DO ATTORNEYS AFFECT THE RESOLUTION OF TAX COURT CASES?
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TABLE OF CONTENTS

INTRODUCTION .................................................................
I. THE THEORETICAL IMPACT OF ATTORNEYS ON SUIT AND SETTLEMENT ................................
   A. MODELING SUIT AND SETTLEMENT ................................
      1. THE EXPECTED VALUE AND OPTION MODELS OF LITIGATION ........
      2. TAX COURT LITIGATION ........................................
   B. TIMING OF CASE RESOLUTIONS ..............................
   C. THE IMPACT OF ATTORNEYS ON CIVIL LITIGATION ....
      1. ATTORNEYS AS REPEAT PLAYERS ...........................
      2. ATTORNEYS AS AGENTS .....................................
      3. ATTORNEYS AS REDUCERS OF ERROR CAUSED BY COGNITIVE BIASES ...

II. THE EMPIRICAL STUDY OF THE EFFECTS OF TAXPAYER REPRESENTATION IN TAX COURT ........
   A. THE DATA ..............................................................
   B. STATISTICAL TECHNIQUES ........................................

III. RESULTS AND IMPLICATIONS OF THE EMPIRICAL STUDY ...........................................
   A. TIME TO CASE RESOLUTION ........................................
      1. TIME TO SETTLEMENT ..........................................
      2. TIME TO TRIAL ................................................
   B. IRS RECOVERY RATE ................................................
      1. SETTLED CASES ................................................
      2. TRIED CASES ................................................

CONCLUSION .................................................................
APPENDIX A: STATISTICAL METHODOLOGY ........................................
APPENDIX B: TWO-STAGE LEAST SQUARES RESULTS ........................................

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INTRODUCTION

Do attorneys affect case outcomes? If so, how? Does it matter whether the case settles or instead is one of the relatively few cases that goes to trial and results in a written opinion? One would expect that because of their expertise and experience, attorneys may obtain more favorable results for their clients than pro se litigants do. This is an important empirical question. Are attorneys in fact more successful than pro se litigants at (1) obtaining a more favorable settlement from an opposing party, and/or (2) obtaining a more favorable decision from a judge in a bench trial?

Another important issue is how the presence of an attorney affects the time a case takes to resolve. The parties and the court system are impacted by whether or not a case is resolved expeditiously. As a theoretical matter, attorneys might delay or expedite settlements or trials. The expertise that attorneys bring to litigation and the fact that they are repeat players might occasion faster settlements and possibly faster trials. On the other hand, if attorneys maximize their own interests, rather than those of their clients, they may delay case resolutions, at least in cases in which they are paid by the hour. Of course, it is possible that some tactics that prolong the time spent on a case might also improve the substantive outcome for the client. For example, a favorable pre-trial ruling on a motion might result in a more favorable settlement.

In the United States Tax Court (Tax Court), although the United States always is represented by Internal Revenue Service (IRS) attorneys, a large portion of the taxpayers proceed pro se. That

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1 See Theodore Eisenberg et al., Litigation Outcomes in State and Federal Courts: A Statistical Portrait, 19 Seattle U. L. Rev. 433, 442 (1996) (estimating that 2.9 percent of state cases are tried and 5 percent of federal cases, excluding asbestos cases, are tried). Similarly, approximately 5 percent of Tax Court cases result in an opinion decision. See Leandra Lederman, Which Cases Go To Trial?: An Empirical Study of Predictors of Failure to Settle, 49 Case W. Res. L. Rev. 315, 317 n.2 (1999) (citing information obtained from the IRS in response to a Freedom of Information Act request).

2 Cf. Eisenberg et al., supra note 1, at 447 (“Time to disposition of cases is an important public policy issue.”).


4 According to IRS data, in “Tax Court Appeals Settlements” of cases other than small tax cases (S cases), for fiscal year 1993, for example, 46.01% of taxpayers were pro se. Office of Chief Counsel, Internal Revenue Service, Report Prepared for American Bar Association Tax Section Court Procedure Committee, January, 2001, at 15. The comparable figure for 1994 was 48.97%. Id. For cases tried and decided by the Tax Court for fiscal year 1993 (other than S cases), 41.32% of taxpayers were pro se. Id. at
provides an opportunity to compare the outcomes of cases in which only one party has an attorney with cases in which both parties do. In addition, the Tax Court keeps records for approximately a year with respect to cases that settle after the taxpayer invokes the Tax Court’s jurisdiction by filing a petition.\textsuperscript{5} This unusual feature provides the opportunity for the study of settled cases, which are often “invisible” despite their prevalence.\textsuperscript{6}

A prior study found that, although Tax Court cases are not randomly selected for trial, the presence of counsel for the taxpayer in Tax Court cases did not have a statistically significant effect on whether the case settled or was tried.\textsuperscript{7} But do attorneys affect the length of time the case takes to resolve or the financial outcome of the case, in settled cases, tried cases, or both?

The empirical study that is the focus of this article used data on a random sample of cases docketed in Tax Court to test the effect of the presence of counsel for the taxpayer on two types of Tax Court outcomes, length of time to resolution of the case, and IRS recovery rate, for both cases that settled after docketing and cases that went to trial. Thus, the study considered the effect of the presence of taxpayer counsel on four different outcome/case resolution combinations. It attempted to control for such factors as the amount at stake in the case, the type of taxpayer (individual, estate or corporation), and the complexity of the case. The results suggest that the presence of taxpayer counsel has a greater impact on tried Tax Court cases than on settled ones but only has a statistically significant effect on the IRS’s recovery rate in tried cases.

16. The comparable figure for 1994 was 35.58%. Id. The report does not state at what point pro se status was determined.

In fiscal year 1992, of regular cases petitioned to the Tax Court, 55.21% of taxpayers were pro se. Id. at 14. The comparable figure for 1993 was 60.03%. Id. However, those figures appear to include cases that subsequently were dismissed. Cases involving pro se taxpayers are dismissed disproportionately. For example, for fiscal year 1992, of regular cases disposed of by default or dismissal, 82.02 percent involved a pro se taxpayer. Id. at 17. For fiscal year 1993, the comparable figure was 77.16%, and for 1994, it was 80.62%. Id. Cases other than S cases disposed of by default or dismissal were approximately 25% of the cases other than S cases disposed of in those years (by any means, settlement, decision after trial, or dismissal). See id. at 15-17 (all percentages calculated by the authors).

In the data used in this study, in the final sample, 31.6% of the taxpayers were pro se in the sense that they were not represented at any point in the Tax Court proceedings. That figure was 33% in settled cases and 27% in tried cases. In the full data set, before non-deficiency cases and cases with missing values were deleted, 42% of taxpayers were pro se.

\textsuperscript{5} See Lederman, supra note 1, at 327 & n.47 (1999).

\textsuperscript{6} Samuel R. Gross & Kent D. Syverud, Don't Try: Civil Jury Verdicts in a System Geared to Settlement, 44 UCLA L. Rev. 1, 4 (1996).

\textsuperscript{7} See Lederman, supra note 1, at 338-39; id. at 357 (Appendix E).
This article has three goals. First, it seeks to advance the theoretical literature by analyzing what factors might impact the timing of settlement and the timing of trials (as opposed to the fact of settlement or trial). Second, it seeks to develop the theory on the impact of attorneys on litigation by suggesting that there are three principal ways in which represented litigants differ from unrepresented litigants and discussing the theoretical impact of each of those differences on case outcomes, particularly the timing of case resolutions. Third, it seeks to test empirically the theory that attorneys may impact case resolutions, using the Tax Court data set mentioned above.

Following this Introduction, the article proceeds in three principal parts. Part I focuses on theory about the impact that attorneys might have on case outcomes, particularly the length of time cases take to resolve. Section A of that Part explains the general models of suit and settlement, how they may apply to Tax Court litigation, and theory about what factors might affect the amount of time cases take to resolve. Section B discusses factors that might impact the time cases take to resolve. Section C focuses on how attorneys might affect case resolutions, particularly time to settlement. This Section posits that there are three important ways in which litigating attorneys differ from unrepresented litigants: (1) with respect to repeat play; (2) that they are agents, not principals; and (3) they bring objectivity that may help reduce cognitive biases that could adversely impact clients’ decisionmaking. The possible impact of each of these issues is discussed in turn in that Section.

Part II of the article outlines the design and technical details of the empirical study of tried and settled Tax Court cases that is a key focus of this article. Section A provides a basic background on the data set used. Section B provides an overview of the statistical methodology used to examine the impact, if any, of taxpayer representation on case outcomes in the data set.

Part III of the article reports the results of the empirical study with respect to the impact of taxpayer representation on time to case resolution and financial outcome in both settled and tried Tax Court cases. This Part also analyzes the results in light of the theory discussed in Part I of the article. Part III is followed by a brief conclusion and by Appendices that provide more detail about the data and statistical methodology.

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8 See text accompanying note 7, supra.

9 This Section briefly discusses the likely impact attorneys would have on the favorability of substantive outcomes. It does not focus on attorneys’ impact on the trial/settlement outcome because that is not the focus of this article, but that issue is mentioned briefly throughout the discussion. See text accompanying notes 44-179, infra.

10 Appendices elaborate on the discussion in the text. See text accompanying notes 231-49, infra.
I. THE THEORETICAL IMPACT OF ATTORNEYS ON SUIT AND SETTLEMENT

A. MODELING SUIT AND SETTLEMENT

Resolution of a dispute is a multi-stage process. Before a complaint is filed, an injury must be asserted and not redressed or compromised in some way. Even once a dispute gives rise to a lawsuit is docketed in court, it may settle at any point before trial or even after trial (during the appeals process).

1. THE EXPECTED VALUE AND OPTION MODELS OF LITIGATION

The traditional economic model of litigation is the “expected value” model. Under that model, typically damages are fixed and only liability is in dispute, so litigants compute the expected value of a judgment for the plaintiff based on the probability of plaintiff victory. The plaintiff’s net expected value is that expected value less costs of litigation. The defendant’s net expected cost is the expected value of a judgment for the plaintiff plus litigation costs. Because going to trial generally costs more than settling, settlement generates a “surplus” that the parties can divide between them in arriving at the settlement amount.

The expected value model of litigation traditionally considered the litigation itself a single stage, with two possible outcomes, settlement or trial. Subsequently, litigation was modeled as a multi-stage game. More recently, Professor Bradford Cornell pointed out that the stages of litigation can be


12 See Cooter & Rubinfeld, supra note 11, at 1069 (conceiving of the “[t]hird stage of the litigation process . . . as a bargaining game whose cooperative solution corresponding to a settlement out of court, and whose noncooperative solution corresponds to an adversarial trial.”).

13 See Mori Irvine, Better Late than Never: Settlement at the Federal Court of Appeals, 1 J. APP. PRAC. & PROCESS 341, 344-46 (1999); Margaret Meriwether Cordray, Settlement Agreements and the Supreme Court, 48 HASTINGS L.J. 9, 27 (1996).

14 Mark Klock, Financial Options, Real Options, and Legal Options: Opting to Exploit Ourselves and What We Can Do About It, 55 ALA. L. REV. 63, 86 (2003).

15 See Lederman, supra note 1, at 319; Steven Shavell, Alternative Dispute Resolution: An Economic Analysis, 24 J. LEGAL STUD. 1, 11 (1995).


17 See id. at 173-74; see also Cooter & Rubinfeld, supra note 11, at 1069-70 (conceiving of litigation as a three-stage process). Settlement also can be conceived of in stages. See GERALD R. WILLIAMS, LEGAL
modeled as a series of options whether to proceed to the next stage.\textsuperscript{18}

Filing a suit is analogous to purchasing an option, because it gives the plaintiff the right to proceed toward trial without having the obligation to try the case. Once the suit is underway, the plaintiff has a variety of options. For example, he can choose whether to proceed quickly, whether to make motions such as asking for a change of venue, whether to devote extensive resources to discovery, and whether to make a settlement offer. These options make a lawsuit a more valuable investment than it would be if the plaintiff had to choose initially between trying the case and not filing a suit.\textsuperscript{19}

Professor Cornell’s option model reflects three stages, discovery, pre-trial, and trial.\textsuperscript{20} The nodes for each stage give rise to a decision tree.\textsuperscript{21} The model “assume[s] that the plaintiff must pay $10 in advance to progress from one stage to the next”\textsuperscript{22} and allows the plaintiff to drop the suit at no cost (except the aggregate of $10 fees previously paid) whenever the expected value at any node is negative.\textsuperscript{23}

To what extent do differences between the expected value and option models of litigation result in different insights with respect to the likely effect of the presence or absence of counsel? Under both models, cases settle in the shadow of the expected outcome at trial and in light of their costs of proceeding further. Under both models, asymmetric information and strategic behavior matter.\textsuperscript{24}

Of course, the expected value and option models have different implications in some contexts.\textsuperscript{25}

\textsuperscript{18} See Cornell, \textit{supra} note 16, at 174.

\textsuperscript{19} \textit{Id.} see also Peter H. Huang, \textit{Lawsuit Abandonment Options in Possibly Frivolous Litigation Games}, 23 \textit{Rev. Litig.} 47, 89 (2004) (“Options are valuable from a decision-theoretic perspective when there are unresolved risks because they provide the flexibility not to be locked into an irreversible course of action.”).

\textsuperscript{20} Cornell, \textit{supra} note 16, at 176.

\textsuperscript{21} \textit{See id.} at 177.

\textsuperscript{22} \textit{Id.} at 178.

\textsuperscript{23} \textit{Id.} at 178-79.

\textsuperscript{24} \textit{See id.} at 181.

\textsuperscript{25} \textit{See id.} (“Though the implications for settlement of the option-pricing approach and the discounted cash flow approach are the same in a simplified theoretical environment, in practical situations, they are likely
In particular, because the option model reflects a series of stages of litigation in which the plaintiff obtains information about the likely outcome at trial,\(^\text{26}\) risk need not remain constant throughout the litigation.\(^\text{27}\) For that reason and because the option model assumes that the plaintiff can drop the suit at any time, paying only accrued litigation costs,\(^\text{28}\) the \textit{ex ante} value of any lawsuit is higher under the option model than under the expected value model.\(^\text{29}\) In addition, because under the option model, the plaintiff can opt at each stage not to proceed to the next stage after obtaining information in the first about the likelihood of success, the variance of awards matters under that model, although it does not under the expected value model.\(^\text{30}\)

For these reasons, the expected value model and the option model may give rise to different

\(^{26}\) See id. at 179 (depicting litigation as a decision tree).

\(^{27}\) See Klock, supra note 14, at 87, 93.

\(^{28}\) See Cornell, supra note 16, at 178.

\(^{29}\) See id. at 176-82. Bill Blanton provides an excellent illustration of this phenomenon:

I have the opportunity to participate in a game in which the "house" offers me $ 100 if I toss a fair coin twice and obtain two heads. The fee for participating in each game is $ 25. I would expect that three games out of four I will win nothing. However, in one game out of four I will win $ 100, for an expected payoff, averaged over a sufficiently large number of games, of $ 25 per game. After paying the $ 25 to play each game, my expected net gain is zero . . . .

Assume that I can force the house to change the rules involuntarily. The new rule is that it costs $ 12.50 to toss the coin each time (for a total of $ 25 for the two tosses, as in the previous game), but I can withdraw if the first toss is not heads. Should I withdraw at that point the only loss I will incur is the $ 12.50 that I paid for the first toss. The house still must pay $ 100 if I toss twice and obtain heads both times. I would expect that in one half of the games I will win nothing at a cost of $ 12.50 to play, as I will toss a tail on the first toss. In one-quarter of the games that I play I will win nothing at a cost of $ 25 to play, as I will toss a head on the first toss and proceed to pay for the second toss, only to toss a tail on the second toss. However, one quarter of the time I will win the jackpot of $ 100, less the $ 25 cost of the two tosses. Thus, my expected net payoff has increased from zero to $ 6.25 per game as a result of my option to withdraw after the first toss . . . .


The option to drop the suit increases the expected value of the suit to a prospective plaintiff. See id. at __. Bill Blanton has identified four primary effects which any rule may impart to reduce the value of a plaintiff’s litigation option: rules that increase total litigation cost; rules that increase costs of litigation early in the litigation (front-loading rules); rules that increase precision and decrease dispersion in litigation results (precision-enhancing rules); and rules that decrease the ability of the plaintiff to accurately predict his chances of winning (obfuscation effects).

Blanton, supra note 29, at 160-61.


Cornell, supra note 16, at 186. The expected value model and the option model should also give rise to different predictions about the percentage of docketed cases that are tried. Because the option model contemplates the possibility that the plaintiff will drop the suit before trial without receiving any amount from the defendant, while the expected value model contemplates settlement based only in a range that depends on a surplus created by forgoing trial, more docketed cases should proceed to trial under the expected value model.

See Cornell, supra note 16, at 182. An extension of this relates to the structure of attorneys’ fees. Professor Cornell’s model “assume[s] that the plaintiff must pay $10 in advance to progress from one stage to the next.” Id. at 178. The payment of costs at each stage of litigation, so that the plaintiff’s aggregate litigation costs increase as the litigation advances from one stage to the next, is consistent with an hourly fee method of compensating the plaintiff’s attorney. At any node on the decision tree, the $10 cost may result in a negative expected value, which Cornell’s model replaces with a zero, as he assumes that the plaintiff in that situation drops the suit. Id. at 178-79.

Under a contingency fee arrangement, the plaintiff may have little or no up front cost in moving to a subsequent stage of litigation. That suggests that, even if the aggregate cost of litigation is the same, plaintiffs will tend to proceed through more stages in contingency fee cases than in hourly fee cases, resulting in later settlements in contingency fee cases (assuming that clients, not attorneys, control that decision, which may not be the case).
2. Tax Court Litigation

The option model is less relevant to Tax Court litigation than to civil litigation generally, for a number of reasons. First, the taxpayer cannot voluntarily dismiss the case.\(^3\) Although the taxpayer can opt to concede the case, that will result in liability for the amount of the tax deficiency determined by the IRS.\(^4\) A concession is therefore framed as a monetary loss rather than the absence of a gain (unlike the situation of a typical plaintiff), likely reducing the likelihood of full concession. In addition, the IRS may oppose the concession if it desires to use the case to set precedent, and, in rare cases, the Tax Court may refuse to enter decision.\(^5\)

Tax Court procedure and process also differs from much federal civil litigation in other relevant ways. Key to the option model is the process of obtaining information about the likelihood of success at trial. In general civil litigation, that information may be obtained from the other side (through discovery) or in the form of a judge’s ruling on a pretrial motion. Information exchange in Tax Court may be relatively limited compared to other civil litigation, however. In tax deficiency cases, because the notice of deficiency is based on transactions engaged in by the taxpayer, the taxpayer generally knows or has access to all of the relevant facts about the case. The IRS generally has the tax return.

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35 See Wellman v. Commissioner, T.C. Memo. 1985-97 ("this Court has no procedure which authorizes or permits a party to unilaterally withdraw a petition once filed."); cf. Huang, supra note 19, at 50 (referring to Rule 41 voluntary dismissal in federal litigation).

36 In Tax Court, the taxpayer institutes the litigation, although functionally the taxpayer in a tax deficiency suit is a defendant. See Leandra Lederman, “Civilizing Tax Procedure: Applying General Federal Learning to Statutory Notices of Deficiency,” 30 U.C. Davis L. Rev. 183, 192-93 (1996). That is, the IRS generally will obtain a positive recovery from a successful suit, but the taxpayer who wins a suit (or obtains a favorable settlement) generally will only avoid owing tax (unless the court finds that it overpaid tax, see I.R.C. § 6512(b)(1)). However, since, if the taxpayer does not sue, the taxpayer will be liable for the amount in the notice of deficiency, that could be viewed as a baseline upon which the taxpayer is trying to improve. That is, much like the plaintiff who starts with a wealth of $x that will increase following a successful lawsuit, the taxpayer could be viewed as starting with a wealth of $x (which already reflects reduction for the amount of the deficiency claimed by the IRS) so that any positive outcome of Tax Court litigation is wealth-enhancing. From this perspective, the taxpayer’s situation is analogous to that of a typical plaintiff, given the taxpayer’s choice to concede the suit (discounted by the remote possibility that the IRS would oppose the concession and the Tax Court refuse to enter decision). Nonetheless, the framing effects of having to pay any amount for which the taxpayer is found liable may affect taxpayers’ approach to Tax Court litigation.

and supporting documents, in addition to a file developed out of the audit process.\textsuperscript{38} Prior to the litigation, the IRS may have used its summons power to obtain information, such as books and records, from the taxpayer.\textsuperscript{39} In some cases, the taxpayer will have discussed the possibility of settlement with the IRS in an Appeals conference (an IRS-offered form of alternative dispute resolution), prior to filing suit.\textsuperscript{40}

Nonetheless, Tax Court litigants can certainly obtain some information during the litigation, although information exchange is likely relatively consolidated. The Tax Court requires stipulation of the facts to the fullest extent possible.\textsuperscript{41} Tax Court cases thus typically involve lengthy joint stipulations of facts and documents. More generally, the Tax Court disfavors formal discovery and requires informal exchange of information to proceed before it will enforce requests for formal discovery.\textsuperscript{42}

Thus, the formal option model of litigation is less applicable to Tax Court litigation than to other types of litigation. However, Tax Court litigation can be conceived of as a series of stages, such as a stage for informal exchange of information,\textsuperscript{43} a pre-trial stage in which the parties may meet and also are required to submit pre-trial memoranda to the court, and the trial stage. The discussion below, which focuses on the three ways identified above in which attorney-litigants differ from unrepresented litigants, identifies the occasional impacts that result from conceiving of litigation as a series of stages, rather than as a single stage.


\textsuperscript{39} See I.R.C. § 7602.

\textsuperscript{40} See Internal Revenue Manual ¶ 8.1.1(1) (“Appeals is the Internal Revenue Service's dispute resolution forum. The Commissioner has granted Appeals authority to consider and negotiate settlements of internal revenue controversies . . . ”). If the taxpayer has not had an Appeals Conference prior to petitioning the Tax Court, the Tax Court typically will send the case to the IRS Appeals Office to discuss possible settlement. See Rev. Proc. 87-24, 1987-1 C.B. 720.

\textsuperscript{41} Tax Ct. R. Prac. & Proc. 91(a).

\textsuperscript{42} See Schneider Interests, L.P. v. Commissioner, 119 T.C. 151 (2002) (granting protective order to taxpayer in cases IRS had designated as litigation vehicle and “direct[ing] the parties to participate, in good faith, in informal conferences during the next 90 days. . . directed to developing stipulated facts for purposes of the instant litigation.”); Branerton Corp. v. Commissioner, 61 T.C. 691 (1974) (granting protective order to IRS where parties had not yet had informal conference and taxpayer had served written interrogatories).

\textsuperscript{43} See Tax Ct. R. Prac. & Proc. 70 (“the Court expects the parties to attempt to attain the objectives of discovery through informal consultation or communication before utilizing the discovery procedures provided in these Rules.”); Tax Ct. R. Prac. & Proc. 91 (requiring stipulation of the facts to the fullest extent possible).
B. TIMING OF CASE RESOLUTIONS

The timing of case resolutions has been studied relatively little, and neither the expected value nor the option model of litigation directly speaks to it. However, “[t]he time it takes to resolve a dispute is an important indicator of how well the civil justice system is working.” Of course, the average length of time to decision in tried cases and settled cases is unlikely to be the same. In particular, because cases settle much more frequently before trial than after trial, the length of time to decision in tried cases generally would be longer than in settled cases. Thus, it is appropriate analyze tried and settled cases separately.

With respect to the timing of trials, the court’s procedures, inventory, and aspects of the case such as its complexity may be a large determining factor of the initial trial date. In Tax Court cases, because the court hears cases at numerous cities, the location selected for trial will be an important factor. Once an initial trial date is set, postponement of that date should depend on the extent to which the court grants continuances and the length of those continuances.


46 See Irvine, supra note 13, at 341 (“Nearly 95% of all federal civil cases will settle before trial, leaving less than five percent of civil cases to be appealed.”) (footnotes omitted). In the data set used for the study discussed in this article, cases in which decision was entered based on an opinion of the court were coded as tried cases, while those in which decision was entered based on a stipulation of the parties were coded as settled.


48 In Tax Court:

A case or matter scheduled on a calendar may be continued by the Court upon motion or at its own initiative. A motion for continuance shall inform the Court of the position of the other parties with respect thereto, either by endorsement thereon by the other parties or by a representation of the moving party. Continuances will be granted only in exceptional circumstances. Conflicting engagements of counsel or employment of new counsel
ordinarily will not be regarded as ground for continuance. A motion for continuance, filed 30 days or less prior to the date to which it is directed, may be set for hearing on that date, but ordinarily will be deemed dilatory and will be denied unless the ground therefor arose during that period or there was good reason for not making the motion sooner.


49 See Macfarlane, supra note 44, at 666 ("statistics . . . demonstrate consistently that settlement generally takes place some distance into the life of a lawsuit, often on the courtroom steps."); William F. Coyne, Jr., The Case for Settlement Counsel, 14 Ohio St. J. On Disp. Resol. 367, 367 (1999) ("Over my first ten years as a lawyer handling civil litigation I noticed that in many of my cases the first serious settlement discussions took place shortly before trial. . . . I found a perplexing resistance to early settlement discussions--in opposing counsel, in my clients, and in myself."); Charles Thensted, Litigation and Less: the Negotiation Alternative, 59 Tul. L. Rev. 76, 94 (1984) ("many attorneys purposefully do not address the prospect of settlement until the eve of trial."); Williams, supra note 17, at 78 n.23 ("In Phoenix, for example, we found that over 70% of all cases were settled within 30 days of the trial date. Of those a hefty 13% settled on the day of trial itself.").

50 See Thensted, supra note 49, at 105-106.

51 See Joseph Latting, Don't Do It, 15 Rev. Litig. 387, 390 (1996) ("Like it or not, parties often do not feel the pressure to settle until the trial date approaches.").

52 Thensted, supra note 49, at 108.

53 Cornell, supra note 16, at 182.

54 Macfarlane, supra note 44, at 666.
underlying facts and the other party’s case.\textsuperscript{55} Thus, uncertainty about the trial outcome likely decreases as the case proceeds.\textsuperscript{56}

In addition, some of the same factors that can prevent settlement in the expected value and option models of litigation by narrowing the settlement range\textsuperscript{57} may also delay settlement by making that range take longer to find.\textsuperscript{58} Strategic behavior, asymmetric information, and “optimism bias”—meaning the tendency to overestimate the strength of one’s case\textsuperscript{59}—may each narrow a settlement range.

Although each of these factors may narrow the settlement range, they have other implications, as well. Strategic behavior is a subset of party strategy. Another example of litigant strategy is the choice to be cooperative or adversarial. If both parties use cooperative strategies, that might expedite settlement.\textsuperscript{60} On the other hand, in a study involving undergraduate students, Professors Russell Korobkin and Chris Guthrie found that “a litigant who begins negotiations with a moderate settlement offer, a softer bargaining strategy, is less likely to reach eventual settlement than a litigant who opens with a more extreme position, a harder bargaining strategy.”\textsuperscript{61} They argue that “a litigant who opens a negotiation with a moderate settlement offer inadvertently erects psychological barriers . . . that reduce the likelihood that his adversary will accept a final settlement offer.”\textsuperscript{62} This effect might also delay settlement in cases that do eventually settle.


\textsuperscript{56} See Klock, supra note 14, at 87-89; Cornell, supra note 16, at 182; Gould, supra note 55, at 287.

\textsuperscript{57} See Loewenstein et al., \textit{Self-Serving Assessments of Fairness and Pretrial Bargaining}, 22 J. LEGAL STUD. 135, 152-53 (1993) (finding in a laboratory experiment that the greater the difference in litigants’ predicted litigation outcomes, the less likely settlement was to occur).

\textsuperscript{58} It may take more negotiating to find a mutually acceptable settlement when the settlement range is $1,000 instead of $3,000, as in the example in note 5. Of course, optimism bias may in some cases eliminate a settlement range or result in a range so small that the parties do not find it.


\textsuperscript{60} This issue is discussed further below in connection with the effects attorneys might have on timing of litigation outcomes. See notes 106-24 and accompanying text, infra.


\textsuperscript{62} \textit{Id.} (footnote omitted).
Asymmetric information can result in differing predictions of the likely outcome at trial and has been used in the expected value model to show why not all cases settle.\(^{63}\) The exchange of information is key to the option model of litigation, as information exchange allows parties to refine their estimates of the trial outcome.\(^{64}\) If parties obtain less information from the other side or obtain that information later, that might delay settlement.

Optimism bias is an example of a cognitive bias that may impact settlement. It, too, has been used as an explanation for why parties might have different (and, in particular, self-serving) predictions of the outcome at trial.\(^{65}\) Again, optimism bias narrows the settlement range, potentially making it take longer to find.

Other cognitive biases might also impact aspects of settlement, including timing of settlements. In particular, factors relating to how “patient” each party can be in waiting for a better settlement opportunity\(^{66}\) also may influence settlement outcomes, possibly affecting timing of settlements. Those factors would include psychological factors such as aspirations with respect to settlement amount, risk-aversion, and regret aversion, as well as the costs of litigation. Each of these is discussed in turn below.

Professor Korobkin has argued that litigants might evaluate settlement opportunities based on their “aspirations” about the outcome of the case.\(^{67}\) He found evidence of an aspiration effect in an experiment with law students; students provided with a high aspirations in the experiment tended to have higher reservation prices than students provided with a low aspiration.\(^{68}\) He also found evidence that subjects given a low aspiration were more likely to accept a settlement above the reservation price given (rather than demand more) than were subjects given the same offer and the same reservation price, but a high aspiration.\(^{69}\)

Litigants with high aspirations might reject settlement offers that would make them better off

\(^{63}\) See Keith N. Hylton, Asymmetric Information and the Selection of Disputes for Litigation, 22 J. LEGAL STUD. 187 (1993).

\(^{64}\) See notes 25-28 and accompanying text, supra.

\(^{65}\) See, e.g., John P. Gould, The Economics of Legal Conflicts, 2 J. LEGAL STUD. 279, 284-86 (1973).


\(^{67}\) See generally id.

\(^{68}\) See id. at 38-40.

\(^{69}\) See id. at 51-52.
than if they went to trial but that are lower than the amount they expected to receive. This could delay settlement and increase the likelihood of trial but also improve outcomes. Study results do suggest that having high aspirations may lead to better outcomes in a negotiation. However, “[a] . . . cost to litigants of adopting high aspirations is the potential that they will obtain less utility from any eventual settlement amount than they might have enjoyed had they instead maintained lower aspirations.”

With respect to risk-aversion, prospect theory suggests that people are risk-averse in choosing between options framed as “gains” but risk-seeking when choosing between options framed as “losses” and have a stronger reaction to losses than to gains. Unlike typical plaintiffs, who stand to gain money from a settlement, taxpayers in Tax Court cases are functional defendants who typically are trying to minimize the amount owed. Thus, like defendants, they are “stakeholders” who may therefore view settlement possibilities as losses.

70 See id. at 17. Professor Korobkin points out that aspirations may serve as anchors and as frames. See id. at 32, 34.

71 See id. at 56-57 (“All of the reasons for the reference point theory's suggestion that high aspirations might lead to more-desirable bargaining outcomes simultaneously imply a higher risk of bargaining impasse.”).

72 See id. at 24-25 (discussing experimental study by Sally Blount White and Margaret Neale relating to negotiation over house sale)

73 See id. at 58.


76 See Lederman, supra note 36, at 192-93.

77 See Rachlinski, supra note 75; see also Korobkin, supra note 66, at 14; John M.A. DiPippa, How Prospect Theory Can Improve Legal Counseling, 24 U. ARK. LITTLE ROCK L. REV. 81, 90-91 (2001) (“In general, plaintiffs are more likely to frame settlement offers as choices among gains while defendants are more likely to frame the same offers as choices among losses.”); Coyne, supra note 49, at 386-87 (“Whether people choose the risk of trial over the certainty of settlement may depend on whether they perceive their choice as involving a loss or a gain. Generally, one would expect that plaintiffs (who stand to gain something)
Taxpayer litigants might therefore demonstrate risk-seeking behavior, opting to forgo an early settlement, risking the possibility of trial in the hope of obtaining a more favorable settlement (or judgment, if the case in fact fails to settle). As with other behavior that makes litigants “patient,” this behavior may delay settlement in cases that settle.

Another cognitive bias litigants may experience is regret aversion. Professor Chris Guthrie explains, “[s]ettlement . . . offers litigants an opportunity to avoid, or at least minimize, regret, while trial increases the likelihood litigants will experience regret. Given the structure of our litigation system, the Regret Aversion Theory posits that litigants will choose settlement over trial to avoid feelings of regret associated with learning after trial that they should have settled.” A litigant with regret aversion may be more likely to accept an early settlement rather than taking a chance that a better settlement opportunity will arise later.

The cost of the litigation process may also influence the timing of settlements. Paul Fenn and Neil Rickman employed a multi-stage model of tort claim litigation, in which they postulated that both lower legal costs for both sides and uncertainty over the amount at stake (an asymmetric information issue) should delay settlements. In their empirical study of personal injury claims against a British auto insurer’s policy holders, they found that more severe cases were settled later and cases believed by the insurer to be more costly for the plaintiff were settled more quickly. As they point out, those “results are quite intuitive; the parties seek to settle earlier the more costly it becomes to prolong the case, but

would be more eager to settle, while defendants (who stand to lose something) would be more reluctant to settle.”). Of course, the framing in any given litigation may not be as simple as that. See Rachlinski, supra note 75, at 145.

78 See Chris Guthrie, Better Settle Than Sorry: The Regret Aversion Theory of Litigation Behavior, 1999 U. ILL. L. REV. 43 (1999). “This branch of cognitive theory is built on the unremarkable premise that we have a tendency to kick ourselves when a decision goes wrong-- not entirely because of the result, but also because there was something else we could have done that would have turned out better (or so we think).” Garvin, supra note 59, at 416.

79 Id. at 72-73.

80 Regret aversion also suggests that litigants will try to avoid closing off settlement options. Because rejecting an offer in the hope of eventually settling for a larger amount increases the likelihood of trial, litigants may do such things as try to keep existing settlement offers open or respond to a settlement offer with a counteroffer rather than a simple rejection. Offerors may try to capitalize on regret aversion by stating that no other offers will be made (or all subsequent offers will be lower).

81 See Fenn & Rickman, supra note 44.

82 See id. at 9.

83 Id. at 17.
are less willing to settle the more uncertain is the appropriate settlement offer.  

Thus, the timing of trials may be largely within the control of the court, rather than the parties, expect to the extent that the parties influence or manipulate timing through procedural maneuvers, such as selection of location of trial and requests for continuances. Settlement timing should be more within the parties’ control, though it likely is correlated with trial dates. The key factors in influencing settlement timing, other than the date set for trial, may be (1) the amount of information unknown to each side and the pace at which that information becomes known, (2) the costs to the parties of continuing to litigate, (3) the extent of strategic behavior, and (4) psychological factors that enable or limit party “patience.”

Of course, the presence of attorneys may also impact the timing of trials or settlements either directly, by their mere presence, or indirectly by influencing the factors discussed above in ways that pro se litigants do not. These possibilities are discussed in the next Section.

C. THE IMPACT OF ATTORNEYS ON CIVIL LITIGATION

Traditionally, economic modeling of lawsuits largely ignored the role that attorneys played in the process. “If lawyer behavior is exactly what a rational, fully informed client would want it to be, omission of the lawyer should not affect the predictive value of an economic model.” However, if lawyers, like clients, are rational actors, the interests lawyers maximize may differ from those of their clients. A lawyer’s interest depends in part on the fee arrangement with the client. Of course,

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84 Id.

85 Where a party has the option to proceed pro se, hiring an attorney might serve as a signal that might influence the timing of the resolution of the case.

86 See text accompanying notes 87-179, infra.

87 See Korobkin & Guthrie, supra note 3, at 81 (“Although most accounts of lawsuit settlement... share the simplifying assumption that litigation is a two-party activity carried out by a plaintiff and a defendant, the feature of litigation bargaining that most differentiates it from other types of negotiation is the presence of lawyers.”) (footnotes omitted); Gilson & Mnookin, supra note 3, at 510 (“the economic literature, with rare exceptions, shares a troublesome feature. Almost by convention, litigation is modeled as a two-person game between principals, thereby abstracting away the legal system’s central institutional characteristic— litigation is carried out by agents.”) (footnotes omitted).

88 Johnson, supra note 3, at 568.

89 See id.

90 See id. at 568-69; see also notes 132-39 and accompanying text, infra. Attorneys may also be interested in such things as professional satisfaction, contributing to society, winning their cases, and ethical
litigants do not always-- or perhaps even typically-- make decisions as the “rational actors” contemplated by the basic economic model of suit and settlement;\textsuperscript{91} cognitive biases might impact their decisionmaking, as well.\textsuperscript{92}

The presence of attorneys in the litigation process might affect a variety of aspects of litigation. Possible impacts include (1) the frequency of settlement, (2) the substantive outcome of cases, and (3) the time that cases take to resolve. Professors Russell Korobkin and Chris Guthrie have argued that “lawyers as a class share an analytical orientation to decisionmaking that can facilitate a higher rate of settlement than behavioral scientists would expect litigants to negotiate on their own.”\textsuperscript{93} However, in a prior empirical study of Tax Court cases, which found that settlement of those cases was not random, the presence of an attorney for the taxpayer had no statistically significant impact on whether or not a case settled.\textsuperscript{94}

With respect to the substantive outcome of cases, one would expect that attorneys would obtain more favorable outcomes for their clients than pro se litigants obtain in comparable cases. Clients do pay for lawyers’ assistance, which indicates that they believe that attorneys add value. However, the value that an attorney adds could be in (1) saving time for the client because of the attorney’s greater familiarity with the dispute-resolution process\textsuperscript{95} and (2) in helping the client deal with the psychological difficulties of dispute-resolution.\textsuperscript{96} Nonetheless, the fact that attorneys do have

\begin{itemize}
\item \textsuperscript{91}Korobkin & Guthrie, \textit{supra} note 3, at 79-81; Rachlinski, \textit{supra} note 75, at 116-18 (1996). Of course, attorneys may not be entirely rational actors either. That issue is discussed below. \textit{See} notes 156-79 and accompanying text, \textit{infra}.
\item \textsuperscript{92} \textit{See} Larry T. Garvin, \textit{Adequate Assurance of Performance: Of Risk, Duress, and Cognition}, 69 U. \textsc{Colo.} \textsc{L. Rev.} 71, 145 (1998) (“Cognitive psychology and experimental economics have found a smorgasbord of cognitive errors, which collectively falsify most of the axioms of rational choice theory.”).
\item \textsuperscript{93}Korobkin & Guthrie, \textit{supra} note 3, at 81.
\item \textsuperscript{94} \textit{See} Lederman, \textit{supra} note 1, at 338. In the current study, the coefficient of the Attorney variable was not significant in the first stage of the selection regressions, similarly indicating that the fact of representation does not have a statistically significant effect on whether or not a case settles.
\item \textsuperscript{95} \textit{See} G. Heileman Brewing Co. v. Joseph Oat Corp., 871 F.2d 648, 657 (7th Cir. 1989) (“One reason people hire lawyers is to economize on their own investment of time in resolving disputes.”) (Posner, J., dissenting).
\item \textsuperscript{96} \textit{See} Marc Galanter, \textit{The Day After the Litigation Explosion}, 46 \textsc{Md. L. Rev.} 3, 9 (1986) (“For plaintiffs and defendants alike, litigation proves a miserable, disruptive, painful experience. Few litigants have a good time or bask in the esteem of their fellows-- indeed, they may be stigmatized.”); \textit{cf.} Korobkin &
\end{itemize}
expertise derived from training and experience, as well as superior access to information about what the opposing party\(^{97}\) or judge likely will do, should on average lead to better results for represented than \textit{pro se} litigants.\(^{98}\)

This may be particularly true in Tax Court cases, where the IRS is always represented and, in fact, is represented by counsel who routinely see numerous similar cases.\(^{99}\) The IRS benefits from an asymmetry in expertise and familiarity with the Tax Court when facing a \textit{pro se} taxpayer.\(^{100}\) The impact of attorney knowledge and expertise could manifest itself in settled cases, where agreement must be reached with the opposing party (the IRS in tax cases),\(^{101}\) in tried cases, where a judge is the

\begin{quote}
\textit{Guthrie, supra} note 61, at 101 (“On the few occasions that lawyers [studied, in deciding whether to accept a settlement.] referred to considerations [other than the expected monetary values of the settlement offer and potential trial verdicts, they mentioned the hidden financial and emotional costs of the litigation process.”).
\end{quote}

\(^{97}\) \textit{Cf.} Alison Watts, \textit{Bargaining through an Expert Attorney}, 10 J. L\textsc{aw}, E\textsc{con.} \& O\textsc{rg.} 168, 172 (1994) (in her model, “[t]he attorney is regarded as an expert because she can learn part of the defendant’s private information at a fraction . . . of its cost to the plaintiff.”). Information about prior settlements might help an attorney hone in on a likely settlement range. \textit{See} Blanca Fromm, Comment, \textit{Bringing Settlement out of the Shadows: Information About Settlement in an Age of Confidentiality}, 48 UCLA L. Rev. 663, 672 (2001). Greater accuracy in determining the settlement range should both increase the frequency of settlement and result in better settlement outcomes. \textit{See id.; notes 57-58 and accompanying text, supra} (discussing the importance of settlement range in the economic model of settlement).

\(^{98}\) \textit{See G. Heileman Brewing Co.}, 871 F.2d at 667 (“Litigants hire attorneys to take advantage of the attorneys' training and skill and, as Judge Posner notes, ‘to economize on their own investment of time in resolving disputes.’”) (Manion, J., dissenting) (quoting id. at 657 (Posner, J., dissenting)).

\(^{99}\) \textit{Cf.} Thomas L. Eovaldi & Peter R. Meyers, \textit{The Pro Se Small Claims Court in Chicago: Justice for the 'Little Guy'?}, 72 Nw. U. L. Rev. 947, 987 tbl. VIII (1978) (when defendant was represented, plaintiff won 68.8\% of cases; when defendant proceeded \textit{pro se}, plaintiff won 85.4\% of cases); Richard N. Block & Jack Stieber, \textit{The Impact of Attorneys and Arbitrators on Arbitration Awards}, 40 Indus. \& Labor Rel. Rev. 543, 553-54 (1987) (in arbitration of discharge cases, parties fared better with attorneys than without them, particularly if the other side was unrepresented; when both parties proceeded \textit{pro se}, arbitration awards did not differ significantly from cases in which both parties were represented).

\(^{100}\) \textit{Cf.} Fromm, \textit{supra} note 97, at 673 (“opportunities for strategic bargaining are enhanced if an attorney possesses more information about settlement than his opposing counsel.”).

\(^{101}\) \textit{Cf.} Watts, \textit{supra} note 97, at 169 (“the attorney may be a tougher bargainer than the client, as in Meurer (1992). . . . [T]he attorney may [also] be an expert who can uncover part of the information concerning the defendant’s negligence at a fraction of its value. . . . [T]his information can be used in the bargaining process to provide a more profitable settlement for the client.”) (citing M.J. Meurer, \textit{The gains from an Unfaithful Agent: Settlement Conflicts between Defendants and Liability Insurers}, J. L\textsc{aw}, E\textsc{con.} \& O\textsc{rg.} 502 (1992)).
decisionmaker;\textsuperscript{102} or in both types of cases.

It is more difficult to develop a single, comprehensive theory with respect to the third aspect of litigation outcomes listed above, how attorneys might impact the time a case takes to resolve. Some characteristics or behaviors that are different in attorneys than in pro se litigants may influence not only the timing of settlement or trial but also whether a case settles or goes to trial. In addition, it is not necessarily clear whether the presence of an attorney will delay or expedite case resolutions.

Of course, there are only three general possibilities in this regard: (1) attorneys generally delay case resolutions; (2) attorneys generally expedite case resolutions; and (3) attorneys have no impact on the timing of case resolutions, at least on average. Each of these possibilities has theoretical support. The support for possibilities (1) and (2) is discussed below. The theory in support of possibility (3) is either that the effects that might delay or expedite case resolutions do not in fact manifest themselves or that different effects are present in different contexts, such that the effects generally offset each other.

This article argues that attorneys and unrepresented litigants differ in three critical ways that may impact case outcomes such as the timing of case resolutions. First, attorneys are experts and are more likely to be repeat players of the “litigation game.” Second, attorneys are agents of clients (the principals), while pro se litigants do not act through agents. The presence of an agent can introduce costs to the principal to the extent that the agent maximizes his or her own interests rather than those of the principal. In the litigation context, attorneys have an incentive to maximize their fees; pro se litigants do not confront that issue. Third, as agents rather than principals and as repeat players, attorneys may be more objective about litigation than litigants themselves are. Attorneys may therefore be less likely to fall prey to cognitive biases that could impact decisionmaking.\textsuperscript{104} These three aspects of the differences between attorneys and litigating parties may cut different ways, and are discussed in turn below.

\textsuperscript{102} Cf. Watts, supra note 97, at 169 (“An attorney can . . . increase the probability that the plaintiff will win in court.”).

\textsuperscript{103} See Jason Scott Johnston & Joel Waldfogel, Does Repeat Play Elicit Cooperation? Evidence from Federal Civil Litigation, 31 J. LEGAL STUD. 39, 42 (2002) (“Most litigants do not appear frequently in court, so most litigation is between one-shot litigants. Many attorneys, by contrast, appear frequently enough that even particular pairs of attorneys oppose each other repeatedly.”); Gilson & Mnookin, supra note 3.

\textsuperscript{104} See notes 156-63 and accompanying text, infra.
I. ATTORNEYS AS REPEAT PLAYERS

Repeat litigants are likely to have concerns that go beyond the single litigation.\(^{105}\) Principals who are repeat litigants may be particularly concerned with obtaining favorable precedents if issues that may be subject to suit are recurring. Attorneys who are repeat players may be most concerned with reputational factors that impact that attorney’s continuing effectiveness in the relevant bar or courts. Lawyers may therefore invest in establishing reputations. In the Tax Court litigation context, many of the attorneys may be repeat players in the tax controversy bar and should routinely face the IRS, even if they bring relatively few cases to court.

In a well-known article published in 1994, Ronald Gilson and Robert Mnookin drew attention to issues arising from “disputing through agents.”\(^{106}\) Professors Gilson and Mnookin analyzed the “litigation game” as a multi-round prisoner’s dilemma. In a prisoner’s dilemma, the highest aggregate payoff is if both parties cooperate, but each party has an incentive to defect. Professors Gilson and Mnookin argued that lawyers could help overcome the dilemma by establishing reputations as cooperators; clients could credibly commit to cooperate by choosing a lawyer with a cooperative reputation.\(^{107}\) That, in turn, would increase both the settlement rate and the speed of settlement.\(^{108}\)

On the other hand, in Gilson and Mnookin’s terminology, the lawyer might seek to establish a reputation as a “gladiator.”\(^{109}\) Such an attorney might refuse to accept a settlement offer or demand a


\(^{106}\) See Gilson & Mnookin, supra note 3, at 512.

\(^{107}\) See generally id. The Gilson/Mnookin model essentially treats hiring of an attorney of a particular type as a reliable signal of the party’s litigation strategy.

\(^{108}\) See Johnston & Waldfogel, supra note 103, at 40. In the Gilson and Mnookin model, the hiring of an attorney with a known reputation provides a signal to the other party about that party’s strategy. This model is therefore an example of a model in which the presence of an attorney might impact the timing of case resolutions directly, rather than through influencing some other factors that influences timing.

\(^{109}\) See Gilson & Mnookin, supra note 3, at 539; see also See Johnston & Waldfogel, supra note 103, at 44. Professors Gilson and Mnookin also note that they can
more favorable settlement in order to establish or further a reputation as a tough negotiator. This may be viewed as a form of strategic behavior. Gladiator behavior might delay settlement but it might also result in better settlement outcomes for taxpayers in cases that do not fail to settle.

Professors Rachel Croson and Robert Mnookin later examined whether the predictions of the Gilson/Mnookin model were borne out in laboratory experiments. The study involved prisoner’s dilemma games. In the litigation game, subjects chose a cooperative lawyer (type A), a gladiator lawyer (type B), or a lawyer who uses a combination of those approaches (type C). In the prelitigation game, subjects chose a lawyer type (A, B, or C) and then are matched with an opposing party. Those who chose a cooperative lawyer (type A) and face a type B or C lawyer are provided an

predict a secular trend of decreased reputations for cooperation among law firm lawyers in a rapidly growing legal community. Lawyers will perceive members of the older generation of lawyers as having a reputation for cooperation, their reputations having been developed in a less populated environment. In this environment, leading litigators in a community dealt with each other every day. In contrast, the succeeding generations of lawyers would have found it much more difficult to develop reputations for cooperation because the continued growth of the legal community decreased their opportunity to have had sufficient dealings with a large enough segment of the bar to have developed one. In these circumstances, if a lawyer cannot develop a reputation for cooperation, then the dominant career strategy is noncooperation - to be a gladiator. Thus, with the passage of time, as the older lawyers retire and are replaced by younger lawyers, the legal community becomes dominated by lawyers with a noncooperative style and conflict in litigation increases over time.

See Coffee, supra note 19, at 73 ("lawyers may exacerbate cognitive and emotional issues, due to conflicts of interest and repeat-play considerations, such as those involving developing a reputation for being tough or playing hardball in pretrial settlement negotiations."); John C. Coffee, Jr., Understanding the Plaintiff’s Attorney: The Implications of Economic Theory for Private Enforcement of Law Through Class and Derivative Actions, 86 Colum. L. Rev. 669, 712-13 (1986).

See Coffee, supra note 110, at 713 (“Although a refusal to accept a reasonable settlement offer may be illogical in terms of an individual case, such a refusal may signal a plaintiff’s attorney's toughness at bargaining, which could enhance his position in future settlement negotiations. Willingness to go to trial distinguishes this attorney from others who seldom try their cases. Even more importantly, a litigated victory may significantly enhance a lawyer's reputation . . . .”).

That is, attorneys may add agency costs in the form of rejection of reasonable settlement offers. See Coffee, supra note 110, at 712-13.


Id. at 335-36.
opportunity to change to another type of lawyer. The lawyers then play the game on the subjects’ behalf.

The possibility provided the subjects of changing from a cooperative lawyer to a gladiator (or partial gladiator) might decrease cooperation compared to allowing no option to switch because, after all, subjects are only allowed to change in the direction of gladiator behavior. However, because the rules are known up front, the option to switch from a cooperative lawyer to a gladiator but not the reverse may encourage subjects to select a cooperative lawyer in the pre-litigation game because that will be their only chance to select a cooperative lawyer; the selection is without risk, given the option to switch to a gladiator if the other party does not choose a cooperative lawyer; and the subjects know that the payoff if both parties cooperate is higher than if both parties defect. The study found that “significantly more cooperative agents are chosen in the prelitigation game than in the litigation game.”

Of course, in actual litigation, parties can change attorneys during the litigation, though such changes may be costly. The ability to change attorneys (or change litigating style) may have a disciplining effect, encouraging both attorneys to remain cooperative, which should expedite case resolution. Using a data set of federal civil cases, Jason Scott Johnston and Joel Waldfogel examined empirically whether repeat play by attorneys elicits cooperation. They found that attorneys are more likely to pursue cooperative litigation strategies when they frequently litigate against each other (and therefore expect to litigate against each other in the future with a high probability). While our data do not permit us to significantly distinguish degrees of repeat interaction, a history of attorney repeat interaction does have a significant negative effect on both the trial rate and the duration of legal disputes. Also, as predicted, the trial rate is significantly lower for attorneys with repeat interactions.

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115 Id. at 336.
116 Id. at 339.
117 Id. at 341.
118 See Gilson & Mnookin, supra note 3, at 524 (“the price of firing [a] lawyer is the cost of bringing another lawyer up to speed in the litigation. While not a prohibition on changing lawyers, switching costs impose a substantial penalty on defection.”).
119 See Johnston & Waldfogel, supra note 103.
120 Id. at 59. The opposite result held true for attorneys in their data set who were classmates: “this may represent the peculiar strategic incentives that face attorneys who have established reputations long before they litigate against one another. It may indicate that these attorneys are "cooperating" by slowing down case resolution, against the interests of their clients.” Id. at 55-58. Attorney “cooperation” of this type

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They also found that the effect was stronger for attorneys representing clients who were not themselves repeat players:

As predicted, we found that a history of repeat interaction between attorneys has a much larger effect on outcomes in cases that involve one-shot, individual clients than in cases that involve institutional clients. We interpret this as evidence in favor of the hypothesis that it not just that repeat-player attorneys learn how to cooperate with one another but that they have strong reputational interests in cooperating with attorneys they expect to soon encounter again. Institutional parties still get the advantage of attorney familiarity. But because their own reputational interest is at stake, such clients effectively control and override the independent strategic interests of their attorneys.121

On the other hand, attorneys may be more likely than pro se litigants to avoid strategic behavior,122 if that behavior entails reputational cost or if experience suggests that it tends to result in worse outcomes.123 Strategic behavior could delay settlement.124

Repeat play also gives rise to expertise. As repeat players, attorneys should have better

is a form of agency cost. See text accompanying notes 129-45, infra.

121 Id. at 59-60.


123 For example, Professors Korobkin and Guthrie argue:

The hard nature of an extreme opening offer carries with it the risk of alienation and subsequent negotiation breakdown. Such alienation can be caused by either the offeree inferring from the offeror's behavior that no common ground between the parties exists and that negotiation is therefore in vain, or the offeree rejecting settlement because the offeror's negotiating approach has violated his sense of fairness.

Korobkin & Guthrie, supra note 77, at 4-5 (footnote omitted). However, their experimental study in this regard found that “a litigant who begins negotiations with a moderate settlement offer, a softer bargaining strategy, is less likely to reach eventual settlement than a litigant who opens with a more extreme position . . . .” Id. at 5.

124 See text accompanying note 59, supra.
knowledge of court rules and procedures and may have more accurate information than pro se litigants do about likely outcomes at trial. This would suggest that attorney would tend to obtain better outcomes than pro se taxpayers do. In addition, in the option model of litigation, attorneys’ greater expertise would suggest that they need not proceed through as many stages of litigation as pro se taxpayers to refine their estimates of the trial outcome, which would expedite settlement for represented taxpayers. Repeat play might also help minimize cognitive biases that can impact decisionmaking. That issue is discussed in Section 3, below.

2. ATTORNEYS AS AGENTS

Attorneys are agents of client-principals, so a party’s use of an attorney entails agency

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125 Cf. Johnston & Waldfogel, supra note 103 at 55 (“For trial rates and duration, unlike adjudication rates, cases that involve at least one nonlocal attorney are more likely to be tried, and tend to last longer, than cases that involve two local attorneys.”). They explain:

In cases that involve one or more nonlocal attorneys, the attorneys are less likely to be familiar with one another and thus may find it more difficult to coordinate on a cooperative solution. They also likely perceive a lower probability of future interaction and, thus, are less responsive to potential future retaliation for failure to cooperate.

Id.

126 Lawyers know more than clients about whether information about primary conduct is favorable, unfavorable, or irrelevant. Lawyers also know more about the available procedures and techniques for investigation, presentation, withholding, and suppression, about the sanctions applicable to clients’ evidentiary conduct, and about whether information is favorable, unfavorable, or irrelevant on the issue of whether evidentiary sanctions should be imposed. For example, lawyers know more about the rules governing the compelled production of information, including the proper form of demands for production, the ways of resisting such demands, and the sanctions for failure to produce. As a result, lawyers can make more accurate predictions about whether information is party-controlled, discoverable, commonly available, or suppressible.


127 See Garvin, supra note 59, at 419 (“learning [as a means of overcoming cognitive biases] works, at least some of the time and for some of the subjects.”).

128 See text accompanying notes 146-79, infra.

129 See James A. Cohen, Lawyer Role, Agency Law, and the Characterization “Officer of the Court,” 48 Buff. L. Rev. 349, 349 (2000) (“Most commentators would concede that attorneys are agents, but would quickly add that the lawyer is also an "officer of the court" who has obligations to seek justice. However, analysis of the phrase "officer of the court" reveals that it has surprisingly little content; it is mostly rhetoric,
caused by self-love and self-promotion.”).

130 See generally Gilson & Mnookin, supra note 3, at 527; Cooter & Rubinfeld, supra note 11, at 1070. In 1994, Professors Gilson and Mnookin argued:

Today, the dominant popular view is that lawyers magnify the inherent divisiveness of dispute resolution. According to this vision, litigators rarely cooperate to resolve disputes efficiently. Instead, shielded by a professional ideology that is said to require zealous advocacy, they endlessly and wastefully fight in ways that enrich themselves but rarely advantage the clients.

Gilson & Mnookin, supra note 3, at 510-11 (footnote omitted).

131 George M. Cohen, When Law and Economics Met Professional Responsibility, 67 Fordham L. Rev. 273, 279 (1998). He adds, “The principal must . . . find ways to control these agency costs. The primary means of control are monitoring, which involves frequent checking up on the agent, and bonding, which involves less frequent checking but large penalties for discovered misbehavior. . . .” Id. at 279-80.

132 See Johnson, supra note 3, at 575 (assuming, for modeling purposes, that “[l]ike other business people, the lawyer’s primary goal is to maximize his or her personal profits, not the client’s net benefits.”).

133 Most of the statements in the literature about contingent attorneys’ fees implicitly assume that the fee percentage remains constant throughout the litigation. However, the percentage may vary. For example, in one class action litigation, a group of investors propose[d] to hire Milberg Weiss to represent the class with the following fee arrangement:
or her return per hour. By contrast, an attorney paid by the hour has an incentive to devote more time to the litigation, or at least overall to the cases in his or her portfolio. That may prolong resolution of the case. Professor Lynn Baker argues:

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<td>$0 - $4,000,000</td>
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<td>$4,000,001 - $8,000,000</td>
<td>12.5%</td>
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<td>$8,000,001 - $15,000,000</td>
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<td>$15,000,001 - $20,000,000</td>
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In re Quintus Sec. Litig., 201 F.R.D. 475, 481 (N.D. Cal. 2001)

More typically, the percentage increases at later stages of litigation. See Mississippi State Bar v. Blackmon, 600 So. 2d 166, 176 (Miss. 1992) (Banks, J., dissenting) ("We might judicially note a once prevailing standard contract of one third if the claim is settled without suit, forty percent where the suit is filed and fifty percent where the case actually goes to trial. It is more typically stated now as forty percent through trial and fifty percent if an appeal is taken."). An increasing fee percentage complicates the attorney’s incentives. If done properly, it should help align the attorney’s and client’s incentives. See Randall S. Thomas & Robert G. Hansen, Auctioning Class Action and Derivative Lawsuits: a Critical Analysis, 87 NW. U.L. REV. 423, 432 (1993); Miller, supra note 3, at 201-02 (explaining that an increasing fee percentage partially mitigates the problem but does not eliminate it). A fee structure in which there are two percentages, one if the case settles and a substantially higher one if the case goes to trial might give the attorney the incentive to settle early or not at all.

134 See Fromm, supra note 97, at 663 n.3 (referring to settlement’s “money-making opportunities for lawyers (especially those working on a contingency fee basis in which cases settle early)”; Benjamin Hoorn Barton, Why Do We Regulate Lawyers?: An Economic Analysis of the Justifications for Entry and Conduct Regulation, 33 ARIZ. ST. L.J. 429, 466 n.153 (2002) (“a lawyer has a strong incentive to attempt to settle a contingency fee case before performing substantial work.”). But cf. Rickman, supra note 44, at 296-97 (effects of contingent fee on settlement timing are ambiguous if rejection of low settlement offers (to signal that plaintiff has high damages) leads to high settlement offers that may be accepted promptly).

135 See Johnson, supra note 3, at 576. A study of 371 hourly-rate and 267 contingency fee cases found “that contingent fee lawyers put in less effort for small cases than do hourly fee lawyers but they put in more time for ‘big’ cases.” Herbert M. Kritzer et al., The Impact of Fee Arrangement on Lawyer Effort, 19 LAW & SOC. REV. 251 (1985) (emphasis in original).

136 See, e.g., Lynn A. Baker, Facts About Fees: Lessons For Legal Ethics, 80 TEX. L. REV. 1985, 1988 (2002); Korobkin & Guthrie, supra note 3, at 123 (“Hourly fee arrangements . . . might impede settlement because the time required to stage a trial enriches the lawyer while the client bears the attendant financial risk.”); Gilson & Mnookin, supra note 3, at 528; Geoffrey P. Miller, Some Agency Problems in
the hourly rate encourages the attorney to settle the defendant-client's case too slowly. . .

in a sense, non-existent. Assuming the lawyer charges the same hourly rate to all of her clients, one case is as good as another in terms of the attorney's income. . . . It is important to note that because the hourly rate attorney's compensation is not tied to the amount of the ultimate settlement, the potential agency problem is not the amount of the settlement, but only the speed with which a “good” settlement, from the perspective of the defendant-client, is reached. . . .

Professors Gilson and Mnookin also discuss another type of agency cost in the attorney-client relationship. See Gilson & Mnookin, supra note 3, at 528 (“For a lawyer with a limited number of clients, a particular client may be so important that the threat of withdrawn patronage may induce the lawyer to risk his cooperative reputation by behaving noncooperatively.”). George Cohen lists other possible agency costs of legal representation: “lawyers colluding with their clients against others,” Cohen, supra note 131, at 281, and “the fact that clients, their lawyers, and third parties may all have agency problems within themselves,” id. at 284. For simplicity, this article treats the client as a single unit and lawyers as sole practitioners.

Baker, supra note 136, at 1988. She adds:

the hourly rate lawyer is [also] likely to be (self-interestedly) optimistic in assessing (or at least conveying to the client) the defendant-client's expected net gain from going to trial. . . . Second, the hourly rate lawyer has an incentive to "pad" her bills, whether by exaggerating the number of hours worked, doing unnecessary or redundant work, or using lawyers to do work that could be done more cheaply and as well by non-lawyers.

Id. at 1989. A client bearing those hourly costs has an incentive to monitor the attorney to minimize unnecessary time expenditures. See note 131, supra. However, monitoring is likely to be imperfect, particularly because lawyers have expertise that most clients do not, so it may be hard for clients to evaluate lawyers’ decisions. See Barton, supra note 134, at 465 (“Because clients may not be able to assess the quality of the legal services they receive, the traditional responses to agency costs-- express contractual protection, closer monitoring of the agent, or a later lawsuit-- are insufficient.”); Cohen, supra note 131, at 280 (“Some scholars have argued that [agency] cost temptations are even greater for lawyers. . . . The reasons they have suggested for this phenomenon are that lawyers’ specialized expertise makes their recommendations about what legal services the client needs and how well those services are provided particularly difficult to monitor and evaluate, even after the legal services have been rendered, and that the misuse of information is harder for clients to police than the misuse of physical assets entrusted to an agent's care.”) (footnotes omitted).

If the attorney’s expenses are paid by a third party, that may exacerbate the client’s problems. See Barton, supra note 134, at 465-66 (“When a lawyer is being paid . . . under an insurance arrangement the interests of the lawyer and client may diverge substantially.”). In that situation, the third party is the one with the incentive to monitor the attorney. See Fenn & Rickman, supra note 44. Fenn and Rickman state that plaintiff litigation is often funded by third parties in Europe. See id. In Tax Court, taxpayer attorneys are
Johnston and Waldfolgel found that:

cases that involve (contemporary) classmates are slower, and more likely to be tried, than cases that involve nonclassmate attorneys. As explained earlier, this may represent the peculiar strategic incentives that face attorneys who have established reputations long before they litigate against one another. It may indicate that these attorneys are "cooperating" by slowing down case resolution, against the interests of their clients.\(^\text{138}\)

“[T]here are significant incentives for lawyers not to embrace early settlement. These incentives include the need to market services, the desire not to appear weak, the obligation to represent a client zealously, the thirst for justice, and last, but perhaps not least, the desire to maximize income."\(^\text{139}\) Because of the financial incentive to devote more hours to case resolution, taxpayers' attorneys might make more pre-trial motions than \textit{pro se} taxpayers, for example. These motions would increase the cost of cases billed by the hour and could delay settlement in cases that settle. Of course, it is possible that these tactics might also improve the outcome for the taxpayer. For example, a favorable pre-trial ruling might result in a more favorable settlement for the taxpayer and refusal to enter an early settlement might encourage the IRS to compromise, leading to a more favorable settlement later.

Agency costs could also affect tried cases. That is, cases that are tried may be tried later where the taxpayer is represented than where the taxpayer is \textit{pro se}. For example, the possible greater use of pretrial motions, mentioned above, also could have the effect of delaying the trial in cases that are tried. However, once again, it is possible that such a strategy could redound to the taxpayer’s benefit in terms of the ultimate outcome of the case.

On the other hand, as indicated above, delay in the trial date might primarily be a function of continuances.\(^\text{140}\) In addition, postponing the date of trial could affect the timing of disposition of both tried cases and of settled cases, to the extent the timing of settlement is correlated with trial dates.\(^\text{141}\) The next question therefore is who obtains more continuances, represented or \textit{pro se} taxpayers. Counsel may seek more continuances than \textit{pro se} taxpayers because of the difficulty of scheduling a trial when balancing other cases. Delay occasioned by attorney caseload would be a form of agency cost, though presumably not one that would not result in an increase in legal fees. However, Tax Court

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\(^{138}\) Johnston & Waldfoleg, \textit{supra} note 103 at 55-58; \textit{see also} note 120 and accompanying text, \textit{supra}.

\(^{139}\) Coyne, \textit{supra} note 49, at 369.

\(^{140}\) \textit{See} text accompanying note 48, \textit{supra}.

\(^{141}\) \textit{See} text accompanying note 49, \textit{supra}.
rules generally forbid granting continuances because of “conflicting engagements of counsel.”

The presence of an attorney as agent also gives rise to legal fees, though these are more appropriately viewed as transaction costs rather than as agency costs. The fact of paying an attorney by the hour might make a litigant willing to accept a less advantageous settlement in order to avoid continuing to pay legal fees. Another way of conceiving of this phenomenon is that pro se taxpayers may be willing to be more “patient” than taxpayers with attorneys are because they are not paying legal fees, so pro se taxpayers can wait for an opportunity for a more favorable settlement. The option model of litigation illustrates this point nicely: a pro se taxpayer’s costs to proceed from one stage to the next are lower than a represented taxpayer’s costs.

3. ATTORNEYS AS REDUCERS OF ERROR CAUSED BY COGNITIVE BIASES

Cognitive biases may impact litigants’ decisionmaking. For example, Professors Korobkin and Guthrie have identified three principal psychological effects that may affect settlement rates: (1) how the offer is framed (in terms of whether it would constitute a “gain” or a “loss” if accepted), (2) efforts to obtain equity between the parties and (3) who makes the offer. In experiments involving undergraduate students asked to imagine they were plaintiffs in a lawsuit, Korobkin and Guthrie found evidence of the first two effects. Their studies of the effect of the identity of the party making the settlement offer were less conclusive. In addition, as discussed above, the amount of an early

142 Tax Ct. R. Prac. & Proc. 133.

143 Cf. Korobkin, supra note 66, at 7.

144 Cf. Lucian Arye Bebchuk & Andrew T. Guzman, How Would You Like to Pay for that? The Strategic Effects of Fee Arrangements on Settlement Terms, 1 HARV. NEGOT. L. REV. 53, 54 (1996) (“A client whose lawyer is paid on an hourly basis must pay more when her lawyer works more hours. Because every hour spent by the lawyer at trial reduces the net payoff to the client, the client will be eager to have the case resolved in negotiation, rather than at trial.”).

145 See Korobkin, supra note 66, at 10. In the basic model of suit and settlement, the more patient party should capture more of the surplus generated by settlement. See id. at 10-11. Of course, the IRS, as an administrative agency, does not bear its own costs. In addition, the IRS’s costs may be relatively fixed regardless of whether a particular case takes more or less time to resolve. See Lederman, supra note 1, at 48 & n.148.


147 Id. at 132-33, 146-47.

148 Id at 155, 158-59.
settlement offer, \(^{149}\) settlement “aspirations,” \(^{150}\) and regret aversion \(^{151}\) might impact the timing of settlements.

What affects might lawyers have on these cognitive biases? One possibility is that attorneys may temper them. For example, an attorney may reframe the litigation for the taxpayer so that the taxpayer may see settlement opportunities as gains rather than losses. \(^{152}\)

For example, consider a defendant's settlement decision. Settling requires that the defendant accept a sure loss over a gamble, and the framing effect makes it unlikely that a defendant would make such a choice. But the attorney may be in a position to reframe the litigation, perhaps by pointing out the losses that the defendant is sure to face from continued litigation or by pointing out that a settlement offer is an improvement over previous offers. The attorney is in a position to wrestle the defendant out of the loss frame that would lead the defendant to make risk-seeking choices. . . . \(^{153}\)

Similarly,

in settlement negotiations, a lawyer-negotiator might be able to shield her client from the psychological costs of high aspirations. . . . If the agent establishes bargaining aspirations but does not communicate them to the client, the subjective utility consequences of those aspirations should affect only the agent's satisfaction with the outcome, and not the client's.

Assuming that the benefits of high aspirations outweigh their costs to the client (a debatable assumption given the increased risk of impasse caused by high aspirations), a faithful agent should ignore the subjective utility consequences to himself. The agent's fee can be viewed, in part, as compensation for shielding the principal from these negative utility consequences of high aspirations . . . . \(^{154}\)

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\(^{149}\) See text accompanying notes 61-62, supra.

\(^{150}\) See text accompanying notes 66-73, supra.

\(^{151}\) See text accompanying notes 78-80, supra.

\(^{152}\) See Rachlinski, supra note 75, at 147, 172 & n.219; see also DiPippa, supra note 77, at 100, 102-03.

\(^{153}\) Rachlinski, supra note 75, at 171.

\(^{154}\) Korobkin, supra note 66, at 60.
Professors Korobkin and Guthrie argue:

With respect to [psychological] barriers [to the settlement of lawsuits], attorneys can focus on two analytically distinct goals. First, they can attempt to negotiate in a manner that prevents the barriers from being constructed in the first place. Second, because it is highly unlikely that attorneys will successfully avoid all psychological barriers, attorneys can work to minimize the impact of already-erected barriers on settlement behavior.¹⁵⁵

This begs the question of whether attorneys can effectively reduce clients’ cognitive biases. Professor John DiPippa argues that:

paying a lawyer may not avert cognitive error if both lawyer and client misperceive the underlying level of risk. Moreover, cognitive errors persist even with learning. Learning requires feedback and many decisions do not lend themselves to feedback or are self-fulfilling. This is especially true in legal counseling when many decisions cannot be revised after assessing the consequences or are not subject to accurate assessment.¹⁵⁶

In another article, Professors Korobkin and Guthrie examine whether “lawyers [are] less affected by cognitive and social-psychological factors than their clients. . . . [and whether] lawyers [are] able to influence their clients’ settlement decisionmaking behavior.”¹⁵⁷ They admit that experts generally are as prone to cognitive biases as lay people are.¹⁵⁸ However, they counter those findings with the following argument:

there are reasons to suspect that lawyers might be less susceptible than other experts to psychological biases. Lawyers are known for their analytical skills. To gain admission to law school, an applicant must demonstrate a higher-than-average ability to think

¹⁵⁵ Korobkin & Guthrie, supra note 146, at 160-61.

¹⁵⁶ DiPippa, supra note 77, at 92 (footnote omitted). Another article explains that certain “explanations for settlement reflect the cultural, cognitive, and psychological or affective orientations of the disputants themselves, as much as the circumstances of the individual case, or the advice of their lawyer.” Macfarlane, supra note 44, at 669. She adds “[t]hese types of explanations are of course of even greater significance where the client is unrepresented.” Id. at 669 n.13.

¹⁵⁷ Korobkin & Guthrie, supra note 3, at 85; cf. Baker, supra note 136, at 1989 (arguing that “the defendant-client has likely hired the attorney to provide precisely this sort of ‘expert’ information [on the optimal amount and timing of settlement offers], and is therefore highly likely to heed the attorney’s (potentially self-interested) recommendation regarding the timing and amount of any settlement offer.”).

¹⁵⁸ Korobkin & Guthrie, supra note 3, at 86.
analytically. Once in law school, legal training reinforces analytical problem-solving. By persistently emphasizing the careful reading of appellate cases, legal training teaches lawyers to analyze legal conflicts carefully and unemotionally rather than to react to them viscerally. Once on the job, this analytical training serves as a lens through which lawyers view and evaluate their experiences. Perhaps, then, lawyers approach decisions from a different perspective than most other people or are better able to learn from their experiences than other professionals, or both.159

Professors Korobkin and Guthrie conducted a study involving a hypothetical litigation scenario in which undergraduate students were asked to imagine themselves as the plaintiff and practicing attorneys were asked to imagine themselves as the plaintiff’s lawyer. They found that “the litigants as a class appeared to take into account whether the settlement offer appeared to be a gain or loss from a pre-accident reference point, even when doing so caused them to reject the option that would maximize their expected financial return from litigation, while the lawyers apparently did not.”160 Similarly, “the opening offer . . . had a statistically significant effect on the likelihood that litigant subjects would accept the final settlement offer, but it did not have a significant effect on the likelihood that lawyer subjects would advise their clients to accept the offer,”161 demonstrating that litigants were more influenced than attorneys were by “anchors.”162 The study found similar results with respect to “equity seeking.”163

The study provides evidence that lawyers may evaluate settlement offers differently than litigants themselves do. This may be because of lawyers’ training and expertise or because attorneys, as agents rather than principals, may be less likely to experience some of the particular cognitive biases that parties do. That study did not distinguish between the two possibilities because it did not test how practicing attorneys would respond to the hypothetical scenarios if they were asked to imagine themselves as plaintiffs rather than as plaintiffs’ attorneys (or how students would respond if asked to imagine themselves acting on behalf of someone else).

159 Id. at 87-88.
160 Id. at 101.
161 Id. at 105.
162 See Amos Tversky & Daniel Kahneman, Judgment Under Uncertainty: Heuristics and Biases, 185 SCIENCE 1124, 1128 (1974) (“In many situations, people make estimates by starting from an initial value that is adjusted to yield the final answer. . . . In either case, adjustments are typically insufficient. That is, different starting points yield different estimates, which are biased toward the initial values. We call this phenomenon anchoring.”).
163 Korobkin & Guthrie, supra note 3, at 111-12.
The old adage, “he who is his own lawyer has a fool for a client” may reflect the fact that attorneys generally have greater expertise and access to information than do pro se litigants. However, it may also reflect the notion that litigants may be much more emotionally invested in the outcome of a case in which they are involved than are attorneys. The personalization of one’s own case may make decisionmaking less objective. In addition, attorneys, as repeat players, benefit from diversification of their litigation portfolio that pro se litigants typically do not. Diversification should facilitate more objective decisionmaking in each case.

Nonetheless, the reason that attorneys did not succumb to the cognitive bias tested does not particularly matter, given that the role they were asked to play in the experiment (attorney) is the same one they would play in litigation. Of course, attorneys may suffer from their own biases that may impact their behavior. Attorney biases, not experienced by the litigants themselves, would be another form of agency cost.

As Professors Korobkin and Guthrie point out, if litigants are more prone to certain cognitive biases than attorneys, the next question is whether attorneys can assist litigants in overcoming those biases. Using similar litigation scenarios in which undergraduate students were asked to imagine that they were plaintiffs, Korobkin and Guthrie tested four possible techniques, all in the form of explanations or counseling purportedly provided by the student subject’s lawyer. The techniques consisted of: (1) an explanation about “the way psychological factors have been found to operate in other contexts;” (2) an explanation of both the positive and negative aspects of the settlement offer; (3) a recommendation to accept the offer, based on expected value analysis; and (4) a recommendation of settlement, without explanation. They found that all four techniques “increased the propensity of litigant subjects to favor settlement” and “that all four strategies produced remarkably similar

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164 See Faretta v. California, 422 U.S. 806, 852 (1975) (Blackmun, J., dissenting) (referring to it as an “old proverb”).

165 Cf. Huang, supra note 19, at 75 (“even if . . . litigants themselves fail to be sequentially rational due to, for example, cognitive difficulties, they hire lawyers who provide not only legal knowledge and expertise, but also negotiating experience and professionalism.”).

166 See text accompanying notes 129-45, supra (discussing agency costs).

167 Korobkin & Guthrie, supra note 146, at 113.

168 Id. at 115.

169 Id. at 117-18.

170 Id. at 119.
One bias that attorneys may be less likely than litigating parties to have is optimism bias, assuming that attorneys, because of their expertise and experience, are more objective about likely trial outcomes. In addition, attorneys, who are not themselves liable for the taxes involved in the dispute, may temper risk-seeking behavior on the part of taxpayer-litigants, perhaps by overstating the risk involved. However, at the extreme, efforts to quell the client’s optimism could result in loss of the client.

Because they are not themselves liable for the taxes involved in the dispute, lawyers may also help temper taxpayer regret aversion. Some studies have cast doubt on the impact of regret aversion with respect to losses, but assuming that it does have an effect and that attorneys reduce its prevalence, represented taxpayers should be less likely than pro se taxpayers to agree to relatively unfavorable settlements in order to avoid trial. That phenomenon might impact the timing of settlement. For example, the IRS might recognize this dynamic and, when negotiating with pro se taxpayers, threaten to demand a more favorable settlement as trial approaches, encouraging early settlement by those taxpayers.

However, attorneys may also suffer from regret aversion in spite of the fact that they will not be liable for any taxes due. That is, attorneys can suffer regret at failing to obtain a trial outcome as favorable as a settlement that was offered. In fact, an attorney in that situation may risk non-payment of fees, the loss of future business from that client, reputational harm, and, in an extreme case, a possible non-payment of fees.

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171 *Id.* at 119-20. They note:

in both the Automobile Accident and the Broken Heater scenarios, the most successful manipulation was the Lawyer Recommendation, in which the lawyer advised settlement without providing an explanation, although in neither case was the difference between this manipulation and the others statistically significant. This finding (if it is not the result of chance), seems counterintuitive: providing the client with more information apparently reduces the likelihood of convincing a client to change his position. We hypothesize that this might be because the Lawyer Recommendation manipulation places the opinion of the respected lawyer-advisor behind the settlement option without providing a justification that some clients might find unconvincing.

*Id.* at 121.

172 See DiPippa, supra note 77, at 101-02.


legal malpractice suit. As indicated above, a prior study found that the presence of an attorney for the taxpayer did not have a statistically significant effect on which Tax Court cases went to trial.

As indicated above, a key determinant of the timing of trials, and even settlement if the date a case is set for trial is a principal driver of the timing of settlement, is whether pro se or represented litigants obtain more (or longer) continuances. With respect to tried cases, some Tax Court litigants might seek continuances as a stalling tactic because, in Tax Court, the tax ultimately determined or agreed to be due does not need to be paid until the case is resolved. Attorneys might help quell that impulse because they have the objectivity of not being the party liable to the IRS.

Of course, it is also possible that attorneys could exploit clients’ cognitive biases for their own ends, which would also be a form of agency cost. For example, an attorney who wants to take a case to trial for his own reputation or fee reasons might reframe gains as losses in order to encourage risk-seeking behavior on the part of the client. This approach should delay settlement in those cases that do settle:

Under this scenario, why do cases eventually settle? Because the client, for whatever reason, be it increasing legal fees, an unpleasant deposition, or discovery of facts which suggest an adverse judgment, once again begins to "feel the pain," so that any method of ending the litigation is seen as a gain.

The fundamental point . . . is that simply by becoming involved in a case, a lawyer may

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175 Cf. Korobkin & Guthrie, supra note 3, at 123 (“An hourly fee lawyer who calculates that his reputation would be harmed more by losing a trial than it would be enhanced by winning a trial might favor settlement after all, despite his immediate financial incentive to favor trial.”) (footnote omitted).

176 See Lederman, supra note 1, at 338.

177 See The Honorable Howard A. Dawson, Jr., Should the Civil Tax Litigation System be Restructured?, 40 TAX NOTES 1427, 1427 (1988) (stating that tax asserted by the IRS does not need to be paid up front for the Tax Court to be available as a forum). Of course, if the taxpayer does not pay the tax or post a deposit, he or she will owe interest to the government on any amount ultimately determined to be due. See I.R.C. §§ 6601, 6621.

178 See Rachlinski, supra note 75, at 172 (“An avaricious defense attorney who works on an hourly rate may portray all settlements as losses so as to encourage the risk-seeking proclivities of the client. After all, the defense attorney is the principle beneficiary of risk-seeking decisions in litigation. Likewise, a plaintiff's attorney, operating on a contingency fee and interested in a quick settlement, may encourage the client's inherent risk-aversion.”); Coyne, supra note 49, at 387 (“A Champion [style lawyer] will assure the client that there is no immediate risk and will discuss the route to victory, with the predictable, and intended, effect of diminishing the client's pain. The client then feels comfortable with the status quo, may begin to see the future choice as involving loss rather than gain, and may begin to prefer the risk of trial to the certainty of a settlement.”).
diminish the likelihood of early settlement. And further, this will occur without the lawyer counseling against settlement. It is likely to occur whenever the lawyer is an effective advocate.\textsuperscript{179}

II. THE EMPirical STUDY OF THE EFFECTS OF TAXPAYER REPRESENTATION IN TAX COURT

A. THE DATA

The data used for this study were initially collected by Professor Lederman primarily in the summer of 1995 from Tax Court case files, published opinions, and other publicly available materials.\textsuperscript{180} The data were amplified beginning in the summer of 2003, primarily using the Tax Court’s docket inquiry system on its web site.\textsuperscript{181} The data set consists of approximately 400 Tax Court cases, about half of which settled.\textsuperscript{182} The cases are a random sample of cases decided mostly in the early to mid-1990s,\textsuperscript{183} except that (1) because only about 5 percent of cases go to trial, tried cases (opinion decisions) were oversampled so that they would represent approximately half of the sample and (2) because of limits on the length of time the Tax Court keeps completed records in settled cases, a stratified sampling was done so that more cases were selected from certain years than others.\textsuperscript{184}

\textsuperscript{179} Coyne, \textit{supra} note 49, at 387.

\textsuperscript{180} See Lederman, \textit{supra} note 1, at 345-47 (Appendix A). A few Tax Court petitions are available on LexisNexis. CCH \textsc{TAX COURT PETITIONS DIGEST} also provides limited information about cases in which the taxpayer was represented.

\textsuperscript{181} The Tax Court put the docket inquiry system on line in 2001. The on-line system covers cases from May 1, 1986 to the present. \textit{See} http://www.ustaxcourt.gov/docket.htm.

\textsuperscript{182} Initially, 569 cases were selected, 304 opinion decisions and 265 stipulated decisions. \textit{See} Lederman, \textit{supra} note 1, at 346 (Appendix A). However, as indicated in the text, \textit{infra}, a number of cases were eliminated from the sample because they were not deficiency cases or had been dismissed for lack of jurisdiction. A few cases were eliminated because they remained unresolved as of fall 2003. A number of cases were missing information on one or more variables even after amplification in 2003. Those cases were not used in the regression analyses. Table 1, \textit{infra}, provides the mean data on a total of 372 cases used in the regressions.

\textsuperscript{183} Cases were randomly selected in two ways: (1) Using randomly generated docket numbers for the years 1989 through 1994, reflecting cases filed in those years and (2) using randomly generated numbers to select from LexisNexis printouts of Tax Court cases with opinions issued in 1990 through 1995. \textit{See} Lederman, \textit{supra} note 1, at 345. Thus, the earliest filed settled decision was filed in 1989 while most of the tried cases were decided in 1990 through 1995 but some were filed before that; the oldest was filed in 1981. Some cases tried or settled after the initial study was conducted; so long as a case was resolved by the fall of 2003, it was included.

\textsuperscript{184} \textit{See id.} at 346 (Appendix A). Using a random number generator, 100 cases docketed in 1989 were selected, 80 docketed in 1990, 100 docketed in 1991, 150 docketed in 1992, 133 docketed in 1993, and
The cases involve only individuals, estates, and corporations litigating a federal tax deficiency against the IRS. Any non-deficiency cases, such as those involving tax-exempt organizations seeking a declaratory judgment with respect to tax-exempt status, were eliminated from the sample. Cases that were dismissed by the court (such as for lack of jurisdiction) also were eliminated. Finally, cases missing values for any variable were not used.185

Table 1 shows, for both tried and settled cases in the sample, the means of the independent variables, the amount at stake and the proportion of the cases in which the taxpayer was represented. As that table shows, tried cases in the sample took longer, on average, to resolve than settled cases did (1.71 years rather than 1.37 years, overall), a difference of approximately 4 months. For both settled and tried cases, cases involving an attorney took longer to resolve, on average, than cases in which the taxpayer was pro se. For both settled and tried cases, the difference was approximately 4 months.186

Table 1. Descriptive Statistics of Dependent and Certain Independent Variables

<table>
<thead>
<tr>
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<th>Settled Cases</th>
<th>Tried Cases</th>
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<tr>
<td></td>
<td>All</td>
<td>Pro se</td>
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<td>Mean Time to Settlement or Trial (Years)</td>
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<td>1.14</td>
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<td>Mean IRS Recovery Rate (Portion of Deficiency Recovered by IRS)*</td>
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<td>.30</td>
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<tr>
<td>Mean Rate of Taxpayer Representation by Counsel</td>
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<tr>
<td>Mean Stakes</td>
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<td>$58,067</td>
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<tr>
<td>Number of Observations</td>
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<td>72</td>
</tr>
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</table>

* Recovery ratio greater than 1 was reset to 1 and recovery ratio less than -1 was reset to -1.
** “Rep” means taxpayer was represented by counsel.

70 docketed in 1994. Id. Some of these turned out to be opinion decisions. See id. Any docket number that turned out to be a small tax case was excluded from the sample because, at the time, the Tax Court would not grant access to files or opinions in those cases. See Leandra Lederman, Tax Court S Cases: Does the ‘S’ Stand for Secret?, 79 TAX NOTES 257 (1998).

185 See Lederman, supra note 1, at 348-49 (Appendix B); cf. note 4, supra. A few Tax Court petitions are available on LexisNexis. CCH Tax Court Petitions Digest also provides limited information about cases in which the taxpayer was represented. We made every effort to fill in missing values from the Tax Court docket inquiry system on line and from Tax Court files. However, some cases simply did not contain certain information (such as the judge assigned to a case that was settled before a judge was assigned) and some information was no longer available.

186 This may reflect a greater difficulty in scheduling settlement conferences, other meetings, and trials when an additional person is involved, particularly because that person, counsel for the taxpayer, likely has to coordinate the scheduling of other cases, as well.
As Table 1 shows, the average deficiency for cases in the sample was substantially higher in cases in which the taxpayer had counsel than in cases in which the taxpayer was pro se, for both tried and settled cases.\textsuperscript{187} The average deficiency overall and for represented cases was substantially higher for cases that went to trial than for cases that settled.\textsuperscript{188} However, with respect to pro se taxpayers, the average deficiency was higher in cases that settled than in cases that went to trial.\textsuperscript{189}

The IRS’ recovery rate was higher in tried cases (61\%) than in settled cases (33\%). In settled cases in the sample, the IRS recovered somewhat more, on average, when the taxpayer was represented than when the taxpayer was pro se (35\% versus 30\%).\textsuperscript{190} By contrast, in tried cases in the sample, the IRS recovered substantially less when the taxpayer had counsel (53\% versus 82\%).

\section*{B. Statistical Techniques}

The study considered both (1) two different types of outcome, length of time until case resolution and the IRS’s recovery ratio (the IRS’s recovery as a percentage of the total amount at stake) and (2) two subsamples of cases, settled and tried. Thus, there were four separate models, with four distinct dependent variables: (1) Time to settlement, (2) time to trial,\textsuperscript{191} (3) IRS recovery ratio in settled cases, and (4) IRS recovery ratio in tried cases. The study tested the impact of the presence of counsel for the taxpayer on each of the four outcomes. In conducting the study, we considered as represented any case in which there was an attorney present at any point in the case.

We used the statistical technique of Ordinary Least Squares (OLS) for each of the four models.\textsuperscript{192} Each of the models therefore consisted of an equation that produces a regression line that is

\textsuperscript{187} This is consistent with the notion that it makes more economic sense for a taxpayer to hire a lawyer when the financial stakes are greater, particularly because tax attorneys generally charge by the hour.

\textsuperscript{188} This is consistent with the idea that trials require more attorney time than settlements do and that cases with more at stake can bear greater legal expense.

\textsuperscript{189} It may be that pro se taxpayers are wary of trials and that they are therefore less willing to proceed to trial when more money is at stake. That wariness could be due to lack of comfort with litigation or “regret aversion.” Regret aversion is discussed in text accompanying notes 78-80, supra.

\textsuperscript{190} Possible explanations for the IRS’s higher average recovery rate in tried cases and higher average recovery rate in represented settled cases than unrepresented settled cases are discussed briefly below. See notes __ and accompanying text, infra.

\textsuperscript{191} We used time to trial rather than time to decision because the time between trial and decision should largely be in control of the judge and therefore less influenced by the parties or their counsel.

\textsuperscript{192} OLS assumes a linear relationship between each dependent variable and the independent variables in the equation. William Greene, ECONOMETRIC ANALYSIS 193 (1993). It minimizes the sum of squared residuals; that is, the square of the difference between the observed and predicted values of the dependent
variable. See id. at 32-34 (1993).

Because the variable simply reflects the presence or absence of taxpayer counsel (1 if the taxpayer has counsel and 0 otherwise), it is a dummy variable. That is, it does not reflect a range of possible values. See id. at 116.

Where we knew of amounts asserted by the IRS in its answer or an amended answer, typically from an opinion in the case, we included those in the stakes. The deficiency claimed by the IRS includes the estimated value of any time-sensitive penalty, typically a penalty amounting to 50% of the interest on the deficiency. Those time-sensitive penalties generally applied, as reflected in a prior version of Code section 6653, "beginning on the last date prescribed by law for payment of such underpayment (determined without regard to any extension) and ending on the date of the assessment of the tax (or, if earlier, the date of the payment of the tax)." I.R.C. § 6653(a)(1)(B) (1988). For purposes of this study, the penalty was computed as arising on the unextended due date of the return (April 15 for individuals) and accruing until the date of the notice of deficiency. If that date was not available, 45 days prior to the petition date was used; except when addressed to a taxpayer outside the United States, a Tax Court petition is due 90 days after the notice of deficiency was mailed, I.R.C. § 6213(a). Interest itself, including penalty interest (interest at an increased rate), was not included in the stakes.

The overpayment claim amount was treated as zero if we did not have it, even if the taxpayer recovered an overpayment. The principal effect that would have would be on the IRS’ recovery ratio. If the recovery ratio was lower than negative 1, which could happen where an overpayment was recovered but not included in the stakes, it was treated as -1.

Partnership cases were excluded from the sample because partnership adjustments are not directly comparable to deficiencies and only deficiency cases were kept in the sample.
• The number of tax years in issue in the case.

• As a proxy for complexity of the case, the number of entries between docketing and the first decision in the case in the Tax Court’s on-line docket entry system, net of entries solely related the presence of counsel (“net docket entries”).

• Dummy variables for the year in which the case was filed.

• Whether the state of trial differed from the state in which the taxpayer resided at the time the petition was filed.

• The IRS region in which the state of trial was located as of 1996.\textsuperscript{197}

• Whether or not there was more than one judge involved in the case.

As explained below, several variables relating to characteristics of the judge assigned to the case were used in selection correction regressions (to address the non-random selection of cases for settlement or trial). Those variables were:

• Whether or not the principal judge involved in the case was a Special Trial Judge.

• Dummy variables for the decade in which the principal judge involved in the case was appointed to the bench.

• Whether or not the principal judge had private sector experience before becoming a judge.

• Whether or not the principal judge had military experience before becoming a judge.

Table 2, below, shows the means of these variables in both settled cases and tried cases, based on the sample used for the “time” outcome regressions rather than the “recovery ratio” outcome regressions.

There were also other variables we used that were not included in all of the regressions. We examined the years remaining to the expiration of the judge’s term, to see if the possibility of

\textsuperscript{197} The region variable is meant to address the effect of possible variation by region in the approach of IRS counsel. As in the prior study, we used for the region variable the seven IRS regions that existed in 1995. \textit{See} Lederman, \textit{supra} note 1, at 352 (Appendix C). However, the prior study used for purposes of determining the region the state in which the taxpayer resided at the time the Tax Court petition was filed. For this study, we opted to determine region based on the state of trial, which more accurately reflects which IRS attorneys handled the case. The Tax Court’s on-line docket inquiry system includes an entry for the location selected for trial. \textit{See} \url{http://www.ustaxcourt.gov/docket.htm}. In only approximately 10 percent of the cases did the region of residence and the region of trial differ.
reappointment might have an impact on the results. This variable could only apply to regular judges, not senior judges or Special Trial Judges. The subsample containing this variable was therefore very small, so this variable was not used in many of the regressions.

We also examined the attorney’s years of experience in the subsamples of settled and tried cases that involved an attorney, replacing the Attorney dummy variable with a continuous variable showing attorney experience.\(^{198}\) That variable takes on the value of 0 if the taxpayer is pro se.

Finally, to reflect the possibility that cases involving tax protestors would be idiosyncratic, an additional dummy variable that reflected whether or not the case involved a tax protestors was created for tried cases; tax protestors were assumed not to settle. Cases in which the opinion reflected arguments the court deemed frivolous or arguments that reflected an objection to the entire tax system or the imposition of any taxes on the individual were listed as tax protestor cases, even if the objection appeared to be made in good faith. The regressions in the tried cases were done both with tax protestors included in the sample and with them excluded. Because the results were very similar and the sample size is bigger when they are included, they were kept in the sample. Results for the IRS’ recovery ratio in tried cases are reported both with tax protestors included in the sample and with them excluded. The means of this variable are reported in Table 2 for information purposes; the variable did not serve as an independent variable in the regressions (though it was used as an instrumental variable, as explained below).

\(^{198}\) Attorney experience was calculated using year of graduation from law school (or year of bar admission where year of graduation was not available) as the starting point and the filing date of the case as the ending point. Attorney experience was therefore case-specific.
<p>| Table 2. Means/Percentages of All Dependent and Independent Variables |
|---------------------------------|----------|--------|----------|----------|--------|--------|</p>
<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Pro se</th>
<th>Rep**</th>
<th>All</th>
<th>Pro se</th>
<th>Rep**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to Settlement or Trial (Years)</td>
<td>1.37</td>
<td>1.14</td>
<td>1.49</td>
<td>1.71</td>
<td>1.34</td>
<td>1.84</td>
</tr>
<tr>
<td>Percent of Deficiency Recovered by IRS*</td>
<td>0.33</td>
<td>0.30</td>
<td>0.35</td>
<td>0.61</td>
<td>0.82</td>
<td>0.53</td>
</tr>
<tr>
<td>Represented by Attorney (yes/no)</td>
<td>66.8%</td>
<td>0.0%</td>
<td>100.0%</td>
<td>72.9%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Attorney Years of Experience</td>
<td>--</td>
<td>0</td>
<td>10.21</td>
<td>--</td>
<td>0</td>
<td>10.49</td>
</tr>
<tr>
<td>Individual</td>
<td>80.6%</td>
<td>94.4%</td>
<td>73.8%</td>
<td>80.6%</td>
<td>100.0%</td>
<td>73.5%</td>
</tr>
<tr>
<td>Corporation</td>
<td>12.0%</td>
<td>4.1%</td>
<td>15.9%</td>
<td>13.5%</td>
<td>0.0%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Estate</td>
<td>7.4%</td>
<td>1.4%</td>
<td>10.3%</td>
<td>5.8%</td>
<td>0.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Total Number of Cases for Taxpayer</td>
<td>1.48</td>
<td>1.47</td>
<td>1.49</td>
<td>1.61</td>
<td>1.60</td>
<td>1.61</td>
</tr>
<tr>
<td>Number of Net Docket Entries to First Decision</td>
<td>9.33</td>
<td>8.125</td>
<td>9.93</td>
<td>27.72</td>
<td>18.28</td>
<td>31.23</td>
</tr>
<tr>
<td>Additional Judges (yes/no)</td>
<td>13.8%</td>
<td>5.6%</td>
<td>17.9%</td>
<td>19.4%</td>
<td>16.7%</td>
<td>20.4%</td>
</tr>
<tr>
<td>Years to End of Judge’s Term</td>
<td>6.01</td>
<td>4.95</td>
<td>6.54</td>
<td>10.41</td>
<td>9.63</td>
<td>10.61</td>
</tr>
<tr>
<td>Year of Filing = pre-1990</td>
<td>19.8%</td>
<td>5.6%</td>
<td>26.9%</td>
<td>47.1%</td>
<td>42.9%</td>
<td>48.7%</td>
</tr>
<tr>
<td>Year of Filing = 1990</td>
<td>9.7%</td>
<td>2.8%</td>
<td>13.1%</td>
<td>15.5%</td>
<td>9.5%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Year of Filing = 1991</td>
<td>9.7%</td>
<td>6.9%</td>
<td>11.0%</td>
<td>14.2%</td>
<td>11.9%</td>
<td>15.0%</td>
</tr>
<tr>
<td>Year of Filing = 1992</td>
<td>24.4%</td>
<td>34.7%</td>
<td>19.3%</td>
<td>10.3%</td>
<td>9.5%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Year of Filing = 1993</td>
<td>28.1%</td>
<td>36.1%</td>
<td>24.1%</td>
<td>10.3%</td>
<td>19.0%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Year of Filing = 1994</td>
<td>8.3%</td>
<td>13.9%</td>
<td>5.5%</td>
<td>2.6%</td>
<td>7.1%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Central Region</td>
<td>7.8%</td>
<td>6.9%</td>
<td>8.3%</td>
<td>14.2%</td>
<td>4.8%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Mid-Atlantic Region</td>
<td>3.7%</td>
<td>6.9%</td>
<td>2.1%</td>
<td>12.9%</td>
<td>14.3%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Mid-West Region</td>
<td>9.7%</td>
<td>8.3%</td>
<td>10.3%</td>
<td>9.0%</td>
<td>9.5%</td>
<td>8.8%</td>
</tr>
<tr>
<td>North-Atlantic Region</td>
<td>12.9%</td>
<td>6.9%</td>
<td>15.9%</td>
<td>9.0%</td>
<td>9.5%</td>
<td>8.8%</td>
</tr>
<tr>
<td>South-East Region</td>
<td>11.5%</td>
<td>9.7%</td>
<td>12.4%</td>
<td>12.9%</td>
<td>11.9%</td>
<td>13.3%</td>
</tr>
<tr>
<td>South-West Region</td>
<td>19.8%</td>
<td>19.4%</td>
<td>20.0%</td>
<td>16.1%</td>
<td>19.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>West Region</td>
<td>34.6%</td>
<td>41.7%</td>
<td>31.0%</td>
<td>25.8%</td>
<td>31.0%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Number of Tax Years in Issue</td>
<td>1.74</td>
<td>1.38</td>
<td>1.92</td>
<td>2.68</td>
<td>2.76</td>
<td>2.65</td>
</tr>
<tr>
<td>Any Penalty Asserted by IRS (yes/no)</td>
<td>75.1%</td>
<td>80.6%</td>
<td>72.4%</td>
<td>67.7%</td>
<td>73.8%</td>
<td>65.5%</td>
</tr>
<tr>
<td>Stakes</td>
<td>$201,169</td>
<td>$58,067</td>
<td>$272,227</td>
<td>$2,806,820</td>
<td>$31,845</td>
<td>$3,838,226</td>
</tr>
<tr>
<td>State of Trial different from State of Residence</td>
<td>18.4%</td>
<td>13.9%</td>
<td>20.7%</td>
<td>23.9%</td>
<td>26.2%</td>
<td>23.0%</td>
</tr>
<tr>
<td>Tax Protestor (yes/no)***</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>7.2%</td>
<td>17.9%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

**Variables Used in Selection Correction Regression**

| Special Trial Judge (yes/no) | 16.6%   | 15.3%  | 17.2%   | 23.9%   | 40.5%  | 17.7%  |
| Decade=pre-1980s             | 13.5%   | 15.3%  | 17.6%   | 25.8%   | 28.6%  | 24.7%  |
| Decade=1980s                 | 69.6%   | 77.8%  | 65.5%   | 58.1%   | 50.0%  | 61.1%  |
| Decade=1990s                 | 6.9%    | 6.9%   | 6.9%    | 16.1%   | 21.4%  | 14.2%  |
| Private Sector Experience (yes/no) | 82.0% | 79.2%  | 83.4%   | 74.2%   | 69.0%  | 76.1%  |
| Military Service (yes/no)    | 64.5%   | 68.1%  | 62.8%   | 41.9%   | 31.0%  | 46.0%  |

*p Values greater than 1 were reset to 1; values less than -1 were reset to -1.

**"Rep" means taxpayer was represented by counsel.

***The Tax Protestor dummy variable was not used in the OLS regressions."
The independent variable that reflects the presence or absence of taxpayer counsel (the Attorney dummy variable199) is the variable of interest in this study. The coefficient of that variable shows the direction and magnitude of any “taxpayer counsel” effect on the outcome in question. The statistical results also show the p-value for each variable's coefficient, which represents the probability that the particular variable actually has no relationship to the outcome under consideration. By convention, a p-value of .05 or less is considered statistically significant.200

There were two known possible sources of bias in the OLS regressions in this study. First, Tax Court cases are not randomly selected for settlement or trial.201 This non-random selection will cause biased OLS coefficients if selection is correlated with (1) the dependent variable and (2) any independent variable in the OLS regression.202 A previous study using this data set found that certain characteristics of the presiding judge are determinants in whether a case settles or goes to trial.203 It is reasonable to assume that these characteristics also influence Tax Court outcomes.204 For example, more recently appointed judges might be more active in encouraging settlement, and this might not only increase the rate of settlement (an issue in the prior study) but might also lead to quicker settlements in cases before those judges.

The second possible source of bias is that the hiring of an attorney is non-random. That is, taxpayers choose whether or not to hire an attorney. Unobserved factors (such as risk aversion, taxpayer wealth, or hostility towards the IRS) may influence both the decision to hire an attorney and the outcome of the case.205

199 See note 193, supra (explaining the concept of a dummy variable).

200 See Kevin M. Clermont & Theodore Eisenberg, Xenophilia in American Courts, 109 Harv. L. Rev. 1120, 1127 n.17 (1996) (“By arbitrary convention, p-values at or below the 0.05 level are described as statistically significant.”).

201 See Lederman, supra note 1, at 332; see also Priest & Klein, supra note 105.

202 See notes 235-36 and accompanying text, infra.

203 See Lederman, supra note 1, at 332. That study found three judge variables to be statistically significant in predicting which cases went to trial: the type of judge (regular or special trial judge), the decade the judge was appointed to the bench, and the judge’s legal experience prior to appointment to the Tax Court (government, private sector, or both). See id.

204 As discussed below, similar but not identical judge variables were used in this study. See note 241 and accompanying text, infra.

205 There are statistical techniques that control for both types of bias together. However, the sample size did not allow us to utilize these techniques, so we addressed each source of bias separately.
To control for the selection effect issue, we used a Heckman two-step estimation procedure. Results of the Heckman procedure suggested that the OLS regressions were not biased as a result of the selection effect. Further detail about this procedure and its results are discussed in Appendix A.

To address the non-random aspect of the presence of taxpayer counsel, we needed a variable to use in each model that was correlated with the decision to hire an attorney but not with the outcome being tested. This variable would serve as an “instrument” in the first stage of a Two-Stage Least Squares (2SLS) model, as discussed in Appendix B. For tried cases, the Tax Protestor variable was a logical choice because taxpayers in the cases in the data set who were classified as tax protestors were disproportionately pro se, whereas other taxpayers in the data set were disproportionately represented and the Tax Protestor variable was not correlated with the time to trial or IRS recovery ratio in tried cases. Results of the 2SLS regression using Tax Protestor as an instrument in the time to trial regression did not result in statistical significance of the Attorney variable. However, results of the 2SLS regression in the IRS recovery ratio outcome in tried cases suggest that the OLS results understate the effect that the presence of an attorney has in reducing the IRS’ recovery rate in tried cases. That is, it appears that taxpayers involve counsel in cases that are less favorable to the taxpayer.

The selection of a valid instrumental variable for use in settled cases was hampered by the lack of detailed information on the taxpayer; the data set contains detailed information only about the case. We could not use the Tax Protestor variable as an instrument in the settled cases because we presumed that tax protestors would not settle, so we treated all settling cases as not involving a tax protestor. We tested as instruments a number of different variables such as region of trial, stakes, the number of tax years in issue, and the number of dockets consolidated in the case, without finding a suitable instrument. However, for illustrative purposes, Appendix B presents 2SLS results using as an instrument in settled cases the total number of Tax Court cases in which the taxpayer was a party for cases reflected in the Tax Court’s on-line docket inquiry system.

---

206 See James Heckman, Sample Selection Bias as a Specification Error, 47 ECONOMETRICA 153 (1979). A Heckman procedure is appropriate when the sample nonrandomly omits a particular type of data. In this data set, because cases are not randomly selected for trial or settlement, both data subsamples may manifest selection bias that could bias the OLS results.

207 See text accompanying notes 234-42, infra.

208 Therefore, a proper instrument may vary depending on the tax outcome being investigated. As an example, if there were a change in the tax law such that there were a tax deduction for attorney’s fees in some years relevant to the study but not in others, a dummy variable reflecting whether or not the deduction was available might be a good instrument because it should be related to the decision whether to hire an attorney but not to IRS recovery rate, at least in tried cases.

209 See text accompanying notes 248-49, infra for details on this variable.
III. RESULTS AND IMPLICATIONS OF THE EMPIRICAL STUDY

As discussed below, the regression results generally suggest that attorneys have a greater impact on tried Tax Court cases than on settled ones. However, the only statistically significant result was that the presence of an attorney for the taxpayer reduces the IRS’s recovery rate in tried cases. That reduction is fairly substantial (21.8 percentage points in the OLS regression).

A. TIME TO CASE RESOLUTION

As indicated above, there were two OLS models relating to time to case resolution, time to settlement and time to trial. Each of these models contained the same independent variables. Our focus with respect to each of these models was the estimated coefficient of the “Attorney” variable and its p-value.

1. TIME TO SETTLEMENT

Table 3 reports the results of the OLS regression that considered the relationship between the presence of an attorney for the taxpayer and time to settlement. In the first column of Table 3, the OLS coefficient for Attorney is negative, suggesting that the presence of taxpayer counsel decreased the amount of time it took a settled case to settle, controlling for the other variables in the equation. However, the p-value of the Attorney variable shows that the coefficient is not significant at the .05 confidence level.

210 See text accompanying note 191, supra.

211 “p-value” is the level of statistical significance for a given coefficient. For a typical null hypothesis that the coefficient is equal to zero, a p-value of .05 indicates that the 95% confidence interval (1 minus .05) for the coefficient does not include zero. The smaller the p-value, the less likely the null hypothesis is valid. .05 is a standard level of significance. See note 200 and accompanying text, supra.

With respect to variables in that regression that are statistically significant, we note that the presence of an additional judge is correlated with an increase of more than four and a half months in time to settlement. The number of net docket entries in the case is also positively related to the time to settlement. Each docket entry increases the time to settlement by almost a month. And finally, cases filed by estates and cases filed later in the sample period settle more quickly than cases filed earlier in the sample period.

The fact that cases filed by later in the sample period settled more quickly than cases filed earlier in the sample period may be a reflection of the fact that the Tax Court’s caseload declined substantially during that time, presumably reducing the workload of both Tax Court judges and IRS counsel. IRS data reflects the following Tax Court “inventory” for fiscal years 1990 through 1994 (in thousands of dockets): 54.1 in 1990, 50.7 in 1991, 46.7 in 1992, 42.1 in 1993, and 32.5 in 1994. Report Prepared for American Bar Association Tax Section Court Procedure Committee, supra note 4, at 3. IRS attorneys likely had larger caseloads in years in which the Tax Court had more cases pending than in years in which it had fewer cases.
The second column presents the Selection regression results. The Attorney coefficient is still negative and insignificant. Most of the other coefficients are essentially unchanged from the OLS results. In addition, the lambda coefficient is not significant, which suggests that non-random selection of settled cases does not result in any bias in the OLS results for time to settlement.

### Table 3. Regression Results for Time to Settlement

<table>
<thead>
<tr>
<th></th>
<th>(1) OLS</th>
<th>p-value</th>
<th>(2) Selection</th>
<th>Coeff</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.95</td>
<td>0.006</td>
<td>Constant</td>
<td>0.86</td>
<td>0.025</td>
</tr>
<tr>
<td>Attorney</td>
<td>-0.14</td>
<td>0.293</td>
<td>Attorney</td>
<td>-0.10</td>
<td>0.478</td>
</tr>
<tr>
<td>Individual</td>
<td>-0.34</td>
<td>0.088</td>
<td>Individual</td>
<td>-0.38</td>
<td>0.034</td>
</tr>
<tr>
<td>Estate</td>
<td>-0.55</td>
<td>0.012</td>
<td>Estate</td>
<td>-0.54</td>
<td>0.037</td>
</tr>
<tr>
<td>Additional Judges</td>
<td>0.36</td>
<td>0.217</td>
<td>Additional Judges (0/1)</td>
<td>0.45</td>
<td>0.038</td>
</tr>
<tr>
<td>Tax Years in Issue</td>
<td>-0.02</td>
<td>0.635</td>
<td>Tax Years in Issue</td>
<td>-0.03</td>
<td>0.548</td>
</tr>
<tr>
<td>Any Penalty</td>
<td>0.07</td>
<td>0.659</td>
<td>Any Penalty</td>
<td>0.16</td>
<td>0.425</td>
</tr>
<tr>
<td>Log(100+deficiency)</td>
<td>0.06</td>
<td>0.062</td>
<td>Log(100+deficiency)</td>
<td>0.06</td>
<td>0.067</td>
</tr>
<tr>
<td>#Net Docket Entries</td>
<td>0.07</td>
<td>0.000</td>
<td>#Net Docket Entries</td>
<td>0.05</td>
<td>0.016</td>
</tr>
<tr>
<td>Year=1990</td>
<td>-0.40</td>
<td>0.146</td>
<td>Year=1990</td>
<td>-0.40</td>
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</tr>
<tr>
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<td>-0.38</td>
<td>0.143</td>
<td>Year=1991</td>
<td>-0.35</td>
<td>0.093</td>
</tr>
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<td>-0.68</td>
<td>0.001</td>
<td>Year=1992</td>
<td>-0.59</td>
<td>0.004</td>
</tr>
<tr>
<td>Year=1993</td>
<td>-0.79</td>
<td>0.000</td>
<td>Year=1993</td>
<td>-0.71</td>
<td>0.000</td>
</tr>
<tr>
<td>Year=1994</td>
<td>-0.75</td>
<td>0.002</td>
<td>Year=1994</td>
<td>-0.66</td>
<td>0.011</td>
</tr>
<tr>
<td>Central Region</td>
<td>0.23</td>
<td>0.322</td>
<td>Central Region</td>
<td>0.14</td>
<td>0.545</td>
</tr>
<tr>
<td>Mid-Atlantic Region</td>
<td>-0.24</td>
<td>0.275</td>
<td>Mid-Atlantic Region</td>
<td>-0.33</td>
<td>0.304</td>
</tr>
<tr>
<td>Mid-West Region</td>
<td>-0.15</td>
<td>0.234</td>
<td>Mid-West Region</td>
<td>-0.19</td>
<td>0.355</td>
</tr>
<tr>
<td>North-Atlantic</td>
<td>0.26</td>
<td>0.216</td>
<td>North-Atlantic Region</td>
<td>0.25</td>
<td>0.153</td>
</tr>
<tr>
<td>South-East Region</td>
<td>0.16</td>
<td>0.294</td>
<td>South-East Region</td>
<td>0.16</td>
<td>0.380</td>
</tr>
<tr>
<td>South-West Region</td>
<td>0.13</td>
<td>0.424</td>
<td>South-West Region</td>
<td>0.15</td>
<td>0.319</td>
</tr>
<tr>
<td>State of Trial Different from State of Residence</td>
<td>-0.003</td>
<td>0.984</td>
<td>State of Trial Different from State of Residence</td>
<td>-0.006</td>
<td>0.996</td>
</tr>
<tr>
<td>Lambda</td>
<td></td>
<td></td>
<td>Lambda</td>
<td>0.31</td>
<td>0.396</td>
</tr>
</tbody>
</table>

Number of Observations = 217

## 2. Time to Trial

Table 4 reports the results of the OLS regression that considered the relationship between the presence of an attorney and time to trial. In the first column of Table 4, we find that the OLS

---

212 The variables included in the first-stage selection regression, but excluded from the second-stage regression in this table and subsequent tables are the following judge characteristics: Military service; judge type (Special Trial Judge or regular judge); decade of the judge’s appointment; and whether the judge had any background in the private sector.
That is, 17 percent of a year.

With respect to the other significant coefficients, cases filed against individuals had a longer time to trial than cases against corporations, and additional judges and the number of net dockets are positively related to time to trial. The number of tax years at issue is negatively related to time to trial. And cases filed in 1993 went to trial faster than cases filed pre-1990. This is probably a reflection of the fact that the Tax Court’s caseload declined substantially during that time, as noted above. See note 211, supra.

With respect to the other coefficients, the only change from the OLS results is the coefficient for cases filed in 1993 is no longer significant at the .05 confidence level.

Table 4. Regression Results for Time to Trial

<table>
<thead>
<tr>
<th></th>
<th>(1) OLS Coeff</th>
<th>p-value</th>
<th>(2) Selection Correction Coeff</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.61</td>
<td>0.568</td>
<td>Constant</td>
<td>0.60</td>
</tr>
<tr>
<td>Attorney</td>
<td>0.12</td>
<td>0.602</td>
<td>Attorney</td>
<td>0.12</td>
</tr>
<tr>
<td>Individual</td>
<td>0.64</td>
<td>0.057</td>
<td>Individual</td>
<td>0.64</td>
</tr>
<tr>
<td>Estate</td>
<td>0.40</td>
<td>0.328</td>
<td>Estate</td>
<td>0.40</td>
</tr>
<tr>
<td>Additional Judges (0/1)</td>
<td>0.53</td>
<td>0.151</td>
<td>Additional Judges (0/1)</td>
<td>0.53</td>
</tr>
<tr>
<td>Any Penalty</td>
<td>0.12</td>
<td>0.565</td>
<td>Any Penalty</td>
<td>0.12</td>
</tr>
<tr>
<td>Tax Years in Issue</td>
<td>-0.09</td>
<td>0.049</td>
<td>Tax Years in Issue</td>
<td>-0.09</td>
</tr>
<tr>
<td>Log(100+deficiency)</td>
<td>-0.004</td>
<td>0.660</td>
<td>Log(100+deficiency)</td>
<td>-0.04</td>
</tr>
<tr>
<td>#Net Docket Entries</td>
<td>0.04</td>
<td>0.001</td>
<td>#Net Docket Entries</td>
<td>0.04</td>
</tr>
<tr>
<td>Year=1990</td>
<td>-0.42</td>
<td>0.041</td>
<td>Year=1990</td>
<td>-0.42</td>
</tr>
<tr>
<td>Year=1991</td>
<td>-0.33</td>
<td>0.044</td>
<td>Year=1991</td>
<td>-0.33</td>
</tr>
<tr>
<td>Year=1992</td>
<td>-0.43</td>
<td>0.052</td>
<td>Year=1992</td>
<td>-0.43</td>
</tr>
<tr>
<td>Year=1993</td>
<td>-0.63</td>
<td>0.007</td>
<td>Year=1993</td>
<td>-0.63</td>
</tr>
<tr>
<td>Year=1994</td>
<td>-0.58</td>
<td>0.024</td>
<td>Year=1994</td>
<td>-0.58</td>
</tr>
<tr>
<td>Central Region</td>
<td>-0.06</td>
<td>0.820</td>
<td>Central Region</td>
<td>-0.06</td>
</tr>
<tr>
<td>Mid-Atlantic Region</td>
<td>-0.37</td>
<td>0.384</td>
<td>Mid-Atlantic Region</td>
<td>-0.37</td>
</tr>
<tr>
<td>Mid-West Region</td>
<td>-0.10</td>
<td>0.751</td>
<td>Mid-West Region</td>
<td>-0.10</td>
</tr>
<tr>
<td>North-Atlantic Region</td>
<td>0.01</td>
<td>0.967</td>
<td>North-Atlantic Region</td>
<td>0.01</td>
</tr>
<tr>
<td>South-East Region</td>
<td>0.06</td>
<td>0.896</td>
<td>South-East Region</td>
<td>0.06</td>
</tr>
<tr>
<td>South-West Region</td>
<td>0.13</td>
<td>0.681</td>
<td>South-West Region</td>
<td>0.13</td>
</tr>
<tr>
<td>State of Trial Different</td>
<td>0.42</td>
<td>0.058</td>
<td>State of Trial Different</td>
<td>0.42</td>
</tr>
<tr>
<td>from State of Residence</td>
<td></td>
<td></td>
<td>from State of Residence</td>
<td></td>
</tr>
<tr>
<td>Lambda</td>
<td></td>
<td></td>
<td>Lambda</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Number of Observations = 167

---

213 That is, 17 percent of a year.

214 With respect to the other significant coefficients, cases filed against individuals had a longer time to trial than cases against corporations, and additional judges and the number of net dockets are positively related to time to trial. The number of tax years at issue is negatively related to time to trial. And cases filed in 1993 went to trial faster than cases filed pre-1990. This is probably a reflection of the fact that the Tax Court’s caseload declined substantially during that time, as noted above. See note 211, supra.

215 With respect to the other coefficients, the only change from the OLS results is the coefficient for cases filed in 1993 is no longer significant at the .05 confidence level.
The lack of significance of the results with respect to timing of Tax Court case resolutions suggests that the data do not support either the agency cost or expert agent theories in the context of Tax Court litigation. That is, the data suggest that attorneys neither systematically delay cases nor systematically expedite them. It could be that some attorneys, such as repeat representatives in Tax Court tend to resolve cases more quickly than *pro se* litigants and other attorneys, such as those less familiar with Tax Court litigation, tend to resolve cases more slowly than *pro se* litigants.

However, an alternative, practical explanation for the lack of a statistically significant result in the settlement context is that the IRS may finalize settlements with *pro se* taxpayers as soon as possible but may trust attorneys to adhere to an oral settlement agreement and so may not complete the documentation until a convenient later date (such as at the calendar call for the trial session). This effect would mask quicker settlements by attorneys.

Of course, this phenomenon would not explain why there was no statistically significant difference with respect to the timing of trial. As discussed above, trial dates likely are largely under the control of the court. Yet, judges do at times grant continuances requested by litigants. It is possible that attorneys and *pro se* taxpayers are equally likely to obtain continuances, although they may request them for different reasons.

B. IRS Recovery Rate

As indicated above, there were two OLS models relating to the IRS’s recovery rate, one with respect to settled cases in the sample and one with respect to tried cases. Each of these models contained the same independent variables as the models discussed above. Once again, our focus was the estimated coefficient of the Attorney variable and its p-value.

1. SETTLED CASES

Table 5 reports the results with respect to the recovery ratio for cases that settle. In the first column of Table 5, we find that, in the OLS results, the Attorney coefficient is positive but small and not statistically significant. The second column of Table 5 presents the Selection regression results, which are essentially unchanged from the OLS results. In particular, the presence of an attorney is not significantly related to the recovery ratio. In addition, the lambda coefficient is again insignificant, suggesting that the OLS results are not biased. Thus, in all the models we investigate involving Tax

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216 See text accompanying note 191, *supra*.

217 The only coefficient significant at the .05 confidence level is for the number of tax years at issue. As the table shows, an additional tax year at issue increases the recovery ratio for the IRS by 15 percentage points.
Court cases that settled, the presence of an attorney does not appear to have a statistically significant relationship to either outcome, time to settlement or recovery ratio. The implications of this result are discussed further below.\footnote{218}

\begin{center}
\bf{Table 5. Regression Results for IRS Recovery Rate in Settled Cases}
\end{center}

\begin{tabular}{lcc}
\hline
& (1) OLS & (2) Selection Correction \\
\hline
\text{Constant} & 0.42 & 0.067 & 0.42 & 0.063  \\
\text{Attorney} & -0.02 & 0.734 & -0.02 & 0.766  \\
\text{Individual} & -0.11 & 0.257 & -0.11 & 0.202  \\
\text{Estate} & -0.07 & 0.640 & -0.07 & 0.618  \\
\text{Additional Judges (0/1)} & 0.09 & 0.470 & 0.09 & 0.385  \\
\text{Any Penalty} & -0.0002 & 0.998 & -0.0002 & 0.978  \\
\text{Tax Years in Issue} & 0.10 & 0.001 & 0.10 & 0.000  \\
\text{Log(100+deficiency)} & -0.01 & 0.536 & -0.01 & 0.530  \\
\text{#Net Docket Entries} & -0.001 & 0.824 & -0.001 & 0.872  \\
\text{Year=1990} & -0.15 & 0.296 & -0.15 & 0.147  \\
\text{Year=1991} & -0.05 & 0.639 & -0.05 & 0.653  \\
\text{Year=1992} & -0.12 & 0.211 & -0.12 & 0.238  \\
\text{Year=1993} & 0.04 & 0.664 & 0.04 & 0.684  \\
\text{Year=1994} & -0.06 & 0.580 & -0.06 & 0.672  \\
\text{Central Region} & 0.14 & 0.169 & 0.14 & 0.232  \\
\text{Mid-Atlantic Region} & 0.15 & 0.180 & 0.15 & 0.337  \\
\text{Mid-West Region} & -0.04 & 0.658 & -0.04 & 0.645  \\
\text{North-Atlantic Region} & 0.04 & 0.706 & -0.04 & 0.661  \\
\text{South-East Region} & 0.10 & 0.305 & 0.10 & 0.280  \\
\text{South-West Region} & 0.13 & 0.090 & 0.13 & 0.078  \\
\text{State of Trial Different} & -0.04 & 0.623 & -0.04 & 0.610  \\
\text{from State of Residence} & & & &  \\
\text{Lambda} & 0.01 & 0.942 &  \\
\hline
\end{tabular}

Number of Observations = 199

\section*{2. Tried Cases}

The final model relates to the relationship between the presence of an attorney and the recovery ratio for cases that go to trial. The results of that model are reported in Table 6. The first column of that table shows that an attorney reduces the recovery ratio for the IRS by 21 percentage points. The

\footnote{218 See text accompanying notes 219-25, infra.}
The only other significant coefficients are those for (1) the amount at stake, (2) whether or not a penalty was asserted, and (3) the dummy variable taking on the value of one for cases where the trial state is different from the state of the taxpayer’s residence at the time the petition was filed. For these latter cases, the recovery ratio was greater by 26 percentage points.

As the second column shows, the Selection results are similar to the OLS results. In particular, the presence of an attorney reduces the recovery ratio by 22 percentage points and the Attorney coefficient is significant at the .05 confidence level. The lambda coefficient is insignificant, suggesting that the non-random selection of trial cases does not bias the OLS results.

Table 6. Regression Results for IRS Recovery Rate in Tried Cases

<table>
<thead>
<tr>
<th></th>
<th>(1) OLS</th>
<th></th>
<th>(2) Selection Correction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff</td>
<td>p-value</td>
<td>Coeff</td>
<td>p-value</td>
</tr>
<tr>
<td>Constant</td>
<td>1.30</td>
<td>0.000</td>
<td>Constant</td>
<td>1.22</td>
</tr>
<tr>
<td>Attorney</td>
<td>-0.21</td>
<td>0.007</td>
<td>Attorney</td>
<td>-0.22</td>
</tr>
<tr>
<td>Individual</td>
<td>-0.09</td>
<td>0.529</td>
<td>Individual</td>
<td>-0.07</td>
</tr>
<tr>
<td>Estate</td>
<td>-0.22</td>
<td>0.407</td>
<td>Estate</td>
<td>-0.23</td>
</tr>
<tr>
<td>Additional Judges (0/1)</td>
<td>-0.11</td>
<td>0.347</td>
<td>Additional Judges (0/1)</td>
<td>-0.15</td>
</tr>
<tr>
<td>Any Penalty</td>
<td>0.24</td>
<td>0.009</td>
<td>Any Penalty</td>
<td>0.23</td>
</tr>
<tr>
<td>Tax Years in Issue</td>
<td>-0.02</td>
<td>0.119</td>
<td>Tax Years in Issue</td>
<td>-0.02</td>
</tr>
<tr>
<td>Log(100+deficiency)</td>
<td>-0.05</td>
<td>0.012</td>
<td>Log(100+deficiency)</td>
<td>-0.05</td>
</tr>
<tr>
<td>#Net Docket Entries</td>
<td>0.003</td>
<td>0.290</td>
<td>#Net Docket Entries</td>
<td>0.004</td>
</tr>
<tr>
<td>Year=1990</td>
<td>0.10</td>
<td>0.299</td>
<td>Year=1990</td>
<td>0.09</td>
</tr>
<tr>
<td>Year=1991</td>
<td>-0.04</td>
<td>0.679</td>
<td>Year=1991</td>
<td>-0.05</td>
</tr>
<tr>
<td>Year=1992</td>
<td>0.05</td>
<td>0.723</td>
<td>Year=1992</td>
<td>-0.001</td>
</tr>
<tr>
<td>Year=1993</td>
<td>0.07</td>
<td>0.563</td>
<td>Year=1993</td>
<td>0.03</td>
</tr>
<tr>
<td>Year=1994</td>
<td>-0.08</td>
<td>0.815</td>
<td>Year=1994</td>
<td>-0.13</td>
</tr>
<tr>
<td>Central Region</td>
<td>-0.07</td>
<td>0.560</td>
<td>Central Region</td>
<td>-0.05</td>
</tr>
<tr>
<td>Mid-Atlantic Region</td>
<td>-0.27</td>
<td>0.129</td>
<td>Mid-Atlantic Region</td>
<td>-0.26</td>
</tr>
<tr>
<td>Mid-West Region</td>
<td>-0.14</td>
<td>0.234</td>
<td>Mid-West Region</td>
<td>-0.14</td>
</tr>
<tr>
<td>North-Atlantic Region</td>
<td>-0.03</td>
<td>0.821</td>
<td>North-Atlantic Region</td>
<td>-0.04</td>
</tr>
<tr>
<td>South-East Region</td>
<td>-0.12</td>
<td>0.276</td>
<td>South-East Region</td>
<td>-0.12</td>
</tr>
<tr>
<td>South-West Region</td>
<td>-0.10</td>
<td>0.348</td>
<td>South-West Region</td>
<td>-0.10</td>
</tr>
<tr>
<td>State of Trial Different from State of Residence</td>
<td>0.24</td>
<td>0.004</td>
<td>State of Trial Different from State of Residence</td>
<td>0.24</td>
</tr>
<tr>
<td>Lambda</td>
<td></td>
<td></td>
<td>Lambda</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Number of Observations = 142

The results were very similar for the subsample that excluded those cases identified as having a tax protestor, as Table 7 shows:

219 The only other significant coefficients are those for (1) the amount at stake, (2) whether or not a penalty was asserted, and (3) the dummy variable taking on the value of one for cases where the trial state is different from the state of the taxpayer’s residence at the time the petition was filed. For these latter cases, the recovery ratio was greater by 26 percentage points.
Table 7. OLS Regression Results for IRS Recovery Rate in Tried Cases with Tax Protestors Excluded from the Sample

<table>
<thead>
<tr>
<th></th>
<th>Coef</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.27</td>
<td>0.000</td>
</tr>
<tr>
<td>Attorney</td>
<td>-0.17</td>
<td>0.037</td>
</tr>
<tr>
<td>Individual</td>
<td>-0.08</td>
<td>0.596</td>
</tr>
<tr>
<td>Estate</td>
<td>-0.21</td>
<td>0.435</td>
</tr>
<tr>
<td>Additional Judges (0/1)</td>
<td>-0.07</td>
<td>0.596</td>
</tr>
<tr>
<td>Any Penalty</td>
<td>0.24</td>
<td>0.013</td>
</tr>
<tr>
<td>Tax Years in Issue</td>
<td>-0.03</td>
<td>0.047</td>
</tr>
<tr>
<td>Log(100+deficiency)</td>
<td>-0.05</td>
<td>0.022</td>
</tr>
<tr>
<td>#Net Docket Entries</td>
<td>0.003</td>
<td>0.332</td>
</tr>
<tr>
<td>Year=1990</td>
<td>0.12</td>
<td>0.241</td>
</tr>
<tr>
<td>Year=1991</td>
<td>-0.05</td>
<td>0.648</td>
</tr>
<tr>
<td>Year=1992</td>
<td>0.04</td>
<td>0.779</td>
</tr>
<tr>
<td>Year=1993</td>
<td>0.08</td>
<td>0.497</td>
</tr>
<tr>
<td>Year=1994</td>
<td>-0.08</td>
<td>0.809</td>
</tr>
<tr>
<td>Central Region</td>
<td>-0.12</td>
<td>0.379</td>
</tr>
<tr>
<td>Mid-Atlantic Region</td>
<td>-0.30</td>
<td>0.122</td>
</tr>
<tr>
<td>Mid-West Region</td>
<td>-0.13</td>
<td>0.289</td>
</tr>
<tr>
<td>North-Atlantic Region</td>
<td>-0.02</td>
<td>0.898</td>
</tr>
<tr>
<td>South-East Region</td>
<td>-0.10</td>
<td>0.428</td>
</tr>
<tr>
<td>South-West Region</td>
<td>-0.09</td>
<td>0.399</td>
</tr>
<tr>
<td>State of Trial Different</td>
<td>0.25</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Number of Observations = 128

It is certainly consistent with intuition that a represented taxpayer would have a better outcome in tax litigation than an unrepresented taxpayer would. The fact that the presence of an attorney for the taxpayer was correlated with a better financial outcome for the taxpayer in tried cases, but not in settled cases suggests that taxpayers’ attorneys assist their clients with respect to Tax Court judges. That is, taxpayer representatives seem to obtain better outcomes than pro se taxpayers obtain in cases that go to trial. This may be because attorneys are more successful at convincing judges than pro se taxpayers are. Pro se taxpayers may fail to present evidence necessary to prove a required element in a complex section of the Internal Revenue Code, for example.

Theoretically, it could be the case, as discussed above, that pro se taxpayers bring weaker cases to trial than taxpayers’ attorneys do. If that were true, the results would overstate the impact of attorneys in tried cases. This type of selection bias could be a reflection of attorneys’ greater expertise in evaluating cases. Particularly in tax cases, where the law is complex, pro se taxpayers should be less
able to evaluate the merits of the case than attorneys are.\textsuperscript{220} As discussed above, \textit{pro se} taxpayers may also be more prone to litigate relatively weaker cases because of risk-seeking behavior suggested by prospect theory\textsuperscript{221} and/or cognitive biases such as optimism bias,\textsuperscript{222} and regret aversion.\textsuperscript{223}

However, this theory is undermined by analysis of the data. First, as indicated above,\textsuperscript{224} a prior study found that the presence of an attorney for the taxpayer did not have a statistically significant effect on which Tax Court cases went to trial.\textsuperscript{225} Second, the Attorney variable was not significant in the first stage of the Selection regressions. In addition, there is evidence that attorneys actually have a stronger effect on the IRS’ recovery rate than the OLS regressions show because taxpayers hire counsel disproportionately in more difficult cases (cases less favorable for the taxpayer).

That is, in order to try to disentangle the effect of the presence of an attorney from any distinction in the type of case in which the taxpayer is represented (the endogeneity issue), we used Tax Protestor as an instrumental variable. As discussed above, being a tax protestor was correlated with \textit{pro se} status but not with the outcome of the case. Using Tax Protestor as an instrument therefore allowed us to calculate a coefficient for the Attorney variable that adjusts for possible non-random hiring of attorneys. Table 8 compares the results of the Attorney variable in the OLS regression with the 2SLS regression.\textsuperscript{226}

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|}
\hline
\textbf{Variable} & \textbf{(1) OLS} & \textbf{(2) 2SLS}\tabularnewline
\hline
Attorney** & -0.21 & -0.53 \tabularnewline
& 0.007 & 0.024 \tabularnewline
\hline
\end{tabular}
\caption{OLS and 2SLS Results for Attorney Variable in IRS Recovery Ratio in Tried Cases}
\end{table}

\begin{flushleft}
\textsuperscript{220} IRS counsel report that they try to assist \textit{pro se} taxpayers, but litigants in an adversarial system naturally may not trust advice received from opposing counsel.
\end{flushleft}

\begin{flushleft}
\textsuperscript{221} See text accompanying notes 74-77, \textit{supra}.
\end{flushleft}

\begin{flushleft}
\textsuperscript{222} See notes 59, 65 and accompanying text, \textit{supra}.
\end{flushleft}

\begin{flushleft}
\textsuperscript{223} See Guthrie, \textit{supra} note 78; text accompanying notes 78-80, \textit{supra}.
\end{flushleft}

\begin{flushleft}
\textsuperscript{224} See text accompanying note 94, \textit{supra}.
\end{flushleft}

\begin{flushleft}
\textsuperscript{225} See Lederman, \textit{supra} note 1, at 338.
\end{flushleft}

\begin{flushleft}
\textsuperscript{226} The complete results for the 2SLS regression appear in Appendix B.
\end{flushleft}
What the results shown in Table 8 suggest is that the effect of the presence of counsel (the Attorney variable) is actually greater in magnitude than the OLS regressions indicate. The coefficient in the 2SLS regression reflects a decrease by 53 percentage points in the IRS’ recovery rate, as opposed to 21 percentage points, and remains statistically significant at the .05 level. These results suggest that, if anything, the effect of an attorney on the IRS’ recovery rate in tried cases is likely to greater than the IRS recovery shows, not weaker.

We also found that the attorney’s level of experience influenced the IRS’ recovery rate in tried cases. Table 9 shows the results when the continuous variable Years of Attorney Experience was substituted for the Attorney variable in the regression in which the dependent variable was the IRS’ recovery ratio in tried cases.

Table 9. Effect of Attorney Experience on IRS Recovery Rate in Tried Cases*

<table>
<thead>
<tr>
<th></th>
<th>(1) OLS--with Tax Protestors</th>
<th>Coeff</th>
<th>p-value</th>
<th>(2) OLS--without Tax Protestors</th>
<th>Coeff</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Attorney Experience**</td>
<td>-0.0095</td>
<td>0.015</td>
<td></td>
<td>Years of Attorney Experience**</td>
<td>-0.0090</td>
<td>0.028</td>
</tr>
<tr>
<td>Number of Observations = 120</td>
<td></td>
<td></td>
<td></td>
<td>Number of Observations = 110</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Other variables not presented to conserve space.  
**Observations with missing values for Years of Attorney Experience were deleted from the sample.

This table shows that each additional year of attorney experience decreases the IRS’s recovery rate by approximately 9/10 of a percentage point and this is statistically significant. As shown in Table 10, below, the 2SLS results for Attorney Experience also show an effect larger in magnitude than found in the OLS regression. In the 2SLS regression, each additional year of attorney experience decreases the IRS’ recovery ratio by approximately 3.5 percentage points, as opposed to 9/10 of a percentage point. However, this result is significant only at the .10, not the .05, level.

---

227 There are only 10 tax protestors, however, so the results should be viewed with caution.

228 There is a slightly smaller sample of cases using the Attorney Experience variable than the Attorney variable because there were a few attorneys whose experience we could not ascertain.
Table 10. Effect of Attorney Experience on IRS Recovery Rate in Tried Cases in Sample Including Tax Protestors*

<table>
<thead>
<tr>
<th></th>
<th>(1) OLS**</th>
<th></th>
<th>(2) 2SLS**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff</td>
<td>p-value</td>
<td>Coeff</td>
</tr>
<tr>
<td>Years of Attorney Experience***</td>
<td>-0.0095</td>
<td>0.015</td>
<td>-0.0353</td>
</tr>
</tbody>
</table>

Number of Observations = 120

* Instrumental Variable is Tax Protestor.
** Other variables not presented to conserve space.
*** Observations with missing values for Years of Attorney Experience were deleted from the sample.

Thus the recovery rate results suggest that the both the presence of counsel and the experience of counsel have significant effects on the IRS’ recovery rate. That effect may be larger in magnitude than initially evident from the results of the OLS regression because of a tendency of taxpayers to hire counsel in cases that are weaker cases overall.

The lack of any statistically significant effect of counsel on the IRS’ recovery rate in settled cases contrasts with the results in tried cases. Assuming that cases brought to trial by pro se and represented taxpayers are not systematically different, the absence of a statistically significant effect on recovery rate in settled cases suggests that the presence of counsel for the taxpayer does not add value in cases that settle. This result is counterintuitive in that it suggests that there is no value in paying for the expertise of counsel in Tax Court cases that settle.

There are several possible explanations for this phenomenon. First, it is possible that there is another form of selection bias in that cases brought to Tax Court by pro se taxpayers— at least those that are not dismissed— are stronger overall. That is, it is possible, for example, that some pro se cases are actually very strong but the taxpayer did not produce evidence to the IRS before petitioning the Tax Court; these cases might never have gotten to Tax Court if the taxpayer were represented. High settlements in these pro se cases could mask attorney success with weaker or less clear-cut cases.
It is also possible, as discussed above,\textsuperscript{229} that, because \textit{pro se} taxpayers are not paying hourly lawyers’ fees, they are willing to wait for an opportunity to obtain a more favorable settlement.\textsuperscript{230} Of course, if that were the case, the presence of an attorney might influence time to settlement, but the results reported above reflect the absence of any statistically significant effect in that regard. In the end, it may be that Tax Court judges are simply more influenced by lawyering than the IRS is. Perhaps the IRS’ efforts to assist \textit{pro se} taxpayers result in those taxpayers receiving as favorable a settlement as represented taxpayers do.

\section*{Conclusion}

Attorneys may influence lawsuits in a variety of ways. The most obvious way is that one would expect represented parties to have more favorable case outcomes than unrepresented parties, particularly where the other party is represented. Parties presumably pay for representation largely for that reason. Attorneys may be better negotiators than \textit{pro se} litigants and their expertise and experience should be helpful both in settlement negotiations and at trial.

Attorneys might also influence the timing of trials and settlements. The timing of trials probably is largely determined by courts, though parties may influence that timing through their pre-trial motions and other procedural choices. Settlement timing, in turn, is likely influenced by the trial date. However, settlement timing is likely also impacted by a number of aspects of party characteristics, behavior and strategy. Attorneys exert an influence on their clients and therefore on the litigation more generally. Some of those impacts are favorable to clients, such as if attorneys help reduce cognitive biases on the part of clients that would result in a decision (such as rejection of a settlement offer) that is not in the client’s best interests. Other impacts may reflect agency costs, such as if attorneys delay settlement negotiations by doing unnecessary work in order to increase hourly billing.

The results of the empirical analysis of a sample of Tax Court cases, both settled and tried, suggests that taxpayers’ attorneys, on average, do not have a significant effect on the timing of case resolutions. They also do not appear to affect the IRS’s recovery in cases that settle. However, they do have a significant impact on the IRS’ recovery rate in cases that go to trial. Thus, the study suggests that taxpayers’ attorneys have their greatest impact in the context where the party to be persuaded is a judge.

\footnote{229} See text accompanying notes 143-45, \textit{supra}.

\footnote{230} See Korobkin, \textit{supra} note 66, at 10. In the basic model of suit and settlement, the more patient party should capture more of the surplus generated by settlement. \textit{See id.} at 10-11. Of course, the IRS, as an administrative agency, does not bear its own costs. In addition, the IRS’s costs may be relatively fixed regardless of whether a particular case takes more or less time to resolve. \textit{See} Lederman, \textit{supra} note 1, at 48 & n.148.
APPENDIX A: STATISTICAL METHODOLOGY

As discussed above,\footnote{See note 192 and accompanying text, supra.} to examine the relationship between the presence of counsel and the two outcomes we were investigating, we assumed a linear relationship between each outcome and the independent variables. We first estimated an Ordinary Least Squares (OLS) model.\footnote{OLS minimizes the sum of squared residuals; that is, the square of the difference between the observed and predicted values of the dependent variable. See Greene, supra note 192, at 32-34.} The relationship being estimated is the following:

\[ \text{Tax Court Outcome} = A \times \text{Attorney} + B \times \text{Independent Variables} + \text{Error Term} \]

Tax Court Outcome is the dependent variable and is either Time to Case Resolution (in years) or IRS Recovery Rate (as a percentage of Stakes). The Attorney variable is a dummy variable that simply reflects the presence or absence of counsel for the taxpayer in the Tax Court case. \( A \), the coefficient on the dummy variable for the hiring of an attorney, is the focus of this study. There are multiple explanatory variables included in the equation, as explained above. \( B \) represents the coefficients of all of these variables. Assuming that none of the explanatory variables are correlated with the error term,\footnote{That is, the expectation of the error term, conditional on the other independent variables and the Attorney variable, is zero: \[ E[\text{Error Term} | \text{Independent Variables, Attorney}] = 0. \] See text accompanying notes 201, supra.} \( B \) will produce unbiased estimates.

As indicated above,\footnote{See text accompanying notes 202-204, supra.} two issues needed to be addressed in terms of possible bias in the OLS regression. First, the non-random selection of Tax Court cases for settlement or trial,\footnote{In other words, assume that, for cases that settle, there is some unobserved selection criterion. Assume further that the selection criterion is a linear function of some variables and an unobserved error term. \( Z^* = W \times O + u \) where \( Z^* \) is the unobserved selection criterion, \( W \) is a matrix of explanatory variables (the OLS variables plus the variables describing the presiding judge), \( O \) is the matrix of corresponding coefficients, and \( u \) is the error term.) If we assume that we know only the direction of the effect but not its magnitude (the sign of \( Z^* \) but not its absolute value), so that cases that settle are those where the selection criterion is positive and those that go to trial are cases in which the selection criterion is zero or negative, then there is selection bias if the unobserved error term in the OLS regressions is correlated with the error term in the selection equation, \( u \).} will cause biased OLS coefficients if selection is correlated with both the dependent variable and any independent variable in the regression.\footnote{See Professor Lederman’s previous study found that certain characteristics of}
the presiding judge are determinants in whether a case settles or goes to trial; \textsuperscript{237} we assume that these characteristics also influence Tax Court outcomes. \textsuperscript{238}

As indicated above, we used a Heckman\textsuperscript{239} two-step estimation procedure to address this issue.\textsuperscript{240} The first step of the Heckman method estimates a probit (binary choice) model, using the full sample of cases that settle and cases that go to trial. The dependent variable takes on the value of 1 if the case settles, and zero if the case goes to trial. The explanatory variables in this step include the explanatory variables used in the OLS regression along with the variables describing the presiding judge. That is, \text{Prob(Case Settles)=}\Phi(W), where \Phi represents the standard normal distribution. In this scenario, the OLS regression in the text,

\begin{align*}
\text{Tax Court Outcome} &= A \cdot \text{Attorney} + B \cdot \text{Independent Variables} + \text{Error Term} \\
\text{Time to Settlement} &= A \cdot \text{Attorney} + B \cdot \text{Independent Variables} + \text{Error Term [observed only if case settles]}
\end{align*}

is actually:

\begin{align*}
\text{Time to Settlement (Given Settlement)} &= A \cdot \text{Attorney} + B \cdot \text{Independent Variables} + C \cdot \text{Lambda} + \text{Error Term} \\
\text{where C=O} & \cdot \text{Q}, and Lambda is a non-linear function of the Probability of Settlement. This new OLS regression with Lambda included as an explanatory variable controls for any selection bias. If selection bias is not present, the coefficient C will not be statistically significant.
\end{align*}

\textsuperscript{241} In this study, we used the three judge variables that were found to be statistically significant in the prior study, see note 203, supra, except that for the judge’s background, a dummy variable reflecting the presence or absence of legal experience was used. In addition, we added a variable for whether or not the judge had military experience. Furthermore, the prior study used data on the judge who entered the decision. This study used data on the judge involved in the case for the longest period of time, if more than one judge was involved in the case. That information was obtained from the Tax Court’s on-line docket inquiry.
So, in the example of settled cases, the first-step probit results are used to derive estimates of the predicted probability of selection into the subsample (cases that settle). A non-linear function of this estimated probability (the inverse Mill’s ratio, lambda) is included in the second-step OLS regression that uses only the sample of cases that settle. The second step simply includes the predicted lambda as an explanatory variable in the OLS specification, in order to correct for selection bias. If the coefficient on the predicted lambda is not significantly different from zero, this generally suggests that selection bias is not present.\(^{242}\)

As indicated above, the second source of bias results from the fact that taxpayers were not randomly assigned to the \textit{pro se} or represented status. Unobserved factors may influence both the decision to hire an attorney and the outcome of the case (time involved or recovery rate, depending on the model), presenting an endogeneity issue.

To control for this bias, we needed, for each of the four models, an instrument that was correlated with the decision to hire an attorney but not with the outcome being tested. That instrument would be used in the first stage of a Two-Stage Least Squares (2SLS) model in which, in the first stage, we regress the Attorney dummy variable on the other independent variables and the instrumental variable. Then, the predicted value for Attorney status from this first stage will be substituted for actual Attorney status in the second stage.\(^{243}\)

The selection of a valid instrument was hampered by the lack of detailed information about the characteristics of the taxpayer, as opposed to the case more generally. We tested as instruments a number of different variables such as region of trial, stakes, the number of tax years in issue, and the number of dockets consolidated in the case. However, these variables often were not related to the hiring of an attorney, were directly related to Tax Court outcomes, or both. The 2SLS results were often dramatically different from the OLS and Selection results, and often nonsensical. However, for illustrative purposes, Appendix B presents 2SLS regressions in which we used as an instrument the total number of Tax Court cases filed between May 1, 1986 and October 3, 2003 in which the taxpayer was a party.

\(^{242}\) As reported below in Tables 2-5, Lambda was not statistically significant in any of the regressions.

\(^{243}\) In contrast to the selection regressions, both stages of 2SLS involve only the subsample of cases that either settle or go to trial, depending on the Tax Court outcome being investigated. However, in calculating the standard errors of the 2SLS coefficients, the actual Attorney values are used instead of the predicted values.
APPENDIX B: TWO-STAGE LEAST SQUARES RESULTS

As discussed above, because taxpayers choose whether or not to hire an attorney, the presence of an attorney for the taxpayer is non-random and therefore is a source of potential bias in the results. To control for this bias, we needed an instrument directly related to the endogenous variable (presence of an attorney for the taxpayer) and only indirectly related to the Tax Court outcome of interest. For tried cases, we used the Tax Protestor variable, as discussed above. The 2SLS results using the Tax Protestor variable as an instrument in time to trial and IRS recovery ratio in tried cases are reported in Table 11.

Table 11. 2SLS Results for Tried Cases*

<table>
<thead>
<tr>
<th>Time to Trial</th>
<th>Coeff</th>
<th>p-value</th>
<th>IRS Recovery Ratio in Tried Cases</th>
<th>Coeff</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.48</td>
<td>0.654</td>
<td>Constant</td>
<td>1.37</td>
<td>0.000</td>
</tr>
<tr>
<td>Attorney</td>
<td>0.78</td>
<td>0.129</td>
<td>Attorney</td>
<td>-0.53</td>
<td>0.024</td>
</tr>
<tr>
<td>Individual</td>
<td>0.70</td>
<td>0.046</td>
<td>Individual</td>
<td>-0.13</td>
<td>0.431</td>
</tr>
<tr>
<td>Estate</td>
<td>0.41</td>
<td>0.323</td>
<td>Estate</td>
<td>-0.20</td>
<td>0.452</td>
</tr>
<tr>
<td>Additional Judges (0/1)</td>
<td>0.55</td>
<td>0.159</td>
<td>Additional Judges (0/1)</td>
<td>-0.12</td>
<td>0.305</td>
</tr>
<tr>
<td>Any Penalty</td>
<td>0.12</td>
<td>0.577</td>
<td>Any Penalty</td>
<td>0.25</td>
<td>0.012</td>
</tr>
<tr>
<td>Tax Years in Issue</td>
<td>-0.07</td>
<td>0.123</td>
<td>Tax Years in Issue</td>
<td>-0.03</td>
<td>0.098</td>
</tr>
<tr>
<td>Log(100+deficiency)</td>
<td>-0.08</td>
<td>0.430</td>
<td>Log(100+deficiency)</td>
<td>-0.04</td>
<td>0.100</td>
</tr>
<tr>
<td>#Net Docket Entries</td>
<td>0.04</td>
<td>0.002</td>
<td>#Net Docket Entries</td>
<td>0.004</td>
<td>0.194</td>
</tr>
<tr>
<td>Year=1990</td>
<td>-0.48</td>
<td>0.037</td>
<td>Year=1990</td>
<td>0.13</td>
<td>0.219</td>
</tr>
<tr>
<td>Year=1991</td>
<td>-0.36</td>
<td>0.045</td>
<td>Year=1991</td>
<td>-0.02</td>
<td>0.848</td>
</tr>
<tr>
<td>Year=1992</td>
<td>-0.45</td>
<td>0.066</td>
<td>Year=1992</td>
<td>0.03</td>
<td>0.799</td>
</tr>
<tr>
<td>Year=1993</td>
<td>-0.54</td>
<td>0.025</td>
<td>Year=1993</td>
<td>0.05</td>
<td>0.718</td>
</tr>
<tr>
<td>Year=1994</td>
<td>-0.34</td>
<td>0.261</td>
<td>Year=1994</td>
<td>-0.25</td>
<td>0.463</td>
</tr>
<tr>
<td>Central Region</td>
<td>-0.18</td>
<td>0.486</td>
<td>Central Region</td>
<td>-0.003</td>
<td>0.985</td>
</tr>
<tr>
<td>Mid-Atlantic Region</td>
<td>-0.33</td>
<td>0.465</td>
<td>Mid-Atlantic Region</td>
<td>-0.32</td>
<td>0.093</td>
</tr>
<tr>
<td>Mid-West Region</td>
<td>-0.12</td>
<td>0.746</td>
<td>Mid-West Region</td>
<td>-0.14</td>
<td>0.269</td>
</tr>
<tr>
<td>North-Atlantic Region</td>
<td>-0.01</td>
<td>0.967</td>
<td>North-Atlantic Region</td>
<td>-0.02</td>
<td>0.881</td>
</tr>
<tr>
<td>South-East Region</td>
<td>0.05</td>
<td>0.919</td>
<td>South-East Region</td>
<td>-0.10</td>
<td>0.410</td>
</tr>
<tr>
<td>South-West Region</td>
<td>0.13</td>
<td>0.688</td>
<td>South-West Region</td>
<td>-0.09</td>
<td>0.417</td>
</tr>
<tr>
<td>Trial State different from State of Residence</td>
<td>0.44</td>
<td>0.085</td>
<td>Trial State different from State of Residence</td>
<td>0.24</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Number of observations = 155

Number of observations = 138

* Instrumental Variable is Tax Protestor.

244 See text accompanying note 201, supra.

245 See text accompanying notes 208-209, supra.
In the Time to Trial regression shown in Table 11, the Attorney coefficient is larger than it was in the OLS regression (.78 years compared to .12 years \textsuperscript{246}) but it is still statistically insignificant. The results are generally very similar to the OLS results shown in Table 4.\textsuperscript{247} The results for the IRS Recovery Ratio in Tried Cases shows a stronger effect of the Attorney variable than the OLS regression in Table 6 does (a reduction in the IRS recovery of 53 percentage points as opposed to 21) and the coefficient remains statistically significant. None of the coefficients of the other variables are significant at the .05 level except for Trial State Different from State of Residence, which has the same coefficient as in the OLS regression and a similar p-value.

For settled cases, we tested a number of variables as instruments. However, each of these were not related to the hiring of an attorney, were directly related to Tax Court outcomes, or both. The 2SLS results were often dramatically different from the OLS and Selection results, and often nonsensical. One of the variables we tried as an instrument in 2SLS model was the number of Tax Court cases filed between May 1, 1986 and October 3, 2003 in which the taxpayer was a party (Cases for Taxpayer).\textsuperscript{248}

The reasoning behind this choice of instrument was that a taxpayer involved in multiple cases, whether simultaneously or over a period of time, should be more likely to hire counsel, but the involvement in multiple cases may not directly affect case outcomes (time to case resolution or IRS recovery rate). However, in unreported OLS regressions, we found that the number of cases for which a given taxpayer was involved is not directly related to the hiring of an attorney. In other words, the coefficient for this variable was insignificant in an OLS regression where the dependent variable was the presence of an attorney. Therefore, Number of Cases for Taxpayer does not fit the criteria for a valid instrument.\textsuperscript{249} Nonetheless, for illustrative purposes, we report in Table 12 below 2SLS results using this instrument, for each of the two Tax Court outcomes in settled cases.

\textsuperscript{246} See Table 4, supra.

\textsuperscript{247} See text accompanying note 215, supra.

\textsuperscript{248} Those dates were used because the coverage of Tax Court’s on-line docket inquiry system begins with May 1, 1986 and collection of this variable was completed on October 3, 2003.

\textsuperscript{249} As mentioned in the text, the data simply do not provide a valid instrument for us to properly control for any potential bias resulting from the non-random hiring of an attorney.
Table 12. 2SLS Results for Settled Cases*

<table>
<thead>
<tr>
<th>Time to Settlement</th>
<th>Coeff</th>
<th>p-value</th>
<th>IRS Recovery Ratio in Settled Cases</th>
<th>Coeff</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>29.63</td>
<td>0.969</td>
<td>Constant</td>
<td>-0.63</td>
<td>0.732</td>
</tr>
<tr>
<td>Attorney</td>
<td>-57.95</td>
<td>0.970</td>
<td>Attorney</td>
<td>2.21</td>
<td>0.558</td>
</tr>
<tr>
<td>Individual</td>
<td>-12.16</td>
<td>0.969</td>
<td>Individual</td>
<td>0.26</td>
<td>0.698</td>
</tr>
<tr>
<td>Estate</td>
<td>0.06</td>
<td>0.997</td>
<td>Estate</td>
<td>-0.26</td>
<td>0.563</td>
</tr>
<tr>
<td>Additional Judges (0/1)</td>
<td>6.93</td>
<td>0.968</td>
<td>Additional Judges (0/1)</td>
<td>-0.26</td>
<td>0.684</td>
</tr>
<tr>
<td>Any Penalty</td>
<td>-5.35</td>
<td>0.970</td>
<td>Any Penalty</td>
<td>0.24</td>
<td>0.567</td>
</tr>
<tr>
<td>Tax Years in Issue</td>
<td>3.59</td>
<td>0.970</td>
<td>Tax Years in Issue</td>
<td>-0.03</td>
<td>0.896</td>
</tr>
<tr>
<td>Log(100+deficiency)</td>
<td>2.82</td>
<td>0.969</td>
<td>Log(100+deficiency)</td>
<td>-0.12</td>
<td>0.526</td>
</tr>
<tr>
<td>#Net Docket Entries</td>
<td>-0.39</td>
<td>0.974</td>
<td>#Net Docket Entries</td>
<td>0.02</td>
<td>0.578</td>
</tr>
<tr>
<td>Year=1990</td>
<td>1.64</td>
<td>0.976</td>
<td>Year=1990</td>
<td>-0.34</td>
<td>0.454</td>
</tr>
<tr>
<td>Year=1991</td>
<td>-7.62</td>
<td>0.968</td>
<td>Year=1991</td>
<td>0.29</td>
<td>0.643</td>
</tr>
<tr>
<td>Year=1992</td>
<td>-19.57</td>
<td>0.969</td>
<td>Year=1992</td>
<td>0.65</td>
<td>0.625</td>
</tr>
<tr>
<td>Year=1993</td>
<td>-17.09</td>
<td>0.968</td>
<td>Year=1993</td>
<td>0.62</td>
<td>0.581</td>
</tr>
<tr>
<td>Year=1994</td>
<td>-25.16</td>
<td>0.969</td>
<td>Year=1994</td>
<td>0.38</td>
<td>0.651</td>
</tr>
<tr>
<td>Central Region</td>
<td>10.86</td>
<td>0.969</td>
<td>Central Region</td>
<td>-0.24</td>
<td>0.731</td>
</tr>
<tr>
<td>Mid-Atlantic Region</td>
<td>-8.19</td>
<td>0.969</td>
<td>Mid-Atlantic Region</td>
<td>0.56</td>
<td>0.480</td>
</tr>
<tr>
<td>Mid-West Region</td>
<td>0.63</td>
<td>0.976</td>
<td>Mid-West Region</td>
<td>-0.11</td>
<td>0.688</td>
</tr>
<tr>
<td>North-Atlantic Region</td>
<td>10.40</td>
<td>0.969</td>
<td>North-Atlantic Region</td>
<td>-0.44</td>
<td>0.540</td>
</tr>
<tr>
<td>South-East Region</td>
<td>6.05</td>
<td>0.969</td>
<td>South-East Region</td>
<td>-0.06</td>
<td>0.874</td>
</tr>
<tr>
<td>South-West Region</td>
<td>2.94</td>
<td>0.968</td>
<td>South-West Region</td>
<td>-0.02</td>
<td>0.961</td>
</tr>
<tr>
<td>Trial State Different from State of Residence</td>
<td>3.95</td>
<td>0.970</td>
<td>Trial State Different from State of Residence</td>
<td>-0.10</td>
<td>0.635</td>
</tr>
</tbody>
</table>

Number of observations = 217
Number of observations = 198

* Instrumental Variable is Total Number of Cases for Taxpayer

Table 12 shows that the presence of an attorney for the taxpayer in settled cases decreased the time to trial by approximately 58 years and increased the IRS’ recovery rate by 221 percentage points, both nonsensical results. In neither case were the results statistically significant.