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WHY ADR PROGRAMS AREN'T MORE APPEALING: AN EMPIRICAL PERSPECTIVE¹⁻²

POR QUE OS PROGRAMAS DE RESOLUÇÃO ALTERNATIVA DE DISPUTAS (RAD) NÃO SÃO MAIS ATRATIVOS: UMA PERSPECTIVA EMPÍRICA

Michael Heise

Abstract: Standard law and economic theory suggests that litigating parties seeking to maximize welfare will participate in alternative dispute resolution (ADR) programs if they generate a surplus. ADR programs claim to generate social surplus partly through promoting settlements and reducing case disposition time. Although most associate ADR programs with trial courts, a relatively recent trend involves appellate courts' use of ADR programs. The emergence of court-annexed ADR programs raises a question. Specifically, if ADR programs achieve their goals of promoting settlements and reducing disposition time, why do some courts find it necessary to

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2 I am grateful to Dawn M. Chutkow, Theodore Eisenberg (1947-2014), Nicole Heise, Marty Wells, and an anonymous referee for their comments on an earlier version of this paper. An earlier version of this paper was presented at Northwestern University School of Law's Research Symposium on Empirical Studies of Civil Liability as well as at faculty workshops at Notre Dame Law School and Suffolk University Law School. This article was originally published in 7 JOURNAL OF EMPIRICAL LEGAL STUDIES 64-96 (March 2010). Reprinted by permission from Cornell Law School, JOURNAL OF EMPIRICAL LEGAL STUDIES, and Wiley Subscription Services, Inc.

impose ADR participation? Attention to ADR's ability to achieve its goals provides one clue. Most empirical assessments of ADR programs' efficacy have been mixed. This study exploits a uniquely comprehensive database of state civil court trials and appeals and tests hypotheses germane to questions about whether court-annexed appellate ADR programs stimulate settlement and reduce disposition time. Using data from 46 large counties consisting of 8,038 trials that generated 965 filed appeals, with 166 appeals participating in ADR programs, findings from this study provide mixed support for ADR programs. Specifically, results from this study indicate that participation in an ADR program correlates with an increased likelihood of settlement but not reduced disposition time. ADR programs' mixed efficacy diminishes its appeal to litigants. Institutional interests help explain why appellate courts impose ADR participation notwithstanding mixed results on ADR efficacy.

Keywords: Litigation. Civil Procedure. Alternative dispute Resolution.

Resumo: A doutrina jurídica e econômica tradicional sugere que as partes litigantes que buscam maximizar ganhos de bem-estar vão participar de programas de resolução alternativa de disputas (RAD) se eles gerarem excedentes. Os programas de RAD pretendem gerar excedentes sociais, em parte por meio da promoção de transações e redução do tempo de duração do conflito. Embora a maioria associe os programas de RAD aos julgamentos realizados pelos juízos de primeira instância, uma corrente relativamente recente exige que os Tribunais de segunda instância usem programas de RAD. A emergência de programas de RAD "Court-Annexed" levanta um problema. Especificamente, se os programas de RAD alcançam suas metas de promoção de acordos e de redução do tempo para solução de conflitos, porque alguns tribunais entendem necessária a imposição de participação nos programas de RAD? Uma observação atenta à capacidade da RAD alcançar seus objetivos proporciona um indício. A maior parte das análises empíricas da eficácia dos programas de RAD tem sido divergente. Este estudo explora uma base de dados única e

abrangente de decisões judiciais de primeira instância e de julgamentos de recursos e testa hipóteses pertinentes para questões relacionadas a esclarecer em que medida programas de RAD “Court-Annexed” incentivam acordos e reduzem tempo para a solução do conflito. Por meio da análise de dados de 46 comarcas compostos por 8.038 decisões judiciais de primeira instância que geraram a interposição de 965 recursos, dentre os quais 166 participando de programas de RAD, as conclusões deste estudo propiciam entendimentos divergentes para os programas de RAD. Especificamente, as conclusões deste estudo indicam que a participação em programas de RAD está em correlação com uma majorada probabilidade de transação mas não de redução do tempo de duração do conflito. A eficácia controversa dos programas de RAD diminui sua atratividade para as partes litigantes. Interesses institucionais explicam por que os tribunais impõem a participação em programas de RAD, a despeito dos divergentes resultados acerca de sua eficiência.

Palavras-chave: Contencioso. Processo Civil. Resolução alternativa de disputas.

Summary: II. Introduction. II. Theoretical justifications for ADR programs and related empirical literature. A. ADR Theory. B. Evidence on ADR program efficacy. III. Data, methodology and research design. IV. Initial observations. A. Settlements. B. Disposition Time. V. Assessing ADR influence by modeling decisions to appeal and settle and Disposition Time. A. Decisions to appeal. B. Decisions to settle. C. Modeling appeal Disposition Time. D. Results and discussion. 1. Settlement. 2. Disposition Time. E. Courts’ institutional interests in mandating ADR participation. VI. Conclusion.

I. INTRODUCTION.

Momentum and demand for alternative mechanisms to resolve legal disputes build as dissatisfaction with formal litigation

grows. Standard law and economic theory suggests that litigating parties seeking to maximize welfare will participate in alternative dispute resolution (ADR) programs if they generate a surplus³. Although ADR means different things to different people and the scholarly literature notes an array of policies and practices commonly associated with ADR programs, these programs share a claim to generate social surplus partly through promoting settlements and reducing case disposition time⁴. A relatively recent development in the ADR movement is its expansion into appellate litigation⁵. Responding to increased momentum and demand, alternative dispute resolution (ADR) programs increase in number and influence⁶. This growth is far from smooth, however, as satisfaction with ADR is uneven.⁷ Uneven satisfaction levels aside, the growing popularity of ADR programs, and their re-

3 SHAVELL, Steven. *Alternative Dispute Resolution: An Economic Analysis*. *J. Legal Stud.* 1995, v. 24 1, 5. (arguing that litigating parties “would tend to adopt ADR if it would lead to mutual advantages”).

4 See, e.g., BRAZIL, Wayne D. Should Court-Sponsored ADR Survive? 21 *Ohio St. J. on Disp. Resol.* 2006 P. 214-247. (Noting that the most “common promise” was that ADR programs would reduce cost and delay in civil litigation); HENRY, James F. The Courts at a Crossroads: A Consumer Perspective of the Judicial System. 95 *Geo. L.J.* 2007, p. 945. (Addressing arguments for ADR in the federal context); STIPANOWICH, Thomas J. ADR and the “Vanishing Trial”: The Growth and Impact of “Alternative Dispute Resolution”. 1 *J. Empirical Legal Stud.* 2004, p. 843-875,

5 FETTY, Jeremy L. Pre-Argument Settlement at the Michigan Court of Appeals: A Secret Too Well Kept. 7 *J. App. Prac. & Process.* 2005, p. 317 (Noting that appellate ADR programs emerged in the late 1980s and early 1990s).

6 For a recent summary see, e.g., SHESTOWSKY, Donna & BRETT, Jeanne M., Disputants’ Perceptions of Dispute Resolution Procedures: A Longitudinal Empirical Study. UC Davis Legal Studies Research Paper Series, No. 130, mar. 2008. At 4 (“Now, more than ever, disputants have a variety of options for resolving legal conflict.”). See generally STIPANOWICH, *supra* note 4.

7 For example, for a debate about whether companies increasing ashew arbitration agreements, compare Theodore EISENBERG, Theodore & MILLER, Geoffrey P. The Flight From Arbitration: An Empirical Study of Ex Ante Arbitration Clauses in the Contracts of Publicly Held Companies. 56 *DePaul L. Rev.* 2007, p. 335. (Arguing companies avoid arbitration), with DRACHOZAL, Christopher R. & WITTRUCK, Quentin R. *Is There a Flight from Arbitration* Available at: <http://ssrn.com/abstract=1147697> (arguing that evidence about a flight from arbitration agreements is inconclusive).

cent expansion into the appellate setting, imply some level of success in achieving its core objectives.

Support for ADR programs is intuitive and those demanding ADR programs range from private litigants to lawmakers and courts⁸. One distinct subspecies of the broader ADR movement includes court-annexed (or court-mandated) ADR programs⁹. These mandatory yet nonbinding ADR programs exist in many states for certain types of civil litigation and contribute to the steady increase in ADR programs¹⁰. The emergence of court-annexed ADR programs implies, however, that not all litigants perceive ADR programs' benefits. If they did, court-annexed ADR programs would be redundant as a policy option. Why do courts feel the need to compel ADR if economically rational litigants would seek such programs? Presumably, courts that impose ADR participation on litigants perceive that benefits from ADR participation must exist independent of litigants' perspectives. Consequently, attention to courts' institutional interests is warranted.

It is important to keep in mind how ADR programs seek to achieve its twin goals of increased settlements and reduced case disposition time. Critically, ADR programs seek to stimulate information sharing about a legal dispute among litigants. Additional information provides litigants greater clarity on the likely legal outcome of their dispute. Greater information flow is critical as it facilitates litigants' assessments of the relative and absolute strengths of their legal disputes. With greater legal or factual clarity comes an increased likelihood of settlement. Settlements typically reduce case disposition time

8 See, e.g., EDWARDS, Harry T. *Alternative Dispute Resolution: Panacea or Anathema?* 99 *Harv. L. Rev.* 1986, p. 668.

9 For a discussion of court-mandated and court-annexed ADR programs and the particular problems that arise in this context see generally BRAZIL, *op. cit.*, supra note 4.

10 More specifically, court-annexed ADR programs exist in 38 of the 46 counties included in the dataset. For a fuller description see *infra* Part II.

and, in so doing, decrease costs (private and public)¹¹. Moreover, by identifying the specific contested issues with greater clarity to the parties, a strong form of the ADR argument is that participation generates a net reduction in disposition time even for cases that do not settle and, instead, proceed to trial¹².

Even where settlement might be less costly and take less time than litigation and where ADR participation might make sense in the abstract, some litigants, perhaps those wary of “second class justice”¹³, either avoid ADR altogether or, after participating in ADR, take legal disputes to trial. Although litigant motives vary across cases, litigants that pursue claims to trial do so partly because they can endure the costs of litigation and, presumably, because they sense some reasonable level of uncertainty – factual or legal – about their case’s outcome¹⁴. The sub-pool of disputes that withstands settlement or withdrawal, as well as the various motions for directed verdicts and summary judgments and other dispositions, more likely comprises disputes whose underlying merits reside somewhere in the “gray middle area”. Additional – if similar – filters arise during the post-trial appellate process¹⁵.

11 See BRAZIL, *op. cit.*, supra note 4, at p. 247 (identifying relief of court docket pressure as one important public benefit from ADR).

12 See, e.g., RUCH-ALEGANT, Kimberly M. *Markman*. Note: In: The Light of De Novo Review, Parties to Patent Infringement Litigation Should Consider the ADR Option. *16 Temple Envtl. L. & Tech. J.* 1998, p. 307-308. (Arguing that even where ADR programs failed to eliminate the need for a trial it could be used to facilitate the construction of the claim issues in a patent dispute). This strong form of the ADR proponent claim, however, does not benefit from empirical support. See Michael Heise, Justice Delayed?: An Empirical Analysis of Civil Case Disposition Time. *50 Case Western Res. L. Rev.* 2000, p. 813 and 846-847.

13 For a discussion see BRAZIL, *op. cit.*, supra note 4, at p. 253-254 (reviewing the “second-class justice” argument).

14 See generally PRIEST, George L. & KLEIN, Benjamin. The Selection of Disputes for Litigation. *13 J. Legal Stud.* 1. 1984.

15 *Id.* at 29 (arguing that, aside from possible precedential concerns, selection effect applies “indistinguishably to trial and appellate disputes”). See also EISENBERG, Theodore & HEISE,

Although most associate ADR programs with trial courts, a relatively recent trend involves appellate courts' use of ADR. The trial and appellate court contexts differ in important structural ways that plausibly influence the efficacy of court-annexed ADR programs. At the pre-trial stage, ADR programs offer adverse parties a neutral and realistic forum to better assess of what could transpire if their dispute were to proceed to a full, formal trial¹⁶. At the appellate stage, however, both parties already know what happened at trial. While the outcome of an appeal is presumably unclear to one or both of the litigants, there is comparatively far less information remaining for the litigating parties to share. Factors other than information deficits or asymmetry contribute to appellate activity. Should errors occur, for example, the trial itself can inject new legal (appellate) uncertainty into a dispute. Various economic factors cut in opposing directions. On the one hand, insofar as both parties at the appellate stage have already invested in the cost of a full trial, marginal costs incident to an appeal are generally less than the cost of a trial. On the other hand, after spending money necessary for a trial perhaps fewer financial resources remain for an appeal.

Efforts to test ADR programs' efficacy require careful attention to research design considerations. Findings from studies that simply compare disposition times for cases that settle incident to ADR participation with cases that do not settle, for example, reveal little in terms of ADR participation's independent influence on a case's disposition time and related litigation costs. After all, cases that settle almost always do so in less time than cases that are tried to a judge, jury, or

Michael. Plaintiffphobia in State Courts? An Empirical Study of State Court Trials on Appeal. 38 *J. Legal Stud.* forthcoming 2009; REVESZ, Richard L. Litigation and Settlement in the Federal Appellate Courts: Impact of Panel Selection Procedures on Ideologically Divided Courts. 29 *J. Legal Stud.* 685. 2000, 707-708. (Considers the salience of the Priest-Klein prediction of a 50% win rate in the federal appellate courts).

16 See BRAZIL. Wayne D. *Settling Civil Suits*. 1985, p. 44-46; RUVOLO, Ignazio J. Appellate Mediation – “Settling” the Last Frontier of ADR. 42 *San Diego L. Rev.* 177. 2005, p. 180-192 (Describing civil ADR efforts in California's state appellate courts).

appellate panel regardless of ADR participation¹⁷. A more probative comparison involves cases that settled and those that were tried while holding constant ADR participation.

Research design challenges aside, results from most empirical assessments of ADR programs' efficacy are mixed¹⁸. Research design complexities contribute to lingering questions about whether ADR programs deliver increased settlement rates and decreased case disposition times. Reflecting the distribution of ADR programs and activity, studies of ADR efficacy in the pre-trial context dominate the published research literature.

This study builds on the existing research by exploring whether appellate ADR programs stimulate settlement and reduce disposition time in a national sample of state civil appeals. Two general findings emerge from this study and provide mixed support for the hypotheses. First, for those appellants included in our study, participation in an ADR program increased the likelihood of a settlement. Second, ADR program participation did not influence disposition time.

17 A stronger form of the pro-ADR argument suggests that in some circumstances, even unsuccessful ADR participation might reduce overall case disposition time by helping litigants identify and, therefore, more efficiently litigate over contested issues. See, e.g., RUCH-ALEGANT, *supra* note 13.

18 For empirical assessments of ADR program efficacy in the trial court setting see, e.g., KAKALIK, James S. et al. Just, Speedy, and Inexpensive? An Evaluation of Judicial Case Management Under the Civil Justice Reform Act. *49 Ala. L. Rev.* 17. 1997, p. 18-41. (Assessing a RAND Corp. study and concluding that the federal pilot program had little effect on reducing litigation costs or disposition time); HEISE, Michael. Justice Delayed?: An Empirical Analysis of Civil Case Disposition Time. *50 Case W. Res. L. Rev.* 2000, P. 813. (Finding that ADR participation did not correlate with reduced case disposition time). For a more sanguine view of ADR's efficacy see, e.g., BRAZIL, *op. cit.*, *supra* note 4, at p. 249-250. For a summary of the literature see generally TOBIAS, Carl. Civil Justice Delay and Empirical Data: A Response to Professor Heise. *51 Case W. Res. L. Rev.* 2000, p. 235. For assessments of ADR efficacy in the appellate setting see, e.g., FETTY, *op. cit.*, *supra* note 5, at p. 328-331 (noting varying success rates across years in the Michigan program); WATERS, Nicole L. & SWEIKAR, Michael. Efficient and Successful ADR in Appellate Courts: What Matters Most? *62 Dispute Resolution J.* 42. 2007, p. 52, tbl.4 (finding that increased programmatic integration enhanced settlement rates).

Section II briefly considers the theoretical rationales for ADR programs, identifies two key hypotheses concerning the influence of ADR programs on litigation, and briefly summarizes the existing empirical literature. Section III describes the data, methodology, and research design. Section IV presents descriptive results with a particular emphasis on the contours of the stream of appeals through the ADR and appellate court processes. Section V presents regression results that both confirm and supply more textured refinement of the core results in Section IV. The discussion considers how courts' institutional interests are nonetheless served by mandating ADR programs that achieve part of their objectives. Section VI concludes.

II. THEORETICAL JUSTIFICATIONS FOR ADR PROGRAMS AND RELATED EMPIRICAL LITERATURE.

Law and economic theory supplies one rationale for ADR programs and participation in them as well as generates two key hypotheses: ADR participation stimulates case settlement and reduces disposition time. Existing empirical evidence on whether ADR programs deliver on their central promises, drawn mainly from studies of ADR in the pre-trial setting, provides mixed support for the hypotheses.

A. ADR Theory.

A law and economics rationale seeking to account for the emergence of ADR programs generates specific hypotheses that warrant empirical testing. According to Steven Shavell, *ex ante* ADR participation agreements work to the mutual benefit of parties by reducing the overall cost of resolving disputes¹⁹. Sources of cost reduction from ADR participation include the increased probability of settlement and reduced case disposition time.

¹⁹ SHAVELL, *op. cit.*, supra note 3, at 3.

Nested within theories explaining rationales for ADR programs' growth are various (and sometimes competing) theories seeking to explain why some cases settle. If, as Priest and Klein assert, trials are most likely to occur in "close" cases²⁰ or, as Shavell describes, where the litigants' perspectives of their respective legal positions diverge²¹, it follows that settlement is most likely in cases that are not close or where litigants' perspectives on a dispute's expected outcome substantially converge. Others advance alternative reasons for case settlement. According to Mnookin and Kornhauser and Cooter, for example, settlement behavior is better understood as a function bargaining between and among litigating parties²². Based on a sample of state civil filings, Gross and Syverud suggest another understanding of settlement activity by emphasizing the nature of the litigating parties and their relationships as well as the influence of insurance and how it bears on damages and settlement authority²³. After comparing final settlement offers with actual jury awards where final settlement offers were rejected, Rachlinski concludes that behavioral economics, in general, and framing theory, in particular, explains settlement conduct²⁴. Finally, purely strategic litigation may also influence settlements²⁵. For example, by refusing an otherwise

20 PRIEST & KLEIN, *op. cit.*, supra note 14, at p. 12-17.

21 SHAVELL, *op. cit.*, supra note 3, at p. 11.

22 See, e.g., MNOOKIN, Robert H. & KORNHAUSER Lewis. Bargaining in the Shadow of the Law: The Case of Divorce. *88 Yale L.J.* 1979, p. 950; COOTER, Robert *et al.* Bargaining in the Shadow of the Law: A Testable Model of Strategic Behavior. *11 J. Legal Stud.* 1982, p. 225.

23 GROSS, Samuel R. & SYVERUD Kent D. Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial. *90 Mich. L. Rev.* 1991, p. 319-322. A study of medical malpractice closed claims in Texas notes the influence of malpractice insurance policy limits on differences between what juries award and what prevailing plaintiffs receive. See David A. Hyman et al., Do Defendants Pay What Juries Award? Post-Verdict Haircuts in Texas Medical Malpractice Cases, 1988-2003. *4 J. Empirical Legal Stud.* 2007, issue 3.

24 See RACHLINSKI Jeffrey. Gains, Losses and the Psychology of Litigation. *70 S. Cal. L. Rev.* 1996, p. 113, 114, 118, 120 and 142.

25 See, e.g., LOPUCKI Lynn M. & WEYRAUCH Walter O. A Theory of Legal Strategy. *49 Duke L.J.* 2000, p. 1405 and 1416. (Noting various strategic aspects incident to the *Texaco-Pennzoil* appeal).

reasonable settlement offer a party can impose additional litigation costs on an opponent by either delaying the final disposition of a case or, in the post-trial context, encumbering a trial court award²⁶ or both.

Despite numerous reasons explaining why cases settle, settled cases share at least one salient factor. Settlements are not mandatory, and as a consequence, a settlement arises only if such an outcome is consistent with both parties' interests. How do ADR programs address this factor? ADR programs' principal contribution is the facilitation of information between (and among) disputants²⁷. Increased information generated in a more informal and less adversarial context than formal litigation should afford disputing parties a more accurate perspective on the relative strengths and weaknesses of their case and stimulate bargaining.

Regardless of their motivation, case settlements create private and public benefits. In addition to such private benefits flowing from a more timely and less costly resolution of disputes, the "disappearing trial" trend also permits judges to devote more time and care to a smaller number of cases and relieves time and resource pressure for criminal trials²⁸.

In an effort to internalize the private and public benefits offered by ADR, litigants and courts increasingly demand ADR. To examine whether the increased demand for ADR enjoys empirical support, this paper explores whether ADR delivers on the two core benefits predicted by ADR proponents as well as law and economic the-

26 See, e.g., DALTON, Harlon L. Taking the Right to Appeal (More or Less) Seriously. *95 Yale L.J.* 1985, p. 62 and 85. (Noting various reasons motivating a party's decision to file an appeal).

27 To be sure, the less formal and less adversarial setting provided by ADR might also play some role as well.

28 LANDE, John Lande. How Much Justice Can We Afford?: Defining the Courts' Roles and Deciding the Appropriate Number of Trials, Settlements, and Other Elements Needed to Administer Justice. *2006 J. Disp. Resol.* 2006, p. 213 and 228.

ory. ADR participation is premised on twin rationales, previously described, that translate into the following two hypotheses:

H₁: ADR participation increases the likelihood of settlement.

H₂: ADR participation reduces disposition time.

B. Evidence on ADR Program Efficacy.

Although most researchers agree that empirical research on the efficacy of ADR is scant²⁹, findings on settlements and disposition time are mixed and focus on the trial court level. In a review of empirical studies of 27 general civil litigation court-connected ADR programs, Wissler found that settlement rates ranged from 27 to 63 percent³⁰. Of the 27 studies in her review, however, only eight included a control group of non-ADR cases. Of those eight studies, approximately one-half found no difference in settlement rates between ADR and non-ADR cases. The other half of studies found that ADR cases “tended to have a somewhat higher rate of settlement or a somewhat lower rate of trial judgment on a dispositive motion”³¹.

Similarly mixed empirical findings characterize the relation between ADR participation and case disposition time. Wissler’s literature review includes ten studies that considered disposition time for court-connected ADR programs involving general civil litigation cases. Of the ten studies, five found that ADR participation cases ter-

29 See BINGHAM, Lisa B. *Why Suppose? Let’s Find Out: A Public Policy Research Program on Dispute Resolution*. 2002 *J. Disp. Resol.* 2002, p. 101; HENSLER, Deborah R. *ADR Research at the Crossroads*. 2000 *J. Disp. Resol.* 2000, p. 71. Thomas J. Stimpanowich, *ADR and the “Vanishing Trial”: The Growth and Impact of “Alternative Dispute Resolution,”* 1 *J. Empirical Legal Stud.* 843 (2004).

30 WISSLER, Roselle L. *The Effectiveness of Court-Connected Dispute Resolution in Civil Cases*. 22 *Conflict Resol. Q.* 2004, p. 55 and 65.

31 *Id.*

minated faster than non-ADR cases. Of the five other studies, four reported no difference in terms of case disposition time and one study found that ADR participation increased disposition time.

Empirical studies of ADR programs in the appeals context, while helpful, are far fewer in number and comparatively limited in scope. A recent study of the effectiveness of court-annexed state appellate ADR programs explored the efficacy of case screening as a way to increase settlement rates. Although the Waters and Sweikar paper found that increasing court supervision of and engagement with ADR programs increased settlement prospects³², the paper found no evidence that ADR screening efforts, designed to identify and direct promising appeals to ADR programs³³, promoted settlement³⁴. Notably, however, the Waters and Sweikar study did not address whether ADR participation increased settlement prospects or reduced disposition time.

By examining whether ADR participation correlates with appeals settlement and case disposition time in the state civil appeals context, this study builds on existing ADR research in important ways. Results from this study contribute to a comparatively understudied sector of litigation activity (the appellate sector) and facilitate comparisons about possible ADR efficacy differences between the trial and appellate systems. In addition, this study makes an important methodological contribution by comparing sub-sample of appeals that did not participate in ADR programs with a sub-sample of appeals that did participate in ADR programs.

32 See WATERS & SWEIKAR, *op. cit.*, supra note 18, at p. 52 tbl.4.

33 Just because an appeal was referred to an ADR program did not mean that the litigants actually participated. See *op. cit.*, at p. 48 (most, but not all, appellants and appellees referred to ADR participated).

34 *Ibidem*, at p. 51, tbl.3.

III. DATA, METHODOLOGY AND RESEARCH DESIGN

Two distinct, though related, data sets supply the data necessary for this study. First, the “Civil Justice Survey of State Courts,” a project of the National Center for State Courts (NCSC) and the U.S. Department of Justice’s Bureau of Justice Statistics (BJS), gathers data directly from state court clerks’ offices on tort, contract, and property cases disposed of by trial during calendar year 2001. The 2001 data set covers state courts of general jurisdiction in a random sample of 46 of the nation’s 75 most populous counties. The 75 counties from which the sample of 46 was drawn include approximately 37 percent of the 1990 U.S. population and about one-half of all civil lawsuits filed in state courts³⁵. The 2001 data set includes information on 8,038 completed trials³⁶.

The second data set used in this study complements the first. NCSC and BJS implemented a follow-up study that supplemented the 2001 trial study by tracking the 1,204 cases where the trial verdict or judgment, concluded by trial during calendar 2001, was appealed to an intermediate appellate court or a state’s court of last resort by April 2005³⁷. Of this universe of 1,204 appeals, 47 appeals (3.9 percent)

35 For a general discussion, see BUREAU OF JUSTICE, U.S. *Bureau Of Justice Statistics Bulletin: Civil Justice Survey of State Courts, 2001: Civil Trial Cases and Verdicts in Large Counties, 2001*. Apr. 2004. [hereinafter “BJS, Trials 2001”]. For a more technical source and the data set codebook, see BUREAU OF JUSTICE STATISTICS, U.S. Dep’t of Justice, *Civil Justice Survey of State Courts, 2001. Inter-Univ. Consortium for Pol. & Soc. Research, No. 3957, June 2004*. [hereinafter “ICPSR, Trials 2001”]. See also EISENBERG *et al.* *Juries, Judges, and Punitive Damages: Empirical Analyses Using the Civil Justice Survey of State Courts 1992, 1996, and 2001 Data*. *3 J. Empirical Legal Stud.* 263. 2006, p. 267-268 (describing the 1992, 1996, and 2001 data sets); SHARKEY, Catherine M. *Unintended Consequences of Medical Malpractice Damage Caps*. *80 N.Y.U. L. Rev.* 391. 2005, p. 446-50 (same).

36 Although the 2001 study’s final sample includes 8,311 cases (see ICPSR, Trials, 2001, *supra* note 35, at p. 4), the data set includes usable information on 8,038 cases. See *op. cit.*, at p. 5 (noting the final data set includes 8,038 cases); SHARKEY, *op. cit.*, *supra* note 35, at p. 446 (“The 2001 dataset includes 8038 cases”).

37 For a general description of the appeals data set, see BUREAU OF JUSTICE STATISTICS,

were excluded from many of our analyses, because the appeals lacked critical information about which party prevailed at trial.

Because this study dwells on traditionally adverse appeals from trial court decisions, cases where it was not clear that the nature of the appeal was adverse were excluded from the sample. For example, if the trial court ruled for the plaintiff, most would expect that the defendant would be the appellant in any appeal. Conversely, where the trial court ruled for the defendant, one would expect the plaintiff to be the appellant. For the most part (in 83.4% of the appeals), these expectations were met. Excluding a small subgroup of nonadverse appeals generates a universe of 965 usable appeals and permits a more accurate picture of appeals by plaintiffs and defendants from trial court judgments entered against them. The appeal rate, drawn from the pool of adverse appeals, is the percentage of trial court judgments for one party or the other that the losing party puts onto the appellate docket³⁸.

Merging the two NCSC and BJS data sets generates a unique source of data: a longitudinal view of the universe of state appellate activity drawn from a representative sample of state trial activity in the United States. These data facilitate the systematic study of appeals of trials and the potential influence of ADR participation on key outcomes³⁹. With direct access to the state court clerk's offices, as well as approximately 100 trained coders recording data, the data set avoids traditional limitations incident to relying upon litigants or third parties

U.S. Bureau of Justice Statistics Bulletin: Appeals From General Civil Trials in 46 Large Counties, 2001-2005. Jul. 2006. [hereinafter "BJS, Appeals"]. Of the 1,204 cases that involved an appeal, 15 (or 1.5 percent) remained pending at the end of the April 2005 study period. *Id.* at 1.

38 For a similar approach to defining the appeal rate, see CLERMONT, Kevin M. & EISENBERG, Theodore. Appeal From Jury of Judge Trial: Defendants' Advantage. 3 *Am. L. & Econ. Rev.* 2001, p. 125 and 129.

39 See, e.g., BJS, Appeals, *supra* note 37. If one includes the mixed appeals, then the overall appellate rate is 14.4%. We do not compute reversal rates using these mixed appeals because of the ambiguity of which party benefited.

to report. Self-reports, common in many commercial verdict reporters, typically overstate plaintiff win rates and damage award levels⁴⁰.

Research on ADR program efficacy typically runs into a substantial research design quandary. For disputes routed through an ADR program researchers can only guess about a dispute's outcome had it remained exclusively in the formal adjudication system. Uncertainty about the counterfactual persists and confounds analyses about the independent influence, if any, of ADR program participation on case settlement or disposition time. The research design used in this study addresses some of the counterfactual uncertainty in various ways.

Specifically, the appeals data set breaks cleanly into two discrete sub-groups along a dependent variable of interest: one group of cases that settled before an appeals court decision (N=416) and a second group of appeals that resisted settlement and persisted to a formal appeals court decision (N=549). Distributed between these two sub-groups of appeals are the 166 appeals in which the litigants participated in an ADR program. The distribution generates something close to a quasi-experimental research design⁴¹ and facilitates comparing cases that settled (along with their disposition times) with those that did not while controlling for whether the appeal participated in an ADR program. Through descriptive comparisons as well as more formal modeling we can better assess the influence of ADR programs as it relates to the appeals settlement outcome and on disposition time.

40 See, e.g., EISENBERG, Theodore et al. The Predictability of Punitive Damages. *26 J. Legal Stud.* 623. 1997, p. 614 n.53 (finding bias in commercial verdict reporter samples); MERRIT, Deborah Jones & BARRY, Kathryn A. Is the Tort System in Crisis? New Empirical Evidence. *60 Ohio St. L.J.* 315. 1999, p. 324-26 (1999) (same); MOLLER, Erik K. et al., Punitive Damages in Financial Injury Jury Verdicts. *28 J. Legal Stud.* 283. 1999, p. 335 (reporting reasonable levels of confidence in the jury verdict reporters but acknowledging some potential bias).

41 Court-level ADR case screening policies and practice, however, preclude a purely non-biased stream of ADR appeals.

Despite the state civil appeals data set's unique strengths, it is not without limitations. For example, the data are limited to tried cases and therefore do not include cases appealed after dispositive pretrial motions. Also, because the sample focuses on the nation's largest counties and state courts of general jurisdiction, the data might not convey those aspects of the civil justice system, if any, peculiar to smaller counties or rural areas or to cases heard in special jurisdiction courts⁴². Moreover, the focus on state courts precludes generating implications for federal courts. Finally, this study of settlement activity is limited to the appellate context. These cases, by definition, resisted settlement during the trial stages and persisted into the appellate stage. Whether findings from this study of appeals context are germane to the pre-appeals context requires further study.

As Table 1 illustrates, cases navigated through an array of filters as they proceeded from the civil dispute stage through the trial and appellate processes. As only a small fraction of civil actions filed reach trial, the pool of tried cases may systematically differ from the larger pool of civil disputes from which they emerged. The appeals process itself imposed additional filters. Only 12% of the tried civil cases initiated the appeals process. Fewer cases still (6.8%) pursued the appeals process to decision. That is, of the cases that began the appeals process, just over one-half (56.9%) completed at least one level of review: disposition by an intermediate appellate court.

42 Despite the absence of a clear theoretical explanation, the influence of geography, and whatever that might entail, remains a consistent finding in the research literature. See, e.g., EISENBERG, Predictability, supra note 40, at p. 630-631 n.26 (finding geography relevant to punitive damages); SULLIVAN, Teresa A. *et al. As We Forgive Our Debtors: Bankruptcy and Consumer Credit in America*. 1989, p. 339-340 (geography influencing bankruptcy filings); HEISE, Michael. Justice Delayed?: An Empirical Analysis of Civil Case Disposition Time. 50 Case W. Res. L. Rev. 813. 2000, p. 836-38 and p. 847-48. (Noting a geographic influence on case disposition time). The influence of geography is not limited to American courts. See, e.g., EISENBERG, Predictability, supra note 40, at p. 631 n. 26 (finding a geographic effect in courts in Japan, Sweden, and Finland).

Table 1 – State Trials, Appeals and Settlements

	Trial court decisions	Trial court decisions (%)	Appeals filed	Appeals filed (%)	Appeals settled	Appeals settled/ (%)	Appeals concluded	Appeals concluded (%)
<i>All cases</i>	8,038		965		416		549	
Jury trial	6,165	76.7	703	72.85	296	71.15	407	74.13
Judge trial	1,873	23.3	262	27.15	120	28.85	142	25.87
<i>ADR participant</i>			166	17.2	89	21.39	77	14.03
<i>Party appealing:</i>								
Defendant	4,351		551	57.1	262	62.98	289	52.64
Plaintiff	3,677		414	42.9	154	37.02	260	47.36
<i>Case type:</i>								
Motor vehicle	2,819	35.07	114	11.81	60	14.42	54	9.84
Assault, slander, libel	312	3.88	48	4.97	21	5.05	27	4.92
Product liability	117	1.46	30	3.11	9	2.16	21	3.83
Dangerous premises	924	11.5	92	9.53	38	9.13	54	9.84
Medical malpractice	850	10.57	129	13.37	56	13.46	73	13.3
Prof. malpractice	68	0.85	21	2.18	7	1.68	14	2.55
Other tort	361	4.49	65	6.74	20	4.81	45	8.2
Employment contract	281	3.5	83	8.6	31	7.45	52	9.47

Fraud	428	5.32	78	8.08	37	8.89	41	7.47
Lease	188	2.34	26	2.69	13	3.13	13	2.37
Seller plaintiff	772	9.6	118	12.23	63	15.14	55	10.02
Buyer plaintiff	531	6.61	89	9.22	39	9.38	50	9.11
Other contract	211	2.63	36	3.73	16	3.85	20	3.64
Property	176	2.19	36	3.73	6	1.44	30	5.46
(N)	8,038	8,038	965	965	416	416	549	549

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

There are strong theoretical reasons to expect selection effects to result in a non-random sample of cases on appeal. Expectations theory predicts that objectively strong and weak civil cases will settle or reach conclusion prior to being resolved at trial⁴³. Litigants that take cases to trial do so partly because they can afford to pursue trial litigation and, presumably, because they sense some reasonable level of uncertainty – factual or legal – as to a case’s outcome⁴⁴. The sub-pool of cases that withstands settlement or withdrawal, motions for directed verdicts and summary judgment, and other dispositions more likely comprises cases whose underlying merits reside somewhere in the “gray middle area”. A similar set of filters arise anew during the post-trial appeals process⁴⁵. These various selection filters influence the case stream over time and in a manner that generates a skewed subset of appeals. The data permit an assessment of one aspect of the selection process: the decision to undertake an appeal af-

43 E.g., EISENBERG, Theodore. *Litigation Models and Trial Outcomes in Civil Rights and Prisoner Cases*. 77 *Geo. L.J.* 1989, p. 1567 and 1571.

44 Professors Priest and Klein, among others, previously articulated and developed this point. See generally PRIEST & KLEIN, *supra* note 14.

45 *Ibidem*, at 29 (arguing that, aside from possible precedential concerns, selection effect applies “indistinguishably to trial and appellate disputes”).

ter trial. A selection model (Heckman) is used to exploit the data and account for this filtering.

Two additional factors influenced the stream of appeals that participated in ADR programs. One factor involves geography. Specifically, of the 46 sampled large counties, 38 (86.2%) operated ADR programs⁴⁶. Second, in the 38 counties where ADR programs were available, individual appellate courts retained broad latitude in terms of deciding which cases to recommend to ADR. Appeals screeners were used in various ways in some jurisdictions to help appellate courts identify and route promising appeals into ADR programs. The Waters and Sweikar study describes various factors that influenced screeners across participating counties⁴⁷. Although Waters and Sweikar found that screeners' efforts to divert "appropriate" appeals (or appeals seemingly amenable to settlement) to ADR did *not* correspond with ADR success (settlement)⁴⁸, the distribution of appeals that did and did not participate in ADR programs is assumed to be non-random. The assumed non-random distribution tilts in a direction favoring the desired outcomes for ADR programs. That is, if one assumes that case screeners systematically directed appeals especially prone or amenable to settlement into the ADR programs (*contrary* to results from the Waters and Sweikar study)⁴⁹, one would expect this to exert upward pressure on the settlement rate. Consequently, results consistent with ADR desired influences (increased settlement and reduced disposition time) must be interpreted cautiously in light of the presumed non-random appeal routing. Conversely, results inconsistent with ADR desired influences, however, can be interpreted with greater confidence.

IV. INITIAL OBSERVATIONS

As Table 1 illustrates, the universe of 8,038 completed trials generated 965 appeals (or 12% of the completed trials). Of the 965

⁴⁶ These 38 counties handled 63.8% (or 616) of the appeals in our data set.

⁴⁷ WATERS & AND SWEIKAR, *op. cit.*, supra note 18, at p. 46-48

⁴⁸ *Ibidem*, at p. 52, tbl.4.

⁴⁹ WATERS & AND SWEIKAR, *op. cit.*, supra note 18, at p. 52, tbl.4.

appeals, 416 settled and the remaining 549 resulted in an appeals court decision. This study focuses on two sub-pools of the 965 appealed cases. Of the 965 cases that initiated an appeal, 17.2% (166) participated in an ADR program. These two sub-groups – appeals that settled (416) and appeals that did not (549) – varied in terms of ADR participation as well as two key outcomes: settlement and disposition time (measured in days).

A. Settlements.

The 166 appeals that participated in ADR programs distributed close to evenly between those that settled (53.6%) and those appeals that persisted to an appellate court decision (46.4%) notwithstanding ADR participation. The distribution of settled cases controlling for ADR participation hints at systematic differences⁵⁰. Table 2 illustrates that the number of appeals that settled and participated in ADR programs exceeds the number that random chance would predict. Thus, Table 2 implies that ADR programs succeeded in terms of promoting settlement.

Table 2 – Appeals Settled and Concluded by ADR Participation

	<i>Appeal settled</i>	Appeal concluded
ADR participation	89	77
No ADR	327	472
(N)	416	549

Note: The significance of the difference between settled and concluded appeals controlling for ADR participation is based on a chi-square test.

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

⁵⁰ A simple non-parametric analysis suggests that a statistical relation exists. Chi-square coefficient= 9.022; p= .003.

B. Disposition Time.

ADR programs also promise to reduce disposition time. To assess whether this promise was realized, the number of days between the filing of an appeal and its disposition (achieved either through a settlement or appellate court decision) serves as the dependant variable of interest. The analyses use the square root of the raw number of days as this transformation is necessary to comply with standard regression assumptions⁵¹.

Table 3 summarizes appeal disposition time by ADR participation to facilitate comparisons. Although the standard deviations for the two groups do not differ significantly, significant differences do emerge for the groups' means and medians.

Table 3 – Appeal Disposition Time (Square-Root Days) by ADR Participation

	<i>Mean</i>	<i>Median</i>	<i>SD</i>	<i>(N)</i>
ADR attended	16.28	15.94	6.05	166
No-ADR	17.53	18.52	6.65	764
Significance of ADR / No-ADR difference	0.026	0.013	0.133	930

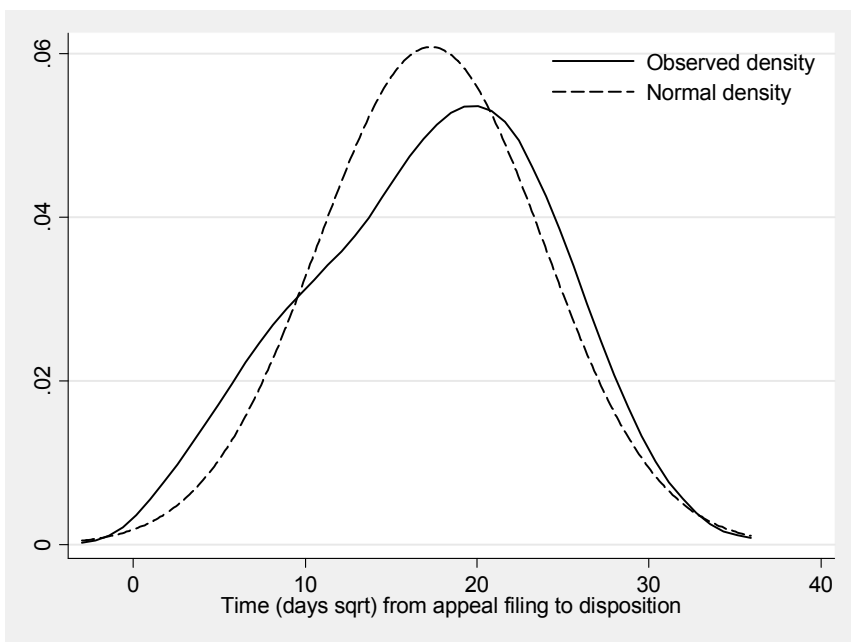
Notes: The significance of means difference is based on a t-test; the significance of medians differences is based on a Mann-Whitney test; the significance of standard deviations is based on an f-test.

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

51 For a discussion of the need for transformations to satisfy regression assumptions, see EISENBERG, Theodore & WELLS, Martin T. The Significant Association Between Punitive and Compensatory Damages in Blockbuster Cases: A Methodological Primer. *3 J. Empirical Legal Stud.* 2006, p. 175.

Figure 1 provides a kernel density estimate⁵² for appeal disposition time. Visual inspection reveals that despite the observed distribution to possessing a bit more “spread,” on balance the dependent variable – disposition time, expressed by the square-root of the raw number of days – distributes in a manner that approximates a normal distribution.

Figure 1 – Kernel Density Estimate for Appeal Disposition Time



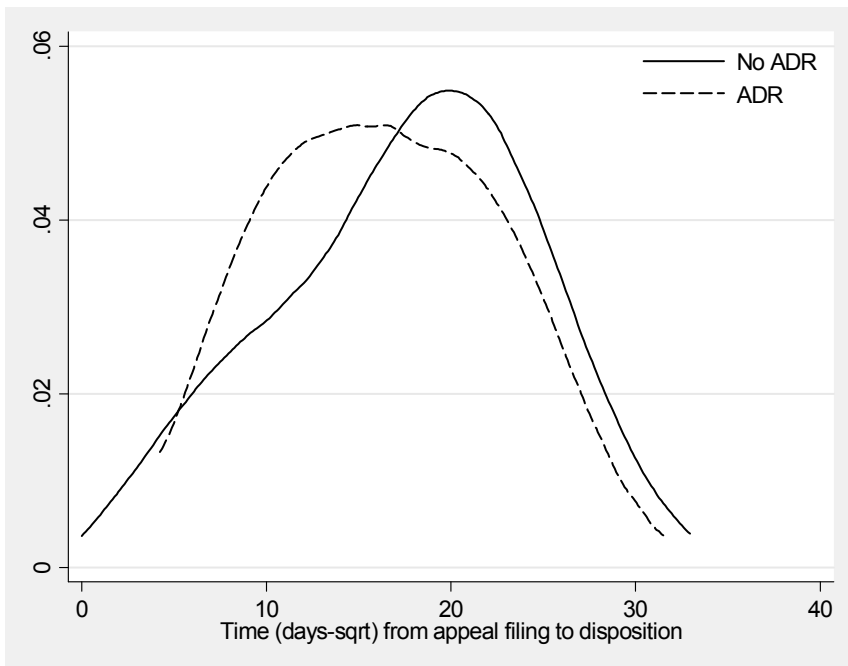
Note: N=965.

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

52 Figure 1 generated with the “kdensity” command with the “bwidth(3)” option, in Stata 10.0. For a discussion of kernel density estimation, see generally SILVERMAN, B.W. *Density Estimation for Statistics and Data Analysis*. 1986.

Figure 2 supplies further texture to Figure 1 by comparing the distributions of disposition time for appeals that participated in ADR programs and appeals that did not. As Figure 2 illustrates, the principal differences include some slight disturbance in the ADR participation distribution and, more important, the “left-shift” of the ADR participation distribution relative to the distribution for appeals that did not participate in ADR programs. At the descriptive level, what is suggested are slight yet noticeable differences in the distribution of disposition times for appeals that participated in ADR programs and those appeals that did not⁵³.

Figure 2 – Kernal Density Estimates by ADR Participation



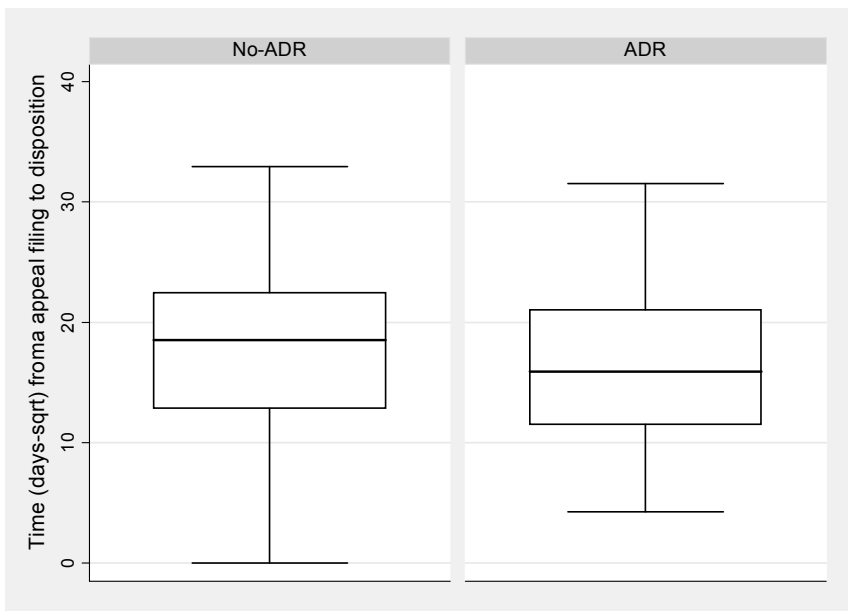
Note: N=965.

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

⁵³ Results from a Kolomogorov-Smirnov test suggest a statistically significant difference between the two distributions ($p=0.005$).

Figure 3 presents a slightly different perspective on the ADR participation versus no-ADR participation comparison presented in Figure 2. Similar to Figure 2, Figure 3 compares disposition time attributes for appeals that participated in ADR programs and those appeals that did not. Also similar is that Figure 3 suggests visible though sometimes subtle differences in disposition time between appeals that participated in ADR and those that did not. Overall, the median (the single lines inside the boxes) disposition time for the ADR participation appeals is lower than the median for its non-ADR counterpart. The two sub-groups of appeals are most similar, however, in terms of the spread between the 25th and 75th percentiles (the upper and lower borders of the boxes).

Figure 3 – Appeal Disposition Time (Square-Root Days) by ADR Participation



Note: N=799 (No-ADR); N=166 (ADR).

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

Taken together, Figures 1, 2, and 3 and Table 3 illustrate, and common sense suggests, that the average settled appeal took less time to conclude than the average appeal pursued to a court decision. What these Figures and Table largely mask, however, is critical within group variation. Specifically, within the sub-group of appeals that participated in ADR programs, some appeals settled and other appeals did not. Similarly, among the sub-group appeals that did not participate in ADR programs, some settled and some did not. Consequently, assessments seeking the independent influence of ADR participation on disposition time need to account (and control) for whether an appeal settled because it is almost always the case that an appeal that settles takes less time to conclude than one that does not settle.

Table 4 begins this inquiry and explores within group comparisons of mean disposition times between appeals that participated in ADR and those appeals that did not participate, controlling for whether the appeal settled. Results from simple *t*-tests suggest that differences in mean disposition times between appeals that submitted to ADR programs and those that did not, after controlling for whether the appeals settled, do not suggest any systematic differences between those two sub-groups of appeals⁵⁴. In terms of explaining appeal disposition time Table 4 suggests that, rather than ADR participation, what really matters for disposition time is whether an appeal was fully litigated and generated an appeals court decision. For appeals that settled, those that participated in ADR programs took slightly less time than settled appeals that did not participate in ADR. For appeals that concluded with a court decision, cases that participated in ADR programs – albeit unsuccessfully – took longer to conclude than those that did not. Thus, time invested by litigants in ADR programs that did not ultimately result in a settlement did not yield a net disposition time saving even though the litigants presumably had

⁵⁴ T-tests uncover no statistical difference between means ($p = .389$ for the appeals settled group; $p = .654$ for the appeals concluded group).

a clearer idea about their opponents' legal positions and the outstanding contested issues by virtue of having gone through ADR.

Table 4 – Average Appeal Disposition Time (sqrt Days) by ADR Participation and Appeal Outcome

	<i>Appeal settled</i>	Appeal concluded
ADR participation	11.66	21.19
No ADR	12.22	20.96
(N)	382	548

Note: The significance of means difference in disposition time is based on a t test.

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

V. ASSESSING ADR INFLUENCE BY MODELING DECISIONS TO APPEAL AND SETTLE AND DISPOSITION TIME.

The descriptive results presented in Section III raise important questions about ADR's potential influence on settlements as well as disposition time for appeals. The asymmetrical distributions of settlements and the symmetrical distribution of mean disposition times raise questions that warrant a more statistically sophisticated effort. Part of such an effort involves accounting for selection effects. A litigant's desire to either settle or pursue an appeal to a judicial decision arises only after the litigant decides to initiate an appeal. The subpool of completed trials that initiated an appeal systematically differs from the bulk of completed trials that did not pursue an appeal in ways that influence the outcome variables of interest – settlement and disposition time.

Notably, defendants and plaintiffs evidenced roughly similar appellate and settlement activity. Although defendants appealed adverse trial court decisions slightly more than plaintiffs (12.7% v. 11.3%)⁵⁵, this difference did not achieve statistical significance. Similarly, although plaintiffs appealed to conclusion (that is, resisted settlement) slightly less more than defendants (7.1% v. 6.6%), the difference between plaintiffs and defendants was not significant⁵⁶. To the extent that cases that persisted through the initial trial by definition resisted whatever efforts were made at resolving the dispute pre-trial, however, one would expect that completed trials that initiate the appellate process would be even less amenable to settlement. Similarly, those cases that resisted settlement should, on average, take longer to complete than those that settle. Results presented in Tables 5 and 6 comport with these expectations and suggest the influence of a selection effect.

A. Decisions to Appeal.

What variables should appellate models include? With respect to the decision to appeal, parties' perceptions (correct or not) about how appellate courts react to jury trials compared to bench trials, and to plaintiff trial court wins compared to defendant wins, likely inform litigants. To capture this possibility, the models include dummy variables signaling whether a case was tried to a jury or judge, and whether a plaintiff or defendant prevailed.

Also expected is that a state and particular case type's "reversal culture" influences a decision to pursue an appeal. For each state⁵⁷

55 EISENBERG & HEISE. *Op. Cit.*, supra note 15, at p. 22, n.92.

56 *Id.*

57 The "(other states)" dummy variable includes six states (GA, HI, MA, NC, VA, and WI) where no more than one appeal was reversed during the time frame of this study.

and case category we computed an overall reversal rate. For example, the reversal rates in Georgia and New Jersey were 12.5% and 56.3%, respectively. Similarly, reversal rates for various case types ranged from 50% (employment contract cases) to 23.1% (lease cases). Holding all else constant, parties seeking to reverse a trial court decision should be more reluctant to pursue an appeal in states with lower reversal rates or involving case types with lower reversal rates.

In addition to varied reversal rates, case types also influence other factors. For example, case types influence decisions regarding the routing of cases to either judges or juries and display sometime sharply different trial outcomes⁵⁸. Case types also influence various trial facets, including settlement rates⁵⁹ and disposition time⁶⁰. Given case types' ranging influences on the civil justice system, it is reasonable to anticipate that case types will influence various aspects of the appeals process as well. Consequently, the models include a dummy variable for each of our 14 case types other than a reference category.

Individuals, corporations, and governments vary in their appetite for and conduct during litigation⁶¹, and it is reasonable to assume that such variation persists into the appeals process. To account for this variation, dummy variables identify cases involving corporate-plaintiffs, corporate-defendants, and governmental-plaintiffs⁶². Litigant characteristics are important regardless of the trial outcome. To the extent that individual litigants believe that corporate litigants be-

58 See, e.g., CLERMONT, Kevin M. & EISENBERG Theodore. Trial By Jury or Judge: Transcending Empiricism, 77 *Cornell L. Rev.* p. 1124, 1137-38 and 1167-70.

59 EISENBERG & HEISE, *op. cit.*, supra note 15, at p. 14 tbl.2.

60 See, e.g., HEISE. Justice Delayed, *op. cit.*, supra note 18, at p. 839-842.

61 E.g., EISENBERG, Theodore & FARBER, Henry. The Government as Litigant: Further Tests of the Case Selection Model. 5 *Am. Law & Econ. Rev.* 2003, p. 94.

62 These particular pairings were used to tether findings from this study to those of prior studies. In any event, the inclusion of alternative pairings does not disturb core findings.

have differently in litigation, for example, such differences would presumably present regardless of whether the corporation won or lost at trial. Moreover, because litigants' decisions about whether to appeal may vary over time, the models include the year the lawsuit was initially filed to help control for any linear time trend in the data. Finally, to account for those states that include more than one of the sampled large counties, a dummy variable serves as a check on possible differences between those states and states with one sampled county. This is warranted because states with more than one large county (*e.g.*, California) might plausibly behave differently than other states with only one large county in the sample.

B. Decisions to Settle.

Efforts to model settlement decisions call for a similar, though slightly different, set of independent variables. Analyzing the determinants of whether an appeal settled is a principal interest and, among the array of plausible independent variables, the primary focus involves participation in an ADR program. Obviously, the availability of ADR programs is one critical control factor. Moreover, the number of appellants and appellees serves as crude proxy for case complexity, which plausibly influences settlement prospects.

Also included in the settlement model are such variables as case types, party types, and year appeal filed. These standard variables are included given their import for the decision to file an appeal as well as the trial court outcome. To account for possible state-level effects on the appellate outcome, the models include dummy variables for each state, as well as a dummy variable signaling those states that have more than one sampled large county. Finally, because outcomes of individual appeals within a state might not be independent of one another, appeals are treated as clustered at the county level, resulting in adjusted standard errors.

C. Modeling Appeal Disposition Time.

What helps explain how long it takes to conclude an appeal? Insofar as decisions about appealing a trial court decision influence an appeals total disposition time, appeal disposition time and settlement models share many, if not most, variables. Consequently, the disposition time model includes independent variables relating to ADR participation, case complexity, trial outcome, case types, litigant pairs, and state dummy variables. One critical variable that distinguishes the disposition time and appeal decision models is a dummy variable signaling whether the appeal settled. This independent variable is crucial for two reasons. First, common sense and experience suggest that appeals that settle take less time than those that do not⁶³. Second, including variables on ADR participation and settlement permits the model to assess the influence, if any, of ADR participation on disposition time independent of whether the appeal settled.

D. Results and Discussion.

Results from this study indicate that participation in an ADR program correlates with an increased likelihood of settlement but not reduced disposition time. Given the case screening that took place in some jurisdictions, the absence of reduced disposition time is especially notable.

63 Not surprisingly, whether an appeal settled strongly influenced disposition time. A simple regression models of appeal disposition time as the dependent variable and whether the appeal settled (a dummy variable) as the independent variable, yields the following results:

	<i>Coefficient</i>	<i>SE</i>	<i>Intercept</i>	<i>r-squared</i>	(N)
Appeal settled	-9.367**	0.311	21.156**	0.494	930

** $p < 0.01$.

1. Settlement.

To assess the likelihood of an appeal settling prior to an appeals courts reaching a formal judicial conclusion I estimate a selection (Heckman) model with a dependent variable equal to “1” if an appeal is settled and “0” if otherwise⁶⁴. The selection model includes all tried cases. Table 5 reports results from the model for settlement (the second-stage of the selection model)⁶⁵. The findings show that, consistent with our descriptive findings, ADR program participation positively correlates with settlement.

Other notable findings include the salience of a plaintiff bench trial victory to settlement prospects. Relative to a defendant bench trial victory (the reference group), plaintiffs that prevailed in a bench trial were more likely to settle in response to a defendant appeal. To the extent that the settlement amount was less than the trial court award, this finding implies that either plaintiffs were somewhat nervous about their prospects for prevailing on appeal or that plaintiffs simply valued a settlement over the cost and uncertainty associated with an appeal. Evidence from studies of appeal outcomes provides tentative support for plaintiffs’ unease with the stability of favorable bench trial verdicts⁶⁶.

Also, a decrease in the number of appellants corresponds with an increased probability of settlement. The number of appellants (and appellees) was included in the model as a crude proxy for case complexity, at least as it relates to the coordination necessary to generate a settlement. The direction (negative) of the coefficient supports the hypothesized inverse relation between the number of appellants and settlement prospects.

64 Specifically, the model was estimated using the “heckprob” command in Stata (v.10.0). A statistically significant selection parameter, rho (P); $p < 0.01$, also suggests that use of the Heckman selection model is appropriate.

65 An unreported first-stage probit model involves whether an appeal was filed.

66 EISENBERG & HEISE. *Op. cit.*, supra note 15, at p. 27, tbl.4.

Table 5 – Selection Model of Appeal Settlement and the Decision to Appeal

	Heckman	(s.e.)
<i>Appeal Settled:</i>		
ADR participation	0.300*	0.133
Number of appellants	-0.080*	0.037
Number of appellees	-0.011	0.019
Appeals court w/ ADR	0.008	0.205
<i>Trial outcomes</i>		
Def. won bench trial	(ref)	
Plaintiff won bench trial	0.464**	0.158
Def. won jury trial	-0.000	0.129
Plaintiff won jury trial	0.017	0.174
<i>Litigant characteristics</i>		
Government plaintiff	0.273	0.180
Corporate plaintiff	0.142*	0.064
Corporate defendant	0.149**	0.047
(Other variables and the decision to Appeal equation are reported in the Appendix)		
Rho (Wald test)	-0.687**	0.162
(N)	7,962	
(N outcomes)	925	
Log likelihood	-3146.4	

Notes: Model includes Heckman appeal outcome and decision to appeal equations. Dependent variable in appeal outcome equation is appeal settled; dependent variable in decision to appeal equation is whether an appeal was filed. “Other states” consists of the six states (GA, HI, MA, NC, VA, and WI) that had no more than one appeal reversal. Robust standard errors are in parentheses.

The models were estimated using the “heckprob” command in Stata (v.10.0). * $p < 0.05$, ** $p < 0.01$. Full results reported in Table A5.

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

The principal finding conveyed in Table 5 involving the key independent variable of interest – that ADR participation correlates with an increased likelihood of settlement – should be interpreted with particular caution. Appeals screening efforts were designed to maximize settlements. Specifically, in some jurisdictions various court personnel exercised judgment about whether to divert an appeal to ADR. One consequence is that the distribution of appeals that participated in ADR programs is presumptively non-random⁶⁷. A non-random sample limits the generalizability of our findings. Specifically, the non-random sample calls into question whether ADR participation’s correlation with case settlement is purely a function of ADR programs or, in contrast, simply a reflection of appeals that were selected because they were the type of appeal prone to settlement *independent* of ADR participation. If case screening efforts were effective would have increased the association between ADR participation and settlement. It bears repeating, however, that even though court personnel were supposed to route cases to ADR that were seemingly amenable to settlement, these efforts did *not* correspond with ADR success (settlement)⁶⁸. Consequently, the degree to which case screening efforts influenced the data is not clear.

Moreover, the comparative ease with which an appeal (including a “strategic” appeal) can be filed also might distort settlement outcomes. A party launching an appeal does not fully internalize costs. Consequently, strategic appeals, those appeals designed merely to

67 Recall again, however, that Waters & Sweiker found that screeners’ efforts did not increase the probability of settlement. See WATERS & SWEIKER, *op. cit.*, supra note 18, at p. 51 tbl.3.

68 WATERS & SWEIKER, *op. cit.*, supra note 18, at p. 51 tbl.3.

delay an eventual outcome or influence and prolong settlement bargaining, will likely increase the number of settled cases. This would occur if the pool of appealed cases includes cases that, on the legal and factual basis, do not objectively warrant an appeal. Such cases would be unusually amenable to a settlement.

2. Disposition Time.

ADR proponents also tout reduced disposition time as an important virtue of ADR participation. Reduced case disposition time yields numerous benefits including, on average, reduced litigation costs. Previously discussed descriptive results in Table 4, however, suggested that whether an appeal settled was more influential on disposition time than ADR participation. Findings in Table 6 provide more sophisticated support and identify whether an appeal settled – rather than ADR participation – as the critical explanatory variable in terms of understanding disposition time.

Notably, whether an appeal participated in an ADR program did not influence disposition time. The absence of a statistically significant finding is even more notable given that cases routed towards ADR programs were selected, in part, on the belief that they were especially amenable to settlement⁶⁹. As Table 6 makes clear settled cases take far less time on average than cases that did not settle. Thus, the negative finding for the ADR participation variable (that is, the absence of statistical significance) is even more reliable because its direction runs against any case selection tilt.

Moreover, sample size is not a likely explanation for the absence of a statistically significant influence of ADR participation on appeal disposition time. Even perfectly designed and executed stud-

⁶⁹ See *infra* Part II. To be fair, however, it is important to emphasize that other research found that ADR program screeners' efforts did not increase the probability of settlement. See WATERS & SWEIKER, *op. cit.*, *supra* note 18, at p. 51, tbl.3.

ies may nevertheless fail to uncover socially important differences because the statistical procedures lacked the statistical power to detect the effect flowing from a small sample size⁷⁰. A power calculation demonstrates that to be 80 percent confident of detecting a statistically significant influence of ADR participation at a 0.05 significance level, requires a sample of at least 471 appeals⁷¹. Our sample size (913) amply exceeds this requirement.

Table 6 – Selection Model of Appeal Disposition Time (Days) and Decision to Appeal

		(s.e.)
<i>Appeal Disposition Time:</i>		
ADR participation	0.669	0.422
Appeal settled	-9.514**	0.474
Number of appellants	-0.046	0.107
Number of appellees	0.026	0.015
Appeals court w/ ADR	0.683	0.608
<i>Trial outcomes</i>		
Def. won bench trial	(ref.)	
Plaintiff won bench trial	1.047*	0.512
Def. won jury trial	0.748	0.472
Plaintiff won jury trial	1.264**	0.454
<i>Litigant characteristics</i>		
Government plaintiff	-0.304	1.063

70 GLANTZ, Stanton A. *Primer of Biostatistics* 165. 5th ed. 2002.

71 Power calculation is derived from the “powerreg” command in Stata 10.0 and keys off the independent variable of interest, ADR participation. Our sample size (913) also exceeds the required sample size necessary for 90 percent confidence (621).

Corporate plaintiff	0.051	0.518
Corporate defendant	-0.225	0.315
(Other variables and the decision to Appeal equation are reported in the Appendix)		
Rho (Wald test)	-0.365**	0.117
(N)	7,950	
(N outcomes)	913	
Log likelihood	-5161.7	

Notes: Model includes Heckman appeal disposition time and decision to appeal equations. Dependent variable in disposition time equation is number of days (sqrt) between appeal filing and disposition. Dependent variable in decision to appeal equation is whether an appeal was filed. “Other states” consists of the three states (GA, MN, and NC) where the number of appeals settled was two or fewer. Confidence intervals computed at the 95% level. The models were estimated using the “heckman” command in Stata (v.10.0). Robust standard errors reported. * $p < 0.05$, ** $p < 0.01$. Full results reported in Table A6.

Source: U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

Three additional notable findings from Table 6 involve variables that did influence appeal disposition time. First, not surprisingly, cases that settled took far less time than cases that did not settle⁷². Indeed, whether an appeal settles is easily the single greatest influence on disposition time. This finding, of course, makes perfect sense, and, ironically, comports with ADR proponents’ claims about the virtues of ADR programs. Although the general claim may be correct – that settled cases take less time than cases that do not settle – these results demonstrate that participating in ADR programs did not

⁷² See also *supra* Table 4.

correspond with a reduction in disposition time. The implication from the findings in Table 6 is that the relatively enormous influence of settlement on case disposition time overwhelmed the influence of ADR program participation on promoting settlements (Table 5).

A second notable finding involves the party appealing. As Table 6 illustrates, plaintiff victories correlate with increased disposition time. That defendants appeal plaintiff jury trial victories to full appellate court conclusion makes sense given that appellate courts are more likely to disrupt jury trial decisions than bench verdicts⁷³ and defendants are far more successful overturning trial court decisions than plaintiffs⁷⁴. Moreover, if defendants are motivated by a general desire to delay judgments for strategic or other reasons, a decision to avoid settlement and pursue an appeal to conclusion would further contribute to increased disposition time.

Third, litigants' characteristics did not influence disposition time. Although defendants appealing adverse plaintiff jury victories correlates with longer disposition times, as a group corporate defendants were not associated with longer disposition times. This finding runs against the prevailing wisdom that presumably deep-pocketed defendants are inclined to try to "wait-out" parties that prevailed at trial by pursuing appeals for purely strategic reasons.

a. Complexities to the Relation Between Settlement and Disposition Time

As discussed above, although ADR participation corresponds with increased settlement rates (Table 5) it does not correlate with a reduction in disposition time (Table 6). Rather, as Table 6 makes clear, settlement is a robust correlate of reduced disposition time. The combination of the findings from Table 5 and 6, however, might im-

73 EISENBERG & HEISE. *Plaintiphobia*. *Op. Cit.*, supra note 15, at p. 18 tbl.4.

74 *Ibidem*, at p. 7 tbl.1.

ply that ADR participation does, in fact, contribute to a reduced disposition time and it does so by inducing appeals to settle prior to disposition.

Although such an interpretation is not implausible, further analyses limit its persuasiveness as they do not provide clear support. First, in an effort to separate the influence of the work on disposition time performed by ADR-induced settlements from the influence of non-ADR-induced settlements on disposition time, the model in Table 6 was modified to include an additional dummy interaction variable designed to capture settled appeals that participated in ADR. Results from the supplemental appeal disposition time model comport with the core results in Table 6. The coefficient for the interactive variable, while positive, did not achieve statistical significance. The key variable explaining reduced disposition time are settled appeals that did *not* involve ADR participation⁷⁵.

Second, findings from additional regression analyses, presented in Table 7, also support the argument that ADR participation did not correlate with a net decrease in disposition time, independent of the decreases that settlement yielded. The models in Table 7 resemble those in Table 6, except that the sub-pools of settled (column A) and non-settled (column B) cases are separated. The key variable of interest is ADR participation. For appeals that settled (column A), ADR participation correlates with an increase in disposition time, though the coefficient does not achieve statistical significance. For appeals that did not settle (column B), ADR participation corresponds with a significant increase in disposition time.

Finally, in another effort to explore a potentially endogenous relation between ADR participation and appeals disposition time,

⁷⁵ In unreported supplemental analyses the model in Table 6 was re-run to include an interaction dummy variable identifying those appeals that participated in ADR and settled. As the model already includes separate dummy variables for appeals that settled as well as appeals that participated in ADR, the interaction dummy variable isolates the independent influence of appeals that settled in conjunction with ADR participation from the influence of settled appeals that did not involve ADR on disposition time.

variants of the core appeal disposition time and appeal settled models⁷⁶ were estimated with a two-stage simultaneous model designed for endogenous variables that are both continuous (disposition time) and dichotomous (ADR participation)⁷⁷. Results from the estimations do not provide support for the endogeneity hypothesis.

To be sure, the precise contours of the relation between ADR participation and appeals disposition time are likely complex and case-specific. Moreover, these results do not support the proposition that no relation exists – indeed, some type and form of a relation surely exists. At the same time, however, the results do *not* support the opposite proposition – that ADR participation contributes to reduced disposition times by inducing appeals to settle prior to disposition. The complexity of the hypothesized relation between ADR participation and disposition time, combined with data limitations, warrants interpretative caution.

Table 7 – Regression Models of Appeal Disposition Time (Days) By Settlement Outcome

	(A) <i>Settled</i>	(s.e.)	(B) <i>Non-Settled</i>	(s.e.)
<i>Appeal Disposition Time:</i>				
ADR participation	1.348	0.754	1.240**	0.409
Number of appellants	0.065	0.362	-0.036	0.113
Number of appellees	0.224	0.241	0.029	0.018
Appeals court w/ ADR	5.285**	1.629	-1.925*	0.772

76 Variants of the core models (specifically, more parsimonious versions of the core models) were necessary to achieve model convergence.

77 Various models were estimated using the “*cdsimeq*” and “*treatreg*” commands in Stata (v.10.0).

<i>Trial outcomes</i>				
Def. won bench trial	(ref.)		(ref.)	
Plaintiff won bench trial	1.591	1.324	-0.008	0.727
Def. won jury trial	0.461	1.189	1.209	0.583
Plaintiff won jury trial	1.136	1.349	1.623**	0.541
<i>Litigant characteristics</i>				
Government plaintiff	-1.885	2.139	1.769	0.825
Corporate plaintiff	0.718	0.816	0.053	0.530
Corporate defendant	-0.185	0.583	-0.237	0.464
(Other variables are reported in the Appendix)				
Constant	765.08*	346.08	492.29*	233.86

Although not conclusive, findings presented in Table 7 complement prior findings and provide additional support for the argument that ADR participation does not correspond with a reduction in disposition time. To be sure, ADR participation obviously performs important work by increasing the probability of settlement. Settled cases typically take less time to complete than cases that resist settlement. What the findings suggest, however, is that time invested in ADR participation does not appear to correlate with reduced disposition time.

One explanation for the findings in Table 7 leverages the practical realities of litigation. ADR participation involves an additional step for litigants. Such an additional step that does not prompt a settlement adds obvious time to disposition, though the amount of time will vary across lawsuits and depend on the particular type of ADR program involved. More interesting is that ADR participation correlates (though not in a statistically significant manner) with increased disposition time even for cases that settled, as compared to settled cases that did not involve ADR.

Results presented in Tables 5, 6, and 7 converge on the finding that although ADR participation increases the probability of a settlement, what reduces appeal disposition time is settlement, regardless of whether ADR is involved.

E. Courts' Institutional Interests In Mandating ADR Participation.

If my central empirical claims are correct – that ADR participation achieves one goal (inducing settlement) but not another key goal (reducing disposition time) – why do an increasing number of appellate (and other) courts impose ADR participation? After all, from the perspective of most litigants, ADR efficacy is mixed. Moreover, if it made sense for litigants to settle, presumably most would do so. ADR participation is not a prerequisite for settlement.

One explanation for courts' increasing appetite for imposing mandatory ADR participation emerges when one assess ADR efficacy from the courts' – rather than the litigants' – perspective. Courts have sought policies to reduce caseloads for many courts for years⁷⁸. Courts' institutional interests strongly favor settlement as settled cases reduce judicial docket loads. As Table 5 makes clear, ADR participation corresponds with an increased probability of settlement. As Table 6 and 7 illustrate, however, ADR participation is not costless. The financial cost associated with ADR participation – such as litigation cost increases incident to increased disposition time – is directly

78 For data on the increase of case filings in state courts of general jurisdiction over time (between 1976 and 2002) see GALANTER, Marc. *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*. *1 J. Empirical Legal Stud.* 2004. P. 459-507, tbl.4. For a discussion of the need to reduce judicial caseloads (with an emphasis on federal courts), see REHNQUIST, William H. *The 1995 Year End Report on the Federal Judiciary (Admin. Office of the U.S. Courts, Washington, D.C.)*. Jan. 1998, p. 9-13. For a discussion of federal caseloads see, e.g., STRAS, David A. *The Supreme Court's Gatekeepers: The Role of Law Clerks in the Certiorari Process*. *85 Tex. L. Rev.* 947. 2007, p. 965-67.

borne by litigants, not courts. Thus, from an institutional perspective, appellate courts are incented to impose ADR participation as they can internalize the benefits and externalize most of the associated costs.

VI. CONCLUSION

Results from this study indicate that within the appeals context ADR programs deliver on only some (increased likelihood of settlement) – but not all (reduced disposition time) – of their promises. In some ways, however, these results may reflect more on the particular stage of litigation studied – appellate – and less on ADR’s potential efficacy at other litigation stages. To the extent that ADR seeks to achieve its goals principally by increasing information sharing and reducing information asymmetries between combating litigants, the appeals context is far from optimal. Simply put, by the time litigants survive pre-trial motions and a trial, much of the salient information about a case is known to the litigants. Consequently, when it comes to reducing appeals disposition time there is simply less work for ADR to perform. With less work available, it is less surprising to learn that ADR participation did not contribute to a reduction in appeals disposition time.

Regardless of what these findings might imply, they contribute to ADR’s uneasy reception by litigants. Unease persists even though evidence exists suggesting that ADR participation correlates with increased settlement rates. Litigant ambivalence with ADR is suggested by a relative absence of *ex ante* agreements among potential litigants to commit to ADR programs should legal disputes arise. Court-mandated ADR programs illustrate how courts’ institutional interests can trump litigants’ ambivalence. By imposing ADR participation courts likely seek to internalize ADR’s benefits and externalize its costs. Whether courts should continue to mandate ADR participation in an effort to reduce judicial docket loads by increasing settlement rates and impose upon litigants costs associated with increased disposition time persists as a policy question.

APPENDIX

Table A1 – Descriptive Statistics of Variables

Variable	Mean	S.D.	Min.	Max.	<i>n</i>
ADR participation	0.172	0.378	0	1	965
Appeal disposition time	342.599	221.970	0	1,085	930
Appeal settled	0.431	0.495	0	1	965
Reversed trial court	0.182	0.386	0	1	965
Defendant won bench trial	0.083	0.275	0	1	8,038
Plaintiff won bench trial	0.150	0.357	0	1	8,038
Defendant won jury trial	0.375	0.484	0	1	8,038
Plaintiff won jury trial	0.392	0.488	0	1	8,038
AZ	0.050	0.218	0	1	8,038
CA	0.157	0.364	0	1	8,038
CT	0.020	0.141	0	1	8,038
FL	0.072	0.258	0	1	8,038
GA	0.016	0.124	0	1	8,038
HI	0.003	0.055	0	1	8,038
IL	0.053	0.225	0	1	8,038
IN	0.015	0.123	0	1	8,038
KY	0.019	0.137	0	1	8,038
MA	0.030	0.170	0	1	8,038
MI	0.048	0.214	0	1	8,038
MN	0.025	0.156	0	1	8,038
MO	0.018	0.134	0	1	8,038

NC	0.013	0.113	0	1	8,038
NJ	0.077	0.266	0	1	8,038
NY	0.038	0.192	0	1	8,038
OH	0.050	0.219	0	1	8,038
PA	0.097	0.295	0	1	8,038
TX	0.126	0.332	0	1	8,038
VA	0.031	0.172	0	1	8,038
WA	0.026	0.159	0	1	8,038
WI	0.016	0.124	0	1	8,038
Motor vehicle	0.351	0.477	0	1	8,038
Assault, slander, libel	0.039	0.193	0	1	8,038
Product liability	0.015	0.120	0	1	8,038
Dangerous premises	0.115	0.319	0	1	8,038
Medical malpractice	0.106	0.308	0	1	8,038
Prof. malpractice	0.008	0.092	0	1	8,038
Other tort	0.045	0.207	0	1	8,038
Employment contract	0.035	0.184	0	1	8,038
Fraud	0.053	0.225	0	1	8,038
Lease	0.023	0.151	0	1	8,038
Seller plaintiff	0.096	0.295	0	1	8,038
Buyer plaintiff	0.066	0.248	0	1	8,038
Other contract	0.026	0.160	0	1	8,038
Property	0.022	0.146	0	1	8,038
Year case filed	1998.91	1.341	1985	2001	8,038
Government plaintiff	0.008	0.091	0	1	8,028
Corporate plaintiff	0.156	0.363	0	1	8,028
Corporate defendant	0.425	0.494	0	1	8,001
State appeals rev. rate	37.084	15.248	0	100	8,038

Case type appeals rev. rate	29.589	6.069	23.077	50	8,038
Multi-county state	0.682	0.466	0	1	8,038

Source: U.S. Dept. of Justice, Bureau of Justice Statistics. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

Table A5 – Selection Model of Appeal Settlement and the Decision to Appeal

	Heckman	(s.e.)
Appeal Settled :		
ADR participation	0.300*	0.133
Number of appellants	-0.080*	0.037
Number of appellees	-0.011	0.019
Appeals court w/ ADR	0.008	0.205
<i>Trial outcomes</i>		
Def. won bench trial	(ref)	
Plaintiff won bench trial	0.464**	0.158
Def. won jury trial	-0.000	0.129
Plaintiff won jury trial	0.017	0.174
<i>States</i>		
AZ	(ref)	
CA	-0.729**	0.159
CT	---	
FL	-0.411	0.286
HI	-5.972**	0.585
IL	-0.672*	0.273
IN	-0.112	0.241
KY	0.249*	0.112
MA	0.725*	0.335

MI	0.258	0.251
MO	-0.349**	0.111
NJ	-0.775**	0.284
NY	-1.035**	0.252
OH	-0.869**	0.208
PA	-0.762**	0.245
TX	-0.529**	0.204
VA	---	
WA	0.115	0.240
WI	---	
(other states)	-0.675*	0.281
Multi-county state	0.630*	0.260
<i>Case types</i>		
Motor vehicle	(ref)	
Dangerous premises	-0.441**	0.115
Product liability	-0.989**	0.173
Assault, slander, libel	-0.630**	0.201
Medical malpractice	-0.550**	0.134
Prof. malpractice	-0.999**	0.230
Other tort	-0.918**	0.202
Fraud	-0.652**	0.224
Seller plaintiff	-0.427*	0.200
Buyer plaintiff	-0.626**	0.175
Employment contract	-1.014**	0.208
Lease	-0.451	0.235
Other contract	-0.518*	0.241
Property	-1.387**	0.263
Year case filed	0.078*	0.022

<i>Litigant characteristics</i>		
Government plaintiff	-0.245	0.408
Corporate plaintiff	-0.147	0.218
Corporate defendant	-0.032	0.711
Constant	-154.07*	67.68

Table A5 – Selection Model of Appeal Settlement and Decision to Appeal (cont.)

	Heckman	(s.e.)
<i>Decision to Appeal:</i>		
<i>Trial outcomes</i>		
Def. won bench trial	(ref.)	
Plaintiff won bench trial	-0.238*	0.067
Def. won jury trial	-0.093	0.105
Plaintiff won jury trial	0.124	0.100
State appeal rev. rate	-0.015*	0.007
Case type appeal rev. rate	0.048**	0.006
Multi-county state	0.137	0.217
<i>Case types</i>		
Motor vehicle	(ref.)	
Dangerous premises	0.304**	0.112
Product liability	0.559**	0.144
Assault, slander, libel	-0.236*	0.116
Medical malpractice	0.636**	0.085
Prof. malpractice	0.364*	0.154

Other tort	0.843**	0.102
Fraud	0.467**	0.121
Seller plaintiff	0.390**	0.077
Buyer plaintiff	0.508**	0.076
Employment contract	---	---
Lease	0.721**	0.212
Other contract	0.017	0.112
Property	0.890**	0.184
Year case filed	-0.057**	0.021
<i>Litigant characteristics</i>		
Government plaintiff	0.273	0.180
Corporate plaintiff	0.142*	0.064
Corporate defendant	0.149**	0.047
Constant	111.02*	42.97
Rho (Wald test)	-0.687**	0.162
(N)	7,962	
(N outcomes)	925	
Log likelihood	-3146.4	

Notes: Model includes Heckman appeal outcome and decision to appeal equations. Dependent variable in appeal outcome equation is appeal settled; dependent variable in decision to appeal equation is whether an appeal was filed. "Other states" consists of the six states (GA, HI, MA, NC, VA, and WI) that had no more than one appeal reversal. Robust standard errors are in parentheses. The models were estimated using the "heckprob" command in Stata (v.10.0). * $p < 0.05$, ** $p < 0.01$.

Source: U.S. Dept. of Justice, Bureau of Justice Statistics. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

Table A6 – Selection Model of Appeal Disposition Time (Days) and Decision to Appeal

		(s.e.)
<i>Appeal Disposition Time:</i>		
ADR participation	0.669	0.422
Appeal settled	-9.514**	0.474
Number of appellants	-0.046	0.107
Number of appellees	0.026	0.015
Appeals court w/ ADR	0.683	0.608
<i>Trial outcomes</i>		
Def. won bench trial	(ref.)	
Plaintiff won bench trial	1.047*	0.512
Def. won jury trial	0.748	0.472
Plaintiff won jury trial	1.264**	0.454
<i>Litigant characteristics</i>		
Government plaintiff	-0.304	1.063
Corporate plaintiff	0.051	0.518
Corporate defendant	-0.225	0.315
<i>States</i>		
AZ	(ref.)	
CA	0.369	1.114
CT	---	---
FL	-1.571	1.178
HI	1.501	1.014
IL	1.532	1.277
IN	-2.025**	0.698
KY	1.407**	0.283

MA	6.290**	1.128
MI	2.018**	0.724
MO	-0.775*	0.316
NJ	-1.343	0.984
NY	0.139	0.344
OH	-4.843**	1.152
PA	-2.122	1.098
TX	-1.292	1.052
VA	---	---
WA	3.739**	0.739
WI	---	---
(other states)	-0.602	1.506
Multi-county state	2.084*	1.008
<i>Case types</i>		
Motor vehicle	(ref.)	
Dangerous premises	-0.712	0.689
Product liability	0.099	0.908
Assault, slander, libel	1.230	0.955
Medical malpractice	-1.099	0.770
Prof. malpractice	-1.076	1.409
Other tort	0.585	0.881
Fraud	-0.225	0.812
Seller plaintiff	-0.290	0.751
Buyer plaintiff	-0.824	0.744
Employment contract	-0.537	0.894
Lease	0.637	1.793
Other contract	-0.870	1.029
Property	0.397	1.135

Year case filed	-0.236*	0.109
Constant	492.36*	217.97

Table A6 – Selection Model of Appeal Disposition Time (Days) and Decision to Appeal (cont.)

	Heckman	(s.e.)
<i>Decision to Appeal:</i>		
<i>Trial outcomes</i>		
Def. won bench trial	(ref.)	
Plaintiff won bench trial	-0.241**	0.083
Def. won jury trial	-0.094	0.089
Plaintiff won jury trial	0.111	0.090
State appeal rev. rate	-0.016**	0.003
Case type appeal rev. rate	0.047**	0.006
Multi-county state	0.133	0.104
<i>Case types</i>		
Motor vehicle	(ref.)	
Dangerous premises	0.304**	0.088
Product liability	0.544**	0.149
Assault, slander, libel	-0.240*	0.135
Medical malpractice	0.625**	0.079
Prof. malpractice	0.375*	0.160
Other tort	0.839**	0.081

Fraud	0.457**	0.084
Seller plaintiff	0.385**	0.089
Buyer plaintiff	0.488**	0.094
Employment contract	---	---
Lease	0.713**	0.208
Other contract	-0.013	0.118
Property	0.882**	0.192
Year case filed	-0.053**	0.018
<i>Litigant characteristics</i>		
Government plaintiff	0.276	0.218
Corporate plaintiff	0.141	0.088
Corporate defendant	0.145**	0.051
Constant	103.92*	36.61
Rho (Wald test)	-0.365**	0.117
(N)	7,950	
(N outcomes)	913	
Log likelihood	-5161.7	

Notes: Model includes Heckman appeal disposition time and decision to appeal equations. Dependent variable in disposition time equation is number of days (sqrt) between appeal filing and disposition. Dependent variable in decision to appeal equation is whether an appeal was filed. “Other states” consists of the three states (GA, MN, and NC) where the number of appeals settled was two or fewer. Confidence intervals computed at the 95% level. The models were estimated using the “heckman” command in Stata (v.10.0). Robust standard errors reported. * $p < 0.05$, ** $p < 0.01$.

Source: U.S. Dept. of Justice, Bureau of Justice Statistics. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).

Table A7 – Regression Models of Appeal Disposition Time (Days) By Settlement Outcome

	(A) <i>Settled</i>	(s.e.)	(B) <i>Non-Settled</i>	(s.e.)
<i>Appeal Disposition Time:</i>				
ADR participation	1.348	0.754	1.240**	0.409
Number of appellants	0.065	0.362	-0.036	0.113
Number of appellees	0.224	0.241	0.029	0.018
Appeals court w/ ADR	5.285**	1.629	-1.925*	0.772
<i>Trial outcomes</i>				
Def. won bench trial	(ref.)		(ref.)	
Plaintiff won bench trial	1.591	1.324	-0.008	0.727
Def. won jury trial	0.461	1.189	1.209	0.583
Plaintiff won jury trial	1.136	1.349	1.623**	0.541
<i>Litigant characteristics</i>				
Government plaintiff	-1.885	2.139	1.769	0.825
Corporate plaintiff	0.718	0.816	0.053	0.530
Corporate defendant	-0.185	0.583	-0.237	0.464
<i>States</i>				
AZ	(ref.)		(ref.)	
CA	-7.499**	1.524	-1.140	1.080
CT	-8.716**	1.962	---	---
FL	-3.467**	0.732	-7.771**	1.341
HI	---	---	2.285	1.258
IL	---	---	-4.545**	1.390
IN	5.234**	1.872	-5.453**	0.811
KY	-0.876	0.712	2.569**	0.298

MA	-1.454	2.411	3.552**	0.887
MI	-2.629**	0.928	5.150**	0.421
MO	-1.444	0.812	-0.377	0.299
NJ	-10.836**	2.203	-3.019**	0.995
NY	3.916**	0.965	1.691**	0.277
OH	-12.923**	1.824	-6.192**	1.381
PA	-4.791**	0.802	-6.650**	1.179
TX	-9.863**	1.976	-2.680**	0.928
VA	---	---	---	---
WA	4.390*	1.824	3.144**	0.758
WI	---	---	---	---
(other states)	6.705*	2.467	-2.592	2.073
Multi-county state	7.891**	1.882	5.215**	0.809
<i>Case types</i>				
Motor vehicle	(ref.)		(ref.)	
Dangerous premises	0.365	0.793	1.281*	0.625
Product liability	1.242	1.820	2.556	1.289
Assault, slander, libel	2.257*	1.183	2.874*	1.131
Medical malpractice	-0.303	0.925	1.392	0.912
Prof. malpractice	-0.439	2.821	2.754*	1.070
Other tort	2.849*	1.247	1.753*	0.808
Fraud	1.251	1.219	1.825*	0.875
Seller plaintiff	0.914	1.004	0.873	1.253
Buyer plaintiff	-0.058	0.973	1.577	0.832
Employment contract	1.539	0.919	1.628	0.805
Lease	1.416	2.433	2.856	1.675
Other contract	0.424	1.091	0.515	1.633
Property	6.191	3.497	1.791*	0.874

Year case filed	-0.380*	0.173	-0.238*	0.117
Constant	765.08*	346.08	492.29*	233.86
R ²	0.226		0.243	
(N)	371		725	

Notes: Dependent variable is number of days (sqrt) between appeal filing and disposition. “Other states” consists of the three states (GA, MN, and NC) where the number of appeals settled was two or fewer. Confidence intervals computed at the 95% level. The models were estimated using the “reg” command in Stata (v.10.0). Robust standard errors reported. * $p < 0.05$, ** $p < 0.01$. Full results reported in Table A7.

Source: U.S. Dept. of Justice, Bureau of Justice Statistics. Supplemental Survey of Civil Appeals, 2001 (ICPSR 4539).