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Attorneys as Arbitrators

Stephen Choi[*]   Jill Fisch[†]

Adam C. Pritchard[‡]

[*]NYU Law School, stephen.choi@nyu.edu

[†]University of Pennsylvania, jfisch@law.upenn.edu

[‡]University of Michigan Law School, acplaw@umich.edu

1.   **Introduction**

In 1987, the Supreme Court held in *Shearson/American Express v. McMahon* that
investor claims under the Securities Exchange Act of 1934 were arbitrable.[1] That
decision was soon followed by *Rodriguez de Quijas v. Shearson/American Express, Inc.*,
in which the Court overruled *Wilko v. Swan* and held that mandatory arbitration
provisions in brokerage customer agreements for claims under the Securities Act of 1933
are also enforceable.[2] Since those decisions, virtually all brokerage customer agreements
contain a clause requiring disputes between the customer and the broker to be submitted
to arbitration. The vast majority of these arbitrations take place in a forum administered
by the Financial Industry Regulatory Authority (FINRA), formerly known as the National
Association of Securities Dealers (NASD). During the period studied here, the NASD
handled approximately 90% of customer claims against brokers (the remaining 10% were
handled by the New York Stock Exchange (NYSE)). The number of claims filed per
year fluctuates, averaging 5000 to 6000 cases and peaking at almost 9000 in 2003.[3]
Since 1996, the NASD/FINRA has handled approximately 70,000 claims.

The fact that arbitration is now ubiquitous in the securities industry makes it
difficult to evaluate the results of FINRA arbitrations; there is no alternative venue for
dispute resolution with which to compare the process.[4] Despite the absence of solid
evidence on the the process, arbitration consistently has been criticized as favoring the

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[1] 482 U.S. 220 (1987).
[2] 490 U.S. 477 (U.S. 1989) (holding arbitration clauses enforceable in Securities Act disputes).
[3] This number includes disputes between firms in the securities industry and their registered
representatives.
[4] See 2000 GAO Report regarding unpaid awards at 4-5. The inability of customers to pursue litigation as
an alternative precludes the type of study that is common in analyzing labor arbitrations in which the
arbitration outcomes are compared to the results of litigated cases. See, e.g., Kevin M. Clermont & Stewart
J. Schwab, How Employment Discrimination Plaintiffs Fare in Federal Court, 1 J. Empirical Legal Stud.
429, 451-52 (2004) (comparing arbitration and litigation results in employment discrimination cases).

securities industry over the interests of investors.[5] The inescapable fact is that the

arbitration process is run by the FINRA, so it is necessarily dominated by the

association's members. The NASD created an Arbitration Policy Task Force in 1994 to

evaluate and respond to a number of criticisms, including claims that the system was

biased or industry-dominated. Although the NASD's Task Force found no evidence of

bias, a number of its recommendations were designed to improve the perceived and

actual fairness of the system, leading to rules changes in 2004 and 2007, and increased

updating and affirmation by arbitrators that their disclosure is adequate.

The criticisms of FINRA's process focus, in particular, on the use of industry

arbitrators—including, among others, those with present or recent employment ties with

securities brokerage firms. FIRNA arbitrations involving requested awards of $50,000 or

more are decided by panels of three arbitrators: one industry arbitrator and two public

arbitrators. Critics have challenged the definition of a public arbitrator as insufficiently

restrictive. In some cases, they have argued that the definition of a public arbitrator,

which includes individuals who have certain financial relationships , is insufficiently

stringent to preserve the neutrality of the public arbitrators. Most notably, the financial

thresholds do not exclude attorneys who commit only a small portion of their practice to

representing brokerage firms; such attorneys are classified as public. Moreover, some

commentators claim that the standards are inadequately enforced and that arbitrators with

significant conflicts or industry ties are able to serve as public arbitrators despite the

limitations of the rules.

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[5] See, e.g., Gretchen Morgenstern, Is this Game Already Over, N.Y. Times, June 18, 2006 (reporting criticisms of arbitration process including industry-domination, arbitrator bias, inadequately disclosed conflicts of interest, delays and more).

Another criticism leveled at securities arbitration is that it allows arbitrators excessive discretion. There are no real mechanisms for ensuring that arbitrators follow the law. This opens the door for arbitrators to be swayed by their preferences in making arbitration awards. Lawyers, by definition, are trained in the law, but that does not mean that they will follow it if there is no monitoring of their decisionmaking.

This study attempts to shed some empirical light on the role that attorneys (termed "attorney-arbitrators") play as arbitrators in securities arbitration. FINRA does not require that securities arbitrators be trained as lawyers. Nonetheless, attorneys dominate the arbitration process and, in our sample, 82.2% of public arbitrators were attorneys. Significantly, serving as a securities arbitrator is not a full time job; attorney-arbitrators continue to play other roles, including serving as advocates for investors and brokerage firms in securities arbitration. Do lawyers who serve in these roles differ in their judgments from other securities arbitrators?

To explore the role of attorneys in securities arbitration, we analyze a dataset of 422 randomly selected arbitrators and their 6724 securities arbitration awards from 1992 to 2006. We find that attorney-arbitrators who have represented brokerage firms in other securities arbitration cases are significantly less generous with arbitration awards. The relation appears to be primarily driven by the presence of an attorney who has represented a brokerage firm serving as the chair of an arbitration panel. We find no significant relation between attorneys who have represented brokerage firms and award size when that attorney is not the chair of the arbitration panel. Coalition effects, nonetheless, exist. Although not important alone, other panel arbitrators with similar views reinforce the preferences of a chair arbitrator. In contrast with our results for

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attorney-arbitrators who represent brokerage firms, we report that attorneys who represent investors in arbitration proceedings are not more generous when they serve as arbitrators, nor are arbitrators who represent both investors and brokerage houses. Finally, we find evidence that arbitrators who have made political contributions to Democratic candidates are significantly more generous in their arbitration awards than their counterparts who have made no political contributions or who have contributed exclusively to Republican candidates.

We proceed as follows. We lay out the background on FINRA arbitration procedures and survey prior literature in Part 2. Part 3 sets forth our hypotheses. Part 4 describes our sample and variables, and reports the results of our empirical tests. Part 5 concludes.

2. Background

2.1. FINRA Procedures

FINRA rules establish two categories of arbitrators – public and non-public (industry). Under the current procedures, claims for less than $25,000 are resolved through a simplified procedure involving a single arbitrator who resolves the case without a formal hearing. Claims for between $25,000 and $50,000 receive a hearing conducted by a single arbitrator, although any party has the right to request a three person panel. If the claim is heard by a single arbitrator, FINRA rules require that the arbitrator be a public arbitrator unless the parties agree otherwise. Claims for $50,000 or more are resolved by a panel consisting of three arbitrators.[6] If the case is heard by a three person

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[6] FINRA has proposed raising this limit to $100,000. Proposed Rule Change to Amend Rule 12401 of the Customer Code and Rule 13401 of the Industry Code to Raise the Amount in Controversy Heard by a Single Chair-qualified Arbitrator to $100,000. SR-FINRA-2008-047

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panel, the rules provide that the panel will be composed of two public arbitrators and one non-public (industry) arbitrator.

FINRA rules specify a variety of professional and personal characteristics that result in an arbitrator being classified as industry rather than public. Under the rules now in effect, current and former professionals in the securities industry as well as other professionals with substantial industry ties may not be classified as public arbitrators.[7] Persons who work as investment advisors, persons who work for an affiliate of a securities firm, and persons with a parent, child or spouse in the securities industry do not quality as public arbitrators.[8] Public arbitrators are thus intended to be industry outsiders or "neutrals." Non-public arbitrators, commonly known as industry arbitrators, include current and former brokers, bankers and other securities professionals. The category also includes attorneys, accountants and other professionals who have devoted 20% or more of their professional work to industry clients.[9] The rules have been amended several times, most recently in 2004[10] and 2007,[11] in an effort to eliminate potential conflicts and

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[7] 10308. Selection of Arbitrators
(5) "public arbitrator"
[8] See FINRA, The Neutral Corner - April 2007,
http://www.finra.org/ArbitrationMediation/ResourcesforArbitratorsandMediators/GeneralInformationandReference/TheNeutralCorner/P019055 (indicating in response to inquiry that the acceptance of an unpaid internship at a securities firm by an arbitrator's adult child will disqualify that arbitrator as a public arbitrator for a five year period).
[9] 10308. Selection of Arbitrators
 (4) "non-public arbitrator"
[10] The 2004 amendments (effective July 19, 2004) :
    Increased from three years to five years the period for transitioning from a non-public to public arbitrator after leaving the securities industry.
    Clarified that the term "retired" from the industry includes anyone who spent a substantial part of his or her career in the industry.
    Prohibited anyone who has been associated with the industry for at least 20 years from ever becoming a public arbitrator, regardless of how long ago the association ended.
    Excluded from the public arbitrator roster attorneys, accountants, or other professionals whose firms have derived 10 percent or more of their annual revenue in the previous two years from clients involved in securities-related activities.
    Provided that investment advisors may not serve as public arbitrators.

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biases from the category of public arbitrators. [12]   In 2008, FINRA amended its rules to prohibit an attorney, accountant or other professional from being classified as a public arbitrator if the person's firm derived $50,000 or more in annual revenue in the past two years from professional services to a broker, brokerage firm or other industry client relating to any customer disputes concerning an investment account or transaction.[13]

Since November 1998, arbitrators for FINRA arbitrations have been chosen through a list selection system administered by the Director of Dispute Resolution, termed the Neutral List Selection System (or NLSS).[14] During most of the time period involved in our study, the NASD provided the parties in each case with two separate lists, one consisting of public arbitrators and the other consisting of non-public arbitrators, in a roughly two-to-one ratio. At first the practice was to provide a list of 8 public arbitrators and 4 non-public arbitrators, but this was later increased to 10 and 5, respectively. The lists were generated by an NASD computer program using a rotational method, although the computer eliminated arbitrators with obvious conflicts of interest. Along with the

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Amended the definition of immediate family member to add parents, children, stepparents, stepchildren, as well as any member of the arbitrator's household (thus excluding persons with immediate family members employed in the securities industry).

[11] In 2005, the NASD amended the definition of public arbitrator to exclude individuals who work for (or who have an immediate family member who works for) an entity that controls, is controlled by, or is under common control with, a broker/dealer. The NASD also amended its rules so that individuals registered through broker-dealers may not be public arbitrators, even if they are employed by a non-broker-dealer (such as a bank). This amendment became effective on Jan. 15, 2007.

[12] FINRA recently introduced a pilot program under which a limited number of cases will be decided by panels consisting entirely of public arbitrators. Sara Hansard, Finra to try revamped arbitration panels, Investment News, July 25, 2008. The program is an attempt to respond to criticisms that the inclusion of an industry arbitrator results in awards that are biased against investors.

[13] SEC, Order Approving Proposed Rule Change to Amend the Definition of Public Arbitrator, Sec. Exch. Act. Rel. No. 54792 (March 19, 2008), available at http://www.sec.gov/rules/sro/nasd/2008/34-57492.pdf.

[14] The NASD's Neutral List Selection System (NLSS) went into effect on November 17, 1998. The NLSS was proposed by the NASD Arbitration Policy Task Force as part of its 1996 Securities Arbitration Reform Report and modeled after the list selection system used by the American Arbitration Association. The report recommended that panels for larger cases continue to be composed of one industry member and two public arbitrators. The report recommended improving the quality of arbitrators by increased arbitrator compensation, better training, expanding the arbitrator pool and requiring arbitrator evaluation of co-panelists. The report also made some highly controversial recommendations concerning the availability of punitive damages in arbitration awards.

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lists, the parties were also provided with background information on each arbitrator, including a copy of that arbitrator's Arbitrator Disclosure Report. Parties were allowed to request additional information on the arbitrators, and the NASD director was required to forward that request to the arbitrators, although the arbitrators were not required to respond.

Each party was allowed to strike an unlimited number of arbitrators on the list for any reason. The parties each then ranked the remaining arbitrators, ranking the public and non-public arbitrators separately. The NASD Director appointed a panel consisting of the two public arbitrators and one non-public arbitrator who received the highest combined rankings from the parties. If, after the parties' strikes were exercised, an insufficient number of arbitrators remained on the lists to fill the panel, the Director completed the panel by appointing additional arbitrators whose names were produced through computer selection.

The chair of the panel appears to exercise the greatest degree of control over the arbitration proceedings and is typically responsible for the overall administration of the proceeding including the resolution of discovery disputes, ruling on evidentiary issues, and so forth.[15] During the period of our study, the parties had the right, in the first instance, to designate the chair of the panel by agreement, although, according to FINRA, the parties agreed upon the designation of the chair only 20% of the time.[16] If the parties were unable to agree, the chair was appointed by the Director, and was to be the public

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[15] When it requested approval from the SEC to establish qualifications for panel chairs, FINRA stated that "chairpersons . . . play a vital role in the administration of cases." Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Notice of Filing of Proposed Rule Change and Amendment Nos. 1, 2, 3, and 4 Thereto To Amend NASD Arbitration Rules for Customer Disputes, Sec. Exch. Act Rel. No. 51856 (June 15, 2005), 70 FR 36442, 36445 (June 23, 2005).
[16] Id. at 36445.

arbitrator who received the highest combined ranking "as long as the person is not an attorney, accountant, or other professional who has devoted 50% or more of his or her professional or business activities, within the last two years, to representing or advising public customers in matters relating to disputed securities or commodities transactions or similar matters." If this was the case, the Director was to appoint the other public arbitrator as chair.

In no case was a non-public arbitrator to serve as chair unless the parties consented. Moreover, even in cases in which the parties could not agree on the chair designation, an arbitrator could not be appointed as chair unless the parties had selected him or her to the panel. The infrequency with which the parties agreed upon the designation of the chair suggests that the parties tend to have relatively less control over the chair designation than the overall composition of the panel. The chair selection process also limits a party's ability to select for particular chair criteria – such as industry expertise in a complicated case.[17]

Arbitrators are chosen from a pool of almost 7000 available arbitrators of which approximately 58% are public arbitrators and 42% are industry arbitrators. Arbitrators are paid $200 for each hearing session, with the chair receiving an additional $75/day. Arbitrator candidates are not required to possess any particular qualifications beyond at least five years of full-time, paid business or professional experience and at least two

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[17] In 2007, FINRA modified the list selection system in several ways. First, FINRA moved to a system in which it maintains three separate rosters of arbitrators – public arbitrators, non-public arbitrators and chair-qualified arbitrators. Lists of eight potential arbitrators are generated from each roster and sent to the parties. The parties are now permitted only four strikes from each list rather than an unlimited number of strikes, although additional arbitrators can be challenged for cause. The rationale for this change was to reduce the frequency with which the generation of additional lists would be required. FINRA also shifted from a rotational system to random selection to generate the lists.

years of college level credits.[18] Since 1993, however, FINRA has required new

arbitrators to go through its comprehensive basic arbitrator training program; since 1998,

new arbitrators have been required to pass an examination.[19]

FINRA offers a non-binding mediation program in addition to the more formal

arbitration procedure. During the period 2003-2007, according to FINRA's statistics,

approximately 70-80% of claims filed were settled or resolved through means other than

an arbitrator decision, 3-4% of cases were resolved by arbitrators based on written

submissions and 18-24% were resolved after a formal hearing.[20] Because our study

focuses on reported decisions – the only cases for which information is publicly available

– we necessarily face a selection problem, which we discuss in greater detail below.

2.2.   Prior Literature

Several commentators have attempted to evaluate the fairness of the FINRA

arbitration process. To date, these studies have been inconclusive. First, in the absence

of a basis for assessing the merits of the claims, studies of win rates or award ratios suffer

from the lack of a baseline with which to compare them.. Second, efforts to assess

potential arbitrator bias empirically are hampered by the lack of background information

on individual arbitrators.

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[18]   http://www.finra.org/web/groups/med_arb/documents/mediation_arbitration/p017271.pdf (arbitrators manual p. 1). The college credit requirement was added in 2003.

[19] FINRA imposed additional new qualification requirements on chairs as part of its 2007 revisions (after the period of our study). In addition to the requirement that chairs be public arbitrators, the rules now provide that, to be eligible for the chairperson roster, arbitrators must have completed chairperson training or have substantially equivalent training and experience and either (a) have a law degree, be a member of the bar and have served as an arbitrator on at least two cases or (b) have served as an arbitrator on at least three cases.

[20] These numbers also include intra-industry disputes.

Parties may resolve their case through direct settlement or by participating in a FINRA mediation process. See http://www.finra.org/ArbitrationMediation/AboutFINRADR/Statistics/index.htm (reporting on cases resolved through direct settlement, mediation and withdrawal).

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One set of studies focuses on investor win rates and recoveries. In 1992, the GAO published the results of a study of arbitration awards during an eighteen month period in 1989 and 1990. The GAO found that claimants received an award of monetary damages in 59% of arbitrations and received, on average, 61% of claimed damages. Comparing this to AAA arbitrations in which claimants received awards in 60% of cases and received an average of 57% of claimed damages, the GAO found no basis to conclude that the arbitration process was systematically biased in favor of the industry.[21] In 2000, the GAO published an updated reporting reflecting data from 1992 to 1998. That study found that investor win rates had declined to an average of 51% over the time period, but reasoned that this decline might be the result of an increase in settled claims rather than a pro-industry bias, concluding that "the declining win rate could indicate little or no change in the fairness of the arbitration process." More recent data indicate that the investor win rate has continued to decline. FINRA statistics show that investors received an award of monetary damages or other non-monetary relief in 42% of the cases decided in 2006, and 37% in 2007.

In the late 1990s, Gary Tidwell, then-Director of Neutral Training and Development for NASD Regulation, supervised a survey of participant perceptions of the fairness of the arbitration process. The study reviewed evaluations submitted by investors in NASD arbitrations at the close of their hearings over a fifteen month period between Dec. 1, 1997 and April 1, 1999. According to the Tidwell report, 93.49% of respondents agreed that their cases were handled fairly and without bias and 91.67% of respondents rated the arbitrators as good or excellent. The response rate for the survey,

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[21] See 1992 GAO report comparing percentage to claimant win rate of 60% in AAA arbitrations.

however, was only 10-20%. Moreover, the evaluations were frequently submitted before receiving the award.

In 2002, Professor Michael Perino was retained by the Securities & Exchange Commission to prepare a report analyzing Arbitrator Conflict Disclosure requirements in SRO arbitrations.[22] The Perino Report considered whether the then-existing SRO disclosure requirements were sufficient to assure investors that arbitrators were neutral and impartial. Perino did not conduct his own empirical analysis but, relying on the GAO and Tidwell studies described above, concluded that "the available evidence on arbitration outcomes does not suggest that arbitrators tend to have pro-industry biases." Perino also concluded that existing disclosure requirements were generally adequate, but he recommended that the arbitrator rules be amended "to emphasize that all conflict disclosures are mandatory." He also recommended that the definition of public arbitrator be reexamined, in particular to assess whether an arbitrator should be disqualified based on the industry ties of a non-household family member. Finally, he recommended additional research be conducted on investor attitudes concerning arbitration.

Jill Gross and Barbara Black recently released a study, commissioned by the Securities Industry Conference on Arbitration, surveying participants on their perceptions of fairness in arbitration.[23] Participants generally believed that arbitrators were competent, but the participants were divided on the impartiality of the arbitrators and the overall fairness of the process. Customers, however, were considerably more skeptical

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[22] Report to the Securities and Exchange Commission Regarding Arbitrator Conflict Disclosure Requirements in NASD and NYSE Securities Arbitrations (Nov. 4, 2002). The purpose of the report was to determine whether California's newly adopted ethics standards regarding disclosure of arbitrator conflicts of interest should be applied to SRO arbitrations.
[23] Perceptions of Fairness of Securities Arbitration: An Empirical Study (2008).

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than other participants, and a majority of customers said that they would be more satisfied with the process if arbitrators provided an explanation of the award.

A working paper by Jiro Kondo examines the role of arbitrator bias and expertise in the selection of arbitrators.[24] Using data from NASD arbitrations from 1991 to 2004, Kondo found that lawyers and pro-industry arbitrators are more likely to be selected to serve on panels. The pro-industry bias of arbitrator selection, however, occurred only after the NASD rule change in 1998 moving from NASD selection of panels to the list selection system. He concluded that party control of selection results in the brokerage firms, which are more likely to be repeat players, dominated the selection process and producing panels more likely to contain arbitrators who tend to side with large brokerage firms. Kondo concluded that the increased probability that an attorney would get selected after the 1998 reforms reflected a tendency for parties to select more for expertise after the reforms.

Edward S. O'Neil and Donald R. Solin studied almost 14,000 NASD and NYSE arbitrations that occurred between 1995 and 2004.[25] The study reports that investor win rates – cases in which the investor received an award of any amount – dropped from a high of 59% in 1999 to 44% in 2004. In cases in which investors received an award, the study found they recovered roughly 50% of the amount claimed. Cases involving larger claims and larger brokerage firms resulted in smaller investor recoveries. The authors also calculated expected recoveries and compared those recoveries to the costs of pursuing an arbitration claim including forum fees, legal fees and the cost of expert

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[24] Self-Regulation and Enforcement in Financial Markets: Evidence from Investor-Broker Disputes at the NASD (2006).

[25] Mandatory Arbitration of Securities Disputes – A Statistical Analysis of How Claimants Fare (2007). The researchers conducted their research without the cooperation of the NASD and in fact were forced to engage in litigation in order to obtain the right to use the award data for their study.

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witnesses. The authors concluded that an investor's chance of receiving a substantial award against a major brokerage firm in SRO arbitration was approximately 12%, with expected recovery rates increasing for smaller claims and against smaller firms.[26] The study did not focus on arbitrator characteristics or panel composition.

A number of empirical studies have examined arbitration outside the securities context. Labor arbitrations have received the most extensive analysis. Empirical research has, for the most part, found little difference between plaintiff win rates in litigation versus arbitration,[27] but most studies have found that litigated cases produce higher average awards.[28] Even with the litigation available as a basis for comparison, these studies acknowledge that the absence of a reliable baseline makes it difficult to reach normative conclusions about the fairness of arbitration relative to litigation. Researchers also note that litigated cases may differ systematically from cases that are arbitrated, limiting the value of comparing outcomes.[29] In addition, as with our study, the research in this area is hampered by lack of access to information about settled cases.[30]

One additional concern that might be traced to the role that attorneys play in arbitration is the extent to which arbitration has come to resemble litigation. Extended

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[26] Indeed, the damages awarded by the arbitrator may overstate the investor's actual recovery. In June 2000, the GAO issued a report revealing that a substantial percentage of SRO awards had not been paid. Securities Arbitration: Actions Needed to Address Problem of Unpaid Awards (2000). The GAO's report indicated that about 80% of the $161 million awarded to investors, primarily in the form of NASD-administered awards, was unpaid. The NASD responded to this report by establishing procedures to monitor the payment of awards and, in its 2003 follow-up report, the GAO indicated that the percentage of unpaid rewards had declined substantially. Nonetheless, the number of unpaid awards, particularly by defunct brokerages, remained significant.

[27] See, e.g., David Sherwyn, Samuel Estreicher & Michael Heise, Assessing the Case for Employment Arbitration: A New Path for Empirical Research, 57 Stan. L. Rev. 1557, 1567-69 (2005) (summarizing empirical research comparing win rates in arbitration versus litigation).

[28] Id. at 1576 ("The proposition that arbitration generates lower average awards than litigation finds ample scholarly support").

[29] See, e.g., id. at 1574 ("litigation and arbitration case streams differ, and, as a result, damage awards likely differ as well.").

[30] But see Sherwyn, et al. supra (studying employment discrimination cases resolved during mediation, conciliation and settlement negotiations).

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discovery, accompanied by discovery disputes and abuses, is widely reported.[31] Not

surprisingly, the length of time required to resolve a claim through the arbitration process

has increased substantially. SRO arbitration was originally viewed as preferable to

litigation in part because it was relatively fast and inexpensive.[32] The overall turnaround

time for FINRA arbitration now averages around sixteen months in cases for which a

hearing is held. Although this is still significantly faster than litigation,[33] it is far from an

expedited process.

3.   **Hypotheses**

We principally focus on the role that attorneys play as arbitrators, and in

particular how their role as advocates may influence their arbitration awards. We posit

that attorneys who represent brokerage firms and brokers in arbitration are likely to be

skeptical of investors' claims for compensation generally, leading them to be less

generous with arbitration awards. Conversely, we predict that attorneys who represent

investors in arbitration are likely to be skeptical of the integrity of brokerage firms and

brokers, leading them to be more generous with arbitration awards. We predict no effect

for attorneys who represent both brokerages and investors. We call this the Financial

Interest hypothesis.

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[31] See Gary Shorter, Securities Arbitration: Background and Questions of Fairness, at 3 (CRS Report for Congress, April 26, 2005).

[32] David Ruder, Elements of a Fair and Efficient Securities Arbitration System, 40 Ariz. L. Rev. 1101 (1998).

[33] See Marc E. Lackritz, Testimony before Committee on Financial Services, U.S. House of Representatives (March 17, 2005), available at http://www.sifma.org/legislative/testimony/archives/Lackritz3-17-05.html.

H1: Attorney-arbitrators who represent brokerage firms (investors) will make lower (higher) arbitration awards.

We also posit that the ideological views of attorney-arbitrators will affect the awards they grant in arbitrations.[34] Because arbitrators need to follow existing law only loosely, do not need to provide reasons, and face only a remote possibility of judicial review, arbitrators have large discretion in handling any particular case. That discretion may allow the political perspectives of attorney-arbitrators to influence their awards. We call this the Ideology hypothesis.

H2: Attorney-arbitrators with a strong Democrat political preference grant significantly different awards compared with attorney-arbitrators with a strong Republican political preference.

The effect of these predilections is likely to be magnified when the arbitrator serves as the chair of the arbitration, given the important role that that the chair plays in managing the proceedings, admitting evidence, etc. Moreover, the effect is also likely to be amplified if another arbitrator on the panel shares the same background with the chair. We call this a Coalition effect.

H3: Attorneys who represent brokerage firms (investors) will make lower (higher) arbitration awards when they serve as chairs.

H4: Attorneys who represent brokerage firms (investors) will make lower (higher) arbitration awards when they serve with other arbitrators with the same background.

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[34] This hypothesis is premised on an extensive literature examining the role of ideology in judicial decisionmaking. See, e.g., Gregory C. Sisk & Michael Heise, Judges and Ideology: Public and Academic Debates about Statistical Measures, 99 Nw. U. L. Rev. 743 (2005) (summarizing empirical literature).

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4.   Empirical Tests

4.1   Description of Dataset

We obtained NASD arbitration awards from the FINRA arbitration awards online site and from the LEXIS database. To generate a random set of arbitrators, we randomly selected 15 arbitration awards per month for the years 1998 to 2000; we refer to this as our "small sample." Some of the arbitrations that resulted in awards in the 1998 to 2000 period were filed prior to 1998, allowing us to generate a starting sample that includes arbitrators who were active prior to the 1998 reforms. We identified the chair in each arbitration award involving an investor as the claimant; these chairs constitute our sample of arbitrators. Because of FINRA's selection procedures for chairs, these are almost all public arbitrators (we excluded non-public chairs). We focus on chairs to select those arbitrators who are more likely to have influence over arbitrations. Using this procedure, we obtained a total of 422 arbitrators.

For each of the 422 arbitrators, we then collected information on their arbitration awards as provided in the FINRA and LEXIS databases from 1/1/1992 to 12/31/2006. We only looked at arbitration awards involving an investor-claimant. Panel A of Table 1 reports the number of arbitration awards in our sample by year.

<<Insert Table 1 About Here>>

As reported in Panel B of Table 1, the arbitration proceedings took place in 44 different jurisdictions (including Puerto Rico and the District of Columbia). The jurisdictions with the largest number of arbitrations were California (1,247), New York (969), and Florida (565).

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4.2   Variable Description

The dependent variable for the majority of our tests is the Compensation Ratio, defined as the compensatory award (or settlement if reported) divided by the requested compensation amount. [35] One potential weakness in this measure is that the claimant decides how much to request as compensation, which creates room for exaggeration. Claimants may request punitive or exemplary damages as well as damages for pain and suffering. However, these are listed separately in the arbitration award which allows us to exclude them from our measure of the compensatory damages. The compensatory damages will typically turn on the number of securities involved in a particular transaction multiplied by the losses the investor-claimant incurred on the securities. Because information on the number of securities transacted (as well as price change on the shares) is also available to the broker or brokerage firm respondent, claimants have less leeway to inflate the requested compensation amount.

A number of factors may affect the Compensation Ratio. To control for these other factors, our models include a number of variables relating to the subject matter of the dispute, selection of the dispute for arbitrator resolution, panel makeup, award, and state in which the arbitration occurred.

Subject matter controls include indicator variables for six common areas of arbitration. Suitability is defined to equal 1 if the arbitration involved a suitability claim, including claims relating to "know your customer," NYSE Rule 405,[36] and NASD Rule

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[35] We use Compensation Ratio rather than the absolute level of compensation awarded as our dependent variable because we lack data on the actual damages suffered by the claimants. Using the ratio rather than the raw figure mitigates the omitted variable problem.

[36] NYSE Rule 405, the "know your customer" rule, requires member firms to use "due diligence to learn the essential facts relative to every customer [and] every order." NYSE Rule 405.

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2310 issues,[37] and 0 otherwise. Other subject matter indicator variables include Churning (a churning, excessive trading, or excessive commission claim), Unauthorized Trades, Failure to Execute (a failure to buy or sell as directed), Misrepresentation, and Conversion (a claim of theft, conversion, unauthorized withdrawals, or self-dealing). The base category consists of claims involving a non-specified breach of contract or violation of fiduciary duty. Panel A of Table 2 reports on the frequency of the subject matter claims in our arbitration sample. Misrepresentation (68%) and suitability (50%) claims are the most common.

<<Insert Table 2 About Here>>

We also include controls to address selection effects. Panel B of Table 2 reports on the settlements in our sample. The vast majority of settlements are unreported; our sample includes a small number of settlements that are reported – typically because only some of the respondents have settled.[38] In those cases, the reported decision may or may not report the settlement terms. The variable Reported Settlement is defined to equal 1 where the arbitration resulted in a full or partial settlement and the settlement amount was reported as part of the arbitration award (and included therefore in the Compensation Ratio variable) and 0 otherwise. Unreported Partial Settlement is defined to equal 1 where the arbitration resulted in an unreported partial settlement and the award (if any) against the remaining non-settling respondents was reported and 0 otherwise. All other things being equal, we expect that awards in the case of an Unreported Partial Settlement should be lower due to the settlement by a subset of the respondents.

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[37] NASD Rule 2310, the "suitability requirement," states that "In recommending to a customer the purchase, sale or exchange of any security, a member shall have reasonable grounds for believing that the recommendation is suitable for such customer upon the basis of the facts, if any, disclosed by such customer as to his other security holdings and as to his financial situation and needs."

[38] The strength of cases that settle may be different from those that do not settle.

Panel C of Table 2 provides summary statistics on our opinion controls. Opinion controls focus on characteristics of the claim that may affect the Compensation Ratio. Claimed Compensation is included because the absolute level of compensation requested may affect the Compensation Ratio awarded. Arbitrators may be less willing to grant a higher Compensation Ratio for larger Claimed Compensation amounts, all other things being equal, simply because they are reluctant to award large sums. Large claims are more likely to be inflated by the claimant than small ones. Moreover, arbitrators may perceive a large award against an individual broker or small firm as posing a risk of insolvency. A Compensation Ratio of 20% for a $100,000 claim produces only a $20,000 award – the same Compensation Ratio for a claim of $100 million is likely to be more difficult to obtain. The mean Claimed Compensation for our sample is $620,000, but the median is a much more modest $91,000. The Compensation Ratio is less skewed, with a mean award of 32% of the claim and a median of 11%. To account for possible non-linearity in the relationship between Compensation Ratio and Claimed Compensation, we also include a squared term for Claimed Compensation.

The number of arbitrators is correlated with the size of the Claimed Compensation amount. FINRA typically requires a panel of three arbitrators for Claimed Compensation amounts of over $50,000. The overwhelming majority of the awards in our sample came from three-arbitrator panels. We also include a control variable for arbitrator experience, Inexperienced, set to one if the award is from the first year that the arbitrator appeared in the dataset, and zero otherwise. Arbitrators new to the job may be reluctant to make large awards because it may reduce their chances for future selection.

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Several opinion controls deal with the strength of the case; stronger cases should result in a higher Compensation Ratio. Unfortunately, we have no direct measure of the strength of the claimant's case, so we rely on three proxies. Respondent Failed to Appear is defined to equal 1 if the any of the respondents failed to appear at the arbitration hearing and 0 otherwise. Respondents may not appear if their case is weak; alternatively, failing to appear itself may lead the arbitrators to view the respondents' case as less meritorious. In most cases a default award will be entered against the non-responding party. At least one respondent failed to appear in 12% of the awards in our sample. We use a request of punitive damages by the claimant (Claimed Punitive) as a proxy for a relatively strong case. Although punitive damages can be (and are) claimed in connection with each of the claim types in our classification, we hypothesize that claimants request punitive damages in cases involving more egregious wrongdoing or where they have hard evidence of fraud or other culpable misconduct. Many awards request an unspecified amount of punitive damages. This measure may be relatively noisy, as some lawyers will request punitive damages in every case, while others never do. We defined Claimed Punitive as equal to 1, however, only when the claimant has made the punitive damages claim with some specificity. Two situations fall within this definition: (a) where we observe the claimant requests a positive dollar amount of punitive damages—fixing in the arbitrator's minds a precise amount of punitive damages and (b) where we observe the actual award of punitive damages, indicating that the claimant took actions during the arbitration hearings to press their claim for punitive damages.

Our final proxy for the strength of the case, Claimed Expungement, is equal to 1 if the respondents requested that the CRD record of any of the respondent-brokers be expunged and 0 otherwise. FINRA maintains CRD records for active brokers reflecting customer complaints and disciplinary proceedings. Arbitrators may, at their discretion, choose to expunge the arbitration claim from the CRD records for a broker involved in arbitration; expungement has the effect of erasing the record of the claim from the broker's CRD file. Although NASD rules adopted in 2004 provide that arbitrators may only grant expungement requests under specific conditions,[39] a recent PIABA study found that expungement remains common.[40] We treat a respondent as requesting CRD expungement: (a) where we observe the respondent requesting the expungement in the award summary and (b) where we observe the actual award of CRD expungement, indicating that the respondent actively pursued expungement during the arbitration hearings. We treat a request for CRD expungement as an indication that the respondents' case was stronger relative to the claimants' case. We consider this proxy to be the noisiest of the three in light of the consistent criticisms leveled at arbitration panels for awarding expungement without an adequate basis.

Finally, our models include state controls for the state in which the arbitration hearing took place, which we treat as exogenous to the variables in our dataset. We

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[39] In 1999, the NASD temporarily halted expungement by arbitrators after complaints were raised. In 2004, it adopted new rules providing that arbitrators could expunge a broker's record only if "arbitration panel found that an investor's allegations had been factually impossible or false, or that the accused broker had not been individually involved in the matter." Lynnley Browning, Site That Tracks Brokers Questioned on Erased Cases, N.Y. Times, Dec. 14, 2007, available at
http://www.nytimes.com/2007/12/14/business/14regulate.html?_r=1&oref=slogin.
[40] Shepherd, Smith & Edwards, Study Says Securities Arbitrators Often Expunge Investor Settlements from Brokers' Records, avail. at
http://www.stockbrokerfraudblog.com/2007/10/new_study_alludes_to_securitie.html (Oct. 9, 2007) (reporting results of study of 2006 expungement decisions). The New York Times reported that, in 2005, FINRA expunged 907 customer complaints from brokers' records, or 13%. Browning, supra note __.

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measure our state controls as of 1999, the mid-point of our dataset. The state controls include the median household state income (State Income) and the average partner salary for the state (Partner Income). States with higher income may have a different investor clientele than states with lower incomes. Higher law firm salaries correlates with an increased opportunity cost for qualified individuals to serve as arbitrators, leading arguably to lower quality arbitrators. We also include indicator variables for the three states with over 500 arbitrations taking place in the state (New York, California, Florida).

4.3   Financial Interest

We estimate the following equation for each award using ordinary least squares and robust standard errors clustered by individual arbitrator:

$$
\begin{aligned}
\text{Compensation Ratio}_i = {} & \alpha + \beta_{1i}\text{Attorney}_i + \\
& + \beta_{2i}\text{Attorney\_Investor}_i + \beta_{3i}\text{Attorney\_Brokerage}_i \\
& + \beta_{4i}\text{Industry Arbitrator Background}_i \\
& + \beta_{5i}\text{Inexperienced}_i + \sum\beta_{ji}\text{ Subject Matter}_{ji} \\
& + \sum\beta_{ki}\text{Opinion Controls}_{ki} + \sum\beta_{li}\text{State Controls}_{li} \\
& + \text{Year Effects } + \varepsilon_i
\end{aligned}
$$

To test the Financial Interest Hypothesis (H1), we include a series of independent variables to test the importance of a financial relationship among attorneys who serve as arbitrators. The base case is defined to be non-attorney arbitrators. Attorney is defined as 1 if the arbitrator is an attorney and 0 otherwise. Attorney_Investor is defined to equal 1 if the arbitrator has acted as an attorney in other arbitrations and represented investors in more than 75% of these arbitrations and 0 otherwise. Attorney_Brokerage is defined to equal 1 if the arbitrator acted as an attorney in other arbitrations and represented

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brokerage firms or brokers in more than 75% of these arbitrations and 0 otherwise.[41] Industry Arbitrator Background is equal to 1 if the arbitrator was designated as an industry arbitrator in other arbitration proceedings and 0 otherwise. (Designation as a public or industry arbitrator can and does change.) We include an independent variable for whether the arbitration is in the arbitrator's first year in our dataset (excluding 1992, the first year covered by our data set) (Inexperienced). The model also includes subject matter, opinion, and state controls.

<<Insert Table 3 About Here>>

Panel B of Table 3 reports the results of our first model. We find partial support for the Financial Interest Hypothesis (H1). The coefficient on Attorney_Brokerage is negative and significant at the <1% level. Arbitrators who acted as an attorney for a brokerage firm in other arbitration proceedings correlate with a 7.5 percentage point lower arbitration award (measured as a percentage of the claimed compensation). The coefficient on Industry Arbitrator Background is also negative, although significant at only the 10% level. Arbitrators with an Industry Arbitrator Background correlate with a 5 percentage point lower arbitration award. These results are consistent with the view that prior employment relationships may affect arbitration awards. Arbitrators who act as attorneys for brokerage firms or brokers may tend to side with brokerage firms and brokers in customer arbitration proceedings, perhaps because those attorneys have a more sympathetic view of the industry generally. Alternatively, attorneys who have worked for brokerage firms may have greater industry expertise, which causes them to be more skeptical of investors' claims. The available data do not allow us to assess the

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[41] Note that this variable is likely underinclusive, as it does not capture non-arbitration representation of industry clients. This underinclusion biases against finding any significant result.

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merits of claims, so we cannot exclude the possibility that lower rewards are a more accurate resolution of the claims. We do not find a corresponding effect for attorneys who represent investors; the coefficient for Attorney_Investor is insignificant.

We also find that inexperienced arbitrators make smaller awards. The coefficient on Inexperienced is negative and significant at the 10% level. Inexperienced arbitrators correlate with a 3.4 percentage point lower arbitration award to claimants, which is consistent with the proposition that those early in their arbitration careers may hesitate in making large awards, perhaps in the hope that they will get selected more often by brokerage firms in future cases.[42]

The influence of a financial interest may turn on the extent of an attorney-arbitrator's relationship with brokerage firms and brokers. To assess this question, we divide the Attorney_Investor and Attorney_Brokerage variables in Model 1 based on whether the attorney-arbitrator represented a client in at least 3 other arbitrations (for arbitrators who acted at least once as an attorney in other arbitration proceedings) there is the median number of arbitration representations (We denote these as "Many Cases," and attorney arbitrators who represented clients in two or fewer arbitrations as "Few Cases"). Model 2 of Panel B reports the results of our modified model. Note from the model that the coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the <1% level (corresponding to a 9.6 percentage point reduction in the arbitration award); in contrast, the coefficient on Attorney_Brokerage (Few Cases) is negative but not

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[42] We divided our subject matter categories into subjective claims (suitability, churning, and misrepresentation claims) and more objective claims (unauthorized trades, failure to execute, and conversion). We then added to Model 1 an indicator variable for a subjective claim (Subjective) as well as interaction terms between Subjective and the Attorney_Investor and Attorney_Brokerage variables. Unreported, the coefficient on Subjective was negative and insignificant (at the 13.1% level), suggesting that arbitrators are more skeptical of such claims. The coefficients on Subjective x Attorney_Investor and Subjective x Attorney_Brokerage, however, were both insignificant.

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significant. The Financial Interest Hypothesis holds primarily for attorney-arbitrators who served as counsel in more than the median number of arbitrations.[43]

The coefficients for many of the control variables are as expected. The Compensation Ratio increases when a respondent failed to appear and where claimants sought punitive damages; stronger cases result in higher arbitration awards. Conversely, the Compensation Ratio is lower when the respondents sought an expungement of a broker's CRD record.

Settled cases tend to result in a higher Compensation Ratio. The coefficient on Reported Settlement is positive and significant at the <1% level. This suggests that brokerage firms and brokers tend to settle the strongest cases. Even awards for non-settling respondents in cases that involve an unreported partial settlement reflect a higher Compensation Ratio.[44]

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[43]   As a robustness test, we re-estimate Model 2 using a Tobit model to control for the limitation that the dependent variable, Compensation Ratio, ranges only from 0 to 1. Reported as Model 3 of Panel B of Table 3, the Tobit model generates the same qualitative results as Model 2, supporting the Financial Interest Hypothesis with respect to attorneys who represent brokers or brokerage firms. Note though that the coefficient on Inexperienced is not significantly different from zero in this model.

As an additional robustness test, we re-estimate Model 1 of Panel B of Table 3 for only those arbitration awards that did not result in a partial or full settlement. Unreported, these models returned qualitatively the same results as the models in Table 3. We also re-estimate Model 1 of Table 3, replacing the Claimed Compensation^2 term with an indicator variable, Million, for whether the requested compensation amount was greater than one million dollars. Unreported, the model models returned qualitatively the same results as the models in Table 3.

Finally, we re-estimate Model 2 using a logit model and replacing the dependent variable with Award, defined as equal to 1 if the arbitration resulted in positive compensation to the claimant and 0 otherwise (with errors clustered by arbitrator). In the logit model, Reported Settlement and Unreported Partial Settlement were dropped as independent variables because both correlated perfectly with a positive award. Reported as Model 4 of Panel B of Table 3, the logit model generates the same qualitative results as Model 2, again supporting the Financial Interest Hypothesis. As with Model 2, however, the coefficient on Inexperienced is also insignificantly different from zero. As an additional robustness test, we re-estimate Model 4 with an Award indicator variable equal to 1 if an award equal to 5% or more of the claimed compensation amount was given and 0 otherwise. Unreported, the re-estimated model returned the same qualitative results as Model 4, supporting the Financial Interest Hypothesis.

[44] As a robustness test, we separately estimate Model 2 of Panel B of Table 3 solely for arbitrations involving three-arbitrator panels, and for one-arbitrator panels, in each case excluding the number of arbitrator variable. Unreported, we obtain the same qualitative results as in Model 2. The coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the 5% level in the three-arbitrator panel model, and negative and significant at the <1% level, in the one-arbitrator panel model. Unlike Model 2,

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It is possible that financial influence operates differently in large cases, in which the stakes are higher. To test the importance of case size, we re-estimated Model 2, creating two subsamples for arbitrations with (a) the median or lower claimed compensation amount and (b) greater than the median claimed compensation amount. Unreported, the coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the <1% level only for the subsample with the median or lower claimed compensation amount. [45] This finding suggests that arbitrators' financial interests matter only for those arbitration involving smaller dollar amounts. One possibility is that larger cases correlate with more careful screening of arbitrator lists by claimants' attorneys..

4.4   Ideology

The findings described above may not result from the experience of arbitrators serving as attorneys in other cases but may instead reflect the underlying world views of the arbitrators. The lack of written opinions and minimal judicial review may give more latitude to arbitrators' ideological views.[47] Attorneys who are skeptical of compensation may choose to represent brokerage firms rather than investors. Arbitrators who are skeptical of regulation generally may be less generous with arbitration awards. An

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however, the coefficient on Attorney_Brokerage (Few Cases) is negative and significant at the <1% level for the one-arbitrator panel model. Thus, for one arbitrator panels, attorneys with brokerage firm ties correlate with reduced awards even where their brokerage firm relationship is less extensive. One arbitrator panels may give the single arbitrator greater leeway.

[45] We also estimate this model using only three-arbitrator panels (excluding the number of arbitrators variable). Unreported, we obtain the same qualitative results as for the model with all size arbitrator panels. The coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the <1% level only for the median or lower claimed compensation amount arbitrations.

[47] FINRA has recently proposed giving the parties the option of requesting an explanation for the arbitrator's decision. Proposed Rule Change to Amend Rules 12214, 12514 and 12904 of the Code of Arbitration Procedure for Customer Disputes and Rules 13214, 13514 and 13904 of the Code of Arbitration Procedure for Industry Disputes to Require Arbitrators to Provide an Explained Decision upon the Joint Request of the Parties. SR-FINRA-2008-051.

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arbitrator who is more pro-investor may side with the customers and grant higher arbitration awards on the same set of facts.

To assess whether ideology affects arbitration awards, we use political contributions to construct a proxy for the likely political outlook of the attorney-arbitrators in our sample. We hypothesize that arbitrators who contribute to the Democratic party are more likely to be sympathetic to investors, and that arbitrators who contribute to the Republican party are more likely to favor the brokerage industry. We searched the opensecrets.org website for contributions by our attorney-arbitrators to federal political candidates. If an arbitrator contributed money only to Republicans, we labeled the arbitrator as a Republican; arbitrators who contributed to only Democrats we labeled as Democrat. Panel A of Table 4 reports on the breakdown of our attorney-arbitrators based on this classification. Because we focus on those who actually contribute money to political campaigns, arbitrators who we term either Republican or Democrat likely not only identify with that party, but also hold strong views. Note that the proxy is underinclusive; the overwhelming majority of arbitrators (78.6%) made no reported political contributions, but this does not mean that they lack an ideological perspective.[48]

We estimate the following equation for each arbitration award using ordinary least squares and robust standard errors clustered by each individual arbitrator:

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[48] Of the 75 non-attorney arbitrators, only 2 (or 2.67%) are identified as Democrat; the remaining non-attorney arbitrators are either Republican or not identified with a particular party. In contrast, of the 347 attorney arbitrators, 57 (or 16.43) are identified as Democrat (difference significant at the <1% level). Among subsets of attorneys there is less distinction based on identification as a Democrat. Of the 16 attorneys with a brokerage firm relationship, 3 (or 18.75%) are identified as Democrat; of the 45 attorneys with an investor relationship, 9 (or 20.00%) are identified as Democrat. The difference is not statistically significant.

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Compensation Ratio$_i$ = α + ß$_{1i}$Attorney$_i$ + ß$_{2i}$Democrat_Attorney$_i$
 + ß$_{3i}$Republican_Attorney$_i$
 + ß$_{4i}$Attorney_Investor (Few Cases)$_i$ + ß$_{5i}$Attorney_Investor (Few Cases)$_i$
 + ß$_{6i}$Atty_Brokerage (Few Cases)$_i$ + ß$_{7i}$Atty_Brokerage (Many Cases)$_i$
 + ß$_{8i}$Industry Arbitrator Background$_i$ + ß$_{9i}$Inexperienced$_i$
 + ∑ß$_{ji}$ Subject Matter$_{ji}$ + ∑ß$_{ki}$Opinion Controls$_{ki}$ + ∑ß$_{li}$State Controls$_{li}$
 + Year Effects + ε$_i$

The model modifies Model 2 of Panel B of Table 3 with the addition of

independent variables for whether an attorney-arbitrator contributes to Democrats or

Republicans (Democrat_Attorney and Republican_Attorney).

<<Insert Table 4 About Here>>

Model 1 of Panel B of Table 4 reports our results. The coefficient on

Democrat_Attorney is positive and significant at the <1% level (corresponding to a 4.9

percentage point increase in the arbitration award measured as a percent of the claimed

compensation); the coefficient on Republican_Attorney is negative and insignificant,

albeit on a relatively small number of observations. The difference between the two

coefficients is significant at the 5% level. Democrat attorney arbitrators give

significantly higher awards than Republican attorney arbitrators, supporting the view that

ideology has a significant effect on arbitration awards. Model 1 also reports that the

coefficient for Attorney_Brokerage (Many Cases) continues to be negative and

significant at the <1% level (corresponding to a 9.8 percentage point decrease in the

arbitration award).[49]

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[49] As a robustness test, we re-estimate Model 1 of Panel B of Table 4 for only those arbitration awards that did not result in a partial or full settlement. Unreported, the model returned qualitatively the same results as the models in Table 4. We also re-estimate Model 1 of Panel B of Table 4, replacing the Claimed Compensation^2 term with an indicator variable, Million, for whether the requested compensation amount was greater than one million dollars. Unreported, the models returned qualitatively the same results as Model 1 in Panel B of Table 4.

 Model 2 of Panel B of Table 4 re-estimates the model with the use of a Tobit regression to control for the limitation that the dependent variable, Compensation Ratio, ranges only from 0 to 1. Model 2 reports results qualitatively similar to Model 1. The coefficient on Democrat_Attorney is positive and now

To test the importance of arbitration size, we re-estimated Model 1 for the

subsamples of arbitrations with (a) the median or lower claimed compensation amount

and (b) greater than the median claimed compensation amount. Unreported, the

coefficient on Democrat_Attorney is positive and significant at the <1% level and the

coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the <1%

level only for the subsample with the median or lower claimed compensation amount.

Ideology and financial interests matter only for those arbitration involving smaller dollar

amounts.[50]

4.5.   Importance of the Arbitration Chair

For our main sample of 6724 arbitrations we only collect data on our starting set

of arbitrators. Given the labor required we do not collect information on the other

arbitrators (if any) on the arbitration panel. The lack of information on the other

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significant at the 5% level. Model 3 of Panel B of Table 4 uses logistic regression replacing Compensation Ratio with the Award indicator variable as the dependent variable (equal to 1 if a positive award was received and 0 otherwise). Model 3 reports that same qualitative results as Model 1, supporting the hypothesis that the ideology of the arbitrators affect arbitration outcomes. We re-estimate Model 3 of Panel B of Table 4 with an Award indicator variable equal to 1 if an award equal to 5% or more of the claimed compensation amount was given and 0 otherwise). Unreported, the re-estimated model returned the same qualitative results as Model 3 of Panel B of Table 4.

As an additional robustness test, we re-estimate Model 1 of Panel B of Table 4 solely for arbitrations involving three-arbitrator panels, and for one-arbitrator panels, in each case excluding the number of arbitrator variable. Unreported, we obtain the same qualitative results as in Model 1. In both models, the coefficient on Democrat_Attorney is positive and significant at the 5% level. The coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the 5% level in the three-arbitrator panel model, and negative and significant at the <1% level in the one-arbitrator panel model. Unlike Model 1, however, the coefficient on Attorney_Brokerage (Few Cases) is also negative and significant at the <1% level in the one-arbitrator panel model.

[50] As a robustness test, we re-estimated Model 1 of Panel B of Table 4 for only three-arbitrator panels (excluding the number of arbitrators variable) creating two subsamples for arbitrations with (a) the median or lower claimed compensation amount (with the median measured solely for three-arbitrator panel arbitrations) and (b) greater than the median compensation amount. Unreported, we obtain similar qualitative results as for the model with all size arbitrator panels. The coefficient on Democrat_Attorney is positive and significant at the 5% level only for the median or lower claimed compensation amount arbitrations. The coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the <1% level only for the median or lower claimed compensation amount arbitrations. On the other hand, the coefficient on Arbitrator_Brokerage (Few Cases) is now positive and significant at the 10% level.

arbitrators introduces a possible omitted variable problem. We address this potential problem in two ways. First, in this section, we code for whether the arbitrator in our sample is the chair of the arbitration proceeding or not. Second, in the next section, we collect more detailed information on the arbitration and all the arbitrators for a random sub-sample of our arbitrations.

To analyze whether other attorney characteristics, such as education and experience, affect the level of arbitration awards, we collect additional information from Martindale-Hubbell about the attorneys who serve as arbitrators in our sample. As proxies for general attorney skill, we create two indicator variables: Atty_Rated, which is coded as 1 if Martindale-Hubbell reported an "AV" or "BV" rating for the attorney-arbitrator, and 0 otherwise; and Atty_Top_LawSchool, which is coded as 1 if the lawyer graduated from a law school ranked in the top ten by U.S. News & World Report in 1991, and 0 otherwise. As proxies for familiarity with the subject matter of securities arbitration, we create two additional indicator variables: Atty_Securities_Practice, coded as 1 if securities law is listed as within the attorney's practice in Martindale-Hubbell, and 0 otherwise; and Atty_Solo_Practice, which is coded as 1 if a lawyer practices alone, rather than with a firm. Securities experience is not a dominant characteristic among our attorney arbitrators. Many are drawn to securities arbitration based on their experience with arbitration generally, such as in employment law.[51]

We hypothesize that the chair has the ability disproportionately to influence the outcome of the arbitration. This hypothesis is consistent with the greater compensation paid to chairs and FINRA's decision to impose additional qualification requirements on

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[51] Because these data are collected from internet-based sources and we have limited identifying information about our arbitrators, the professional data are incomplete and noisy.

the chair and to modify the chair selection process. Among the duties assigned to the

arbitrator who serves as chair position are resolving pre-trial motions and controlling the

presentation of evidence and other aspects of the arbitration proceeding. These

procedural steps may influence the ultimate outcome; moreover, the chair's central role

in the proceedings may lead the other arbitrators to defer to him/her.

To test the importance of the chair's influence, we estimate the following

equation for each award using ordinary least squares and robust standard errors clustered

by arbitrator:

$$
\begin{aligned}
\text{Compensation Ratio}_i = {}& \alpha + \beta_{1i}\text{Chair\_Attorney}_i + \beta_{2i}\text{Chair\_Democrat\_Attorney}_i \\
& + \beta_{3i}\text{Chair\_Republican\_Attorney}_i + \beta_{4i}\text{Chair\_Atty\_Rated}_i \\
& + \beta_{5i}\text{Chair\_Atty\_Top\_LawSchool}_i + \beta_{6i}\text{Chair\_Atty\_Securities\_Practice}_i \\
& + \beta_{7i}\text{Chair\_Atty\_Solo\_Practice}_i \\
& + \beta_{8i}\text{Chair\_Attorney\_Investor (Few Cases)}_i \\
& + \beta_{9i}\text{Chair\_Attorney\_Investor (Many Cases)}_i \\
& + \beta_{10i}\text{Chair\_Attorney\_Brokerage (Few Cases)}_i \\
& + \beta_{11i}\text{Chair\_Attorney\_Brokerage (Many Cases)}_i \\
& + \beta_{12i}\text{Chair\_Industry\_Arb\_Background}_i \\
& + \beta_{13i}\text{Other\_Attorney}_i + \beta_{14i}\text{Other\_Democrat\_Attorney}_i \\
& + \beta_{15i}\text{Other\_Republican\_Attorney}_i + \beta_{16i}\text{Other\_Atty\_Rated}_i \\
& + \beta_{17i}\text{Other\_Atty\_Top\_LawSchool}_i + \beta_{18i}\text{Other\_Atty\_Securities\_Practice}_i \\
& + \beta_{19i}\text{Other\_Atty\_Solo\_Practice}_i \\
& + \beta_{20i}\text{Other\_Attorney\_Investor (Few Cases)}_i \\
& + \beta_{21i}\text{Other\_Attorney\_Investor (Many Cases)}_i \\
& + \beta_{22i}\text{Other\_Attorney\_Brokerage (Few Cases)}_i \\
& + \beta_{23i}\text{Other\_Attorney\_Brokerage (Many Cases)}_i \\
& + \beta_{24i}\text{Other\_Industry\_Arb\_Background}_i \\
& + \beta_{25i}\text{Inexperienced}_i + \sum\beta_{ji}\text{ Subject Matter}_{ji} + \sum\beta_{ki}\text{Opinion Controls}_{ki} \\
& + \sum\beta_{li}\text{State Controls}_{li} + \text{Year Effects} + \varepsilon_i
\end{aligned}
$$

The model divides the arbitration as attorney variables (Attorney_Investor,

Attorney_Brokerage) and the arbitrator characteristic variables into two groups based on

whether the arbitrator was the chair in the particular arbitration proceeding. The division

allows us to test whether the position of the arbitrator matters in the arbitration. Model 1

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of Table 5 reports our results for this regression. Model 2 of Table 5 re-estimates Model 1 using a Tobit model. Model 3 re-estimates Model 1 using a logit model and the Award dependent variable.

<<Insert Table 5 About Here>>

Model 1 of Table 5 reports that the coefficient on Chair_Democrat_Attorney is positive and significant at the <1% level. Chair_Democrat_Attorney correlates with a 5.6 percentage point increase in the arbitration award measured as a percent of the claimed compensation. The coefficient on Other_Democrat_Attorney is not significantly different from zero. Similarly, in the Tobit model (reported in Model 2) and the logit model (reported in Model 3), the coefficients on Chair_Democrat_Attorney are positive and significant at the 5% level while the coefficients on Other_Democrat_Attorney are insignificant. For ideology, only the chair arbitrator position is important in our model.

Similarly, Model 1 of Table 5 reports that the coefficient on Chair_Attorney_Brokerage (Many Cases) is negative and significant at the <1% level. Chair_Attorney_Brokerage (Many Cases) correlates with a 9.1 percentage point decrease in the arbitration award. The coefficient on Other_Attorney_Brokerage is also negative and significant at the 5% level (corresponding to a 10.3 percentage point decrease in the arbitration award). In the Tobit model reported in Model 2, Chair_Attorney_Brokerage is negative and significant at the <1% level while the coefficient on Other_Attorney_Brokerage is insignificant. In the logit model reported in Model 3, the coefficients for both Chair_Attorney_Brokerage and Other_Attorney_Brokerage are negative and significant at the <1% level. Summing up, for affiliation with the securities

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industry, the chair arbitrator position is significant in all three of our models. The other

arbitrator position is significant only in Models 1 and 3.[52]

Our test omits the background and ideology of the other arbitrators on the

arbitration panel. The results (particularly for ideology) do suggest, however, that the

arbitrator who matters most is the chair, although industry affiliation involving other

arbitrators may also influence arbitration awards.[53]

Our tests may be affected by sample selection bias; that is, our results are

contingent upon an award being reported. However, the vast majority of cases are

settled, and cases resulting in unreported settlements may differ significantly from cases

that are resolved through a hearing. Most importantly for our purposes, particular

arbitrator characteristics may lead to a greater likelihood of settlement. Cases rarely

settle before discovery is conducted, with most cases settling just prior to the hearing.

Thus, claimants know the identity of the arbitrators when they agree to settle. Claimants

may realize that attorney-arbitrators who represent brokers and brokerage firms, for

example, favor brokers and brokerage firms in their awards. Claimants may settle such

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[52] We re-estimate Model 3 of Table 5 with an Award indicator variable equal to 1 if an award equal to 5% or more of the claimed compensation amount was given and 0 otherwise). Unreported, the re-estimated model returned the same qualitative results as Model 3 of Table 5, although the coefficient for Other_Attorney_Brokerage, while still negative, is significant only at the 5% level.

To test the importance of arbitration size, we re-estimated Model 1 for the subsamples of arbitrations with (a) the median or lower claimed compensation amount and (b) greater than the median claimed compensation amount. Unreported, the coefficient on Chair_Democrat_Attorney is positive and significant at the 5% level and the coefficient on Chair_Attorney_Brokerage (Many Cases) is negative and significant at the <1% level only for the subsample with the median or lower claimed compensation amount.

[53] As a robustness test, we re-estimate Model 1 of Table 5 for only those arbitration awards that did not result in a partial or full settlement. Unreported, these models returned qualitatively the same results as Model 1 of Table 5. We also re-estimate Model 1 of Table 5, replacing the Claimed Compensation^2 term with an indicator variable, Million, for whether the requested compensation amount was greater than one million dollars. Unreported, the models returned qualitatively the same results as Model 1 of Table 5.

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cases rather than risk a low award. The omission of such settlements from our sample may cause our tests to understate the influence of the attorney-arbitrators in our sample.

To ascertain whether our arbitrator characteristic variables of interest correlate with the propensity to settle, we test whether certain arbitrator characteristics correlate with an increased propensity to settle using our sample of settlements and arbitration awards.[54] We estimate a logit model where Settlement is the dependent variable and equal to 1 where there is a settlement and 0 otherwise. We use the same independent variables as in our arbitrator characteristic model in Table 5 above with one change. We drop the Reported Settlement and Partial Unreported Settlement independent variables. Unreported, if the Chair is an attorney who has securities practice experience, the likelihood of settlement is significantly increased. None of the other coefficients on the arbitrator characteristic variables is significantly related to the propensity to settle, including the industry affiliation and ideology related variables. This analysis is not an entirely adequate substitute for a two-stage selection model, but in the absence of a viable instrument for such a model, it does give some reassurance in the validity of our results.

4.7.   The Mix of Arbitrators

To assess the importance of the mix of arbitrators on an arbitration panel, we narrow our sample to the initial small sample used to select our arbitrators. This sample consists of 429 randomly selected awards from 1998 to 2000. Panel A of Table 6 summarizes the number of arbitrations in our sub-sample by year.

<<Insert Table 6 About Here>>

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[54] Kondo (2007) employs a similar procedure to assess the importance of sample selection bias in his sample of arbitrations. This approach is imperfect because cases involving a partial settlement may not be representative of other settled cases.

For each arbitration in our sub-sample, we collect similar attorney and political contribution information for the other arbitrator members of the panel. We expand on the opinion controls used in the full sample model to include the number of hearings in the arbitration as a measure of the complexity of the arbitration (Number of Hearings). We also include the length of the arbitration opinion as another measure of case complexity (Opinion Length). To control for the strength of the presentation of the case, we add indicator variables coded as 1 if the claimant is represented by counsel (Claimant Attorney Present) or the respondent is represented by counsel (Respondent Attorney Present), respectively, and 0 otherwise. Better presentation may lead to better outcomes. These variables may also correlate with case strength – claimants with strong cases are more likely to be able to attract an attorney to work on a contingency fee basis, while respondents with no defenses may not bother to hire counsel.

As an additional control, we include Top_Accused_Brokerage_Firm, set to 1 if any of the respondents was one of the top 10 brokerage (as measured in 1998).[55] A large brokerage firm may have repeat player advantages and greater resources in defending those complaints, leading to lower awards. Descriptive statistics on these additional variables are presented in Panel B of Table 6, along with the descriptive statistics for the small sample for the variables used in the prior models.

We estimate the following equation for each arbitration award using ordinary least squares and robust standard errors clustered by individual arbitrator:

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[55] Our source for this is the SIA Securities Industry Yearbook for   (date).

$$\text{Compensation Ratio}_i = \alpha + \text{ß}_{1i}\text{Chair\_Attorney}_i +$$
$$+ \text{ß}_{2i}\text{Chair\_Democrat\_Attorney}_i + \text{ß}_{3i}\text{Chair\_Republican\_Attorney}_i$$
$$+ \text{ß}_{4i}\text{Chair\_Attorney\_Investor (Many Cases)}_i$$
$$+ \text{ß}_{5i}\text{Chair\_Attorney\_Brokerage (Many Cases)}_i$$
$$+ \text{ß}_{6i}\text{Chair\_Industry\_Arb\_Background}_i$$
$$+ \text{ß}_{7i}\text{Top Accused Brokerage Firm}_i$$
$$+ \text{ß}_{8i}\text{Inexperienced}_i + \text{ß}_{9i}\text{Claimant Attorney Present}_i$$
$$+ \text{ß}_{10i}\text{Respondent Attorney Present}_i$$
$$+ \sum\text{ß}_{ji} \text{ Subject Matter}_{ji} + \sum\text{ß}_{ki}\text{Opinion Controls}_{ki}$$
$$+ \sum\text{ß}_{li}\text{State Controls}_{li} + \text{ Year Effects } + \varepsilon_i$$

Model 1 of Table 7 reports our results (using an ordinary least squares model with errors clustered by individual arbitrator).

<<Insert Table 7 About Here>>

Note in Model 1 that the Chair_Republican_Attorney coefficient is negative and significant at the 10% level. Chair_Republican_Attorney correlates with an 8.5 percentage point decrease in the arbitration award measured as a percent of the claimed compensation. Chair_Attorney_Brokerage (Many Cases) coefficient is significant at the 5% level (and negative). Chair_Attorney_Brokerage (Many Cases) correlates with a 13.2 percentage point decrease in the arbitration award. In contrast, the coefficient on Chair_Attorney_Investor (Many Cases) is not significantly different from zero. The results from our large sample tests carry forward to our sub-sample.

Note from Model 1 that the coefficient on Top Accused Brokerage Firm is negative and significant at the <1% level (corresponding to a 14.1 percentage point reduction in the arbitration award). Larger firms appear to be able to defend their actions better, resulting in lower compensation awards. Note also that the coefficient on Claimant Attorney Present is positive and significant at the 5% level (corresponding to a 10.3 percentage point increase in the arbitration award). Not surprisingly, claimants that

<div style="text-align:center">36</div>

hire attorneys fare better. This may be because attorneys help present the claimants' case more persuasively, because claimants who know they have a stronger case will expend the resources to hire an attorney, or because attorneys perform a screening function in agreeing to take a case. Similarly, the coefficient on Respondent Attorney Present is negative and significant at the <1% level (corresponding to a 20.3 percentage point decrease in the arbitration award). Respondents who hire an attorney pay lower compensation awards.[56]

To test the importance of the other non-industry arbitrators, we divide our financial interest and ideology variables based on whether the Chair arbitrator sits on the same panel with a non-industry arbitrator of the same persuasion (denoted as "with Coalition") or not (denoted as "no Coalition"). Model 2 reports the results with solely the financial interest variable divided based on panel composition and Model 3 reports the results with both fiancial interest and ideology variables so divided.

Model 2 reports that the coefficient on Chair_Attorney_Brokerage (Many Cases) No Coalition is negative but not significant at conventional levels. The coefficient on Chair_Attorney_Brokerage (Many Cases) with Coalition is negative and significant at the 5% level (corresponding to a 21.9 percentage point decrease in the arbitration award). The pairing of an arbitrator chair who is a brokerage attorney with another similar

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[56] To test the importance of arbitration size, we re-estimated Model 1 for the subsamples of arbitrations with (a) the median or lower claimed compensation amount and (b) greater than the median claimed compensation amount. Unreported, the coefficient on Chair_Attorney_Brokerage (Many Cases) coefficient is significant at the 10% level (and negative) only for the subsample with the median or lower claimed compensation amount. The coefficient on Claimant Attorney Present is positive and significant at the <1% level only for the subsample with the median or lower claimed compensation amount. The coefficient on Respondent Attorney Present is negative and significant at the 5% and <1% levels in the subsamples with the median or lower claimed compensation amount and greater than the median claimed compensation amount respectively. Lastly, the coefficient on Top Accused Brokerage Firm is negative and significant at the <1% level only for the subsample with the median or lower claimed compensation amount. Thus, most of the effects we identify appear significant only for the smaller arbitration awards.

arbitrator results in significantly lower awards for investor-claimants.[57] This evidence

suggests that a coalition of like-minded arbitrators result in a greater shift in the

arbitration award than where only a single arbitrator has a background characteristic that

may affect the arbitration outcome.

Model 3 reports similar results as in Model 2. In addition, the coefficients on

Chair_Republican_Attorney No Coalition and Chair_Democrat_Attorney No Coalition

are both insignificant at conventional levels. The coefficient on

Chair_Republican_Attorney with Coalition is negative and significant at the 5% level

(corresponding to a 16.7 percentage point reduction in the arbitration award). Thus we

find mixed evidence that Chair arbitrators are more likely to decide according to their

ideology if joined with a similar minded non-industry arbitrator.[58]

4.8.   Testing the Impact of the NASD Reforms

Our final set of tests relates to the reforms adopted in 1998 and 2004 by the

NASD. Those reforms were intended to enhance the fairness of the process, thereby

helping investors, but they sought to achieve that goal through very different

mechanisms. The 1998 reforms shifted the selection of arbitrators from the NASD to the

parties, putting the onus on parties to exclude arbitrators that were perceived as biased.

The 2004 reforms narrowed the definition of a public arbitrator, excluding individuals

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[57] As a robustness test, we re-estimate the models of Table 7 for only those arbitration awards that did not result in a partial or full settlement. Unreported, these models returned qualitatively the same results as the models in Table7. We also re-estimate the models of Table 7, replacing the Claimed Compensation^2 term with an indicator variable, Million, for whether the requested compensation amount was greater than one million dollars. Unreported, the models returned qualitatively the same results as the models in Table 9.
[58] As a robustness test, we attempted to re-estimate the models of Table 7 with Tobit models. However, the models failed to converge to a full set of coefficients and t-statistics for the coefficients.

with a broader range of personal and professional ties to the securities industry from serving as public arbitrators.

The effect of the 1998 reforms thus depends largely on the knowledge and sophistication of the parties.[59] If brokerage firms, as repeat players, had greater access to information about arbitrators and greater resources to spend on the selection process, the 1998 reforms might benefit them more than claimants. On the other hand, many claimants' attorneys are also repeat players who compile and maintain data on individual arbitrators. The greatest disparity is likely to be found in cases in which the claimant is not represented by counsel. The 2004 reforms seem more directly aimed at potential conflicts of interest, although it is unclear if the new limitations were significant.

Kondo (2007) found that the 1998 reforms tilted the selection of arbitrators toward more pro-brokerage firm arbitrators, suggesting that party control over panel composition favored repeat players over one-shot claimants. Kondo's study faces the problem that the pool of all available arbitrators is not publicly available, because the NASD does not release information about the pool of arbitrators beyond reporting the percentage of public and industry arbitrators. Thus, Kondo's tests are unable to control for the background pool of available arbitrators which may have shifted over time. Kondo also reports that more attorneys are selected as arbitrators after the 1998 reforms, leading him to conclude that expertise increased among arbitrators after the 1998 reforms.

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[59] An extensive literature, sparked by Marc Galantar's influential article, identifies the advantages that repeat players have in litigation. See Marc Galanter, Why the "Haves" Come Out Ahead: Speculations on the Limits of Legal Change, 9 L.& Soc. Rev.. 95 (1974). Scholars have applied the same analysis to arbitration. See, e.g., Lisa B. Bingham, Employment Arbitration: The Repeat Player Effect, 1 Employee Rts. & Employment Pol'y J. 189 (1997) (examining repeat player effect in labor arbitration).

Given the data problems posed for testing selection, our tests focus on how arbitrators changed their behavior in response to the incentives created by the reforms. If, for example, the reforms gave brokerage firms greater clout, we would expect arbitrators to reduce their awards against brokerage firms in the post-reform time period in hopes of remaining attractive to brokerage firms in future cases. Accordingly, we pose both these hypotheses in null form.

H5: The 1998 reforms had no significant effect on the incentives of arbitrators to side for (or against) brokerage firms and brokers.

H6: The 2004 reforms had no significant effect on the incentives of arbitrators to side for (or against) brokerage firms and brokers.

To test the impact of the 1998 and 2004 reforms, we re-estimate Model 1 of Panel B in Table 4 using the full 1992-2006 sample, excluding arbitrations commenced in 1998 and 2004. For each model in Table 3 we remove the year indicator variables and substitute two indicator variables, Post 1998 Reforms and Post 2004 Reforms, for whether the arbitration is initiated after 1998 or 2004. We remove all arbitrator specific variables and instead use arbitrator fixed effects. The use of arbitrator fixed effects allows us to control for arbitrator characteristics in assessing the impact of the 1998 and 2004 reforms. Arbitrator fixed effects allows us to examine how any specific arbitrator changed his or her awards subsequent to the 1998 and 2004 reforms in response to the incentives created by these reforms. Model 1 of Table 8 reports our results, using an ordinary least squares model with errors clustered by each individual arbitrator.

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<<Insert Table 8 About Here>>

From Model 1, note that the coefficient for the 1998 reforms is negative and significant at the <1% level (corresponding to a 4.6 percentage point reduction in the arbitration award measured as a percent of the claimed compensation). Thus, greater party involvement in the selection process correlates with a reduction in the size of investor arbitration awards. Although it is difficult to assign causality, this evidence undermines the claim that this reform assisted investors. We can speculate that brokerage firms, as repeat players in the process, may have had an advantage in collecting information about arbitrators, thus allowing the firms to use the selection process more strategically. Arbitrators may have reduced the size of their awards in an effort to be attractive to brokerage firms in future cases.

The coefficient for the 2004 reforms, which more unambiguously were intended to help investors, is insignificant. We find no evidence that the 2004 reforms tilted the balance toward investors or brokers and brokerage firms one way or the other. It is important to note that because we are testing arbitrator fixed effects, we do not capture the possibility that the 2004 reforms changed the composition of the pool. At the same time, it does not appear that the adoption of the reforms, which were motivated by claims of pro-industry bias, caused continuing arbitrators to change their awards.

To test the importance of arbitration size, we re-estimate Model 1 for the subsamples of arbitrations with (a) the median or lower claimed compensation amount and (b) greater than the median claimed compensation amount. Unreported, the coefficient on the 1998 reform indicator variable is negative and significant at the <1% level only for the subsample of arbitrations with greater than the median claimed

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compensation amount. Brokerage firms may have used information about arbitrators more strategically after the 1998 reforms – focusing primarily on larger arbitration award cases where the investment in using such information was most cost justified.

To assess the impact of the 1998 reforms on cases with varying strength, we added interaction terms between the Post 1998 Reform and the three case strength variables (Respondent Failed to Appear, Claimed Punitive, and Claimed Expungment) to Model 1 of Table 8. Unreported, the coefficient on Post 1998 Reform remains negative but now is significant at only the 10.4% level. The interaction term between Post 1998 Reform and Claim Punitive is negative and significant at the <1% level (the coefficients on the other case strength interaction terms are not significantly different from zero). This finding suggests that the negative impact of the 1998 reforms on investor awards occurred disproportionately for stronger investor claims.

Some arbitrators in our sample started as arbitrators after the 1998 reforms. As a robustness test, we re-estimate Model 1 of Table 8 using only arbitrators who started prior to 1998 (reported as Model 2). Model 2 reports the same qualitative results as Model 1. As an additional robustness test, we re-estimate Model 1 using a Tobit random effects model (using arbitrator effects). Model 3 reports the same qualitative results as Model 1 for the Tobit random effects model.[60] Lastly, we re-estimate Model 1 using a logit model with an indicator (Award) for whether the arbitration resulted in any compensation for the claimant as the dependent variable (reported as Model 4). Unlike

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[60] As a robustness test, we re-estimate Model 1 of Table 8 for only those arbitration awards that did not result in a partial or full settlement. Unreported, the model returned qualitatively the same results as in Model 1. We also re-estimate Model 1 of Table 8 replacing the Claimed Compensation^2 term with an indicator variable, Million, for whether the requested compensation amount was greater than one million dollars. Unreported, the model returned qualitatively the same results as in Model 1.

the other three models, the coefficient on Post 1998 Reform is not significantly different from zero in Model 4.[61]

5.   Conclusion

Both industry connections and ideology affect arbitration awards. We report evidence that attorney-arbitrators are influenced by their experience representing brokers or brokerage firms in other arbitrations. Attorneys who represent brokers or brokerage firms render significantly lower arbitration awards when they serve as arbitrators. Those attorney-arbitrators with strong political views also award systematically different arbitration awards. Democrat attorney-arbitrators award significantly greater awards than Republican attorney-arbitrators. These effects appear to be largely driven by smaller awards.

The 1998 reforms correlate with a reduction in overall awards for any given arbitrator. Party control over the selection of the arbitrators appears to increase arbitrators' incentives to cater to the interests of brokers and brokerage firms. Perhaps brokers and brokerage firms, as repeat players, are better able to assess and strike less sympathetic arbitrators. On the other hand, investors appear able to focus on obvious conflicts of interests.

Generally, our findings show that arbitrator characteristics affect arbitration outcomes. Our limited ability to determine whether the differences in results are due to bias, expertise, or other factors suggests a need for greater transparency in the arbitration

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[61] We re-estimated Model 4 of Table 8 with an Award indicator variable equal to 1 if an award equal to 5% or more of the claimed compensation amount was given and 0 otherwise). Unreported, the re-estimated model returned the same qualitative results as Model 4 of Table 8.

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process, including increased disclosure about arbitrator backgrounds and greater

explanation of case awards.

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Appendix

APPENDIX A: VARIABLE DEFINITIONS

Variable	Definition
Attorney_Investor	Indicator variable equal 1 if the arbitrator has acted as an attorney in other arbitrations and represented investors in more than 75% of these arbitrations and 0 otherwise.
Attorney_Brokerage	Indicator variable to equal 1 if the arbitrator acted as an attorney in other arbitrations and represented brokerage firms or brokers in more than 75% of these arbitrations and 0 otherwise.
Industry Arbitrator Background	Indicator variable equal to 1 if the arbitrator was designated as an industry arbitrator in other arbitration proceedings and 0 otherwise
Inexperienced	Indicator variable equal to 1 if the award in question was decided in the first year that the arbitrator's awards appear in the dataset (other than in 1992) and 0 otherwise.
Suitability	Indicator variable equal to 1 if the arbitration involved a suitability claim, including claims involving "know your customer", NYSE Rule 405, and NASD Rule 2310 issues, and 0 otherwise.
Churning	Indicator variable equal to 1 if the arbitration involved a churning, excessive trading, or excessive commission claim and 0 otherwise.
Unauthorized Trades	Indicator variable equal to 1 if the arbitration involved an unauthorized trading claim and 0 otherwise.
Failure to Execute	Indicator variable equal to 1 if the arbitration involved a claim that the broker or brokerage firm failed to execute a transaction, failed to monitor an account properly, improperly executed a transaction, or engaged in activities that resulted in errors in a customer account and 0 otherwise.
Misrepresentation	Indicator variable equal to 1 if the arbitration involved misrepresentation, fraud, failure to disclose, Rule 10b-5, common law fraud, or deceptive sales tactic claim and 0 otherwise.

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Conversion	Indicator variable equal to 1 if the arbitration involved a theft, conversion, unauthorized withdrawals, or self-dealing claim and 0 otherwise.
Claimed Compensation	Amount of claimed compensation in dollars by the arbitration claimants.
Compensation Ratio	The total amount of compensation award divided by the claimed compensation amount.
Award	Indicator variable equal to 1 if the arbitration resulted in positive compensation to the claimant and 0 otherwise.
Number of Arbitrators	Number of arbitrators involved in the arbitration.
Respondent Failed to Appear	Indicator variable equal to 1 if the any of the respondents failed to appear at the arbitration hearing and 0 otherwise.
Punitive Damages	Indicator variable equal to 1 if punitive damages were imposed on any of the respondents in the arbitration award and 0 otherwise.
CRD Expungement	Indicator variable equal to 1 if the CRD records of any of the respondent-brokers was expunged and 0 otherwise.
Reported Settlement	Indicator variable equal to 1 if the arbitration resulted in a full or partial settlement and the settlement amount was reported and 0 otherwise.
Unreported Partial Settlement	Indicator variable equal to 1 if the arbitration resulted in a partial settlement and the settlement amount was not reported (but the award for the non-settling respondents was reported) and 0 otherwise.
Chair_Ratio	Number of arbitration in which a specific arbitrator served as chair divided by the total number of arbitrations for the specific arbitrator
State Income	The median household income for the state in 1999.
Partner Income	The average partner salary reported for 1999 for the state.

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Table 1
Summary Statistics

Panel A

Year	Number of Arbitration Awards	Percent
1992	331	4.92
1993	316	4.70
1994	324	4.82
1995	424	6.31
1996	614	9.13
1997	620	9.22
1998	849	12.63
1999	538	8.00
2000	434	6.45
2001	299	4.45
2002	291	4.33
2003	403	5.99
2004	557	8.28
2005	496	7.38
2006	228	3.39
Total	**6724**	**100.00**

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Table 1 Continued

Panel B

State	# of Awards	Percent	State	# of Awards	Percent
AK	4	0.07%	MO	112	1.99%
AR	9	0.16%	MT	1	0.02%
AZ	125	2.22%	NC	123	2.19%
Al	1	0.02%	NE	31	0.55%
CA	1,247	22.19%	NJ	7	0.12%
CO	228	4.06%	NM	39	0.69%
CT	7	0.12%	NV	57	1.01%
DC	102	1.81%	NY	969	17.24%
FL	565	10.05%	OH	171	3.04%
GA	110	1.96%	OK	21	0.37%
HI	24	0.43%	OR	64	1.14%
IA	2	0.04%	PA	198	3.52%
ID	1	0.02%	PR	2	0.04%
IL	121	2.15%	SC	5	0.09%
IN	14	0.25%	TN	36	0.64%
KS	1	0.02%	TX	316	5.62%
KY	54	0.96%	UT	31	0.55%
LA	79	1.41%	VA	39	0.69%
MA	78	1.39%	VT	1	0.02%
MD	53	0.94%	WA	73	1.30%
MI	309	5.50%	WI	66	1.17%
MN	123	2.19%	WV	1	0.02%

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Table 2

Panel A

Type of Claim	Number of Awards	Percent
Suitability	3385	49.76%
Churning	1169	17.19%
Unauthorized Trades	1675	24.63%
Failure to Execute	1241	18.24%
Misrepresentation	4627	68.02%
Conversion	295	4.34%
Base Category (Breach of and/or Fiduciary Duty)	206	3.03%

Panel B

Outcome	Number of Awards	Percentage
No Settlement	5965	88.7
Settlement	759	11.3
Reported	51	0.8
Unreported Partial Settlement	211	3.1
Unreported Full Settlement	497	7.4
Total	**6724**	**100.0**

Panel C

Variable	Mean	25%	Median	75%	Standard Deviation
Claimed Comp. ($ millions)	0.620	0.025	0.091	0.273	12.628
Compensation Ratio	0.324	0.000	0.112	0.656	0.391
Inexperienced	0.064	0.000	0.000	0.000	0.244
Number of Arbitrators	2.616	3.000	3.000	3.000	0.783
Respondent Failed to Appear	0.121	0.000	0.000	0.000	0.326
Punitive Damages	0.044	0.000	0.000	0.000	0.205
CRD Expungement	0.155	0.000	0.000	0.000	0.362
Median State Income (1999)	43248.9	39927.0	43393.0	47203.0	4018.9
Median Partner Income (1999)	234647	228080	217790	246380	30097

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Table 3
Attorneys as Arbitrators

Panel A

Status	Number of Arbitrators	Percent
Attorney	347	82.2%
Attorney_Investor	45	10.7%
Attorney_Brokerage	16	3.8%
Not Attorney	75	17.8%
Total	**422**	**100.0%**

Panel B

Variables	Model 1	Model 2	Model 3	Model 4
	OLS w/ Errors Clustered by Arbitrator	OLS w/ Errors Clustered by Arbitrator	Tobit	Logit (Dep Var: Award=1 if positive award and 0 otherwise)
Attorney	-0.020 (-1.300)	-0.020 (-1.300)	-0.064[*] (-2.050)	-0.194[+] (-1.690)
Attorney_Investor	-0.005 (-0.190)			
Attorney_Brokerage	-0.075[**] (-3.160)			
Attorney_Investor (Few Cases)		-0.016 (-0.460)	-0.051 (-0.920)	-0.235 (-1.090)
Attorney_Brokerage (Few Cases)		0.006 (0.170)	0.015 (0.270)	0.078 (0.510)
Attorney_Investor (Many Cases)		-0.030 (-0.490)	-0.079 (-0.760)	-0.310 (-0.810)
Attorney_Brokerage (Many Cases)		-0.096[**] (-5.100)	-0.254[**] (-3.460)	-0.640[**] (-5.770)
Industry Arbitrator Background	-0.050[+] (-1.860)	-0.049[+] (-1.810)	-0.138[*] (-2.520)	-0.363[*] (-2.350)
Inexperienced	-0.034[+] (-1.880)	-0.034[+] (-1.850)	-0.068 (-1.530)	-0.063 (-0.510)
Suitability	-0.011 (-0.980)	-0.011 (-0.970)	-0.021 (-0.910)	0.036 (0.530)

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Churning	-0.023[+]	-0.023[+]	-0.017	0.213**
	(-1.850)	(-1.830)	(-0.560)	(2.760)
Unauthorized Trades	0.029*	0.029*	0.082**	0.305**
	(2.430)	(2.440)	(3.230)	(4.470)
Failure to Execute	-0.007	-0.007	-0.006	0.034
	(-0.520)	(-0.510)	(-0.190)	(0.420)
Misrepresentation	0.016	0.015	0.045[+]	0.180**
	(1.520)	(1.500)	(1.810)	(2.740)
Conversion	0.055*	0.056*	0.116*	0.197
	(2.020)	(2.040)	(2.240)	(1.210)
Claimed Compensation	-0.012**	-0.012**	-0.033**	-0.026[+]
	(-4.100)	(-4.110)	(-4.180)	(-1.660)
Claimed Compensation^2	0.000**	0.000**	0.000**	0.000
	(4.010)	(4.010)	(3.020)	(0.280)
Number of Arbitrators	-0.023**	-0.023**	-0.021	0.129**
	(-3.290)	(-3.270)	(-1.420)	(3.460)
Respondent Failed to Appear	0.269**	0.269**	0.533**	1.386**
	(17.200)	(17.210)	(16.620)	(14.150)
Claimed Punitive	0.033**	0.034**	0.067**	0.160*
	(3.220)	(3.260)	(2.780)	(2.590)
Claimed Expungment	-0.109**	-0.109**	-0.339**	-1.052**
	(-8.180)	(-8.170)	(-9.700)	(-12.140)
Reported Settlement	0.243**	0.243**	0.525**	
	(4.940)	(4.960)	(4.690)	
Unreported Partial Settlement	0.208**	0.208**	0.454**	
	(6.700)	(6.700)	(8.010)	
Median State Income	0.000	0.000	0.000	0.000
	(0.020)	(0.000)	(-0.570)	(-1.150)
Median Partner Income for State	0.000[+]	0.000*	0.000[+]	0.000
	(-1.950)	(-1.970)	(-1.770)	(-0.600)
New York	-0.026	-0.027	-0.059	-0.137
	(-1.190)	(-1.230)	(-1.240)	(-0.860)
California	0.007	0.007	0.010	-0.040
	(0.430)	(0.420)	(0.310)	(-0.360)
Florida	0.013	0.009	0.014	-0.061
	(0.670)	(0.440)	(0.320)	(-0.530)
Constant	0.461**	0.464**	0.434*	0.752

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	(4.970)	(5.000)	(2.240)	(1.120)
N	5864	5864	5864	5625
Adj R2 or Pseudo R2	0.1283	0.1283	0.0695	0.0708
Year Indicator Variables	Yes	Yes	Yes	Yes

Note. Dependent variable is Compensation Ratio. Variable definitions are in the Appendix. t-statistics are in parentheses.

[+] Coefficient significant at the 10% level or less.

[*] Coefficient significant at the 5% level or less.

[**] Coefficient significant at less than the 1% level.

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Table 4
Ideology of Arbitrators

Panel A

Political Party of Attorneys	Number of Arbitrators	Percent
Democrat	57	13.5%
Republican	36	8.5%
Neither	324	78.0%
Total	**422**	**100.0%**

Panel B

Variables	Model 1	Model 2	Model 3
	OLS w/ Errors Clustered by Arbitrator	**Tobit**	**Logit (Dep Var: Award=1 if positive award and 0 otherwise)**
Attorney	-0.026 (-1.620)	-0.080[*] (-2.510)	-0.248[*] (-2.130)
Democrat Attorney	0.049[**] (2.640)	0.111[**] (3.170)	0.284[**] (2.860)
Republican Attorney	-0.007 (-0.310)	0.023 (0.530)	0.223 (1.620)
Attorney_Investor (Few Cases)	-0.013 (-0.390)	-0.050 (-0.890)	-0.248 (-1.190)
Attorney_Brokerage (Few Cases)	0.004 (0.100)	0.010 (0.190)	0.071 (0.480)
Attorney_Investor (Many Cases)	-0.026 (-0.430)	-0.067 (-0.640)	-0.266 (-0.690)
Attorney_Brokerage (Many Cases)	-0.098[**] (-4.880)	-0.255[**] (-3.480)	-0.628[**] (-5.110)
Industry Arbitrator Background	-0.048[+] (-1.770)	-0.133[*] (-2.430)	-0.343[*] (-2.210)
Inexperienced	-0.034[+] (-1.850)	-0.068 (-1.540)	-0.063 (-0.510)
Constant	0.471[**] (5.010)	0.442[*] (2.270)	0.709 (1.030)
N	5863	5863	5624
Adj R2 or Pseudo R2	0.1296	0.0704	0.0723

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Subject Matter Controls	Yes	Yes	Yes
Opinion Controls	Yes	Yes	Yes
State Controls	Yes	Yes	Yes
Year Indicator Variables	Yes	Yes	Yes

Note. Dependent variable is Compensation Ratio. Variable definitions are in the Appendix. t-statistics are in parentheses.

[+] Coefficient significant at the 10% level or less.

[*] Coefficient significant at the 5% level or less.

[**] Coefficient significant at less than the 1% level.

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Table 5
Arbitration Chair

Variables	Model 1	Model 2	Model 3
	OLS w/ Errors Clustered by Arbitrator	Tobit	Logit (Dep Var: Award=1 if positive award and 0 otherwise)
Chair_Attorney	-0.025 (-1.280)	-0.086[*] (-2.190)	-0.298[*] (-2.240)
Chair_Democrat_Attorney	0.056[**] (2.640)	0.127[**] (3.260)	0.300[**] (2.610)
Chair_Republican_Attorney	-0.013 (-0.520)	0.008 (0.160)	0.212 (1.380)
Chair_Attorney_Investor (Few Cases)	0.016 (0.370)	0.022 (0.330)	-0.120 (-0.480)
Chair_Attorney_Brokerage (Few Cases)	0.016 (0.410)	0.044 (0.740)	0.144 (0.770)
Chair_Attorney_Investor (Many Cases)	-0.052 (-0.820)	-0.134 (-1.130)	-0.327 (-0.690)
Chair_Attorney_Brokerage (Many Cases)	-0.091[**] (-3.750)	-0.236[**] (-2.830)	-0.584[**] (-3.990)
Chair_Industry_Arb_Background	-0.083[*] (-2.400)	-0.199[*] (-2.400)	-0.307 (-1.210)
Chair_Atty_Rated	-0.017 (-1.110)	-0.048 (-1.620)	-0.112 (-1.230)
Chair_Atty_Top_LawSchool	0.036 (1.570)	0.087[+] (1.930)	0.189 (1.180)
Chair_Atty_Securities_Practice	0.001 (0.050)	0.018 (0.410)	0.037 (0.260)
Chair_Atty_Solo_Practice	0.009 (0.640)	0.027 (0.970)	0.095 (1.090)
Other_Attorney	-0.024 (-0.970)	-0.057 (-1.020)	-0.207 (-1.190)
Other_Democrat_Attorney	0.017 (0.530)	0.038 (0.470)	0.247 (1.130)
Other_Republican_Attorney	0.010 (0.190)	0.057 (0.600)	0.288 (1.330)

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Other_Attorney_Investor (Few Cases)	-0.074	-0.189	-0.443
	(-1.620)	(-1.490)	(-1.370)
Other_Attorney_Brokerage (Few Cases)	-0.037	-0.088	-0.093
	(-0.660)	(-0.720)	(-0.260)
Other_Attorney_Investor (Many Cases)	0.126	0.308	0.347
	(1.190)	(1.190)	(0.770)
Other_Attorney_Brokerage (Many Cases)	-0.103[*]	-0.258	-0.649[**]
	(-2.200)	(-1.590)	(-2.610)
Other_Industry_Arb_Background	-0.018	-0.080	-0.362[+]
	(-0.490)	(-1.110)	(-1.940)
Other_Atty_Rated	0.008	0.037	0.180
	(0.350)	(0.650)	(1.160)
Other_Atty_Top_LawSchool	0.030	0.046	0.000
	(0.700)	(0.500)	(0.000)
Other_Atty_Securities_Practice	0.002	-0.070	-0.372
	(0.060)	(-0.720)	(-1.510)
Other_Atty_Solo_Practice	-0.016	-0.047	-0.075
	(-0.700)	(-0.880)	(-0.490)
Inexperienced	-0.032	-0.067	-0.061
	(-1.760)	(-1.500)	(-0.480)
Constant	0.479[**]	0.469	0.804
	(5.130)	(2.390)	(1.160)
N	5858	5858	5620
Adj R2	0.1295	0.0718	0.0738
Subject Matter Controls	Yes	Yes	Yes
Opinion Controls	Yes	Yes	Yes
State Controls	Yes	Yes	Yes
Year Indicator Variables	Yes	Yes	Yes

Note. Dependent variable is Compensation Ratio. Variable definitions are in the Appendix. t-statistics are in parentheses.

[+] Coefficient significant at the 10% level or less.

[*] Coefficient significant at the 5% level or less.

[**] Coefficient significant at less than the 1% level.

Table 6
Small Sample Summary Statistics

Panel A

Year	Freq.	Percent
1998	155	36.1
1999	134	31.2
2000	140	32.6
Total	**429**	**100.0**

Panel B

Variable	Mean	25%	Median	75%	Standard Deviation
Claimed Comp. ($ millions)	0.307	0.048	0.090	0.232	1.042
Compensation Ratio	0.373	0.000	0.200	0.815	0.408
Inexperienced (Chair)	0.112	0.000	0.000	0.000	0.315
Number of Prior Awards (Chair)	11.8	3.0	8.0	16.0	12.6
Respondent Failed to Appear	0.223	0.000	0.000	0.000	0.417
Punitive Damages	0.095	0.000	0.000	0.000	0.294
CRD Expungement	0.102	0.000	0.000	0.000	0.303
Claimant Attorney Present	0.865	1.000	1.000	1.000	0.342
Respondent Attorney Present	0.826	1.000	1.000	1.000	0.380
Number of Hearings	5.3	3.0	4.0	7.0	4.2
Opinion Length	4.6	4.0	4.0	5.0	1.1
Top Accused Brokerage	0.095	0.000	0.000	0.000	0.294
Median State Income (1999)	43383.1	39927.0	43393.0	47493.0	4171.1
Median Partner Income (1999)	232935.2	217790.0	228080.0	285120.0	29254.3

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Table 7
Small Sample Arbitrator Coalitions

Variables	Model 1	Model 2	Model 3
	OLS w/ Errors Clustered by Arbitrator	OLS w/ Errors Clustered by Arbitrator	OLS w/ Errors Clustered by Arbitrator
Chair_Attorney	-0.005 (-0.100)	-0.006 (-0.130)	-0.006 (-0.130)
Chair_Democrat_Attorney	0.025 (0.550)	0.024 (0.510)	
Chair_Republican_Attorney	-0.085[+] (-1.730)	-0.082[+] (-1.660)	
Chair_Democrat_Attorney No Coalition			0.024 (0.520)
Chair_Republican_Attorney No Coalition			-0.077 (-1.490)
Chair_Republican_Attorney With Coalition			-0.167[*] (-2.120)
Chair_Attorney_Investor (Many Cases)	0.039 (0.630)		
Chair_Attorney_Brokerage (Many Cases)	-0.132[*] (-2.220)		
Chair_Attorney_Investor (Many Cases) No Coalition		0.030 (0.470)	0.030 (0.470)
Chair_Attorney_Investor (Many Cases) With Coalition		0.123 (0.940)	0.123 (0.940)
Chair_Attorney_Brokerage (Many Cases) No Coalition		-0.068 (-1.330)	-0.069 (-1.330)
Chair_Attorney_Brokerage (Many Cases) With Coalition		-0.219[*] (-2.230)	-0.222[*] (-2.250)
Chair_Industry_Arbitrator_Background	-0.058 (-0.930)	-0.058 (-0.930)	-0.058 (-0.930)
Top Accused Brokerage Firm	-0.141[**] (-3.260)	-0.146[**] (-3.310)	-0.146[**] (-3.310)
Inexperienced	-0.036 (-0.740)	-0.033 (-0.660)	-0.033 (-0.660)
Claimant Attorney Present	0.103[*] (2.100)	0.099[*] (1.990)	0.100[*] (2.000)
Respondent Attorney Present	-0.203[**] (-3.150)	-0.202[**] (-3.110)	-0.202[**] (-3.100)

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Constant	0.532[*] (2.000)	0.534[*] (2.010)	0.544[*] (2.010)
N	390	390	390
Adj R2	0.3015	0.2986	0.2969
Subject Matter Controls	Yes	Yes	Yes
Opinion Controls	Yes	Yes	Yes
State Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes

Note. Dependent variable is Compensation Ratio. Variable definitions are in the Appendix. t-statistics are in parentheses. Note that the variable Chair_Democrat_Arbitrator w/ Coalition with Other Arbitrators was 0 for all observations and was dropped from the model.

[+] Coefficient significant at the 10% level or less.
[*] Coefficient significant at the 5% level or less.
[**] Coefficient significant at less than the 1% level.

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Table 8
The Effect of Reforms on Arbitrator Incentives

Variables	Model 1 Full Sample	Model 2 Pre-1998 Arbitrators Only	Model 3 Full Sample	Model 4 Full Sample
	OLS w/ Errors Clustered by Arbitrator	OLS w/ Errors Clustered by Arbitrator	Tobit Random Effects (Arbitrator)	Logit (Dep Var: Award=1 if positive award and 0 otherwise)
Post 1998 Reforms	-0.046** (-3.090)	-0.043** (-2.830)	-0.074** (-2.730)	0.018 (0.170)
Post 2004 Reforms	0.001 (0.020)	-0.007 (-0.190)	-0.033 (-0.370)	-0.133 (-0.550)
Inexperienced	-0.059** (-2.840)	-0.078** (-3.490)	-0.106* (-2.360)	-0.167 (-1.030)
Constant	0.515** (3.060)	0.489** (2.870)	0.521** (2.950)	-0.885** (-0.810)
N	5196	4806	5196	4866
Adj R2	0.2096	0.1961	---	0.1339
Arbitrator Fixed Effects	Yes	Yes	Yes	Yes
Subject Matter Controls	Yes	Yes	Yes	Yes
Opinion Controls	Yes	Yes	Yes	Yes
State Controls	No	Yes	Yes	Yes

Note. Dependent variable is Compensation Ratio. The models exclude arbitrations started in the years 1998 and 2004. Variable definitions are in the Appendix. t-statistics are in parentheses.

[+] Coefficient significant at the 10% level or less.

[*] Coefficient significant at the 5% level or less.

[**] Coefficient significant at less than the 1% level.

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