

# How Well do Measures of Ability Predict Judicial Performance?: A Case Study Using Securities Class Actions

Stephen J. Choi, Mitu Gulati & Eric A. Posner\*

August 16, 2011

## *Abstract*

Diverse measures are used as proxies for judicial ability, ranging from the college and law school a judge attended to the rate at which her decisions are cited by other judges. Yet there has been little serious examination of which of these ability measures is better or worse at predicting the quality of judicial performance—including the management and disposition of cases. In this article, we attempt to evaluate these measures of ability by examining a rich group of performance indicators. Our innovation is to derive performance measures from judicial decisions other than case outcomes (which are inherently difficult to evaluate): the decisions to preside over a securities class action, to reject a motion for lead plaintiff, to dismiss the complaint with prejudice, and to reject a request for fees. In each case, an affirmative decision requires more work from the judge, and thus may be an indicator that the judge works hard and, all else equal, performs well. Using a database of securities class action cases, we find that judges who publish frequently and are highly cited are more likely to dismiss with prejudice but no more likely to make the hard choice in the other cases. Other proxies for judicial ability (attended top law school, judicial experience, earlier position as judge, prior private practice, heavy business caseload, and senior status) are more mixed.

---

\* Faculty at NYU, Duke and Chicago, respectively. For comments and suggestions on prior drafts, thanks to three anonymous referees, Lawrence Baum, Denise Cote, David Hoffman, Justin Hopkins, Jack Knight, David Levi, Mark Ramseyer and Un Kyung Park, and audience members at a presentation at the 2011 American Law and Economics Association annual meeting. David Woolston provided helpful research assistance.

## **1. Introduction**

A large literature has established that judges are sometimes influenced by their ideological preferences, but leaves unanswered many questions about judicial decisionmaking. One unanswered question concerns the relationship between the ability of judges and their output. Everyone would agree that judges with greater ability should produce better output—more decisions, higher-quality decisions, better opinions that describe their reasoning. But what are the best indicators of judicial ability? This question has received little attention. Yet it is important. When district judges are nominated to the appellate bench, for example, their performance as trial judges provides a basis for evaluating them. Nevertheless, there is rarely a serious inquiry into what objectively measurable aspects of the relative performances of the lower court judges or their prior backgrounds should be considered in determining the best candidates for promotion.

By contrast, the primary ratings of nominees that are employed in the context of the judicial appointments, the subjective ratings produced by the American Bar Association, have been found to have but a limited relationship to future judicial performance, measured in terms of reversals and citations (Barondes 2009; Landes et al. 1998, at 325). These ratings have also been criticized by conservatives who believe that they are politically biased (Vining et al. 2009, discuss the debate and the empirical evidence). Similarly, take some of the most familiar indicators of quality that the press discusses any time there is a judicial candidate who has been nominated for a higher office; law school attended, prior judicial experience, prior practice experience. It is plausible that each of these may be an indicator of future judicial performance, but there

is also reason to be skeptical of the degree to which these measures will translate into future judicial performance. Law school, for example, for most judicial candidates (who are usually in their late 40s or early 50s) reflects experiences from at least two decades in their past.

Broadly speaking, our hypothesis is that more able judges produce superior judicial output. This hypothesis might seem too obvious to be worth proving, but in fact raises important and interesting issues. The first is the methodological challenge of finding measures for judicial ability—which judges are “better” than other judges? We catalog three categories of judicial ability: past judicial performance; native or experiential ability; and depreciating ability.

*Past Performance*: Recent academic work on judicial behavior, including ours, has extensively used measures of past performance of judges as a measure of judicial ability (e.g., Choi & Gulati 2004; Cross & Lindquist 2009). The most commonly used measures of past judicial performance are positive citations to a judge’s opinions (which purports to measure opinion quality), the judge’s rate of affirmances by a higher court (which might measure either quality or an ability to anticipate the preferences of the higher court), and productivity or propensity to exert effort (as measured by the number of published opinions per district court filing).

*Native Talent and Experience*: A casual examination of press accounts of the qualifications of lower court judges seeking elevation reveals that other measures – ones that might be characterized as indicators of native talent and experience – are discussed far more often. These are measures such as general judicial experience (number of years on the job as a federal district judge and whether the district judge served as a judge in

another court prior to elevation to the federal bench) and specialized judicial experience (whether one has worked on business matters in private practice prior to becoming a judge and prior judicial experience in the business law area, for example). Similarly, those who attended the best law schools are generally assumed to have the most native talent.

*Depreciating Ability:* Judicial ability may increase with age (because of experience) or decline with age (because of cognitive impairment). Given that judges will vary widely in terms of the impact of age on them, as a function of their individual characteristics, one way to study the impact of aging is to examine the performance of judges who choose to take senior status. The choice to take senior status, we assume, is also an indication that the judge herself has determined that she is no longer able to take on a full load of work.

Our three categories of judicial ability give us a total of nine measures of judicial ability—past performance (citations, affirmances, and publications), prior experience (prior experience as a judge before joining the federal bench, experience as a federal district judge, prior private practice experience, the business caseload of the judge), native talent (whether the judge attended a top law school), and depreciating ability (senior status). In discussions of judges and their qualifications, these various measures are often discussed. But no one knows whether these measures predict judicial performance. In this article, we attempt to get some traction on that question.

Our basic hypothesis that high-ability judges produce superior judicial output is central to the design of the judicial system. In theory, only the law and the facts of a specific case should determine judicial outcomes. If judicial characteristics matter, one

can ask how the judicial system should be structured to minimize the negative impact of such characteristics. Our findings provide insight into the relative value of having generalist judges deciding complex, subject-matter specific legal issues, particularly relating to securities class actions. If, for example, judges with specific business-law related ability produce better judicial output, then our findings support the argument that the federal judiciary may benefit from having more specialist judges.

Our dataset consists of decisions of trial judges on motions in securities class actions for cases initially filed between 2003 to mid-2007. The dataset of cases includes not just case outcomes, the typical measure used to evaluate judicial performance, but also judges' decisions on various motions, including motions to dismiss, to approve settlements, and to approve attorneys' fees.

We focus on securities class actions for a number of reasons. They are typically characterized by two-sided agency problems (Choi 2003). That is, the real parties whose interests are at stake, the shareholders, frequently have little control over the litigation. Instead, the agents on one side, the corporate executives whose actions are being challenged, have an incentive to bury any problems and settle using the company's funds. The agents on the other side, the plaintiffs' lawyers, have an incentive to focus on obtaining the highest fees with as little effort as possible. The end result is that many of these cases result in high payouts for the plaintiff's lawyers, low penalties for the misbehaving executives, and high costs to the shareholders (Romano 1991; Bai, Cox & Thomas 2010; Choi 2003, surveys the literature).

For our purposes, what is important here is that there is a central role for the judge in protecting the interests of the class of investors (Miller 2003). The judge, who has to

approve of any settlement that the executives and the plaintiffs' lawyers make, has the power to reject the settlement and demand that greater attention be paid to the interests of investors. However, the incentives of the judge are not necessarily to act in such a fashion. Demanding that the parties redo the settlement will require effort from the judge, since she will have to give reasons and later assess the revised settlements. There is also the theoretical risk of a time-consuming trial (although the risk is small, the costs of a trial in terms of a busy judge's time and effort would be high). Given that typically both plaintiffs and defendants will support the settlement, the judge who wishes to minimize work has an incentive to approve quickly whatever settlement is suggested (as well as any attorney fees for the plaintiffs' attorneys). This setting is useful for our inquiry because it allows us to look at the behavior of judges in approving these settlements as well as other pre-trial motions and draw conclusions as to whether they exerted effort to protect the interests of the absent parties or deferred to the interests of the lawyers controlling the litigation.

We also examine securities class actions because the law on such actions, largely a function of the 1995 Private Securities Litigation Reform Act ("PSLRA") was still relatively new and evolving during the period that we examine (cases decided from 2003 to mid-2007).<sup>1</sup> That means that lawyers would not have as yet been able to collect enough information about how individual judges would behave so as to be able to fully adjust their litigation strategies to the likely behavior of the judges in these cases.

---

<sup>1</sup> The Supreme Court, for example, has issued a number of opinions interpreting important aspects of the PSRLA over the 2000s, including *Stoneridge Inv. Partners, LLC v. Scientific-Atlanta*, 552 U.S. 148 (2008); *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308 (2007); and *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336 (2005).

Overall, we have four measures of performance in securities cases, where we can say that if a judge takes action X, it constitutes better performance than taking alternative action Y. These measures of performance are: accepting or rejecting a securities case; approving or rejecting the lead plaintiff's selection of lead counsel; granting a motion to dismiss with prejudice; and acceptance or rejection of attorneys' fees requests. We explain these measures in the next section. Our goal is to examine how our nine measures of ability map onto the five measures of performance.

We survey related literature in Section 2 and set forth our hypotheses relating effort and expertise to judicial quality in securities class actions in Section 3. Section 4 describes our dataset and variables. Section 5 reports our empirical tests. Section 6 concludes.

## **2. Literature**

The literature on the relationship between judicial ability and judicial output is sparse. Landes, Lessig and Solimine (1998) find that federal appeals court judges from elite schools and those with high honors produce more cited opinions (a proxy for quality). Christensen and Szmer (2009) find that more experienced federal appellate judges are slower at deciding cases (they attribute it to “burn-out”), and that graduates of elite law schools decide cases more quickly.<sup>2</sup> Bhattacharya & Smyth (2001), using data on invocations (a type of citation where the judge is invoked by name), find that younger and more conservative judges tend to be more influential. R. Posner (1985), using citation and citation depreciation measures, suggests a life cycle model. His theory and

---

<sup>2</sup> In a related paper, Christensen, Szmer and Wemlinger (2009) find that that diversity of race and gender on appellate panels correlates with delay.

data suggest that judges tend to improve as they age up to a certain point and then, presumably as age catches up, decline in performance. Taha (2004) finds that judges with higher ABA ratings and more experience publish more opinions. Choi, Gulati and E. Posner (2010), find that federal district judges who attended one of the top three law schools publish more opinions. In a study of the Japanese judiciary, Ramseyer (2010) finds that judges who attended elite law schools and performed well on an exam decided medical malpractice cases more quickly and in greater quantity. Together, these findings suggest judges with greater talent and experience—albeit up to the point when old age sets in—score better on measures of judicial performance. We also see that having attended an elite educational institution is frequently used as a predictor of future performance.

There is some related work on specialization. Multiple commentators have argued that higher levels of specialization might be beneficial for judging in the more technical areas such as intellectual property, tax, bankruptcy and antitrust (Dreyfuss 1989; Dreyfuss 1995; Stempel 1995; Baum 2009, surveys the literature). Using data on reversal rates in tax cases, Worthy (1971), suggests that specialists (tax judges versus regular district judges) do better. Nash and Pardo (2008) compare the rates of reversals and citation rates in bankruptcy cases for district judges and bankruptcy appellate panels. Again, the specialists do better. Scholars examining patent cases find that the Federal Circuit reverses district court decisions at a relatively high rate, as compared to the other appeals courts, suggesting that the generalist trial judges do not do well in tackling cases



in this area (Moore 2001; Chu 2001; Wagner 2004).<sup>3</sup> The one study examining the relative performances of generalist judges as a function of expertise is Baye and Wright (2009). Baye and Wright look at reversal rates in federal antitrust cases as a function of whether the judges attended an economics training course for judges. Judges with the training have higher affirmance rates in antitrust cases.<sup>4</sup> A related debate concerns the dominance of Delaware in the field of corporate law. Some scholars argue that the dominance of Delaware in corporate law is a function of the high quality of judges on that court, particularly in terms of the strong business law backgrounds that they bring to the courts and the fact that they regularly see and decide important business law cases (Romano 1985). Securities law, and particularly, securities class action law, is a technical area of judging. We would expect based on the foregoing therefore, that prior experience in dealing with complex business disputes or transactions, would translate into better securities judging.

Using data from a series of experiments on judges, Guthrie, Rachlinski and Wistrich (2006; 2009) ask whether specialist judges (bankruptcy and administrative law judges) are more likely to use deliberative processing of information or intuitive processing. The latter type of processing, while having some advantages, can result in faulty reasoning overall. Overall, the authors did not find strong differences in the information processing methods used (intuitive processing dominated).

---

<sup>3</sup> Yu (2007) uses reversal rates to compare the performance of specialist and generalist trial courts on economic matters in the period prior to the establishment of the Federal Circuit. He finds that the specialist courts are reversed less.

<sup>4</sup> Moore (2001), however, finds no difference in reversal rates between Federal Circuit judges with technical backgrounds and those without.

To summarize, there is some evidence that innate ability and expertise influence the quality of the judicial product. But the overall picture from the bits and pieces in the various studies is murky.

### **3. Hypotheses**

We hypothesize that higher-ability judges will produce better judicial output. The challenge lies in measuring ability, on the one hand, and output, on the other hand.

#### **3.1 Measures of Judicial Ability**

We look at nine measures of judicial ability. Our first three measures look to past performance as a judge. These measures are Publications Per Filing (number of published opinions in 2001 and 2002 divided by number of filings in the district court in which the judge sits), Positive Citations (the average number of positive citations per opinion, from courts outside the circuit, for the judge for opinions published in 2001 and 2002), and the Affirmance Rate (the number of affirmances of published opinions, including non-overruled, non-appealed decisions, divided by the number of published opinions). We assume that judges who publish more, produce opinions that receive more positive citations, and have a higher affirmance rate are judges with higher ability.<sup>5</sup> The data we use to assess prior performance come from cases decided in 2001-2002, prior to the securities class action motions data that are used for the dependent variable (2003-2007). They also reflect *all* cases decided, not just securities class actions.

We also look at what we call native talent and experience ability measures. We tabulate general judicial experience, including the number of years on the bench (Judicial

---

<sup>5</sup> The citations for these opinions were measured up to January 1, 2007.

Experience) and whether the judge was a judge prior to joining the federal bench (Prior Judge). General judicial experience may translate into better judicial decisionmaking in securities motion decisions in a way not captured solely through an assessment of past productivity and opinion quality. We tabulate business-law related experience, including whether the judge was in private practice immediately before becoming a district judge (Prior Private Practice) and the fraction of business-law related cases the judge decided from 2001 to 2002 (Business Caseload). The specialized ability of a judge to handle complex business-law related issues may be important for how well the judge performs in motion decisions during a securities class action. Private practice typically involves corporate law or litigation, often securities litigation; for that reason, we predict that judges with such experience will have higher ability for securities cases. Similarly, judges who already have a lot of business cases will have higher ability for securities cases. We also look at whether the judge graduated from Harvard, Yale, or Stanford Law School, one of the top three law schools (Top Law School), as our measure of native talent.<sup>6</sup>

We lastly look at whether judicial ability depreciates with age. For our proxy for how age may affect a specific judge, we focus on whether the judge chooses senior status (Senior). A senior judge may prefer to work less, reflecting less ability or energy.

Our past performance, native talent and experience, and depreciating ability categories give us in total nine measures of judicial ability: (1) Publications Per Filing;

---

<sup>6</sup> We initially limit ourselves to using only the top three law schools because the rankings at the very top have tended to be very stable over the years. Since almost all of the judges in our study graduated well before there were any U.S. News rankings, we had to use a more recent ranking. Based on the stability of the rankings at the top end, we assume that this stability extended further back in time, over the different years when the judges in our study graduated.

(2) Positive Citations; (3) Affirmance Rate; (4) Top Law School; (5) Judicial Experience, (6) Prior Judge; (7) Prior Private Practice; (8) Business Caseload; and (9) Senior.

### **3.2. Measures of Judicial Output**

We use five measures of judge performance that exploit our dataset of securities class action motions.

*Taking on a Securities Case.* Securities class actions are frequently difficult, involving multiple sophisticated parties, numerous lawyers, and difficult issues of causation, materiality and scienter. Not only is the regulatory apparatus complicated, but so are the underlying theories of market behavior. To add to the judge's woes, there is considerable confusion about the precise standards coming out of the most recent statute dealing with these cases, the PSLRA. We predict that judges with high general ability or high specialized ability will be able to handle these cases more easily, and thus will be more likely to take on these cases in the first place.

A caveat here is that judges do not formally have the power to choose whether to hear certain cases. In theory, cases get assigned to judges in a random fashion. The only exception is for senior judges who, as one of the benefits of seniority, get greater control over their dockets. In addition, when judges take senior status, they are able to discard portions of their docket; the discarded cases are then assigned to the other active judges.<sup>7</sup> This measure, therefore, has the most salience for our subset of senior judges.

However, it is possible that the measure might also be relevant for active judges because judges have several informal instruments for controlling their docket. First,

---

<sup>7</sup> E.g., Rule 17 of the Local Rules (noting that “[w]hen an active judge becomes a senior judge, or later as the judge chooses, the judge may keep as much of his or her existing docket as said judge desires and furnish the assignment committee with a list of all cases which the judge desires to have transferred.”).

judges have some discretion over whether to recuse themselves from cases for reasons of perceived conflicts of interest. These recusals could be on the grounds of either ownership of stock, past work for one of the parties or ties to someone who has an interest in the company at issue.<sup>8</sup> Second, most securities class actions are the product of multiple cases with an overlap in parties, claims, and factual background. The process of consolidating cases and choosing which judge to hear the consolidated case may allow for some discretion over assignment. Third, some courts, by local rule or custom, permit the chief judge to assign cases non-randomly.<sup>9</sup> If a big securities class action case comes in, the chief judge may assign the case to a judge with special expertise in these cases.<sup>10</sup> Fourth, some courts may have procedures for funneling “related” cases to the same judge, in the interest of efficiency. These procedures might allow the judges room to assign

---

<sup>8</sup> The rules on recusal are fairly vague (a “substantial interest” test), giving judges discretion in their decisions regarding whether to recuse themselves (28 U.S.C. Sections 144 and 455 are the relevant statutes; Ingram 2009, discusses the current debate). The question for our purposes though is what recusal signals about the judge in question. We have seen from recent nominations to the Supreme Court that the recusal decisions of nominees are scrutinized carefully by opponents of the nominee (at least three recent nominees, Alito, Breyer and Thomas, have been accused of acting improperly with respect to failures to recuse themselves). Promotion-seeking and risk-averse judges might, therefore, be more likely to recuse themselves. In addition, judges might also use recusal to avoid tough cases or ones where they might be criticized. Concern about such behavior, we suspect, resulted in a line of cases on the “duty to sit”. Laird v. Tatum, 409 U.S. 824, 837 (1972). However, on the other side of the equation, there is the obligation to avoid the appearance of impropriety.

<sup>9</sup> The website answering basic questions regarding the federal courts, explains:

At times judges having special expertise can be assigned cases by type, such as complex criminal cases, asbestos-related cases, or prisoner cases. The benefit of this system is that it takes advantage of the expertise developed by judges in certain areas. Sometimes cases may be assigned based on geographical considerations. For example, in a large geographical area it may be best to assign a case to a judge located at the site where the case was filed.

See Answer to Question: How are judges assigned to cases (available at <http://www.uscourts.gov/faq.html>).

The chief judge, we assume, will likely send cases toward those judges with an expertise in the area. In theory, it is possible that the chief judge might also use her administrative power strategically, to shape the direction of legal developments (a famous example is Justice Burger’s assignment of the opinion in *Roe v. Wade* to Justice Blackmun). Wahlbeck (2006). We suspect, however, that such dynamics do not exist on the district courts since the power to the chief judge to assign cases is minimal there.

<sup>10</sup> For a broader discussion of these informal mechanisms of specialization on the federal trial courts, see Baum (2010, chapter 1). Specialization by subject area also appears to occur on the federal appeals courts. Cheng (2009).

certain types of cases to the specialists among them.<sup>11</sup> Fifth, judges may have some leeway in deciding which cases to remove from their dockets and transfer to judges newly appointed to the court.<sup>12</sup> The new judge will typically be assigned a set of cases from the assignment sheets for the other judges. Even assuming that the assignment procedure is random (e.g., every fourth case gets assigned to the freshman judge), the other judges may, depending on local practice, have room to say that they would like to hold on to particular cases.<sup>13</sup> In sum, although judges are not supposed to have discretion over which cases they hear, some discretion might exist nevertheless.<sup>14</sup>

*Rejection of the Lead Plaintiffs' Selection of Lead Counsel.* In a securities class action, a court-appointed lead plaintiff acts on behalf of the rest of the investor class members. The PSLRA creates a presumption that the plaintiff with the greatest financial stake in the litigation (typically the party with the greatest damages), among other criteria, will be appointed lead plaintiff.<sup>15</sup> Congress intended the PSLRA's lead plaintiff provision to put in place a motivated lead plaintiff to protect the interests of investor class members against possible agency problems with the plaintiffs' attorneys.

At the stage in a securities class action when the lead plaintiff is selected, judges make two decisions. First, the judge decides on the motion for lead plaintiff. Second, the judge decides on the lead plaintiffs' motion for lead counsel (often co-lead counsel). We

---

<sup>11</sup> For example, see the rules of the Southern and Eastern Districts of New York, districts that see a high volume of securities cases. Rules 1.5 & 1.6, Local Rules of the Southern and Eastern District of New York (1997; With Amendments through 2009) (hereinafter "Local Rules").

<sup>12</sup> E.g., Rule 12 of the Local Rules (explaining the system of assigning cases to new judges by lot, but also noting that "[n]o case shall be transferred without the consent of the transferor judge").

<sup>13</sup> This possibility was suggested to us by a former federal district judge.

<sup>14</sup> For a period of time prior to that covered by our dataset, chief judges on the district court had the authority to reassign complex cases to particular judges (this was the 1971 Bar Harbor Resolution). This resolution, however, was rescinded in 1999 on the grounds that it allowed undue specialization and was inconsistent with "judicial autonomy". Cheng (2007) (citing Committee on Court Administration and Case Management, Judicial Conference of the United States, Report of the Proceedings of the Judicial Conference of the United States, March 16, 1999, available <http://jnet.ao.dcn/library/99-mar.html>).

<sup>15</sup> See Section 21D, Securities Exchange Act of 1934.

do not focus on the first decision on the lead plaintiff itself because, in many cases, the judge does not have a decision to make. Where there is only one movant for lead plaintiff, the judge will select the sole movant. Even if multiple motions are made for lead plaintiff, as Choi (2011) reports, movants will often voluntarily withdraw their motions leaving just one movant (or combine together to form one grouped motion for lead plaintiff). We focus instead on the second judicial decision to approve the lead plaintiffs' selection of lead counsel—a decision a judge will have to make in all cases after the selection of the lead plaintiffs.

In practice, plaintiffs' attorneys come tied to a specific lead plaintiff movant at the lead plaintiff selection stage. Once the court appoints a specific movant for the lead, in theory the movant is allowed to select any plaintiffs' attorney of their choice. However, courts often appoint the plaintiffs' attorney who initially filed the motion for lead plaintiff as the lead counsel (Choi 2011). If multiple movants are appointed together as a group of lead plaintiffs, courts will often appoint the individual attorneys for each movant as co-lead counsel without regard to the need for multiple attorney firms on the same case (Choi 2011). In effect, judges often appear to rubber stamp the selection of lead counsel by the lead plaintiff despite the specter of attorney agency cost problems. The reason for this may be that it is easier for the judge to do what the lawyers in front of the judge ask for (typically with no party opposing the lead plaintiff's selection of lead counsel); going out of the way to act as an advocate for the absent investor is likely to annoy the lawyers and delay the resolution of the litigation.<sup>16</sup>

Accordingly, we predict that higher-ability judges will be more likely to reject the

---

<sup>16</sup> The fact that some district judges got reversed on their refusal to approve the lead plaintiffs' selection of lead counsel may have added to the district judges' general reluctance to second-guess the proposed lead counsel motion. See, e.g., *In re Mexico State Inv. Council*, 250 Fed. Appx. 225 (2007).

lead plaintiff's selection of attorney.

*Dismissal with Prejudice.* Defendants move for dismissal of the case. Denials of such motions cannot be appealed because they are not final orders, but grants of the motion can be appealed. In addition, because the grant of the motion ends the case at an early stage and under a rigorous set of conditions (the judge is ruling that, assuming all the properly alleged facts to be true, the plaintiffs still lose), judges are generally expected to explain their reasons.

The opinion for judges who grant a motion to dismiss takes on special significance in a securities class action. Because the determination of the motion to dismiss in a securities class action is arguably the most important decision in the litigation (securities class actions almost never go to trial), the lawyers and higher courts pay special attention to how the law is developing in this area. Plaintiffs' lawyers, who are often repeat players, have an incentive to appeal if they think the law is moving in a direction adverse to them. Unsurprisingly then much of the securities law involving Rule 10b-5 has been generated through motion to dismiss decisions as well as appellate and Supreme Court opinions reviewing the motion to dismiss decision.<sup>17</sup> Finally, when cases are not dismissed, the parties are likely to settle (as opposed to going to trial), which is

---

<sup>17</sup> To assess the importance of the motion to dismiss and the opinion written by the district judge supporting the motion to dismiss decision, we canvassed the U.S. Supreme Court cases that dealt with Rule 10b-5 of the Securities Exchange Act of 1934, the most common cause of action in securities class actions. We determined what underlying district court decision led (ultimately after the Circuit Court opinion) the Supreme Court to grant certiorari and write an opinion that generated new law on Rule 10b-5 by the Supreme Court. Of the eight opinions we found that were written after 2000, seven of them involved a district court that granted a motion to dismiss. The other decision involved a denial by the district court of class certification. The eight Supreme Court decisions dealing with Rule 10b-5 from 2005 to 2011 (with the district court's decision) were: *Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 547 U.S. 71 (2006) (dismissal); *Dura Pharmaceuticals, Inc. v. Broudo*, 554 U.S. 336 (2005) (dismissal); *Tellabs v. Makor Issues & Rights, Ltd.*, 551 U.S. 308 (2007) (dismissal); *Stoneridge Investment Partners, LLC v. Scientific Atlanta, Inc.*, 552 U.S. 148 (2008) (dismissal); *Morrison v. National Australia Bank Ltd.*, 130 S.Ct. 286 (2010) (dismissal); *Merck & Co., Inc. v. Reynolds*, 130 S.Ct. 1784 (2010) (dismissal); *Matrixx Initiatives, Inc., v. Siracusano*, 131 S.Ct. 1309 (2011); *Erica P. John Fund, Inc. v. Halliburton Co.*, \_\_\_ U.S. \_\_\_ (2011) (class certification); *Janus Capital Group v. First Derivative Traders*, \_\_\_ U.S. \_\_\_ (2011) (dismissal).



less work for the judge. For these reasons, granting a motion to dismiss entails more work and greater risk for the trial judge. We therefore predict that higher-ability judges, with a particular interest in affecting Rule 10b-5 doctrine, will grant more motions to dismiss, all other things being equal (including in particular the strength of the case).

*Rejection of Attorneys' Fees.* The greatest point of conflict between plaintiffs' attorneys and the plaintiff class is the attorney fee award. With passive members of a plaintiff class, plaintiffs' attorneys may use their control to request a greater attorney fee. The greater the award, the lower is the recovery available from the settlement fund. Meanwhile, the managers representing the corporate defendant have an incentive to collude with plaintiff's lawyers in order to make the case go away. We therefore conjecture that higher-ability judges will be more likely to reject the lead counsel's attorney fee motion.

Of all our measures, this one is the most vulnerable to endogeneity problems, in that lawyers will likely have a sense, ahead of time, of the degree to which a particular judge is more or less likely to accept unreasonable fee requests.

### **3.3 Summary**

We predict that high-ability judges are likely to produce higher-quality output. We test among several different possible measures of general ability, including past performance measures primarily used in the academic literature to assess judges (productivity and citations) as well as native talent and general judicial experience that are more commonly discussed in press accounts. It is useful to divide these measures into *law application* and *case management*. Judges who are skilled at law application,

and more broadly the development of the law, write lots of published opinions, are frequently cited, and possibly frequently affirmed (though not if their ambitions outstrip their abilities). Judge who are skilled at case management have more practical experience as lawyer and judge. One might predict that judges skilled at law application will be more likely to grant motions to dismiss (because of their intellectual self-confidence and interest in securities law), and judges skilled at case management more likely to deny motions for lead plaintiff and for attorneys' fees (because of their experience in the day-to-day management of a trial). We also test the importance of specialized ability, as measured by private practice experience and number of business cases tackled in the past. High-quality output means willingness to take the more difficult path in securities class actions—accepting a case, rejecting the lead plaintiff, dismissing the case, and rejecting proposed attorneys' fees. We also test the importance of the possibility of depreciating ability through our examination of the relationship between output and senior status.

## **4. Sample and Descriptive Statistics**

### **4.1. Sample**

To test our hypotheses, we use two samples: a securities class action case dataset and a judge dataset. Our securities data consists of class actions involving a Rule 10b-5 cause of action filed from 2003 to mid-2007 used in Choi (2011) and Choi and Pritchard (2012), which were obtained from the Stanford Securities Clearinghouse.<sup>18</sup> We exclude

---

<sup>18</sup> Choi and Pritchard (2012) add to the dataset in Choi (2011) and cover class actions filed from January 1, 2003 to June 21, 2007 for use in their test of the Supreme Court *Tellabs* decision that was announced on June 21, 2007.

cases in which financial firms (SIC 6000 to 6999) are the primary defendant because of the different regulatory regime that applies to them.

[Insert Table 1 About Here].

Table 1 shows that the lawsuit filings were distributed relatively equally across our sample period except for 2006 where there is a decline in class action filings. Relatively few of our class actions were filed in 2007 due to the ending point of the dataset on June 21, 2007. Looking at the frequency of lawsuit by circuit, we find that most class action filings are in the Second and Ninth Circuits with 18.7% and 26.1% of the lawsuits. Almost half (49.9%) of the class actions resulted in settlement. A large percentage (37.5%) resulted in dismissal with prejudice.

Our judge dataset consists of all federal district court judges active in either 2001 or 2002. We selected the judge dataset time period to allow us to collect information on the judge's judicial output prior to class action filings in our securities class action dataset. As reported in Table 1, we had a total of 615 judges.<sup>19</sup> Of these 615 judges active in 2001 and 2002, only 201 (or 32.7%) were involved in a securities class action in our dataset.

## **4.2. Variables**

We use two sets of independent variables in our regression tests. The first set of independent variables are past performance (Publications Per Filing, Positive Citations and Affirmance Rate), native talent (Top School), general judicial experience (Judicial Experience and Prior Judge), specialized business experience (Prior Private Practice and

---

<sup>19</sup> Some judges were excluded because they were active for only portions of the period. Also excluded were a handful of judges where there appeared to be errors in the data (for example, where Westlaw had conflated the cases for two judges with the same last name).

Business Caseload), and depreciating ability (Senior) measures of ability for district court judges.<sup>20</sup>

Some of our judicial ability measures do not vary during our study time period, such as Top School, Prior Judge, and Prior Private Practice. For measures of prior judicial output and experience, including Publications Per Filing, Positive Citations, and Business Caseload, we assess the measures for each district court judge for the 2001 to 2002 time period prior to our dataset of securities class action pre-trial motion outcomes that ranges from 2003 to mid-2007. For variables that can change over our study period from 2003 to mid-2007, including Senior and Judicial Experience, we define the variable based on our specific test. For our tests of whether a judge presides at least once over a securities class action decision and the total number of securities-related reversals in our class action sample period, we define Senior2005 as equal to 1 if the judge is a senior judge in 2005 or earlier and 0 otherwise. We choose 2005 as the mid-point in our class action dataset that ranges from 2003 to mid-2007. We similarly define Judge Experience2002 as the difference between 2002 and the year the judge was appointed to the district court. For our tests of individual class action decisions, we define Senior as equal to 1 if the judge is a senior judge in the year of the specific motion decision in question (e.g., a decision to appoint lead counsel) and 0 otherwise. We also define Judge Experience as the difference between the year of the specific decision in question and the year the judge was appointed to the district court.

---

<sup>20</sup> Three of our measures of primary judicial ability, Publications Per Filing, Affirmance Rate and Positive Citations, are subject to an endogeneity problem. A judge who incurs effort in order to publish opinions, write highly cited opinions, or write the kinds of opinions that won't be reversed, may have less time to tackle difficult motions in securities litigation. However, we assume that these variables are independent for two reasons. The three independent variables come from an earlier time period (2001-2002), and refer to the mass of cases that judges hear, not just the securities cases. Thus, they are more plausibly a measure of overall judicial ability.

Beyond our measures of judicial ability, we include two other judicial characteristic variables as controls rather than measures of judicial ability. We define an indicator variable for whether the judge was appointed by a Democratic President (Democrat). We do not assume that Democrats are more or less competent than other judges, but one might predict that Democrats would be more favorable to plaintiffs' lawyers, who are traditional supporters of the Democratic party, and to lead plaintiffs, who are likely to be ordinary people cast as victims of corporate greed. We also define an indicator variable for whether the judge was a chief judge at any point during the 2003 to 2007 time period (Chief Judge2003-2007). For our tests of individual class action decisions, instead of Chief Judge2002-2007 we use Chief Judge, defined as 1 if the judge is the Chief Judge in the year of the specific motion decision in question and 0 otherwise. The additional administrative burdens of a chief judge may reduce their likelihood of presiding over a securities class action and decrease the willingness of the chief judge to exert effort. Table 2 displays summary statistics.

[Insert Table 2 About Here].

The second set of independent variables focus on a number of securities class action level characteristics (collectively referred to as "Case Controls"). From the complaints, we collect information about the causes of action alleged and use indicator variables for the cause of action.<sup>21</sup> In addition to Rule 10b-5, Section 11 claims were alleged in 11.5 percent of the cases (Section 11). Section 11 is available only for material misstatements and certain omissions in the registration statement used in a public offering, but it allows for a substantially greater chance of surviving the motion to

---

<sup>21</sup> For each class action, we collected data from the last filed consolidated class complaint. When a consolidated complaint was not available, we collected data from the last filed complaint on file with the Stanford Securities Class Clearinghouse.

dismiss because Section 11 does not require plaintiffs to plead fraudulent intent.

Moreover, loss causation and due diligence are affirmative defenses.

We collect information on key aspects of the litigation from the last amended complaint available for each class action.<sup>22</sup> The presence of the information in the complaint indicates that the plaintiffs found the information useful in meeting the pleading standards. We include in our Case Controls indicator variables for SEC and other government investigations (Govt. Investigation) and accounting restatements (Restatement) as described in the complaints, each a high profile adverse event and the most common events triggering these suits. The presence of a government investigation or a restatement indicates a higher likelihood of wrongdoing and thus a stronger case for the plaintiffs. The overall strength of the case will also be bolstered if the firm has terminated a top officer including the Chief Executive Officer, Chief Operating Officer, and Chief Financial Officer (Officer Term.) or its auditor (Auditor Term.) due to events relating to the fraud in question as described in the complaints. We also include whether the complaint alleges insider trading (Insider Trading Claim), another indicator of whether the corporate managers were misbehaving.

Next, we use variables in our Case Controls relating to the firm-specific characteristics of the defendant issuer. We use a measure of firm size, measured as market value of equity at the end of the fiscal year preceding the beginning of the class period (Market Capitalization). Larger firms may have greater resources to defend against a class action. On the other hand, larger firms may also be better able to pay a settlement, leading to more vigorous prosecution of the case by plaintiffs' attorneys. We

---

<sup>22</sup> As described in Choi (2011), the complaints and other securities docket related documents were collected from the PACER online website.

also include one industry control that may relate to case strength. Firms in the high technology sector (High Tech) may have stock prices that are particularly vulnerable to declines in sales or earnings.

Summary statistics on the dependent variables used in our empirical tests are also reported in Table 2. Table 3 reports the correlation among our nine judicial quality measures. As reported in Table 3, the nine judicial quality measures are not highly correlated. Senior judges are positively correlated with Judge Experience (correlation coefficient = 0.353). Publications Per Filing are positively correlated with Top School (correlation coefficient = 0.146).

[Insert Table 3 About Here].

## **5. Empirical Tests**

### **5.1. Judge Assignment to Securities Class Actions**

To assess whether judges use the limited discretion available to them to specialize in (or avoid) securities class actions, we focus on whether a district judge in our judge dataset acted as a judge in at least one securities class action during our case dataset time period (from 2003 to mid-2007). We use an indicator variable, Securities Judge, defined as equal to 1 if the judge made a lead plaintiff decision in a securities class action during our case dataset time period and 0 otherwise. We selected the lead plaintiff decision because this decision is typically among the first decisions a judge will make in a securities class action. If a judge decides to recuse herself, this decision will typically occur prior to the lead plaintiff motion decision. Similarly, consolidation of multiple cases occurs before the lead plaintiff decision; any judge who seeks to avoid continuing with a case by not remaining the judge over a consolidated action will do so prior to the

lead plaintiff decision. As noted earlier, our caveat with this measure is that judges are not supposed to have discretion over whether they take on cases in particular subject areas. The exception is the case of senior judges, who do have substantially more discretion over their docket.

To control for various factors that may affect the assignment of a district court judge to a securities class action, we estimate a multivariate logit model with Securities Judge as the dependent variable estimated on judge-level data. For independent variables, we include our measures for past judicial performance (Publications Per Filings, Positive Citations, and Affirmance Rate).

Whether a judge is assigned to preside over a securities class action will turn on the prevalence of securities class actions in the particular district court in which the judge sits. To control for this possibility, we include indicator variables for those district courts with 20 or more class actions in our dataset.<sup>23</sup> Lastly, not all our judges active in 2001 and 2002 remained active throughout the 2003 to mid-2007 time period of our class action dataset. Some judges resigned, were elevated to a higher court, or died. Judges who were active for only part of the class action time period will be less likely to have presided over a securities class action. We include a series of indicator variables (Active Service Indicators) for those judges active—including senior judges presiding over cases—for only four of the five years, three of the five years, and so on with judges active throughout 2003 to 2007 as the base category.

---

<sup>23</sup> These include the Southern District of New York, the Central District of California, the District of Massachusetts, the District of New Jersey, the Middle District of Florida, the Northern District of California, the Northern District of Texas, the Southern District of California, and the Southern District of Florida.



$$\begin{aligned} \text{Securities Judge}_i &= \alpha + \beta_1 \text{Publications Per Filing}_i \\ &+ \beta_2 \text{Positive Citations}_i + \beta_3 \text{Affirmance Rate}_i \\ &+ \text{District Court Indicators} \\ &+ \text{Active Service Indicators} + \varepsilon_i \end{aligned}$$

We present the results in Table 4 as Model 1. We do not find evidence that any of our measures of past judicial performance, Positive Citations, Affirmance Rate, or Publications Per Filing, is associated with a higher propensity to preside over a securities class action.

We next move to the native talent and experience-based measures of ability. We re-estimate Model 1 with the addition of our native talent measure (Top School), our general judicial experience measures (Prior Judge and Judge Experience2002), and our depreciating judicial ability measure (Senior2005). We also include our other judge characteristic control variables (Chief Judge2002-2007 and Democrat). Model 2 of Table 4 reports the results. Consistent with the expectation that senior judges have the greatest control over their dockets, we find evidence that senior or close-to-senior-status judges are less willing to preside over securities class actions. The coefficient on Senior 2005 is negative and significant at the 5% level.

Prior judicial experience also shows up as a significant explanatory variable. The coefficient on Prior Judge is positive and significant at the 1% level and the coefficient on Judge Experience2002 is positive and significant at the 10% level. Those judges with prior judicial experience are more likely to preside over a securities class action. However, this finding has to be taken with a grain of salt, given that judges may not have much control over their dockets.

[Table 4 About Here]

We next focus on whether judges with prior business law experience are more likely to preside over securities class actions—in other words whether district court judges informally specialize in taking class action cases. We re-estimate Model 2 with the addition of our specific business experience measures (Prior Private Practice and Business Caseload). Due to the high negative correlation between Prior Judge and Prior Private Practice, leading to the possibility of multicollinearity, we exclude our general judicial experience variables (Prior Judge and Judge Experience2002). We report the results as Model 3 in Table 4. Neither Business Caseload nor Prior Private Practice is significantly different from zero. We find no evidence that judges with business law experience have a greater likelihood of presiding over a securities class action. As in Model 2, the coefficient on Senior2005 is negative but now significant at the 10% level. Judges who are senior or about to become senior judges are less likely to preside over class actions.<sup>24</sup>

In sum, we find relatively little evidence of the importance of any of the ability measures in determining whether a judge presides over securities class actions. Our measures of judicial ability based on past judicial performance are not related to the decision of a judge to preside over a securities class action. Judges with greater prior business caseload are no more likely to preside over a securities class action than other

---

<sup>24</sup> As a robustness test, we combine Prior Judge, Judge Experience2002, Business Caseload, and Prior Private Practice together with our other independent variables in the same model. Unreported, we obtain similar qualitative results as in the models of Table 4 with one difference.

To gauge the intensity of judge participation with securities class actions, we replace the binary Securities Judge dependent variable in the models of Table 4 with the number of class action suits from 2003 to mid-2007 over which a particular judge presided (measured as of the time of the lead plaintiff decision). Unreported, we find similar qualitative results with the following differences. The coefficient on Chief Judge2002-2007 is negative and now significant at the 5% level in Model 2. This supports the view that Chief Judges, perhaps because of their increased administrative burden, are less likely to preside over securities class actions. The coefficient on Senior2005 in Model 3, while still negative, is now significant at only the 11.1% level.

judges, although judges with greater general judicial experience are more likely to preside over such actions.<sup>25</sup> As noted, it is likely that what we are observing is that active judges have relatively little discretion in deciding whether to take on a securities case. By contrast, senior judges, who clearly to have more discretion to select cases, are less likely to take on securities class actions, and, even when they do begin them, are more likely to drop them.

## **5.2. Approval of Lead Plaintiff Attorney Selection**

We predict that higher-ability judges will be more likely to reject the lead plaintiff's selection of lead counsel than are lower-ability judges. To test this hypothesis, we construct an indicator variable, Lead Plaintiff Attorney Rejected, defined as equal to 1 if the judge rejected the lead plaintiffs' choice of lead counsel without modification and 0

---

<sup>25</sup> Our tests above compare judges who presided over securities class actions with judges who did not preside over such class actions. As another test of what factors determine whether federal district court judges choose to preside over securities class actions, we examine whether the first judge listed on the docket for a federal securities class action is the same judge who eventually makes the lead plaintiff motion decision. We predict that lower-ability judges are more likely to drop out of securities class actions. We construct an indicator variable, Judge Continues, equal to 1 if the first judge listed in the docket of the reference complaint listed in Stanford's Securities Class Action Clearinghouse database (the consolidated complaint in the case of multiple filings) is the same judge that makes the lead plaintiff motion decision and 0 if the two are the different. We estimate three multivariate logit models using Judge Continues as the dependent variable on case level data using case level versions of the independent variables of the three models of Table 4 as well as the same case controls as in Table 5. The models exclude cases where the reference complaint case shifted to another court before the lead plaintiff motion decision. The models also exclude cases where the first judge no longer was actively presiding over cases (due to death for example) by the time of the lead plaintiff motion decision.

Unreported, we obtain similar results as the three models in Table 4. We find evidence that senior judges are less willing to preside over securities class actions. The coefficient on Senior is negative and significant at the 5% and 1% levels in Models 2 and 3 respectively. This is consistent with our hypothesis that lower-ability judges— as we assume is correlated with senior status — are more likely to drop out as judge of a securities class action. We find that the coefficient on Business Caseload is positive and significant at the 10% level in Model 3. This supports the hypothesis that judges with a greater prior business caseload are more likely to retain jurisdiction over a securities class action. Unlike the models of Table 4, the coefficients on Prior Judge and Judge Experience are not significantly different from zero.

otherwise.<sup>26</sup> We estimate a multivariate logit model using Lead Plaintiff Attorney Rejected as the dependent variable on case level data.

For our independent variables, we include our measures of judicial past performance (Publications Per Filing, Positive Citations, and Affirmance Rate). We also include the Case Control variables and Circuit fixed effects in the model. Errors are clustered by district judge.

$$\begin{aligned} \text{Lead Plaintiff Attorney Rejected}_i = & \alpha + \beta_{1i}\text{Publications Per Filing}_i \\ & + \beta_{2i}\text{Positive Citations}_i + \beta_{3i}\text{Affirmance Rate}_i \\ & + \text{Case Controls} + \text{Circuit Effects} + \varepsilon_i \end{aligned}$$

We present the results in Table 5 as Model 1. The coefficients on Publications Per Filing, Positive Citations, and Affirmance Rate are all not significantly different from zero. None of our conventional measures of judicial quality correlate with the decision by a judge to reject the lead plaintiffs' selection of lead counsel.

We next examine the native talent measures, experience-related measures of judicial and business ability, and depreciating ability measure. We re-estimate Model 1 with the addition of Top School, Prior Judge, Judge Experience, and Senior as well as our other judge characteristic control variables (Chief Judge and Democrat). Senior, Judge Experience, and Chief Judge are all measured as of the year of the lead plaintiff attorney selection judicial decision. The results are in Table 5 (Model 2). As in Model 1, the coefficients on Publications Per Filing, Positive Citations, and Affirmance Rate are insignificant. Contrary to our hypothesis that taking senior status was a sign of diminishing ability, senior judges appear more likely to reject the lead plaintiffs' choice

---

<sup>26</sup> Note that this variable is different from the Securities Judge variable, which was 1 if the judge made any type of decision regarding the plaintiff's choice of lead counsel (both approval and rejection).

of lead counsel. The coefficient on Senior is positive and significant at the 5% level. Measured at the mean of all the independent variables, the presence of a Senior judge correlates with a 30.5 percentage point increase in the probability that the lead plaintiff motion for lead counsel will get rejected. Not all Senior judges are the same. Those Senior judges who, despite their greater ability to avoid securities class actions, decide to preside over such a class action may differ from other Senior judges. These presiding Senior judges may have greater inclination and expertise to handle securities law related matters, leading to the positive correlation between Senior judge status and a greater willingness to reject the lead plaintiffs' choice of attorney. Model 2 also reports that, consistent with our hypothesis, the coefficient on Judge Experience is positive and significant at the 10% level. Measured at the mean of all the independent variables, an additional 10 years of judicial experience correlates with a 2.6 percentage point increase in the probability that the lead plaintiff motion for lead counsel will get rejected. The other variables (aside from the Democrat variable, which turns out not to be statistically significant in Model 3) are not statistically significant.

[Table 5 About Here]

In Model 3 of Table 5 we include our business-specific measures for experience (Business Caseload and Prior Private Practice) and remove our general judicial experience variables (Prior Judge and Judge Experience). In Model 3, the coefficients on Publications Per Filing, Positive Citations, and Affirmance Rate are again insignificant. Judges that score well on conventional measures of judicial quality are not more likely to reject the lead plaintiffs' selection of lead counsel without modification, consistent with our hypothesis. The coefficient on Business Caseload is positive and significant at the

10% level. Measured at the mean of all the independent variables, an additional 10 percentage points of business caseload correlates with a 1.6 percentage point increase in the probability that the lead plaintiff motion for lead counsel will get rejected. Judges with greater business expertise are also more likely to reject the lead plaintiffs' selection of lead counsel without modification. As in Model 2, the coefficient on Senior in Model 2 is positive and significant (now at the 1% level), suggesting a willingness to exert high scrutiny on the part of the senior judges. Measured at the mean of all the independent variables, the presence of a Senior judge correlates with a 38.4 percentage point increase in the probability that the lead plaintiff motion for lead counsel will get rejected.

To check the robustness of the results in Table 5, we combined Prior Judge, Judge Experience2002, Business Caseload, and Prior Private Practice together with our other independent variables in the same model.<sup>27</sup> We expanded the definition of Top School to include not only Harvard, Yale, and Stanford but also Columbia, U. Chicago, U. Michigan, and UC Berkeley.<sup>28</sup> We also added independent variables on the type of lead plaintiff to the models of Table 5.<sup>29</sup> The robustness tests returned similar qualitative

---

<sup>27</sup> Unreported, we obtain similar qualitative results as in the models of Table 5 with the following differences. The coefficient on Prior Judge is positive and significant at the 10.1% level and the coefficient on Judge Experience is positive and significant at the 5% level. The coefficient on Business Caseload is positive and significant at the 5% level and the coefficient on Prior Private Practice is positive and significant at the 10% level.

<sup>28</sup> These seven law schools were the top 7 law schools in the 1987 U.S. News and World Report ranking and termed "Top School7". As noted earlier, we began by using only the top three law schools, as measured by U.S. News, because the rankings of the top three schools have tended to be highly stable (and therefore probably translated back in time in the same fashion). In expanding the list of schools, we followed the same criterion. The top seven is the next most stable category at the top end of the rankings (below the top seven, there is a considerable amount of shifting in the rankings for schools, relative to that for the very top schools). We re-estimated the models of Table 5 replacing Top School with Top School7. Unreported, the coefficients on Top School7 were not significantly different from zero and we obtained the same qualitative results as in Table 5 with the following differences. In Model 2, the coefficient on Judge Experience is positive and significant at the 5% level; the coefficient on Democrat is positive and significant at only the 10% level.

<sup>29</sup> We added to the models of Table 5 variables for the fraction of the lead plaintiff group that consisted of a public pension fund (Public Pension), labor union pension fund (Labor Union), and other institutional investor (Other Institution) to control for the importance of the lead plaintiff identity in determining

results as in Table 5.<sup>30</sup>

Endogeneity is a potential issue with our examination of the judicial decision whether to accept the lead plaintiffs' selection of lead counsel. Prospective plaintiffs' lawyers might anticipate a judge's ability and adjust their actions at the stage in a class action when the lead counsel firms are selected. Where the judge has lower ability, prospective plaintiffs' attorneys may put forth an application for lead counsel that is less likely to benefit the class and more likely to benefit solely the plaintiffs' attorneys. One can imagine, for example, plaintiffs' attorneys agreeing to divide up class actions, directing lower quality attorneys to low quality judges (who will be more likely to accept such attorneys) and leaving higher quality attorneys for the high quality judges. Plaintiffs' attorneys may also aggregate previously separate motions for lead plaintiffs and join together as co-lead counsel to eliminate the risk of not getting selected as lead counsel and to diversify the risk of not achieving a profitable settlement from the litigation (Choi (2011)).

The possibility of endogeneity in the motion for lead counsel will bias against finding a correlation between judges with high ability characteristics and a higher likelihood of rejecting the lead counsel motion. If lawyers perfectly anticipate judges' ability, then lead counsel motions should never be rejected. Our results—which demonstrate a correlation between certain judge characteristics and the rejection of the

---

whether a judge approves the lead plaintiffs' selection of lead counsel. Judges may be more receptive to the lead counsel choice of an institutional lead plaintiff compared with an individual lead plaintiff.

Unreported, none of the coefficients on Public Pension, Labor Union, and Other Institution in the three models of Table 5 are significantly different from zero. We obtained similar qualitative results as in Table 5 with the following exceptions. The coefficient on Judge Experience in Model 2 is positive and now significant at the 5% level. The coefficient on Business Caseload in Model 3 is positive but now significant at only the 11%, just beyond conventional significance levels.

<sup>30</sup> We examine whether the judge quality variables we identify as significant in the models in Table 5 are significant when interacted with Judge Democrat. Unreported, none of the interaction terms in the three models of Table 5 are significant.

lead counsel motion—are thus of even greater significance. We also are unsure of the magnitude of the possible endogeneity. As noted at the outset, we shaped our inquiry to cover a period of time when the law on securities class actions was in considerable flux, which should have made predictions about what judges would do more difficult from the perspective of plaintiffs’ attorneys. To assess the impact of endogeneity, we need a proxy for the “quality” of the lead counsel motion. For our proxy, we use the number of lead plaintiffs in the lead plaintiff group. A large number of lead plaintiffs—with a correspondingly larger collective action problem among the lead plaintiffs—indicates a greater likelihood that the plaintiffs’ attorneys have de facto control and that the judge should pay greater attention to the motion for lead counsel. Plaintiffs’ attorneys, for example, who know the judge will not in fact engage in close scrutiny of the lead counsel motion will be more likely to combine with other plaintiffs’ attorneys (or alternatively, find more lead plaintiffs on their own) to generate both a large group of proposed lead plaintiffs and co-lead counsel.

We first compared the number of lead plaintiffs using a series of t-tests for our judge characteristics independent variables—separating the lead plaintiff judges into two groups based on the binary variables (such as Senior) and the continuous variables (such as Publications Per Filing) divided at the median. Not one of our t-tests resulted in a significant difference, suggesting that endogeneity is not a large concern for our lead counsel selection test. We next re-estimated the models in Table 5 using an ordered logit model with the number of lead plaintiffs as the dependent variable. Unreported, we found that the coefficient on Senior was positive and significant at the 10% level, indicating that plaintiffs’ attorneys may attempt to take advantage of senior judges by



forming larger groups of lead plaintiffs (often with a correspondingly larger number of co-lead counsel in the lead counsel application). As discussed above, senior judges, nonetheless, are more likely to reject such applications compared with other judges. In other words, it is as if plaintiffs' attorneys under-estimate the level of scrutiny and attention senior judges are likely to apply. We also found that the coefficient on Prior Private Practice is negative and significant at the 10% level, indicating that plaintiffs' attorneys may worry about judges with Prior Private Practice and adjust to form smaller groups of lead plaintiffs with a correspondingly smaller number of co-lead counsel in the lead counsel application. The fact that Prior Private Practice was not significantly different from zero in Table 5, therefore, could be a result of this adjustment on the part of plaintiffs' attorney to present such judges with less troublesome applications for lead counsel firms.

In sum, our tests on the lead plaintiffs' selection of lead counsel provide limited evidence that higher-ability judges are more willing to scrutinize lead counsel proposals. In particular, judges with greater business law experience and general judicial experience are more likely to dismiss lead counsel motions. While we do not find evidence that judges with prior private practice experience are more likely to dismiss lead counsel motions, we do find evidence that plaintiffs' attorneys may adjust their behaviour to present such judges less problematic applications for lead counsel. Senior judges, contrary to expectation, do not appear to shirk on effort. It may be that senior judges of low ability responsibly avoid securities cases (or those cases are not assigned to them), leaving those cases to the subset of senior judges with high ability, who are willing to retain those cases. It also may be that senior judges, while preferring to avoid securities

class action cases, work hard on them once they have them (although we do find some evidence that plaintiffs' attorneys may present senior judges with more troublesome applications for lead counsel).

### **5.3. Dismissal Decision**

We predict that higher-ability judges will be more likely to dismiss a securities class action. To test this hypothesis, we construct an indicator variable, *Dismissal*, defined as equal to 1 if the judge granted a dismissal with prejudice and 0 otherwise. We control for various factors that may affect a judge's decision to approve the lead plaintiffs' choice of lead counsel with a multivariate logit model using *Dismissal* as the dependent variable estimated on case level data. We omit those cases where the plaintiffs' voluntarily dismissed their suit from the model.

As independent variables, we include our measures of judicial past performance (*Publications Per Filing*, *Positive Citations*, and *Affirmance Rate*). We also include the case controls described above to control for the strength of the securities class action. Because the law of the specific circuit may affect the likelihood of dismissal, we include circuit effects in the model. We include year effects (for the year of the dismissal decision) to control for shifts in the law governing how courts deal with dismissals over the time period of our class action dataset from 2003 to mid-2007. Errors are clustered by district judge.

$$\begin{aligned}
\text{Dismissal}_i &= \alpha + \beta_{1i}\text{Publications Per Filing}_i \\
&+ \beta_{2i}\text{Positive Citations}_i + \beta_{3i}\text{Affirmance Rate}_i \\
&+ \text{Case Controls} + \text{Circuit Effects} \\
&+ \text{Year Effects} + \varepsilon_i
\end{aligned}$$

We present the results in Table 6 as Model 1. The coefficient on Publications Per Filing is positive and significant at the 10% level. More productive judges are more likely to grant a motion to dismiss. Our other measure of past performance, Positive Citations, is also significant at the 5% level. Judges that write higher quality opinions are also more likely to grant a motion to dismiss.

[Table 6 About Here]

We next focus on our native talent measure, experience-related measures of judicial and business ability, and depreciating ability measure. We re-estimate Model 1 with the addition of Top School, Prior Judge, Judge Experience, and Senior as well as our other judge characteristic control variables (Chief Judge and Democrat) and report the results in Model 2 of Table 6. In Model 3 of Table 6 we include our business-specific measures for experience (Business Caseload and Prior Private Practice) and remove our general judicial experience variables (Prior Judge and Judge Experience). In all three models of Table 6, two of our past performance measures of judicial ability (Publications Per Filing and Positive Citations) are significant. In Model 1, one standard deviation increase in a judge's Publications Per Filing correlates with an increase of 8.2 percentage points in the probability that the judge will grant the motion to dismiss. Similarly, in Model 1, one standard deviation increase in a judge's Positive Citations correlates with an increase of 9.6 percentage points in the probability that the judge will grant the motion to dismiss. Higher ability judges are more likely to dismiss a case. In contrast with our past

performance measures, none of our innate or experience-related measures of judicial and business ability are significant in either Models 2 or 3.

To check the robustness of the results in Table 6, we combined Prior Judge, Judge Experience2002, Business Caseload, and Prior Private Practice together with our other independent variables in the same model.<sup>31</sup> We also expanded the definition of Top School to include not only Harvard, Yale, and Stanford but also Columbia, U. Chicago, U. Michigan, and UC Berkeley.<sup>32</sup> Both robustness tests returned similar qualitative results as in Table 6.

The decision to grant or reject a motion to dismiss is the most important of the decisions that we discuss. Unlike the other decisions, the decision on the motion to dismiss will require a usually lengthy opinion applying securities law (rather than generic procedural law), and an opinion granting that motion will be scrutinized by a court of appeals. Thus, one might expect judges who are skilled in law application to deny such motions more frequently than judges who are skilled in case management. Our results provide some support for this theory.<sup>33</sup>

---

<sup>31</sup> Unreported, we obtained the same qualitative results as the models in Table 6. The coefficient on Publications Per Filing remains positive and significant at the 10% level; the coefficient on Positive Citations remains positive and significant at the 5% level.

<sup>32</sup> These seven law schools were the top 7 law schools in the 1987 U.S. News and World Report ranking and termed "Top School7". We re-estimated the models of Table 5 replacing Top School with Top School7. Unreported, the coefficients on Top School7 were not significantly different from zero and we obtained the same qualitative results as in Table 6.

<sup>33</sup> Endogeneity is a potential issue with the dismissal decision because plaintiffs' attorneys might rationally anticipate a judge's ability (and resulting inclination to focus on the motion to dismiss) and choose to voluntarily dismiss their case prior to a judicial dismissal decision. Because we only test the decision to dismiss on cases that were not voluntarily dismissed, we may understate the impact of a judge's ability on the overall rate at which cases are dismissed (whether voluntarily or due to a dismissal with prejudice). To determine the importance of voluntary dismissal, we define Any\_Dismissal as equal to 1 if the judge granted a dismissal with prejudice or the plaintiffs voluntarily dismissed the suit and 0 otherwise. We re-estimated the models in Table 6 using Any\_Dismissal as the dependent variable. Unreported, we obtained the same qualitative results as in Table 6. We thus find that higher-ability judges correlates with an increased probability of dismissal—whether the judge makes the actual dismissal decision or the plaintiffs' voluntarily choose to dismiss in anticipation of the judge's likely dismissal decision.

#### **5.4. Approval of Settlements and Attorney Fees**

The judge plays a key role in evaluating the two-sided agency problem in securities cases at multiple points; one of which is when the parties bring the judge a settlement agreement for approval. The role of the judge here is to act as the guardian for the absent investors and ensure that their agents (the plaintiff's lawyers and the corporate executives) are not misbehaving. We take the willingness to reject settlement agreements as a sign of judicial ability. Rejection means more work for the judge.

We first categorize judicial decisions on motions to accept the first preliminary settlement motion. As reported in Table 7, only 8 out of the 247 cases (or 3.2%) with judicial decisions on the first preliminary settlement motion resulted in a denial of the motion. We then examined judicial decisions on the final settlement motion.

As noted earlier, this measure is particularly susceptible to endogeneity problems, in that lawyers probably get familiar with the degree of scrutiny that a judge will apply to their settlement requests. And, unlike with some of other measures we have used, where the endogeneity problem was arguably ameliorated somewhat by the fact that the topics at issue were new (relating to the PSLRA), a judge's behavior vis-à-vis settlements requests is likely consistent across a range of subject areas.

Consistent with the foregoing, we find no variation in the data. None of the decisions we examined had a denial of the motion for settlement. Accordingly, rather than look at judicial decisions concerning the settlement, we examine whether any change takes place to the settlement amount from the date of the initial stipulated settlement agreement to the date of the final settlement motion decision. Only 8 out of

215 settlements (or 3.7%) had a change in the settlement amount from the initial stipulated settlement agreement. Moreover, only 2 of the 215 settlements (or 0.9%) resulted in an increase in the settlement amount to the benefit of class members.

[Table 7 About Here]

Because of the small number of denials of the preliminary or final settlement motion as well as the small number of times the settlement amount actually increased to the benefit of class members from the initial stipulated agreement, we are unable to estimate a multivariate model to test our hypotheses on district judge characteristics. Judges almost always—regardless of their characteristics—accept the settlement proposed by the securities class action litigants.

In an attempt to get at the question from a different direction, we looked at the decision by judges to approve the requested fees for the plaintiffs' attorneys. The point of greatest interest to one set of potentially misbehaving agents, the plaintiffs' lawyers, is the approval of attorney fees. Higher-ability judges will be more likely to scrutinize these attorney fees because they cannot depend on the defense side to do so fully (after all, they are paying the fees out of the corporate coffers rather than the pockets of the executives). To test this, we focus on the sub-sample of class actions that resulted in a settlement. We define an indicator variable Judge Rejected Fee as equal to 1 if the judge rejected the attorney fee motion without modification and 0 otherwise. To control for various factors that may affect the judicial decision on attorney fees, we estimate a multivariate logit model on the set of settlements in our dataset with Judge Approved Fee as the dependent variable. We note, however, that the attorney fee approval decision is

also susceptible to the endogeneity problems similar as with the settlement request decision.

For our independent variables, we include our measures of judicial past performance (Publications Per Filing, Affirmance Rate, and Positive Citations). We also include the requested attorney fee (Requested Fee). The chance that a judge will approve the attorney fee in a securities settlement will decrease as the level of requested fee increases. We also include the log of the settlement amount ( $\ln(\text{Settlement Amount})$ ). Judges may be more willing to accept the attorney fee request the greater is the settlement amount. We include Circuit effects in the model to control for circuit-specific doctrine and practices that may affect a judge's propensity to accept the plaintiffs' attorney fee request. We have no reason to believe that the propensity of a judge to accept or reject the fee request varied with time and do not include year effects. Errors are clustered by district judge.

$$\begin{aligned} \text{Judge Rejected Attorney Fee}_i &= \alpha + \beta_{1i}\text{Publications Per Filing}_i \\ &+ \beta_{2i}\text{Positive Citations}_i + \beta_{3i}\text{Affirmance Rate}_i \\ &+ \beta_{4i}\text{Requested Fee}_i + \beta_{5i}\ln(\text{Settlement Amount})_i \\ &+ \text{Case Controls} + \text{Circuit Effects} + \varepsilon_i \end{aligned}$$

We present the results in Table 8 as Model 1. The coefficient on Publications Per Filing is negative and significant at the 1% level. Measured at the mean of all the independent variables, one standard deviation increase in a judge's Publications Per Filing correlates with a decrease of 20.4 percentage points in the probability that the judge will reject the plaintiffs' attorney fee request. Contrary to our hypothesis, past productivity is correlated with lower willingness of a judge to reject an attorney fee application after a settlement takes place. Our other past performance measures, Positive

Citations and Affirmance Rate, are not significantly different from zero.

Next come our native talent measure, general judicial experience-related measures, and depreciating ability measure. We re-estimate Model 1 with the addition of Top School, Prior Judge, Judge Experience, and Senior as well as our other judge characteristic control variables (Chief Judge and Democrat) and report the results in Table 8 as Model 2. Note that in Model 2, the coefficients on Publications Per Filing, Positive Citations, and Affirmance rate are all negative and significant (at the 10%, 1%, and 5% levels respectively), contrary to our hypothesis that past performance will correlate with superior judicial decisionmaking. Also contrary to our ability hypothesis, the coefficients on Prior Judge and Judge Experience are both negative and significant at the 1% and 5% levels respectively. Measured at the mean of all the independent variables, Prior Judge correlates with a decrease of 27.1 percentage points in the probability that the judge will reject the plaintiffs' attorney fee request. Similarly, a one standard deviation increase in Judge Experience correlates with a decrease of 6.7 percentage points in the probability that the judge will reject the plaintiffs' attorney fee request. Top School—attending, Harvard, Yale or Stanford for law school—is also negative and significant the 1% level. Measured at the mean of all the independent variables, Top School correlates with a decrease of 10.5 percentage points in the probability that the judge will reject the plaintiffs' attorney fee request. Judges who attended a top law school are less likely to reject the attorney fee request without modification.

The coefficient on Democrat in Model 2 is negative and significant at the 1% level. Measured at the mean of all the independent variables, Democrat correlates with a



decrease of 70.9 percentage points in the probability that the judge will reject the plaintiffs' attorney fee request. The drop in the probability of rejecting the attorney fee request is large in magnitude for Democrat judges. Democrat judges in particular appear reluctant to take actions that directly reduce the flow of money to plaintiffs' attorneys.

The Senior variable was dropped from Model 2 because Senior judges were perfectly correlated with judges approving the attorney fee motion. On its face, this finding might suggest that senior judges exert lower effort and thus are more likely to accept the attorney fee request. However, litigants likely have greater familiarity with the preferences of senior judges and may adjust their fee awards to match these preferences.

[Table 8 About Here]

In Model 3 of Table 8 we include our business-specific measures for experience (Business Caseload and Prior Private Practice) and remove our general judicial experience variables (Prior Judge and Judge Experience). Similar to Model 2, the coefficients on Publications Per Filing, Positive Citations, and Affirmance Rate are again negative and significant. As with Model 2, the coefficients on Top School and Democrat are also negative and significant. Consistent with our hypothesis, we find that the coefficients on Business Caseload and Prior Private Practice are positive and significant at the 5% level in Model 3. Measured at the mean of all the independent variables, one standard deviation increase in a Business Caseload correlates with an increase of 5.9 percentage points in the probability that the judge will reject the plaintiffs' attorney fee request. Similarly, Prior Private Practice correlates with an increase of 22.7 percentage points in the probability that the judge will reject the plaintiffs' attorney fee request. Judges with greater experience with business cases as well as prior private practice

experience are more likely to reject the attorney fee request.<sup>34</sup>

To check the robustness of the results in Table 8, we combined Prior Judge, Judge Experience2002, Business Caseload, and Prior Private Practice together with our other independent variables in the same model.<sup>35</sup> We also expanded the definition of Top School to include not only Harvard, Yale, and Stanford but also Columbia, U. Chicago, U. Michigan, and UC Berkeley.<sup>36</sup> Both robustness tests returned significantly weaker results than in Table 8. We also control for possible selection bias from focusing solely on settled cases and obtained similar qualitative results as in Table 8.<sup>37</sup>

---

<sup>34</sup> To test the impact of the judicial quality variables for Democrat judges, we added interaction terms between those judicial quality variables that were significant in Models 2 and 3 of Table 8 and the Democrat indicator variable. Due to collinearity problems, we added interaction terms between Democrat and Publications Per Filing, Positive Citations, and Affirmance Rate separately from interactions terms between Democrat and Prior Judge and Judge Experience in Model 2. The interaction term between Democrat and Top School was dropped also due to collinearity problems. Unreported, none of the interaction terms were significantly different from zero. We similarly added interaction terms between Democrat and those judicial quality variables that were significant in Model 3. None of these interaction terms were significant.

<sup>35</sup> Unreported, the results are somewhat different from those in Table 8. The coefficient on Publications Per Filing is no longer significantly different from zero. The coefficients on Positive Citations and Affirmance rate remain negative and significant (at the 10% and 5% levels respectively). The coefficients on Prior Judge, Judge Experience, Business Caseload, and Prior Private Practice are no longer significantly different from zero--possibly due to collinearity among these variables (and in particular the negative correlation between Prior Judge and Prior Private Practice). The coefficient on Top School remains negative and significant (now at the 5% level).

<sup>36</sup> These seven law schools were the top 7 law schools in the 1987 U.S. News and World Report ranking and termed "Top School7". We re-estimated the models of Table 8 replacing Top School with Top School7. Unreported, the coefficients on Top School7 were not significantly different from zero. In addition, the coefficients on Business Caseload and Prior Private Practice while positive are no longer significantly different from zero. The other results are qualitatively the same as those in Table 8.

<sup>37</sup> Observable data exists on the number of attorney hours only where settlement occurs. The decision to settle, however, is not random. To control for this selection bias, we attempted to re-estimate the models of Table 8 with the HECKPROB model in Stata. For an instrument, we used the total number of securities class actions filed in the dataset time period for the district court in which the specific class action is filed. We assume this variable is correlated with the decision to settle. A particular district court with large numbers of securities class action may face greater pressure to dismiss such actions to clear their docket, leading to fewer settlements. On the other hand, we assume this variable is not correlated directly with requested attorney fees in a particular settled litigation. Unfortunately, the HECKPROB models did not converge to a solution for any of the models of Table 8. To obtain convergence, in Model 1, we omitted the circuit fixed effects and the case control variables except for the Officer Terminated, Insider Trading, and log of market capitalization. The re-estimated Model 1 using HECKPROB returned qualitatively the same results as in Table 8. To obtain convergence, in Model 2, we omitted Publications Per Filings, Positive Citations, Affirmance Rate, the circuit fixed effects, and the case control variables except for the Officer Terminated, Insider Trading, and log of market capitalization. The re-estimated Model 2 using

In sum, the relationship between our measures of judicial ability and the decision to reject attorney fees stand in contrast to our results for the lead plaintiff counsel and motion to dismiss decisions. Unlike for the two earlier decisions, our past performance measures of judicial ability are largely insignificant as explanatory variables. Our other, non-business specific measures of ability are significant but in the wrong direction. We suspect that the inconsistency of the results on this measure is largely a function of the endogeneity problem. Lawyers develop familiarity with the individual propensities of the different district judges and adjust their fee requests appropriately. The especially high rate of success that lawyers have with requests submitted to senior judges and chief judges (who are among the most senior of the active judges), is consistent with this notion.

## **6. Conclusion**

The existing literature on judges focuses largely on cases where there are published opinions. That poses a particular problem with regards to the district courts because the primary task of these judges is to manage cases—ruling on evidentiary matters, discovery requests, and preliminary motions—rather than publish opinions (Kim et al. 2009). The recent electronic availability of information on decisions on the various intermediate decisions in a case, however, has made a fuller and more fine-grained inquiry into the behavior of district judges possible (Hoffman et al. 2008; Kim et al.

---

HECKPROB returned the same qualitative result for Top School, Prior Judge, Judge Experience, and Democrat as in Table 8. To obtain convergence, in Model 3, we omitted Publications Per Filings, Positive Citations, Affirmance Rate, the circuit fixed effects, and the case control variables except for the Officer Terminated, Insider Trading, and log of market capitalization. The re-estimated Model 2 using HECKPROB returned the same qualitative result for Top School, Business Caseload, and Democrat as in Table 8. The coefficient on Prior Private Practice is positive but significant at only the 15.8% level, beyond conventional significance.

2009). Using this data, we inquire into the behavior of district judges in securities class actions, an area where the judge has a particularly important role to play in policing the two-sided agency problem.

Below we set out a table that summarizes how our nine measures of judicial ability translated into the four measures of judicial performance (with “Y” indicating that the ability measure in question correlates with superior judicial performance and “N” indicating inferior judicial performance).

	Decision to Preside Over a Securities Class Action	Lead Plaintiff Attorney Rejected	Dismissal with Prejudice	Judge Rejected Fee
High Publications Per Filings	0	0	Y	N
High Positive Citations	0	0	Y	N
High Affirmance Rate	0	0	0	N
Attended Top Law School	0	0	0	N
Judicial Experience	Y	Y	0	N
Prior Judge	Y	0	0	N
Prior Private Practice	0	0	0	Y
Business Caseload	0	Y	0	Y
Senior Status	N	Y	0	*

\*Dropped from the regression

One particular aspect of the summary table stands out. Certain categories of ability measures do better in predicting high quality performance than others. Two of the past performance measures (citations and publications) do well in predicting whether a judge will grant a motion to dismiss. The other seven measures, by contrast, do not do well at all on this score. This is perhaps because granting a motion to dismiss typically requires the judge to provide a written explanation of his decision and subjects the judge

to a meaningful risk of reversal. Those judges (law appliers) who have a greater ability to write opinions and explain their reasons are perhaps more willing to take on the task of granting a motion to dismiss. Also, given that the decision on the motion to dismiss tends to be highly legalistic, it is probably those judges who have greater skill in dealing with doctrine who do better at this task. The subset of judges who score higher on numbers of citations and publications probably fit within this category.

It is interesting to note that it is a different subset of judges who do well on the other measures, which arguably require more in the way of experience and judgment rather than legal skills. These are the case managers. Take the two measures that involve having to second-guess motives – that is, to recognize an agency problem. These two measures are the ones that look at the judge’s willingness to question the selection of the lead plaintiff in the class and to question the attorney fee request. Here, it is the judges who have prior experience (in private practice, with business cases, and in judging) who are more likely to perceive problems. Senior judges also appear to have a greater ability to discern agency problems.

As for the ability indicator that is probably the first one that anyone notices when considering a judge’s qualifications for a promotion – whether the judge attended a top law school – it predicts nothing. Similarly, affirmance rates (or their converse, reversals), tend to often receive attention when a judge’s performance is being evaluated. However, we found little indication that judges with higher affirmance rates were performing better on their decisions on key securities motions.

Finally, contrary to our predictions, we do not find consistently negative effects for a judge taking senior status. Senior judges are less likely than active judges to preside

over a securities class actions, but those who do preside are more willing to reject a lead plaintiff motion.

The question of how to measure judicial performance is an age old one. Over the years, numerous measures have been utilized by bar association evaluation committees, researchers, politicians, legislatures, and so on. There has been little inquiry, however, into which of these measures actually translates into better judicial performance. It has been taken for granted, for example, that measures such as judicial experience, the type of law school one attended, and one's rate of reversal or affirmance, are important indicators of judicial ability. We find that the question of whether the various ability measures will translate into high quality performance on a particular task is a complex one. On the tasks we examined, some of the standard measures did not perform at all. Other measures performed better or worse on particular tasks. Finally, some actually correlated with negative performance on a task. Different measures of ability, depending on what aspect of ability they are measuring, work to predict different aspects of judicial performance. Judges do a variety of different tasks that require varying sets of skills. At bottom, our findings underscore the risk of using simple ability measures for the purpose of evaluating judges along a unitary dimension of what makes a good judge.

## References

Bai, Lin, James D. Cox and Randall S. Thomas. 2010. Lying and Getting Caught: An Empirical Study of the Effect of Securities Class Action Settlements. Unpublished Draft.

Barondes, Royce de Rohan. 2009. ABA Ratings of Federal District Court Judges and Likelihood of Shepherd's Warning Signal, Unpublished Draft (available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1443094](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1443094)).

Baum, Lawrence. 2009. Probing the Effects of Judicial Specialization. *Duke Law Journal*, 58: 1667-\_\_

Baum, Lawrence. 2010. Specializing the Courts.

Baye, Michael R. and Joshua Wright. 2009. Is Antitrust too Complicated for Generalist Judges? The Impact of Economic Complexity and Judicial Training on Appeals (available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1319888](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1319888)).

Bebchuk, Lucian A. 1992. Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law. *Harvard Law Review* 105: 1435-510.

Brenner, Saul and Harold J. Spaeth. 1986. Issue Specialization in Majority Opinion Assignment on the Burger Court. *Western Politics Quarterly* 39: 520-\_\_.

Cheng, Edward K. 2008. The Myth of the Generalist Judge, *Stanford Law Review* 61: 519-\_\_.

Christensen, Robert K., and John Szmer. 2009. Examining the Efficiency of the U.S. Court of Appeals: Pathologies and Prescriptions. Unpublished Working paper.

Christensen, Robert K., John Szmer and Elizabeth Wemlinger. 2009. Diversity, Conflict and Judicial Efficiency in the U.S. Court of Appeals. Unpublished Working Paper.

Chu, Christian A. 2001. Empirical Analysis of the Federal Circuit's Claim Construction Trends, *Berkeley Technology Law Journal*. 16: 1075-.

Choi, Stephen J. 2003. The Evidence on Securities Class Actions. *Vanderbilt Law Review*, 56: \_\_ - \_\_.

Choi, Stephen J., Mitu Gulati and Eric A. Posner. 2010. What Do Federal District Judges Want? An Analysis of Publications, Citations, and Reversals. University of Chicago Law School Law & Economics Working Paper.

Choi, Stephen J. 2011. Motions for Lead Plaintiff in Securities Class Actions. *Journal of Legal Studies* 40: 205-244.

- Choi, Stephen J., and Adam Pritchard. 2012. The Supreme Court's Impact on Securities Class Actions: An Empirical Assessment of Tellabs. Forthcoming *Journal of Law, Economics, and Organization*.
- Cox, James D., Randall S. Thomas and Lynn Bai. 2008. Do Differences in Pleading Standards Cause Forum Shopping in Securities Class Actions?: Doctrinal and Empirical Analyses, Working Paper, Vanderbilt University.
- Cox, James D., Randall S. Thomas and Lynn Bai. 2006. Does the Plaintiff Matter? An Empirical Analysis of Lead Plaintiffs in Securities Class Actions. *Columbia Law Review*, 106: 1587-\_\_.
- Cross, Frank, and Stefanie Lindquist. 2009. Judging the Judges. *Duke Law Journal* 58: 1383-\_\_.
- Dreyfuss, Rochelle Cooper. 1990. Specialized Adjudication. *Brigham Young University Law Review*, 1990: 377-\_\_.
- Dreyfuss, Rochelle C. 1995. Forums of the Future: The Role of Specialized Courts in Resolving Business Disputes. *Brooklyn Law Review*, 61: 1-\_\_.
- Haire, Susan. 2006. Beyond the Gold Watch: Evaluating the Decision Making of Senior Judges on the U.S. Court of Appeals. Unpublished draft (available at <http://www.cas.sc.edu/poli/psrw/haire022406.pdf>).
- Hoffman, David, Alan Izenman, and Jeffrey Lidicker. 2008. Docketology, District Courts and Doctrine. *Washington University Law Review*, 85: 681-\_\_.
- Ingram, David. 2009. Congress Set to Take Aim at Judicial Recusals. *National Law Journal*. November 02, 2009.
- Kim, Pauline, Margo Schlanger, Christina L. Boyd, and Andrew D. Martin. 2009. How Should We Study District Court Decision-Making? *Journal of Law and Policy*, 29: 83-\_\_.
- Landes, William M., Lawrence Lessig, and Michael E. Solimine. 1998. Judicial Influence: A Citation Analysis of Federal Courts of Appeals Judges. *Journal of Legal Studies*, 28: 271-332.
- Levi, David and Mitu Gulati. 2009. Judging Measures. *University of Missouri Kansas City Law Review* \_\_: \_\_-\_\_.
- Lott, John. 2005. The Judicial Confirmation Process: The Difficulty With Being Smart. *Journal of Empirical Legal Studies*, 2: 407-447.



Local Rules of the Southern and Eastern Districts of New York (Effective April 15, 1997; With Amendments through December 1, 2009) (available at <http://www.nysd.uscourts.gov/rules/rules.pdf>).

Maltzman, Forrest and Paul J. Wahlbeck. 1996. May It Please the Chief? Opinion Assignments in the Rehnquist Court. *American Journal of Political Science*, 40: 421- \_\_\_ .

Miller, Geoffrey P. 2003. Competing Bids in Class Action Settlements, *Hofstra Law Review*, 31: 633-\_\_\_.

Moore, Kimberly A. 2001. Are District Court Judges Equipped to Resolve Patent Cases?, *Harvard Journal of Law & Technology*, 15: 1-\_\_\_.

Nash, Jonathan and Rafael Pardo. 2008. An Empirical investigation into Appellate Structure and the Perceived Quality of Appellate Review. *Vanderbilt Law Review* 61: 1745-\_\_\_.

Priest, George L., and Benjamin A. Klein. 1984. The Selection of Disputes for Litigation. *Journal of Legal Studies*, 13: 1-55

Posner, Richard A. 1995. Aging and Old Age.

Ramseyer, Mark J. 2010. Talent Matters: Judicial Productivity and Speed in Japan. Unpublished Draft.

Rachlinski, Jeffrey J., Chris Guthrie and Andrew J. Wistrich. 2009. The “Hidden Judiciary”: An Empirical Examination of Executive Branch Justice. *Duke Law Journal*. 58: 1477-\_\_\_ .

Rachlinski, Jeffrey J., Chris Guthrie & Andrew J. Wistrich. 2006. Inside the Bankruptcy Judge’s Mind. *Boston University Law Review*, 86:1227-\_\_\_

Romano, Roberta. 1985. Law as a Product: Some Pieces of the Incorporation Puzzle. *Journal of Law, Economics, & Organization*, 1: 225-83.

Romano, Roberta. 1991. The Shareholder Suit: Litigation Without Foundation?, *Journal of Law, Economics & Organization*, 7: 55-\_\_\_.

Stempel, Jeffrey W. 1995. Two Cheers for Specialization, *Brooklyn Law Review*, 61: 67--\_\_\_.

Unah, Isaac. 1998. The Courts of International Trade: Judicial Specialization, Expertise and Bureaucratic Policy Making.

Vining, Richard L., Amy Steigerwalt, and Susan Navarro Smelcher. 2009. Bias and the Bar: Evaluating the ABA Ratings of Federal Judicial Nominees. Unpublished draft available on ssrn.com (<http://papers.ssrn.com/sol3/papers.cfm?abstract-id=1368891>).

Wagner, Polk and L. Petherbridge. 2004. Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance. *University of Pennsylvania Law Review*, 152: 1105-\_\_.

Wahlbeck, Paul J. 2006. Strategy and Constraints on Supreme Court Opinion Assignment. *University of Pennsylvania Law Review*, 154: 1729\_\_.

Worthy, K. Martin. 1971. The Tax Litigation Structure. *Georgia Law Review*, 5: 248-\_\_.

Wang, Yu. 2007. The Impact of Specialized Courts on the Federal Judicial System 1925-1981: A Study of Federal Circuits' Decision of Reversal (NYU Politics Working Paper #1919) (available on bepress).

Yoon, Albert. 2005. As You Like It: Senior Federal Judges and the Political Economy of Judicial Tenure. *Journal of Empirical Legal Studies* 2: 495-\_\_.

**Table 1: Summary of Datasets****Securities Class Action Dataset**

<b>Year of Suit Filing</b>	<b>Freq.</b>	<b>Percent</b>
2003	148	26.8
2004	172	31.2
2005	138	25.0
2006	81	14.7
2007	13	2.4
Total	552	100.0

<b>Circuit Court</b>	<b>Freq.</b>	<b>Percent</b>
1	36	6.5
2	103	18.7
3	46	8.3
4	21	3.8
5	50	9.1
6	26	4.7
7	27	4.9
8	26	4.7
9	144	26.1
10	20	3.6
11	50	9.1
D.C.	3	0.5
Total	552	100.0

<b>Outcome (if Known)</b>	<b>Freq.</b>	<b>Percent</b>
Settlement	254	49.9
Trial Verdict or Judgment on Pleadings for Plaintiff	2	0.4
Summary Judgment for Defendant	6	1.2
Voluntary Dismissal	56	11.0
Dismissal with Prejudice	191	37.5
Total	509	100.0

### Judge Dataset

<b>Involvement in Securities Class Action</b>	<b>Freq.</b>	<b>Percent</b>
Involved in Securities Class Action	201	32.7
Not involved in Securities Class Action	414	67.3
Total	615	100.0

<b>Circuit Court</b>	<b>Freq.</b>	<b>Percent</b>
1	28	4.6
2	69	11.2
3	51	8.3
4	51	8.3
5	70	11.4
6	62	10.1
7	49	8.0
8	42	6.8
9	89	14.5
10	35	5.7
11	57	9.3
D.C.	12	2.0
Total	615	100.0

**Table 2****Independent Variables****Judge Characteristics**

<b>Variable</b>	<b>Mean</b>	<b>25th Percentile</b>	<b>Median</b>	<b>75th Percentile</b>	<b>Standard Deviation</b>
Publications Per Filing	0.025	0.005	0.012	0.026	0.035
Positive Citations	1.735	0.710	1.333	2.116	1.925
Affirmance Rate	0.915	0.875	0.949	1.000	0.124
Top School	0.145	0	0	0	0.352
Judge Experience2002	10.694	5	10	15	6.782
Prior Judge	0.423	0	0	1	0.494
Business Caseload	0.093	0.000	0.056	0.135	0.135
Prior Private Practice	0.420	0	0	1	0.494
Democrat	0.524	0	1	1	0.500
Senior2005	0.224	0	0	0	0.418
ChiefJudge2003-2007	0.242	0	0	0	0.429

**Case Controls**

<b>Variable</b>	<b>Mean</b>	<b>25th Percentile</b>	<b>Median</b>	<b>75th Percentile</b>	<b>Standard Deviation</b>
Section 11 Claim	0.115	0	0	0	0.3
Gov Investigation	0.429	0	0	1	0.5
Restatement	0.356	0	0	1	0.5
Officer Terminated	0.326	0	0	1	0.5
Auditor Terminated	0.074	0	0	0	0.3
Insider Trading Claim	0.588	0	1	1	0.5
Market Cap (\$ millions)	5781.0	150.2	532.5	1972.8	20204.0
High Tech	0.167	0	0	0	0.373

**Table 2 Continued**

**Other Controls**

<b>Variable</b>	<b>Mean</b>	<b>25th Percentile</b>	<b>Median</b>	<b>75th Percentile</b>	<b>Standard Deviation</b>
Requested Fee	0.269	0.250	0.270	0.300	0.052
Settlement (\$ millions)	23.1	2.8	6.0	13.5	89.1

**Dependent Variables**

**Judge Level Dependent Variables**

<b>Variable</b>	<b>Mean</b>	<b>25th Percentile</b>	<b>Median</b>	<b>75th Percentile</b>	<b>Standard Deviation</b>
Securities Judge	0.327	0	0	1	0.469

**Case Level Dependent Variables**

<b>Variable</b>	<b>Mean</b>	<b>25th Percentile</b>	<b>Median</b>	<b>75th Percentile</b>	<b>Standard Deviation</b>
Lead Plaintiff Atty Rejected	0.081	0	0	0	0.273
Dismissal	0.375	0	0	1	0.485
Judge Rejected Fee	0.215	0	0	0	0.412

**Table 3**  
**Correlation of Judge Quality Measures**

	Publications Per Filing	Positive Citations	Affirmance Rate	Top School	Senior 2005	Prior Judge	Judge Experience2002	Business Caseload	Prior Private Practice
Publications Per Filing	1.000								
Positive Citations	-0.086	1.000							
Affirmance Rate	0.064	0.020	1.000						
Top School	0.146	0.028	0.006	1.000					
Senior2005	-0.031	0.052	-0.060	-0.030	1.000				
Prior Judge	0.030	0.006	0.014	-0.085	0.003	1.000			
Judge Experience2002	-0.036	0.037	0.107	-0.022	0.353	-0.104	1.000		
Business Caseload	-0.072	-0.024	-0.058	0.021	-0.005	-0.016	-0.095	1.000	
Prior Private Practice	-0.043	0.022	0.054	0.073	0.065	-0.702	0.081	-0.074	1.000

**Table 4: Decision to Preside Over Securities Class Actions**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Publications Per Filing	2.117 (0.68)	1.639 (0.51)	1.602 (0.50)
Positive Citations	0.010 (0.18)	0.015 (0.28)	0.015 (0.27)
Affirmance Rate	-1.184 (-1.34)	-1.625 <sup>+</sup> (-1.74)	-1.304 (-1.42)
Top School		0.405 (1.19)	0.366 (1.09)
Senior 2005		-0.871* (-2.36)	-0.605 <sup>+</sup> (-1.73)
Prior Judge		0.639** (2.80)	
Judge Experience2002		0.045 <sup>+</sup> (1.77)	
Business Caseload			-0.708 (-0.81)
Prior Private Practice			-0.258 (-1.10)
Chief Judge2002-2007		-0.326 (-1.10)	-0.223 (-0.79)
Democrat		-0.176 (-0.63)	-0.329 (-1.33)
Constant	0.300 (0.37)	0.214 (0.24)	0.853 (0.97)
District Court Indicators	Yes	Yes	Yes
Active Service Indicators	Yes	Yes	Yes
N	404	404	404
pseudo R <sup>2</sup>	0.100	0.128	0.112

*t* statistics in parentheses; <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Models 1 and 2 are logit models estimated on judge-level data with Securities Judge as the dependent variable. District Court Indicators are for districts with 20 or more class actions in our dataset and include the Southern District of New York, the Central District of California, the District of Massachusetts, the District of New Jersey, the Middle District of Florida, the Northern District of California, the Northern District of Texas, the Southern District of California, and the Southern District of Florida. Variable definitions are in the Appendix.



**Table 5: Lead Plaintiff Attorney Rejected**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 2</b>
Publications Per Filing	9.094 (0.99)	9.422 (1.02)	13.595 (1.52)
Positive Citations	0.076 (0.55)	0.067 (0.49)	-0.006 (-0.03)
Affirmance Rate	-1.368 (-0.51)	-0.560 (-0.20)	-1.081 (-0.30)
Top School		-0.120 (-0.18)	-0.486 (-0.78)
Senior		2.777* (2.52)	3.467** (3.11)
Prior Judge		0.100 (0.19)	
Judge Experience		0.080+ (1.92)	
Business Caseload			6.935+ (1.69)
Prior Private Practice			0.849 (1.45)
Chief Judge		0.517 (0.48)	1.445 (1.30)
Democrat		1.165* (2.01)	0.628 (1.03)
Constant	-0.628 (-0.24)	-5.697* (-1.97)	-2.606 (-0.67)
Case Controls	Yes	Yes	Yes
Circuit Effects	Yes	Yes	Yes
N	234	234	234
pseudo R <sup>2</sup>	0.211	0.274	0.300

*t* statistics in parentheses; +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Models 1 and 2 are logit models estimated on securities class action case level data with Lead Plaintiff Attorney Rejected as the dependent variable (rejection of lead plaintiff attorney choice). Errors are clustered by district judge. Note that Auditor Terminated was perfectly correlated with Lead Plaintiff Attorney Choice and was dropped from the logit model. Variable definitions are in the Appendix.

**Table 6: Dismissal Decision**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Publications Per Filing	8.637 <sup>+</sup> (1.71)	10.117 <sup>+</sup> (1.68)	10.010 <sup>+</sup> (1.72)
Positive Citations	0.245* (2.03)	0.281* (2.14)	0.271* (2.12)
Affirmance Rate	-1.492 (-0.91)	-1.426 (-0.85)	-1.270 (-0.74)
Top School		-0.314 (-0.68)	-0.345 (-0.75)
Senior		-0.570 (-0.80)	-0.438 (-0.62)
Prior Judge		-0.087 (-0.24)	
Judge Experience		0.020 (0.71)	
Business Caseload			-0.923 (-0.61)
Prior Private Practice			0.253 (0.70)
Chief Judge		-0.239 (-0.40)	-0.216 (-0.35)
Democrat		0.959 (1.53)	0.835 (1.52)
Constant	2.286 (1.30)	-0.131 (-0.06)	0.081 (0.04)
Case Controls	Yes	Yes	Yes
Year Effects	Yes	Yes	Yes
Circuit Effects	Yes	Yes	Yes
N	218	218	218
pseudo R <sup>2</sup>	0.179	0.198	0.200

*t* statistics in parentheses; <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Models 1 and 2 are logit models estimated on securities class action case level data with Dismissal as the dependent variable. Errors are clustered by district judge. Note that Auditor Terminated was perfectly correlated with Lead Plaintiff Attorney Choice and was dropped from the logit model. Variable definitions are in the Appendix.

**Table 7: Settlement Outcomes**

	<b>Freq.</b>	<b>Percent</b>
Judge Accepted Final Settlement Motion	241	100.0
Judge Rejected Final Settlement Motion	0	0.0
Total	241	100.0
Judge Accepted Preliminary Settlement Motion	239	96.8
Judge Rejected Preliminary Settlement Motion	8	3.2
Total	247	100.0
Settlement Amount Unchanged From Stipulation	207	96.3
Settlement Amount Changed From Stipulation	8	3.7
Settlement Amount Increased	2	0.9
Settlement Amount Decreased	6	2.8
Total	215	100.0

**Table 8: Judge Rejected Attorney Fee**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Publications Per Filing	-33.172** (-2.72)	-57.260+ (-1.85)	-33.793+ (-1.95)
Positive Citations	-0.399 (-1.41)	-1.557** (-3.21)	-1.316** (-2.87)
Affirmance Rate	-1.702 (-0.74)	-9.908* (-2.22)	-6.768* (-2.05)
Top School		-6.118** (-3.40)	-5.338** (-3.52)
Prior Judge		-5.504** (-3.06)	
Judge Experience		-0.421* (-2.51)	
Business Caseload			8.441* (2.30)
Prior Private Practice			2.603* (2.50)
Chief Judge		-2.353 (-1.37)	-1.685 (-1.16)
Democrat		-7.092** (-2.93)	-3.191** (-2.94)
Log odds of the Requested Fee	4.023* (2.44)	9.707* (2.53)	6.113* (2.57)
ln(Settlement Amount)	-0.473 (-1.21)	-1.626* (-2.27)	-1.146 (-1.48)
Constant	3.781 (1.27)	26.877** (2.74)	10.141** (2.60)
Case Controls	Yes	Yes	Yes
Circuit Effects	Yes	Yes	Yes
N	93	87	87
pseudo R <sup>2</sup>	0.254	0.568	0.480

z statistics in parentheses; +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Models 1 and 2 are logit models estimated on securities class action case level data with Judge Rejected Attorney Fee as the dependent variable. Case Controls include the Restatement, Gov. Investigation, Officer Terminated, Auditor Terminated, Insider Trading, Section 11, ln(Market Capitalization) and High Technology variables. Variable definitions are in the Appendix. Errors are clustered by district judge.

## Appendix: Variable Definitions

### Dependent Variables

<b>Variable</b>	<b>Description</b>
Securities Judge	Indicator variable defined as equal to 1 if the judge made a lead plaintiff decision in a securities class action during our case dataset time period and 0 otherwise.
Lead Plaintiff Atty Rejected	Indicator variable defined as equal to 1 if the judge rejected the lead plaintiffs' choice of lead counsel without modification and 0 otherwise.
Dismissal	Indicator variable defined equal to 1 if the suit resulted in a dismissal with prejudice and 0 otherwise.
Judge Rejected Fee	Indicator variable defined to equal to 1 if the judge rejected the attorney fee motion and 0 otherwise.
Number of Securities Reversals	Number of securities law related decision on which the judge was reversed during the 2003 to 2007 time period.

### Judge Characteristic Independent Variables

<b>Variable</b>	<b>Description</b>
Publications Per Filing	The average number of published opinions in 2001 and 2002 for the judge in question as a fraction of the per judge number of filings for the district court in which the judge sits.
Positive Citations	The average number of positive citations per opinion for the judge in question during the 2001 to 2002 period.
Affirmance Rate	The number of affirmances of published opinions divided by the number of published opinions. Affirmances include all non-overruled opinions including non-appealed opinions.
Top School	Indicator variable defined as equal to 1 if the judge in question graduated from Harvard, Yale, or Stanford Law School and 0 otherwise.
Senior2005	Indicator variable defined as equal to 1 if the judge in question is a senior judge in the year 2005 or earlier.
Senior	Indicator variable defined as equal to 1 if the judge in question is a senior judge in the year in question (first suit filed year, lead plaintiff appointment year, or outcome year depending on the test) is made and 0 otherwise.
Prior Judge	Indicator variable defined as equal to 1 if the judge in question immediate prior provision before appointment was as a magistrate judge or a judge in another court system and 0 otherwise.
Judge Experience2003	Number of years between the year of appointment for the judge in question and the year 2003.

Judge Experience	Number of years between the year of appointment for the judge in question and the year in question (first suit filed year, lead plaintiff appointment year, or outcome year depending on the test) is made.
Business Caseload	The fraction of the judge in questions published opinions in 2001 and 2002 that were on a securities law or other federal business law subject matter.
Prior Private Practice	Indicator variable defined as equal to 1 if the judge in question immediate prior provision before appointment was in private practice and 0 otherwise.
Democrat	Indicator variable defined as equal to 1 if the judge in question was appointed by a Democrat President and 0 otherwise.
Chief Judge2003-2007	Indicator variable defined as equal to 1 if the judge in question was the chief judge for the district at any time during 2003 to 2007 and 0 otherwise.
Chief Judge	Indicator variable defined as equal to 1 if the judge in question is the chief judge for the district in the year in question (first suit filed year, lead plaintiff appointment year, or outcome year depending on the test) is made and 0 otherwise.

---

### **Other Independent Variables**

<b>Case Control Variables</b>	<b>Description</b>
Section 11	Indicator variable equal to 1 if the complaint for a particular class action alleged a Section 11 of the Securities Act of 1933 violation and 0 otherwise.
Govt. Investigation	Indicator variable equal to 1 if the complaint indicated the presence of a SEC or other governmental investigation or enforcement action relating to the fraud at issue and 0 otherwise.
Restatement	Indicator variable equal to 1 if the complaint indicated that the company announced a restatement covering at least part of the class period and 0 otherwise.
Officer Term.	Indicator variable equal to 1 if the complaint indicated that a top officer of the defendant company resigned or was terminated during the class period and 0 otherwise.
Auditor Term.	Indicator variable equal to 1 if the complaint indicated that the auditor resigned or was terminated during the class period and 0 otherwise.
Insider Trading	Indicator variable equal to 1 if the complaint alleged insider trading and 0 otherwise.
Market Capitalization	Market value of a company's common equity (in \$ millions) at the end of the fiscal year preceding the beginning of the class period.
Settlement Amount	The settlement amount for the class action.
High Tech	Indicator variable equal to 1 if the firm is in SIC codes 3570-3577 or 7370-7379 and 0 otherwise
Public Pension	The fraction of lead plaintiffs in a specific case that consist of a public pension fund.
Labor Union	The fraction of the lead plaintiffs that consist of a labor union.

Other Institution

The fraction of lead plaintiffs in a specific case that are institutions but not public pensions or labor unions.

---