission
FMC	Federal Maritime Commission
FPC/FERC	Federal Power Commission/Federal Energy Regulatory Commission
FTC	Federal Trade Commission
ICC	Interstate Commerce Commission
SEC	Securities & Exchange Commission

4. *Immigration*

INS	Immigration & Naturalization Service
INS/BIA	INS/Bureau of Immigration Affairs

5. *Civil Service*

CSC	Civil Service Commission
MSPB	Merit Systems Protection Board
MSPB/*	Merit Systems Protection Board/*

6. *Department of Labor*

DOL	Department of Labor
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7. *Other Departments*

DHHS	Department of Health & Human Services
DHUD	Department of Housing & Urban Development
DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
DOED	Department of Education
DOI	Department of the Interior
DOJ	Department of Justice
DOT	Department of Transportation
DTRE	Department of Treasury
USDA	Department of Agriculture

8. *Patent and Trademark Office*

PAT	Patent & Trademark Office
PTO	Patent & Trademark Office

9. *Other Administrative Agencies*

ACTION	
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BCA	Board of Contract Appeals (see originating agency)
CIR	Commissioner of Internal Revenue
CRT	Copyright Royalty Tribunal
FDIC	Federal Deposit Insurance Corporation
FHLBB	Federal Home Loan Bank Board
FLRA	Federal Labor Relations Authority
FRB	Federal Reserve Board
GAO	General Accounting Office
GSA	General Services Administration
INDCC	Indian Claims Commission
IRS	Internal Revenue Service
ITC	International Trade Commission
OPM	Office of Personnel Management
RRRB	Railroad Retirement Board
SSA	Social Security Administration
USPS	U.S. Postal Service
VA	Veterans Administration
WMATC	Washington Metropolitan Authority Transit Commission

Appendix B—Coding Sheet

(5/15/88 draft)

- Researcher: _____ A. Case number _____
- B. Citation: _____ F2d _____ C. D. Last Page _____
- F. Number of _____ G. Number of footnotes _____
opinions (all opinions)
- H. First Petitioner _____
- I. Agency _____
- J. Circuit _____ K. (circle) 1. 3-judge
2. *en banc*
3. Table (shepardize)
4. 4 or more, not *en banc*
- L. Date _____ - _____ - _____ [last decision, e.g. reh. den.]
(mo) (day) (year)
- M. Agency proceeding type (circle)
1. Adjudication 2. Rulemaking
3. Ratemaking 4. Other Describe: _____
5. No indication or Table Case
- N. Result code (circle all that apply)—Reviewing court:
1. Affirmed *in toto* 2. Affirmed in part
Reversed:
3. No jurisdiction 4. Other

- *Remanded—law-based (supporting page) _____
- 5. Procedure _____ 6. Substance _____
- *7. Remanded—fact-based (supporting page) _____
- *8. Remanded—rationale-based (supporting page) _____
- 9. Other (e.g. retained on docket)
- 10. Remanded—no indication of reason
- 11. Reversed—no indication of reason

Described (remands & other): _____

AA. Standard of Review (circle all that apply)

- 1. *De novo* _____ 2. Error of law _____
- 3. Substantial evidence _____ 4. Capricious and arbitrary _____
- 5. Abuse of discretion _____
- 6. Other (Describe): _____
- 7. No indication.

*(remands only) Petitioner's counsel _____

(firm) _____ (city) _____

*(remands only) Agency counsel _____

Interview with Petitioner

(case number) _____ Date(s) of interview _____

Petitioner's counsel (name) _____

(firm) _____

(city) _____ (phone) _____

O. Procedures after remand:

- 1. No further proceedings after remand.
- Agency issued new opinion that:
 - 2. Supplied additional explanations but no change in legal theory or interpretation.
 - 3. Adopted new legal theory or interpretation.
- 4. Agency supplemented record (additional evidence), but did not hold new hearings.
- 5. Agency held additional hearings (oral or written).
- 6. Other (Describe): _____

P. Result after remand (circle all that apply) - Agency:

- 1. Re-affirmed earlier decision (no change in result).
- 2. Minor changes (Describe): _____
- _____
- 3. Major changes (Describe): _____
- _____

- 4. Agreed to settlement.
- 5. Adopted new legal theory.
- 6. Agency relied on *old* facts (in record at time of remand).
- 7. Agency relied on *new* facts (not in record at remand).
- 8. Agency issued new notice of proposed rulemaking (NPRM).
- 9. Agency dropped the proceeding.
- 10. Other (Describe): _____

Subsequent proceedings citation(s) _____
 (please send copy if unpublished)

Q. "Which of the following would you say best describes the practical effect on your client of the ultimate resolution by the agency after the court's remand?" (circle one):

- 1. Much more favorable to client.
- 2. Only slightly more favorable to client.
- 3. About the same effect on client as before remand.
- 4. Less favorable to client.
- 5. No opinion, or won't say.

R. "In your opinion, did the court's remand affect the ultimate result reached by the agency?"

- 1. Yes (Describe how): _____
- 2. No.
- 3. No opinion, or won't say.

S. "Were there any other significant intervening events between the agency's original decision and its final decision which might help to explain any changes?"

- 0. No, or don't know.
- 1. Change of national administration.
- 2. Change of agency head.
- 3. Change of agency staff or lawyer handling case.
- 4. Significant change of law (other than remand itself):
 - a. New legislation or amendment.
 - b. Other court decisions.
 - c. Change of agency policy.
- 5. Change in economic or competitive conditions.
- 6. Other (Describe): _____

T. Time elapsed between remand and final agency action (in months): _____

Others to contact:

Name _____ Phone _____
 Role _____

Interview with Agency

(case number) _____ Date(s) of interview _____

Agency counsel (name) _____
 (firm) _____
 (city) _____ (phone) _____

U. Procedures after remand:

1. No further proceedings after remand.
 Agency issued new opinion that:
2. Supplied additional explanations but no change in legal theory or interpretation.
3. Adopted new legal theory or interpretation.
4. Agency supplemented record (additional evidence), but did not hold new hearings.
5. Agency held additional hearings (oral or written).
6. Other (Describe): _____

V. Result after remand (circle all that apply) - Agency:

1. Re-affirmed earlier decision (no change in result).
2. Minor changes (Describe): _____

3. Major changes (Describe): _____

4. Agreed to settlement.
5. Adopted new legal theory.
6. Agency relied on *old* facts (in record at time of remand).
7. Agency relied on *new* facts (not in record at remand).
8. Agency issued new notice of proposed rulemaking (NPRM).
9. Agency dropped the proceeding.
10. Other (Describe): _____

Subsequent proceedings citation(s) _____
 (please send copy if unpublished)

W. "Which of the following would you say best describes the practical effect on the petitioner (i.e. the regulated party that sought judicial review) of the ultimate resolution by the agency after the court's remand?" (circle one):

1. Much more favorable to petitioner.
2. Only slightly more favorable to petitioner.
3. About the same effect on petitioner as before remand.
4. Less favorable to petitioner.
5. No opinion, or won't say.

X. "In your opinion, did the court's remand affect the ultimate result reached by the agency?"

1. Yes (Describe how): _____
2. No.
3. No opinion, or won't say.

Y. "Were there any other significant intervening events between the

agency's original decision and its final decision which might help to explain any changes?"

- 0. No, or don't know.
- 1. Change of national administration.
- 2. Change of agency head.
- 3. Change of agency staff or lawyer handling case.
- 4. Significant change of law (other than remand itself):
 - a. New legislation or amendment.
 - b. Other court decisions.
 - c. Change of agency policy.
- 5. Change in economic or competitive conditions.
- 6. Other (Describe): _____

Z. Time elapsed between remand and final agency action (in months): _____

Others to contact:

Name _____ Phone _____
 Role _____

Appendix C - Use of WESTLAW in Empirical Research

A. USE OF ELECTRONIC SOURCES FOR EMPIRICAL LEGAL RESEARCH

As in all empirical research, there is the possibility of error in the data collection process of a project this large. To minimize this risk, we utilized WESTLAW computer search techniques to screen West's collection of federal appellate decisions to identify the set of cases that our research assistants should have included in their data collection. We decided to attempt the search rather late in the study's process, after the research assistants had completed the hammer-and-tongs screening of thousands of cases in the volumes of the Federal Reporter. Our hope, of course, was that the WESTLAW search would generate the identical or nearly identical set of cases as the research assistants.

Because we had used so many research assistants over the course of the study's almost three-year duration, using another source to check the data gathered was a valuable means of enhancing consistency among the results of the data collection. We were indeed grateful for being able to use the technique; checking the results of the WESTLAW search against the database identified several "holes" in the databases that we filled before completing the analyses. One very important instance of this was our discovery that the cases in one volume of the Federal Reporter had not been catalogued at all, suggesting either that there was some misunderstanding by at least one research assistant about his or her assignment or that there was a problem with our data entry process. Although the total number of other data collection errors was probably not significant in terms of the statistical results of the study,

the error-checking process was, nonetheless, a valuable means of ensuring that the data we received from the research assistants was consistent with what we expected them to gather.

Our experience with this technique suggests that WESTLAW-based search methods have many potential avenues for researchers' empirical needs. Instead of using the search results merely to check the accuracy of a database generated by other means, researchers may gain enough confidence in the search techniques to use them as primary sources for data. Legal research has, in the main, not benefitted nearly so much from empirical research as the social science disciplines. This is somewhat puzzling, given the social science backgrounds of many legal scholars. The reason lies principally in the fact that collecting data for empirical legal research is frequently a cumbersome, tedious, and expensive process.³⁷

Computer-based research could be of benefit in at least three ways. The first is speed. Once one is confident that a search technique is appropriately defined for generating the cases needed for an empirical study, WESTLAW can search volumes of case law in a small fraction of the time that a hammer-and-tongs method requires.

Second, WESTLAW creates a permanent record of the method of the search. Perhaps no amount of training research assistants will eliminate the certain unease that results from wondering whether all of the assistants apply the screening criteria in the same way. With WESTLAW, the researcher's translation of the research objective into a search request provides a record of how the data were generated, a record which other researchers can criticize and improve upon. The process would be similar to the methodological debates in the social sciences over how to translate the variables of a hypothesis into data that can be measured in the real world or under laboratory conditions. Even if researchers agree about a hypothesis, strong disagreement may persist over the best way to observe and measure the phenomenon. Computer-based research offers the opportunity for the same type of debate and verification in legal research.

Third, computer-based research may be the only economical way to transcend the tendency of legal scholars to discuss only a handful of key cases in their efforts to describe the evolution of a legal system or doctrine. As discussed earlier in the paper, *see supra* text at pages 517-

³⁷The process of reviewing thousands of cases to identify those which fit the researcher's criteria can be both economically and psychologically costly, problems perhaps worse than those encountered in the social sciences, where many standardized data classifications and categorizations already exist and where experimental techniques are more prevalent. Electronic legal research potentially offers legal academics similar benefits—tremendous collections of data, broken down into categories and subdivisions. Of course, the existing categories and subdivisions will not be appropriate for all empirical research needs. But the flexibility available in tailoring an electronic search to a researcher's needs means that a scholar's research potential is not limited to the conceptualizations of the computerized databases' authors.

20, legal scholars too seldom examine the empirical manifestations of changes in legal doctrine. A primary reason for this is the difficulty of sifting through the accelerating numbers of volumes of reported cases and statutes to collect the needed data. This voluminous amount of data currently limits researchers to relatively small data sets in their empirical work.

B. THE SEARCH PROCEDURE OF OUR STUDY

The purpose of the search was to scan the WESTLAW federal appellate court files to locate the cases that belong in our 1965 and 1975 data sets. The criteria for locating "included" cases, therefore, was that each case: (i) had to be an appeal from an administrative agency; (ii) had to be within the appropriate time period; (iii) must not have been a tax-related decision; and (iv) must not have been an appeal from a district court. The searches are reproduced below, following the general descriptions.

Narrowing the searches by date was fairly straightforward; WESTLAW needs only the beginning and ending dates. We then narrowed the search by topic by examining the WESTLAW "Topic List," flagging all topics related to administrative law, and then including them in the general search. The topics we chose appear in the searches below. Then, to minimize the possibility of missing some entries by not selecting all of the appropriate topics, we added a search of the syllabus of each case for the word "administrative" (as in "appeal from administrative order") or "petition" (as in "petition from [x] agency" or "petition for review"). Finally, to eliminate the possibility of including tax-related or district court cases, we eliminated entries for which the syllabus contained "tax**," "taxation," "taxable" or "district."³⁸

The search for 1975 was:

```
DA(AFT 1-1-65 & BEF 7-1-65) & (TOPIC (15A 24 77 83H 92H 99 114
148A 190 199 232A 243 258 450 283 291 300 304 306 310 313A 317
317A 320 339 349B 356A 372 382 383 404 405 411 412 413 414)
SY(ADMINISTRATIVE PETITION)) % SY(TAX** TAXATION
TAXABLE DISTRICT).
```

And for 1965:

```
DA(AFT 1-1-65 & BEF 7-1-65) & (TOPIC (15A 24 77 83H 92H 99 114
148A 190 199 232A 243 258 450 283 291 300 304 306 310 313A 317
```

³⁸The district court screen may seem crude but is actually highly accurate. The syllabus of every case that is an appeal from a district court contains the phrase "appeal from the district court of _____," and the word "district" is used very rarely for other purposes. While checking the results of the search against our database, we discovered a few cases in our database that WESTLAW eliminated by virtue of the search procedure's elimination of cases based on other constructions of "district" (e.g., "water district"), but the number was very small. If we were to run another search with the same goal of eliminating appeals from district courts, we would screen by "district court" instead of by "district" only.

317A 320 339 349B 356A 372 382 383 404 405 411 412 413 414)
SY(ADMINISTRATIVE PETITION)) % SY(TAX** TAXATION
TAXABLE DISTRICT).

In WESTLAW-ese, “or” is implied when there is no connector between entries. Therefore, SY(ADMINISTRATIVE PETITION) translates to “the word ADMINISTRATIVE or the word PETITION appears in the syllabus” (of course, both may appear). Further syntax includes: % means “but not”; “*” is a universal (“wildcard”) character which permits any number of characters to appear in its location.

After conducting the WESTLAW search, one of our research assistants matched the entries in our databases against the lists generated by WESTLAW. He flagged those cases appearing on the WESTLAW search but not in our database, and he then checked the new cases identified by WESTLAW to see if we should include them. He also checked those cases appearing in our databases which WESTLAW did not pick up. This “double check” process led us to include a few additional cases in the databases and to correct or delete some cases that were already entered before conducting the final round of statistical analyses.

