There Are Plaintiffs and . . . There Are Plaintiffs: An Empirical Analysis of Securities Class Action Settlements

James D. Cox, Randall S. Thomas, Lynn Bai[*]

I. THE CONTEMPORARY LEGAL ENVIRONMENT OF SECURITIES CLASS ACTIONS 358
  A. *Recent Calls for Reform* 358
  B. *Tensions Surrounding the Lead Plaintiff Provision* 365
II. EMPIRICAL ANALYSIS ON IMPACT OF LEAD PLAINTIFFS IN SECURITIES FRAUD CLASS ACTIONS 367
  A. *Descriptive Statistics* 368
  B. *Multivariate Analysis* 375
III. SMALL SETTLEMENTS: ARE THEY STRIKE SUITS? 380
IV. CONCLUSION 384

Reform of the securities class action is once again the subject of national debate. The impetus for this debate is the reports of three different groups—the Committee on Capital Market Regulation,[1] the Commission on the Regulation of U.S. Capital Markets in the 21st Century,[2] and McKinsey & Company.[3] Each of the reports focuses on a

---

* James D. Cox, Brainerd Currie Professor of Law, Duke University School of Law, Randall S. Thomas, John S. Beasley II Professor of Law and Business, Vanderbilt University Law School, and Lynn Bai, Assistant Professor of Law, University of Cincinnati College of Law. We thank Elliot Weiss and Stephen Choi for helpful comments on this paper and benefitted from the research assistance of Alan Payne, Sarah Ribstein, and Nicholas Varela, as well as several others.

1. COMM. ON CAPITAL MKTS. REGULATION, INTERIM REPORT (2006) [hereinafter COMMITTEE REPORT], *available at* http://www.capmktsreg.org/pdfs/11.30Committee_Interim_ReportREV2.pdf. The Committee is sometimes referred to as the "Paulson Committee," reflecting the name of its onetime chair, Henry M. Paulson. Paulson, former Chairman of Goldman Sachs, was the major stimulus for the Committee's formation and the direction of its efforts, but withdrew from the Committee upon being appointed U.S. Secretary of the Treasury.

2. COMM'N ON THE REGULATION OF U.S. CAPITAL MKTS. IN THE 21ST CENTURY, REPORT AND RECOMMENDATIONS (2007) [hereinafter CHAMBER REPORT], *available at* http://www.capitalmarketscommission.com (under "March 2007" heading, select "Download the

single theme: how the contemporary regulatory culture places U.S. capital markets at a competitive disadvantage to foreign markets. While the reports target multiple regulatory forces in their calls for reform, each report singles out securities class actions as one of the prime villains that place U.S. capital markets at a competitive disadvantage. The reports' recommendations range from insignificant changes to drastic curtailments of private class actions. Surprisingly, these current-day cries echo calls for reform heeded by Congress in the not-too-distant past.

Major reform of the securities class action occurred with the Private Securities Litigation Reform Act of 1995 ("PSLRA").[4] Among the PSLRA's contributions is the introduction of procedures by which the court chooses a lead plaintiff for the class.[5] The statute commands that the petitioner with the largest financial loss suffered as a consequence of the defendant's alleged misrepresentation is presumed to be the most adequate plaintiff. Thus, the "lead plaintiff" provision supplants the traditional "first to file" rule for selecting the suit's plaintiff with a mechanism that seeks to harness the plaintiff's economic self-interest for the suit's prosecution. Also, by eliminating the race to file first, the lead plaintiff provision seeks to avoid "hair trigger" filings by overly eager plaintiffs' counsel, which Congress believed too frequently gave rise to weak causes of action surviving the defendant's motion to dismiss.[6] The PSLRA also introduced for

full report"). This Commission is identified as "An Independent, Bipartisan Commission Established by the U.S. Chamber of Commerce." *Id.*

3. MCKINSEY & CO., SUSTAINING NEW YORK'S AND THE US' GLOBAL FINANCIAL SERVICES LEADERSHIP (2007) [hereinafter MCKINSEY REPORT], *available at* http://www.schumer.senate.gov/SchumerWebsite/pressroom/special_reports/2007/NY_REPORT%20_FINAL.pdf. At the request of New York City Mayor Michael R. Bloomberg and U.S. Senator Charles E. Schumer, the New York Economic Development Corporation commissioned the consulting group, McKinsey and Company, to prepare a report in order to provide a better understanding of the contribution the financial services industry makes to the economy and the forces that contribute to vibrant, competitive financial markets.

4. Pub. L. No. 104-67, 109 Stat 737 (codified in scattered sections in 15 U.S.C.).

5. *See* Securities Exchange Act of 1934 § 21D(a)(3)(i)(I)-(II), 15 U.S.C. § 78u-4(a)(3)(i)(I)-(II) (2000) (providing that within twenty days after filing of complaint, notice shall be published inviting class members to petition the court to be designated as the suit's lead plaintiff, and according sixty days for such petitions to be submitted).

6. This abuse is complemented by the PSLRA's alteration of Rule 11 of the Federal Rules of Civil Procedure to mandate that the presiding judge in all securities cases determine whether sanctions against any of the parties or their representatives should be imposed. *See id.* § 78u-4(c)(1)-(2). The PSLRA's innovation removes from the litigants themselves the initiative for imposing sanctions. The rationale for this move was that prior to the PSLRA, in the course of settlement, dynamics frequently caused parties involved to relinquish quietly their right to move for Rule 11 sanctions. *See* James D. Cox, *Making Securities Fraud Class Actions Virtuous*, 39 ARIZ. L. REV. 497, 521-23 (1997) (concluding that the PSLRA reforms overall, including the alteration of the mechanism for Rule 11 sanctions to be considered, was part of Congress's focus

securities class actions a heightened pleading requirement,[7] as well as a bar to the plaintiff from obtaining any discovery prior to the district court disposing of the defendants' motions to dismiss.[8] By introducing the requirement that allegations involving fraud not only must be pled with particularity, but also that the pled facts must establish a "strong inference" of fraud, the PSLRA cast aside—albeit only for securities actions—the less demanding notice pleading requirement that has been a fixture of U.S. civil procedure for decades.[9]

The PSLRA also introduced substantive changes to the law. With few exceptions, joint and several liability was replaced with proportionate liability so that a particular defendant's liability is capped by the defendant's relative degree of fault.[10] Similarly, contribution rights among co-violators are also based on the proportionate fault of each defendant.[11] Three years after passing the PSLRA, Congress returned to the subject of abusive securities class actions by enacting the Securities Litigation Uniform Standards Act ("SLUSA").[12] This law was prompted by the aggressive efforts of plaintiffs' lawyers to bypass PSLRA limitations—most notably the bar to discovery and higher pleading requirement—by bringing suit in state court.[13] Post-SLUSA, securities fraud class actions are exclusively the domain of the federal court.

---

that the presiding courts are to become more aggressive in their supervision of securities class actions).

7. *See* 15 U.S.C. § 78u-4(b)(2) (requiring the plaintiff to "state with a particularity facts giving rise to a strong inference that the defendant acted with the required state of mind"). This section was recently interpreted to mean that a "strong inference" is one that is "powerful or cogent" and is to be determined from all the facts set forth in the complaint, with inferences being drawn both for and against the allegations. *See* Tellabs, Inc. v. Makor Issues & Rights, Ltd., 127 S. Ct. 2499, 2510 (2007). *See generally* James D. Cox et al., Does the Pleading Standard Matter in Securities Class Actions? Doctrinal and Empirical Analysis of the Likely Impact of *Tellabs* (2007) (unpublished manuscript, on file with authors) (concluding that divergent interpretations of pleading standard that persisted before *Tellabs* likely will continue).

8. 15 U.S.C. § 78u-4(b)(3)(B).

9. What is typically required is "a short and plain statement of the claim showing that the pleader is entitled to relief." FED. R. CIV. P. 8; *see, e.g.*, Conley v. Gibson, 355 U.S. 41, 48 (1957), *overruled on other grounds by* Bell Atlantic Corp. v. Twombly, 127 S. Ct. 1955 (2007) (explaining that the purpose of pleading is to facilitate a proper decision on the merits, not to introduce "a game of skill in which one misstep by counsel may be decisive").

10. 15 U.S.C. § 78u-4(f). Proportionate liability does not apply, however, in some instances, such as when there has been an adjudication of knowledge of the violation.

11. *Id.* § 78u-4(f)(8).

12. *Id.* § 78bb(f)(1).

13. *See generally* Richard Painter, *Responding to a False Alarm: Federal Preemption of State Securities Fraud Causes of Action*, 84 CORNELL L. REV. 1 (1998). However, SLUSA preempts even claims that could not have been brought under the federal securities laws, such as those brought by non-purchasers or non-sellers of securities. *See* Merrill Lynch, Pierce, Fenner &

In this Article, we examine the impact of the PSLRA and, more particularly, the impact of the type of lead plaintiff on the size of settlements in securities fraud class actions. We provide insight into whether the type of plaintiff that heads the class action impacts the overall outcome of the case. Furthermore, we explore possible indicia that may explain why some suits settle for sums that are extremely small relative to the "provable losses" suffered by the class, to the asset size of the defendant-company, and to other settlements in our sample. This evidence bears heavily on the debate over "strike suits."

Part I of this Article sets forth the contemporary debate surrounding the need for further reforms of securities class actions. In this Section, we present the insights advanced in the three prominent reports mentioned above, which focus on the competitiveness of U.S. capital markets. In Part II, we first provide descriptive statistics of our extensive data set and then use multivariate regression analysis to explore the underlying relationships. In Part III, we closely examine small settlements for clues as to whether they reflect evidence of strike suits. We conclude in Part IV with a set of policy recommendations based on our analysis of the data.

Our goals in this Article are more modest than the Committee Report, the Chamber Report, and the McKinsey Report, each of which called for wide-ranging reforms: we focus on how the PSLRA changed securities fraud settlements in order to determine whether the reforms it introduced accomplished at least some of the Act's important goals. If the PSLRA was successful, and we think that it was, then one must be somewhat skeptical of the need for further cutbacks in private securities class actions so soon after the Act was passed.

I. THE CONTEMPORARY LEGAL ENVIRONMENT OF SECURITIES CLASS ACTIONS

A. Recent Calls for Reform

The premise of each of the three reports is that U.S. capital markets are losing, or have lost, their competitive edge over rival markets, most notably the London Stock Exchange. The metrics advanced to support the thesis are quite similar across the three reports. For example, the Committee Report emphasized the widely

Smith, Inc. v. Dabit, 547 U.S. 71, 87-89 (2006) (sweeping into SLUSA claims that misrepresentations caused class members to retain their shares).

reported news account that twenty-four of the twenty-five largest initial public offerings ("IPOs") in 2006 took place in markets outside the United States.[14] Indeed, the Committee Report tracks a fairly steady decline in global IPOs occurring within the United States.[15] On this point, the McKinsey Report notes that global IPOs taking place in the United States in 2006 were barely one-third the level they were in 2001, while European exchanges saw a thirty-percent increase during this same period.[16] The most notable gainers have been the London markets, which have seen their percentage of global IPOs increase 18.2 percent over the past six years compared to 11.4 percent in the United States.[17]

Echoing these concerns,[18] the Chamber Report notes the steady decline since 1996 in the number of foreign companies choosing to list their securities in the United States, so that the U.S. market share of worldwide listings has decreased nineteen percent since 1997.[19] And the McKinsey Report reflects where many of these IPOs are migrating—to Hong Kong, Singapore, and London.[20] At the same time, the Chamber Report observes that, on close analysis during the first half of 2006, there were seventeen foreign issuers who could consider an IPO in the United States. Of those, eleven chose the United States, demonstrating that "the competitive position of the United States for in-play IPOs has not dramatically deteriorated . . . ."[21] Singled out for special treatment is the relative attractiveness of London's Alternative Investment Market ("AIM"), which is the quintessential regulation-lite market. Since 2001, 870 companies have listed on the AIM, compared to 526 on the NASDAQ market, and the trend has accelerated, with

---

14. COMMITTEE REPORT, *supra* note 1, at 30 (noting, as well, that nine of the ten largest IPOs of 2006 prior to the report's release occurred outside the United States).

15. *See id.* at 30 fig.I.6 (reflecting graphically the decline from fifty percent by value of IPOs occurring in the United States in 2000 to about eight percent in 2006).

16. MCKINSEY REPORT, *supra* note 3, at 43.

17. COMM. ON CAPITAL MKTS. REGULATION, THE COMPETITIVE POSITION OF THE U.S. PUBLIC EQUITY MARKET 7 (2007), *available at* http://www.capmktsreg.org/pdfs/The_Competitive_Position_of_the_US_Public_Equity_Market.pdf (detailing the slide in worldwide percentage of IPOs listed in the United States, the growth in the London markets against the world markets through 2006, and the steady increase in market share for IPOs in markets outside of the United States and London).

18. *See, e.g.*, CHAMBER REPORT, *supra* note 2, at 18-19.

19. *Id.* at 19.

20. MCKINSEY REPORT, *supra* note 3, at 47 Exhibit 10 (reporting post-2002 percent of IPO values holding steady at about ten percent across four exchange markets within the United States, but rising in Hong Kong, Singapore, and London).

21. CHAMBER REPORT, *supra* note 2, at 20.

the AIM enjoying more than twice as many new listings as the NASDAQ since 2005.[22]

The Committee Report advances a more interesting line of inquiry by considering the forces driving the growing "private equity" market.[23] In this type of market, funds raised from institutions and wealthy individuals are employed skillfully in order to take public companies private or acquire private companies that otherwise would have considered public markets as the next step in their development. While in the past, investors reaped their gains when the private company ultimately undertook an IPO, the Committee Report points out that, since 2001, the numbers of private sales exits exceed the number of IPO exits by ten to one.[24] Others have suggested that, in addition to the cost related to the greater transparency of being a public company,[25] another consideration for being a private firm is the heightened exposure to litigation related to the disclosures that public companies must make. This is reflected in the data gathered in the McKinsey Report, in which surveyed executives stated that "the propensity toward litigation was the predominant problem" with the legal system.[26]

Although each of the three reports credits securities class actions with contributing to the growing anti-competitiveness of U.S. capital markets, they disagree as to the appropriate remedy. The least-sweeping suggestions appear in the Chamber Report's first recommendation that any recovery in a private suit should take into consideration sums recovered by the Securities and Exchange Commission ("SEC") pursuant to its authority under Section 308 of the Sarbanes-Oxley Act ("SOX").[27] This provision permits the SEC to direct to injured parties any monies recovered from fines and

---

22. MCKINSEY REPORT, *supra* note 3, at 50 (pointing out that during the first ten months of 2006, total IPOs listed on Nasdaq raised about the same amount as IPOs listed on AIM, whereas as recent as 2004, IPOs listed on Nasdaq raised about four times the amount as those listed on AIM).

23. *See* COMMITTEE REPORT, *supra* note 1, at 34-38.

24. *Id.* at 36 (reporting that in terms of value, the private equity exits from 2001 to 2005 totaled $94.85 billion compared to $12.06 billion for IPO exits).

25. CHAMBER REPORT, *supra* note 2, at 26 (referencing a study that explored the effects of increased regulation costs from SOX, Ehud Kamar et al., *Going Private Decisions and the Sarbanes-Oxley Act of 2002: A Cross-Country Analysis* (Univ. of S. Cal. Ctr. in Law, Econ. & Org. Research Papers, Paper No. C06-5, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=901769).

26. MCKINSEY REPORT, *supra* note 3, at 75. For example, sixty-three percent of respondents thought the United Kingdom had a less litigious culture compared to seventeen percent who felt the United States had a less litigious culture. *Id.*

27. CHAMBER REPORT, *supra* note 2, at 88-90.

accompanying disgorgement remedies.[28] The SEC has used this "Fair Fund" authority frequently since the enactment of SOX; the frequency of its use and the considerable sums sometimes directed to the Fair Fund are unlikely to have been overlooked by litigants. Indeed, any private settlement following such action by the SEC most assuredly was negotiated in the shadow of earlier SEC Fair Fund awards.

What appears to be lurking behind this proposal is the observation that:

> From time to time, there is a case in which a private action is proceeding ahead of an SEC enforcement action. In these relatively infrequent situations, the Commission recommends that the SEC consider whether seeking postponement of the completion of the private settlement until after a Fair Fund is established would be beneficial . . . .[29]

Our own investigation of settlements reveals that parallel SEC investigations and enforcement actions arise in only about seventeen percent of the private settlements included in our study data. We suspect that, in the great majority of these cases, the SEC action is concluded before the private action is settled. Thus, the Chamber Report's recommendation cannot be expected to have an important impact on the overall conduct of securities class actions.

More importantly, the Chamber Report's second recommendation for reforming private litigation is that the scope of the definition of who can be a primary violator should not be expanded beyond the very conservative "bright-line" test adopted by the Second Circuit.[30] An understanding of this recommendation begins with the Supreme Court's holding in *Central Bank of Denver v. First Interstate Bank*.[31] The Court rejected aiding and abetting liability, holding that only those who "make" a false representation or "engage" in a manipulative act can be liable under the antifraud provision.[32] After *Central Bank,* courts have grappled with the question of just how remote a party can be from the misrepresentation and still be liable. The most liberal construction of this inquiry is that which includes all who participate in a "scheme" to defraud as liable parties.[33] In contrast, the bright-line test holds responsible only those to whom the

28. *Id.*

29. *Id.* at 89.

30. *Id.* at 90-92.

31. 511 U.S. 164 (1994).

32. *Id.* at 177-78.

33. *See, e.g.*, Simpson v. AOL Time Warner Inc., 452 F.3d 1040, 1051 (9th Cir. 2006) (holding that those who participate in "sham" transactions known to be carried out for the purpose of facilitating the release of false financial reports are primary participants), *vacated and remanded*, Avis Budget Group, Inc. v. Cal. State Teachers' Ret. Sys., No. 06-560, 2008 WL 169406 (U.S. Jan. 22, 2008).

plaintiff can attribute the false statement, so a defendant who is not identified with the false representation but who has contributed mightily to it is excused of liability.[34] Some greater clarity in this area was hoped for when the Supreme Court agreed to decide whether "scheme" liability exists after *Central Bank*.[35] The Court's decision in *Stoneridge Investment Partners*,[36] however, provides no greater specification as to the contours for determining who is a primary participant. Nonetheless, its distinctly anti-private-suit rhetoric is sure to impact the lower courts.

Reflecting the concerns that arose with the disappearance of Big Five accounting firm, Arthur Anderson, the Chamber Report joins the other reports in recognizing the need for serious consideration of capping auditor liability[37]—the fear is that a settlement or judgment of a significant sum could well cause a further thinning in the ranks of public accounting firms. To address this fear, the Chamber Report recommends that auditors be permitted to enter into binding arbitration clauses, so as to reduce the cost of litigation and presumably to provide a more cost-effective means for auditors to manage their litigation risks.[38]

The reforms recommended in the McKinsey Report call for the SEC to use its rulemaking power to limit liability of foreign companies "to securities-related damages that are proportional to their degree of exposure to the U.S. Markets."[39] Presumably this would exclude recovery by foreign investors for losses suffered in connection with declines in the issuer's home market.[40] The McKinsey Report, similar to the Chamber Report, embraces a cap on auditor liability.[41] Its most novel and pervasive recommendation is to permit parties to appeal interlocutory judgments immediately.[42] Finally, the McKinsey Report

34. *See, e.g.*, Wright v. Ernst & Young LLP, 152 F.3d 169, 175-76 (2d Cir. 1999) (holding that an accounting firm that allegedly assured a company of the accuracy of certain financial information, despite knowledge to the contrary, was not a primary participant because it was not identified in the publication of the information).

35. *See In re* Charter Commc'ns, Inc., Sec. Litig., 443 F.3d 987, 992 (8th Cir. 2006) (rejecting scheme liability), *cert. granted sub nom.* Stoneridge Inv. Partners, LLC v. Scientific-Atlanta, Inc., 127 S. Ct. 1873 (2007).

36. Stoneridge Inv. Partners, LLC v. Scientific-Atlanta, Inc., No. 06-43, 2008 WL 123801 (U.S. Jan. 15, 2008).

37. CHAMBER REPORT, *supra* note 2, at 107-08.

38. *Id.* at 114.

39. MCKINSEY REPORT, *supra* note 3, at 102.

40. *See id.* (stating that "aggrieved plaintiffs" should still be able "to recover warranted damages").

41. *Id.*

42. *Id.* at 104.

calls for express authority allowing company charters to require the arbitration of shareholder claims.[43]

The recommendations of the Committee Report are far reaching. The Committee Report calls on the SEC to eliminate through rulemaking numerous doctrinal uncertainties that surround the scope of the anti-fraud provision.[44] These areas of uncertainty are broadly identified as "materiality," "scienter," and "reliance." For example, the report identifies an existing circuit split regarding whether a fact, omitted or misstated initially, can be material if the announcement containing the omission or misstatement is accompanied by no detectable market response. Similarly, the Committee Report points to a circuit split regarding whether the pleading standard permits an allegation of recklessness to create a strong inference of fraud and calls for SEC clarification. The SEC also is asked to clarify the scope of the "fraud on the market" theory for establishing reliance, whereby a class of plaintiffs can rely generally on the integrity of the market rather than proving reliance on the misrepresentation itself. Similar to the Chamber Report's concern, the Committee Report argues that "private damage awards should be offset by any Fair Funds collections" obtained by the SEC. The Committee Report also favors prohibiting attorneys from representing plaintiffs in securities class actions where the attorney directly or indirectly has contributed funds to the election campaign of the officials responsible for an investor's (i.e., fund's) decision to become a lead plaintiff.

In the audit area, fearing the disappearance of another major accounting firm, the Committee Report recommends a cap on the liability of auditors.[45] In response to the WorldCom litigation result, the Committee Report further recommends that good faith reliance by outside directors on audited financial statements be conclusive evidence of their due diligence, so that no section 11 liability will be imposed on the relying directors if the financial statements are materially misleading.[46] In *WorldCom*,[47] directors failed to have the case against them dismissed,[48] even though misrepresentations appeared in the audited financial statements for which the outside

---

43. *Id.* at 103.

44. COMMITTEE REPORT, *supra* note 1, at 80 (calling for the SEC to undertake a review of the elements of Rule 10b-5 using a "risk based" approach). For the relevant recommendations by the Committee, see *id.* at 80-84.

45. *Id.* at 88-89.

46. *Id.* at 91.

47. *In re* WorldCom, Inc. Sec. Litig., 346 F. Supp. 2d 628 (S.D.N.Y. 2004).

48. *Id.* at 635.

directors would be liable only if they failed to establish that they "had no reasonable ground to believe and did not believe" the financial statements were misleading.[49] The court concluded that it was a question of fact whether the directors' awareness that WorldCom enjoyed one of the most positive ratios of expenses to revenues was a "red flag" that would deprive the directors of this defense.[50]

The most sweeping litigation reform proposed in the Committee Report calls for permitting public companies to opt out of the current court-based litigation system if their charters provide that shareholder disputes be addressed via some alternative dispute resolution procedure, such as arbitration.[51] The parallel for this approach is what has occurred in the realm of customer-broker disputes, which, since embraced by the Supreme Court,[52] largely have ridded the federal court system of such disputes, substituting in their place the NASD-supervised arbitration process.[53] Implementation of this recommendation likely would require the SEC to set aside its earlier position that substituting an ADR process for court-based litigation violates the securities laws anti-waiver provisions.[54] However, even if the SEC does retreat from such a view, any ADR clause most certainly would face a serious challenge premised on the argument that the anti-waiver protections are personal and, therefore, cannot be set aside by the collective will of a majority of a company's shareholders.

Whether examined collectively or in isolation, the reforms proposed by the three reports do not suggest wholesale indictment of securities class actions. With the exception of the Committee Report's calls for the SEC to undertake rulemaking to clarify issues involving materiality, scienter, and reliance and its recommendation that public companies be able to opt for ADR procedures, the proposals are hardly an indictment of the efficacy of the securities class action. Indeed,

---

49. Securities Act of 1933 § 11(b)(3)(C), 15 U.S.C. § 77k(b)(3)(C) (2000).

50. *See In re* WorldCom, Inc. Sec. Litig., No. 02 Civ. 3288 (DLC), 2005 U.S. Dist. LEXIS 4193, at *23-24 (S.D.N.Y. Mar. 21, 2005) (holding that directors cannot rely on certified financial statements if there are red flags giving notice that such reliance is unwarranted).

51. COMMITTEE REPORT, *supra* note 1, at 109-12.

52. *See* Shearson/Am. Express, Inc. v. McMahon, 482 U.S. 220, 234 (1987) (recognizing arbitration of Exchange Act customer complaints against brokers); *see also* Rodriquez de Quijas v. Shearson/Am. Express, Inc., 490 U.S. 477, 481 (1989) (overruling earlier precedent, Wilko v. Swan, 346 U.S. 427 (1953), to permit arbitration of Securities Act customer claims against brokers).

53. For a study of inconsistencies of recent arbitration decisions with underlying legal principles, see Jennifer J. Johnson, *Wall Street Meets the Wild West: Bringing Law and Order To Securities Arbitration*, 84 N.C. L. REV. 123 (2005).

54. COMMITTEE REPORT, *supra* note 1, at 111.

none of the reports include any of the claims commonly made in the mid-nineties by proponents of the PSLRA that securities fraud actions were, on average, extortion devices in the hands of unscrupulous attorneys.[55] Rather, each report is thin on data capturing problems that exist with contemporary securities class actions. Thus, if we were to consider only the contemporary reform proposals, we might well conclude that securities class actions are working reasonably well and are only in need of some minor tweaking. We seek to address empirically several questions that we believe are central to assessing whether reform of the securities class action is justified.

B. Tensions Surrounding the Lead Plaintiff Provision

Congress placed the plaintiff's selection at a strategic position in its 1995 reform efforts. The goal was to provide, whenever possible, the suit with a real plaintiff whose economic self-interest would serve the class and likely the defendant corporation's interests. The latter could occur by structuring any resulting settlement to include governance reforms that would benefit the defendant company's stockholders in the years following the settlement. It also is possible that the vigilance of a significant holder of the defendant company's shares would recommend to the court that the suit was improvidently filed. The former could occur in many ways, such as the lead plaintiff prevailing on the class's counsel to obtain a larger settlement than the class's counsel otherwise would have pursued and negotiating attorneys' fees that not only provide incentives for the counsel to reap a large settlement but also lower the fees from what otherwise would be awarded.

The plaintiffs' law firms are not passive participants in the operation of the lead plaintiff provision. The PSLRA empowers the lead plaintiff to recommend to the court who should be designated as counsel for the class.[56] In this way, the decision of selecting the suit's

---

55. Testimony during the hearings preceding the passage of the PSLRA sometimes emphasized the extortionate nature of securities class actions. *See, e.g.*, *Private Litigation Under the Federal Securities Laws: Hearings Before the Subcomm. on Securities of the S. Comm. on Banking, Housing, and Urban Affairs*, 103d Cong. 12 (1993) (statement of Edward R. McCracken, President and CEO, Silicon Graphics) (noting that securities class actions frequently are filed upon a momentary price decline of ten percent or more and often result in a recovery of attorneys fees, but little else). Some commentators express similar skepticism. *See, e.g.*, Joseph A. Grundfest, *Why Disimply?*, 108 HARV. L. REV. 727, 742-43 (1995) (concluding that, among studied settlements, less than one fourth yielded settlements below $2 million, with an average of these settlements being about $1 million, such that "settlement values may often be less than avoided litigation costs").

56. Securities Exchange Act of 1934 § 21D(a)(3)(B)(v), 15 U.S.C. § 78u-4(a)(3)(B)(v) (2000).

lead plaintiff ultimately decides who will be the suit's counsel. It is, therefore, understandable that, since 1995, plaintiffs' firms actively have recruited, and nurtured ongoing relationships with, institutional investors with an eye toward gaining their support in being chosen to represent the class.

The PSLRA is clear that the lead plaintiff is presumed to be the party with the most significant loss as a consequence of the violation being litigated.[57] A review of the legislative history reveals that Congress's vision was focused exclusively on this party being an institutional investor.[58] As the following descriptive statistics reveal, this vision has not been fulfilled, as the greatest number of securities class action settlements have as their plaintiff either an individual or a group of individuals, but not a financial institution. On a more hopeful note, we do find that in recent years there have been many more cases where a financial institution or other entity is the suit's lead plaintiff. We speculate that, as experience was gained under the lead plaintiff provision, uncertainties regarding the costs and benefits of being a lead plaintiff disappeared, resulting in many more organizations willing to shoulder the task of being the suit's lead plaintiff.

Initially, institutional lead plaintiffs were a narrowly defined group, being almost entirely composed of public pension funds or labor pension funds. Over time, this group expanded to include other financial institutions, such as insurance companies, private investment entities including hedge funds, and, sporadically, mutual funds. There is a continuing practice of permitting groups of individuals to aggregate their claims, particularly when they share a pre-existing relationship. Serious doubts have been raised regarding whether aggregation is consistent with the PSLRA goal of providing a watchful and resourceful plaintiff for the suit.[59] These doubts stem

---

57. *See id.* § 78u-4(a)(3)(B)(iii)(I)(bb) (establishing a rebuttable presumption that petitioner with "largest financial interest in the relief" is to be appointed lead plaintiff). The theory behind the presumption is developed in Elliott J. Weiss & John S. Beckerman, *Let the Money Do the Monitoring: How Institutional Investors Can Reduce Agency Costs in Securities Class Actions*, 104 YALE L.J. 2053, 2088-94 (1995) (detailing agency problems that can arise in class actions that lack a plaintiff with a sufficient economic interest in the suit's prosecution).

58. *See, e.g.*, H.R. REP. NO. 104-369, at 34 (1995), *reprinted in* 1995 U.S.C.C.A.N. 730 (repeatedly making references to expectations that "institutional investors" will step forward to become lead plaintiffs).

59. *See, e.g.*, R. Chris Heck, Comment, *Conflict and Aggregation: Appointing Institutional Investors as Sole Lead Plaintiffs Under the PSLRA*, 66 U. CHI. L. REV. 1199, 1218-19 (1999) (asserting that "aggregation shifts control of securities fraud litigation from investors to their attorneys and . . . makes it less likely that institutional investors will be appointed as lead plaintiffs").

from the concern that groups face serious collective action problems and the belief that the incentives to be watchful are no greater than those of the group's member with the largest loss. Rounding out the range of lead plaintiffs are individuals, who, as observed earlier, represent the largest percentage of securities class actions.

In this empirical investigation, we have two foci. First, we seek to better understand how well the lead plaintiff provision is operating. As discussed earlier, a key provision of the PSLRA was the adoption of a mechanism for the court to select the most adequate representative of the class. We expand on our earlier work on the operation of this provision by including in our analysis a substantial number of cases filed in more recent years. The more recent settlements are significant to understanding today's securities class action; our data reflects that it took several years for the lead plaintiff provision to attract large numbers of competing petitioners. To this end, we compare institutional lead plaintiff cases initiated prior to 2002 with those initiated after 2001. By undertaking this bifurcation, we capture how the experience with this type of lead plaintiff has impacted settlements. Moreover, in this study, we seek to differentiate more closely among the types of entities that are selected as lead plaintiffs.

Our second focus is to understand better the dynamics and variables associated with the "small settlement." These are settlements that yield amounts not exceeding $2 million or $3 million, which in our sample represent 20.5 percent and 29.7 percent of the total number of settlements, respectively. In this part of the Article, we address the claim that securities class actions frequently involve "strike suits," which are baseless actions sought for no greater purpose than to extort a settlement, most of which is diverted to the suit's attorneys. In the end, our analysis of 773 settlements suggests several areas of inquiry that regulators and policymakers should consider if any review of securities class actions is to occur. Our analysis and recommendations are intended to contribute to the ongoing debate about how securities class actions serve their compensatory mission.

II. EMPIRICAL ANALYSIS OF LEAD PLAINTIFFS' IMPACT IN SECURITIES FRAUD CLASS ACTIONS

We begin by presenting some descriptive statistics for our sample and the main variables for which we have complete data. The data sample consists of 773 securities class actions settled from 1993 through 2005. Pacer was our main source of information regarding the specific cases, such as the identity of the lead plaintiff, the filing and settlement dates, and the settlement amount. We used the SEC

Enforcement Releases and the Nexis electronic data base to ascertain whether there was a parallel SEC enforcement proceeding. For each case, we coded the lead plaintiff type. We are especially interested in institutional lead plaintiffs defined as financial institutions in the classic sense of an insurance company, bank, pension fund, mutual fund, endowment, or foundation. The institutional lead plaintiffs in our cases are mostly pension funds, either public pension funds or labor union pension funds. To examine their separate influence on securities settlement outcomes, we separate these types of institutions from a residual sub-group of "other institutions."

In addition, we obtained information on the defendant firms' total assets (a proxy for the defendants' sizes) immediately before the law suits from COMPUSTAT and any bankruptcy filings by the defendants before case settlement from the Bankruptcy Research Database maintained by Professor Lynn M. LoPucki of UCLA Law School.

Our study required an estimation of provable losses suffered by the plaintiffs during class periods. These numbers were calculated in the same manner as in Cox & Thomas (2004).[60] The provable loss ratio variable was calculated by scaling the actual cash settlements with the estimated provable losses.

A. Descriptive Statistics

Table 1 sets forth the descriptive statistics for the sample used in our empirical analysis. Categories 1 and 3 comprise our institutional investor lead plaintiffs. They figure prominently in the sample as there are 113 settlements (17.9 percent of post-PSLRA settlements) that involve either an institution, or an institution and an individual, as the lead plaintiffs. The largest category of lead plaintiffs is the "Group of Individuals" classification. These constitute aggregations of individual lead plaintiffs that are selected collectively to lead the class. Single individuals and other types of entities are the remaining two important lead plaintiff categories. There is no lead plaintiff for the pre-PSLRA cases.

---

60. *See* James D. Cox & Randall S. Thomas with Dana Kiku, *SEC Enforcement Heuristics: An Empirical Inquiry*, 53 DUKE L.J. 737, 768 n.100 (2003) (calculating provable losses using the damage estimation model).

Table 1
Descriptive Statistics

Type of Lead Plaintiff	# of cases	Percent
(1) Institution	94	12.2%
(2) Group of Individuals	206	26.6%
(3) Institution - Individuals	19	2.5%
(4) Single Individuals	123	15.9%
(5) Entity	119	15.4%
(6) Pre-PSLRA	140	18.1%
(7) Unknown	72	9.3%
Total	773	100.0%

Year Complaint Filed	# of cases	Percent
Pre-PSLRA (1993 - 1995)	140	18.1%
Early Post-PSLRA (1996 - 2001)	488	63.1%
Mature Post-PSLRA (2001 - 2004)	139	18.0%
Unknown	6	0.8%
Total	773	100.0%

The second half of Table 1 provides a breakdown of the year the complaint was filed for all of the cases in our sample. About one-fifth of our cases were filed before the enactment of the PSLRA, about three-fifths were filed during the early post-PSLRA period, and the remaining cases were filed after 2001 in what we refer to as the mature post-PSLRA timeframe. The broad diversity in our sample permits us to examine changes that may have occurred in settlements and other aspects of securities fraud class action litigation over this extended timeframe. In particular, we can examine longitudinally any differences in institutional investor activity and effect.

To understand better what type of institutional investors are involved as lead plaintiffs in the cases in our sample, Table 1A subdivides this group of institutional lead plaintiffs into three

categories: labor union pension funds, public pension funds, and the remaining institutions. We make this division in order to highlight any differences in behavior among these groups. Prior research has found some differences.[61]

Table 1A
Breakdown of Institutional Lead Plaintiff Types

Type of Institutional Lead Plaintiff	# of cases	Percent
Labor Union Pension Fund	44	38.9%
Public Pension Fund	33	29.2%
Other Institutions	36	31.9%
Total	113	100.0%

In Table 2, we examine settlement amounts by type of lead plaintiff. Settlement size is the best measure of the benefits of the case to the plaintiff class. While there is some controversy over whether the current measure of damages leads to a "circularity" problem,[62] the beneficiaries of the settlement almost always would prefer larger settlements to smaller ones. The largest settlements arise in cases with institutional investor lead plaintiffs. For this group of settlements, we observe much larger mean and median levels than for any of the other lead plaintiff groups. Public pension funds have by far the largest mean recoveries, but their median recovery is lower than that of the labor union pension fund category. Single individual lead plaintiffs achieve the smallest settlement sizes. Significance tests suggest that both the difference in the mean and in the median between institutions and individuals are significant at the five-percent level, and that the difference between the mean for public pension funds and the mean for other types of institutions is also significant at

61. Michael A. Perino, *Institutional Activism Through Litigation: An Empirical Analysis of Public Pension Fund Participation in Securities Class Actions* 3 (St. John's Legal Studies Research Paper Series, Paper No. 06-0055, 2006), *available at* http://ssrn.com/abstract=938722.

62. *See* ANJAN V. THAKOR WITH JEFFREY S. NIELSEN & DAVID A. GULLEY, U.S. CHAMBER INST. FOR LEGAL REFORM, THE ECONOMIC REALITY OF SECURITIES CLASS ACTION LITIGATION 1 (2005), *available at* http://heartland.temp.siteexecutive.com/pdf/18331.pdf (finding that, due to significant holdings of public companies by well-diversified investors, securities class actions produce net benefits to investors in mergers and initial public offering settings, but not otherwise).

the five-percent level. On the other hand, the difference in the median between public pension funds and labor union pension funds is not significant.[63]

Table 2
Settlement Amounts (Thousands of Dollars)

Type of Lead Plaintiff	Mean	Median	# of cases
Labor Union Pension Fund	39,960	21,300	44
Public Pension Fund	180,606	20,150	33
Other Institutions	76,048	17,975	36
Entity	13,254	6,500	118
Single Individuals	6,009	3,500	121
Group of Individuals	11,309	4,550	206
Pre-PSLRA	9,822	5,225	140
Unknown	15,827	6,875	72
Total	22,846	5,663	770

Table 3 reports the length of the class period for cases in our sample by type of lead plaintiff. The length of the class period is a proxy for the number of defrauded investors: a longer class period generally means that more investors were harmed.[64] We see that

63. *p*-values for the t-statistics for testing equivalence in the mean between institutional lead plaintiffs and individual lead plaintiffs, and between institutional lead plaintiffs and groups of individual lead plaintiffs, are both 0.02. The *p*-value for the *t*-test for testing equivalence in the mean between public pension funds and labor union pension funds is 0.0001. All of these statistics strongly reject the null hypothesis of equal mean. *p*-values in the Wilcoxon rank sum test are both <.0001 between institutional lead plaintiffs and individual lead plaintiffs, and between institutional lead plaintiffs and groups of individuals, and the *p*-value between public pension funds and labor union pension funds is 0.35.

64. The class period spans the time from the occurrence of the defendant's illegal activity, which induced response from investors up to when the illegality of the activity was revealed to the public. Thus, only investors who bought shares during this period are deemed to have been induced by the defendant's activity and are able to be members of the class. Therefore, the longer the class period, the larger the number of investors deemed to have been induced, and thus harmed, by the defendant's activity. Harm is evidenced by the stock market drop after the revelation of the defendant's illegal conduct.

settlements pursued by institutional lead plaintiffs have the longest class periods, although public pension funds have the lowest mean and median class period length of any of the institutional groups. This difference may reflect that public pension funds, more so than other categories of lead plaintiffs, cherry-pick the cases in which they seek to become lead plaintiffs, but we cannot be sure that this is the case. There are relatively minor variations among the other types of lead plaintiffs. Significance tests have confirmed these observations.[65]

Table 3
Length of Class Period (Months)

Type of Lead Plaintiff	Mean	Median	# of cases
Labor Union Pension Fund	23.7	24.3	44
Public Pension Fund	15.6	13.4	33
Other Institutions	28.2	25.0	36
Entity	15.2	11.8	118
Single Individuals	15.9	11.2	117
Group of Individuals	14.1	10.9	204
Pre-PSLRA	12.1	10.3	72
Unknown	16.0	12.2	140
Total	15.7	11.8	764

Using total assets (in millions of dollars) as a proxy for firm size, Table 4 presents data on the size of the defendant firms in our sample cases. Firm size may be important as a determinant of how much a defendant can afford to pay in damages in a settlement, as well as the magnitude of the losses caused by its reporting violation.

65. The differences in the mean class periods between labor union pension funds and individual lead plaintiffs and between labor union pension funds and groups of individuals are both significant at the five-percent level. The difference between means for labor union pension funds and public pension funds is significant at the ten-percent level. The difference in the median between institutions and individual lead plaintiffs (as well as between institutions and groups of individuals) and the difference between labor union pension funds and public pension funds are both significant at the five-percent level.

The most salient fact shown in this table is that institutional lead plaintiffs (in all categories) assume the lead plaintiff position in cases with much larger defendants than do other types of lead plaintiffs. We also see public pension funds are lead plaintiffs in cases against the largest defendants based on mean values, although not for median values. Single individuals and groups of individuals appear as lead plaintiffs in cases against the smallest defendants.[66]

Table 4
Total Assets of Defendant Companies (Million of Dollars)

Type of Lead Plaintiff	Mean	Median	# of cases
Labor Union Pension Fund	13,618	2,451	41
Public Pension Fund	20,570	1,976	28
Other Institutions	16,953	4,443	31
Entity	3,865	258	104
Single Individuals	2,072	183	106
Group of Individuals	1,301	161	184
Pre-PSLRA	3,785	124	134
Unknown	7,086	292	62
Total	5,025	246	690

Using the model that we developed in an earlier paper, we estimate for each case in our sample the provable losses suffered by the class members.[67] The estimated provable losses are a measure of

66. *p*-values in the t-test for the equivalence in the mean are: 0.07 between labor union pension funds and individuals, 0.001 between public pension funds and individuals, 0.02 between other institutions and individuals, 0.02 between labor union pension funds and groups of individuals, 0.0003 between public pension funds and groups of individuals, and 0.005 between other public institutions and groups of individuals. All of these numbers strongly reject the null hypothesis of equivalence in the mean. As for the median, the *p*-values for the Wilcoxon rank sum test *z* statistics are <.0001 between each type of institutional lead plaintiff and individuals, as well as between each type of institutional lead plaintiff and groups of individuals, again suggesting significant difference in the median. The median between labor union pension funds and public pension funds is not significant at five percent, with a *p*-value of 0.28.

67. Cox & Thomas with Kiku, *supra* note 60.

the harm suffered by the plaintiff class as a result of the defendants' alleged fraud. We present these numbers in Table 5. Once again, we see that institutions appear as lead plaintiffs in cases with the largest values, although neither labor union funds nor public pension funds appear in the highest-damage cases on average. Further, we see that individuals and groups of individuals act as lead plaintiffs in cases with the lowest estimated provable losses.[68]

Table 5
Estimated Provable Losses (Million of Dollars)

Type of Lead Plaintiff	Mean	Median	# of cases
Labor Union Pension Fund	2,022	1,432	43
Public Pension Fund	5,679	975	32
Other Institutions	8,264	654	35
Entity	367	136	115
Single Individuals	306	84	108
Group of Individuals	306	82	198
Pre-PSLRA	382	55	140
Unknown	509	78	65
Total	1,060	110	736

Our final set of descriptive statistics in Table 6 displays the ratio of the settlement amount to the estimated provable losses for the cases in our sample. This ratio can be understood as the percentage of losses recovered by the class. While the overall level of this value

68. Significance tests show that cases in which public pension funds or other institutions (exclusive of labor union pension funds) were the lead plaintiffs have significantly higher mean provable losses than cases in which individuals and groups of individuals were. In contrast, the difference is not significant at five-percent level between labor union pension funds and individual lead plaintiffs or groups of individuals. The difference between the mean for labor union pension funds and public pension funds is only significant at ten-percent level. The differences in the median between each institutional lead plaintiff type and individual lead plaintiffs, as well as between each institutional lead plaintiff type and groups of individuals, are highly significant, with p-values <.0001 across the board. The difference between the median of labor union pension funds and public pension funds is not significant.

depends heavily on the damage formula and related assumptions used in calculating provable losses, the *relative* levels of this number help us identify differences in lead plaintiffs' effectiveness. Here we see that labor union funds and public pension funds are about average in terms of recovery percentages, while the "Other Institution" category is a laggard.[69]

Table 6
Ratio of Settlement Amount to Provable Losses

Type of Lead Plaintiff	Mean	Median	# of cases
Labor Union Pension Fund	0.13	0.03	43
Public Pension Fund	0.13	0.04	32
Other Institutions	0.05	0.01	35
Entity	0.14	0.05	115
Single Individuals	0.12	0.04	108
Group of Individuals	0.23	0.06	198
Pre-PSLRA	0.13	0.09	140
Unknown	0.17	0.06	65
Total	0.16	0.06	736

B. Multivariate Analysis

Having described the main variables in the previous section, we now use multivariate analyses to examine the underlying relationships between several key variables. We are particularly interested in the determinants of the size of settlements in securities fraud litigation. In Table 7, we display the results of a least squares regression with heteroscedasticity-consistent standard errors with the

69. Although the differences in the mean recovery ratio between each type of institution and individuals (as well as groups of individuals) are not significant, the differences in the median between these groups are significant at five-percent or ten-percent levels. Among different institutional lead plaintiff types, labor union pension funds and public pension funds are shown to have significantly higher medians than other institutions.

dependent variable being log (settlement amount).[70] The independent variables are log (provable losses), log (total assets), length of class period, a dummy variable for the presence of an SEC enforcement action, a bankruptcy dummy variable (to control for the potential effect of bankruptcy filing on settlement size), and two dummy variables for whether the case was filed in the 1996-2000 (early post-PSLRA) time period or the 2001-2005 (mature post-PSLRA) time period.

Table 7
Determinants of Log(Settlement Amount)

OLS Regressor	Coefficient	Standard Error***	Chi-sq	Pr > ChiSq
Intercept	3.87	0.27	198.03	<.0001
Log (Provable Loss)	0.34	0.03	99.04**	<.0001
Log (Total Assets)	0.15	0.03	26.64**	<.0001
Log (Class Period)	0.04	0.05	0.88	0.35
SEC Dummy	0.33	0.10	10.40**	0.001
1996 - 2000 Period	-0.05	0.09	0.28	0.60
2001 - 2005 Period	-0.24	0.10	5.62**	0.02
Bankruptcy Dummy	-0.11	0.19	0.34	0.56

Adj. R-sq: 0.47
* Significant at 10%, ** significant at 5%, *** Heteroscedasticity-consistent

Scrutinizing Table 7, we see that provable losses, total assets, and the presence of an SEC enforcement action are all positively and significantly related to the size of the settlement, which is consistent with earlier studies.[71] However, the mature post-PSLRA dummy is negatively and significantly correlated with settlement size, suggesting that the dollar size of settlements has decreased in cases

70. If the variance of the log (settlement amount) increases with the size of provable losses, then an ordinary least squares estimate could suffer from heteroscedasicity problems. We correct for this potential problem by using heteroscedasticity-constant errors.

71. *See, e.g.*, James D. Cox & Randall S. Thomas with Dana Kiku, *Does the Plaintiff Matter? An Empirical Analysis of Lead Plaintiffs in Securities Class Actions*, 106 COLUM. L. REV. 1587, 1630-32 (2006) (finding that provable losses are positively related to the settlement amount, and that the presence of institutional lead plaintiffs additionally increases the settlement amount, all other factors held constant).

filed in the mature post-PSLRA period.[72] We also find that class period length and bankruptcy filing are not significant explanatory variables for settlement size.[73]

We next examine the determinants of institutional investors' decision to intervene as lead plaintiffs in the post-PSLRA period using a logit model. Earlier research found that prior to 2002, institutions were more likely to appear in cases with larger estimated provable losses, at firms with greater total assets, and where the SEC has undertaken enforcement actions.[74] Table 8 presents our results for our sample, which includes cases filed during the post-2001 time period.

Table 8
Determinants of Institutuional Investor's Decision to Be Lead Plaintiff

Regressor	Coefficient	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	-8.94	1.04	73.41	<.0001
Log (Provable Losses)	0.37	0.10	13.77**	0.0002
Log (Total Assets)	0.37	0.08	20.65**	<.0001
Class Period	0.02	0.01	2.48	0.12
SEC Dummy	0.51	0.31	2.68*	0.10

* Significant at 10% level, ** signficant at 5% level.

We see that including the later time period does not affect how institutional investors select their cases: provable losses, the presence of an SEC enforcement action, and total assets are significant and positive. Each of these factors indicates that institutions are more likely to intervene as lead plaintiffs in cases with larger losses, a government enforcement action, and bigger defendants. However, the length of the class period is insignificant, although it did yield a positive sign. In estimations not shown, we find similar results using the provable loss ratio as the dependent variable and all of the same independent variables (with the exception of provable losses). We also try alternative specifications (not shown) of the model to include dummy variables in the post-2001 time period to see if there are any

72. We test for the significance of the differences in the coefficients between the 1996-2000 period and the 2001-2006 period and find a chi square statistic of 4.47, which is significant at less than the five-percent level.

73. The absence of significance for bankruptcy filings may stem from the use of D&O insurance policies as the principal method of funding securities class action settlements.

74. Cox & Thomas with Kiku, *supra* note 71, at 1630.

changes in institutional investor behavior during the mature post-PSLRA time period, but these additional variables are insignificant.

We turn next to a very important policy question: whether the presence of an institutional lead plaintiff adds value for the investors by increasing settlement size. Researchers previously have found that the presence of an institutional investor does add value for cases filed prior to 2002.[75] In this paper, we examine whether this relationship persists during the post-2001 time period. Given the much more widespread appearance of institutional investors in the post-2001 time period, it is possible that they are no longer adding value. Table 9 displays these new results. In this table, the Institution Dummy variable indicates the presence of an institutional lead plaintiff. The New Era Dummy variable captures any effect for post-2001 cases in general, while the variable Institution*New Era is an interaction term of the Institution Dummy and the New Era Dummy designed to capture any additional effect of institutions on settlement amounts in cases settled after 2001.

Table 9
Determinants of Log (Settlement Amount)

Regressor	Coefficient	Standard Error	t-Statistic	p-Value
Intercept	4.13	0.32	13.00	<.0001
Log (Provable Losses)	0.31	0.03	8.81**	<.0001
Log (Total Assets)	0.15	0.03	4.51**	<.0001
Class Period	0.001	0.004	0.30	0.76
SEC Dummy	0.37	0.12	3.08**	0.002
Institution Dummy	0.31	0.16	1.94*	0.05
New Era Dummy (Post 2001 Setlements)	-0.07	0.13	-0.55	0.58
Institution*New Era	0.08	0.20	0.39	0.58
Bankruptcy Dummy	-0.13	0.18	-0.74	0.46

** Significant at 5% level, * significant at 10% level.
Adj. R-sq: 0.47

We find that the presence of an institutional lead plaintiff increases settlement size overall and that there is a slight but insignificant increase in settlement amount in the post-2001 period for institutional investors. We also see that settlement size is positively and significantly correlated with estimated provable losses, total

75. Cox & Thomas with Kiku, *supra* note 71, at 1636; Perino, *supra* note 61, at 21-25.

assets, and the presence of an SEC enforcement action. The class period variable is insignificant, as is the dummy variable for post-2001 settlements overall.[76] Thus, the variables found significant in the early years of the PSLRA's enactment continue to be significant more recently.

We are also interested in learning whether the type of institutional lead plaintiff matters. In Table 10 below, we include three different dummy variables, one for each type of institutional lead plaintiff. As control variables, we continue to include the same independent variables as in Table 9.

Table 10
Effect of Different Types of Institutional Lead Plaintiffs on Log (Settlement Amount)

OLS Regressor	Coefficient	Standard Error	t - Statistic	p-Value
Intercept	4.15	0.31	13.17	<.0001
Labor Union Pension Fund Dummy	0.49	0.18	2.73**	0.01
Public Pension Fund	1.09	0.21	5.1**	<.0001
Other Institutions	-0.18	0.20	-0.89	0.37
Log (Provable Losses)	0.31	0.03	8.87**	<.0001
Log (Total Assets)	0.14	0.03	4.39**	<.0001
Class Period	0.00	0.00	0.43	0.67
SEC Dummy	0.39	0.12	3.27**	0.001
Bankruptcy Dummy	-0.25	0.18	-1.39	0.17

** Significant at 5% level.
Adjusted R-square: 0.52

The results show a positive and significant impact on settlement size from the presence of a public pension fund, or labor union fund, as lead plaintiff. However, the coefficient on the Public

76. When we run a similar regression using the ratio of settlement amount to provable losses as our dependent variable, but with the same set of independent variables (except for provable losses, which is now part of the dependent variable), we find negative and significant coefficients on the Log(total assets) and class period variables, and a positive and significant coefficient on the SEC dummy variable. This suggests that cases against larger firms and cases with a larger number of claimants pay out a small percentage of estimated losses.

Interestingly, none of the institutional investor variables are significant. We explore this result more fully *infra* note 77.

Pension Fund dummy variable is more than twice the size of that on labor union funds, indicating a greater effect from the presence of public pension funds. The Other Institutions variable is slightly negative and insignificant.[77]

III. SMALL SETTLEMENTS: ARE THEY STRIKE SUITS?

Another important issue for us is whether securities class action suits are frequently strike suits. We approach this question by focusing on those cases in our sample that led to small settlements. We define "small settlements" as cases where the settlement before deducting any attorneys' fees or related litigation costs is below $2 million; we also separately consider settlements falling between $2 and $3 million. Table 11 below presents a breakdown of those cases for our sample.

Table 11
Number of Sample Cases by Settlement Size

	Settlement <= $2Mil		Settlement $2Mil - $3Mil		Settlement > $3Mil		
Type of Lead Plaintiff	# of Cases	Percent*	# of Cases	Percent*	# of Cases	Percent*	Total
Labor Union Pension Fund	1	2.3%	2	4.5%	41	93.2%	44
Public Pension Fund	2	6.1%	0	0.0%	31	93.9%	33
Other Institutions	9	25.0%	1	2.8%	26	72.2%	36
Group of Individuals	50	25.1%	17	8.5%	132	66.3%	199
Single Individuals	32	27.1%	15	12.7%	71	60.2%	118
Entity	13	11.2%	10	8.6%	93	80.2%	116
Pre-PSLRA	31	22.3%	19	13.7%	89	64.0%	139
UnKnown	17	23.6%	6	8.3%	49	68.1%	72
Total	155	20.5%	70	9.2%	532	70.3%	757

* Percent of total cases with specified lead plaintiff type.

77. We re-estimate this equation using the provable loss ratio as the dependent variable and the same set of independent variables (minus provable losses, to avoid problems in the estimation). We find that the public pension fund variable is positive and significant, the other pension fund variable is negative and significant, and the labor union pension fund variable is insignificant. This evidence is consistent with a hypothesis that public pension funds are doing the best job of increasing the percentage of losses recovered by the class.

Roughly thirty percent of our sample cases involve cash settlements below $3 million. By far the largest portion of this group is cases where the lead plaintiff involves individuals, either singly or in a group; together, they constitute just over fifty percent of all post-PSLRA settlements below $3 million. At the other end of the spectrum, the Labor Union Pension Fund and Public Pension Fund lead plaintiff categories show the lowest percentage of small settlements in the sample. The remaining lead plaintiff types are fairly tightly grouped in the twenty-to-forty-percent range.

In separate calculations, we examine whether there are any significant changes in the percentage of cases involving small settlements for the three time periods we are studying: pre-PSLRA, early post-PSLRA, and mature post-PSLRA. We see a slight decline in these percentages from the pre-PSLRA period to the early post-PSLRA period, followed by a rebound to somewhat higher levels in the mature post-PSLRA period, but with no obvious trend.[78] Therefore, we cannot conclude that the 1995 reforms had any impact on the percentage of small settlements.

Table 12 displays some further descriptive statistics for the small settlement cases. On average, we see that the median values in small settlement cases are statistically significantly shorter for class periods, occur at statistically significantly smaller firms, and have statistically significantly lower provable losses, but exhibit very similar provable loss ratios (which are not significantly different) than the median values for cases yielding settlements exceeding $ 3 million. We infer from this descriptive data that small settlements arise in small capitalization firms in which there are relatively few injured investors and, thus, low levels of provable losses. On the other hand, the resulting settlements appear to recoup roughly the same amount of investors' losses as other cases relative to the sum lost by investors. We caution, however, that these are only descriptive data and that we need to examine them more completely using a more sophisticated statistical analysis.

78. Cases with settlements less than $3 million accounted for about thirty-five percent, twenty-six percent, and thirty-three percent of the total cases settled during the pre-PSLRA, the early post-PSLRA, and the mature post-PSLRA periods, respectively.

Table 12
Descriptive Statistics by Settlement Size

	Settlement $*	Class Period	Defendant Asset*	Provable Loss*	Recovery Ratio
Settlement < $2 Mil					
- # of Cases	155	150	130	135	135
- Mean	1.0	12.9	2,338	111.7	0.1
- Median	1.0	8.6	71	17.7	0.1
$2 Mil <= Settlement < $3 Mil					
- # of Cases	70	69	63	68	68
- Mean	2.4	13.6	610	136.2	0.1
- Median	2.5	9.0	97	45.3	0.1
Settlement >= $3 Mil					
- # of Cases	532	529	483	518	518
- Mean	32.4	16.9	6,462	1455.3	0.2
- Median	9.6	13.4	384	180.5	0.1

* Millions of dollars.

One final set of descriptive data relates to the time between the filing of the class action complaint and the settlement of the case. We hypothesize that strike suits are settled more quickly than meritorious actions because their value is easier to assess by each side. We therefore check to see if small settlements occur more rapidly than larger ones, as a separate indication of whether they are more likely to be strike suits. Table 13 shows that there are some differences in settlement speed, with smaller cases settling more rapidly. Roughly, cases that settle for less than $3 million are concluded three months earlier than cases yielding larger settlements. These differences are statistically significant for the median levels, although not for the means.

Table 13
Days from Filing Lawsuit to Settlement

	Mean	Median	# of cases
Settlement < $2 Mil	873	796	108
$2 Mil <= Settlement < $3 Mil	875	812	45
Settlement >= $3 Mil	992	902	403

We turn next to multivariate regression analysis to see if these patterns persist once we control for the effects of other variables.

Table 14 exhibits the results of our analysis for the determinants of the provable loss ratio—that is, our measure of what percentage of the investors' damages is recovered in the settlement. We see that there is a strong negative significant relationship between the provable loss ratio and the firm's total number of employees, our proxy for firm size.[79] Most importantly, we see that our two dummy variables for small settlements are both strongly (and significantly) negatively correlated with the provable loss ratio. We interpret this finding as consistent with the claim that small settlements recover a lower percentage of investors' losses. In short, these small settlement cases appear to exhibit the characteristics commonly associated with strike suits: small cash settlements that represent a small percentage of investors' damages.

Table 14
Determinants of Log (Ratio of Settlement Amount to Provable Loss)

Variable	Coefficient	Standard Error	t - Statistics	p - Value
Intercept	-1.64	0.25	-6.67	<.0001
Log (Number of Employees)	-0.21	0.03	-6.29**	<.0001
SEC Dummy	0.16	0.17	0.92	0.36
Bankruptcy Dummy	-0.04	0.23	-0.19	0.85
Settlement < $2 Million	-0.37	0.19	-1.94**	0.05
$2 Million <= Settlement < $3 Million	-0.48	0.24	-1.96**	0.05

** Significant at 5%.
Adj. R-sq: 0.09
n - 376

Finally, in an effort to shed some further light on these issues, we explore the factors that determine when a case will settle for a low amount. As we expected from the earlier descriptive statistics, higher levels of provable losses, larger firm size, and longer class periods all significantly reduce the likelihood of a small settlement. None of the other explanatory variables in the equation are significant.

79. We used log (number of employees) rather than log (total assets) to proxy for the size of the defendant corporation because the latter is highly correlated with provable loss and thus gives rise to the concern about the variable's correlation with the error term. The number of employees is a reasonable instrument for the size of the defendant corporation and is much less correlated with provable loss. This weaker correlation plus the usage of a ratio as the dependant variable in the regression (in which both numerator and denominator are scaled by firm size) eliminates our concern for any correlation between explanatory variables and the error term.

Table 15
Determinants of Small Settlements

Regressor	Coefficient	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	6.26	0.91	46.95	<.0001
Log (Provable Losses)	-0.44	0.09	23.68**	<.0001
Log (Market Cap)	-0.24	0.08	7.80**	0.01
Class Period	-0.37	0.14	6.72**	0.01
SEC Dummy	0.01	0.31	0.002	0.96
Institution Dummy	0.19	0.39	0.24	0.62
Bankruptcy Dummy	-0.15	0.43	0.12	0.73

** Signficant at 5% level.

These findings are consistent with the claim that cases against bigger firms with greater losses and longer class periods are less likely to result in small settlements. Surprisingly, the presence of an institutional investor, an SEC investigation, or a bankruptcy filing has no significant effect. In other words, we cannot reject the hypothesis that the presence of an institutional investor lead plaintiff has no effect on whether a small settlement occurs. This would seem inconsistent with the claim that institutional lead plaintiffs monitor settlements and discourage the continuance of strike suits.

IV. CONCLUSION

One of the forces propelling the PLSRA's enactment was the charge that the merits did not matter in the settlement of securities class actions.[80] This charge was leveled in a widely celebrated article that examined six settlements that fell in a tight band of twenty to 27.35 percent of the allowable recovery.[81] This claim is not only debunked here but flatly rejected by other studies that find that settlements range widely and that the strength of the complaint matters—likely a lot.[82] Equally reassuring is that the law can have its

80. *See* Janet Cooper Alexander, *Do the Merits Matter? A Study of Settlements in Securities Class Actions*, 43 STAN. L. REV. 497, 514-15 (1991) (finding that the settlement amounts in the sample cases generally could be predicted knowing only the number of shares sold in the offering and the stock price at the beginning and end of the class period).

81. *Id.* at 516-17.

82. *See generally* Cox, *supra* note 6, at 503-08 (reviewing some early evidence and studies that challenge the assertion that settlements are not impacted by the relative merits of the suit).

intended consequence. The lead plaintiff provision sought to attract institutions and others who have a significant stake in the litigation to become the suit's plaintiff. Our findings not only reflect that nearly eighteen percent of securities class action settlements in suits initiated after the PSLRA are prosecuted by institutional plaintiffs of the type desired by Congress, but also, more importantly, that they add substantial value to the outcome. Moreover, we find that there is no important difference in outcome associated with the lead plaintiff being a public pension fund versus a labor pension fund. Thus, criticism sometimes levied at the relationship some plaintiff firms have with labor is not borne out by our data. Finally, our study also underscores the dramatic impact an SEC enforcement action has on the dynamics of settlements. If there is cause for disquiet it is that 20.5 percent of our settlements are below $2 million and, when this group is examined, we find that its median settlement is half that ceiling level. Equally disturbing is that these cases are settled more quickly, involve smaller firms, have shorter class action periods, have significantly lower provable loss, and yield investors a lower recovery on their provable losses than do larger settlement cases. Our intuition is that these are cases focused on a single reporting event committed by what the attorneys believe to be a vulnerable prey: the smaller capitalized company. Nonetheless, there is cause here to be somewhat sanguine. Because this set represents only a distinct minority of the cases, we believe it hardly makes the case for wholesale reform of the securities class action. We also speculate that recent legal events—such as the Supreme Court's further tightening of the pleading requirement,[83] its requirement that factual pleadings allege that misrepresentation was a cause-in-fact of the plaintiff class suffering a loss, and its substantial qualification of the class action being certifiable on the "fraud on the market" theory for causation[84]—are likely to have their most profound impact on this cohort of cases. In this light, the law well may have progressed in a direction to reduce further the possibility of strike or long-shot suits. If so, our data, although preceding each of these recent developments, nonetheless

83. *See* Tellabs, Inc. v. Makor Issues & Rights, Ltd., 127 S. Ct. 2499, 2504-05 (2007) (holding that "an inference of scienter must be more than merely plausible or reasonable—it must be cogent and at least as compelling as any opposing inference of nonfraudulent intent").

84. *See* Dura Pharms., Inc. v. Broudo, 544 U.S. 336, 346-47 (2005) (holding that a mere allegation that fraud inflated the price at which investors purchased is insufficient to establish loss causation; there must be an allegation of loss following disclosure of the true facts); *In re* Initial Pub. Offering Sec. Litig., 471 F.3d 24, 42-43 (2d Cir. 2006) (holding that a trial judge, before certifying a class action premised on a fraud on the market theory of causation, must *find* more likely than not that the security traded in a market that was efficient).

complements the concerns that produce these procedural and substantive developments, which shape the future course of securities class actions. In sum, our data and accompanying analysis provide reassurance that the PSLRA is working and likely working well.