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DO INSTITUTIONS MATTER? THE IMPACT OF THE LEAD PLAINTIFF PROVISION OF THE PRIVATE SECURITIES LITIGATION REFORM ACT

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ABSTRACT

When Congress enacted the Private Securities Litigation Reform Act in 1995 ("PSLRA"), the Act's "lead plaintiff" provision was the centerpiece of its efforts to increase investor control over securities fraud class actions. The lead plaintiff provision alters the balance of power between investors and class counsel by creating a presumption that the investor with the largest financial stake in the case will serve as lead plaintiff. The lead plaintiff then chooses class counsel and, at least in theory, negotiates the terms of counsel's compensation.

Congress's stated purpose in enacting the lead plaintiff provision was to encourage institutional investors—pension funds, mutual funds, hedge funds, etc.—to come forward to serve as lead plaintiff. The theory was that

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an institutional investor with a substantial damages claim would have the incentive to bargain hard with class counsel on behalf of the class, reducing the percentage of the recovery awarded to class counsel. Congress also expected institutions to play an oversight role, monitoring to make sure that class counsel was vigorously pursuing claims on behalf of the class and not settling claims on the cheap.

Our study offers evidence on the extent to which the lead plaintiff provision furthers these goals. We have collected two samples of securities class actions—one from 1991 to 1995 (pre-PSLRA) and one from 1996 to 2000 (post-PSLRA). We compare the class representatives from the two periods to determine if institutional investors are stepping forward in significantly greater numbers. We also sort the institutional investors—distinguishing public from private—to see what types of investors have stepped forward to serve as lead plaintiff. Consistent with other research, we find a significant difference only in the number of public institutions serving as lead plaintiff.

Our sample also allows us to analyze the impact of the lead plaintiff provision: Does the presence of an institutional investor increase the likelihood of a high-value settlement? Despite the visible participation of institutions in several high-profile cases, we find no systematic evidence that private institutional lead plaintiffs are associated with larger class recoveries. Public pension fund lead plaintiffs, on the other hand, are correlated with higher class recoveries as a fraction of the potential damage award in the post-PSLRA period. Our results are, however, consistent with the possibility that public pensions "cherry-pick" the actions in which they seek to become lead plaintiff, selecting only the cases with the largest potential damages and the strongest evidence of fraud. Further analysis is needed to evaluate this possibility.

We also evaluate the effect of lead plaintiffs on the selection of attorneys and attorneys' fees. We find that, for the time period of our study, institutional investors tended to avoid the Milberg Weiss plaintiffs' attorney firm. On the more fundamental issue of whether the presence of an institutional investor as a lead plaintiff reduces the fees paid to the lawyers, after controlling for the size of the case, we find no systematic evidence that institutional involvement correlates with lower fee awards.

I. INTRODUCTION

Congress adopted the Private Securities Litigation Reform Act ("PSLRA")[1] in response to widespread claims of frivolous securities fraud litigation. The PSLRA contains a variety of provisions designed to limit litigation and to reduce the settlement value of non-meritorious or nuisance claims. These provisions include a heightened pleading requirement,[2] a safe harbor from liability for forward-looking statements,[3] a requirement that plaintiffs prove loss causation,[4] a mandatory discovery stay pending a motion to dismiss,[5] and the replacement of joint and several liability with proportionate liability for collateral defendants.[6]

The PSLRA also contains a novel provision aimed at increasing client control over litigation—the lead plaintiff provision. This provision requires the court to appoint a statutory lead plaintiff in all securities fraud class actions to oversee the litigation.[7] The provision also establishes a rebuttable presumption that, among those motioning to become lead plaintiff, the plaintiff with the largest financial interest in the relief sought by the class will be selected as the lead plaintiff.[8] Finally, the lead plaintiff provision vests the lead plaintiff selected with authority to select and retain class counsel.[9]

Almost ten years have passed since the adoption of the PSLRA—presumably enough time to assess the statute's effects. A variety of empirical studies have examined these effects. In particular, studies have sought to determine whether plaintiffs file fewer frivolous cases subsequent to the enactment of the statute,[10] whether the statute affects the

1. Private Securities Litigation Reform Act of 1995, 15 U.S.C. §§ 77-1 to 78j-1 (2000) [hereinafter "PSLRA"].

2. *See* Securities Exchange Act of 1934 § 21D(b)(2), 15 U.S.C. § 78u (2000).

3. *See* Securities Act of 1933 § 27A, 15 U.S.C. § 77 (2000); *id.* § 21E.

4. *See* Securities Exchange Act of 1934 § 21D(b)(4).

5. *See* Securities Act of 1933 § 27A; *id.* § 21D(b)(4).

6. *See* Securities Exchange Act of 1934 § 21D(f). Outside directors also enjoy proportionate liability under Section 11 of the Securities Act. *See* Securities Act of 1933 § 11(f)(2).

7. *See* Securities Exchange Act of 1934 § 21D(a)(3)(B).

8. 15 U.S.C. § 78u-4(a)(3)(B)(iii).

9. 15 U.S.C. § 78u-4(a)(3)(B)(v).

10. *See* Marilyn F. Johnson, Karen K. Nelson & A.C. Pritchard, *Do the Merits Matter More? The Impact of the Private Securities Litigation Reform Act*, 23 J. L. ECON. & ORG. (forthcoming 2007).

rate at which cases are dismissed,[11] and whether the statute deters the filing of some meritorious claims.[12]

To date, however, few studies have looked at whether the lead plaintiff provision is achieving its intended goals. Are institutional investors responding to the congressional invitation and seeking appointment as lead plaintiffs, or has the adoption of the PSLRA made little difference in the identity of class representatives in securities fraud litigation? Are particular types of institutions, such as public pension funds, becoming generally more active, or is their involvement limited to a handful of high-visibility, large-stakes cases? Most important from a policy perspective, does institutional involvement matter? Does institutional service as lead plaintiff correlate with higher recoveries or lower attorneys' fees? If so, are there reasons to suspect a causal relationship?

This Article offers empirical evidence on the effects of the lead plaintiff provision. By comparing two case samples, one of cases filed prior to the adoption of the PSLRA and the other from the post-PSLRA period, the Article analyzes whether the level or type of institutional involvement has changed. The Article goes on to assess the post-PSLRA effect of institutional involvement in general, and public pension fund involvement in particular, on recoveries and attorneys' fees.

Our study's findings offer modest support for the lead plaintiff provision. The study finds that, although the adoption of the PSLRA did not lead to increased involvement by private institutions, it did correlate with a substantial increase in involvement by public pension funds. The effects of this involvement are less clear. We find that public pension funds are significantly correlated with high-value outcome cases, defined as outcomes involving a settlement of more than five percent of the stakes. We are unable to rule out, however, the possibility that public pension funds may simply be cherry-picking—choosing to become involved mainly in high-profile cases in which the likelihood of liability and the recoverable damages are the highest. Similarly, despite anecdotal evidence suggesting that public pension funds have increased market discipline over fee agreements, we find no significant effect on attorneys' fee awards.

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11. *See* A.C. Pritchard & Hillary A. Sale, *What Counts as Fraud? An Empirical Study of Motions to Dismiss Under the Private Securities Litigation Reform Act*, 2 J. EMPIRICAL LEGAL STUD. 125 (2005).

12. *See* Stephen J. Choi, *Do the Merits Matter Less After The Private Securities Litigation Reform Act?*, 23 J. L. ECON. & ORG. (forthcoming 2007).

It is unclear how to interpret these results. As institutional involvement has grown very slowly since the adoption of the PSLRA, it is possible that institutions are still learning how to exercise their authority effectively and that, with continued involvement, they will reduce the agency costs in securities fraud litigation. Alternatively, agency problems and political factors may be too much for institutional investors to overcome, leaving them largely unable to realize the objectives intended by Congress.

This Article proceeds as follows: Part II briefly sets out the background and purposes of the PSLRA. Part III describes existing evidence of the effects of the lead plaintiff provision. Part IV explains the hypotheses that we seek to test in this study. Part V describes our data set. Part VI presents our empirical tests and findings. Part VII considers the broader implications of the study and suggests additional avenues for future research.

II. BACKGROUND AND PURPOSES OF THE PSLRA

The PSLRA was enacted over President Clinton's veto[13] following an extensive lobbying campaign by accounting firms, corporate leaders and members of the securities industry, who complained that plaintiffs' lawyers were filing excessive and frivolous cookie-cutter complaints, often on the basis of no more than a sudden drop in stock price, in an effort to coerce nuisance settlements.[14] Critics described meritless lawsuits as having a "blackmail effect" and forcing "innocent" firms to settle rather than endure the high costs of vindicating themselves through litigation.[15] Members of Congress relied heavily on empirical research by Janet Cooper Alexander[16] reporting that securities fraud class actions were

13. *See* Joel Seligman, *The Private Securities Reform Act of 1995*, 38 ARIZ. L. REV. 717, 725 (1996).

14. *See* John Harwood, *House, in 325–99 Vote, Approves Bill To Curb Fraud Suits Against Companies*, WALL ST. J., Mar. 9, 1995, at A3 (describing industry concerns); *see also* Jeffrey Taylor, *Accountants' Campaign Contributions Are About To Pay Off in Legislation on Lawsuit Protection*, WALL ST. J., Mar. 8, 1995, at A22 (detailing lobbying efforts by accounting firms for securities litigation reform).

15. Peter M. Saparoff, *The Private Securities Litigation Reform Act of 1995: Illusion or Reality*, *in* 2 A.L.I.-A.B.A. COURSE OF STUDY MATERIALS: SECURITIES LITIGATION: PLANNING AND STRATEGIES FOR THE '90S AND BEYOND 505, 507 (1996).

16. *See* Janet Cooper Alexander, *Do the Merits Matter? A Study of Settlements in Securities Class Actions*, 43 STAN. L. REV. 497 (1991). Alexander's study has been criticized. *See, e.g.*, Leonard B. Simon & William S. Dato, *Legislating on a False Foundation: The Erroneous Academic Underpinnings of the Private Securities Litigation Reform Act of 1995*, 33 SAN DIEGO L. REV. 959, 964 (1996) (arguing that Alexander's study contained methodological errors and erroneous conclusions).

settled without regard for the merits of their claims at a formulaic twenty-five cents on the dollar.[17]

Congress's perception that securities fraud class actions were "lawyer-driven litigation" was a separate, although related, concern.[18] Congress heard testimony that lawyers maintained stocks of professional plaintiffs, willing to file suit at the lawyer's request. Class representatives seemed to have little involvement in or control over litigation decisions. Perhaps most important, lawsuit outcomes appeared to favor the interests of class counsel over the class itself—generally resulting in substantial fee awards but often providing limited compensation to class members.[19]

The PSLRA responded to these concerns in several ways. It attempted to reduce frivolous litigation by enacting a variety of procedural and substantive hurdles to litigation. These hurdles included an enhanced pleading requirement which requires plaintiffs to state with particularity, in a complaint alleging fraud under Rule 10b-5 or other antifraud provisions of the Exchange Act, "facts giving rise to a strong inference that the defendant acted with the required state of mind."[20] The statute adopted a safe harbor for forward-looking statements designed to reduce the litigation risk associated with making predictions or estimates that were subsequently not met.[21] This provision was intended to provide particular protection to high technology issuers, for whom failure to meet projections had resulted in frequent litigation. The PSLRA added section 21D(b)(4) to the Exchange Act, an affirmative requirement that plaintiffs

17. *See* Simon & Dato, *supra* note 16, at 960 n.4 (citing examples of congressional reliance on Alexander's study).

18. *See* John Harwood, *House Votes Bill Requiring Losing Party To Pay Winner's Fees in Certain Suits*, WALL ST. J., Mar. 8, 1995, at A3 (describing a series of legal reform bills as originating in the GOP's "Contract with America"); *see also* H.R. REP. NO. 104-50, at § 202 (1995) (provision of the Common Sense Legal Reforms Act of 1995 entitled "Prevention of Lawyer-Driven Litigation").

19. *See, e.g.*, H.R. REP. NO. 104-369, at 36 (1995), *as reprinted in* 1995 U.S.C.C.A.N. 730 (observing that lawyers "often receive a disproportionate share of settlement awards"); S. REP. NO. 104-98, at 9 (1995) (complaining that, although investors recover only "pennies on the dollar," much of the $1.4 billion paid during 1994 alone went to plaintiffs' lawyers).

20. Securities Exchange of 1934 § 21D(b)(2), 15 U.S.C. § 78u (2000). The "strong inference" language of the statute has generated substantial controversy in the courts due to inconsistencies in various components of the legislative history. *Compare* Janas v. McCracken (*In re* Silicon Graphics Sec. Litig.), 183 F.3d 970, 979 (9th Cir. 1999) (holding that PSLRA requires plaintiff to plead "deliberate recklessness"), *with* Press v. Chem. Inventory Services Corp., 166 F.3d 529, 538 (2d Cir. 1999) (interpreting statute as codifying prior Second Circuit approach, which required only facts giving rise to a strong inference of recklessness). The plaintiff is also required to identify specific misleading statements, to state why they are misleading, and to state with particularity the basis for all pleadings made on information and belief.

21. *See* Securities Act of 1933 § 27A, 15 U.S.C. § 77 (2000); Securities Exchange Act of 1934 § 21E.

prove loss causation.[22] Loss causation is an element of securities fraud, borrowed by the courts from negligence law, that requires the plaintiff to establish a sufficient causal nexus between the defendant's misrepresentations and the plaintiff's loss.[23] Congress also responded to concerns about discovery costs by imposing a mandatory stay of discovery while a motion to dismiss was pending.[24]

In addition, the PSLRA included several other limitations designed to reduce the expected value of securities fraud litigation to both the plaintiff class and its lawyers. The statute substituted proportionate liability for joint and several liability, providing that defendants, other than those who knowingly violate the securities laws, will only be liable for that portion of the judgment that corresponds to their responsibility for the fraud.[25] Section 21D(e) modestly limited the damages available in fraud-on-the-market cases.[26] Finally, the statute restricted fee awards to a reasonable percentage of the damages actually paid to the plaintiff class.[27]

In an effort to ameliorate the problem of lawyer control, the PSLRA attempted to increase the role of the class representative.[28] The PSLRA created the role of a statutory lead plaintiff. Lawyers filing a securities fraud class action are required to publish a notice of the filing, and, within ninety days of that notice, the court must appoint a lead plaintiff.[29] The statute instructs the court to appoint as lead plaintiff the class member "most capable of adequately representing the interests of class members," and provides a rebuttable presumption that the most adequate plaintiff, among those seeking to become lead plaintiff, is "the person or group of persons that . . . has the largest financial interest in the relief sought by the class."[30] The lead plaintiff is then charged with overseeing the litigation

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22. *See* Securities Exchange Act of 1934 § 21D(b)(4).

23. Recently, the Supreme Court held that loss causation requires more than an allegation that the fraud inflated the price of the security. Plaintiffs must also plead that the fraud caused the plaintiff's "economic loss." Dura Pharm., Inc. v. Broudo, 125 S. Ct. 1627, 1634 (2005).

24. *See* Securities Exchange Act of 1934 § 21D(b)(3)(B).

25. *See id.* § 21D(f). Proportionate liability applies for antifraud causes of action under the Exchange Act. Section 11(f) of the Securities Act extends the proportionate liability regime to outside directors facing liability. *See* Securities Act of 1933 § 27A.

26. PSLRA § 101(a), 15 U.S.C. § 78u4(e)(1) (2000); *see* Nathaniel Carden, Comment, *Implications of the Private Securities Litigation Reform Act of 1995 for Judicial Presumptions of Market Efficiency*, 65 U. CHI. L. REV. 879, 894 (1998) (examining and criticizing this limitation).

27. *See* Securities Exchange Act of 1934 § 21D(a)(6).

28. *See* John C. Coffee Jr., *The PSLRA and Auctions*, N.Y.L.J., May 17, 2001, at 5–6 (explaining that the legislative history of the PSLRA clearly indicated that Congress wanted to replace "lawyer-driven" litigation with "client-driven" litigation).

29. *See* Securities Exchange Act of 1934 § 21D(a)(3)(A)–(B).

30. *Id.* § 21D(a)(3)(B). In addition, the lead plaintiff must satisfy the requirements of Rule 23 of the Federal Rules of Civil Procedure. *See id.* § 21D(a)(3)(B)(iii)(I)(cc).

and, most importantly, is given the statutory authority to select and retain class counsel, subject to the approval of the court.[31] The premise of the provision, inspired by a proposal by Elliott Weiss and John Beckerman, was that it would increase the participation of sophisticated plaintiffs with substantial stakes, who would have the appropriate incentives to monitor class counsel.[32] Weiss and Beckerman also predicted that the repeated participation of large investors would increase market discipline of attorneys' fee awards.[33]

A number of empirical studies have offered evidence on whether the PSLRA has been effective in meeting Congress's goals. These studies, of course, have their limitations. For example, a study by the National Economics Research Associates ("NERA") reports a statistically significant growth trend in filings since 1991 but, controlling for that trend, finds that the PSLRA had no statistically significant impact on filings.[34] Michael Perino finds that the passage of the PSLRA is correlated with an increased number of issuers facing a securities fraud suit.[35] These results suggest that the statute has not been effective in reducing the quantity of litigation. On the other hand, an analysis of filing statistics does not control for the amount of fraud during the time period, nor does it indicate whether the nature of the litigation has shifted to favor high quality cases. Marilyn Johnson, Karen Nelson, and Adam Pritchard find that filings after the PSLRA correlate more strongly with factors related to merit.[36] Their study suggests that the PSLRA has shifted litigation away from weak claims and toward stronger cases. Another possibility, consistent with this finding, is that the PSLRA has also reduced the filing of meritorious cases. A study by Stephen Choi shows that the litigation

31. *Id.* § 21D(a)(3).

32. *See* 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 (1995); S. REP. NO. 104-98, at 11 n.32 (1995) (stating that the Weiss and Beckerman article "provided the basis for the 'most adequate plaintiff' provision").

33. *See* Weiss & Beckerman, *supra* note 32, at 2106–07.

34. *See* ELAINE BUCKBERG ET AL., NATIONAL ECONOMICS RESEARCH ASSOCIATES, RECENT TRENDS IN SECURITIES CLASS ACTION LITIGATION: WILL ENRON AND SARBANES-OXLEY CHANGE THE TIDES? 4 (2003), *available at* http://www.nera.com/Publication.asp?p_ID=115&login=6923124. Nor did the Sarbanes-Oxley Act of 2002 affect the number of filings. *Id.*

35. *See* Michael A. Perino, *Did the Private Securities Litigation Reform Act Work?*, 2003 U. ILL. L. REV. 913, 932 (2003). Perino argues that this increase may be due to efforts by plaintiffs' lawyers to seek increased portfolio diversification by bringing more actions and reducing their investment in each case. *Id*. at 936–37.

36. *See* Johnson et al., *supra* note 10.

barriers of the PSLRA are deterring some non-nuisance suits that lack "hard evidence" of fraud.[37]

III. EFFECTS OF THE LEAD PLAINTIFF PROVISION

The effectiveness of the lead plaintiff provision is a matter of some dispute. It is uncontroverted that the number of institutions participating as lead plaintiffs following the adoption of the PSLRA was initially quite small. In a report on the first year of practice under the PSLRA, the SEC reported that institutional investors became lead plaintiffs in only eight of 105 filed cases.[38] A study of the following year found nine institutional lead plaintiffs in 175 cases.[39] Academic commentary has generally reported that the PSLRA has been unsuccessful in encouraging institutional investors to serve as lead plaintiffs.[40] Commentators have particularly highlighted the total failure of certain types of institutional investors, such as mutual funds, to participate.[41]

More recent data suggest that institutional participation is increasing. A rough analysis of cases filed in 2001 found institutions serving as lead plaintiffs in approximately 10% of the cases.[42] A 2004 study released by Cornerstone Research reports that institutions have served as lead plaintiffs in approximately 30% of post-PSLRA cases through December 2003, a figure that Cornerstone described as a substantial increase from the pre-PSLRA participation rate.[43] A PricewaterhouseCoopers study reported

37. *See* Choi, *supra* note 12.

38. OFFICE OF THE GENERAL COUNSEL, SEC. & EXCH. COMM'N, REPORT TO THE PRESIDENT AND CONGRESS ON THE FIRST YEAR OF PRACTICE UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995, at 51 (1997).

39. Elayne Demby, *Ducking Lead Plaintiff Status*, (May 1999), http://www.assetpub.com/archive/ps/99-05psmay/may99PS58a.html.

40. *See, e.g.*, Farah Z. Usmani, Note, *Inequities in the Resolution of Securities Disputes: Individual or Class Action; Arbitration or Litigation*, 7 FORDHAM J. CORP. & FIN. L. 193, 203 (2001) (stating that "[t]he new rules regarding lead plaintiff have not succeeded in encouraging more institutional investors to serve as lead plaintiffs"); Tiffany M. Wong, Note, *Defendants' Standing to Oppose Lead Plaintiff Appointment Under the Private Securities Litigation Reform Act of 1995*, 2003 U. CHI. LEGAL F. 833, 844 (2003) (stating that "empirical evidence indicates that the PSLRA may not have achieved its intended effects of . . . encouraging more institutional investors to serve as lead plaintiffs").

41. *See, e.g.*, John C. Coffee, Jr., *"When Smoke Gets in Your Eyes": Myth and Reality about the Synthesis of Private Counsel and Public Client*, 51 DEPAUL L. REV. 241, 247 (2001) (observing that "possibly the most noteworthy fact about the lead plaintiff selection process is that since the passage of the PSLRA, private institutional investors have virtually never volunteered for this role—while they do sometimes opt out and sue individually").

42. *See* Edward R. Becker et al., Panel Discussion, *The Private Securities Law Reform Act: Is it Working?*, 71 FORDHAM L. REV. 2363 (2003).

43. *See* LAURA E. SIMMONS & ELLEN M. RYAN, CORNERSTONE RESEARCH, POST-REFORM ACT

that institutional investors represented 51% and 42% of lead plaintiffs, respectively, in all securities class actions filed in 2002 and 2003.[44] In 1996, union and public pension funds served as lead plaintiffs in less than 3% of all cases filed.[45] By 2003, the number increased to 28%.[46]

The data on the effects of institutional participation are more limited. PricewaterhouseCoopers has reported that, since the adoption of the PSLRA, cases led by government or union pension funds have settled for six times as much as cases lacking a public pension fund lead plaintiff.[47] The report does not indicate any attempt to control for the size of the case, however. Public pension funds are particularly likely to participate in cases involving large public companies, both because of the high profile nature of those cases and because the dollar amounts of their losses are likely to be higher. As a result, we would expect to see those cases settle for a higher dollar amount, at least in absolute terms.[48]

The increase in institutional participation in recent years may be due to several factors. One factor is increased experience under the PSLRA. As courts become more uniform in their interpretation of the lead plaintiff provision and institutions more experienced with the lead plaintiff role, the benefits of participation are more likely to outweigh the costs in a given case. A second factor is the evolving judicial preference for a single institutional lead plaintiff over a large group of individuals. Courts in some early post-PSLRA cases appeared to endorse the idea that plaintiffs' lawyers could cobble together a group of hundreds or even thousands of lead plaintiffs and aggregate their losses.[49] The more plaintiffs a lawyer

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SECURITIES LAWSUITS: SETTLEMENTS REPORTED THROUGH DECEMBER 2003, at 9 (2004), *available at* http://www.cornerstone.com/fram_res.html.

44. *See* PRICEWATERHOUSECOOPERS LLP, SECURITIES LITIGATION STUDY 6, http://www.10b5.com/2003_study.pdf.

45. *Id.*

46. *See id.* (reporting that unions and public pension funds were lead plaintiffs in 27% of cases in 2002 and 28% in 2003).

47. *See* Steven Skalak & Daniel Dooley, PRICEWATERHOUSE COOPERS LLP, SECURITIES LITIGATION SERVICES: REPORT SECURITIES LITIGATION UPDATE—THE PENSION FUND FACTOR 1 (2004), *available at* http://www.10b5.com/SecLit_Study_Pension_Fund_Supplement_jan04.pdf.

48. *See* LAURIE E. SIMMONS & ELLEN M. RYAN, CORNERSTONE RESEARCH, POST-REFORM ACT SECURITIES SETTLEMENTS: UPDATED THROUGH DECEMBER 2004, at 9 (2005), *available at* http://securities.cornerstone.com/pdfs/Settlements_2004.pdf (explaining that part of the effect of institutional participation is the consequence of institutions participating in larger cases). The Cornerstone study states that "even after controlling for 'estimated damages' . . . the presence of an institutional investor as lead plaintiff is associated with a statistically significant increase in settlement size." *Id.* The study offers no details, however, about the controls used.

49. *See* Jill E. Fisch, *Aggregation, Auctions and Other Developments in the Selection of Lead Counsel under the PSLRA*, 64 LAW & CONTEMP. PROBS. 53, 67–68 (2001) (describing evolving judicial approach to aggregation).

could attract, the greater the likelihood that the lawyer would win the contest of having the collection of investors with the largest stake in the case. Courts increasingly have rejected this practice. A third factor is the bursting of the tech bubble and the subsequent market downturn, coupled with widespread reports of corporate misconduct at companies such as Enron, Tyco, and WorldCom. These events generated substantial losses for many investors and focused heightened attention on accountability for fraud. Finally, the record settlement in the *Cendant* litigation, involving a group of three prominent public pension funds as lead plaintiffs, may have signaled to institutions the potential value of active participation.[50]

Although the studies are consistent with overall increased institutional participation, the increase does not appear to have been uniform. Public pension funds appear to have been considerably more active than other institutions. When one examines participation by institutions other than public pension funds, such as hedge funds, private pension funds, and trusts,[51] the nature and effect of institutional participation becomes murky. It may also be difficult, particularly with some smaller investors, to determine whether they should be classified as institutions or individuals.[52]

Importantly, these other institutions differ substantially from each other and from the large public pension fund or mutual fund that Weiss and Beckerman (and Congress) projected as the prototypical institutional lead plaintiff. These differences may go to the issue of whether the institutions are capable of responsibly serving as lead plaintiffs. Weiss and Beckerman assumed, with little discussion, that institutions will be typical and adequate representatives of other class members.[53] Accordingly, Weiss and Beckerman devoted relatively little attention to exploring the ways in which institutional investors' interests might diverge from those of the rest of the class. Similarly, Weiss and Beckerman focused on the institution as a singular entity, ignoring agency problems among actors within an

50. *See, e.g.*, Sherie R. Savett, *Securities Class Actions Since the 1995 Reform Act: A Plaintiff's Perspective*, *in* PRACTISING LAW INSTITUTE, SECURITIES LITIGATION & ENFORCEMENT INSTITUTE 2004, at 27 (2004) (reporting that trend of increased involvement by public pension funds began shortly after the announcement of the "landmark" $2.8 billion Cendant settlement in 1999).

51. We have identified a handful of other lead plaintiffs that appear to be institutions but for which we cannot obtain detailed information.

52. Although our study is challenged by data limitations, we note that courts have been subject to similar problems. *See, e.g.*, Malasky v. IAC/Interactive Corp, No. 04 CIV. 7447 (RJH), 2005 U.S. Dist. LEXIS 3628, at *4–6 (S.D.N.Y. Mar. 7, 2005) (revising lead plaintiff appointment after learning that plaintiff "New Hayward Holdings," which was originally represented to be "a corporation engaged in financial money management," was in fact a personal investment vehicle of an individual investor).

53. *See, e.g.*, Weiss & Beckerman, *supra* note 32, at 2109 ("In class actions in which institutional investors serve as lead plaintiffs, questions relating to typicality rarely should arise.").

institutional investor that might impede the institution's ability to act in the interests of its own beneficiaries (and other members of the class).

Weiss and Beckerman also endorsed institutional involvement based on the perception that institutional investors held substantial stakes, which would create appropriate incentives for them to monitor litigation decisions, and had the sophistication that would enable them to do so effectively.[54] Institutional status, however, is a noisy proxy for having a substantial stake in the litigation. Many institutional lead plaintiffs are quite small and have relatively minor stakes.[55] Similarly, many smaller institutions lack any particular sophistication. It is unclear why these institutions should be analyzed as distinct from individual lead plaintiffs with similar size stakes or why we should expect the institutions to add distinctive value to litigation.

Mutual funds have failed to participate in securities fraud litigation at all, despite their substantial holdings. As Third Circuit Judge Edward Becker explains, mutual funds were the institutions that Congress really expected to serve as lead plaintiffs because of their substantial share of the securities market.[56] Not only have mutual funds failed to serve as lead plaintiffs at all,[57] but many of them do not even bother to file proof of claim forms to collect their share of litigation settlements.[58] Recent lawsuits have alleged that mutual funds, in particular, are leaving billions of dollars on the table by failing to submit claim forms.[59]

There are at least two obvious possible explanations for the failure of mutual funds to participate as lead plaintiffs. The first is the standard agency problem. Litigation decisions are made by mutual fund managers who are evaluated on the basis of fund performance relative to other funds

54. *Id.* at 2095 ("Institutions' large stakes give them an incentive to monitor, and institutions have or readily could develop the expertise necessary to assess whether plaintiffs' attorneys are acting as faithful champions for the plaintiff class.").

55. For example, Nature Shoes, Inc., lead plaintiff in a suit against Citrix, Inc., had a stake consisting of four calls, at a price of $400 each. Complaint at 5, Nature Shoes, Inc. v. Citrix Systems, Inc., No. 97-6234 (S.D. Fla. Mar. 6, 1997), *available at* http://securities.stanford.edu/1002/CTXS97/001.html.

56. *See* Becker et al., *supra* note 42, at 2369.

57. *Id.*

58. *See* James D. Cox & Randall S. Thomas, *Letting Billions Slip Through Your Fingers: Empirical Evidence and Legal Implications of the Failure of Financial Institutions to Participate in Securities Class Action Settlements*, 58 STAN. L. REV. 411 (2005) (reporting evidence obtained from securities claims administrators that institutions are failing frequently to file securities class action claims).

59. *See, e.g.*, Securities Litigation Watch, http://slw.issproxy.com/ (Jan. 25, 2005) (describing lawsuits against over 40 mutual fund managers alleging that they had failed to collect $2 billion worth of settlement proceeds by failing to file claim forms).

and market benchmarks. Litigation recoveries do not go to fund managers, but to fund beneficiaries.[60] Because of the time lag between the fund's trading and the resolution of litigation, litigation recoveries may not be fully reflected in performance figures. At the same time, a mutual fund's participation as lead plaintiff would draw public attention to the fact that the fund has been the victim of fraud, perhaps reflecting adversely on the expertise of the fund's managers. The second, and perhaps more important, explanation is that a substantial component of business for the major mutual funds involves managing retirement accounts for publicly traded issuers. Unlike litigation recoveries, the fees associated with these services go directly to mutual fund managers. Fund managers might reasonably be concerned that active litigation participation would hurt their ability to compete for this business from managers of public companies.[61]

Hedge funds reflect a distinct group of institutional investors that has the potential to play a meaningful role in securities litigation.[62] Hedge funds, due to their investing strategies, often have substantial stakes in particular companies. Hedge funds are typically sophisticated investors. The ability of hedge funds to hold concentrated interests rather than a diversified portfolio, coupled with the metrics by which hedge fund performance is measured, increase the likelihood that hedge fund managers will benefit from a litigation recovery relative to mutual fund managers. On the other hand, due to the distinctive trading strategies employed by hedge funds, these are the institutions most likely to face typicality objections to their taking the lead plaintiff position.[63]

An additional factor that may affect the effectiveness of institutional oversight is the structure of institutional participation. Prior to the adoption of the PSLRA, many institutions were part of what was effectively a group

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60. Interestingly, at least one case has rejected the application of a hedge fund as lead plaintiff on the basis that it was not a buyer for its own account, but rather was standing "in the place of whatever number of investors are participants in its managed fund." *In re* Bank One Shareholders Class Actions, 96 F. Supp. 2d 780, 784 (N.D. Ill. 2000). This reasoning, despite being rather difficult to square with Congress's purposes in adopting the lead plaintiff provision, might deter mutual funds from seeking lead plaintiff status.

61. *See, e.g.*, WILLIAM M. O'BARR & JOHN M. CONLEY, FORTUNE AND FOLLY: THE WEALTH AND POWER OF INSTITUTIONAL INVESTING (1992) (reporting concern by mutual fund managers and other institutions such as banks about avoiding litigation in order to maintain the ability to sell products and services to defendant issuers).

62. *See, e.g.*, In re Tyson Foods, Inc. Sec. Litig., No. 01-425-SLR, 2003 U.S. Dist. LEXIS 17094 (D. Del. Oct. 6, 2003) (appointing four hedge funds as lead plaintiffs).

63. *See, e.g.*, In re *Bank One*, 96 F. Supp. 2d at 783–84 (rejecting lead plaintiff application by hedge fund that had engaged in extensive day trading including shorting of the issuer's stock).

of plaintiffs that also included a number of individual investors.[64] Courts have disagreed on whether groups should be appointed as lead plaintiffs under the PSLRA.[65] Despite several decisions criticizing the appointment of unrelated investors as a lead plaintiff group, it remains commonplace for courts to appoint institutional investors, particularly smaller institutions (including public pension funds) as co-lead plaintiffs together with one or more individual investors.[66] In some post-PSLRA cases, courts have appointed groups of public pension funds to serve as lead plaintiff.[67]

It is unclear whether the potential effectiveness of institutional participation is reduced when an institution serves as a member of a mixed lead plaintiff group. Courts and commentators that have criticized the use of lead plaintiff groups argue that such groups are often formed by counsel and as a result do not exert the type of lawyer control that was the objective of the PSLRA.[68] If this is true, institutional participation as part of a group may not be as effective in monitoring counsel, and we would not expect such groups to have a significant effect on fee awards or fee structures. Moreover, the appointment of a lead plaintiff group can lead to

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64. *See, e.g.*, *In re* Biogen Sec. Litig., 179 F.R.D. 25 (D. Mass. 1997) (lead plaintiffs consisted of World Futures Trading Company and five individuals). Existing data does not allow us to determine whether, prior to the PSLRA, these plaintiffs functioned as formal groups or simply collections of plaintiffs who had filed separate cases.

65. *Compare In re* Telxon Corp. Sec. Litig., 67 F. Supp. 2d 803, 811–16 (N.D. Ohio 1999) (rejecting the argument that a lead plaintiff should consist of a group of unrelated investors) *with In re* Cendant Corp. Litig., 264 F.3d 201, 267 (3d Cir. 2001) (holding that "rule of reason" should be applied to determine whether size and nature of group appointment is appropriate). *See also* Brief of the Securities and Exchange Commission as Amicus Curiae in Support of Appellants on the Issues Specified at 17 n.13, *In re* Cendant Corp. Litig., 264 F.3d 201 (3d Cir. 2001) (Nos. 00-2769, 00-3653), (endorsing concept of lead plaintiff group but arguing that group should consist of no more than five members).

66. *See, e.g.*, Tice v. Novastar Fin., Inc., 2004 U.S. Dist. LEXIS 16800, at *29 (W.D. Mo. Aug. 23, 2004) (appointing institution and two individuals to "ensure a broader, more diverse representation of the class"); *In re* Party City Sec. Litig., 189 F.R.D. 91, 114 (D.N.J. 1999) (appointing individual and institutional investors as co-lead plaintiffs); *In re* Oxford Health Plans, Inc., Sec. Litig., 182 F.R.D. 42, 47–49 (S.D.N.Y. 1998) (explicitly endorsing joint appointment of institution and several individuals on the basis that it would result in "diverse representation").

67. We acknowledge that the concerns about the effectiveness of members of a lead plaintiff group are reduced when the group consists exclusively of institutional investors. Indeed, the lead plaintiffs in the Cendant litigation consisted of three large public pension funds. On the other hand, even in the Cendant case, the group structure presented some conflicts, particularly as to the appropriate fee award. *See* Jill E. Fisch, *Lawyers on the Auction Block: Evaluating the Selection of Class Counsel by Auction*, 102 COLUM. L. REV. 650, 717 n.363 (2002) (describing failure of two of the institutions to take a position on the fee issue). *See also In Re* Cardinal Health Inc. Sec. Litig., 226 F.R.D. 298, 306–07 (S.D. Ohio 2005) (considering objections to appointment of six unrelated public pension funds).

68. *See, e.g.*, *Telxon*, 67 F. Supp. 2d at 811–16 (stating that appointment of unrelated groups would thwart legislative purpose of greater client control); Fisch, *supra* note 49, at 69–77 (arguing for narrow reading of the statutory term "group").

a fractured position among group members or cause some members to refrain from active participation.[69]

We consider possible institutional differences by coding public pension funds separately from other institutions to explore the issue of whether any identified changes in litigation should be attributed to the participation of public pension funds or to institutions more generally. Our data do not permit full exploration of the effects of lead plaintiff groups, but we identify the issue for further research.

IV. HYPOTHESES

In this Part, we develop a series of hypotheses based on Congress's purposes in adopting the lead plaintiff provision and anecdotal evidence relating to its effects. We construct propositions that we can test empirically using our data set and accepted statistical methodologies.

Congress's most conspicuous purpose in adopting the lead plaintiff provision was to encourage institutions to become more involved as lead plaintiffs. The anecdotal evidence discussed above, however, suggests that private institutions such as mutual funds have been reluctant to step forward to represent the class in securities fraud litigation. By contrast, public pension funds have stepped forward to take the lead plaintiff role in a number of high profile class actions, such as *Cendant*, *Enron*, and *WorldCom*.

> H_1: *Private institutions are no more likely to represent the class in the post-PSLRA period.*

> H_2: *Public pension funds are more likely to represent the class in the post-PSLRA period.*

The *Enron* litigation suggests another hypothesis: Institutions are more willing to bear the costs of serving as lead plaintiff only in the highest-stakes cases with the most egregious evidence of fraud. One weakness of the PSLRA's lead plaintiff provision is that it does not provide a mechanism for compensating the lead plaintiff for its efforts in monitoring the litigation. The costs to the lead plaintiff of monitoring counsel are largely fixed; negotiating with counsel and supervising the attorneys' work may take as much time and effort in a small case as in a large one. If those

69. *See, e.g.*, Kloster v. McColl (*In re* BankAmerica Corp. Sec. Litig.), 350 F.3d 747 (8th Cir. 2003) (describing inability of lead plaintiff group to agree on whether to approve or object to proposed settlement and failure of some group members even to take a position); *see also* Fisch, *supra* note 67, at 717 n.363 (describing reported problems with lead plaintiff groups).

costs are non-trivial, institutional investors are likely to be willing to serve as lead plaintiff only when their returns from service (in the form of their pro rata share of increased net compensation, after subtracting attorneys' fees) are likely to be substantial. Is the willingness of public pension funds to serve as lead plaintiff a pervasive phenomenon, or is it simply an artifact of a handful of salient, high-stakes lawsuits?[70]

> H_3: *Public pension funds are more likely to represent the class when the potential damage awards from litigation (the "stakes") are greater and the evidence of fraud is stronger.*

Congress's efforts to encourage institutions to serve as lead plaintiffs had a particular goal—to put investors in control of securities fraud class actions. A high-profile target for criticism during the hearings leading up to the enactment of the PSLRA was Bill Lerach, a named partner in the leading plaintiffs' firm Milberg, Weiss, Bershad, Hynes & Lerach. Lerach took particular heat for his boast that: "I have the greatest practice in the world because I have no clients."[71] The lead plaintiff provision was intended to change the relationship between the class representative and counsel, ensuring that there would be a "client" to oversee the efforts of the lawyers. Institutional investors, particularly those who are interested in overseeing the litigation actively, are unlikely to favor attorneys who are unresponsive to client concerns and who insist on exercising complete authority over litigation strategy. On the other hand, Milberg Weiss dominated securities fraud litigation during the time period of our study.[72] The firm was by far the largest of the traditional plaintiffs' firms,[73] and its size may correlate with greater expertise in litigating class actions and

70. An alternative explanation for a correlation between litigation stakes and public pension fund involvement is that the publicity surrounding a large-stakes case is likely much greater than for a small-stakes case. To the extent public pension fund managers (or the politicians to whom the managers answer) desire publicity, perhaps for political purposes, they will gravitate to only the larger-stake cases. We do not attempt to distinguish this alternative explanation in this Article. For more on the political pressures facing public pension fund managers, see Roberta Romano, *Public Pension Fund Activism in Corporate Governance Reconsidered*, 93 COLUM. L. REV. 795 (1993).

71. *See In re* Network Associates, Inc., Sec. Litig., 76 F. Supp. 2d 1017, 1032 (N.D. Cal. 1999) (quoting law firm partner William Lerach).

72. *See* William S. Lerach, "*The Private Securities Litigation Reform Act of 1995—27 Months Later": Securities Class Action Litigation Under the Private Securities Litigation Reform Act's Brave New World*, 76 WASH. U. L.Q. 597, 606 (1998) (stating that Milberg, Weiss was involved in approximately thirty-one percent of securities fraud class actions before the adoption of the PSLRA and fifty-nine percent after the adoption of the statute).

73. On May 1, 2004, the firm split into two parts: Milberg, Weiss, Bershad & Schulman LLP, based in New York City, and Lerach, Coughlin, Stoia, Geller, Rudman & Robbins LLP, based in San Diego. *See* Milberg, Weiss, Bershad & Schulman LLP, http://www.milberg.com/ (last visited Mar. 21, 2005).

greater resources to commit to cases. Do institutions select firms other than Milberg Weiss to represent the class?

H_4: *Institutions are less likely to select Milberg Weiss as lead counsel for the class.*

The point of putting institutions in charge of class actions was to impose more careful monitoring on class counsel. Congress believed that plaintiffs' lawyers tended to produce too little and charge too much. Specifically, Congress indicated a concern that risk-averse plaintiffs' attorneys, rather than risk losing any return on a substantial investment in a case, might settle the action for less than a more highly motivated attorney would demand.[74] Institutional investor plaintiffs are likely to be better diversified than their counsel and thus more willing to bear the risk of a summary judgment motion or a trial if necessary to gain a larger settlement or judgment. Institutional investors, it was thought, would discourage counsel from settling on the cheap, thereby increasing the accountability of defendants.

On the question of overcharging, prior to the adoption of the PSLRA, the typical fee award was 25% to 33% of the class recovery.[75] There appeared to be little variation with the stakes involved in the case, the likelihood of recovery, or the amount of effort that was necessary to produce the award.[76] Congress believed that institutions would bargain hard on behalf of the plaintiff class, demanding a lower percentage fee award in larger cases and perhaps structuring fee agreements in order to provide attorneys with the incentive to produce better results for the class.

H_5: *Institutional involvement correlates with greater recovery for the class, all other things being equal.*

H_6: *Institutional involvement correlates with lower fees for class counsel, all other things being equal.*

V. THE SAMPLE AND DATA

To assess the impact of the lead plaintiff provision, we created two samples, a pre-PSLRA sample of firms sued under Rule 10b-5 with class

74. *See* John W. Avery, *Securities Litigation Reform: The Genesis of the Private Securities Litigation Reform Act*, 51 BUS. LAW. 335, 372 (1996).

75. *See* Lisa L. Casey, *Reforming Securities Class Actions from the Bench: Judging Fiduciaries and Fiduciary Judging*, 2003 B.Y.U. L. REV. 1239, 1253–54.

76. *Id*.

periods ending in 1991 to 1995 and a post-PSLRA sample of firms sued with class periods ending between 1996 and 2000.[77] We stopped collecting data in 2000 to provide ample time to determine the resolution of the suits.[78]

To make data collection tractable, we started with the sample used by Johnson, Nelson, and Pritchard.[79] Because that sample focused on firms in the computer hardware (Standard Industrial Code ("SIC") 357) and computer software (SIC 737) industries, we supplemented the sample with an equal number of randomly selected sued firms in other industries. This broader sample makes our findings more generalizable. We excluded those firms where we could not find information on the identity of the lead plaintiff, leaving us with a total sample of 204 firms. Table 1A breaks down the sample by year, and Table 1B shows the industry breakdown. The pre-PSLRA sample contains 82 firms (40.2%) and the post-PSLRA sample contains 122 (59.8%).

TABLE 1A: SAMPLE BY CLASS PERIOD END YEAR

Class end	*Frequency*	*Percentage of Total Sample*
1991	12	5.9
1992	18	8.8
1993	13	6.4
1994	21	10.3
1995	18	8.8
1996	20	9.8
1997	25	12.3
1998	30	14.7
1999	27	13.2
2000	20	9.8
Total	204	100.0

77. The PSLRA was enacted on December 22, 1995.
78. We intend to extend our analysis beyond 2000 in future work.
79. *See* Johnson et al., *supra* note 10.

TABLE 1B: SAMPLE BY SIC CODE

SIC Code	*Industry Type*	*Number*	*Percent of Sample*
1000	Agriculture, Mining, Construction	3	1.5
2000	Textiles, Furniture, Chemicals and Paper	19	9.3
3000	Plastics, Metals, Machinery and Electronics	71	34.8
4000	Transportation and Communications	15	7.4
5000	Wholesale and Retail Trade	17	8.3
6000	Finance, Insurance and Real Estate	1	0.5
7000	Business and Miscellaneous Services	70	34.3
8000	Health, Educational, Engineering and Accounting Services	8	3.9

For each of the firms in the sample, we collected data on the identity of the plaintiff(s) and counsel. To determine the lead plaintiff, we looked at a number of sources, including ISS's Securities Class Action Services, Stanford's Securities Class Action Clearinghouse, the web sites of several claims administrators, the web sites of the major plaintiffs' firms, court cases contained in Westlaw, and SEC filing documents obtained through EDGAR and Lexis. In some cases, we had information on the precise identity of the lead plaintiff appointed by the court. In other cases, most commonly pre-PSLRA cases, we took the named plaintiff(s) in the latest documents we found for any particular litigation as the lead plaintiff.

The plaintiff's identity is coded as an institution where any named lead plaintiff in the litigation was a non-individual. As discussed above, we find that this necessarily defines as institutions many trusts and investment partnerships that are the functional equivalent of individual plaintiffs, as well as mixed groups including at least one institution together with one or more individual plaintiffs. We code public institutions such as government pension funds separately.

We also collected data on the outcome of each suit (settlement, including amount, or dismissal), the time from filing to resolution, the fees awarded to the attorneys, and the court to which the case was assigned. We obtained information on the resolution of suits from the same sources that we searched for the lead plaintiff data. The Center for Research on Security Prices ("CRSP") provided data on market capitalization and trading volume.

VI. EMPIRICAL ANALYSIS

Our first hypothesis, H_1, postulates that institutions are no more likely to represent the class in the post-PSLRA period than they were prior to the law's enactment. Table 2A depicts the breakdown between the institutions and individuals over the studied period. Non-individual plaintiffs are a constant presence over both the pre- and post-PSLRA periods, but there is a discernible upward trend during the post-PSLRA period.

TABLE 2A: LEAD PLAINTIFFS

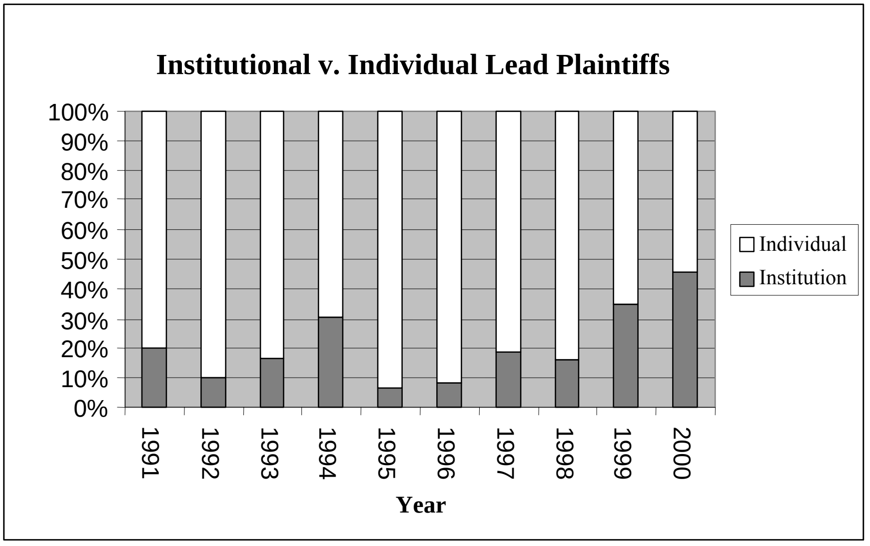


Table 2B compares the means of the pre- and post-PSLRA periods. Institutions are represented with greater frequency, but the difference does not reach the level of statistical significance. We caution here, however, against extrapolating too much from this (non) result. Our sample size is limited. More importantly, the anecdotal evidence suggests that institutional investors have become more common as lead plaintiffs in the last few years, a period not included in our sample.

TABLE 2B: SAMPLE BY SIC CODE

Pre-PSLRA Fraction with Institution Lead Plaintiff	*N*	*Post-PSLRA Fraction with Institution Lead Plaintiff*	*N*	*p-value*
0.18	80	0.26	124	0.17

Our second hypothesis predicts that public pension funds became more active as lead plaintiffs after the enactment of the PSLRA. Here we find that the evidence strongly supports H_2, with public pension funds going from no representation in the pre-PSLRA period to over 10% of the cases in the post-PSLRA period. The difference is significant at conventional significance levels.

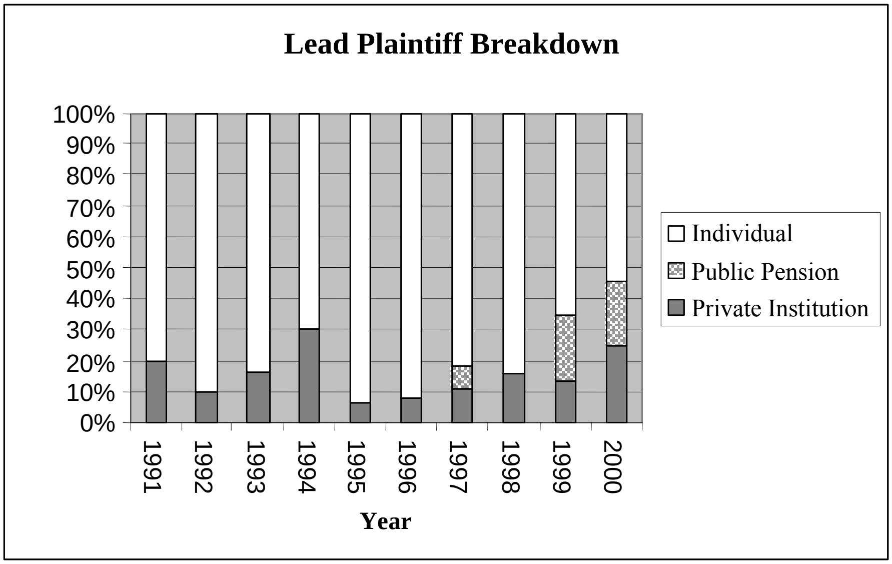
TABLE 2C: IDENTITY OF LEAD PLAINTIFF

Panel 1

Type	*Pre-PSLRA*	*Percent*	*Post-PSLRA*	*Percent*
Individual	66	82.5%	92	74.2%
Private Institution	14	17.5%	19	15.3%
Public Pension	0	0.0%	13	10.5%
Total	80	100.0%	124	100.0%

Pearson chi-squared(3) = 9.14; Prob = 0.03

Panel 2



H_3 predicts that institutions are more likely to intervene when the potential damages are greater and the evidence of fraud is stronger. For securities class action in our sample, we calculated the potential secondary market damages. To do so, we followed the methodology used by Jim Cox and Randall Thomas in recent work.[80] First, we estimated a market model to generate expected stock market returns for each firm. The market model is estimated using returns for each firm for the one-year period ending six months prior to the beginning of the class period.[81] Second, we assumed that the closing price on the day after the end of the class period represents the price after the market has fully taken into account the revelation of the fraud involved in the class action (termed the "benchmark" price). We use the estimated market model to generate the value line, working backward in time from the date of the benchmark price to the beginning of the class period. Third, we separated traders into high-activity and low-activity traders using the same assumptions from Cox and Thomas.[82] Using these

80. *See* James D. Cox & Randall S. Thomas, *SEC Enforcement Heuristics: An Empirical Inquiry*, 53 DUKE L.J. 737, 768 n.100 (2003).

81. *See id.* ("We terminated our β calculations six months before the commencement of the class action period because our data sample consistently reflected abnormal stock price behavior in the three-month to six-month period before the commencement of the class period.").

82. *See id* at 769 n.100. (citing Marcia Kramer Mayer, *Best-Fit Estimation of Damage Volume in*

assumptions, we adjusted the trading volume for each day in the class period, as apportioned between high-activity and low-activity trades, to account for the probability that shares purchased on a particular day in the class period may turnover before the end of the class period.[83] Lastly, for each day in the class period, we multiplied the adjusted trading volume against the difference between the actual price and the value line for that day to determine potential damages for those who purchased on that particular day and held their shares to the end of the class period. We summed the potential damages for each day in the class period to generate a total potential damage award (termed the "stakes").

Table 3A presents the stakes available by lead plaintiff type. We find no significant difference, either before or after the PSLRA, in the cases involving private institutions. The story is different, however, with regard to public pension funds as lead plaintiffs. The public pension funds are involved, on average, in cases seeking nearly three times the damages as those cases in which the class is represented by an individual or individuals as lead plaintiff. The difference falls just short of statistical significance at the 10% confidence level.

TABLE 3A: AVERAGE STAKES BY TYPE OF PLAINTIFF

	Individual	*N*	*Private Institution*	*N*	*p-value*
pre-PSLRA	683.5	65	260.4	14	0.61
post-PSLRA	1015.7	90	938.1	18	0.93
	Individual	*N*	*Public Pension*	*N*	*p-value*
post-PSLRA	1015.7	90	2784.6	13	0.12

Stakes are millions of dollars, adjusted to 2000 dollars using the CPI.

Shareholder Class Actions: The Multi-Sector, Multi-Trader Model of Investor Behavior 110 (Nat'l Econ. Research Ass'ns, Working Paper, 2000)). Cox and Thomas assume that "low-activity traders hold about 63 percent of the shares and account for 17 percent of the trading, so that high-activity traders hold 37 percent of the shares and account for 83 percent of the trading." *See id.*

83. Here we follow the method outlined in Willard T. Carleton et al., *Securities Class Action Lawsuits: A Descriptive Study*, 38 ARIZ. L. REV. 491, 496–97 (1996) for the two-trader model.

Are institutions becoming involved only in cases involving the strongest evidence of fraud? In other words, are institutions "cherry-picking" the strongest cases? To evaluate the cherry-picking possibility, we consider one measure of the pre-filing strength of the cases in which pension funds take on the lead plaintiff role compared to other cases—the presence of an accounting restatement or an SEC investigation. We present these findings in Table 3B.

TABLE 3B: PRESENCE OF PRE-FILING PUBLIC ANNOUNCEMENT OF EARNING RESTATEMENT OR SEC INVESTIGATION RELATING TO CLASS PERIOD

	Public Pensions	*N*	*All Other Lead Plaintiffs*	*N*	*p-value*
post-PSLRA	0.462	13	0.225	111	0.064

Restatements resulting from an accounting rule change, change of control, spin-off, or other non-fraud or mistake related reason are not counted.

Of the thirteen securities class actions with a public pension fund lead plaintiff in the post-PSRLA period, six (46%) of the defendant firms made an announcement relating to an accounting restatement or an SEC investigation prior to the filing of the first complaint. In comparison, only 25 out of the 111 cases (23%) with other types of lead plaintiff had a similar red flag. This difference is significant at the 10% confidence level. These results, combined with the data on stakes reported in Table 3A, suggest that public pensions tended to target both larger stakes cases and those with stronger evidence of fraud.

H_4 predicts that institutions are less likely to retain Milberg Weiss as lead counsel. This prediction is only partially borne out. Table 4A shows that private institutions are not significantly less likely to retain Milberg Weiss, before or after the PSLRA. Public pension funds, however, are substantially less likely to retain that firm post-PSLRA.[84] Among all lead plaintiffs, the presence of Milberg Weiss is little changed across the pre- to post-PSLRA periods as reported in Table 4B.

84. We note that this result may not persist for time periods subsequent to our study. Anecdotal evidence suggests that the Milberg Weiss firm has been increasingly involved in the representation of public pension funds. *See, e.g.*, Newby v. Enron Corp. (*In re* Enron Corp., Sec. Litig.), 206 F.R.D. 427 (S.D. Tex. 2002) (appointing the Regents of the University of California as lead plaintiff and Milberg Weiss as lead counsel).

TABLE 4A: CHOICE OF MILBERG WEISS BY PLAINTIFF TYPE

	Individual	*N*	*Private Institution*	*N*	*p-value*
pre-PSLRA	0.517	58	0.462	13	0.72
post-PSLRA	0.550	91	0.421	19	0.31
	Individual	*N*	*Public Pension*	*N*	*p-value*
post-PSLRA	0.550	91	0.231	13	0.03

TABLE 4B: CHOICE OF MILBERG WEISS BY ALL LEAD PLAINTIFFS

Pre-PSLRA Fraction with Milberg Weiss	*N*	*Post-PSLRA Fraction with Milberg Weiss*	*N*	*p-value*
0.51	71	0.50	123	0.88

Our next set of hypotheses addresses the question of whether institutional involvement as lead plaintiff makes a difference in terms of the outcome for the class. Do institutional investors produce greater recovery for investors? Do hard bargaining and greater sophistication lead to fee agreements that lower the percentage of the recovery going to the attorneys?

H_5 predicts that an institutional lead plaintiff is likely to correlate with greater recovery for the class. Table 5A compares the outcomes based on the type of lead plaintiff. As a proxy for litigation success, we divide the settlement achieved by the stakes at issue. We define a "high-value outcome" as an outcome involving a settlement of more than 5% of the stakes.[85] Thus, we deem litigation that results in a $1 million settlement

85. A settlement-to-stakes ratio of 5% results in roughly one-third of the suits qualifying as high-outcome suits. While admittedly somewhat arbitrary, the 5% threshold provides a rough way of separating suits with a high likelihood of merit. For robustness, we rerun the tests using a 10% settlement-to-stakes ratio cutoff for high outcome suits (resulting in approximately 20% of the suits qualifying as high-outcome). We obtain qualitatively similar results as in Tables 5A and 5B. In the post-PSLRA period, the coefficient on private institution is positive and significant at the 10% confidence level. The coefficient on public pension, while positive, is now statistically insignificant.

where the stakes involved are $1 billion as far less successful than if the stakes involved are $1.1 million.

Table 5A reports the percentage of each type of plaintiff producing a high-value outcome. We see that private institutions tend to correlate with a *lower*-value outcome prior to the PSLRA, although the difference is not significant. Public pension funds are more likely to have a high-value outcome, as predicted by H_5, but, again, the difference is not significant.

TABLE 5A: HIGH-VALUE OUTCOME BY PLAINTIFF TYPE

	Individual	*N*	*Private Institution*	*N*	*p-value*
pre-PSLRA	0.477	65	0.357	14	0.42
post-PSLRA	0.289	90	0.316	19	0.82
	Individual	*N*	*Public Pension*	*N*	*p-value*
post-PSLRA	0.289	90	0.462	13	0.21

High-Value Outcome defined as settlement for more than 5% of damages estimate.

At first glance, the results for private institutions in particular are somewhat puzzling. Why aren't private institutions falling in line with the prediction of Weiss and Beckerman and generating larger settlement awards as a fraction of the stakes for the class as a whole? One anecdotal answer is that mutual funds such as Vanguard and Fidelity are not getting involved as lead plaintiff. This reluctance was little changed by the PSLRA. In the Appendix, we report the identities of the different private institutional lead plaintiffs in the pre- and post-PSLRA periods. While we leave a more detailed examination of the backgrounds of the institutional lead plaintiffs for future research, we note that in both the pre- and post-PSLRA periods, the private institutional lead plaintiffs are relatively small, unknown institutions. If the goal of the lead plaintiff provision was to

We do not use a linear measure of the settlement amount/stakes ratio as our dependent variable because a properly-specified regression model with this variable would require an independent variable measuring directors' and officers' insurance coverage. The availability of insurance is a critical factor in assessing settlement amounts, but this data is not publicly available.

encourage large mutual funds to participate more actively in securities fraud litigation, the PSLRA has failed.

To better assess the effect of having an institutional investor as a lead plaintiff on recovery for the class, we ran a logistic regression using our High-Value Outcome variable as the dependent variable (1=High-Value Outcome; 0=not). In addition to the independent variables of interest, Private Institution and Pension Fund (dummy variables coded as one for private institutions and public pension funds respectively), we include as control variables the log of market capitalization (a dummy variable coded as one if Milberg Weiss represented the class) and a Busy Court dummy variable (coded as one for district courts in California and the Southern District of New York). These courts see substantially greater numbers of securities fraud class actions; judges' familiarity with this type of litigation may lead them to take a different approach to these cases. We also include a dummy variable for Prefiling Hard Evidence, defined to equal one if a public announcement of an earnings accounting restatement or SEC investigation relating to the class period is made prior to the first filing of suit. Restatements resulting from an accounting rule change, change of control, spin-off, or other non-fraud or mistake-related reason are not counted. Note that Prefiling Hard Evidence is not included in the pre-PSLRA model as Prefiling Hard Evidence is perfectly correlated with a High-Value Outcome.

TABLE 5B: HIGH-VALUE OUTCOME LOGISTIC REGRESSION

Pre-PSLRA

Variable	*Coefficient*	*z*	*P > |z|*
Constant	2.76	3.78	<0.01
Private Institution	−0.14	−0.31	0.76
Market Cap (log)	−0.51	−3.97	<0.01
Milberg	−0.23	−0.55	0.58
Busy Court	.94	2.29	0.02
Pseudo R^2 = 0.28		N = 69	

Post-PSLRA

Variable	*Coefficient*	*z*	*P* > |*z*|
Constant	0.97	1.81	0.07
Private Institution	0.35	0.99	0.32
Pension Fund	0.80	1.64	0.10
Market Cap (log)	−0.25	−3.06	<0.01
Milberg	−0.31	−1.15	0.25
Busy Court	0.13	0.44	0.66
Prefiling Hard Evidence	0.29	0.94	0.35
Pseudo R^2 = 0.12		N = 120	

Dependent variable is equal to one if the suit resulted in a High-Value Outcome and zero otherwise.

The pre-PSLRA regression partly confirms the results of the univariate comparison in Table 5A—we find no significant effect from the presence of the private institution as a lead plaintiff. This result carries over to the post-PSLRA period. On the other hand, we do find that pension funds correlate with a significantly greater outcome for the class in the post-PSLRA period (significant at the 10% confidence level).

These findings may be sensitive to our approach and, in particular, to our method of defining a High-Value Outcome. As a robustness check (results not tabulated), we ran a separate set of regressions defining a high-value outcome for our dependent variable as a settlement of more than 0.5% of market capitalization (measured ten days prior to class end date), the threshold used to distinguish "meritorious" suits by Johnson, Nelson, and Pritchard.[86] The coefficient for private institutions continues to be insignificant. We again find that pension funds are significantly more likely to be involved in a case producing a High-Value Outcome under this definition (now at the 1% confidence level).

H_6 predicts that institutions will bargain for lower class counsel fees. Because attorneys' fees in these cases are almost always based on the percentage-of-recovery method, we focus on the fee award as a percent of the overall recovery. Table 6A compares fee awards in cases led by

86. *See* Johnson et al., *supra* note 10.

individual plaintiffs with those in cases led by institutional investors. We find no significant difference between individuals and private institutions, but we do find that public pension funds pay roughly five percentage points less than individuals. This difference is statistically significant and, potentially, economically quite important. When we compare the dollar figures, however, we see that pension funds are paying significantly greater fee amounts than individuals, presumably reflecting the fact that pension funds are participating in the higher-stakes cases. Because courts typically award a declining percentage of the overall recovery as recovery size increases,[87] we need to control for case size in order to assess the effect of institutional participation.

TABLE 6A: ATTORNEY FEES BY PLAINTIFF TYPE

Fees as Percentage of Settlement

	Individual	*N*	*Private Institution*	*N*	*p-value*
pre-PSLRA	0.32	42	0.32	8	0.80
post-PSLRA	0.30	56	0.31	14	0.46
	Individual	*N*	*Public Pension*	*N*	*p-value*
post-PSLRA	0.30	56	0.25	11	<0.01

Fees in Millions of (2000) Dollars

	Individual	*N*	*Private Institution*	*N*	*p-value*
pre-PSLRA	3.69	42	1.79	8	0.47
post-PSLRA	2.35	56	10.02	14	<0.01
	Individual	*N*	*Public Pension*	*N*	*p-value*
post-PSLRA	2.35	56	16.43	11	<0.01

87. *See, e.g.*, Krell v. Prudential Ins. Co. of Am. (*In re* The Prudential Ins. Co. of Am. Sales Practices Litig.), 148 F.3d 283, 339 (3d Cir. 1998) (stating that "percentage awards generally decrease as the amount of the recovery increases").

To get a fuller understanding of the relation between the type of lead plaintiff and attorneys' fees, we ran an ordinary least squares regression with the log odds transformation of the attorneys' fee percentage of the settlement as our dependent variable.[88] Do private institutions and/or pension funds manage to limit the amount of fees paid to the attorneys?

Table 6B presents the results of our attorneys' fees regression. In addition to the independent variables in the High-Value Outcome regression above, we also include a variable for the time between filing and resolution. Cases that take a longer time to resolve may require more attorney time and therefore justify a greater fee award. We include dummy variables corresponding to each of the ten deciles for the litigation stakes. Much of the work and effort on the part of plaintiffs' attorneys is relatively fixed, increasing only marginally with the overall size of the litigation. Attorneys' fees as a percentage of the recovery therefore are likely to decrease with the size of the litigation as measured by the stakes variable. Including decile dummies for the range of litigation stakes provides a control for this size effect on attorney fee awards as a percentage of the recovery.[89]

Additionally, an attorney's performance may affect the fee award. In particular, we expect attorney's fees to be higher when the attorney has produced a High-Value Outcome, as measured by a settlement reflecting a higher percentage of the stakes. To capture this possibility, we include a dummy variable for whether the litigation resulted in a settlement of greater than 5% of the stakes as a proxy of a High-Value Outcome.[90]

88. The log odds of the attorney fee fraction of the settlement is equal to ln (attorney fee fraction/(1-attorney fee fraction)).

89. The coefficients on the stakes decile variables are generally in the predicted direction; we have omitted them from the table, however, for clarity of presentation.

90. For a discussion on the High Value Outcome variable, see *supra* note 85 and accompanying text.

TABLE 6B: ATTORNEYS' FEES REGRESSIONS

Pre-PSLRA

Variable	*Coefficient*	*t-statistic*	*Prob>|t|*
Constant	−1.00	−3.90	<0.01
Private Institution	0.02	0.41	0.69
Market Cap (log)	−0.03	−1.38	0.18
High Value Outcome	0.08	0.92	0.37
Milberg	0.13	3.30	<0.01
Busy Court	−0.00	−0.07	0.95
Prefiling Hard Evidence	−0.06	−0.50	0.62
Resolution Days (log)	0.04	1.23	0.23
Adjusted R^2 = 0.17		N = 46	

Post-PSLRA

Variable	*Coefficient*	*t-statistic*	*Prob>|t|*
Constant	−0.81	−1.73	0.09
Private Institution	0.16	1.73	0.09
Pension Fund	−0.03	-0.28	0.77
Market Cap (log)	0.00	0.06	0.96
High Value Outcome	-0.10	-1.47	0.15
Milberg	0.12	1.73	0.09
Busy Court	−0.10	−1.47	0.15
Prefiling Hard Evidence	−0.18	−2.10	0.04
Resolution Days (log)	0.01	0.13	0.90
Adjusted R^2 = 0.19		N = 78	

Dependent variable for both regressions is the log odds transformation of the attorneys' fee percentage of the settlement.

In the pre-PSLRA period, we see that private institutions had no significant effect on attorneys' fees. Looking at the other variables, we see that Milberg Weiss generally commanded higher fees. In the post-PSLRA period, the coefficient on the Milberg Weiss dummy remains positive and statistically significant. Post-PSLRA, we also find a significant positive correlation between fees and the presence of a private institution. Private institutions are clearly not keeping fees in check. The coefficient on the public pension fund variable is negative, but it is not statistically significant. We conclude that our sample does not support the hypothesis that institutional lead plaintiffs help to keep attorneys' fees in check.

The only other variable that is significant in the post-PSLRA period is the Prefiling Hard Evidence dummy variable, which has a negative coefficient. Courts are apparently less generous with plaintiffs' attorneys when the attorneys are provided with objective evidence suggesting fraud before the suit is filed.

VII. IMPLICATIONS OF OUR EMPIRICAL FINDINGS

Our empirical findings offer insight into the effect of the PSLRA on institutional participation in securities litigation. Contrary to popular belief, institutions did participate in litigation prior to the adoption of the PSLRA, typically as part of lead plaintiff groups. The pre-PSLRA institutional plaintiffs, however, appear to have been largely indistinguishable from individual plaintiffs, both in the size of their stakes and their effect on litigation outcomes. Following the adoption of the PSLRA, institutional lead plaintiffs, collectively, continue to have no statistically significant effect.

The most significant change in lead plaintiff identity subsequent to the adoption of the PSLRA is the emergence of public pension funds as class representatives. Public pension funds seem to possess precisely the attributes envisioned by Congress—substantial litigation stakes and a level of sophistication that enables them to monitor class counsel actively. The question remains, however, whether public pension funds are having a meaningful effect on settlement sizes or attorneys' fee awards. We report evidence that public pension fund participation is correlated with a greater likelihood of a High-Value Outcome from litigation. We also provide evidence, however, consistent with the view that public pension funds are simply cherry-picking by participating in cases in which characteristics observable prior to the filing of suit indicate the case is likely to result in a large settlement. Because of our sample size, we cannot draw definitive conclusions from these results. This possibility warrants further study before any firm conclusion can be drawn. Moreover, we find no statistically significant correlation between public pension fund participation and reduced fee awards. Accordingly, at least through the end of 2000, public pension fund involvement does not seem to be realizing the potential hoped for by Congress.

There are several possible explanations. One may be that agency problems limit the effectiveness even of public pension funds. As government actors subject to political influence, public pension funds may actively seek involvement in high-profile cases, such as *Cendant* and *Enron*, but may add little affirmative value to the litigation process. Alternatively, public pension funds may focus on politically salient results such as the adoption of corporate governance reforms or the contribution of settlement funds by individual defendants, instead of seeking to maximize the class recovery.[91] A third possibility is that, in strong cases involving substantial stakes, institutions may prefer to opt out of class litigation to bring their own individual action. This option is likely to produce a faster and possibly higher recovery for the institution but eliminates the institution as a potential lead plaintiff in the class suit.

Some evidence does exist that the post-PSLRA period correlates with reduced attorneys' fee awards for Milberg Weiss, all other things being equal.[92] This difference does not persist, however, when we include control variables in our multi-variate logistic regression. Millberg's presence correlates with a higher fee award both before and after the PSLRA. Our study also indicates that Milberg Weiss is less likely to represent public pension funds in the post-PSLRA period, at least during the time period we examine. These findings may indicate increased competition among plaintiffs' attorneys firms to become lead counsel. Alternatively, because our study focuses on the time period immediately after the adoption of the PSLRA, our findings may indicate differing responses among plaintiffs' firms to the statute, in which case we would

91. It is not clear that this result is undesirable. Public pension fund involvement may have the effect of making private litigation function more like public enforcement which values deterrence and accountability in addition to compensation. *See* Jill E. Fisch, *Class Action Reform,* Qui Tam*, and the Role of the Plaintiff*, 60 LAW & CONTEMP. PROBS. 167, 175–76, 198 (1997) (observing that focus on deterrence objective lowers the conceptual barrier between private litigation and government enforcement actions).

92. On a summary statistic level, the mean attorney fee percentage of the settlement award for Milberg Weiss in the pre-PSLRA period was 32.6% compared with only 30.3% in the post-PSLRA period (difference significant at the 1% level).

expect to see the effect disappear in future years. In particular, we note that the overall frequency with which Milberg Weiss appears as a lead counsel does not change between the pre- and post-PSLRA periods.

Finally, we observe that the stated congressional preference for institutional lead plaintiffs and the statutory authority conferred by the lead plaintiff provision do not appear to have enhanced the role of institutions other than public pension funds in monitoring class counsel. Other institutions such as hedge funds and private pension funds, when they participate as lead plaintiffs, do not seem to have an effect on the litigation. Because some of these institutions, particularly hedge funds, seem to possess the substantial stakes and sophistication to enable them to function more effectively, the question of why they have failed to do so is an important subject for future research. In particular, it is worth exploring whether courts are inappropriately restricting institutional influence by appointing lead plaintiff groups or by questioning the ability of institutions to meet the typicality requirement of Rule 23.

VIII. CONCLUSION

After ten years of experience under the PSLRA, courts are still struggling with how best to interpret and implement the lead plaintiff provision. With this provision, Congress intended to encourage institutional involvement in securities fraud litigation. The hope was that institution would help produce better litigation outcomes for shareholders at a lower cost. Our study offers preliminary evidence on whether Congress has achieved these objectives.

On the issue of institutional participation, we find that the PSLRA has had an effect on the participation of only one type of institution—the public pension fund. Public pension fund participation as lead plaintiff has increased substantially since 1995 and continues to increase. Beyond the public pension fund, however, institutional participation remains unchanged. Levels of overall institutional participation remain relatively consistent. Private institutions that participate tend to be relatively small, both pre- and post-PSLRA. Other large institutions, particularly mutual funds, have failed to participate at all.

As for the effects of institutional participation, our data show only mixed results. Public pension funds correlate with a greater likelihood of a High-Value Outcome. We are unable, however, to rule out the possibility that public pensions are selectively participating in only those cases with the largest potential damages and the most glaring indicia of fraud. We also find that when we control for the size of the case, institutional participation—even pension fund participation—does not correlate with lower attorney fee awards. At this point, the case for the lead plaintiff provision has not yet been proven.

APPENDIX–LIST OF INSTITUTIONS IN THE DATA SET

Pre-PSLRA Private Institutions

Acker Capital Partnership
D.M.D. Pension Trust
Jefferson Heritage Partners, Ltd.
Minnick Capital Management
Overseas Corporation
Peregrine Options, Inc.
Pisnoi Lumber & Trim Co., Inc., Pension Trust
S.H.E. Medical Associates, P.C.
Sidney Weinstein, Trustee for the Marigold Marketing Profit Sharing Plan
Software Design Systems, Inc.
TDA Trading Corp.
World Futures Trading Company
ZSA Asset Allocation Fund and ZSA Equity Fund
ZVI Trading Corp Employees' Money Purchase Pension Plan

Post-PSLRA Private Institutions

American Bancredit Corp
Androsia International Trade
Brenner Clinical Psych P.C. Pension Plan & Trust
Bulldog Capital Management LP
De Wind Partners LP
Emanon Partners LP
Federal National Insurance Co.
Fuller & Thaler Asset Management, Inc.
Glyn Emerging Opportunity Fund, LP
Golfway Developments, Inc.
Great Neck Capital Appreciation Partnership LP
Imperial Equity of Nevada Inc.
Lion Holdings LLC, King Asset Trust
Local 144 Nursing Home Pension Fund
Nature Shoes Inc.

Nomanbhoy Group
Perkins Partners I LTD
Teamsters Local 175 & 505 Pension Trust Fund Plan and Local 144 Nursing Home Pension Fund
VIP World Asset Mgmt, T.F.M. Investment Group

Post-PSLRA Public Pensions

Birmingham Retirement & Relief Fund
City of Philadelphia Board of Pension & Retirement
Connecticut Retirement Plans and Trust Funds
Florida State Board of Administration and Louisiana State Employees' Retirement System
Kansas Farm Bureau Pension Trust and Kansas Farm Bureau Mutual Insurance Co.
Louisiana Municipal Police Employees' Retirement System and Louisiana School Employees' Retirement System
Louisiana State Employees' Retirement System
New Hampshire Retirement System
Philadelphia Board of Pensions & Retirement
Police and Firemen Retirement System of City of Detroit