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DID THE PRIVATE SECURITIES LITIGATION REFORM ACT WORK?†

Michael A. Perino*

In 1995 Congress passed the Private Securities Litigation Reform Act (the PSLRA or the Act) to address abuses in securities fraud class actions. In the wake of Enron, WorldCom, Adelphia, and other high profile securities frauds, critics suggest that the law made it too easy to escape liability for securities fraud and thus created a climate in which frauds are more likely to occur. Others claim that the Act has largely failed because it did little to deter plaintiffs’ lawyers from filing nonmeritorious cases. This article employs a database of the 1449 class actions filed from 1996 through 2001 to explore whether the Act achieved several of its primary goals—discouraging the filing of nonmeritorious suits, reducing litigation risk for high technology issuers, and reducing the “race to the courthouse” whereby class actions were filed soon after significant stock price declines, apparently with very little prefiling investigation.

The picture that emerges from studying these data is that the PSLRA did not work as intended. This article demonstrates that as many, if not more, class actions are filed after the Act as before. High technology issuers remain at significantly greater risk than issuers in other industries. There is statistically significant evidence, however, that suggests that the Act improved overall case quality at least in the circuit that most strictly interprets one of the Act’s key provisions, a heightened pleading standard. The data also demonstrate that Congress did not achieve its goal of increasing the filing delay in class actions. Actions are filed as quickly now as they were before the Act’s passage. Nonetheless, that too may provide indirect evidence that plaintiffs’ attorneys are selecting more apparent cases of fraud that require less prefiling investigation.

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I. INTRODUCTION

In 1995 Congress set out to fix securities class action litigation when it passed the Private Securities Litigation Reform Act (the PSLRA, the Act, or the Reform Act). The Reform Act was designed to address a number of perceived abuses in these cases. In large part, its solution was to create a series of procedural hurdles that make it more difficult for plaintiffs' attorneys to bring and maintain nonmeritorious securities fraud class actions.

The PSLRA has been enveloped in controversy since before its enactment. Critics of the Act, including President Clinton who initially vetoed the legislation, charged that the PSLRA would set too high a barrier for plaintiffs pursuing legitimate fraud claims. They claimed that the Act amounted to little more than a wish list for high technology companies and the accounting industry, both of which sought unwarranted protection from largely meritorious securities class actions. Today, in light of high-profile scandals like Enron, WorldCom, and Adelphia, detractors suggest that the law made it too easy to escape liability for securities fraud and thus created a climate in which frauds are more likely to occur. By contrast, others claim that the PSLRA has largely failed because it did little to prevent plaintiffs' lawyers from filing nonmeritorious cases.


2. Congress did not define "nonmeritorious" or "frivolous" with precision. This Article relies on two definitions of nonmeritorious that seem to capture most of what Congress had in mind. First, nonmeritorious class actions are those that are filed for their settlement value because plaintiffs have a negative expected value of proceeding to trial. See James Bohn & Stephen Choi, Fraud in the New-Issues Market: Empirical Evidence on Securities Class Actions, 144 U. PA. L. REV. 903, 918 (1996). This would include actions in which the attorney knows facts that indicate that the defendant would prevail at trial. Second, nonmeritorious cases include cases in which the attorney has engaged in inadequate prefiling investigation and therefore does not know whether the claim is legitimate or nonmeritorious and it turns out to be the latter. See Robert Bone, Modeling Frivolous Suits, 145 U. PA. L. REV. 519, 533 (1997).

3. See infra notes 73–75 and accompanying text.


This article explores the debate by asking whether there is any evidence that Congress achieved several of the PSLRA's primary goals. First, the PSLRA was intended to reduce the costs that securities class actions impose on the capital markets by discouraging the filing of non-meritorious suits. Second, Congress wanted to reduce litigation risk for high technology issuers, which it found were disproportionately targeted in securities class actions. Third, Congress wanted to reduce the "race to the courthouse" whereby class actions were filed soon after significant stock price declines, apparently with very little prefiling investigation.

To explore whether the Reform Act achieved these goals, this article uses a database of 1,449 securities fraud class actions filed in federal court from 1996 to 2001, the first six years after passage of the PSLRA.

The picture that emerges from studying these data is complicated. It seems clear, however, that the PSLRA did not work as its backers intended. The best available evidence suggests that there are as many, if not more, class actions filed annually after passage of the PSLRA as before. Those actions appear to be filed just as quickly and high technology issuers are sued just as frequently. Nonetheless, these findings do not mean that the Reform Act did not achieve any of its goals. There is at least some preliminary evidence suggesting that overall case quality after the PSLRA improved, particularly in the circuit that most strictly interprets one of the Act's key provisions, a heightened pleading requirement.

Part II begins by providing a brief overview of the congressional and academic debate over securities litigation and on the PSLRA. Part II also briefly describes the PSLRA provisions that are primarily addressed in this article: (i) the lead plaintiff provisions, which were intended to reduce the race to the courthouse and increase institutional investor participation in class actions; (ii) the heightened pleading standard, which was intended to reduce the incidence of nonmeritorious filings; (iii) the safe harbor for forward-looking statements, which was intended to protect issuers, especially high technology issuers, that made predictive statements; and (iv) the discovery stay, which was intended to decrease plaintiffs' attorneys ability to impose costs on defendants before a court reviewed the legal sufficiency of the complaint.

Part III then turns to the empirical analysis by describing the sample used in the article and by discussing the overall incidence of litigation before and after the Reform Act. The data in this section demonstrate that passage of the PSLRA is not correlated with a statistically significant de-
cline in class actions filings, but rather an apparent increase.\textsuperscript{12} The data in part III also demonstrate that litigation risk (as measured by the rate of litigation against publicly traded issuers) is somewhat higher, but that the difference is statistically insignificant.\textsuperscript{13} Other studies suggest that filings have increased substantially given historic relationships between class action filings and overall market returns. In sum, available evidence suggests that passage of the PSLRA is correlated with either no change or an increase in class action filings, not the decrease Congress sought.

What explains this unexpected result? Some scholars have suggested that the PSLRA might increase both the level of litigation and the level of fraud in the markets if it decreased the chances of a successful suit.\textsuperscript{14} In other words, the PSLRA may have decreased class actions' ability to deter fraud. This article does not seek to disprove this hypothesis; rather, it suggests an alternative one—that increased filings may represent a portfolio diversification strategy on the part of plaintiffs' attorneys in response to the increased risk associated with post-PSLRA litigation. Part III then reviews available data on dismissals, sanctions, and settlements to support this hypothesis.

Part IV focuses on the geographical distribution of securities class action filings. This part seeks to determine whether there is any evidence that different interpretations of the PSLRA's heightened pleading standard are correlated with shifts in where class actions are filed. Such shifts may provide indirect evidence with respect to the pleading standard's effect on the incentive to file marginal or nonmeritorious cases. The data in part IV demonstrate a statistically significant decline in class action filings in the Ninth Circuit, the circuit that adopted the most rigorous interpretation of the pleading standard in \textit{In re Silicon Graphics, Inc. Securities Litigation}.\textsuperscript{15} Moreover, in comparison to a sample of actions filed in other circuits after \textit{Silicon Graphics}, Ninth Circuit actions have a statistically greater percentage of what appear to be the strongest allegations (i.e., allegations of both accounting misrepresentations and trading by insiders during the class period). At the same time, the Ninth Circuit cases have a lower proportion of facially weak cases (i.e., those that rely exclusively on allegations that issuers made false or misleading predictive statements). The Ninth Circuit cases also have statistically larger market losses at the end of the class period.

These data suggest at least two explanations. One possibility is that stricter application of the PSLRA's heightened pleading standard may cause plaintiffs' attorneys to bring better quality cases. Stricter applica-

\textsuperscript{12} See infra notes 103–09 and accompanying text.

\textsuperscript{13} See infra notes 113–15 and accompanying text.

\textsuperscript{14} Antonio E. Bernardo et al., \textit{A Legal Theory of Presumptions}, 16 J.L. ECON. & ORG. 1, 31–32 (2000).

\textsuperscript{15} 183 F.3d 970, 974 (9th Cir. 1999).
tion may also create greater risk for plaintiffs' attorneys and therefore cause them to focus on cases in which potential damages are greater.

Part V analyzes litigation against high technology issuers. It finds that high technology companies face a significantly higher risk of litigation than issuers in other industries, a finding that is consistent with past studies. This higher risk may be due to higher levels of stock-based compensation in the high technology industry and the concomitant higher levels of insider stock sales. Allegations of improper insider trading are significantly more frequent among high technology issuers. Stock sales also appear to make the consequences of missed forecasts more significant for high technology companies. Cases that combine missed forecasts with insider sales are significantly more frequent among high technology defendants.

Part VI examines whether the PSLRA has affected the speed with which actions are brought following the end of the class period. The earliest studies suggested an increase in filing delay under the Reform Act, but this result seems to have been transitory. Indeed, contrary to Congress’s expectations, there has been a steady decline in filing delay over the last five years. These data suggest that the initial increase in filing delay was attributable more to learning curve effects and less to the need to do more prefiling investigation. To determine what role pleading standards play in filing speed, part VI compares filings in the Ninth Circuit with filings in other circuits. Although the Ninth Circuit should be the circuit with the greatest need for extensive prefiling investigation, it actually has filing delays that are significantly shorter than filing delays in other circuits. One possible explanation for this anomalous result is that the presence of a rigorous pleading standard has caused plaintiffs’ attorneys to focus their efforts on more obvious cases of fraudulent conduct that require less pretrial investigation. In other words, although the PSLRA did not affect filing delay, it may have affected case quality as Congress intended.

Part VII discusses additional research questions and the normative implications of this empirical analysis. It concludes that the PSLRA may have been somewhat successful in reducing the incidence of nonmeritorious filings, but that success has been somewhat inhibited by the differences in pleading standards among the circuits. Because the Silicon Graphics standard effectively converts a motion to dismiss into an early judicial screen of the merits of the action and the adequacy of counsel’s investigation, courts in other circuits should emulate the Ninth Circuit and more closely scrutinize complaints at the pleading stage. If any additional reforms are necessary to further deter nonmeritorious cases (and at this point it is unclear that such changes are necessary), they should directly target the incentive structures that encourage those suits. There are at least three ways to do so: (i) creating a more meaningful threat of sanctions for nonmeritorious class actions; (ii) altering the method for
calculating damages; or (iii) encouraging courts to reduce attorney’s fee awards.

II. THE CONGRESSIONAL AND ACADEMIC DEBATE OVER SECURITIES LITIGATION AND THE PSLRA

There is a well-established academic critique of private enforcement of the federal securities laws that underlies Congress’s debate over the relative costs and benefits of securities class action litigation. Such litigation is premised on a private attorney’s general model. Giving private attorneys a financial stake in the outcome of a case effectively depurizes them to search out fraud cases that the resource-constrained SEC may be unable to bring. Compensation of attorneys performing this function is invariably through contingency fees. Those fees, which historically have ranged from twenty to thirty percent of the recovery, are intended to compensate attorneys for litigation risk and for the costs associated with searching out and prosecuting fraud claims.

If structured properly, requiring corporations and individuals that commit securities fraud to pay damages can deter future violations and can provide defrauded investors with some compensation for their losses. In adopting the PSLRA, Congress expressly adopted this view, long espoused by courts, the SEC, and plaintiffs’ class action attor-


17. The term derives from Judge Frank’s decision in Associated Industries v. Ickes, in which Frank used the term to refer to any private person who “vindicat[e]s the public interest.” 134 F.2d 694, 704 (2d Cir. 1943).


20. John C. Coffee, Jr., Understanding the Plaintiffs Attorney: The Implications of Economic Theory for Private Enforcement of Law Through Class and Derivative Actions, 86 COLUM. L. REV. 669, 679 (1986) (noting that the “system should encourage the attorney to invest in search costs and seek out violations of the law that are profitable for him to challenge ...”).


neys, that "[p]rivate securities litigation . . . help[s] to deter wrongdoing" and "is an indispensable tool with which defrauded investors can recover their losses without having to rely upon government action."24

Scholars have long recognized, however, that securities fraud cases present a classic agency cost problem.25 The plaintiffs' attorney is supposed to act in the best interests of the class. But the typical members of the class were generally thought to have very small stakes in the outcome of the case—too small to make monitoring the attorney a cost-effective option.26 The representative plaintiffs in a class action were sometimes thought to receive special payments for serving as representative plaintiff or to otherwise have long-term relationships with the attorneys, which created disincentives for them to actively monitor the attorney.27 Courts were required to review any settlement, but often the pressures to approve a settlement and remove a case from the docket made such review less than effective.28 Under these circumstances, the attorney was left

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26. See generally Jonathan R. Macey & Geoffrey P. Miller, The Plaintiffs' Attorney's Role in Class Action and Derivative Litigation: Economic Analysis and Recommendations for Reform, 58 U. CHI. L. REV. 1 (1991). According to Congress, typical representative plaintiffs were unable to "exercise[] any meaningful direction over the case brought on their behalf." SENATE REPORT, supra note 4, at 6. This analysis, of course, failed to consider the presence of institutional shareholders, which may have sufficiently large holdings to overcome, at least partially, the collective action problem. See Joseph A. Grundfest & Michael A. Perino, The Pentium Papers: A Case Study of Collective Institutional Investor Activism in Litigation, 38 ARIZ. L. REV. 559, 572-77 (1996); 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). Indeed, it was this recognition that institutional investors could play this role that underlies the PSLRA's lead plaintiff provision. See infra Part II.A.

27. See Bohn & Choi, supra note 2, at 917 n.59; Coffee, supra note 19, at 885; Macey & Miller, supra note 26, at 74; Weiss & Beckerman, supra note 26, at 2060-61; see also HOUSE CONF. REPORT, supra note 24, at 32-33; SUBCOMM. ON SEC. OF THE SENATE COMM. ON BANKING, HOUS. & URBAN AFFAIRS, STAFF REPORT OF PRIVATE SECURITIES LITIGATION 19 (May 17, 1994) [hereinafter 1994 STAFF REPORT], reprinted in Abandonment of the Private Right of Action for Aiding and Abetting Securities Fraud/Staff Report on Private Securities Litigation: Hearing Before the Subcomm. on Sec. of the Senate Comm. on Banking, Hous. & Urban Affairs, 103d Cong. 189 (1994) [hereinafter 1994 Senate Hearings]; 1993 Senate Hearings, supra note 23, at 17 (statement of Richard J. Egan, Chairman, EMC Corporation).

with largely unfettered discretion in deciding what cases to bring, how to prosecute those cases, and how to settle them.

The result was plaintiffs’ attorneys that acted more like principals than agents.29 Attorneys acting with insufficient monitoring had incentives to act primarily in their own self-interest, often to the detriment of the deterrent and compensation functions they were supposed to perform.30 Under these circumstances, attorneys had incentives to bring marginal or nonmeritorious cases for their settlement value, not because they believed that fraud actually occurred.31 Often cases were brought within days of a significant stock price drop,32 with apparently very little investigation into their merits.33 A number of congressional constituents, particularly the high technology industry, complained that they were disproportionately targeted in securities fraud class actions.34 Reform proponents argued that attorneys were engaged in an increasingly com-

29. The congressional record referred repeatedly to the problem of “lawyer-driven” litigation. See, e.g., HOUSE CONF. REPORT, supra note 24, at 32.
30. SENATE REPORT, supra note 4, at 6. Congress found that the problems arising from this self-interested behavior were “compoundd by the reluctance of many judges to impose sanctions under Federal Rule of Civil Procedure 11.” HOUSE CONF. REPORT, supra note 24, at 31.
32. Securities fraud class actions do not follow invariably from large stock price drops. See Baruch Lev, Disclosure and Litigation, CAL. MGMT. REV., Spring 1995, at 8, 9-11; Perino, supra note 16, at 290 n.78; Seligman, supra note 21, at 442-45. Nonetheless, the majority of securities class actions appear to be brought after disclosures that lead to stock price declines. See Coffee, supra note 20, at 682 (noting that significant stock price declines, like other dramatic events, provide a signal of a possible securities law violation); Joseph A. Grundfest, Why Disimply?, 108 HARV. L. REV. 727, 734 (1995) (noting that stock price declines are important because “other factors being equal, a sharp stock price decline is likely correlated with a greater probability of recovery and a greater certainty that significant damages can be established”); Douglas J. Skinner, Why Firms Voluntarily Disclose Bad News, 32 J. ACCT. RES. 38, 42 (1994) (describing prior studies).
33. See, e.g., 1993 Senate Hearings, supra note 23, at 14-15 (statement of John G. Adler, President and CEO, Adaptec, Inc.) (asserting that a small filing fee and broad allegations will allow plaintiffs’ attorneys to conduct a fishing expedition); SENATE REPORT, supra note 4, at 8 (“A complaint alleging violations of the Federal securities laws is easy to craft and can be filed with little or no due diligence.”).
34. See, e.g., 1994 Senate Hearings, supra note 27, at 172; HOUSE CONF. REPORT, supra note 24, at 43 (“Technology companies—because of the volatility of their stock prices—are particularly vulnerable to securities fraud lawsuits when projections do not materialize.”); SENATE REPORT, supra note 4, at 5 (“Public companies—particularly high-tech, bio-tech and other growth companies, which are sued disproportionately in 10b-5 litigation—fear that releasing [forward-looking] information makes them even more vulnerable to attack.”). See generally 1993 Senate Hearings, supra note 23.
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For a number of reasons, corporations often have a strong incentive to settle such cases. One explanation is that it is often cheaper to settle the case than to pay the costs of protracted and expensive discovery. Reputational losses associated with a well-publicized trial may create incentives for defendants to settle. Others suggest that settlement of nonmeritorious cases is the result of information asymmetries between plaintiffs and defendants. Recently, scholars have used cognitive psychology to help explain defendants' risk aversion in cases in which plaintiffs may have a low probability of success at trial. The large theoretical damages generated in open-market securities fraud cases and the reluctance of defendants to risk an adverse jury verdict that could potentially bankrupt the company exacerbate the incentives to settle.

The settlements that are eventually negotiated seem problematic as well. Those settlements often benefit former shareholders at the expense of current ones. In effect, they can amount to little more than a transfer payment with enormously high transaction costs in the form of a large contingency fee award. Current damage calculation models also tend to provide damages well in excess of the net economic harm of any wrong-

35. See Garr v. U.S. Healthcare, Inc. 22 F.3d 1274, 1277 (3d Cir. 1994); 1994 Senate Hearings, supra note 27, at 194 (quoting testimony of William S. Lerach, Milberg, Weiss, Bershad, Hynes & Lerach) (noting that "courts historically have rewarded the first filed case with control of the case as lead counsel"); Alexander, supra note 28, at 513-14 (noting the pressure on plaintiffs' attorneys prior to passage of the PSLRA to be "the first or among the first" to file a class action complaint); Weiss & Beckerman, supra note 26, at 2062-63.


38. See Bebchuk, Suing for Settlement, supra note 31, at 440.

39. Chris Guthrie, Framing Frivolous Litigation: A Psychological Theory, 67 U. Chi. L. Rev. 163, 179-81 (2000) (arguing that the framing theory suggests that the prospect of obtaining large low probability gains will induce risk-seeking behavior on the part of plaintiffs' attorneys while the prospect of avoiding large low probability losses will cause defendants to be risk averse).

40. See 1993 Senate Hearings, supra note 23, at 16, 591 (statements of Richard J. Egan, Chairman, EMC Corporation, and Scott G. McNealy, Chairman, President and CEO of Sun Microsystems, Inc.). For a discussion of the factors that create strong incentives to settle securities fraud class actions, see Alexander, supra note 28, at 528-57.

ful activity because they fail to consider the gains to investors that sell during the class period.  

The collective action problems in class actions can adversely affect strong cases as well. Plaintiffs' attorneys naturally focus on their own expected return—the fee they can expect after settlement or trial. That means that if the attorney anticipates only a modest gain in its fee from prosecuting a strong case to the end, he or she might settle the case too early and too cheaply. Indeed, Congress found that settlements often amount to pennies on the dollar. Attorneys are also likely to focus on the total amount of the settlement and fee rather than who pays it. This can result in individual fraudulent actors paying little if anything to settle a case. As a consequence, class actions may create little in the way of actual deterrence.

Although there appeared to be broad agreement in Congress and the SEC that problems existed in securities fraud litigation, there was a vigorous debate over the extent of, and the appropriate solutions to, those problems. Nonetheless, the PSLRA passed with ample majorities in both the House and the Senate, and early indications were that President Clinton would sign it into law. At the last minute, however, the President vetoed the bill citing concerns that it went too far in curtailing private securities causes of action. Within two days, Congress overrode that veto.

Congress's predominant approach to address the problems it identified in securities litigation practices was to craft a set of procedural hurdles designed to make it more difficult to bring and maintain nonmerito-

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43. See Coffee, supra note 20, at 690.
44. See SENATE REPORT, supra note 4, at 6.
45. Coffee, supra note 20, at 719-20.
46. HOUSE CONF. REPORT, supra note 24, at 38, 39; see Securities Litigation Reform Proposals Hearings, supra note 36, at 34 (prepared statement of Senator Dodd); SENATE REPORT, supra note 4, at 5 (citing statements by Committee Chairman D'Amato, Senator Dodd, and SEC Chairman Levitt).
47. Indeed, at one point early in the congressional debates over securities litigation reform, Senator Dodd, at the time the Chair of the Senate Subcommittee on Securities, commented: After a long hearing... we found no agreement on whether there is in fact a problem, the extent of the problem, or the solution to the problem. In my experience with this subcommittee, I've never encountered an issue where there is such disagreement over the basic facts. We often argue about policy, we argue about ideology, we often argue about politics, but it is rare that we spend so much time arguing about basic facts.
This article focuses on four of those provisions: (i) the lead plaintiff provisions; (ii) the heightened pleading standard; (iii) the safe harbor for forward-looking statements; and (iv) the discovery stay. The ultimate goal of these provisions was to reduce the cost to the capital markets imposed by nonmeritorious class actions without restricting legitimate fraud claims.

A. The Lead Plaintiff Provisions

To curb the race to the courthouse, to lessen the use of so-called professional plaintiffs, and to lessen the influence of plaintiffs' attorneys on the prosecution of class actions, Congress created a number of provisions applicable to the earliest organizational stages of the class action. The lead plaintiff provisions were designed to encourage greater institutional investor participation in class action litigation by giving the lead plaintiff the power to control the course of the action, including the selection of lead counsel.

To ensure that institutions learn about the litigation, the PSLRA requires the first plaintiff filing a securities class action to publish a notice that informs investors that the action is pending and informs potential class members of the right to move to be named lead plaintiff. The PSLRA requires the court to appoint as lead plaintiff the so-called most adequate plaintiff, i.e., the member or members of the class who file a motion to be appointed lead plaintiff and who "the court determines to be most capable of adequately representing the interests of class members." This "most adequate plaintiff" is presumptively the plaintiff with the largest financial interest in the outcome of the case that "otherwise satisfies the requirements of Rule 23 of the Federal Rules of Civil Procedure." Once selected, the lead plaintiff selects the lead counsel, subject to court approval.

The lead plaintiff procedure was intended to decrease the race to the courthouse because filing the first complaint was no longer a crite-
rion for selection of lead plaintiff and lead counsel. That was not, however, the primary intended benefit of this provision. Congress wanted to provide more active oversight of class counsel. Congress focused on the size of the plaintiff's stake because plaintiffs with large stakes would be better positioned to overcome the collective action problems endemic to securities class actions. Larger plaintiffs would theoretically have a greater incentive to closely monitor plaintiffs' attorneys and ensure that attorneys were acting in the best interests of the class. The power to select class counsel also theoretically enhanced the lead plaintiff's ability to negotiate lower fee arrangements.

**B. The Heightened Pleading Standard**

Among the PSLRA's more controversial provisions was a pleading requirement designed to make it harder for unwarranted allegations of fraud to survive a motion to dismiss. The SEC viewed a heightened pleading standard as an appropriate solution to nonmeritorious class actions. The SEC preferred this approach because it wanted to avoid substantive changes to federal securities laws that might weaken the weapons available to combat "deliberate fraud." Congress likely anticipated that a more rigorous pleading standard would slow the race to the courthouse because a plaintiffs' attorney would need to do more extensive prefiling investigations to satisfy it. A unitary pleading standard was also

58. See *In re Olsten Corp. Sec. Litig.*, 3 F. Supp. 2d 286, 297 (E.D.N.Y. 1998) (rejecting argument that first to file complaint should be appointed lead plaintiff).

59. The lead plaintiff provision was modeled on a proposal by Professors Weiss and Beckerman. See Weiss & Beckerman, *supra* note 26, at 2105-09.

60. See *Switzenbaum v. Orbital Sci. Corp.*, 187 F.R.D. 246, 249 (E.D. Va. 1999) (noting that the "purpose of these provisions is to ensure that the prosecution of the action is coordinated only by those who have a serious and legitimate interest in doing so on behalf of the putative class"); Grundfest & Perino, *supra* note 26, at 565-77.

61. See *Sherleigh Assocs. LLC v. Windmere-Durable Holdings, Inc.*, 184 F.R.D. 688, 694-95 (S.D. Fla. 1999) (recognizing that selection of appropriate lead counsel helps to assure the reasonableness of fees and expenses); see also *In re Party City Sec. Litig.*, 189 F.R.D. 91, 116 (D.N.J. 1999) (recognizing that counsel fees should be "the result of hard bargaining"); *In re Network Assocs., Inc. Sec. Litig.*, 76 F. Supp. 2d 1017, 1033 (N.D. Cal. 1999) (holding that "lead plaintiff owes a fiduciary duty to obtain the highest quality legal representation at the lowest price").

62. See 15 U.S.C. § 78u-4(b); *HOUSE CONF. REPORT, supra* note 24, at 41 ("Naming a party in a civil suit for fraud is a serious matter. Unwarranted fraud claims can lead to serious injury to reputation for which our legal system effectively offers no redress."). Congress found that Federal Rule of Civil Procedure 9(b), which addresses this concern by requiring plaintiffs to plead fraud with specificity, failed to stem abusive lawsuits, in part because the circuits had differed on its requirements. *Id.* The new standard applies equally to individual securities fraud cases and class actions. 15 U.S.C. § 78u-4(b)(1).

63. See, e.g., *Securities Litigation Reform Proposals Hearings, supra* note 36, at 247-49 (statement of Arthur Levitt, Chairman, SEC); 1994 *Senate Hearings, supra* note 27, at 81 (response to written questions of Senator Domenici from Arthur Levitt, Chairman, SEC) (noting that "it would be a mistake to constrict the fundamental scope of [section 10(b)] sharply in order to reduce meritless securities litigation. Instead, meritless litigation should be addressed through carefully crafted procedural and pleading requirements, sanctions, and other measures which are focused directly on frivolous litigation."); 1993 *Senate Hearings, supra* note 23, at 112 (statement of William McLucas, Director, Division of Enforcement, SEC).
proposed to eliminate the then-existing split in the circuits over the application of Federal Rule of Civil Procedure 9(b) to securities fraud suits.  

The PSLRA's new pleading standard applies to all private actions arising under the Securities Exchange Act of 1934 (the "Exchange Act") in which the plaintiff alleges that the defendant made material misstatements or omissions.  

The standard thus applies to the typical securities fraud actions brought under Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder.

The pleading standard consists of three components. First, the Act contains a specificity requirement with respect to allegations that a statement or omission is false or misleading. The complaint is required to specify which statements are misleading and the reasons why the statements are misleading. Second, when a complaint is pleaded on information and belief, the plaintiff must state "with particularity all facts on which that belief is formed." Third, plaintiffs are required to "state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind." The "strong inference" language was clearly drawn from Second Circuit authority that predated the Reform Act, but the language in the legislative history suggests that

64. HOUSE CONF. REPORT, supra note 24, at 41. Rule 9(b) provides that allegations of fraud must be pleaded with particularity except for allegations of intent, which may be pleaded generally. Some circuits, led by the Second Circuit, held that Rule 9(b) required plaintiffs to demonstrate a strong inference that the defendant acted with scienter, while others only required a generalized allegation of scienter. For a fuller description of the pre-PSLRA circuit split, see PERINO, supra note 1, § 3.01 A, at 3015-22.

65. 15 U.S.C. § 78u-4(b). Specifically, new section 21D(b) of the Exchange Act provides:  
(R1) Misleading statements and omissions
In any private action arising under this title in which the plaintiff alleges that the defendant—  
(A) made an untrue statement of a material fact; or  
(B) omitted to state a material fact necessary in order to make the statements made, in the light of the circumstances in which they were made, not misleading;  
the complaint shall specify each statement alleged to have been misleading, the reason or reasons why the statement is misleading, and, if an allegation regarding the statement or omission is made on information and belief, the complaint shall state with particularity all facts on which that belief is formed.

(2) Required state of mind
In any private action arising under this title in which the plaintiff may recover money damages only on proof that the defendant acted with a particular state of mind, the complaint shall, with respect to each act or omission alleged to violate this title, state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind.

Id.

68. Id.
69. Id.
Congress might have intended to erect a pleading barrier higher than the Second Circuit had articulated.\footnote{72. See Perino, supra note 1, § 3.01 D.1, at 3046–53.}


It is clear that Congress did not achieve one stated goal with respect to the pleading standard—ending the pre-PSLRA circuit split over the pleading requirements in securities fraud cases. Courts have split sharply over precisely what the "strong inference" portion of the standard requires.\footnote{75. See, e.g., Hillary A. Sale, Heightened Pleading and Discovery Stays: An Analysis of the Effect of the PSLRA's Internal-Information Standard on ‘33 and ‘34 Act Claims, 76 Wash. U. L.Q. 537 (1998) [hereinafter Sale, Internal-Information Standard]; Hillary A. Sale, Judging Heuristics, 35 U.C. Davis L. Rev. 903 (2002); Lynn A. Stout, Type I Error, Type II Error, and the Private Securities Litigation Reform Act, 38 Ariz. L. Rev. 711 (1996); Elliott J. Weiss & Janet E. Moser, Enter Yossarian: How to Resolve the Procedural Catch-22 That the Private Securities Litigation Reform Act Creates, 76 Wash. U. L.Q. 457 (1998).}

Some courts have suggested that the PSLRA does nothing more than codify the pre-PSLRA Second Circuit standard.\footnote{76. See Perino, supra note 1, § 3.01 D, at 3045–82.} By contrast, the Ninth Circuit has adopted the most rigorous version of the pleading standard, which requires plaintiffs to plead strong circumstantial evi-
dence of "deliberate recklessness." The Ninth Circuit also has interpreted the "all facts" prong to require much greater disclosure of the attorney's prefilling investigative efforts than other circuits require. Most courts have adopted an intermediate position between the Second Circuit and Ninth Circuit approaches.

C. The Safe Harbor for Forward-Looking Statements

To address the chilling effect that nonmeritorious lawsuits have "on the robustness and candor of disclosure" regarding an issuer's prospects, the Reform Act protects specified written and oral forward-looking statements from liability. Congress anticipated that the safe harbor would provide significant protection for high technology issuers. The legislative history repeatedly links the rate of litigation against high technology companies to their disclosure of forward-looking information.

Under the safe harbor, forward-looking statements, even if false, are not actionable if they are identified as forward-looking statements and are "accompanied by meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statement." Even if the statement is not properly identified or is not accompanied by the appropriate cautionary language, it still falls within the safe harbor if it is immaterial or if the plaintiff fails to prove that the defendant had "actual knowledge" that the forward-looking statement was false or misleading.

Studies evaluating the effectiveness of the safe harbor in increasing the amount or specificity of forward-looking disclosures are mixed. One study suggests that high technology issuers are disclosing significantly

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78. In re Silicon Graphics Sec. Litig., 183 F.3d 970, 974 (9th Cir. 1999); see PERINO, supra note 1, § 3.01 D.2, at 3070–71 n.184.

79. Compare Silicon Graphics, 183 F.3d at 984 (holding that plaintiffs must provide in their complaint "a list of all relevant circumstances in great detail," including the names of any confidential sources), with Novak, 216 F.3d at 313–14 (holding that "plaintiffs need only plead with particularity sufficient facts to support those beliefs [and] need not name their sources").


81. HOUSE CONF. REPORT, supra note 24, at 43 (quoting former SEC chairman Richard C. Breeden's April 6, 1995 testimony before the Securities Subcommittee of the Senate Committee on Banking, Housing, and Urban Affairs).

82. See supra note 34 and accompanying text.

83. The safe harbor defines forward-looking statements to include financial projections, statements concerning management's plans or objectives, statements of future economic performance, and statements of the assumptions underlying the foregoing. See 15 U.S.C. §§ 77z-2(i)(1), 78u-5(i)(1) (2000).


more forward-looking information.\textsuperscript{86} Early bar association\textsuperscript{87} and SEC\textsuperscript{88} studies, however, concluded that the safe harbor has had little apparent effect on pre-PSLRA disclosure practices. These studies attributed the continuing reluctance to disclose more forward-looking information on issuers' uncertainty with respect to how courts would interpret the safe harbor, the threat of state court litigation, and the ability of issuers to make selective disclosure of forward-looking information to analysts and other market professionals.\textsuperscript{89}

Since these studies were published, these concerns and opportunities for alternative disclosure have been substantially eliminated. Courts have generally interpreted the safe harbor protections quite broadly.\textsuperscript{90} Congress preempted most state court class actions when it passed the Securities Litigation Uniform Standards Act of 1998.\textsuperscript{91} And Regulation FD now precludes issuers from selectively disclosing material nonpublic information.\textsuperscript{92} Nonetheless, the debate over whether more and better forward-looking disclosure is available to the marketplace continues.\textsuperscript{93}

\textbf{D. The Mandatory Discovery Stay}

To "prevent unnecessary imposition of discovery costs on defendants,"\textsuperscript{94} the PSLRA mandates a discovery stay in private securities actions while a motion to dismiss is pending.\textsuperscript{95} In what amounts to a reversal of pre-Reform Act precedent, the Reform Act requires any party


\textsuperscript{87} Committee on Securities Regulation, Forward-Looking Statements and Cautionary Language After the 1995 Private Securities Litigation Reform Act: A Study of Current Practices, 53 RECORD ASSOC. BAR CITY OF N.Y. 723, 736 (1998) (finding "no meaningful change in the nature or extent of written forward-looking statements made by reporting companies as a result of the adoption of the Act").

\textsuperscript{88} SEC OFFICE OF GEN. COUNSEL, REPORT TO THE PRESIDENT AND THE CONGRESS ON THE FIRST YEAR OF PRACTICE UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995, at 25 (1997) [hereinafter SEC REPORT] (finding that issuers were reluctant to provide more forward-looking information than they had pre-PSLRA).

\textsuperscript{89} See Committee on Securities Regulation, supra note 87, at 736.

\textsuperscript{90} See, e.g., Ehlert v. Singer, 245 F.3d 1313 (11th Cir. 2001); Harris v. Ivax Corp., 182 F.3d 799 (11th Cir. 1999); In re Advanta Corp. Sec. Litig., 180 F.3d 525 (3d Cir. 1999).


\textsuperscript{92} 17 C.F.R. § 243.100 (2002). Generally, Regulation FD requires that whenever an issuer or person acting on its behalf discloses material nonpublic information to certain enumerated persons, including certain securities market professionals, it must make public disclosure of that information. \textit{Id.}

\textsuperscript{93} SEC, SPECIAL STUDY: REGULATION FAIR DISCLOSURE REVISITED (2001) (citing studies differing on quantity and quality of forward-looking disclosure after Regulation FD); Frank Heflin et al., Regulation FD and the Financial Information Environment 6 (July 15, 2001) (working paper on file with author) (finding increase in voluntary forward-looking disclosures after Regulation FD).

\textsuperscript{94} HOUSE CONF. REPORT, supra note 24, at 32.

seeking to lift the discovery stay to make a particularized showing that it will suffer undue prejudice if discovery is not permitted, or that discovery is necessary to preserve evidence. It is likely that Congress anticipated that, when combined with the heightened pleading standard, the discovery stay would also tend to slow the race to the courthouse because plaintiffs would have to engage in more extensive prefiling investigations and could not rely on information produced in discovery to file an amended complaint.

III. SECURITIES CLASS ACTION FILING RATES

When Congress passed the PSLRA, it intended to decrease non-meritorious class action filings and thereby decrease the overall level of securities class actions. And so, perhaps the most basic question about the effects of the Reform Act then is whether passage of the PSLRA had any impact on the number of issuers sued in securities class actions? While the empirical evidence on the PSLRA’s effect on the total amount of litigation is mixed, there is little empirical support for the conclusion that it reduced the incidence of securities class action litigation. Indeed, some evidence suggests that the amount of litigation actually increased after passage of the Reform Act. As is discussed more fully below, this unexpected result may be explained as a rational portfolio diversification strategy that responds to the risks associated with litigation under the PSLRA. Preliminary analysis of dismissals, sanctions risk, and settlements in post-PSLRA cases tends to support this hypothesis.

A. Sample Selection Methodology

This article employs a sample of 1,449 post-PSLRA securities class actions. The sample includes all identified class actions filed in federal court from January 1, 1996 through December 31, 2001. This database was compiled from three primary sources. First, the sample includes all class actions reported on the Stanford Law School Securities Class Action Clearinghouse (the Clearinghouse). The Clearinghouse provides detailed information on federal class action filings since passage of the PSLRA. Second, data from the Clearinghouse was supplemented through Westlaw and Lexis searches of notices of class action filings required under the PSLRA’s lead plaintiff provisions. These notices are generally disseminated through a variety of wire services. Third, the

97. See infra notes 104-09 and accompanying text.
99. The author was formerly a Lecturer and Co-Director of the Law and Business Program at Stanford Law School and helped develop the Clearinghouse.
101. See PERINO, supra note 1, § 2.03, at 2028.
paper relies on *Securities Class Action Alert* (SCAA), a comprehensive newsletter that reports class action filings and settlements. A number of scholars have relied on SCAA to compile data on securities class actions.\(^{102}\)

**B. Class Action Filings After the PSLRA**

We can begin simply by looking at the number of issuers sued per year before and after passage of the PSLRA. As the data in Table 1 demonstrate, there has actually been an increase in the number of issuers from a mean (median) of 183.4 (178) issuers sued per year in the five years immediately preceding passage of the PSLRA to a mean (median) of 241.5 (210.5) in the first six years since passage of the Act. Thus, the six years after passage of the PSLRA have seen a 32% (18%) increase in mean (median) number of issuers sued per year. There is a large year-to-year variation in the number of issuers sued, which means that the difference in pre- and post-PSLRA means is not statistically significant.\(^{103}\) In other words, looking solely at mean filings, there is insufficient evidence to conclude that the PSLRA affected the total number of issuers sued per year.

**TABLE 1**

**ISSUERS SUED IN SECURITIES FRAUD CLASS ACTIONS (1991–2001)**\(^{104}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Issuers Sued</th>
<th>Total NASDAQ Traded Issuers</th>
<th>NYSE Common Issuers</th>
<th>AMEX Issuers</th>
<th>Total Publicly Traded Issuers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>157</td>
<td>4094</td>
<td>1860</td>
<td>860</td>
<td>6814</td>
</tr>
<tr>
<td>1992</td>
<td>195</td>
<td>4113</td>
<td>2068</td>
<td>814</td>
<td>6995</td>
</tr>
<tr>
<td>1993</td>
<td>160</td>
<td>4611</td>
<td>2331</td>
<td>869</td>
<td>7811</td>
</tr>
<tr>
<td>1994</td>
<td>227</td>
<td>4902</td>
<td>2501</td>
<td>824</td>
<td>8227</td>
</tr>
</tbody>
</table>

(Continued on next page)


103. \(P(T<=t)\) one-tail = 0.176.

TABLE 1—Continued

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Issuers Sued</th>
<th>Total NASDAQ Traded Issuers</th>
<th>NYSE Common Issuers</th>
<th>AMEX Issuers</th>
<th>Total Publicly Traded Issuers</th>
<th>Issuers Sued per 100 Publicly Traded Issuers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>178</td>
<td>5122</td>
<td>2590</td>
<td>791</td>
<td>8503</td>
<td>2.09</td>
</tr>
<tr>
<td>1996</td>
<td>114</td>
<td>5556</td>
<td>2769</td>
<td>751</td>
<td>9076</td>
<td>1.26</td>
</tr>
<tr>
<td>1996 (adj.)</td>
<td>154</td>
<td>5556</td>
<td>2769</td>
<td>751</td>
<td>9076</td>
<td>1.70</td>
</tr>
<tr>
<td>1997</td>
<td>181</td>
<td>5487</td>
<td>2870</td>
<td>771</td>
<td>9128</td>
<td>1.98</td>
</tr>
<tr>
<td>1997 (adj.)</td>
<td>195</td>
<td>5487</td>
<td>2870</td>
<td>771</td>
<td>9128</td>
<td>2.14</td>
</tr>
<tr>
<td>1998</td>
<td>246</td>
<td>5068</td>
<td>2901</td>
<td>770</td>
<td>8739</td>
<td>2.81</td>
</tr>
<tr>
<td>1999</td>
<td>219</td>
<td>4829</td>
<td>2818</td>
<td>769</td>
<td>8416</td>
<td>2.60</td>
</tr>
<tr>
<td>2000</td>
<td>202</td>
<td>4734</td>
<td>2634</td>
<td>765</td>
<td>8133</td>
<td>2.48</td>
</tr>
<tr>
<td>2001</td>
<td>487</td>
<td>4152</td>
<td>2567</td>
<td>690</td>
<td>7409</td>
<td>6.57</td>
</tr>
<tr>
<td>2001 (adj.)</td>
<td>347</td>
<td>4152</td>
<td>2567</td>
<td>690</td>
<td>7409</td>
<td>4.68</td>
</tr>
<tr>
<td>Post-PSLRA</td>
<td>Total</td>
<td>1449</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-PSLRA</td>
<td>Mean</td>
<td>183.40</td>
<td>4568.40</td>
<td>2270.00</td>
<td>831.60</td>
<td>7670.00</td>
</tr>
<tr>
<td>Median</td>
<td>Post-PSLRA</td>
<td>178.00</td>
<td>4611.00</td>
<td>2331.00</td>
<td>824.00</td>
<td>7811.00</td>
</tr>
<tr>
<td>Mean</td>
<td>Post-PSLRA</td>
<td>241.50</td>
<td>4971.00</td>
<td>2759.83</td>
<td>752.67</td>
<td>8483.50</td>
</tr>
<tr>
<td>Median</td>
<td>Post-PSLRA</td>
<td>210.50</td>
<td>4948.50</td>
<td>2793.50</td>
<td>767.00</td>
<td>8577.50</td>
</tr>
<tr>
<td>Adjusted Mean</td>
<td>Post-PSLRA</td>
<td>227.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Median</td>
<td>Post-PSLRA</td>
<td>210.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These observations, however, do not tell us very much about the PSLRA's impact on class action filings. It is difficult to provide a straight comparison between pre- and post-Reform Act litigation because two phenomena affected the total number of issuers sued in the post-PSLRA period that did not exist in the pre-PSLRA period. First, there was a marked decline in federal filings in 1996, the first year of litigation under the PSLRA. That figure is misleading because a significant number of actions shifted from federal to state court in 1996.105 State filings were also somewhat of a factor in 1997.106 Arguably, then, a more meaningful

106. Id.
comparison of pre- and post-PSLRA litigation would include issuers sued solely in state court in those years.

Second, the dramatic increase in litigation in 2001 reflects the current spate of initial public offering (IPO) allocation litigation. In those cases, virtually every issuer that went public at the end of the Internet offering boom has been sued, along with the underwriters of those offerings.107 The allegations in the allocation cases are markedly different from the traditional securities fraud class actions. In essence, those cases allege a failure to disclose adequately a number of practices related to the IPO process itself, rather than misrepresentation or omissions with respect to the issuer.108 Again, to compare meaningfully pre- and post-Reform Act litigation, it is necessary to adjust the number of issuers sued in 2001 to omit cases that allege purely IPO allocation issues.

The data in Table 1 reflects these adjustments. The adjusted mean (median) number of issuers in the post-PSLRA period is 227.17 (210.5), which represents a 24% (18%) increase over the pre-PSLRA period. The mean adjusted increase in post-PSLRA issuers sued is statistically significant at approximately the 10% level.109 In other words, these data suggest that passage of the PSLRA is correlated with an increase in the number of issuers sued, precisely the opposite of what Congress intended.

Of course, that does not mean that the PSLRA caused this increase. Factors unrelated to the PSLRA may be affecting this figure. Some scholars have suggested that the greater likelihood of successfully defending against a class action suit may result in more fraudulent activity and therefore more litigation.110 There were more publicly traded companies in the post-PSLRA study period than in the early 1990s and thus more potential targets for litigation. Assuming plaintiffs’ law firms do not have capacity constraints, an increase in potential targets would suggest an overall increase in securities litigation. In addition, past studies...
have suggested that the number of securities class action filings in a year is a function of general market conditions, but which would have to be considered in comparing pre- and post-PSLRA filings. Finally, we may simply have more complete data on annual class action filings since passage of the PSLRA because the Act's notice requirement made filings easier to track.

While it is difficult to assess the claim that there is more fraud now than there was prior to the PSLRA, the other explanations for the apparent increase in filings appear to be inadequate. For example, while it is certainly easier to track litigation after the PSLRA, there is no evidence suggesting that studies of pre-Act litigation significantly undercounted class action activity.

To assess the claim that the increase in the number of publicly traded issuers explains the increase in class action filings, Figure 1 presents data on the total number of publicly traded issuers in the period from 1991-2001. Publicly traded issuers are all issuers that trade on NASDAQ and AMEX, as well as all common stock issuers that trade on the NYSE. As Figure 1 illustrates, the number of publicly traded issuers peaked in 1997 and thereafter returned to approximately 1994-1995 levels. Overall, the mean (median) number of publicly traded issuers increased 11% (10%) in the post-PSLRA period, while the adjusted mean (median) number of issuers sued post-PSLRA rose 24% (18%). In other words, the increase in publicly traded issuers does not appear to explain all of the increase in class action filings.

111. Martin et al., supra note 104, at 153.
112. See supra note 55 and accompanying text. In addition, other sources, like the Clearinghouse, now contain comprehensive data on class action filings and complaints and thus tend to make this litigation more transparent.
113. This subset of NYSE issuers is selected because the vast majority of securities class actions involve equity securities. Issuer data is from The NASDAQ STOCK MARKET FACT BOOKS & COMPANY DIRECTORY (1991-1999), the Nasdaq web site which is available at http://www.marketdata.nasdaq.com/mr_module_menu.asp (last visited Dec. 2, 2002), and the NEW YORK STOCK EXCHANGE FACT BOOKS (1991-1999).
Table 1 also calculates an annual securities class action rate for both before and after the PSLRA by looking at the number of lawsuits per 100 publicly traded issuers. These data demonstrate that in the pre-PSLRA period, the mean (median) number of issuers sued per 100 issuers was 2.4 (2.3). After passage of the PSLRA, the rate of litigation among all publicly traded issuers increases to a mean (median) of 2.95 (2.54).\textsuperscript{114} The differences in means in the pre- and post-PSLRA periods are statistically insignificant, meaning that there is insufficient evidence to conclude that the Reform Act affected the rate of litigation against publicly traded issuers.\textsuperscript{115}

With respect to overall market conditions, studies have demonstrated that more securities class actions are filed in the months following market declines than in the months following market increases, a pattern

\textsuperscript{114} Using the adjusted means and medians previously discussed, see supra note 110 and accompanying text, the mean (median) in the post-PSLRA period is 2.74 (2.54) issuers sued per 100 publicly traded issuers.

\textsuperscript{115} These figures likely understate the risk of being a defendant in a class action because not all publicly traded issuers are equally likely to be sued. Class actions demonstrate a threshold effect—issuers must achieve a certain size in order to make a class action economically viable for the plaintiff's attorney. See Bohn & Choi, supra note 2, at 935–97. In their study of IPO securities litigation, Professors Bohn and Choi found that smaller offerings were virtually never subject to securities fraud class actions. They report that the relationship between size and suit incidence is statistically significant at the 0.5% confidence level. Id. at 936.
that has been unaffected by passage of the Reform Act. Taking broader market performance into consideration, one study by the National Economics Research Associates (NERA) found that market-adjusted filings increased 61% for the period from 1996 through the first half of 1999. Similarly, a recent study by Cornerstone Research noted that from 2000 to 2001, litigation (excluding IPO allocation cases) increased 60% even though both years saw very similar negative returns to the Wilshire 5000 index. These findings suggest that market factors do not explain all of the increase in litigation following the Reform Act.

C. What Explains the Amount of Post-Reform Act Litigation?

An increase in litigation is consistent with the theory that fraudulent activity may increase following passage of the PSLRA. There is certainly anecdotal evidence to support this view. There have been a number of recent high-profile scandals in the securities markets, the most prominent involving Enron. The SEC and many commentators have expressed concern about the increasing prevalence of financial statement fraud as issuers face substantial market pressure to meet analysts' earnings forecasts. The last few years have seen a substantial increase in accounting restatements. It is certainly possible that if managers perceive a lower litigation risk, they may be more willing to engage in questionable accounting practices. Auditors may have been more

117. Id.
119. See supra note 110 and accompanying text.
122. See, e.g., Karl Schoenberger, When the Numbers Just Don't Add Up, N.Y. Times, Aug. 19, 2001, § 3, at 3.
124. See Mark S. Beasley et al., Preventing Fraudulent Financial Reporting, 70 CPA J. 14, 20-21 (2000); Donald C. Langevoort, Deconstructing Section 11: Public Offering Liability in a Continuous Disclosure Environment, 63 Law & Contemp. Probs., 45, 55 (2000). There may be other explanations for an increase in accounting fraud. For example, Professors Gerety and Lehn link the prevalence of accounting fraud with the difficulty the market has in valuing assets. They speculate that this is because valuation difficulties will make it less likely that accounting fraud will be detected. Mason Gerety & Kenneth Lehn, The Causes and Consequences of Accounting Fraud, 18 Managerial &
willing to sign off on questionable accounting practices because they too face a lower risk of litigation after passage of the PSLRA and as a result of the Supreme Court's 1994 decision to eliminate aiding and abetting as a viable cause of action under Rule 10b-5.\(^{125}\)

An increase in fraudulent activity, however, is not the only explanation for an increase in class actions filings. Indeed, it is possible for the level of fraud to remain constant at the same time that filings increase. Such an equilibrium is possible if the Reform Act made securities litigation riskier by increasing the number of actions dismissed in pretrial proceedings. At the same time, however, the Act may also have decreased the fixed costs to the plaintiff's law firm for each case at least in part because the Act stays discovery while a motion to dismiss is pending.\(^{126}\) In such a structure, it may make sense for plaintiffs' law firms that have invested significant sums to develop expertise in bringing securities class actions to develop strategies that respond to these new market conditions.

One such strategy might be to bring more rather than fewer actions and then to make smaller investments in each. This strategy may be rational if the expected costs of filing and litigation are less than the cost of doing additional prefiling investigation to determine the merits of the suit.\(^{127}\) One important factor in that calculus is whether attorneys face little downside risk from dismissals because courts rarely impose sanctions under Rule 11 of the Federal Rules of Civil Procedure.\(^{128}\) In addition, if other market factors unrelated to passage of the PSLRA have made cases more valuable, then attorneys will continue to have incentives to


\(^{126}\) These cost savings may be somewhat offset to the extent that the heightened pleading standard has caused plaintiffs' law firms to engage in more extensive prefiling investigation. It is not clear how expensive or extensive these investigative efforts are after the PSLRA. See infra Part V. Moreover, advances in information technology and correlative decreases in costs of obtaining the information necessary to draft a complaint may also have reduced the cost of initiating a class action.

\(^{127}\) Bone, supra note 2, at 561–62.

\(^{128}\) FED. R. CIV. P. 11(c).
take on the risks associated with securities class actions even if those risks increased after the Act.

In other words, plaintiffs' attorneys may simply seek greater portfolio diversification. Such diversification was an important economic strategy for plaintiffs' lawyers before the PSLRA, and there is nothing in the Act to eliminate its viability. To be sure, filing more cases does not create optimal diversification because attorneys will face the same risk associated with the Reform Act in each case. Nonetheless, by suing multiple issuers in multiple circuits, plaintiffs' attorneys can diversify against the risks associated with inconsistent interpretation or application of the pleading standard. Consequently, although unexpected, a strategic shift toward more frequent filings may make perfect sense for a rational, entrepreneurial plaintiffs' lawyer.

There is some (although certainly not conclusive) evidence to support the existence of such an equilibrium. First, on the risk side of the equation there is evidence suggesting that there has been an increase in the dismissal rate following passage of the PSLRA. In the earliest study of dismissal rates, David Levine and Adam Pritchard found that 60% of a sample of decisions on motions to dismiss granted dismissal in some form. A later study by Professors Grundfest and Pritchard of 167 decisions on motions to dismiss found that 65.9% were granted in some form, although only 18% of the sample dismissed the case in its entirety with prejudice. By comparison, pre-PSLRA studies found dismissal rates between 24% and 40%.

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129. RICHARD A. BREALEY & STEWART C. MYERS, PRINCIPLES OF CORPORATE FINANCE 153-56 (5th ed. 1996). This is, of course, another reason why plaintiffs' attorneys increased filings in state court immediately after passage of the PSLRA. See Perino, supra note 16, at 302 (documenting the post-PSLRA shift to state court). Because the PSLRA consists largely of procedural reforms that would apply only in federal court, attorneys were able to eliminate this aspect of their legal risk with a state court filing.

130. See Johnson et al., supra note 102, at 782 (noting that "[a]n uncertain standard for liability therefore makes filing a diverse portfolio of cases a reasonable strategy for plaintiffs' lawyers"); Yablon, supra note 31, at 74-75. To more fully diversify, traditional securities class action firms also have an incentive to diversify into other practice areas, such as employment discrimination or products liability. There is some anecdotal evidence that this kind of practice diversification is occurring. For example, the web site of Milberg, Weiss, Bershad, Hynes & Lerach, undoubtedly the leading securities class action firm in the country, lists the firm's primary areas of expertise as "federal and state securities, insurance, antitrust and consumer litigation." See Milberg, Weiss, Bershad, Hynes & Lerach, Practice Areas, available at http://www.milberg.com/mil-cgi-bin/mil?templ=practice-areas.html (last visited Dec. 1, 2001).

131. Professor Coffee has suggested the possibility of such an increase in derivative actions following the adoption of more rigorous procedural requirements for those actions, including the greater use of special litigation committees. See Coffee, supra note 20, at 722-23.

132. David M. Levine & Adam C. Pritchard, The Securities Litigation Uniform Standards Act of 1998: The Sun Sets on California's Blue Sky Laws, 54 BUS. LAW. 1, 39-41 (1998). In the sample, 15% of the motions to dismiss were granted with prejudice, 34% were granted with leave to amend, and 11% were granted in part. Id. at 41.

133. See Grundfest & Pritchard, supra note 74, at 692.

134. Levine & Pritchard, supra note 132, at 40 (citing congressional testimony of Professor Joel Seligman, University of Michigan Law School).
Despite this apparent increase in dismissals, attorneys still do not appear to face a substantial sanctions risk. The PSLRA requires courts, upon final adjudication, to include in the record specific findings regarding each party's and each attorney's compliance with Rule 11. This provision does not appear to have changed courts' reluctance to impose Rule 11 sanctions, and relatively small sanctions have been imposed in only a handful of reported cases. Consequently, other than the opportunity and other costs associated with pursuing the case through a pre-trial dismissal, it appears that attorneys do not face significant downside risks in filing marginal or nonmeritorious securities class actions.

Certain market characteristics suggest that post-Reform Act cases may generate higher damages than pre-Reform Act cases. Accordingly, these cases will tend to be more valuable for the plaintiff's attorney and may well justify any increased risk of dismissal. In a typical after-market case, the amount of inflation in the stock price that the misrepresentation or omission caused and the number of shares that traded at the affected price largely determine the available damages. Determining the amount of damages in a given case requires a sophisticated econometric analysis. Often plaintiff's and defendant's experts will employ vastly different assumptions in their models, which tend to yield enormous differences in calculated damages. As a result, it is difficult to conclude categorically that damages in post-PSLRA cases are higher than the damages in pre-PSLRA cases.

Nonetheless, certain market characteristics suggest the possibility that post-Reform Act cases may indeed be more valuable for plaintiffs' attorneys. For example, average annual share volume on the NASDAQ grew from 60.8 billion shares in the pre-PSLRA study period to 281.7 billion shares after passage of the PSLRA. All other things being equal,

136. See PERINO, supra note 1, § 7.01, at 7001–16 (collecting and analyzing sanctions cases under the PSLRA).
137. See, e.g., Green v. Occidental Petroleum Corp., 541 F.2d 1335, 1342-46 (9th Cir. 1976) (per curiam) (Sneed, J., concurring in part).
140. This figure was calculated using data obtained from the NASDAQ STOCK MARKET FACT BOOKS & COMPANY DIRECTORY (1992-1999) and from the Nasdaq Market data web site, available at http://www.marketdata.nasdaq.com/mr_module_menu.asp (last visited Dec. 2, 2002).
the greater number of shares trading means more shares will trade during a given class period at an affected price. That will of course tend to yield more damages. It also appears that market volatility was significantly greater in the late-1990s to early-2000s than it was in the early to mid-1990s.\textsuperscript{141} Now, when a company announces bad news, there tends to be a much greater and swifter decline in the issuer's stock price. Such declines may yield a greater inflation figure and therefore more damages.

It is possible that the PSLRA may reduce available damages in some cases because it contains a damages limitations provision. That provision reflects Congress's concern that market losses in the typical securities fraud case might well exceed losses due to any fraudulent activity and that pre-Reform Act damage calculation methods failed to adequately take these differences into account.\textsuperscript{142} As a result, Congress saw a danger of overestimating plaintiff's damages.\textsuperscript{143} The PSLRA limits so-called windfall damages by reducing plaintiff's recovery to the extent that there is an increase in the mean price of the subject security during the ninety days after the end of the class period.\textsuperscript{144} There is no evidence, however, that the limitations provision has decreased damages in post-PSLRA cases in any meaningful way.\textsuperscript{145}

Looking at settlements involving post-PSLRA cases bolsters these conclusions with respect to case value. The data on settlements suggests that settlement amounts may be increasing. According to a 1999 study, the average settlement size for the period from January 1997 through June 1999 was $8.60 million, only slightly higher than the $8.18 million average for the period 1991 through 1996.\textsuperscript{146} Median settlements for the two periods were $4.13 million and $4.53 million, respectively.\textsuperscript{147} Bajaj, Mazumdar and Sarin report mean (median) settlements for the period 1996 through 1999 as $18.09 million ($4.25 million).\textsuperscript{148} Both studies, however, categorize settlements by calendar year, not by the date filed and thus include cases in which the PSLRA does not apply. Neither is therefore a completely reliable benchmark for whether settlements in post-PSLRA litigation have increased.

\begin{itemize}
\item \textsuperscript{141} Steven J. Cochran & Iqbal Mansur, Stock Market Volatility, J. FIN. SERVICE PROF., Jan. 2002, at 82–87 (finding that "volatility in the early to mid-1990s was below historical levels while volatility increased substantially during the January 1998-June 2001 period").
\item \textsuperscript{142} HOUSE CONF. REPORT, supra note 24, at 42.
\item \textsuperscript{143} Id.
\item \textsuperscript{144} 15 U.S.C. § 78u-4(e) (2000).
\item \textsuperscript{145} PERINO, supra note 1, § 6.01, at 6011–17 (finding no cases reducing recoverable damages under this provision); see WILLIAM H. BEAVER ET AL., CORNERSTONE RESEARCH, SECURITIES REFORM: IMPLICATIONS FOR DAMAGES 2 (1996), available at http://www.cornerstone.com/pdfs/sec_ref.pdf (finding that price recoveries after filing of securities class action tend to be small and generally occur within hours or days of suit).
\item \textsuperscript{146} Martin et al., supra note 104, at 159.
\item \textsuperscript{147} Id.
\end{itemize}
By contrast, Cornerstone Research compared pre-PSLRA filed cases with post-PSLRA cases settled through June 30, 1999, and found that mean (median) settlement amounts increased from $7.8 million ($4.0 million) to $9.8 million ($6.6 million). The distribution of settlement amounts, however, was similar, with the highest percentage of settlements in both periods in the $1 million to $5 million range. The Cornerstone study also does not provide a complete picture of post-PSLRA settlements for two reasons. First, it looks at a somewhat unrepresentative sample of cases that settled relatively quickly after being filed. The average settlements in those cases are typically smaller, in part because there is likely a greater percentage of weaker cases that defendants settle for nominal amounts to avoid litigation costs. Second, the Cornerstone sample does not account for a number of recent enormous settlements in post-PSLRA cases.

Table 2 reports more recent settlement data than other studies and, unlike the Bajaj, Mazumdar and Sarin study, only reports settlement data for post-PSLRA settlements. The settlements included in Table 2 were reported in SCAA from January 2001 through January 2002. The mean (median) settlement amount for the 144 settled cases was $18,605,923 ($5,750,000). Thus, mean settlement amount for this time period in post-PSLRA cases was similar to that found by Bajaj, Mazumdar and Sarin.

| TABLE 2 |
| SETTLEMENTS IN POST-PSLRA CASES (JAN. 2001–JAN. 2002) |
| Mean | $18,605,922.69 |
| Trim Mean (10%) | $12,347,880.05 |
| Median | $5,750,000.00 |
| Standard Deviation | $35,849,756.17 |
| Count | 144 |

150. Id.
151. Bajaj, Mazumdar, and Sarin suggest that settlement amounts tend to increase the as the time between filing and settlement increases. BAJAJ ET AL., supra note 148, at 6. A recent follow-up study by Cornerstone finds mean and median post-PSLRA settlements in 207 class actions settled through 2000 to be $29.0 million ($5.7 million). For 2001, Cornerstone reports mean and median figures of $16 million ($5.3 million) for 96 settled cases. See CORNERSTONE RESEARCH, POST-REFORM ACT SECURITIES CASE SETTLEMENTS 2001: A YEAR IN REVIEW 2 (2002).
This evidence suggests the possibility of an increase in post-PSLRA settlements. Again, that does not mean that the PSLRA caused an increase in settlement size. As discussed, many market characteristics might cause settlements to increase independent of the Reform Act.\textsuperscript{153} But causation is largely irrelevant to the portfolio diversification model. The point is that if case values increase enough, then attorneys will still have incentives to undertake the risk of litigation under the PSLRA.

Along with those large settlements, of course, there have been equally large fee awards.\textsuperscript{154} Those fees may not be as predictable or as large on a percentage basis as pre-PSLRA fee awards, given the increasing efforts of institutional investors to negotiate lower fees\textsuperscript{155} and the courts' increasing use of auctions.\textsuperscript{156} Nonetheless, the data on post-PSLRA market characteristics, settlements, and fee awards suggest that plaintiffs' attorneys still have significant incentives to file securities fraud cases.\textsuperscript{157}

More research is clearly needed. Several more years of data will provide additional evidence concerning whether annual litigation rates have in fact increased following passage of the PSLRA. During that same time period, we are also likely to have a better sense of the PSLRA's affect on settlement values and dismissal rates. To date, however, the evidence suggests that securities class actions are at least as frequent following passage of the PSLRA as they were before if not more.

\textsuperscript{153} It is interesting to note, however, that game theoretical models of litigation suggest that settlements after the PSRLA should, at last in some cases, better reflect the underlying merits of the case. See James A. Holloway et al., An Analysis of Settlement and Merit Under Federal Securities Law: What Will the Effect of the Reform of 1995?, 18 J. ACCT. & PUB. POL'Y 1, 21-26 (1999). If future studies that control for differences in market characteristics find that settlement size has increased, then this would be evidence that the PSLRA has reduced the incidence of nonmeritorious class actions.

\textsuperscript{154} See, e.g., Cendant, 264 F.3d at 221 (vacating lower court approval of $262 million fee award, but finding that the fee award under the retainer agreement negotiated with lead plaintiff could result in a fee as high as $187 million).


\textsuperscript{156} See, e.g., Cendant, 264 F.3d at 220 (suggesting limited circumstances under which the PSLRA permits court to auction lead counsel position); Armour v. Network Associs., Inc., [2001 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 91,474, at 96,843 (N.D. Cal. June 4, 2001); In re Quintus Sec. Litig., 201 F.R.D. 475, 483-86 (N.D. Cal. 2001); In re Bank One S'holders Class Actions, 96 F. Supp. 2d 780, 784-85 (N.D. Ill. 2000).

\textsuperscript{157} Additional evidence of how profitable securities class actions can be comes from the recent trial involving Milberg, Weiss, Bershad, Hynes & Lerach and Lexecon, Inc., in which Milberg settled a wrongful prosecution case for $50 million. The jury awarded Lexecon $45 million in compensatory damages and was to determine punitive damages when the case settled. Evidence at trial indicated that Milberg had earned over $500 million in fees between 1988 and 1998 and that the annual compensation for its two leading partners was as high as $16 million each. See Richard B. Schmitt, Plaintiffs' Lawyer Lerach and Firm Ordered to Pay $45 Million in Damages, WALL ST. J., Apr. 13, 1999, at B23.
frequent. Whether this apparent increase is due to an increased level of fraud, an increase in filings in response to the increase in risk plaintiffs' attorneys face, or both remains unanswered.

IV. THE GEOGRAPHIC DISTRIBUTION OF CLASS ACTION FILINGS

While there is little evidence that the PSLRA's heightened pleading standard reduced the overall incidence of securities class actions, rigorous interpretation of the pleading standard is strongly correlated with reduced class action filings. Since the passage of the PSLRA, there has been a statistically significant decrease in litigation commenced in the Ninth Circuit, which adopted the most rigorous version of the pleading standard in the *Silicon Graphics* decision.\(^\text{158}\) This shift in litigation away from the Ninth Circuit can be seen as a rational response to higher risks within one segment of the securities class action market, and is consistent with the initial shift of litigation from federal to state court after the passage of the PSLRA.\(^\text{159}\) An examination of actions filed inside and outside the Ninth Circuit suggests that rigorous interpretation of the heightened pleading standard has a positive effect on case quality.

A. Where Are Class Actions Filed After the PSLRA?

Table 3 reports the number of issuers sued in each circuit from 1996 through 2000. Table 3 omits data on class actions filed in 2001 to reduce the possibility that the IPO allocation cases\(^\text{160}\) skew the results of the geographic analysis. Virtually all of the IPO allocation cases have been filed in the Second Circuit. It is unclear, however, whether the Second Circuit's interpretation of the pleading standard played an important role in centering this litigation in the Southern District of New York. The Second Circuit follows the least restrictive interpretation of the PSLRA pleading standard.\(^\text{161}\) The complaints in these cases tend to allege violations of Rule 10b-5, which are governed by the PSLRA's strong inference standard. But the complaints are also based on alleged violations of Sections 11 and 12 of the Securities Act, which are not subject to the heightened pleading standard.\(^\text{162}\) The underwriter defendants in the cases are primarily located in New York. Historically, New York courts

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158. See *In re Silicon Graphics Inc. Sec. Litig.*, 183 F.3d 970, 974 (9th Cir. 1999); see *supra* notes 78–79 and accompanying text (discussing the heightened Ninth Circuit standard).

159. See *Perino*, *supra* note 16.

160. See *Hamblett*, *supra* note 107; *Hoppin & Rovella*, *supra* note 107; *Clearinghouse*, *supra* note 98.

161. See *In re Scholastic Corp. Sec. Litig.*, 252 F.3d 63 (2d Cir. 2001); *Novak v. Kosaks*, 216 F.3d 300 (2d Cir. 2000).

162. See *In re S. Pac. Funding Corp. Sec. Litig.*, 83 F. Supp. 2d 1172, 1175 (D. Or. 1999). Arguably, the strong inference standard may still apply to these claims. A number of courts apply Rule 9(b) to Securities Act claims if they are "grounded in fraud." *See In re Stac Electronics Sec. Litig.*, 89 F.3d 1399, 1405 (9th Cir. 1996).
tend to have a larger share of cases involving the financial services industry. New York thus represents the most logical centralized forum for these cases, given that the issuer defendants are located across the country.\textsuperscript{163} Rather than attempting to adjust for these variables, this portion of the analysis excludes cases filed in 2001.

### Table 3
**ISSUERS SUED BY CIRCUIT (1996–2000)**\textsuperscript{164}

#### A. Total Issuers Sued by Circuit per Year

<table>
<thead>
<tr>
<th>Year</th>
<th>1st</th>
<th>2d</th>
<th>3d</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>DC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>10</td>
<td>19</td>
<td>14</td>
<td>2</td>
<td>8</td>
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<td>3</td>
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<td>5</td>
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<td>9</td>
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<td>10</td>
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<td>9</td>
<td>68</td>
<td>8</td>
<td>27</td>
<td>3</td>
<td>279</td>
</tr>
<tr>
<td>1999</td>
<td>14</td>
<td>37</td>
<td>22</td>
<td>12</td>
<td>27</td>
<td>13</td>
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<td>3</td>
<td>8</td>
<td>28</td>
<td>1</td>
<td>204</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### B. Percentage of Issuers Sued by Circuit per Year

<table>
<thead>
<tr>
<th>Year</th>
<th>1st</th>
<th>2d</th>
<th>3d</th>
<th>4th</th>
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<th>6th</th>
<th>7th</th>
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<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>DC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>8.62</td>
<td>16.38</td>
<td>12.07</td>
<td>1.72</td>
<td>6.90</td>
<td>3.45</td>
<td>2.59</td>
<td>2.59</td>
<td>28.45</td>
<td>4.31</td>
<td>12.93</td>
<td>0.00</td>
<td>100.00</td>
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<tr>
<td>1997</td>
<td>4.59</td>
<td>18.37</td>
<td>6.63</td>
<td>1.02</td>
<td>4.59</td>
<td>2.55</td>
<td>6.12</td>
<td>5.10</td>
<td>35.71</td>
<td>2.55</td>
<td>11.73</td>
<td>1.02</td>
<td>100.00</td>
</tr>
<tr>
<td>1998</td>
<td>5.38</td>
<td>24.73</td>
<td>8.24</td>
<td>2.87</td>
<td>9.22</td>
<td>5.02</td>
<td>3.23</td>
<td>3.23</td>
<td>24.37</td>
<td>2.87</td>
<td>9.88</td>
<td>1.08</td>
<td>100.00</td>
</tr>
<tr>
<td>1999</td>
<td>5.79</td>
<td>15.29</td>
<td>9.09</td>
<td>4.96</td>
<td>11.16</td>
<td>5.37</td>
<td>4.96</td>
<td>2.89</td>
<td>24.79</td>
<td>4.13</td>
<td>11.16</td>
<td>0.41</td>
<td>100.00</td>
</tr>
<tr>
<td>2000</td>
<td>5.88</td>
<td>20.10</td>
<td>9.80</td>
<td>5.39</td>
<td>6.37</td>
<td>5.88</td>
<td>5.88</td>
<td>1.47</td>
<td>21.08</td>
<td>3.92</td>
<td>13.73</td>
<td>0.49</td>
<td>100.00</td>
</tr>
</tbody>
</table>

| Total | 5.79 | 19.48| 8.87 | 3.38| 8.00| 4.63| 4.63| 3.09| 26.42| 3.47| 11.57| 0.68| 100.00 |

Excluding 2001, only two circuits, the Fourth and the Ninth, have seen statistically significant changes in the annual proportions of issuers sued in the circuit. The Fourth Circuit's percentage rose from 1.72% and

\textsuperscript{163} In examining overall class action filings, this article considered raw 2001 filings and an adjusted filing figure that eliminated actions with only IPO allocation allegations. See supra Part III. Even this adjusted figure, however, may introduce confounding variables into analyzing geographic distribution because many of the cases containing both IPO allocation allegations and nonallocation allegations were filed in the Second Circuit. See Securities Class Action Clearinghouse, 2001 Other IPO Allegations, available at http://securities.stanford.edu/IPO_Cases/others_IPO.html (last visited Dec. 1, 2002).

\textsuperscript{164} Table 3 reports the number and percentage of issuers sued per year in each circuit for the period January 1, 1996 through December 31, 2000. Issuers sued in multiple circuits in the same year are included in all circuits. Probabilities are chi-square tests comparing the proportion of issuers sued within a circuit over the study period. Significant results are in bold.
1.02% of total issuers sued in 1996 and 1997, respectively, to 4.96% and 5.39% of filings in 1999 and 2000, respectively. The relative infrequency of class action litigation in the Fourth Circuit means we must interpret this increase with caution. Nevertheless, it seems clear that to the extent this is a real increase in the incidence of litigation, it is not the result of a change in pleading standard in the Fourth Circuit. During the study period, the Fourth Circuit did not adopt a particular interpretation of the pleading standard, although district courts within the circuit applied either the Second Circuit or the intermediate standard.

A possible explanation for the observed growth in securities class action activity in the Fourth Circuit may be the growth of the high technology industry in the Circuit, although additional research is necessary to confirm this association. The high technology industry in Maryland and Virginia appears to have expanded significantly in the mid- to late-1990s. These states also ranked high in IPO funds raised, much of which went to high technology start-ups. This explanation is also consistent with the findings on high technology litigation risk.

Over the studied period, there has been a decrease in the proportion of issuers sued in the Ninth Circuit. In the first year under the PSLRA, 28.45% of the issuers sued were sued in the Ninth Circuit. That percentage rose to 35.71% in 1997. From there it dropped below 25% in 1998 and 1999 and settled at nearly 21% in 2000. Changes in the high technology market do not seem to explain the decrease in litigation in the Ninth Circuit. California, the home of Silicon Valley, had a booming high technology market throughout the late 1990s and into 2000. California accounted for by far the largest number of IPOs during this time period, many of which were in high technology.

Still, there is one obvious difficulty in linking the decline in class action filings with the Ninth Circuit’s adoption of the Silicon Graphics standard. Figure 2 shows Ninth Circuit filings as a percentage of all filings over six month periods. There is a great deal of variation among

166. See PERINO, supra note 1, §§ 3.01 D.2 & .4.
168. See id. at 3-21, 3-47 (noting that Maryland ranked seventh and Virginia fourteenth nationally in IPO funds raised); SEC. INDUS. ASS'N, 2001 SECURITIES INDUSTRY FACTBOOK 18 (Grace Toto & George Monahan eds., 2001) (noting that Maryland ranked eleventh in 2000 and twelfth in 1999 while Virginia ranked thirteenth in 2000 and ninth in 1999 in IPOs).
169. See OFFICE OF TECH. POLICY, supra note 167, at 2-47, 2-53 (noting that in 1998 California had 54,815 high technology establishments and 8,044 high technology "establishment births," both approximately double the next leading state).
A two-period moving average, however, suggests that the decline in Ninth Circuit filings began before the Ninth Circuit's July 1998 decision in *Silicon Graphics*.

**Figure 2**


Nonetheless, how the Ninth Circuit interpreted the pleading standard may still play a significant role. The Ninth Circuit essentially affirmed the standard the district court had adopted in *Silicon Graphics* in 1996. A number of courts followed the district court's standard even before the Ninth Circuit's decision. Moreover, there is evidence that courts within the Ninth Circuit applied the pleading standard much more rigorously than other courts and accordingly dismissed more cases than courts in other circuits. Even those district courts unwilling to adopt

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173. See *Lerach*, *supra* note 74, at 615–16; Levine & Pritchard, *supra* note 132, at 40. Litigators generally perceive that the Northern District of California issues more defendant-favorable decisions.
the *Silicon Graphics* interpretation of the strong inference portion of the pleading standard seemed willing to construe strictly other aspects of the heightened pleading standard. A number of courts, for example, dismissed cases for failing to satisfy the specificity requirements of the PSLRA. 174 Other cases, including *Silicon Graphics*, rigorously applied the “all facts” portion of the heightened pleading standard. 175

The data in Table 3 demonstrate that through 2000, circuits adopting the least restrictive standards (the Second and Third Circuits) have not seen significant increases in class action filings. 176 Nor do there appear to be real differences in circuits adopting intermediate interpretations of the pleading standard. It is harder, however, to draw firm conclusions with respect to a number of these circuits for two reasons. First, they tend to have lower levels of class action filings than circuits like the Second and Ninth, and thus it is more difficult to demonstrate statistical significance. Second, many adopted an intermediate approach either after 2000 or relatively late in the study period. 177

It may be, however, that the intermediate standards do not involve the same level of risk as the *Silicon Graphics* standard. The Second Circuit and intermediate standards have much in common. For example, only the Ninth Circuit completely rejects the motive and opportunity test for demonstrating a strong inference of scienter. 178 The focal point for all of the decisions adopting an intermediate standard is their limited rejec-

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175. See, e.g., *Silicon Graphics*, 183 F.3d at 974, 983; *Chan*, 1998 WL 1018624, at *11.

176. Obviously, this is not true if one considers the IPO allocation cases filed in the Second Circuit in 2001.

177. See Fla. State Bd. of Admin. v. Green Tree Fin. Corp., 270 F.3d 645 (8th Cir. 2001); Nathenson v. Zonagen, Inc., 267 F.3d 400 (5th Cir. 2001); City of Philadelphia v. Fleming Cos., 264 F.3d 1245 (10th Cir. 2001); Helwig v. Vencor, Inc., 251 F.3d 540 (6th Cir. 2001) (en banc); Greebel v. FTP Software, Inc., 194 F.3d 185 (1st Cir. 1999); Bryant v. Avado Brands, Inc., 187 F.3d 1271 (11th Cir. 1999); *In re Comshare, Inc. Sec. Litig.*, 183 F.3d 542 (6th Cir. 1999).

178. See *Silicon Graphics*, 183 F.3d at 974.
DID THE PSLRA WORK?

The division of the motive and opportunity prong of the Second Circuit standard. These decisions recognize that allegations of motive and opportunity may be sufficient, in particular cases, to create a strong inference that the defendant acted with scienter. It is only "catch-all allegations" of motive and opportunity that are insufficient to satisfy the strong inference standard. That position is, for all practical purposes, identical to that of the Second Circuit and other courts that permit motive and opportunity pleading.

In the circuits where there is as yet no definitive interpretation, there is a great deal of variation among district courts as to the proper interpretation of the heightened pleading standard. Relatively few district courts outside of the Ninth Circuit have adopted the Silicon Graphics standard. Many more have adopted either the Second Circuit standard or some variation of an intermediate standard. For these reasons, there may be less reason for plaintiffs' attorneys to differentiate among the other circuits.

B. Does Interpretation of the Pleading Standard Within a Circuit Affect Case Quality?

That the prevailing pleading standard should drive forum selection is consistent with the entrepreneurial view of plaintiffs' attorneys. Available empirical evidence suggests that the prevailing pleading standard in a circuit has real world consequences for plaintiffs' attorneys. Professors Grundfest and Pritchard have found that courts that adopt more stringent pleading standards are more likely to dismiss cases. As a result, litigation in the Ninth Circuit would, all other things equal, be riskier than litigation in other circuits. It would not be surprising under these

179. See, e.g., City of Philadelphia, 264 F.3d at 1249 (noting that motive and opportunity allegations "may be considered as part of the mix of information that may, in appropriate circumstances, give rise to a strong inference of scienter . . ."); Bryant, 187 F.3d at 1286 (noting that "motive and opportunity are specific kinds of evidence, which along with other evidence might contribute to an inference of recklessness or willfulness"); Comshare, 183 F.3d at 551 (noting that "facts regarding motive and opportunity . . . may, on occasion, rise to the level of creating a strong inference of reckless or knowing conduct . . .").

180. See, e.g., Greebel, 194 F.3d at 197 (quoting In re Advanta Corp. Sec. Litig., 180 F.3d 525, 535 (3d Cir. 1999)).

181. Compare Rothman v. Gregor, 220 F.3d 81, 90 (2d Cir. 2000) (holding that "what is required . . . is not a bare invocation of 'magic words such as 'motive and opportunity', but an allegation of facts showing the type of particular circumstances that our case law has recognized will render motive and opportunity probative of a strong inference of scienter (citations omitted), with Helwig, 251 F.3d at 550 (noting that "[w]hile it is true that motive and opportunity are not substitutes for a showing of recklessness, they can be catalysts to fraud and so serve as external markers to the required state of mind . . . . Accordingly, facts presenting motive and opportunity may be of enough weight to state a claim under the PSLRA, whereas pleading conclusory labels of motive and opportunity will not suffice.").

182. See Perino, supra note 1, §§ 3.01 D.2-.4.

183. See id. § 3.01 D.3.

184. Id. §§ 3.01 D.2 & 4.

185. See Grundfest & Pritchard, supra note 74, at 735.
circumstances for attorneys to develop filing strategies to address that risk. This kind of geographic shift is also consistent with the shift of litigation from federal to state court immediately following passage of the PSLRA. Previous empirical analyses have suggested that the heightened pleading standard affected attorneys' forum choices and drove weaker cases to state court.  

The analysis in this section compares several characteristics in Ninth Circuit cases to cases filed in other circuits. Section B.1 examines the nature of the allegations in the complaint. Section B.2 examines market characteristics of the companies sued.

1. Complaint Characteristics

Not all allegations of fraudulent conduct are equally strong. For example, scholars and courts often consider allegations of accounting misrepresentations or unusual trading by insiders during the class period as generally stronger, all other things being equal, than allegations that a company's forecasts or other predictive statements were fraudulently made. There is empirical research demonstrating that cases involving accounting misrepresentations have a higher settlement value than other securities class actions. Even before passage of the PSLRA, courts had long been critical of complaints based solely on forward-looking statements, often finding that they amounted to little more than "fraud-by-hindsight." These were precisely the kinds of potentially nonmeritorious claims that Congress focused on in passing the PSLRA. Indeed, in addition to the other procedural innovations of the PSLRA, Congress enacted a safe harbor for forward-looking statements because of its concern that the threat of litigation discouraged issuers from disclosing valuable predictive information to the market. As a result, stand-alone allegations of a false predictive statement would generally appear to be the weakest cases.

Previous studies analyzing patterns of allegations in post-PSLRA complaints suggest that the higher pleading standard may have improved overall case quality. For example, one study found a significant increase in the percentage of Rule 10b-5 cases alleging accounting misrepresentations, from 33.9% in the pre-PSLRA period to 67.4% in the first year of

188. See FOSTER ET AL., supra note 116, at 8 (finding that since passage of the PSLRA, cases with accounting misrepresentations settled for 37% more than nonaccounting cases).
litigation under the Act.\textsuperscript{191} Subsequent studies demonstrate that accounting misrepresentation cases remain an important component of post-PSLRA litigation.\textsuperscript{192} The causal relationship between passage of the PSLRA and the incidence of these kinds of claims remains unclear, however, because of the dramatic increase in accounting restatements in the post-PSLRA period.\textsuperscript{193}

Similarly, allegations of trading by insiders were significantly more frequent in cases filed in the first year under the PSLRA (i.e., 56.5% post-PSLRA versus 20.7% pre-PSLRA).\textsuperscript{194} At the same time, complaints based solely on false or misleading forward-looking information, which were a particular concern for Congress, were relatively infrequent in the first year of litigation, appearing in only 6.5% of the cases.\textsuperscript{195}

This article extends these earlier studies by examining intercircuit differences in interpretation of the PSLRA's pleading standard. Table 4 compares the frequency of allegations against issuers sued in the Ninth Circuit after the decision in \textit{Silicon Graphics} with issuers sued in other circuits during the same time period. The focus of this analysis is to assess whether there are objective differences between the two samples that suggest a real difference in case quality.\textsuperscript{196} The Post-SGI Ninth Circuit sample is a random sample of eighty issuers sued in that circuit from July 3, 1998 (the day after the \textit{Silicon Graphics} decision) until June 30, 2001.\textsuperscript{197} The Post-SGI Other Circuits sample includes issuers sued outside the Ninth Circuit during the same time period. To reduce possible confounding variables, the Other Circuits sample was constructed to match, to the extent possible, the industry\textsuperscript{198} and exchange distributions

\textsuperscript{191} See Grundfest & Perino, \textit{Securities Litigation Reform}, supra note 187, at 18 tbl.9. Other studies of post-PSLRA litigation also find an increase in accounting misrepresentation cases, although the numbers vary somewhat from study to study. See Foster et al., supra note 116, at 4 (accounting cases increased from 38% in five years preceding PSLRA to 53% in first four years after PSLRA); SEC Report, supra note 88, at 20 (43% of class actions filed in 1996).

\textsuperscript{192} PriceWaterhouseCoopers LLP, 2000 \textit{Securities Litigation Study} 2 (2001) (finding that accounting cases rose from 45% of all state and federal securities class action filings in 1996 to 53% in 2000).

\textsuperscript{193} See supra note 123 and accompanying text; see also PriceWaterhouseCoopers LLP, supra note 192, at 2 (noting that 35% of accounting cases since 1998 followed an announcement that issuer was restating its financial statements); SEC Report, supra note 88, at 22 (finding that 18% of class actions involve accounting restatements). At least one study suggests, however, that the growth in restatement cases began before passage of the PSLRA. See Foster et al., supra note 116, at 5.

\textsuperscript{194} Grundfest & Perino, \textit{Securities Litigation Reform}, supra note 187, at 18 tbl.9.

\textsuperscript{195} Id.

\textsuperscript{196} Data on allegations were obtained from the PSLRA notices published with respect to the first class action filed against an issuer. These notices typically contain lengthy descriptions of the allegations lodged in the complaint. If the first-published notice contained inadequate information with respect to the complaint's allegations, the second-published notice was also reviewed.

\textsuperscript{197} Data on geographic distribution include only cases filed through December 31, 2000 to reduce the possibility that the IPO allocation cases would introduce confounding variables into the analysis. Actions filed in the first half of 2001 are included here to generate larger samples for statistical analysis. These samples exclude IPO allocation cases.

\textsuperscript{198} The industry categories used in these samples are discussed \textit{infra} in Part V. Both samples contain very similar distributions of three-digit SIC codes, although several issuers included in the
of the Post-SGI Ninth Circuit sample. The descriptive statistics, with respect to industry and exchange for the two samples, are reported in Panel A of Table 8.199

The data in Table 4 demonstrate that the sample of Post-SGI Ninth Circuit class actions has a higher proportion of complaints alleging accounting misrepresentations or insider trading, although these proportions are not significantly different than those in the Post-SGI Other Circuits sample. Cases that combine these allegations, however, are significantly more frequent in the Ninth Circuit.200 Such cases account for 16.25% of the cases filed in the Ninth Circuit, as compared to only 7.5% of the cases in other circuits. This finding is consistent with earlier studies that found that the cases that shifted to state court after passage of the PSLRA had a lower percentage of accounting misrepresentation allegations.201 In other words, in both studies, the forum with the most stringent pleading standard has the highest concentration of what are, at least facially, the strongest cases.

| TABLE 4 |
| ALLEGATIONS IN POST-SGI CLASS ACTIONS202 |

<table>
<thead>
<tr>
<th></th>
<th>Post-SGI Ninth Circuit</th>
<th>Post-SGI Other Circuits</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Misrepresentations</td>
<td>43</td>
<td>37</td>
<td>0.343</td>
</tr>
<tr>
<td>Trading by Insiders</td>
<td>32</td>
<td>24</td>
<td>0.185</td>
</tr>
<tr>
<td>Accounting Misrepresentations &amp; Trading by Insiders</td>
<td>13</td>
<td>6</td>
<td>0.087</td>
</tr>
<tr>
<td>False Forecast</td>
<td>57</td>
<td>53</td>
<td>0.495</td>
</tr>
<tr>
<td>False Forecast Without Accounting or Trading</td>
<td>13</td>
<td>22</td>
<td>0.085</td>
</tr>
</tbody>
</table>

The opposite also appears to be true. False forecasting allegations are about as frequent in both samples. There are, however, a significantly higher proportion of cases that allege only a false predictive statement, with no allegation of trading by insiders or accounting misrepresentations, in the Post-SGI Other Circuits sample. These cases make up 27.5% of the Post-SGI Other Circuits sample, but only 16.25% of the samples were from SIC code groups with relatively few class actions. As a result, it was not possible to obtain a perfect match between the samples with respect to SIC codes.

199. See infra notes 267-70 and accompanying text.
200. Probability for a chi-square goodness of fit test equals 0.087.
202. Table 4 reports the frequency of certain kinds of allegations in a random sample of class action complaints filed in the Ninth Circuit from July 3, 1998 to June 30, 2001 (Post-SGI Ninth Circuit). The table also reports allegations from a sample of class actions from circuits other than the Ninth Circuit matched, to the extent possible, for industry classification and exchange from July 3, 1998 to June 30, 2001 (Post-SGI Other Circuits). Probabilities are for chi-square tests comparing the proportion of complaints with the referenced allegation. Significant results are in bold.
Post-SGI Ninth Circuit sample. Thus, the Ninth Circuit after *Silicon Graphics* appears to have a lower proportion of the weaker cases and a higher proportion of the stronger cases.

To be sure, the existence of allegations in the complaints tells us nothing about the relative merits of those claims. Nonetheless, it can provide at least an initial assessment with respect to the case's relative strength. The presence of such allegations may also tell us something about plaintiffs' attorneys' assessment of the expected return from filing the case to the extent that the presence of certain allegations makes it more likely that the case survives under the heightened pleading standard. In this way, the attorney can get the maximum value out of minimal prefiling investigation if the facts underlying these kinds of allegations are easily and cheaply uncovered.

There is another obvious limitation to this analysis. Critics of the heightened pleading standard claim that the costs associated with any reduction in nonmeritorious filings are too high because a standard like *Silicon Graphics* creates too great a risk that legitimate claims will be dismissed. While these data suggest that case quality in the Ninth Circuit after *Silicon Graphics* may be higher, they do not address whether the standard has deterred plaintiffs' attorneys from bringing legitimate fraud cases because they were unlikely to satisfy the pleading standard. Indeed, there is no direct empirical method to investigate this proposition.

A number of scholars have used event study methodology to assess whether the *Silicon Graphics* decision or passage of the PSLRA is associated with abnormal positive or negative market returns. An abnormally positive market reaction to either event would provide indirect evidence that the costs of deterring nonmeritorious suits outweigh any incidental effect on legitimate fraud claims. The results of these analyses are somewhat mixed, but tend to suggest that the market viewed both events as positive developments.

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203. Probability for a chi-square goodness of fit test equals 0.085.

204. For example, although accounting misrepresentations and insider trading allegations are typically considered among the strongest claims, not all allegations will be sufficient to survive a motion to dismiss. See, e.g., Chill v. Gen. Elec. Co., 101 F.3d 263, 270 (2d Cir. 1996) (holding that plaintiffs must link any alleged violation of generally accepted accounting principles with specific factual allegations that demonstrate defendants acted with scienter); Shaw v. Digital Equip. Corp., 82 F.3d 1194, 1224 (1st Cir. 1996) (noting that "the mere fact that insider stock sales occurred does not suffice to establish scienter").

205. See Perino, *supra* note 16, at 278 (using presence of particular allegations to support the hypothesis that plaintiffs' attorneys were filing weaker cases, in other words, cases that were less likely to survive under the PSLRA's heightened pleading standard in state court).

206. This seems to be the case. Section 16(a) of the Securities Exchange Act requires certain insiders of the issuer to report transactions in the issuer's securities. 15 U.S.C. § 78p(a) (2000). Under that provision, the SEC has promulgated regulations requiring specified insiders to report trading on SEC Form 4. Likewise, issuers invariably announce accounting restatements.

Professors Johnson, Nelson, and Pritchard have used event study methodology to find a significant positive market reaction to the Silicon Graphics decision. They document a cumulative positive mean abnormal return of 1.78% in the two trading days following the court’s decision. The positive abnormal return was significantly larger for issuers headquartered in the Ninth Circuit and for those with characteristics that indicated that they might be at greater risk for being sued in a nonmeritorious securities class action. The authors conclude that these data support the hypothesis that the decision generally enhances shareholder wealth—shareholders are helped more by the reduction in costs associated with nonmeritorious suits than they are harmed by any decrease in the deterrence function of class actions.

These findings are consistent with other event studies that examine the overall market impact of passage of the PSLRA, although the difficulty in isolating passage of the Act from confounding variables undercuts the power of these statistical observations. Professors Spiess and Tkac examine the stock price performance of 1,485 firms in four industries that seem particularly susceptible to securities class action lawsuits—biotechnology, computers, electronics, and retailing. They document a significantly negative stock price response among these firms to rumors that President Clinton would unexpectedly veto the PSLRA and a significant positive reaction on December 20, 1995 when the House overrode that veto. Spiess and Tkac conclude that this market reaction “strengthens the inference that, for the average firm, the positive aspects of the bill—litigation defense costs savings, more disclosure of pertinent information, and an increased ability to retain outside directors—outweigh the potential for less accurate disclosure, or the inability of investors to receive proper redress on meritorious suits.”

Professors Johnson, Kaznik, and Nelson report similar positive abnormal returns for a sample of 489 firms in the pharmaceutical, computer hardware, and computer software industries. Their data, however, also reveal significant cross-sectional variation. While the stock price reaction was increasingly positive for firms with the greatest risk of being sued in a securities class action, firms at a greater risk for meritorious claims showed a cumulative negative stock price reaction to the veto and override of the PSLRA. This finding is consistent with the views of the

208. See Johnson et al., supra note 102, at 794.
209. Id. This result was significant at the 99% level of confidence. Id.
210. Id. at 794–800.
211. Id. at 802–04.
213. Id. at 553–54.
214. Id. at 555.
216. Id. at 223.
Act's critics who suggest that uniform application of the PSLRA across cases could result in dismissal of some meritorious claims. Nonetheless, like Spiess and Tkac, these authors conclude that the overall positive impact on firm value demonstrates that "the PSLRA has improved the balance between investor protection and the deterrence of frivolous lawsuits . . . "217

Professors Ali and Kallapur challenge these conclusions.218 They suggest that the December 20, 1995 positive stock price reaction was more likely attributable to the presidential veto rather than to the House override.219 As a result, they conclude that shareholders had an overall negative reaction to passage of the PLSRA.220 Although Professors Ali and Kallapur ultimately conclude that the December 20 return "is inconclusive because of the confounding events," they point to negative stock price reactions to earlier legislative events and to the defeat of plaintiff-friendly Proposition 211 in California to support their conclusion.221

While Ali and Kallapur aptly demonstrate the problems inherent in such event studies, there are at least four difficulties in their analysis. First, a number of the events were widely anticipated, thereby decreasing the utility of event study analysis.222 Second, the authors' conclusion with

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217. Id. at 230.
219. Id. at 432.
220. Id. at 456.
221. Proposition 211 would have established private securities fraud causes of action that were more plaintiff-favorable than federal law. Proposition 211 was an unsuccessful California state ballot initiative that purported to undo congressional reform efforts. See Bill Ainsworth, Prop 211 Spending Nearing $30 Million Mark, RECORDER, Oct. 28, 1996, at 1; William Clairborne, Battle over Lawsuits Raging in California; Ballot Initiatives Pit Silicon Valley Computer Titans Against Trial Lawyers' Lobby, WASH. POST, Mar. 17, 1996, at A3; Reynolds Holding, Look for More Lawsuit Measures on Ballot: 4 New Initiatives Scheduled for Vote in November, S.F. CHRON., Mar. 28, 1996, at A20; Dan Morain, Meet the Attorney That Proposition 201 Backers Love to Hate; Election: Securities Lawyer Bill Lerach Says the Initiative Is One Attempt by Corporate Bosses to Have Their Own Way, L.A. TIMES, Mar. 24, 1996, at A42; Ben Sherwood, Opinion, The Hidden Powers Behind High-Sounding Campaign Names, L.A. TIMES, Mar. 31, 1996, at M6. In reality it went much further. Some of its provisions were significantly more liberal than federal law. Others, including a private right of action for aiding and abetting a securities fraud violation, embodied policy choices that Congress had considered, but then rejected. Ultimately, Proposition 211 lost by a wide margin. See Peter Passel, Economic Scene; Big Business Was a Big Winner, Too, N.Y. TIMES, Nov. 7, 1996, at D1 (noting that 74% of voters opposed Proposition 211); G. Pascal Zachary, California's Defeat of Legal, Insurance Overhaul Raises Questions About Tort Reform Nationwide, WALL ST. J., Mar. 28, 1996, at A16.
222. See Mark H. Anderson & Jeffrey Taylor, House, Senate Set Package to Curtail Suits Against Firms, WALL ST. J., Nov. 29, 1995, at A4 (reporting that full House and Senate were expected to approve bill reported out of conference committee); Jeffrey Taylor, GOP-Controlled House Likely to Limit Investor Suits Against Public Companies, WALL ST. J., Jan. 20, 1995, at C1 (reporting that "new Republican-controlled Congress appears virtually certain to push through legislation soon restricting investor lawsuits . . ."); Jeffrey Taylor, Securities-Industry Boon Seen in Fraud-Suit Limits, WALL ST. J., June 14, 1995, at C1 (reporting that Senate "Banking Committee's bill is expected to be approved in the full Senate by a healthy majority . . .").

For discussion of the difficulty of using event study analysis to study legislation, particularly the problems associated with isolating the dates on which new information becomes available, see John J. Binder, Measuring the Effects of Regulation with Stock Price Data, 16 RAND J. ECON. 167, 168–70,
respect to the December 20 stock price reaction hinges on their opinion that the presidential veto was more surprising than the House override.\textsuperscript{223} Putting aside the problems associated with scaling levels of surprise, the authors’ conclusion discounts how surprising it was for the House to override the veto so quickly and what that meant for ultimate enactment of the PSLRA.\textsuperscript{224} Third, the authors ignore certain confounding variables. They attribute a negative stock price reaction on December 5 to Senate passage of the Conference bill,\textsuperscript{225} but seemingly ignore news on the same day that the President was undecided as to whether he would sign the bill.

Finally, Ali and Kallapur’s findings seem somewhat inconsistent and insensitive to changes to the bill as it passed through the legislative process. The earliest House bill was quite draconian and likely went too far in restricting private lawsuits.\textsuperscript{226} So it is not surprising that when the SEC criticized the bill, there was an abnormal negative stock market reaction.\textsuperscript{227} But when the House amended the bill to address these objections, the market reacted positively,\textsuperscript{228} suggesting its assessment that a more moderate bill was appropriate. The authors fail to explain why there would be a positive reaction to that amendment, but a negative reaction when the Senate and House passed a Conference bill based in large part on the House bill, and a positive reaction when the President indicated he was likely to sign the Conference bill.\textsuperscript{229}

Taken together, these event studies suggest the market’s assessment that the positive aspects of the PSLRA outweighed any reduced deterrent threat of securities litigation. When combined with the complaint data presented here, they suggest that the \textit{Silicon Graphics} standard may have improved case quality without excessively inhibiting plaintiffs’ attorneys from bringing legitimate cases.

2. \textit{Market Characteristics}

Table 5 reports data on the market characteristics of the two samples, in particular characteristics that are relevant to the size of potential damages in the action. As discussed previously, damages calculations are

\begin{itemize}
\item \textsuperscript{223. Ali & Kallapur, \textit{supra} note 218, at 436.}
\item \textsuperscript{224. Indeed, the PSLRA was the only instance during the Clinton administration when a presidential veto was successfully overridden.}
\item \textsuperscript{225. See \textit{Ali & Kallapur, supra} note 218, at 439.}
\item \textsuperscript{226. See H.R. 1058, 104th Cong. (1st Sess. 1995). Among other things, the original House bill proposed to: (i) eliminate recklessness as a basis for liability; (ii) require actual reliance on a misstatement or omission, thereby eliminating the fraud-on-the-market presumption; and (iii) requiring the winning party to pay the losing party's attorney's fees. \textit{Id.}}
\item \textsuperscript{227. Ali & Kallapur, \textit{supra} note 218, at 440.}
\item \textsuperscript{228. \textit{Id.}}
\item \textsuperscript{229. \textit{Id.}}
\end{itemize}
exceedingly complex, and there is insufficient information to make precise damage estimates for the two samples. Nonetheless, the market characteristics discussed here are related to the relative size of potential damages. For example, a misrepresentation or omission involving an issuer with more shares outstanding is likely to have more shares traded during the class period and therefore is likely to generate more damages. There also appears to be a statistically significant positive relationship between market capitalization and settlement size. Settlement size is also positively correlated with investors’ market losses. If litigation is riskier in the Ninth Circuit as a result of the Silicon Graphics standard, then we should see plaintiffs’ attorneys filing cases that have larger potential damages to compensate for that greater risk. These data suggest just such a result, although for a number of variables, the variation in the samples is too large to determine statistical significance.

As Table 5 demonstrates, the stock price declines at the end of the class period are slightly larger for the Ninth Circuit sample (-31.02% versus -30.07%), although this difference is insignificant. There are more pronounced differences in the mean shares outstanding and market capitalization of the two samples. Issuers in the Post-SGI Ninth Circuit sample have about 75.2% more shares outstanding than issuers in the Other Circuits sample. Not surprisingly, market capitalization for the Ninth Circuit issuers is 44.6% larger than for the Other Circuits issuers. Market loss at the end of the class period (stock price decline times shares outstanding at the end of the class period) is $13.14 million greater on average for the Ninth Circuit issuers. The difference in trim means for market loss is significant at the 10% level.

The market loss result reported here is consistent with a recent study by Cornerstone Research, which calculated maximum market losses and disclosure losses for issuers sued in 2000-2001. While there is substantial year-to-year variation, the average maximum dollar loss for Ninth Circuit issuers over the two-year period is $9.57 billion versus $1.33 billion for the issuers sued in other circuits. Average disclosure loss for the two-year period is $1.07 billion in the Ninth Circuit versus $0.68 billion for the other circuits. The Cornerstone study also ranked

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230. See supra note 138 and accompanying text.
231. See FOSTER ET AL., supra note 116, at 8 (suggesting that capitalization was a proxy for solvency and available settlement funds).
232. See id. at 7-8 (noting that cases with higher investor losses have higher settlements, though settlement size does not increase proportionately).
233. P(T<=t) one-tail = 0.06. To account for the large variation in the data, this Article uses a 10% trim mean, which excludes 5% of the results from each tail of the distribution.
234. GOULD ET AL., supra note 118, at 2. “Maximum dollar loss” is the loss in market capitalization from the peak during the class period to the trading day immediately following the class period. “Disclosure dollar loss” is the decline in market capitalization from the day before the end of the class period to the day after the end of the class period. Id.
235. Id. at 11.
236. Id.
the largest twenty-five losses in each category for 2000 and 2001. The Ninth Circuit accounts for more issuers than any other individual circuit.\textsuperscript{237}

\begin{table}
\centering
\caption{Market Characteristics of Post-SGI Class Actions\textsuperscript{238}}
\begin{tabular}{lccc}
\hline
 & Post-SGI Ninth Circuit & Post-SGI Other Circuits & Probability \\
Stock Price Decline & & & \\
Mean & -0.31021 & -0.30742 & 0.4637 \\
Trim Mean (10\%) & -0.30365 & -0.30464 & 0.4857 \\
Median & -0.29191 & -0.28968 & \\
Standard Deviation & 0.20904 & 0.17597 & \\
Shares Outstanding (millions) & & & \\
Mean & 195.85 & 111.79 & 0.2107 \\
Trim Mean (10\%) & 65.47 & 54.01 & 0.1606 \\
Median & 36.97 & 31.18 & \\
Standard Deviation & 863.23 & 352.96 & \\
Market Capitalization (millions) & & & \\
Mean & 5,590.70 & 3,817.69 & 0.3172 \\
Trim Mean (10\%) & 1,326.46 & 1,183.99 & 0.3410 \\
Median & 463.33 & 371.62 & \\
Standard Deviation & 29,711.87 & 14,980.04 & \\
Market Loss at End of Class Period (millions) & & & \\
Mean & -41.60 & -28.46 & 0.2154 \\
Trim Mean (10\%) & -20.81 & -15.01 & 0.0654 \\
Median & -8.74 & -10.14 & \\
Standard Deviation & 125.78 & 79.60 & \\
\hline
\end{tabular}
\end{table}

While more research is needed, the significant decline in Ninth Circuit filings suggests that plaintiffs' attorneys perceive a greater risk in cases filed in the Ninth Circuit. Several studies suggest that case quality has generally improved since passage of the PSLRA. The analysis of

\textsuperscript{237} Of the fifty largest maximum dollar loss cases, fourteen are from the Ninth Circuit. Ninth Circuit cases account for fifteen of the fifty largest disclosure dollar loss cases. \textit{Id.} at 6, 8.

\textsuperscript{238} Table 5 reports statistics for a random sample of class actions filed in the Ninth Circuit from July 3, 1998 to June 30, 2001 (Post-SGI Ninth Circuit) and for a sample of class actions from circuits other than the Ninth Circuit matched, to the extent possible, for industry classification and exchange from July 3, 1998 to June 30, 2001 (Post-SGI Other Circuits). Probabilities are for one-tail t-tests comparing the means of the two samples. Significant results are in bold.
DID THE PSLRA WORK?

complaint allegations here suggests the greatest improvement is found in
the Ninth Circuit, where a greater proportion of facially stronger cases
are being filed. The data also suggest that plaintiffs' attorneys may be
compensating for higher litigation risk by bringing cases that are likely to
have larger damages. These data support the hypothesis that the PSLRA
succeeded in improving the overall quality of the cases being filed.

V. LITIGATION AGAINST HIGH TECHNOLOGY ISSUERS

Congress expressed repeated concern in the legislative history to
the PSLRA that high technology issuers faced a disproportionate risk of
being sued in securities class action litigation. There was some empiri-
cal support for that contention. Previous studies had found that, all other
things being equal, high technology issuers were twice as likely to be
sued in securities class actions as firms in other industries.

Why high technology issuers face higher litigation risk is, however,
subject to some debate. Congress linked high technology litigation risk
to their use of forward-looking statements. Other explanations, how-
ever, turn more on the incentives of the plaintiffs' lawyers. High tech-
nology firms with substantial share turnover may yield higher potential
damages because more shares will trade at the allegedly inflated price.
Plaintiffs' attorneys may have to invest human capital to develop exper-
tise in the disclosure and other risks associated with particular industries.
Focusing their efforts on certain industries, particularly those like high
technology that were growing rapidly, allows plaintiffs' attorneys to
spread these costs more broadly. High technology companies also tend
to be relatively new entrants to the public markets, may have less experi-
ence, and thus may make more mistakes with respect to disclosure re-
quirements. Alternatively, executives of high technology firms appear to
receive a greater proportion of their compensation in stock options and
therefore may engage in more trading. Because plaintiffs' attorneys of-
ten rely on such trading to demonstrate fraudulent intent at the pleading

239. SENATE REPORT, supra note 4, at 5 ("Public companies—particularly high-tech, bio-tech and
other growth companies, which are sued disproportionately in 10b-5 litigation—fear that releasing
[forward-looking] information makes them even more vulnerable to attack.").

240. CHRISTOPHER L. JONES & SHEE E. WEINGRAM, WHY 10B-5 LITIGATION RISK IS HIGHER
FOR TECHNOLOGY AND FINANCIAL SERVICES FIRMS 1 (John M. Olin Program in Law & Economics,

241. See supra note 34 and accompanying text.

242. JONES & WEINGRAM, supra note 240, at 8–9 (finding that higher share turnover at high tech-
nology firms is positively associated with litigation risk).

243. See Bohn & Choi, supra note 2, at 946; see also Carelon et al., supra note 102, at 497–98
(finding in a sample of 348 settlements of open market securities class actions that 30.5% involved
high technology companies); GRUNDFEST & PERINO, SECURITIES LITIGATION REFORM, supra note
187, at 15–16.
stage,\textsuperscript{244} it may make sense for attorneys to focus on industries where trading is more prevalent.\textsuperscript{245}

Have high technology issuers fared any better under the PSLRA? The earliest studies of litigation under the PSLRA suggested that they have not. Grundfest and Perino found that high technology issuers accounted for 33.9\% of the issuers sued in the first year of litigation under the PSLRA, as compared to about 27.3\% in the pre-PSLRA period.\textsuperscript{246} NERA has found that high technology companies account for 36\% of the issuers sued in both the four years prior to passage and the first three years after passage of the PSLRA.\textsuperscript{247} Cornerstone Research found that technology issuers were the most frequent defendants in 2000 and 2001.\textsuperscript{248}

This study generally confirms these results and provides additional detail on high technology litigation risk in the post-PSLRA period. This article differs somewhat from earlier studies because it adopts a somewhat broader definition of the high technology industry.\textsuperscript{249} The definition used here is adopted from Daniel Hecker, who included an industry within high technology "if employment in both research and development and in all technology-oriented occupations accounted for a proportion of employment that was at least twice the average for all industries in the [U.S. Department of Labor] Occupational Employment Statistics Survey."\textsuperscript{250} Under this definition, twenty-nine industries are included in the definition of High Technology. Within that definition, "high-technology intensive industries" include ten industries with ratios that are at least five-times the average for all companies.\textsuperscript{251} The remaining

\begin{footnotesize}
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\begin{enumerate}
\item \textsuperscript{244} Grundfest & Perino, Securities Litigation Reform, supra note 187, at 17–22.
\item \textsuperscript{245} Cf. Paul A. Griffin & Joseph A. Grundfest, When Does Insider Selling Support a "Strong Inference" of Fraud? 7 (John M. Olin Program in Law & Economics, Stanford Law School, Working Paper No. 234, 2002) (finding elevated levels of insider selling for firms sued in securities class actions). But see Bohn & Choi, supra note 2, at 958–70 (finding no statistically significant relationship between insider sales and IPO litigation risk); Christopher L. Jones & Seth E. Weingram, The Effects of Insider Trading, Seasoned Equity Offerings, Corporate Announcements, Accounting Restatements, and SEC Enforcement Actions on 10b-5 Litigation Risk 7–10, (John M. Olin Program in Law & Economics, Stanford Law School, Working Paper No. 139, 1996) (finding that insider sales do not increase litigation risk); Patricia M. DeChow et al., Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC, Contemp. Acct. Res., Spring 1996, at 1, 19 (finding that insiders in firms subject to SEC enforcement actions sell more shares than insiders at firms not subject to enforcement actions, although the difference was not statistically significant).
\item \textsuperscript{246} Grundfest & Perino, Securities Litigation Reform, supra note 187, at 16.
\item \textsuperscript{247} Foster et al., supra note 116, at 5.
\item \textsuperscript{248} Gould et al., supra note 118, at 12.
\item \textsuperscript{249} See Grundfest & Perino, Securities Litigation Reform, supra note 187, at 15–16; Jones & Weingram, supra note 240 at 6 n.16. Finance follows the same definition that previous studies have relied on, and includes all issuers with three-digit SIC codes from 600–639 and 671. See id.
\item \textsuperscript{251} Id. at 20. These ten industries are represented in the following three-digit SIC codes: 281 and 286 (Industrial Chemicals); 283 (Drugs); 357 (Computer and Office Equipment); 366 (Communications Equipment); 367 (Electronic Components and Accessories); 372 and 376 (Aerospace); 381
\end{enumerate}
\end{footnotesize}
nineteen industries are classified as "Other High-Technology Industries."\textsuperscript{252} Using this broader definition, the data in Table 6 demonstrate that high technology intensive issuers account for 35.34% of the issuers sued from 1996 through 2000. The majority of lawsuits involving high technology intensive issuers involve Computer and Data Processing Services (17.35%), Computer and Office Equipment (6.23%), Drugs (3.74%), and Communications Equipment (3.53%). In total, high technology issuers account for 42.1% of the issuers sued in the study period. The annual percentage of high technology issuers has varied from a low of 35.96% of issuers sued in the first year of litigation under the PSLRA to a high of 46.27% in 2000.

### Table 6

<table>
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<td>69</td>
<td>91</td>
<td>70</td>
<td>76</td>
<td>340</td>
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</table>

(Continued on next page)

\textsuperscript{252} These include: 282 (Plastics Materials and Synthetics); 284 (Soaps, Cleaners, and Toilet Goods); 285 (Paint and Allied Products); 287 (Agricultural Chemicals); 289 (Miscellaneous Chemical Products); 291 (Petroleum Refining); 348 (Ordnance and Accessories); 351 (Engines and Turbines); 353 (Construction and Related Machinery); 355 (Special Industrial Machinery); 356 (General Industrial Machinery); 361 (Electric Distribution Equipment); 362 (Electrical Industrial Apparatus); 365 (Household Audio and Video Equipment); 371 (Motor Vehicles and Equipment); 384 (Medical Equipment, Instruments, and Supplies); 386 (Photographic Equipment and Supplies) 871 (Engineering and Architectural Services); and 874 (Management and Public Relations Services). Id.
<table>
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<tr>
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<td><strong>Other Industries Total</strong></td>
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<td>4</td>
<td>3</td>
<td>4</td>
<td>30</td>
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</tbody>
</table>

These percentages tell only part of the story because they fail to demonstrate directly the extent to which litigation risk remains greater
for high technology issuers. To determine litigation risk, this article uses the number of issuers from an industry sued in a given year as a percentage of the total number of publicly traded issuers in that industry. Figure 3 illustrates these findings and demonstrates that despite passage of the PSLRA, high technology litigation risk remains significantly greater than for issuers in other industries. Over the study period, from 3.6% to 5.26% of high technology issuers were sued in securities class action lawsuits in a given year. The mean for the study period was 4.2%. By contrast, the percentage of issuers sued in the Finance and Other Industries ranged between 0.92% to 2.08%, with a mean of 1.67%.

**Figure 3**


In other words, after passage of the PSLRA, high technology issuers were 2.5 times more likely to be sued in a securities class action than issuers in other industries. Among high technology industries, the segments with the highest rate of litigation are Computer and Data Processing Services (6.45%) and Computer and Office Equipment (5.88%). These findings suggest that the PSLRA did not reduce the rate of litigation against high technology issuers.

253. To determine the number of publicly traded issuers in a given industry, this Article uses the number of issuers with the relevant primary SIC code that have filed a Form 10-K, a Form 10-KSB, or a Form 10-K405 on the SEC’s EDGAR database.
An examination of the allegations lodged in post-PSLRA complaints suggests that trading by insiders is a key component in explaining high technology litigation risk. Table 7 contains data on the frequency of allegations among high technology companies versus companies in finance or other industries for the 160 complaints filed since the Silicon Graphics decision. Although Congress identified forward-looking statements as an important component of high technology litigation risk, false forecasting allegations are not significantly more frequent among high technology issuers. By contrast, allegations of improper trading by insiders are significantly more frequent among high technology issuers. It may be, however, that the consequences of missing a forecast are more severe for high technology companies because stock compensation and trading by insiders are more prevalent than in other industries. The presence of such trading during the class period may demonstrate a sufficiently strong inference of fraud to allow the complaint to survive a motion to dismiss. Indeed, as Table 7 demonstrates, the combination of a false predictive statement and insider trading is significantly more frequent among high technology issuers.

VI. THE RACE TO THE COURTHOUSE

One of the primary reasons Congress enacted the heightened pleading standard and the lead plaintiff and notice provisions of the Reform Act was to decrease the incentive for plaintiffs’ attorneys to race to the courthouse. Prior to the PSLRA, courts often appointed the attorney

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254. Probability for a chi-square goodness of fit test equals 0.024.
255. Probability for a chi-square goodness of fit test equals 0.001.
256. See supra note 35 and accompanying text.
who filed the first complaint against an issuer to the lucrative lead counsel position. This default rule created enormous incentives to file complaints quickly, and resulted, according to Congress, in poorly researched and hastily prepared pleadings. Although it did not quantify the phenomenon, Congress was particularly concerned about actions filed within the first day or the first week after a stock price drop. By requiring more research up front and by permitting the lead plaintiff to select lead counsel, Congress hoped to slow this race to the courthouse.

Preliminary data on the first year of litigation under the PSLRA suggested that the Reform Act increased the filing delay between disclosure of the information that led to the lawsuit (as measured by the end of the class period) and the date on which the first class action was filed. One study of pre-PSLRA litigation found that in the time period from January 1991 through December 5, 1995, the average filing delay was forty-nine days. As described in Table 8, in the first year under the Reform Act, the SEC reported that the average filing delay increased to seventy-nine days while the median filing delay was thirty-eight days. Despite the increase in average filing delay, 11% of class actions were still filed within one week of the end of the class period, while 21% were filed within two weeks. Fully one-third of class actions were filed within three weeks of the end of the class period. Only 27% of cases were filed three months or more after the end of the class period. The SEC Report suggested that the PSLRA’s heightened pleading standard and lead plaintiff provisions had worked as Congress intended and were the likely causes for this apparent increase in filing delay. To determine the stability of this result, this article analyzes a random sample of 160 issuers sued in the Ninth Circuit between January 1, 1996 and June 30, 2001. Panel A of Table 8 reports descriptive statistics for the sample. Ninth Circuit issuers were chosen for two reasons. First, a more complete data set is available for Ninth Circuit issuers. Second, the Ninth Circuit in Silicon Graphics adopted what is generally regarded as the

257. *See id.*
258. *See supra* note 33 and accompanying text.
259. *See supra* Parts II.A–C.
260. *See id.*
261. SEC REPORT, supra note 88, at 23.
262. *Id.* The SEC study was based on analysis of ninety-six complaints filed in class actions commenced in 1996.
263. *Id.*
264. *Id.*
265. *Id.*
266. *Id.*
267. Stanford Law School’s Securities Class Action Clearinghouse, *see supra* note 98, collects data on post-PSLRA class actions. Its collection of Ninth Circuit documents from securities class actions is much more complete than for litigation filed in other circuits. In part, this is due to U.S. District Court for the Northern District of California Local Rule 23-2, which requires documents filed in securities fraud class actions to be posted to a Designated Internet Site, such as the Clearinghouse. N.D. Cal. R. 23-2, available at http://securities.stanford.edu/llr.html (last visited Dec. 1, 2002).
268. 183 F.3d 970 (9th Cir. 1999).
most stringent interpretation of the PSLRA's heightened pleading standard. Therefore, if the presence of the heightened pleading standard is correlated with an increase in filing delay, then it is reasonable to expect that the filing delay in the Ninth Circuit will be longer in litigation filed after the *Silicon Graphics* decision.

**TABLE 8**

<table>
<thead>
<tr>
<th>TABLE 8</th>
<th>FILING DELAY IN SECURITIES CLASS ACTION²⁷⁰</th>
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<tr>
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<th>Post-SGI Ninth Circuit</th>
<th>Post-SGI Other Circuits</th>
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<td>Industry</td>
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<tr>
<td>High Technology Intensive</td>
<td>29.31%</td>
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<td>63.75%</td>
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<tr>
<td>Other High Technology</td>
<td>6.90%</td>
<td>6.25%</td>
<td>5.00%</td>
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<td>Finance</td>
<td>10.34%</td>
<td>4.38%</td>
<td>3.75%</td>
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<td>Other/Unknown</td>
<td>53.45%</td>
<td>31.88%</td>
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<td>NASDAQ</td>
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<td>B. Filing Delay</td>
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<tr>
<td>Mean</td>
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<td>89.525</td>
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<td>78.208</td>
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<td>30</td>
</tr>
<tr>
<td>Maximum</td>
<td>-</td>
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</tr>
<tr>
<td>Minimum</td>
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<td>0</td>
</tr>
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<td>% Filed in 1 Week</td>
<td>11%</td>
<td>35.63%</td>
<td>30.00%</td>
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<td>% Filed in 2 Weeks</td>
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<tr>
<td>% Filed in 3 Weeks</td>
<td>33%</td>
<td>55.63%</td>
<td>43.75%</td>
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</table>

(Continued on next page)

²⁶⁹ See PERINO, supra note 1, § 3.01 D.2, 3066–69 n.182.
²⁷⁰ Panel A of Table 8 reports descriptive statistics for random samples of class actions filed from January 1, 1996 to July 2, 1998 (Pre-SGI Ninth Circuit) and from July 3, 1998 to June 30, 2001 (Post-SGI Ninth Circuit). Panel A also reports descriptive statistics for a sample of class actions from circuits other than the Ninth Circuit matched, to the extent possible, for industry classification and exchange from July 3, 1998 to June 30, 2001 (Post-SGI Other Circuits). Descriptive statistics on cases filed in the first year under the PSLRA are from GRUNDFEST & PERINO, SECURITIES LITIGATION REFORM, supra note 187. Panel B reports filing delay, the time in days between the end of the class period and the first-filed action, for the above-referenced samples.
Table 8—Continued

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<td>% Filed after 6 Months</td>
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<tr>
<td>Count</td>
<td>96</td>
<td>160</td>
<td>80</td>
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Panel B of Table 8 reports the results of this analysis. Overall, for the post-PSLRA period, the mean (median) filing delay in the Ninth Circuit was 69.2 (13) days, approximately 10 (25) days shorter than the filing delay the SEC found in 1996. The data in Table 7 also demonstrate that the percentage of cases filed within one, two, and three weeks of the end of the class period increased as well. Nearly 56% of the cases were filed within three weeks of the end of the class period (as compared to 33% in the SEC Report), with almost 36% of those cases filed within the first week (as compared to 11% in the SEC Report). These figures strongly suggest that any increase in filing delay in the first year of litigation under the PSLRA was transitory, perhaps due to learning curve effects for plaintiffs' attorneys operating under the new Act and uncertainty about how courts would interpret the PSLRA.

These data also demonstrate that heightened pleading standards are not correlated with increases in filing delay. Filing delay in the Ninth Circuit actually decreases after the decision in *Silicon Graphics*. The mean (median) filing delay in cases filed before *Silicon Graphics* is 89.5 (30) days. After *Silicon Graphics*, the mean (median) filing delay decreases to about 49 (10.5) days. The difference in mean filing delay in the Pre- and Post-SGI Ninth Circuit samples is significant. Indeed, filing delay after *Silicon Graphics* is virtually identical to the filing delay observed in pre-PSLRA cases, suggesting that, at least in the Ninth Circuit, the PSLRA had no net, long-term effect on filing delay.

What explains this counterintuitive result? After all, the heightened pleading standard was supposed to increase filing delay because it would require plaintiffs' attorneys to conduct more extensive prefiling investigations. There are at least four possible explanations that might cause filing delay to decrease despite the presence of a strict pleading standard.

271. These findings are consistent with those found in a previous study by Professors Griffin and Grundfest. After an initial increase in filing delay in the first year after passage of the PSLRA, they report a steady decline in median filing delay throughout the period 1997 (thirty-seven days) to 1999 (twenty-seven days). At the same time, the percentage of actions filed within ten days of the end of the class period also increased steadily, from 26.3% in 1997 to 35.4% in 1999. Paul A. Griffin & Joseph A. Grundfest, Economic Properties of Companies Subject to Securities Fraud Litigation 11-14 (August 2000).

272. \( P(T<\alpha) \text{ one-tail } = 0.011. \)

273. See SEC REPORT, supra note 88, at 23.
First, of course, are the learning curve and uncertainty effects that may have slowed litigation in the first year under the PSLRA. All other things being equal, as plaintiffs’ attorneys gained more experience under the Reform Act and as precedents provided greater certainty, plaintiffs’ attorneys should have been able to file their actions faster. Second, advances in information technology over the course of the study period may have enabled attorneys to complete their investigations more quickly.\footnote{274}

The third explanation is that there may still be strategic advantages in filing actions quickly for plaintiffs’ attorneys attempting to capture the lead counsel position. Unexpectedly, these advantages derive from the lead plaintiff provisions of the Reform Act, the very provisions that were intended to slow the race to the courthouse. The PSLRA gives the lead plaintiff power to select the lead counsel.\footnote{275} The PSLRA also creates a presumption that the lead plaintiff is the movant or movants with the largest financial interest in the outcome of the case.\footnote{276} Accordingly, plaintiffs’ attorneys competing to capture the lead counsel position are substantially better off if they represent putative class members who, either individually or in the aggregate, have a large financial interest in the case.

There are several strategic options for plaintiffs’ attorneys seeking to obtain these substantial clients. First, a plaintiff’s attorney can attempt to develop long-term relationships with institutional investors.\footnote{277} Second, because the Reform Act refers to movants in the plural, the attorney may attempt to cobble together a large group of investors that individually have small loses, but which in the aggregate have the largest financial interest in the case.\footnote{278} Third, the attorney may seek out a large institu-

\footnote{274. Plaintiffs’ attorneys typically review a host of SEC filings, analyst reports, and trading information in preparing a complaint. See David L. Gilbertson & Steven D. Avila, The Plaintiffs’ Decision to Sue Auditors in Securities Litigation: Private Enforcement or Opportunism?, 24 IOWA J. CORP. L. 681, 690 (1999) (noting a plaintiff’s attorney’s recommendation that an “attorney should review... 10-Ks, 10-Qs, press releases, proxy statements, annual and quarterly reports, industry publications, analysts’ reports, stock price history, and insider trading activities”). These kinds of materials may simply be more readily available now then they were even five years ago.}

\footnote{275. See supra notes 53–61 and accompanying text.}

\footnote{276. Id.}

\footnote{277. Long-term relationships may be based on the attorney’s provision of low-cost, quality legal services. There have been allegations in some cases that attorneys have engaged in “pay-to-play” schemes whereby they contribute to the campaigns of officials that control public pension funds in exchange for an agreement that the funds will select the attorneys as lead counsel in securities class actions. See, e.g., In re Cendant Corp. Litig., 182 F.R.D. 144, 147–49 (D.N.J. 1998), rev’d on other grounds, 264 F.3d 201 (3d Cir. 2001).

278. See PERINO, supra note 1, § 2.04 B, at 2040–50; Jill E. Fisch, Aggregation, Auctions, and Other Developments in the Selection of Lead Counsel Under the PSLRA, 64 LAW & CONTEMP. PROBS. 53, 65–69 (2001). There is a strong trend in the courts against permitting counsel to aggregate large numbers of unrelated investors. See, e.g., Cendant Corp., 264 F.3d at 266–67; In re Razorfish, Inc. Sec. Litig., 143 F. Supp. 2d 304, 307–09 (S.D.N.Y. 2001); Aronson v. McKesson HBOC, Inc., 79 F. Supp. 2d 1146, 1152–54 (N.D. Cal. 1999); Sakhrami v. Brightpoint, Inc., 78 F. Supp. 2d 845, 853 (S.D. Ind. 1999). It remains unclear, however, whether courts continue to permit aggregation in class actions in which lead plaintiff is uncontested or in which plaintiffs’ attorneys consent to a co-lead plaintiff structure.}
tional or other investor that has suffered a significant loss in the subject security after identifying the potential case.

The PSLRA's notice requirement provides a mechanism for attorneys to pursue the latter two strategic options. The Reform Act only requires the attorney filing the first action to publish a notice. In practice every attorney filing a complaint tends to publish multiple notices of the filing. These notices typically direct putative class members to contact the attorney for additional information on the case. Putative class members are often asked to fill out consents authorizing the attorney to put them forward as lead plaintiffs. Other attorneys have purchased client lists from brokers to conduct what are in effect direct mail campaigns. In pursuing these strategies, an earlier notice likely provides attorneys with an advantage in attracting the largest aggregation of potential class members and perhaps in finding large individual or institutional plaintiffs. And so, a pre-PSLRA strategic race to the courthouse has now been transmogrified into a race to publish the first notice. The net result, however, is the same—an incentive to file actions quickly.

Fourth, differences in the samples may also explain some of the variation in filing delay. On average, the issuers in the Ninth Circuit samples have larger market capitalizations than the issuers sued in 1996. There are also a higher percentage of high technology issuers in the Ninth Circuit samples. These market characteristics may be associated with faster filings. For example, plaintiffs may be able to obtain the information necessary to prepare a complaint more readily with respect to larger firms. Larger firms may also be more attractive candidates for securities class actions because they may be expected to yield higher settlements and therefore higher fees. As Professors Bohn and Choi have noted, actions against larger issuers are economically rational for plaintiffs' attorneys because of the high fixed costs of prosecuting any securities class action. Increased competition for these potentially more lucrative cases may lead to faster filings if, as previously suggested, publishing notices more quickly confers an advantage in securing the lead counsel position.


279. See supra note 54 and accompanying text.

280. Often, these consents provide somewhat less than full disclosure about their intended purpose. For example, there is some evidence that plaintiffs' law firms have sent out consents to serve as lead plaintiff that look like the proofs of claim typically used once a class action has settled. Investors may believe that they have to fill out the forms to participate in any recovery when they are actually consenting to serve as lead plaintiff. See In re Conseco, Inc. Sec. Litig., 120 F. Supp. 2d 729, 733 (S.D. Ind. 2000); In re Network Assocs., Inc. Sec. Litig., 76 F. Supp. 2d 1017, 1022 (N.D. Cal. 1999).


283. See supra note 234 and accompanying text.

284. See supra notes 169–70 and accompanying text.

These factors undoubtedly play a role in the apparent trend toward faster filings. But what remaining role, if any, does the heightened pleading standard play in filing delay? One way to analyze that question is to compare filing delay in the Post-SGI Ninth Circuit cases, which are subject to the most rigorous interpretation of the heightened pleading standard, with filing delay in the Post-SGI Other Circuits sample. If the factors discussed above tend to provide a more or less complete explanation for faster filings in the later years under the PSLRA, then we should expect to see a similar filing delay in other circuits that have not adopted the *Silicon Graphics* interpretation of the pleading standard. If the pleading standard worked as Congress intended, then actions filed in circuits other than the Ninth Circuit should be filed more quickly because prefiling investigation should be less extensive.

To test these hypotheses, Table 8 also reports filing delay for the Post-SGI Other Circuits sample. This data shows the same decline in filing delay from the first year of litigation under the PSLRA. Mean filing delay decreased by a modest 4.67% from 1996, a decline of only four days. There was a more pronounced decline in median filing delay, which dropped 59.21% (38 to 15.5 days). Likewise the number of actions filed in the first week after the end of the class period increased from 11% to 43.75%. These data tend to support the conclusion that the increase in filing delay in the first year under the PSLRA was transitory. It also tends to support the conclusion that factors other than the heightened pleading standard, such as those discussed previously, play a role in reducing filing delay.

Contrary to expectations, however, the actions filed in circuits with less restrictive pleading standards are filed more slowly than the actions filed in the Ninth Circuit. The mean filing delay is approximately twenty-six days longer than the filing delay in the Post-SGI Ninth Circuit cases. In other words, mean filing delay is about 53.5% greater outside the Ninth Circuit. Median filing delays are 47.6% longer. Similar percentages of actions are filed after the first week, but by the third week, approximately 11% more actions are filed in the Ninth Circuit than in other circuits. Conversely, about 8.75% more actions are filed after three months in circuits other than the Ninth Circuit.

One possible explanation for this anomalous result is that filing delay provides indirect evidence of case quality. Because litigation in the Ninth Circuit involves a greater risk of dismissal, nonmeritorious cases may no longer be as profitable to pursue. Instead, plaintiffs' attorneys may be focusing their efforts on more clear-cut cases of fraud that are more likely to survive under the *Silicon Graphics* standard. This ex-

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286. See supra notes 197–98 and accompanying text (describing the samples).
287. The difference in mean filing delay is significant ($P(T<=t)$ one-tail = 0.069).
288. See Coffee, supra note 20, at 682 (suggesting that entrepreneurial plaintiffs' lawyers gravitate to areas in which search costs are lowest).
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plation finds further support in the data, which indicate that the Ninth Circuit has a higher proportion of cases with the strongest allegations and a lower proportion of cases with the weakest allegations. The stronger Ninth Circuit cases may simply require less prefiling investigation and therefore can be filed more quickly. These cases are also likely to involve more competition among plaintiffs' law firms for the lead counsel position. Thus, there is likely to be even greater incentive to file actions quickly and to get notices out promptly. As a result, Congress's goal of reducing the race to the courthouse seems to have largely failed. Nonetheless, available evidence may indicate that Congress did succeed in improving overall case quality.

VII. ADDITIONAL RESEARCH QUESTIONS AND NORMATIVE IMPLICATIONS

What do these research findings mean for the current debate on the effects of the PSLRA? Do they suggest that additional reforms are necessary and, if so, exactly what kind of reforms?

Let's begin with class action filings after the PSLRA. If, as was suggested previously, some or all of the current level of post-PSLRA filings is the result of a portfolio diversification strategy, then it would appear that Congress's goal of reducing the incidence of nonmeritorious filings failed. But that does not mean that Congress necessarily failed in its broader goal of reducing the costs associated with nonmeritorious filings. Increased filings and reduced costs are not necessarily mutually exclusive. If courts can accurately perform their gate keeping function at a relatively low cost to litigants, then the PSLRA may well achieve its overall goal of reducing the costs to the capital markets associated with securities class actions. Unfortunately, it is not at all clear at this point that these cost savings have been realized.

Early evidence on an increased dismissal rate may suggest that the overall cost of resolving nonmeritorious suits has decreased. To better understand whether this is true requires an analysis of, among other things, defense costs and settlement amounts. We also need better

289. See supra notes 202-05 and accompanying text.
290. See supra notes 129-31 and accompanying text.
data on the long-term effect of the PSLRA on dismissal rates. Such re-
search may well show that the overall direct costs of defending securities
class actions have decreased, which will provide at least some insight into
whether the PSLRA decreased the social costs of securities class ac-
tions.\textsuperscript{292} If that were the case, then the overall rate of filings may be less
important.

Evidence on the shift in litigation out of the Ninth Circuit and the
decrease in filing delay in that circuit suggests that pleading standards
may reduce nonmeritorious filings and may cause plaintiffs' attorneys to
focus on more substantial cases of fraudulent activity. The reason is that,
although articulated as a pleading standard, the \textit{Silicon Graphics} test
really functions as an early judicial screening device. Such devices are
useful to the extent that they create a separating equilibrium in which plaintiffs' attorneys with legitimate claims have incentives to file but
those with nonmeritorious claims do not.\textsuperscript{293} The deliberate recklessness
standard permits the court to test the inferences that can be drawn from
the detailed factual allegations of the complaint. The all-facts require-
cment mandates that attorneys reveal otherwise private information that
demonstrates the thoroughness of their prefiling investigative efforts.
The result is a judicial review that lies somewhere between the tradi-
tional motion to dismiss and the traditional motion for summary judg-
ment. As Professor Bone has demonstrated, such screening devices can
theoretically have a positive effect on reducing the incidence of nonmeri-
torious lawsuits.\textsuperscript{294} The evidence presented here provides support for
that theory and suggests that courts in other circuits may have additional
success in reducing the incidence of nonmeritorious filings by adopting
more stringent versions of the pleading standard.

Exercising a more meaningful gate keeping role, however, may have
unintended consequences. While more early dismissals may reduce the
costs of securities class actions, they may also encourage additional mo-
tion practice in legitimate cases and thus may actually increase costs.\textsuperscript{295}
Plaintiffs' attorneys pursuing a portfolio diversification strategy may still
have incentives to file nonmeritorious cases if the costs of filing such
complaints (including the expected costs of sanctions) remain low and
courts fail to dismiss at least some of those complaints.\textsuperscript{296} There is
enough interpretational room in even the \textit{Silicon Graphics} standard to
give lower courts significant freedom in deciding whether to dismiss a

\textsuperscript{292} See, e.g., Steven Shavell, \textit{The Social Versus the Private Incentive to Bring Suit in a Costly Le-


\textsuperscript{294} Bone, supra note 2, at 593–96.

\textsuperscript{295} Id. at 589.

\textsuperscript{296} See Louis Kaplow, \textit{The Value of Accuracy in Adjudication: An Economic Analysis}, 23 J. LE-
GAL STUD. 307 (1994).
particular case. And given the relatively crude nature of pleading standards, it is unreasonable to expect absolute uniformity among judges applying any standard. A strong inference of scienter is very much in the eyes of the beholder, making the error rate on motions to dismiss a significant factor. Therefore, even a more uniform, rigorous standard of review is unlikely to eliminate nonmeritorious cases entirely. Of course, that is true of any standard. The real question is whether the complex of rules adopted minimizes the sum of losses from improper behavior that remains undeterred, proper behavior that is deterred, and enforcement costs.

If further analysis suggests that the cost of these remaining nonmeritorious lawsuits is too high, then additional reforms may be required. It is important to emphasize that currently there is insufficient evidence that additional reforms are in fact needed. If reforms are needed, however, erecting more procedural hurdles does not seem to be the answer. Rather, to reduce the incidence of nonmeritorious filings, reforms should directly target the economic incentives that encourage such filings in the first place. There are at least three possibilities. None of these are novel, and the intent here is not to provide specific legislative proposals. Instead, these solutions are briefly sketched simply to provide suggestions for possible productive approaches.

First, plaintiffs' attorneys will clearly have significantly less incentive to file nonmeritorious suits if they face a greater downside risk when an action is dismissed. The obvious way to create such a downside risk is to impose a more substantial sanctions risk if a motion to dismiss is granted. Currently, the PSLRA is ineffective in this regard because it requires a mandatory sanctions review, but does not require courts to impose sanctions or fee shifting if the action is dismissed. Courts operating under the PSLRA have demonstrated their traditional reluctance to impose sanctions, even when a case is dismissed with prejudice.

Determining the appropriate form of the sanction is the most difficult problem. Sanctions should address both kinds of nonmeritorious suits—the classic strike suit brought for settlement value and the inadequate investigation case. But these situations might call for very different kinds of sanctions. For example, to address defendants' risk aver-

297. See In re Silicon Graphics, Inc. Sec. Litig., 183 F.3d 970, 983 (9th Cir. 1999) (noting that key words such as "facts" and "particularity" are not defined in the PSLRA).


299. 15 U.S.C. §§ 77z-1(c), 78u-4(c) (2000).

300. Perino, supra note 1, § 7.01, at 7011-16. Apparently, courts have also not used a bonding mechanism in the PSLRA that permits courts to require undertakings from the parties or their counsel to cover any possible fee award. See 15 U.S.C. § 78u-4(a)(8). Requiring such an undertaking would similarly deter nonmeritorious litigation.
sion, fee shifting might be appropriate in the strike suit situation. As litigation under Rule 11 has demonstrated, however, presumptive fee shifting imposes significant costs because it may invite tactical use of sanctions motions, thereby decreasing their deterrence effect.

In the inadequate investigation case, an attorney that has an incentive to file cases quickly may have insufficient information after a stock price drop to distinguish companies with poor management or those that simply suffered business setbacks from companies that committed fraud. If the costs of suit are lower than the costs of investigating, an attorney may have incentives to file first and ask questions later. In such cases, the imposition of sanctions should be tied to the absence of adequate investigation. The difficulty in devising the proper sanction is to devise a sanction that encourages prefiling investigation without raising the attorney's overall investigative costs so high that it makes pursuing legitimate fraud claims unprofitable. In other words, the ideal sanction should cause the plaintiff's attorney to have a negative expected value from bringing nonmeritorious litigation while maintaining a positive expected value for meritorious claims.

Such a rule may be impossible to design with precision, as some have suggested. Moreover, as with a pleading standard, it is reasonable to expect some application errors so that a sanctions-based approach may deter some legitimate claims from being filed, although perhaps only relatively low value claims. This is because in the typical class action, the theoretical damages and the settlement values are so large that the expected return in a legitimate case is likely to outweigh the sanction risk. If sanctions were more prevalent, then plaintiffs' attorneys may have additional incentives to focus on cases with higher expected returns, as the evidence presented here suggests they may have begun to

302. See id. at 402. Professors Polinsky and Rubinfeld argue that in most cases fee shifting is inappropriate. Instead, they advocate non-fee-shifting models and suggest that it may be appropriate to have some or all of the sanction payable to the court and not the defendant. Id. at 418.
303. See Bone, supra note 2, at 552-56; Johnson et al., supra note 102, at 782.
304. Imposing a legitimate threat of sanctions on the plaintiff's attorney should significantly alter the attorney's incentive to bring a nonmeritorious action and may cause them to actually do more prefiling investigation. For example, empirical evidence analyzing amendments to Rule 11 has found that attorneys report doing more extensive prefiling investigations since Rule 11 was strengthened. See Yablon, supra note 31, at 82-83 (collecting studies). Because the attorneys still appear to be the driving force behind at least the initiation of most securities class actions, they should bear the risk of any sanction or fee shifting rather than the lead plaintiff.
305. See Polinsky & Rubinfeld, supra note 301, at 407 (noting that nonmeritorious plaintiffs will only sue if the expected value of case exceeds the sum of costs of litigating claim and expected costs of sanctions proceeding).
306. In this way, imposing sanctions can be made functionally equivalent to a private bonding mechanism in which plaintiffs agree to pay a specified amount if a suit is dismissed. See Bone, supra note 2, at 575.
To maintain deterrence, additional SEC resources should be devoted to categories of cases that tend to have lower expected returns.

Second, Congress can alter current damage calculation methods. As suggested previously, current damage models tend to substantially overstate the net economic harm from securities fraud. As a result, they may overcompensate attorneys and thereby encourage too many filings. The potential for enormous damages also gives significant bargaining power to plaintiffs' attorneys in settlement negotiations because of a defendant's risk aversion. For these reasons, and because class actions do such a poor job of compensating injured investors, several scholars have suggested moving from a damages scheme premised on compensation to a deterrence scheme based on a schedule of penalties. The appeal of such a proposal is obvious—if there is less expected gain from filing class actions, attorneys should have less incentive to bring them.

There are potential difficulties with such an approach. First, a reduction in available damages reduces the incentives to bring all class actions, not just nonmeritorious claims. Unlike sanctions, damage caps or penalty schemes provide a far less targeted approach to the problem of nonmeritorious suits. Still, the critique of current compensatory damage models is sufficiently robust that it suggests that damages reform should nonetheless be a high priority. Second, like sanctions, it may be difficult to design a damage schedule that provides the right level of deterrence. In theory, damage design is straightforward; damages should equal the net social harm of securities fraud divided by the probability that the issuer will be found liable. Obviously, translating this calculation into the real world is fraught with uncertainty. Other problems that past commentators have raised with respect to a penalty system may be less substantial. For example, some scholars have worried that a move to a penalty-based model may give attorneys insufficient incentives to search out fraud cases. One obvious solution is to require the defendants to pay attorney's fees as well as a penalty. That brings us back, however, to the same incentive problem—what is the right level of attorney's fees? Reevaluating how courts calculate fees in securities class actions is a third approach to altering incentives to bring nonmeritorious cases. Focusing on attorney's fees is also a more direct approach to the problem, and avoids potential political arguments.

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308. See supra Table 5.
309. See supra notes 41–45 and accompanying text.
310. See supra notes 36–40 and accompanying text.
311. See Alexander, supra note 41, at 1489; Langevoort, supra note 41, at 660–61.
313. See Langevoort, supra note 41, at 657–62 (discussing difficulties).
314. See id. at 660–61.
315. See id. at 661.
that may come with proposals to move from a compensatory damages system.

The data presented here suggest that current fee models may well overcompensate attorneys. At least part of the rationale behind current fee structures is that they are designed to compensate plaintiffs for litigation risk and the cost of prosecuting the action, including the costs associated with searching for frauds.\textsuperscript{316} The Ninth Circuit data on filing delay suggest that attorneys may be focusing on more obvious cases of fraud in response to the risks associated with the heightened pleading standard.\textsuperscript{317} Indeed, it is unclear whether they ever performed a significant search function. Professor Coffee has argued that plaintiffs' attorneys naturally gravitate to cases with the lowest search costs.\textsuperscript{318} The data on filing delay suggest that attorneys expend relatively little time (and perhaps relatively little money) in constructing a complaint. To the extent that current fee models are based on the attorney performing these functions, they likely overcompensate plaintiffs' attorneys.

Focusing on attorney's fees has an added benefit in that it would not require any legislative changes. The PSLRA currently mandates that attorney's fees "shall not exceed a reasonable percentage of the amount of any damages and prejudgment interest actually paid to the class."\textsuperscript{319} If current models tend to overcompensate attorneys, they would not seem to satisfy this provision. Moreover, courts consistently hold that any fee awards must be "reasonable."\textsuperscript{320} Among the factors that courts should consider in determining reasonableness are "public policy considerations,"\textsuperscript{321} including arguably the need to create proper incentive structures to encourage plaintiffs' attorneys to bring meritorious class actions.

An approach that asks courts to reevaluate fee calculations obviously enters into well-trodden territory. Courts have struggled over the last thirty years with the proper approach to setting fees in common fund cases.\textsuperscript{322} They have vacillated between a percentage-of-recovery ap-

\textsuperscript{316} Coffee, \textit{supra} note 20, at 679.
\textsuperscript{317} See \textit{supra} note 267-73 and accompanying text.
\textsuperscript{318} Coffee, \textit{supra} note 20, at 682.
\textsuperscript{320} See, e.g., Goldberger v. Integrated Res., Inc., 209 F.3d 43, 50 (2d Cir. 2000); Brown v. Phillips Petroleum Co., 838 F.2d 451, 456 (10th Cir. 1988); see also Savio v. Merch. Bank, 166 F.3d 456, 460–61 (2d Cir. 1999) (discussing how to calculate attorney's fees).
\textsuperscript{321} See, e.g., \textit{Goldberger}, 209 F.3d at 50.
proach and a lodestar calculation, although the percentage-of-recovery approach now appears to be more in favor.

A significant problem in this struggle was the lack of a valid market test for the fee award. Without such a test, courts were often left with the unenviable task of balancing a number of variables to determine the “right” fee. The nature of the factors considered often made it possible for courts to justify virtually any fee award. While the lodestar approach was an attempt to bring market rates to bear on the provision of legal services in class actions, it had the unintended consequence of causing attorneys to bill more than was necessary to litigate the case or to settle early. Other courts have attempted to mimic the market by auctioning the role of lead counsel, although these experiments have also come under sustained criticism. Some critics simply charge that auctions are inconsistent with the lead plaintiff provisions of the PSLRA, while others claim that in practice courts are unable to balance effectively price and quality in the selection of counsel.

One benefit of the PSLRA’s lead plaintiff provision is that courts are beginning to have more market information with which to work. In at least some circumstances, institutions have used competitive counsel selection procedures that balance price and quality of representation. There is some evidence that suggests that the competition to win representation of institutional investors has resulted in lower fees to the class. Institutional investors also appear to have incentives to seek out the lead plaintiff position predominantly in cases where they believe the claims of fraud are meritorious. In cases where the lead plaintiff has negotiated a fee arrangement with lead counsel, these factors suggest that the court should defer to that arrangement. In other cases, courts can look to the kinds of fee arrangements that institutional investors have negotiated with plaintiffs’ counsel. These fee arrangements may give courts some important guideposts for determining the market rate

323. Under the lodestar method, the court attempts to compensate the attorney for the reasonable value of the time spent litigating the case, with adjustments based on, among other factors, the quality of work and the riskiness of the litigation. See Grundfest & Perino, supra note 26, at 566. For a comprehensive list of the factors courts consider, see Johnson v. Ga. Highway Express, Inc., 488 F.2d 714, 717-19 (5th Cir. 1974) (adopting a twelve-factor test).
325. See, e.g., In re Oracle Sec. Litig., 131 F.R.D. 688, 693-95 (N.D. Cal. 1990).
326. Goldberger, 209 F.3d at 48; Coffee, supra note 19, at 887-88; Macey & Miller, supra note 26, at 22-23.
328. See Fisch, supra note 278, at 53-61.
329. See Johnson, Institutional Investors, supra note 155.
330. See supra note 155 and accompanying text.
331. See PERINO, supra note 1, § 2.04 B, at 2038 (discussing institutional disincentives to become lead plaintiff in nonmeritorious cases).
332. See Cendant, 264 F.3d at 284 n.55.
of return necessary to compensate plaintiffs' law firms to pursue meritorious cases.

VIII. CONCLUSION

Did the PSLRA work? As is typical, that simple question does not lend itself to a simple conclusion. There has been no net reduction in the number of issuers sued in securities class actions. It is unclear whether that is because there is simply more fraudulent conduct or because the Reform Act has encouraged plaintiffs' attorneys to pursue a portfolio diversification strategy. The PSLRA did little to reduce litigation risk for high technology issuers, which appears to be driven in part by the higher prevalence of stock compensation and trading among those issuers.

By contrast, there is statistically significant evidence suggesting that the PSLRA improved overall case quality at least in the circuit that most strictly interprets the Reform Act's heightened pleading standard. Rigorous interpretation of the heightened pleading standard in the Ninth Circuit appears to be correlated with a net decline in class actions filings there. Cases inside the Ninth Circuit have a higher frequency of actions alleging both accounting misrepresentations and trading by insiders and a lower frequency of complaints based solely on allegedly false or misleading predictive statements. These data suggest that case quality may be generally better in the Ninth Circuit than in other circuits. Ninth Circuit cases also involve issuers that are more likely to generate larger damages, which may be necessary to compensate attorneys for greater litigation risk. While Congress also did not achieve its goal of increasing the filing delay in class actions, that too may provide indirect evidence that plaintiffs' attorneys are selecting more apparent cases of fraud that require less prefiling investigation. These data suggest that additional courts should consider adopting the Ninth Circuit's approach to pleading questions.

Are more reforms required? It remains unclear. Assessment of that question should await further empirical research on dismissal rates, the direct and indirect costs associated with class action litigation, and case quality in circuits employing different interpretations of the pleading standard. If that research reveals that nonmeritorious cases still impose significant costs, then courts and Congress should consider approaches that more closely target the structures that create incentives to file nonmeritorious cases. These would include creating a more mean-

333. See supra text accompanying note 103.
334. See supra notes 253–55 and accompanying text.
335. See supra notes 202–05 and accompanying text.
336. See supra notes 200–02 and accompanying text.
337. See supra notes 230–38 and accompanying text.
meaningful threat of sanctions for nonmeritorious class actions, altering methods for calculating damages, or reducing attorney’s fee awards.