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Attorneys as Arbitrators

Stephen J. Choi, Jill E. Fisch, and A. C. Pritchard

ABSTRACT

We study the role of attorneys as arbitrators in securities arbitration. We find that arbitrators who also represent brokerage firms or brokers in other arbitrations award significantly less compensation to investor-claimants than do other arbitrators. We find no significant effect for attorney-arbitrators who represent investors or both investors and brokerage firms. The relation between representing brokerage firms and arbitration awards remains significant even when we control for political outlook. Arbitrators who donate money to Democratic political candidates award greater compensation than do arbitrators who donate to Republican candidates. We also study the dynamics of panel interaction. We find that the position of chair is an important factor in assessing an arbitrator's influence, although the financial relationships of other arbitrators may also affect arbitration awards. Coalitions with the other arbitrators are also important. If the chair and another panelist possess a common attribute, the effect on the arbitration award increases.

1. INTRODUCTION

In 1987, the Supreme Court held in *Shearson/American Express v. McMahon* (482 U.S. 220 [1987]) that investor claims under the Securities Exchange Act of 1934 were arbitrable. That decision was soon followed by *Rodriguez de Quijas v. Shearson/American Express, Inc.* (490 U.S.

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477 [1989]), in which the Court overruled *Wilko v. Swan* (346 U.S. 427 [1953]) and held that mandatory arbitration provisions in brokerage customer agreements for claims under the Securities Act of 1933 are also enforceable. 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 percent of customer claims against brokers (the remaining 10 percent were handled by the New York Stock Exchange [NYSE]). The number of claims filed per year fluctuates, averaging 5,000–6,000 cases and peaking at almost 9,000 in 2003.¹ 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 (General Accounting Office [GAO], 2000, pp. 4–5).² Despite the absence of solid evidence on the process, arbitration has consistently been criticized as favoring the securities industry over the interests of investors (Morgenstern 2006). 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 the 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 rule 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 to securities brokerage firms. Financial Industry Regulatory Authority arbitrations involving requested awards of \$50,000 or more are decided by panels of three arbitrators: one industry

1. This number includes disputes between firms in the securities industry and their registered representatives.

2. The inability of customers to pursue litigation as an alternative precludes the type of study that is common in analyzing labor arbitrations in which arbitration outcomes are compared with the results of litigated cases, such as Clermont and Schwab (2004).

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 to the brokerage industry, 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.

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 no one monitors their decisions.

This study attempts to shed some empirical light on the role that attorneys (termed “attorney-arbitrators”) play as arbitrators in securities arbitration. The Financial Industry Regulatory Authority does not require that securities arbitrators be trained as lawyers. Nonetheless, attorneys dominate the arbitration process, and in our sample 82.2 percent 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 data set of 422 randomly selected arbitrators and their 6,724 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 by serving as the chair of an arbitration panel. We find no significant relation between an attorney who has 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 an arbitration chair. In contrast with our results for 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 Section 2. Section 3 sets forth our hypotheses. Section 4 describes our sample and variables and reports the results of our empirical tests. Section 5 concludes.

2. BACKGROUND

2.1. Financial Industry Regulatory Authority Procedures

Financial Industry Regulatory Authority rules establish two categories of arbitrators—public and nonpublic (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.³ If the case is heard by a three-person panel, the rules provide that the panel will be composed of two public arbitrators and one nonpublic (industry) arbitrator.

Financial Industry Regulatory Authority rules specify a variety of professional and personal characteristics that result in an arbitrator's being classified as industry rather than public. Under the rules now in effect, current and former professionals in the securities industry and other professionals with substantial industry ties may not be classified as public arbitrators (FINRA Rule 10308[a][5]). Persons who work as investment advisors or for an affiliate of a securities firm and persons with a parent, child, or spouse in the securities industry do not qualify as public arbitrators (see FINRA 2007). Public arbitrators are thus in-

3. The Financial Industry Regulatory Authority (FINRA) has now raised this limit to \$100,000 (FINRA Regulatory Notice 09-13 [2009]).

tended to be industry outsiders or “neutrals.” Nonpublic 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 percent or more of their professional work to industry clients (FINRA Rule 10308[a][4]). The rules have been amended several times, most recently in 2004⁴ and 2007,⁵ in an effort to eliminate potential conflicts and biases from the category of public arbitrators.⁶ 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 2 years from professional services to a broker, brokerage firm, or other industry client relating to any customer disputes concerning an investment account or transaction (Order Approving Proposed Rule Change to Amend the Definition of Public Arbitrator, Exchange Act Release No. 54,792 [March 19, 2008]).

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).⁷

4. The 2004 amendments (effective July 19, 2004) increased from 3 years to 5 years the period for transitioning from a nonpublic 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 derived 10 percent or more of their annual revenue in the previous 2 years from clients involved in securities-related activities; provided that investment advisors may not serve as public arbitrators; and amended the definition of immediate family member to add parents, children, step-parents, stepchildren, and any member of the arbitrator’s household (thus excluding persons with immediate family members employed in the securities industry).

5. In 2005, the National Association of Securities Dealers (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 January 15, 2007.

6. The Financial Industry Regulatory Authority recently introduced a pilot program under which a limited number of cases are decided by panels consisting entirely of public arbitrators (Hansard 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.

7. 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

During most of the time period covered by our study, the NASD provided the parties in each case with two separate lists, one consisting of public arbitrators and the other consisting of nonpublic arbitrators, in a roughly two-to-one ratio. At first the practice was to provide a list of eight public arbitrators and four nonpublic arbitrators, but this was later increased to 10 and five, 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 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 about 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 nonpublic arbitrators separately. The NASD director appointed a panel consisting of the two public arbitrators and one nonpublic 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.⁸ 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 on the designation of the chair only 20

larger cases continue to be composed of one industry member and two public arbitrators. The report recommended improving the quality of arbitrators by increasing arbitrator compensation, requiring better training, expanding the arbitrator pool, and requiring arbitrator evaluation of copanelists. The report also made some highly controversial recommendations concerning the availability of punitive damages in arbitration awards.

8. When it requested approval from the Securities and Exchange Commission to establish qualifications for panel chairs, FINRA stated that "chairpersons . . . play a vital role in the administration of cases" (Self-Regulatory Organizations; NASD, 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, Exchange Act Release No. 51,856 [June 15, 2005], 70 Fed. Reg. 36,442, 36,445 [June 23, 2005]).

percent of the time (Self-Regulatory Organizations; NASD, 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, Exchange Act Release No. 51,856 [June 15, 2005], 70 Fed. Reg. 36,445 [June 23, 2005]). If the parties were unable to agree, the chair was appointed by the director and was to be the public arbitrator who received the highest combined ranking “as long as the person is not an attorney, accountant, or other professional who has devoted 50 percent 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” (NASD Code of Arbitration, Rule 10308[c][5][A]). If this was the case, the director was to appoint the other public arbitrator as chair.

In no case was a nonpublic 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 on the designation of the chair suggests that they 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.⁹

Arbitrators are chosen from a pool of almost 7,000 available arbitrators, of which approximately 58 percent are public arbitrators and 42 percent are industry arbitrators. Arbitrators are paid \$200 for each hearing session, with the chair receiving an additional \$75 a day. Arbitrator candidates are not required to possess any particular qualifications beyond at least 5 years of full-time, paid business or professional experience and at least 2 years of college-level credits (FINRA 2009).¹⁰ Since 1993, however, FINRA has required new arbitrators to go through

9. 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, nonpublic 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. In addition, FINRA shifted from a rotational system to random selection to generate the lists.

10. The college credit requirement was added in 2003.

its comprehensive basic arbitrator training program; since 1998, new arbitrators have been required to pass an examination.¹¹

In addition to the more formal arbitration procedure, FINRA offers a nonbinding mediation program. During the period 2005–7, according to FINRA’s statistics, approximately 70–80 percent of claims filed were settled or resolved through means other than an arbitrator decision, 3–4 percent of cases were resolved by arbitrators on the basis of written submissions, and 18–20 percent of cases were resolved after a formal hearing.¹² 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.

One set of studies focuses on investor win rates and recoveries. In 1992, the General Accounting Office (1992) published the results of a study of arbitration awards during an 18-month period in 1989 and 1990. The GAO found that claimants received an award of monetary damages in 59 percent of arbitrations and received, on average, 61 percent of claimed damages. Comparing this with American Arbitration Association arbitrations in which claimants received awards in 60 percent of cases and received an average of 57 percent of claimed damages, the GAO found no basis to conclude that the arbitration process was systematically biased in favor of the industry. In 2000, the GAO published an updated report that reflected data from 1992 to 1998. That

11. The Financial Industry Regulatory Authority imposed additional 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 (1) have a law degree or be a member of the bar and have served as an arbitrator on at least two cases or (2) have served as an arbitrator on at least three cases.

12. FINRA, Arbitration and Mediation (<http://www.finra.org/ArbitrationMediation/AboutFINRAADR/statistics/index.htm>). These numbers also include intraindustry disputes. Parties may resolve their cases through direct settlement or by participating in a FINRA mediation process.

study found that investors' win rates had declined to an average of 51 percent over the time period but reasoned that this decline might be the result of an increase in settled claims rather than a proindustry 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. Statistics from FINRA show that investors received an award of monetary damages or other nonmonetary relief in 42 percent of the cases decided in 2006 and in 37 percent 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 (Tidwell, Foster, and Hummel 1999). The study reviewed evaluations submitted by investors in NASD arbitrations at the close of their hearings over a 15-month period between December 1, 1997, and April 1, 1999. According to the Tidwell report, 93.49 percent of respondents agreed that their cases were handled fairly and without bias, and 91.67 percent of respondents rated the arbitrators as good or excellent. The response rate for the survey, however, was only 10–20 percent. Moreover, the evaluations were frequently submitted before receiving the award.

In 2002, Michael Perino was retained by the Securities and Exchange Commission to prepare a report analyzing arbitrator conflict disclosure requirements in self-regulatory organization (SRO) arbitrations (Perino 2002).¹³ Perino studied 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, concluded that "the available evidence on arbitration outcomes does not suggest that arbitrators tend to have pro-industry biases" (p. 34). 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" (p. 14). He also recommended that the definition of public arbitrator be reexamined, in particular to assess whether an arbitrator should be disqualified on the basis of the industry ties of a nonhousehold family member. Finally, he recommended that additional research be conducted on investor attitudes concerning arbitration.

13. 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 self-regulatory organization (SRO) arbitrations.

Gross and Black (2008) recently released a study, commissioned by the Securities Industry Conference on Arbitration, surveying participants on their perceptions of fairness in arbitration. Participants generally believed that arbitrators were competent but were divided on the impartiality of the arbitrators and the overall fairness of the process. Customers, however, were considerably more skeptical 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.

Kondo (2006) examines the role of arbitrator bias and expertise in the selection of arbitrators. 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. Kondo concluded that party control of selection results in the brokerage firms, which are more likely to be repeat players, dominating the selection process and producing panels more likely to contain arbitrators who tend to side with large brokerage firms. He also 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.

O'Neil and Solin (2007) studied almost 14,000 NASD and NYSE arbitrations that occurred between 1995 and 2004. The study reports that investor win rates—cases in which the investor received an award of any amount—dropped from a high of 59 percent in 1999 to 44 percent in 2004. In cases in which investors received an award, the study found that they recovered roughly 50 percent 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 with the costs of pursuing an arbitration claim, including forum fees, legal fees, and the cost of expert 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 percent, with expected recovery rates increasing for smaller claims and against smaller firms.¹⁴ The study did not focus on arbitrator characteristics or panel composition.

14. Indeed, the damages awarded by the arbitrator may overstate the investor's actual recovery. The Government Accounting Office ([GAO] 2000) reported that a substantial percentage of SRO awards had not been paid. The GAO's report indicated that about 80 percent of the \$161 million awarded to investors, primarily in the form of NASD-

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, but most studies have found that litigated cases produce higher average awards (Sherwyn, Estreicher, and Heise 2005). 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, which limits the value of comparing outcomes. In addition, as with our study, the research in this area is hampered by lack of access to information about settled cases.

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 discovery, accompanied by discovery disputes and abuses, is widely reported (Shorter 2005). Not surprisingly, the length of time required to resolve a claim through the arbitration process has increased substantially. Self-regulatory organization arbitration was originally viewed as preferable to litigation in part because it was relatively fast and inexpensive (Ruder 1998). The overall turnaround time for FINRA arbitration now averages around 16 months in cases for which a hearing is held (Lackritz 2005). Although this is still significantly faster than litigation, it is far from an expedited process.

3. HYPOTHESES

We principally focus on the role that attorneys play as arbitrators and in particular on 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, which leads 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, which leads them to be more generous with

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 (Government Accounting Office 2003). Nonetheless, the number of unpaid awards, particularly by defunct brokerages, remained significant.

arbitration awards. We predict no effect for attorneys who represent both brokerages and investors. We call this the financial interest hypothesis.

Hypothesis 1. 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 (Sisk and Heise 2005). 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 substantial 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.

Hypothesis 2. Attorney-arbitrators with a strong Democratic 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 the chair plays in managing the proceedings, admitting evidence, and so on. 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.

Hypothesis 3. Attorneys who represent brokerage firms (investors) will make lower (higher) arbitration awards when they serve as chairs.

Hypothesis 4. Attorneys who represent brokerage firms (investors) will make lower (higher) arbitration awards when they serve with other arbitrators with the same background.

4. EMPIRICAL TESTS

4.1. Description of Data Set

We obtained NASD arbitration awards from the FINRA arbitration awards online site¹⁵ and from the LEXIS database. To generate a random set of arbitrators, we randomly selected 15 arbitration awards involving

15. FINRA, Arbitration and Mediation: FINRA Arbitration Awards Online (<http://finraawardsonline.finra.org>).

Table 1. Arbitration Awards by Year

Year	Awards	%
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	6,724	100.00

investor-claimants per month for the years 1998–2000; we refer to this as our small sample. Some of the arbitrations that resulted in awards in the 1998–2000 period were filed prior to 1998, which allows us to generate a starting sample that includes arbitrators who were active prior to the 1998 reforms. We identified the chair in each arbitration; these chairs constitute our sample of arbitrators. Because of FINRA’s selection procedures for chairs, these are almost all public arbitrators (we excluded nonpublic 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 January 1, 1992, to December 31, 2006. We looked only at arbitration awards involving an investor-claimant. Table 1 reports the number of arbitration awards in our sample by year.

As reported in Table 2, 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).

4.2. Variable Description

The dependent variable for the majority of our tests is Compensation Ratio, which is defined as the compensatory award (or settlement if

Table 2. Arbitration Awards by Jurisdiction

State	Awards	%	State	Awards	%
Alabama	1	.02	Missouri	112	1.99
Alaska	4	.07	Montana	1	.02
Arizona	125	2.22	Nebraska	31	.55
Arkansas	9	.16	Nevada	57	1.01
California	1,247	22.19	New Jersey	7	.12
Colorado	228	4.06	New Mexico	39	.69
Connecticut	7	.12	New York	969	17.24
District of Columbia	102	1.81	North Carolina	123	2.19
Florida	565	10.05	Ohio	171	3.04
Georgia	110	1.96	Oklahoma	21	.37
Hawaii	24	.43	Oregon	64	1.14
Idaho	1	.02	Pennsylvania	198	3.52
Illinois	121	2.15	Puerto Rico	2	.04
Indiana	14	.25	South Carolina	5	.09
Iowa	2	.04	Tennessee	36	.64
Kansas	1	.02	Texas	316	5.62
Kentucky	54	.96	Utah	31	.55
Louisiana	79	1.41	Vermont	1	.02
Maryland	53	.94	Virginia	39	.69
Massachusetts	78	1.39	Washington	73	1.30
Michigan	309	5.50	West Virginia	1	.02
Minnesota	123	2.19	Wisconsin	66	1.17

reported) divided by the requested compensation amount.¹⁶ 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 traded (as well as the increase or decline in share price) 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

16. 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.

Table 3. Arbitration Claims and Outcomes

	Awards	%
Type of claim:		
Suitability	3,385	49.76
Churning	1,169	17.19
Unauthorized Trades	1,675	24.63
Failure to Execute	1,241	18.24
Misrepresentation	4,627	68.02
Conversion	295	4.34
Base category (breach of fiduciary duty and/or contract)	206	3.03
Outcome:		
No settlement	5,965	88.7
Settlement	759	11.3
Reported Settlement	51	.8
Unreported Partial Settlement	211	3.1
Unreported Full Settlement	497	7.4
Total	6,724	100.0

for these 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. A list of variable definitions is provided in Table A1.

Subject matter controls include indicator variables for six common areas of arbitration. Suitability is equal to one if the arbitration involved a suitability claim, including claims relating to “know your customer” (NYSE Rule 405)¹⁷ and NASD Rule 2310 issues,¹⁸ and zero 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 nonspecified breach of contract or violation of fiduciary duty. Table 3 reports on the frequency of the subject matter claims in our arbitration sample. Misrepresentation and suitability claims are the most common.

We also include controls to address selection effects. Table 3 also

17. New York Stock Exchange 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.”

18. National Association of Securities Dealers Rule 2310, the suitability requirement, states that “[i]n 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.”

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.¹⁹ In those cases, the reported decision may or may not report the settlement terms. The variable Reported Settlement is equal to one when the arbitration resulted in a full or partial settlement and the settlement amount was reported as part of the arbitration award (and was included therefore in Compensation Ratio) and zero otherwise. Unreported Partial Settlement is equal to one where the arbitration resulted in an unreported partial settlement and the award (if any) against the remaining nonsettling respondents was reported and zero 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.

Table 4 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 are 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 percent 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 percent of the claim and a median of 11 percent. To account for possible nonlinearity 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 claimed compensation amount. The Financial Industry Regulatory Authority typically requires a panel of three arbitrators for claimed compensation amounts of over \$50,000. The overwhelming majority of the awards in our sample

19. The strength of cases that settle may be different from those that do not settle. Moreover, the claimants who settle are arguably more risk averse than those who do not, which may affect their investment decisions as well.

Table 4. Arbitration Characteristics

Variable	Mean	25%	Median	75%	SD
Claimed Compensation (\$ millions)	.620	.025	.091	.273	12.628
Compensation Ratio	.324	.000	.112	.656	.391
Inexperienced	.064	.000	.000	.000	.244
Number of Arbitrators	2,616	3,000	3,000	3,000	.783
Respondent Failed to Appear	.121	.000	.000	.000	.326
Claimed Punitive Damages	.301	.000	.000	1.000	.461
Claimed CRD Expungement	.198	.000	.000	.000	.398
Actual Punitive Damages	.044	.000	.000	.000	.205
Actual CRD Expungement	.155	.000	.000	.000	.362
Median state income (1999)	43,248.9	39,927.0	43,393.0	47,203.0	4,018.9
Median partner income (1999)	234,647	228,080	217,790	246,380	30,097

came from three-arbitrator panels. We also include a control variable for arbitrator experience, *Inexperienced*, which is set to one if the award is from the first year that the arbitrator appeared in the data set and zero otherwise. Arbitrators new to the job may be reluctant to make large awards because it may reduce their chances for future selection.

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 equal to one if any of the respondents failed to appear at the arbitration hearing and zero 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 is entered against the nonresponding party. At least one respondent failed to appear at an arbitration hearing in 12 percent of the awards in our sample. We use a request of punitive damages by the claimant (*Claimed Punitive Damages*) 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 when they have hard evidence of fraud or other culpable misconduct. Many claims 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 define *Claimed Punitive Damages* as equal to one, however, only when the claimant has made the punitive damages claim with some specificity. Two situations fall within this definition: cases in which we observe that the claimant requests a positive dollar amount of punitive damages—fixing in the arbitrators' minds a precise amount of punitive damages—and cases in which we observe the actual award of punitive damages, which indicates that the claimant took actions during the arbitration hearings to press its claim for punitive damages.

Our final proxy for the strength of the case, *Claimed CRD Expungement*, is equal to one if the respondents requested that the Central Registration Depository (CRD) record of any of the respondent-brokers be expunged and zero otherwise. The Financial Industry Regulatory Authority maintains CRD records for active brokers that reflect 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 eras-

ing the record of the claim from the broker's CRD file. Although NASD rules adopted in 2004 provide that arbitrators may grant expungement requests only under specific conditions,²⁰ a recent Public Investors Arbitration Bar Association study (2007) found that expungement remains common.²¹ We treat a respondent as requesting CRD expungement in cases in which we observe the respondent requesting the expungement in the award summary and in cases in which we observe the actual award of CRD expungement, which indicates 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 data set. We measure our state controls as of 1999, the midpoint of our data set. 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 correlate with an increased opportunity cost for qualified individuals to serve as arbitrators, which arguably leads to lower quality arbitrators. We also include indicator variables for the three states with over 500 arbitrations (New York, California, Florida).

4.3. Financial Interest

To test the financial interest hypothesis, 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 one if the arbitrator is an attorney and zero otherwise. Attorney_Investor is equal to one if the arbitrator has acted as an attorney in other arbitrations and represented investors in more than 75 percent of these arbitrations and zero oth-

20. 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 the "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" (FINRA Rule 2130).

21. The *New York Times* reported that, in 2005, FINRA expunged 907 customer complaints from brokers' records, or 13 percent (Browning 2007).

Table 5. Attorneys as Arbitrators: Summary Statistics

Status	Arbitrators	%
Attorney	347	82.2
Attorney_Investor	45	10.7
Attorney_Brokerage	16	3.8
Not attorney	75	17.8
Total	422	100.0

erwise. Attorney_Brokerage is equal to one if the arbitrator acted as an attorney in other arbitrations and represented brokerage firms or brokers in more than 75 percent of these arbitrations and zero otherwise.²² Table 5 provides summary statistics for these variables.

Additional variables relating to financial interest include Industry Arbitrator Background, which equals one if the arbitrator was designated as an industry arbitrator in other arbitration proceedings and zero 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 data set (Inexperienced; excluding 1992, the first year covered by our data set). The model also includes subject matter, opinion, and state controls. We estimate the following equation for each award using ordinary least squares and robust standard errors clustered by individual arbitrator:

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

Table 6 reports the results of our first model. We find partial support for the financial interest hypothesis. The coefficient on Attorney_Brokerage is negative and significant at less than the 1 percent level. The presence of an arbitrator who acted as an attorney for a brokerage

22. Note that this variable is likely underinclusive, as it does not capture nonarbitration representation of industry clients. This underinclusion biases against finding any significant result.

firm in other arbitration proceedings correlates 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 percent level. The presence of an arbitrator with an industry arbitrator background correlates 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 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 percent level. Having an inexperienced arbitrator correlates with a 3.4-percentage-point lower arbitration award to claimants, which is consistent with the proposition that arbitrators early in their careers may hesitate to make large awards, perhaps in the hope that they will be selected more often by brokerage firms in future cases.²³

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 Attorney_Investor and Attorney_Brokerage in model 1 on the basis of whether the attorney-arbitrator represented a client in at least three other arbitrations (for arbitrators who acted at least once as an attorney in other arbitration proceedings). We denote these as Many Cases and attorney-arbitrators who repre-

23. 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 variables Attorney_Investor and Attorney_Brokerage. Unreported, the coefficient on Subjective was negative and insignificant (at the 13.1 percent level), which suggests that arbitrators are more skeptical of such claims. The coefficients on Subjective \times Attorney_Investor and Subjective \times Attorney_Brokerage, however, were both insignificant.

Table 6. Attorneys as Arbitrators: Regression Analysis

Variable	(1)	(2)	(3)	(4)
Attorney_Investor	-.020 (-1.300)	-.020 (-1.300)	-.064* (-2.050)	-.194+ (-1.690)
Attorney_Brokerage	-.005 (-.190)			
Attorney_Investor (Few Cases)	-.075** (-3.160)	-.016 (-.460)	-.051 (-.920)	-.235 (-1.090)
Attorney_Brokerage (Few Cases)		.006 (.170)	.015 (.270)	.078 (.510)
Attorney_Investor (Many Cases)		-.030 (-.490)	-.079 (-.760)	-.310 (-.810)
Attorney_Brokerage (Many Cases)		-.096** (-5.100)	-.254** (-3.460)	-.640** (-5.770)
Industry Arbitrator Background		-.049+ (-1.810)	-.138* (-2.520)	-.363* (-2.350)
Inexperienced	-.050+ (-1.860)	-.034+ (-1.850)	-.068 (-1.530)	-.063 (-.510)
Suitability	-.034+ (-1.880)	-.011 (-.970)	-.021 (-.910)	.036 (.530)
Churning	-.023+ (-1.850)	-.023+ (-1.830)	-.017 (-.560)	.213** (2.760)
Unauthorized Trades	.029* (2.430)	.029* (2.440)	.082** (3.230)	.305** (4.470)
Failure to Execute	-.007 (-.520)	-.007 (-.510)	-.006 (-.190)	.034 (.420)
Misrepresentation	.016 (1.520)	.015 (1.500)	.045+ (1.810)	.180** (2.740)
Conversion	.055* (2.020)	.056* (2.040)	.116* (2.240)	.197 (1.210)
Claimed Compensation	-.012** (-4.100)	-.012** (-4.110)	-.033** (-4.180)	-.026+ (-1.660)
Claimed Compensation ²	.000** (4.010)	.000** (4.010)	.000** (3.020)	.000 (.280)

Number of Arbitrators	-.023**	(-3.290)	-.023**	(-3.270)	-.021	(-1.420)	.129**	(3.460)
Respondent Failed to Appear	.269**	(17.200)	.269**	(17.210)	.533**	(16.620)	1.386**	(14.150)
Claimed Punitive Damages	.033**	(3.220)	.034**	(3.260)	.067**	(2.780)	.160*	(2.590)
Claimed CRD Expungement	-.109**	(-8.180)	-.109**	(-8.170)	-.339**	(-9.700)	-1.052**	(-12.140)
Reported Settlement	.243**	(4.940)	.243**	(4.960)	.525**	(4.690)		
Unreported Partial Settlement	.208**	(6.700)	.208**	(6.700)	.454**	(8.010)		
Median State Income	.000	(.020)	.000	(.000)	.000	(-.570)	.000	(-1.150)
Median Partner Income for State	.000 ⁺	(-1.950)	.000*	(-1.970)	.000 ⁺	(-1.770)	.000	(-.600)
New York	-.026	(-1.190)	-.027	(-1.230)	-.059	(-1.240)	-.137	(-.860)
California	.007	(.430)	.007	(.420)	.010	(.310)	-.040	(-.360)
Florida	.013	(.670)	.009	(.440)	.014	(.320)	-.061	(-.530)
Constant	.461**	(4.970)	.464**	(5.000)	.434*	(2.240)	.752	(1.120)
N	5,864		5,864		5,864		5,625	
Adjusted R ² /pseudo R ²	.1283		.1283		.0695		.0708	

Note. The dependent variable is Compensation Ratio. The *t*-statistics are in parentheses. Models 1 and 2 are ordinary least squares estimations with errors clustered by arbitrator; model 3 is a Tobit model, and model 4 is a logit model in which Award equals one for a positive award and zero otherwise. All models include year indicator variables.

⁺ Significant at ≤ 10%.

* Significant at ≤ 5%.

** Significant at < 1%.

sented clients in two or fewer arbitrations as Few Cases. Model 2 of Table 6 reports the results of our modified model. Note from the model that the coefficient on Attorney_Brokerage (Many Cases) is negative and significant at less than the 1 percent level (which corresponds to a 9.6-percentage-point reduction in the arbitration award); in contrast, the coefficient on Attorney_Brokerage (Few Cases) is negative but not significant. The financial interest hypothesis holds primarily for attorney-arbitrators who served as counsel in more than the median number of arbitrations.²⁴

The coefficients for many of the control variables are as expected. The compensation ratio increases when a respondent failed to appear and when 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 less than the 1 percent level. This suggests that brokerage firms and brokers tend to settle the strongest cases. Even awards for nonsettling respondents in

24. As a robustness test, we reestimate model 2 using a Tobit model to control for the limitation that the dependent variable, Compensation Ratio, ranges only from zero to one. Reported as model 3 of Table 6, 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, however, that the coefficient on Inexperienced is not significantly different from zero in this model. As an additional robustness test, we reestimate model 1 of Table 6 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 4. We also reestimate model 1 of Table 6, replacing Claimed Compensation² with an indicator variable, Million, for whether the requested compensation amount was greater than \$1 million. Unreported, the models returned qualitatively the same results as the models in Table 6. Finally, we reestimate model 2 using a logit model and replacing the dependent variable with Award, defined as equal to one if the arbitration resulted in positive compensation to the claimant and zero 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 Table 6, 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 reestimate model 4 with an indicator variable, Award, equal to one if an award equal to 5 percent or more of the claimed compensation amount was given and zero otherwise. Unreported, the reestimated model returned the same qualitative results as model 4, supporting the financial interest hypothesis.

cases that involve an unreported partial settlement reflect a higher compensation ratio.²⁵

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 reestimated model 2, creating two subsamples for arbitrations with (1) the median or lower claimed compensation amount and (2) greater than the median claimed compensation amount. Unreported, the coefficient on *Attorney_Brokerage (Many Cases)* is negative and significant at less than the 1 percent level only for the subsample with the median or lower claimed compensation amount.²⁶ This finding suggests that arbitrators' financial interests matter only for those arbitrations involving smaller dollar amounts. One possibility is that larger cases correlate with more careful screening of arbitrator lists by claimants' attorneys.

4.4. Ideology

These findings 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.²⁷ 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 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

25. As a robustness test, we separately estimate model 2 in Table 6 solely for arbitrations involving three-arbitrator panels and for one-arbitrator panels, in each case excluding *Number of Arbitrators*. 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 percent level in the three-arbitrator panel model and negative and significant at less than the 1 percent level in the one-arbitrator panel model. Unlike model 2, however, the coefficient on *Attorney_Brokerage (Few Cases)* is negative and significant at less than the 1 percent level for the one-arbitrator panel model. Thus, for one-arbitrator panels, having an attorney-arbitrator with brokerage firm ties correlates with reduced awards even when his or her brokerage firm relationship is less extensive. One-arbitrator panels may give the single arbitrator greater leeway.

26. We also estimate this model using only three-arbitrator panels (excluding *Number of Arbitrators*). In unreported results, we obtain the same qualitative results as for the model that includes both one- and three-arbitrator panels. The coefficient on *Attorney_Brokerage (Many Cases)* is negative and significant at less than the 1 percent level only for arbitrations with median or lower claimed compensation amounts.

27. The Financial Industry Regulatory Authority now gives the parties the option to request an explanation for the arbitrator's decision (FINRA Regulatory Notice 09-16).

Table 7. Ideology of Arbitrators: Summary Statistics

Attorneys' Political Party	Arbitrators	%
Democrat	57	13.5
Republican	36	8.5
Neither	324	78.0
Total	422	100.0

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 Web site for contributions by our attorney-arbitrators to federal political candidates.²⁸ If an arbitrator contributed money only to Republicans, we labeled the arbitrator as a Republican; arbitrators who contributed only to Democrats, we labeled as Democrat. Table 7 reports on the breakdown of our attorney-arbitrators on the basis of this classification. Because we focus on those who actually contribute money to political campaigns, arbitrators whom 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 percent) made no reported political contributions, but this does not mean that they lack an ideological perspective.²⁹

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

28. Center for Responsive Politics, Donor Lookup: Find Individual and Soft Money (<http://www.opensecrets.org/indivs/index.php>).

29. Of the 75 non-attorney-arbitrators, only 2 (or 2.67 percent) 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 less than the 1 percent level). Among subsets of attorneys, there is less distinction based on identification as a Democrat. Of the 16 attorneys with a brokerage firm relationship, three (or 18.75 percent) are identified as Democrat; of the 45 attorneys with an investor relationship, nine (or 20.00 percent) are identified as Democrat. The difference is not statistically significant.

$$\begin{aligned}
\text{Compensation Ratio}_i = & \alpha + \beta_{1i}\text{Attorney}_i + \beta_{2i}\text{DemocratAttorney}_i \\
& + \beta_{4i}\text{Attorney_Investor (Few Cases)}_i \\
& + \beta_{3i}\text{RepublicanAttorney}_i \\
& + \beta_{5i}\text{Attorney_Investor (Few Cases)}_i \\
& + \beta_{6i}\text{Attorney_Brokerage (Few Cases)}_i \\
& + \beta_{7i}\text{Attorney_Brokerage (Many Cases)}_i \\
& + \beta_{8i}\text{Industry Arbitrator Background}_i + \beta_{9i}\text{Inexperienced}_i \\
& + \beta_{ji}\text{Subject Matter}_{ji} + \beta_{ki}\text{Opinion Controls}_{ki} \\
& + \beta_{li}\text{State Controls}_{li} + \text{Year Effects} + \varepsilon_i.
\end{aligned}$$

The model reestimates model 2 of Table 6 with the addition of independent variables for whether an attorney-arbitrator contributes to Democrats or Republicans.

Model 1 of Table 8 reports our results. The coefficient on Democrat_Attorney is positive and significant at less than the 1 percent level (corresponding to a 4.9-percentage-point increase in the arbitration award measured as a percentage 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 percent level. Democrat attorney-arbitrators give significantly higher awards than Republican attorney-arbitrators, which supports 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 less than the 1 percent level (corresponding to a 9.8-percentage-point decrease in the arbitration award).³⁰

30. As a robustness test, we reestimate 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 the models in Table 8. We also reestimate model 1 of Table 8, replacing Claimed Compensation² with an indicator variable, Million, for whether the requested compensation amount was greater than \$1 million. Unreported, the models returned qualitatively the same results as model 1 of Table 8. Model 2 of Table 8 reestimates the model with the use of a Tobit regression to control for the limitation that the dependent variable, Compensation Ratio, ranges only from zero to one. Model 2 reports results qualitatively similar to model 1. The coefficient on Democrat_Attorney is positive and now

Table 8. Ideology of Arbitrators: Regression Analysis

Variable	(1)	(2)	(3)
Attorney	-.026 (-1.620)	-.080* (-2.510)	-.248* (-2.130)
Democrat Attorney	.049** (2.640)	.111** (3.170)	.284** (2.860)
Republican Attorney	-.007 (-.310)	.023 (.530)	.223 (1.620)
Attorney_Investor (Few Cases)	-.013 (-.390)	-.050 (-.890)	-.248 (-1.190)
Attorney_Brokerage (Few Cases)	.004 (.100)	.010 (.190)	.071 (.480)
Attorney_Investor (Many Cases)	-.026 (-.430)	-.067 (-.640)	-.266 (-.690)
Attorney_Brokerage (Many Cases)	-.098** (-4.880)	-.255** (-3.480)	-.628** (-5.110)
Industry Arbitrator Background	-.048+ (-1.770)	-.133* (-2.430)	-.343* (-2.210)
Inexperienced	-.034+ (-1.850)	-.068 (-1.540)	-.063 (-.510)
Constant	.471** (5.010)	.442* (2.270)	.709 (1.030)
N	5,863	5,863	5,624
Adjusted R ² /pseudo R ²	.1296	.0704	.0723

Note. The dependent variable is Compensation Ratio. The *t*-statistics are in parentheses. Model 1 is an ordinary least squares estimation with errors clustered by arbitrator, model 2 is a Tobit model, and model 3 is a logit model in which Award equals one for a positive award and zero otherwise. All models include controls for subject matter, opinion, and state and year indicator variables.

+ Significant at ≤ 10%.

* Significant at ≤ 5%.

** Significant at < 1%.

To test the importance of arbitration size, we reestimated model 1 for the subsamples of arbitrations with (1) the median or lower claimed compensation amount and (2) greater than the median claimed compensation amount. Unreported, the coefficient on Democrat_Attorney is positive and significant at less than the 1 percent level, and the coefficient on Attorney_Brokerage (Many Cases) is negative and significant at less than the 1 percent level only for the subsample with the median or lower claimed compensation amount. Ideology and financial interests matter only for those arbitrations involving smaller dollar amounts.³¹

4.5. Importance of the Arbitration Chair

For our main sample of 6,724 arbitrations we collect data only 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 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

significant at the 5 percent level. Model 3 of Table 8 uses logistic regression replacing Compensation Ratio with the indicator variable Award as the dependent variable (equal to one if a positive award was received and zero otherwise). Model 3 reports the same qualitative results as model 1, which supports the hypothesis that the ideology of the arbitrators affect arbitration outcomes. We reestimate model 3 of Table 8 with an award indicator variable equal to one if an award equal to 5 percent or more of the claimed compensation amount was given and zero otherwise. Unreported, the reestimated model returned the same qualitative results as model 3 of Table 8. As an additional robustness test, we reestimate model 1 of Table 8 solely for arbitrations involving three-arbitrator panels and for one-arbitrator panels in each case excluding Number of Arbitrators. In unreported results, 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 percent level. The coefficient on Attorney_Brokerage (Many Cases) is negative and significant at the 5 percent level in the three-arbitrator panel model and negative and significant at less than the 1 percent level in the one-arbitrator panel model. Unlike model 1, however, the coefficient on Attorney_Brokerage (Few Cases) is also negative and significant at less than the 1 percent level in the one-arbitrator panel model.

31. As a robustness test, we reestimated model 1 of Table 8 for only three-arbitrator panels (excluding Number of Arbitrators), creating two subsamples for arbitrations with (1) the median or lower claimed compensation amount (with the median measured solely for three-arbitrator panel arbitrations) and (2) greater than the median compensation amount. In unreported results, we obtain similar qualitative results as for the model that includes both one- and three-arbitrator panels. The coefficient on Democrat_Attorney is positive and significant at the 5 percent level only for the arbitrations with median or lower claimed compensation amounts. The coefficient on Attorney_Brokerage (Many Cases) is negative and significant at less than the 1 percent level only for the arbitrations with median or lower claimed compensation amounts. On the other hand, the coefficient on Arbitrator_Brokerage (Few Cases) is now positive and significant at the 10 percent level.

sample is the chair of the arbitration proceeding. Second, in the next section, we collect more detailed information on the arbitration and all the arbitrators for a random subsample 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 the *Martindale-Hubbell Law Directory* (1999) 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 one if *Martindale-Hubbell* reported an AV or BV rating for the attorney-arbitrator and zero otherwise, and *Atty_Top_LawSchool*, which is coded as one if the lawyer graduated from a law school ranked in the top 10 by *U.S. News and World Report* (1991) and zero otherwise. As proxies for familiarity with the subject matter of securities arbitration, we create two additional indicator variables: *Atty_Securities_Practice*, which is coded as one if securities law is listed as within the scope of the attorney's practice in *Martindale-Hubbell* and zero otherwise, and *Atty_Solo_Practice*, which is coded as one 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 on the basis of their experience with arbitration generally, such as in employment law.³²

We hypothesize that the chair has the ability to influence the outcome of the arbitration disproportionately. This hypothesis is consistent with the greater compensation paid to chairs and FINRA's decision to impose additional qualification requirements on the chair and to modify the chair selection process. Among the duties assigned to the arbitrator who serves as chair are resolving pretrial 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 or 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:

32. 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.

$$\begin{aligned}
\text{Compensation Ratio}_i = & \alpha + \beta_{1i}\text{Chair_Attorney}_i + \beta_{2i}\text{Chair_Democrat_Attorney}_i \\
& + \beta_{3i}\text{Chair_Republican_Attorney}_i + \beta_{4i}\text{Chair_Atty_Rated}_i \\
& + \beta_{5i}\text{Chair_Atty_Top_LawSchool}_i \\
& + \beta_{6i}\text{Chair_Atty_Securities_Practice}_i \\
& + \beta_{7i}\text{Chair_Atty_Solo_Practice}_i \\
& + \beta_{8i}\text{Chair_Attorney_Investor (Few Cases)}_i \\
& + \beta_{9i}\text{Chair_Attorney_Investor (Many Cases)}_i \\
& + \beta_{10i}\text{Chair_Attorney_Brokerage (Few Cases)}_i \\
& + \beta_{11i}\text{Chair_Attorney_Brokerage (Many Cases)}_i \\
& + \beta_{12i}\text{Chair_Industry_Arb_Background}_i \\
& + \beta_{13i}\text{Other_Attorney}_i + \beta_{14i}\text{Other_Democrat_Attorney}_i \\
& + \beta_{15i}\text{Other_Republican_Attorney}_i + \beta_{16i}\text{Other_Atty_Rated}_i \\
& + \beta_{17i}\text{Other_Atty_Top_LawSchool}_i \\
& + \beta_{18i}\text{Other_Atty_Securities_Practice}_i \\
& + \beta_{19i}\text{Other_Atty_Solo_Practice}_i \\
& + \beta_{20i}\text{Other_Attorney_Investor (Few Cases)}_i \\
& + \beta_{21i}\text{Other_Attorney_Investor (Many Cases)}_i \\
& + \beta_{22i}\text{Other_Attorney_Brokerage (Few Cases)}_i \\
& + \beta_{23i}\text{Other_Attorney_Brokerage (Many Cases)}_i \\
& + \beta_{24i}\text{Other_Industry_Arb_Background}_i \\
& + \beta_{25i}\text{Inexperienced}_i + \beta_{ji}\text{Subject Matter}_{ji} \\
& + \beta_{ki}\text{Opinion Controls}_{ki} \\
& + \beta_{li}\text{State Controls}_{li} + \text{Year Effects} + \varepsilon_i.
\end{aligned}$$

The model divides the arbitration into attorney variables (Attorney_Investor and Attorney_Brokerage) and the arbitrator characteristic variables and 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 of Table 9 reports our results for this regression. Model 2 of Table 9 reestimates model 1 using a Tobit model. Model 3 reestimates model 1 using a logit model and Award as the dependent variable.

Model 1 of Table 9 reports that the coefficient on Chair_Democrat_Attorney is positive and significant at less than the 1 percent 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 and logit models, the coefficients on Chair_Democrat_Attorney are positive and significant at the 5 percent 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 9 reports that the coefficient on Chair_Attorney_Brokerage (Many Cases) is negative and significant at less than the 1 percent 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 percent level (corresponding to a 10.3-percentage-point decrease in the arbitration award). In the Tobit model, Chair_Attorney_Brokerage is negative and significant at less than the 1 percent 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 less than the 1 percent level. Summing up, for affiliation with the securities industry, the chair arbitrator position is significant in all three of our models. The other arbitrator position is significant only in models 1 and 3.³³

33. We reestimate model 3 of Table 9 with an award indicator variable equal to one if an award equal to 5 percent or more of the claimed compensation amount was given and zero otherwise. Unreported, the reestimated model returned the same qualitative results as model 3 of Table 9, although the coefficient for Other_Attorney_Brokerage, while still negative, is significant only at the 5 percent level. To test the importance of arbitration size, we reestimated model 1 for the subsamples of arbitrations with (1) the median or lower claimed compensation amount and (2) greater than the median claimed compensation amount. Unreported, the coefficient on Chair_Democrat_Attorney is positive and significant at the 5 percent level, and the coefficient on Chair_Attorney_Brokerage (Many Cases) is negative and significant at less than the 1 percent level only for the subsample with the median or lower claimed compensation amount.

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.³⁴

Our tests may be affected by sample selection bias; that is, our results are contingent on 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 important 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 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.³⁵ We estimate a logit model in which Settlement is the dependent variable and equal to one when there is a settlement and zero otherwise. We use the same independent variables as in our arbitrator characteristic model in Table 9 above with one change. We drop Reported Settlement and Partial Unreported Settlement. In unreported results, we found that 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 are significantly related to the propensity to settle, including the industry affiliation and ideology-related

34. As a robustness test, we reestimate model 1 of Table 9 only for 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 9. We also reestimate model 1 of Table 9, replacing Claimed Compensation² with an indicator variable, Million, for whether the requested compensation amount was greater than \$1 million. Unreported, the models returned qualitatively the same results as model 1 of Table 9.

35. Kondo (2006) 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.

Table 9. Significance of the Arbitration Chair

Variable	(1)	(2)	(3)
Chair_Attorney	-.025 (-1.280)	-.086* (-2.190)	-.298* (-2.240)
Chair_Democrat_Attorney	.056** (2.640)	.127** (3.260)	.300** (2.610)
Chair_Republican_Attorney	-.013 (-.520)	.008 (.160)	.212 (1.380)
Chair_Attorney_Investor (Few Cases)	.016 (.370)	.022 (.330)	-.120 (-.480)
Chair_Attorney_Brokerage (Few Cases)	.016 (.410)	.044 (.740)	.144 (.770)
Chair_Attorney_Investor (Many Cases)	-.052 (-.820)	-.134 (-1.130)	-.327 (-.690)
Chair_Attorney_Brokerage (Many Cases)	-.091** (-3.750)	-.236** (-2.830)	-.584** (-3.990)
Chair_Industry_Arbitrator_Background	-.083* (-2.400)	-.199* (-2.400)	-.307 (-1.210)
Chair_Atty_Rated	-.017 (-1.110)	-.048 (-1.620)	-.112 (-1.230)
Chair_Atty_Top_LawSchool	.036 (1.570)	.087+ (1.930)	.189 (1.180)
Chair_Atty_Securities_Practice	.001 (.050)	.018 (.410)	.037 (.260)
Chair_Atty_Solo_Practice	.009 (.640)	.027 (.970)	.095 (1.090)
Other_Attorney	-.024 (-.970)	-.057 (-1.020)	-.207 (-1.190)
Other_Democrat_Attorney	.017 (.530)	.038 (.470)	.247 (1.130)
Other_Republican_Attorney	.010 (.190)	.057 (.600)	.288 (1.330)
Other_Attorney_Investor (Few Cases)	-.074 (-1.620)	-.189 (-1.490)	-.443 (-1.370)

Other_Attorney_Brokerage (Few Cases)	-.037	(-.660)	-.088	(-.720)	-.093	(-.260)
Other_Attorney_Investor (Many Cases)	.126	(1.190)	.308	(1.190)	.347	(.770)
Other_Attorney_Brokerage (Many Cases)	-.103*	(-2.200)	-.258	(-1.590)	-.649**	(-2.610)
Other_Industry_Arbitrator_Background	-.018	(-.490)	-.080	(-1.110)	-.362+	(-1.940)
Other_Attry_Rated	.008	(.350)	.037	(.650)	.180	(1.160)
Other_Attry_Top_LawSchool	.030	(.700)	.046	(.500)	.000	(.000)
Other_Attry_Securities_Practice	.002	(.060)	-.070	(-.720)	-.372	(-1.510)
Other_Attry_Solo_Practice	-.016	(-.700)	-.047	(-.880)	-.075	(-.490)
Inexperienced	-.032	(-1.760)	-.067	(-1.500)	-.061	(-.480)
Constant	.479**	(5.130)	.469	(2.390)	.804	(1.160)
N	5,858		5,858		5,620	
Adjusted R ²	.1295		.0718		.0738	

Note. The dependent variable is Compensation Ratio. The *t*-statistics are in parentheses. Model 1 is an ordinary least squares estimation with errors clustered by arbitrator, model 2 is a Tobit model, and model 3 is a logit model in which Award equals one for a positive award and zero otherwise. All models include controls for subject matter, opinion, and state and year indicator variables.

+ Significant at ≤ 10%.

* Significant at ≤ 5%.

** Significant at < 1%.

Table 10. Small Sample by Year

Year	Frequency	%
1998	155	36.1
1999	134	31.2
2000	140	32.6
Total	429	100.0

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 about 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. Table 10 summarizes the number of arbitrations in our subsample by year.

For each arbitration in our subsample, we collect similar information on attorney and political contributions 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 one if the claimant is represented by counsel (Claimant Attorney Present) or the respondent is represented by counsel (Respondent Attorney Present) and zero 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`, which is set to one if any of the respondents were one of the top 10 brokerage firms as of 1998 (Securities Industry Association 1998). A large brokerage firm may have repeat-player advantages and greater resources in defending those complaints, which leads to lower awards. Descriptive statistics on these additional variables are presented in Table

11, 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:

$$\begin{aligned}
 \text{Compensation Ratio}_i = & \alpha + \beta_{1i}\text{ChairAttorney}_i \\
 & + \beta_{2i}\text{ChairDemocratAttorney}_i \\
 & + \beta_{3i}\text{ChairRepublicanAttorney}_i \\
 & + \beta_{4i}\text{ChairAttorneyInvestor (Many Cases)}_i \\
 & + \beta_{5i}\text{ChairAttorneyBrokerage (Many Cases)}_i \\
 & + \beta_{6i}\text{ChairIndustryArbBackground}_i \\
 & + \beta_{7i}\text{Top Accused Brokerage Firm}_i \\
 & + \beta_{8i}\text{Inexperienced}_i + \beta_{9i}\text{Claimant Attorney Present}_i \\
 & + \beta_{10i}\text{Respondent Attorney Present}_i \\
 & + \beta_{ji}\text{Subject Matter}_{ji} + \beta_{ki}\text{Opinion Controls}_{ki} \\
 & + \beta_{hi}\text{State Controls}_{hi} + \text{Year Effects} + \varepsilon_i.
 \end{aligned}$$

Model 1 of Table 12 reports our results using an ordinary least squares model with errors clustered by individual arbitrator.

Note in model 1 that the *Chair_Republican_Attorney* coefficient is negative and significant at the 10 percent level. *Chair_Republican_Attorney* correlates with an 8.5-percentage-point decrease in the arbitration award measured as a percent of the claimed compensation. The *Chair_Attorney_Brokerage (Many Cases)* coefficient is significant at the 5 percent 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 subsample.

Note from model 1 that the coefficient on *Top Accused Brokerage Firm* is negative and significant at less than the 1 percent 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. The coefficient on *Claimant Attorney*

Table 11. Small-Sample Characteristics

Variable	Mean	25%	Median	75%	SD
Claimed Compensation (\$ millions)	.307	.048	.090	.232	1.042
Compensation Ratio	.373	.000	.200	.815	.408
Inexperienced (Chair)	.112	.000	.000	.000	.315
Number of Prior Awards (Chair)	11.8	3.0	8.0	16.0	12.6
Respondent Failed to Appear	.223	.000	.000	.000	.417
Claimed Punitive Damages	.306	.000	.000	1.000	.461
Claimed CRD Expungement	.157	.000	.000	.000	.364
Actual Punitive Damages	.095	.000	.000	.000	.294
Actual CRD Expungement	.102	.000	.000	.000	.303
Claimant Attorney Present	.865	1.000	1.000	1.000	.342
Respondent Attorney Present	.826	1.000	1.000	1.000	.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	.095	.000	.000	.000	.294
Median State Income (1999)	43,383.1	39,927.0	43,393.0	47,493.0	4,171.1
Median Partner Income (1999)	232,935.2	217,790.0	228,080.0	285,120.0	29,254.3

Table 12. Small-Sample Arbitrator Coalitions

Variable	(1)	(2)	(3)
Chair_Attorney	-.005 (-.100)	-.006 (-.130)	-.006 (-.130)
Chair_Democrat_Attorney	.025 (.550)	.024 (.510)	
Chair_Republican_Attorney	-.085* (-1.730)	-.082* (-1.660)	
Chair_Democrat_Attorney, No Coalition			.024 (.520)
Chair_Republican_Attorney, No Coalition			-.077 (-1.490)
Chair_Republican_Attorney, with Coalition			-.167* (-2.120)
Chair_Attorney_Investor (Many Cases)	.039 (.630)		
Chair_Attorney_Brokerage (Many Cases)	-.132* (-2.220)		
Chair_Attorney_Investor (Many Cases), No Coalition		.030 (.470)	.030 (.470)
Chair_Attorney_Investor (Many Cases), with Coalition		.123 (.940)	.123 (.940)
Chair_Attorney_Brokerage (Many Cases), No Coalition		-.068 (-1.330)	-.069 (-1.330)
Chair_Attorney_Brokerage (Many Cases), with Coalition		-.219* (-2.230)	-.222* (-2.250)
Chair_Industry_Arbitrator_Background	-.058 (-.930)	-.058 (-.930)	-.058 (-.930)
Top Accused Brokerage Firm	-.141** (-3.260)	-.146** (-3.310)	-.146** (-3.310)
Inexperienced	-.036 (-.740)	-.033 (-.660)	-.033 (-.660)
Claimant Attorney Present	.103* (2.100)	.099* (1.990)	.100* (2.000)
Respondent Attorney Present	-.203** (-3.150)	-.202** (-3.110)	-.202** (-3.100)
Constant	.532* (2.000)	.534* (2.010)	.544* (2.010)
Adjusted R ²	.3015	.2986	.2969

Note. The dependent variable is Compensation Ratio. The *t*-statistics are in parentheses. All models are ordinary least squares estimations with errors clustered by arbitrator and include controls for subject matter, opinion, and state controls and year fixed effects. Note that the variable Chair_Democrat_Arbitrator w/ Coalition with Other Arbitrators was zero for all observations and was dropped from the model. *N* = 390.

* Significant at ≤ 10%.

** Significant at ≤ 5%.

*** Significant at < 1%.

Present is positive and significant at the 5 percent level (corresponding to a 10.3-percentage-point increase in the arbitration award). Not surprisingly, claimants that 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 by agreeing to take a case. Similarly, the coefficient on Respondent Attorney Present is negative and significant at less than the 1 percent level (corresponding to a 20.3-percentage-point decrease in the arbitration award). Respondents who hire an attorney pay lower compensation awards.³⁶

To test the importance of the other nonindustry arbitrators, we divide our financial interest and ideology variables on the basis of whether the chair arbitrator sits on the same panel with a nonindustry 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 on the basis of panel composition, and model 3 reports the results with both financial 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 percent 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 a similar arbitrator results in significantly lower awards for investor-

36. To test the importance of arbitration size, we reestimated model 1 for the subsamples of arbitrations with (1) the median or lower claimed compensation amount and (2) greater than the median claimed compensation amount. Unreported, the coefficient on Chair_Attorney_Brokerage (Many Cases) is significant at the 10 percent 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 less than the 1 percent 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 percent and less than the 1 percent levels in the subsamples with the median or lower claimed compensation amount and greater than the median claimed compensation amount, respectively. Last, the coefficient on Top Accused Brokerage Firm is negative and significant at less than the 1 percent 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.

claimants.³⁷ This evidence suggests that a coalition of like-minded arbitrators results in a greater shift in the arbitration award than in cases in which only a single arbitrator has a background characteristic that may affect the arbitration outcome.

Model 3 reports results similar to those 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 percent 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 nonindustry arbitrator.³⁸

4.8. Testing the Impact of the National Association of Securities Dealers 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 whom they perceived as biased. The 2004 reforms narrowed the definition of a public arbitrator, excluding individuals with a broader range of personal and professional ties to the securities industry.

The effect of the 1998 reforms thus depends largely on the knowledge and sophistication of the parties, which may favor repeat players (Bingham 1997). If brokerage firms have 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

37. As a robustness test, we reestimate the models of Table 12 only for 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 12. We also reestimate the models of Table 12, replacing *Claimed Compensation*² with an indicator variable, *Million*, for whether the requested compensation amount was greater than \$1 million. Unreported, the models returned qualitatively the same results as the models in Table 12.

38. As a robustness test, we attempted to reestimate the models of Table 12 with Tobit models. However, the models failed to converge to a full set of coefficients and *t*-statistics for the coefficients.

counsel. The 2004 reforms seem more directly aimed at potential conflicts of interest, although it is unclear if the new limitations were significant.

Kondo (2006) 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 also reported that more attorneys are selected as arbitrators after the 1998 reforms, which led him to conclude that expertise increased among arbitrators after the 1998 reforms. 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.

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 postreform time period in hopes of remaining attractive to brokerage firms in future cases. Accordingly, we pose both these hypotheses in null form.

Hypothesis 5. The 1998 reforms had no significant effect on the incentives of arbitrators to side for (or against) brokerage firms and brokers.

Hypothesis 6. 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 reestimate model 1 in Table 6 using the full 1992–2006 sample, excluding arbitrations commenced in 1998 and 2004. For each model in Table 6, we remove the year indicator variables and substitute two indicator variables, Post-1998 Reforms and Post-2004 Reforms, indicating whether the arbitration was 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 allow 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 13 reports our results for the full sample, using an ordinary least squares model with errors clustered by each individual arbitrator.

From model 1, note that the coefficient for the 1998 reforms is negative and significant at less than the 1 percent level (corresponding to a 4.6-percentage-point reduction in the arbitration award measured as a percentage 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 casts doubt on the claim that the 1998 reforms 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 also 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 were more unambiguously 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 reestimate model 1 for the subsamples of arbitrations with (1) the median or lower claimed compensation amount and (2) greater than the median claimed compensation amount. Unreported, the coefficient on the 1998 reform indicator variable is negative and significant at less than the 1 percent level only for the subsample of arbitrations with greater than the median claimed compensation amount. Brokerage firms may have used information about arbitrators more strategically after the 1998 reforms—focusing primarily on larger cases in which 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 13. Unreported, the coefficient on Post-1998 Reform remains negative but now is sig-

Table 13. The Effect of Reforms on Arbitrator Incentives

Variable	(1)	(2)	(3)	(4)
Post-1998 Reforms	-.046** (-3.090)	-.043** (-2.830)	-.074** (-2.730)	.018 (.170)
Post-2004 Reforms	.001 (.020)	-.007 (-.190)	-.033 (-.370)	-.133 (-.550)
Inexperienced	-.059** (-2.840)	-.078** (-3.490)	-.106* (-2.360)	-.167 (-1.030)
Constant	.515** (3.060)	.489** (2.870)	.521** (2.950)	-.885** (-.810)
N	5,196	4,806	5,196	4,866
Adjusted R ²	.2096	.19611339

Note. The dependent variable is Compensation Ratio. The models exclude arbitrators started in the years 1998 and 2004. The *t*-statistics are in parentheses. Models 1, 3, and 4 are for the full sample; model 2 is for the sample of pre-1998 arbitrators only. Models 1 and 2 are ordinary least squares estimations with errors clustered by arbitrator; model 3 is a Tobit random effects model with arbitrator effects, and model 4 is a logit model in which the dependent variable Award equals one for a positive award and zero otherwise. All models include arbitrator fixed effects and subject matter, opinion, and state controls.

* Significant at $\leq 5\%$.

** Significant at $< 1\%$.

nificant at only the 10.4 percent level. The interaction term between Post-1998 Reform and Claim Punitive is negative and significant at less than the 1 percent 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 reestimate model 1 of Table 13 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 reestimate 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.³⁹ Last, we reestimate 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 the other three models, the coefficient on Post-1998 Reform is not significantly different from zero in model 4.⁴⁰

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.

39. As a robustness test, we reestimate model 1 of Table 13 only for 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 reestimate model 1 of Table 13 replacing Claimed Compensation² with an indicator variable, Million, for whether the requested compensation amount was greater than \$1 million. Unreported, the model returned qualitatively the same results as model 1.

40. We reestimated model 4 of Table 13 with an award indicator variable equal to one if an award equal to 5 percent or more of the claimed compensation amount was given and zero otherwise. Unreported, the reestimated model returned the same qualitative results as model 4 of Table 13.

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 process, including increased disclosure about arbitrator backgrounds and greater explanation of case awards.

APPENDIX

Table A1. Variable Definitions

Variable	Definition
Attorney_Investor	Indicator variable equal to one if the arbitrator has acted as an attorney in other arbitrations and represented investors in more than 75% of these arbitrations and zero otherwise
Attorney_Brokerage	Indicator variable equal to one if the arbitrator acted as an attorney in other arbitrations and represented brokerage firms or brokers in more than 75% of these arbitrations and zero otherwise
Industry Arbitrator Background	Indicator variable equal to one if the arbitrator was designated as an industry arbitrator in other arbitration proceedings and zero otherwise
Inexperienced	Indicator variable equal to one if the award in question was decided in the first year that the arbitrator's awards appear in the data set (other than in 1992) and zero otherwise
Suitability	Indicator variable equal to one if the arbitration involved a suitability claim, including claims involving "know your customer" (NYSE Rule 405) and NASD Rule 2310 issues and zero otherwise
Churning	Indicator variable equal to one if the arbitration involved a claim of churning, excessive trading, or excessive commission and zero otherwise
Unauthorized Trades	Indicator variable equal to one if the arbitration involved a claim of unauthorized trading and zero otherwise

Table A1. *continued*

Variable	Definition
Failure to Execute	Indicator variable equal to one 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 zero otherwise
Misrepresentation	Indicator variable equal to one if the arbitration involved a claim of misrepresentation, fraud, failure to disclose, Rule 10b-5, common-law fraud, or a deceptive sales tactic and zero otherwise
Conversion	Indicator variable equal to one if the arbitration involved a claim of theft, conversion, unauthorized withdrawals, or self-dealing and zero otherwise
Claimed Compensation	Amount of claimed compensation in dollars by the arbitration claimants
Compensation Ratio	Total amount of compensation award divided by the claimed compensation amount
Award	Indicator variable equal to one if the arbitration resulted in positive compensation to the claimant and zero otherwise
Number of Arbitrators	Number of arbitrators involved in the arbitration
Respondent Failed to Appear	Indicator variable equal to one if any of the respondents failed to appear at the arbitration hearing and zero otherwise
Claimed Punitive Damages	Indicator variable equal to one if punitive damages were requested or imposed on any of the respondents in the arbitration award and zero otherwise
Claimed CRD Expungement	Indicator variable equal to one if any of the respondent-brokers requested that the Central Registration Depository records be expunged or if those records were expunged and zero otherwise
Reported Settlement	Indicator variable equal to one if the arbitration resulted in a full or partial settlement and the settlement amount was reported and zero otherwise
Unreported Partial Settlement	Indicator variable equal to one if the arbitration resulted in a partial settlement and the settlement amount was not reported (but the award for the nonsettling respondents was reported) and zero otherwise
Chair_Ratio	Number of arbitrations in which a specific arbitrator served as chair divided by the total number of arbitrations for the specific arbitrator
State Income	Median household income for the state in 1999
Partner Income	Average partner salary reported for 1999 for the state

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