A VIEW FROM WITHIN THE FORTUNE 500: 
AN EMPIRICAL STUDY OF NEGATIVE VALUE CLASS ACTIONS AND DETERRENCE

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INTRODUCTION

The American civil justice system relies heavily on private enforcement to deter and redress corporate wrongdoing. Theoretically, civil litigation deters wrongful conduct by threatening liability for harm caused by such conduct. Under this theory, the threat of liability increases the potential cost of the conduct and induces corporations to invest in precautions to avoid harm. When deterrence fails, the imposition of liability redresses the harm by compensating the victim. This private enforcement regulatory model collapses, however, when litigation is not economically viable. Specifically, when the cost of pursuing litigation exceeds the expected recovery, there is no incentive to file suit, leading to no threat of liability to deter wrongful conduct, and no compensation for victims. Thus, when a manufacturer sells a million gas grills by falsely advertising that they are “Made in U.S.A.” when in fact some of the parts are imported,1 or when an insurance company wrongfully rounds premiums up to the nearest whole dollar on hundreds of thousands of policies,2 or when a financial management company fraudulently induces stockholders to hold onto over-valued stock by misstating corporate earnings,3 there is no incentive for an individual to file suit because the cost of litigation exceeds the expected recovery. While these injuries are admittedly quite small to each individual, turning a blind eye suggests to corporations that it is acceptable to engage in wrongful conduct that nickels and dimes the masses.

In 1966, the Civil Rules Advisory Committee amended the federal class action rule to address “the problem that small recoveries do not provide the incentive for any individual to bring a solo action prosecuting his or her rights.”4

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The modern rule paved the way for so-called negative value class actions. By aggregating groups of small value claims together, the cost of litigation is shared by a class of similarly situated claimants, thus making litigation more feasible for claims that would otherwise never see the light of a courtroom.

Although the negative value class action arrived on the scene nearly half a century ago, questions about its social utility remain controversial to this day. John Frank, a member of the Civil Rules Advisory Committee that drafted the amended rule, framed the controversy aptly when he said:

For all our effort, we do not know whether this is a good or a bad thing. The great big question is whether the social utility of the large class action outweighs the limited benefits to individuals, the aroma of gross profiteering, and the transactional costs to the court system.

The answer to the so-called “great big question” depends on whether negative value class actions are an effective deterrent of wrongful conduct. If they are, the costs associated with litigating a few rare instances of undeterred harm are outweighed by the overwhelming benefits of deterrence. If they are not, the costs associated with litigating a large and recurring number of negative value class actions outweigh the small compensatory benefits conferred on individuals.

This Article offers the first comprehensive analysis of the deterrent effect of negative value class action litigation from the perspective of large, publicly traded companies. Part I discusses the theory of deterrence. Part II analyzes previous empirical studies of deterrence in a variety of legal and factual contexts. While these studies inform our understanding of the deterrence theory generally, they reach conflicting conclusions regarding the efficacy of litigation as a deterrent, and they leave a number of important questions unanswered. Part III then describes the study that is the subject of this Article. The study presents new evidence from corporate counsels of Fortune 500 companies regarding historical experience with negative value class action litigation.

5. In re Monumental Life Ins. Co., 365 F.3d 408, 411 n.1 (5th Cir. 2004) (“A ‘negative value’ suit is one in which class members’ claims would be uneconomical to litigate individually”); John C. Coffee, Jr., The Regulation of Entrepreneurial Litigation: Balancing Fairness and Efficiency in the Large Class Action, 54 U. CHI. L. REV. 877, 904-06 (1987) (identifying three types of class actions: Type A class actions comprised of marketable claims; Type B class actions comprised of nonmarketable claims; and Type C class actions comprised of both marketable and nonmarketable claims). See Brian T. Fitzpatrick, Do Class Action Lawyers Make Too Little?, 158 U. PA. L. REV. 2043, 2044 (2010) (using the phrase “small stakes” class action to refer to a class action where the cost to litigate exceeds the expected recovery); Martin H. Redish & Clifford W. Berlow, The Class Action as Political Theory, 85 WASH. U. L. REV. 753, 793 (2007) (noting that the phrases “small value” and “negative value” are interchangeable).

I. THE THEORY OF DETERRENCE

The deterrence theory relies on a simple but largely untested assumption that the threat of civil liability induces actors to avoid wrongful conduct by increasing the cost associated with that conduct.\textsuperscript{7} This assumption flows from the following syllogism: (1) people are rational actors who choose their actions out of self-interest; (2) self-interest is economic and cost-benefit driven; and (3) the imposition of liability for harm caused by one’s conduct motivates actors to avoid inefficient injuries.\textsuperscript{8} Specifically, by threatening an actor with liability for harm caused by wrongful conduct, an actor has an incentive to invest in precautions up to the equilibrium point where an extra dollar of precaution equals the additional risk avoided.\textsuperscript{9} The following formula represents the theoretical deterrent value derived from a threat of litigation:

\[
EL \times p + EC \geq I
\]

EL represents the expected loss;\textsuperscript{10} \(p\) represents the probability that the actor will be liable for the harm;\textsuperscript{11} EC represents the expected cost of defending the action; and I represents the investment in precautions. The left side of the equation represents costs that may be avoided if harm is averted, and the right side of the equation represents an efficient investment in precautions to avoid the harm. The formula assumes that a rational actor will invest in precautions up to, but not beyond, the expected value derived from avoiding harm. Thus, from a purely economic perspective, the deterrent value derived from a threat of litigation should be less than or equal to the avoidable cost of litigation (i.e. the expected liability plus the cost of defending the suit).

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\textsuperscript{7} Jonathan W. Cardi et al., Does Tort Law Deter Individuals? A Behavioral Science Study, 9 J. EMPIRICAL LEGAL STUD. 567, 568 (2012) (“Much of the law and economics literature relies on this assumption as if it were analytic truth”). See GUIDO CALABRESI, THE COST OF ACCIDENTS 68-69 (1970) (general deterrence is focused on individual choice and relies upon cost/benefit incentives to deter undesirable conduct).

\textsuperscript{8} Cardi et al., supra note 7, at 568.

\textsuperscript{9} David Rosenberg, Mandatory-Litigation Class Action: The Only Option for Mass Tort Cases, 115 HARV. L. REV. 831, 843-44 (2002). For example, assume A and B are drivers. On average, A incurs $200 in accident costs per year and B incurs $25 in accident costs per year. Assume also that both A and B have the option of investing $50 annually in brake maintenance to reduce future accident costs. A will invest in the precaution as long as the reduction in annual accident costs exceeds $50. B will not invest in the precaution because the cost of the precaution is greater than his annual accident costs. Even if the investment in precaution would reduce his annual accident costs to zero, B would be investing $25 more in precautions than he would reap in benefit. CALABRESI, supra note 7, at 73-77.

\textsuperscript{10} The expected loss is the product of the magnitude of expected harm multiplied by the probability of harm.

\textsuperscript{11} The probability that the defendant will be liable for the harm is distinguishable from the probability of harm itself. The probability of harm depends upon the likelihood that events will unfold in a certain way, whereas the probability of liability depends upon whether the plaintiff will satisfy the burden of proof on each of the elements of the claim.
In theory, class certification increases deterrence by sweeping a large group of claimants into a single action and increasing the threat of liability. The magnitude of the increase in deterrence depends on the likelihood that individual litigation will be filed if a class is not certified. For example, a victim of wrongful conduct will have an incentive to file an individual suit when the expected recovery exceeds the cost of the litigation. This type of claim, commonly referred to as a positive value claim, creates a threat of liability from individual litigation, which in turn induces an actor to invest in precautions. When there are many similar positive value claims, an actor will anticipate a threat of liability from a series of individual suits and invest in precautions up to the value of the aggregate expected loss. Certification of a class of positive value claims enhances deterrence only to the extent that the class sweeps the entire group of similar claims into a single suit, including those claims that might not actually be filed as an individual suit. Thus, positive value class actions enhance deterrence in an amount equal to the variation between the threat of loss from a class action and the threat of loss from a series of individual suits.

Certification of a class of negative value claims presents a very different situation. A victim of wrongful conduct will have no economic incentive to file an individual suit when the expected recovery is dwarfed by the cost of pursuing the litigation. Thus, there is no threat of individual litigation and an actor has no economic incentive to invest in precautions. Certification of a class of negative value claims, however, enables litigation for the claims and creates a threat of liability that would not otherwise exist.

The following formula represents the deterrent value derived from a class action seeking damages:

12. The aggregate expected loss depends in part upon the likelihood that individual suits will actually be filed. As the expected net benefit decreases toward zero, the likelihood that an individual suit will be filed also decreases.

13. Coffee, supra note 5, at 904 (Type-A class actions, or positive value class actions, are comprised of individual claims that independently marketable in the absence of class certification). Positive value class actions tend to be disfavored by courts because class action treatment is considered unnecessary when individual suits are feasible. See, e.g., Amchem Prods., Inc. v. Windsor, 521 U.S. 591, 617 (1997); Castano v. Am. Tobacco Co., 84 F.3d 734, 748-49 (5th Cir. 1996). Restrictions on positive value class actions have encouraged the use of non-class aggregation techniques that involve the use of pre-trial multi-district consolidation, unified judicial management, and collective settlement agreements. See Troy A. McKenzie, Toward A Bankruptcy Model for Non-Class Aggregate Litigation, 87 N.Y.U. L. REV. 960, 962 (2012). A number of scholars have raised warning flags about the growing use of non-class aggregation because the lack of class certification requirements that protect individual claimants allows for the over empowerment of lawyers. Id. at 962-63; see also Elizabeth Chamblee Burch, Financiers as Monitors in Aggregate Litigation, 87 N.Y.U.L. REV. 1273, 1274-76 (2012).

14. The magnitude of this delta depends upon a variety of factors including the likelihood that individual suits will be filed, the likelihood of success by plaintiffs in the individual suits, the likelihood that a class will be certified, and the likelihood of success by the class.
EL_{CA} \cdot p_{CA} + E{C_{CA}} \geq I_{CA}

EL_{CA}$ represents the expected aggregate loss to the class; $p_{CA}$ represents the probability that the actor will be liable for the harm caused to the class; $EC_{CA}$ represents the expected cost of defending against the class action; and $I_{CA}$ represents the investment in precautions to avoid harm to the class.

While these formulas are useful in conceptualizing deterrence, they camouflage several potential limitations of deterrence theory. First, the formulas assume an actor has access to perfect information. In fact, however, estimating the relevant variables, at the relevant time, may be very difficult.\textsuperscript{15} Second, the formulas assume that the underlying harm may be remediated by a change in conduct motivated by cost incentives. Some harm, however, may be undeterred by cost incentives.\textsuperscript{16} Finally, the formulas assume that an actor faces a choice between an act and the accident’s costs. Yet, when an actor invests in insurance to protect against the risk of accident costs, the insurer pools together a variety of risks and spreads the loss among them. Grouping risks together potentially dilutes the incentive to avoid harm because a specific act no longer bears its own costs.\textsuperscript{17}

A simple accident example illustrates these limitations. Assume a driver is approaching a yellow light. If the driver knows that running through the light will increase accident costs by $100\textsuperscript{18} while stopping at the light will have no impact on accident costs, one would assume that the driver will be more likely to stop at the light than run through it.\textsuperscript{19} Yet, at the time that the decision whether to run through the light is made, it is very unlikely that the driver will be able to make an accurate and timely estimate of the costs and benefits of his conduct.\textsuperscript{20} Moreover, if the driver is daydreaming as he approaches the yellow light, he will not have conscious control over his conduct and the incentives will fail to deter the harm. If the driver has purchased accident insurance and agreed to pay an annual premium in exchange for protection from lump sum accident costs, he is less likely to change his behavior as he approaches the yellow light than if he...
does not have insurance because the connection between his conduct at the time of the accident and the resulting accident cost is diluted by the insurance company’s ability to spread the loss among a pool of risks.21 Although deterrence theory suggests that the driver should stop at the yellow light to avoid the increase in accident costs, the theory fails to account for the real life variables that may cause the driver to run the light.

To analyze how actual decision-making varies from rational forecasts, the next section discusses a series of empirical studies that test the deterrence assumption in a variety of procedural and substantive contexts.

II. RECENT STUDIES ON DETERRENCE THEORY

Studies seeking to test the efficacy of the deterrence theory have reached mixed conclusions.22 While some studies have found a link between cost internalization and deterrence,23 no study to date has been able to substantiate the

21. Id. at 104. Even if the driver knows that his rates are likely to increase if he causes an accident, the monetary value of the premium increase is not equal to the monetary value associated with the lump sum accident cost that he would incur if he did not have insurance. Id.

22. See, e.g., Russell B. Korobkin & Thomas S. Ulen, Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics, 88 CAL. L. REV. 1051, 1055 (2000) (“The use of rational choice theory enabled the law-and-economics movement, in its early days, to achieve significant advances in understanding the interaction between legal rules and society. But now that the movement has reached intellectual maturity, the rationality assumption severely limits its continued scholarly development. There is simply too much credible experimental evidence that individuals frequently act in ways that are incompatible with the assumptions of rational choice theory.”); Gary T. Schwartz, Reality in the Economic Analysis of Tort Law: Does Tort Law Really Deter?, 42 UCLA L. REV. 377, 379 (1994) (comparing the “strong” form of the deterrence argument—which assumes that tort law does in fact deter as thoroughly as economic models suggest—and a more “moderate” form of the argument—which assumes that tort law provides some amount of deterrence, but considerably less than the economists tend to predict. Author concludes that the strong form of the deterrence argument is unsound); Tom R. Tyler & John M. Darley, Building A Law-Abiding Society: Taking Public Views About Morality and the Legitimacy of Legal Authorities into Account When Formulating Substantive Law, 28 HOFSTRA L. REV. 707, 713 (2000) (“Although research supports the basic premise of the deterrence model, it also suggests that estimates of the likelihood of being caught and punished have, at best, a minor influence on people’s law-related behavior. Some studies suggest that such estimates do not independently influence behavior when the influence of other factors is considered. Other studies find an independent influence, but it is typically small in magnitude.”).

assumption that the imposition of damages serves as a comprehensive deterrent.\textsuperscript{24} Indeed, one study found no clear link between the threat of punitive damages and deterrence,\textsuperscript{25} another study found only “thin” evidence of a correlation between liability for medical malpractice and a reduction in negligence rates,\textsuperscript{26} and several studies have reached mixed results on the deterrent effects of tort reform.\textsuperscript{27}

Two recent studies illustrate the inconsistency of the evidence on deterrence theory. In a study published in 2012, Professors Cardi, Penfield and Yoon surveyed over 700 first-year law students and presented them with a series of vignettes involving conduct that might result in liability.\textsuperscript{28} The students were given a prompt regarding the applicable law and asked to rate the likelihood that they would engage in the conduct.\textsuperscript{29} The prompts described the consequences of the conduct under the applicable law in one of four ways: (1) no liability; (2) criminal liability;\textsuperscript{30} (3) tort liability; or (4) no mention of applicable law at all.\textsuperscript{31} Interestingly, the results of the study indicated that “the threat of tort liability had little to no deterrent effect” on the likelihood that participants would engage in

\begin{itemize}
  \item \textsuperscript{24} Cardi et al., supra note 7, at 571 (“Some scholars have found limited evidence that tort acts as a weak deterrent with respect to certain behaviors. Still others have found no evidence of deterrence or even, in a few cases, a negative association—that certain tort rules are associated with an increase in related injuries.”).


  \item \textsuperscript{26} Michelle M. Mello & Troyen A. Brennan, Deterrence of Medical Errors: Theory and Evidence for Malpractice Reform, 80 TEX. L. REV. 1595, 1598 (2002).

  \item \textsuperscript{27} See Paul H. Rubin & Joanna M. Shephard, Tort Reform and Accidental Deaths, 50 J. L. & ECON. 221 (2007) (finding non-economic damage caps, a higher evidence standard for punitive damages, product liability reform and prejudgment interest reform are associated with fewer motor vehicle accidental deaths but reforms to the collateral source rule are associated with increased motor vehicle accidental deaths). See generally Joanna Shephard, Tort Reforms’ Winners and Losers: The Competing Effects of Care and Activity Levels, 55 UCLA L. REV. 905 (2008) (finding tort reforms in medical malpractice area correlate with an increase in deaths).

  \item \textsuperscript{28} Cardi et al., supra note 7, at 599-603, Appendix (the vignettes included: (1) throwing a metal Frisbee with thinner than average edges in a public park; (2) allowing someone to ride your wave-runner without a life jacket; (3) using a cell phone while driving; (4) an off-duty EMT driving by an injured motorcyclist; (5) bumping a parked car to get out of a parking space; (6) a train conductor on a runaway train deciding whether to switch the track which will result in killing one person or doing nothing which will result in killing several people; (7) throwing a metal boomerang with thinner than average edges in a public park; (8) operating heavy machinery while medicated; (9) providing a recommendation for a former employee who often showed up late for work).

  \item \textsuperscript{29} Id.

  \item \textsuperscript{30} Id. at 580 (although the use of the word “criminal” in this situation may not be technically accurate, the authors sought to capture the moral dimension that society associates with criminal versus civil responsibility).

  \item \textsuperscript{31} Id. (providing no legal regime was intended to measure whether people consciously consider the possibility of legal sanctions when acting in a way that creates risk).
Surprisingly, the study participants were just as likely to take risks when they were told that they might be subject to tort liability as when they were told that they would be subject to no liability.

There are several possible explanations of the study’s results. Study participants may have underestimated the risk of incurring tort sanctions, either as a result of cognitive bias or because of a perception that only a small percentage of tortious injuries result in the filing of a civil action. Moreover, to the extent that legal liability is imposed for breaches of social norms and shared community values, it is possible that tort sanctions had little effect on the willingness to engage in risky conduct because the study participants were already inclined to abide by existing social standards of conduct. Finally, participants may have assumed that insurance would cover the liability, thus reducing the deterrent effect of the threat of liability.

In light of these results, it is surprising that another recent study concluded that a threat of damages promotes socially desirable behavior, particularly when damages relate to a class of victims or exceed actual harm. In this study, Professors Eisenberg and Engel tested the deterrent value of damages in three situations: (1) damages to an individual litigant; (2) damages to a class of litigants; and (3) damages beyond actual harm to victims, such as through a

32. Id. at 588 (the threat of criminal liability, on the other hand, correlated with deterrence).

33. Id. at 591-92 (The authors note that “[t]his finding is counterintuitive. It contradicts not only the study’s hypothesis, but also decades-old contrary assumptions of judges, policy-makers, and academics. Moreover, the finding even belies self-reports of the study’s participants. [Participating students] reported (after having participated in the study) that they had expected to be proven less likely to engage in risky behavior in the face of potential tort liability than in its absence. The study’s results . . . reveal this intuition to be inaccurate.”).

34. Id. at 593-94 (citing Ruth Ruttenberg et al., The Taxpayers’ Burden from Product-Related Harm, 21 KAN. J. L. & PUB. POL’Y 121, 125 (2011) (estimating that an annual average of over 131,000,000 product related injuries results in only 24,000 to 29,000 product liability suits filed)); see also Joyce Ehrlinger & David Dunning, How Chronic Self-Views Influence (and Potentially Mislead) Estimates of Performance, 84 J. PERSONALITY & SOC. PSYCH. 5, 5-7 (2003) (people tend to overestimate their own abilities and to underestimate their chances of becoming injured or of injuring others); Timur Kuran & Cass R. Sunstein, Availability Cascades and Risk Regulation, 51 STAN. L. REV. 683, 705-06 (1999) (describing a cognitive bias that suggests people are more likely to see an event as foreseeable if they recall similar events having occurred in the past); Daniel W. Shuman, The Psychology of Deterrence in Tort Law, 42 KAN. L. REV. 115, 121 (1993) (a deterrent effect is achieved when certainty of punishment reaches a sufficient level).

35. Cardi et al., supra note 7, at 594.

36. Id. (to the extent that at least some of the vignettes involved conduct that is not likely to be the subject of liability insurance (i.e., throwing a Frisbee) it is unlikely that this particular explanation is relevant to the conclusions of the study).

punitive damages regime. The study employed a public good experiment design to determine if the risk of liability in any of the three scenarios would cause participants to maintain a stable rate of cooperation toward a public good over time.

The results of the experiment support the conclusion that cooperation toward a public good project shows more improvement when an actor is threatened with aggregate damages for the total harm caused to a group than when an actor is only threatened with damages for harm caused to an individual. The baseline of the experiment supported the expected conclusion that cooperation toward a common goal deteriorates when there is no opportunity to seek damages for injurious

38. *Id.* at 303.

39. *Id.* at 305 (A public good experiment provides participants with an endowment from which each participant may choose to make a contribution to the public good. The group obtains a maximum benefit if all participants contribute 100% of their endowment to the public good but each individual obtains the most individual benefit by not contributing at all.).

40. The experiment lasted thirty periods and the researchers divided each period into two stages. *Id.* at 308. In the first stage, each individual had to decide how much of their endowment to contribute to a public good project and how much to keep. *Id.* The study determined each participant’s income by subtracting the participant’s contribution from the original endowment and adding a percentage of the total contributions made by all participants. *Id.* Participants were informed about the other participants’ contributions after individual contributions were complete. *Id.* The following formula was used to determine each participant’s income:

\[
\text{Income} = \text{endowment} - \text{individual contribution} + 40\% \times (\text{total contributions})
\]

If all participants contributed all of their endowment, total social welfare would be maximized and each participant’s income would be equal (20—20 + 40% of total contributions). *Id.* If one participant contributed zero, however, and the remaining participants contributed all of their endowments, the participant who contributed nothing would freeload off the benefits conferred by the public good without paying for it (20—0 + 40% of the total contributions), whereas the participants who contributed would earn less (20—20 + 40% of the total contributions). *Id.*

In the second stage, the researchers randomly chose one participant as the “active participant.” *Id.* at 309. The active participant took currency from other participants based on how much each of the other participants invested in the public good project in the first stage. *Id.* The amount of currency that the active participant could take from other participants based on how much each of the other participants invested in the public good project in the first stage. *Id.* The amount of currency that the active participant could take from other participants based on how much each of the other participants invested in the public good project in the first stage. *Id.* The amount of currency that the active participant could take from other participants based on how much each of the other participants invested in the public good project in the first stage. *Id.* The amount of currency that the active participant could take from other participants based on how much each of the other participants invested in the public good project in the first stage. *Id.*

41. *Id.*
conduct. \footnote{id}{Id. at 315.} A decline in cooperation persisted in the model that allowed a participant to seek damages for his own injury, but the decline was less severe than when no damages were available at all.\footnote{id}{Id. at 319 ("Overall the compensatory treatment somewhat improves the public good compared to the baseline but the effect is not strong enough to avoid the common deterioration in cooperation over time.").} When a participant was able to seek aggregate damages for harm caused to an entire group, cooperation remained virtually stable at a higher level than both of the other two models (the baseline and individual compensatory models), at least by the later periods of the experiment.\footnote{id}{Id. at 320 ("The increased damages available in the class action treatment stem the classic . . . trend of deteriorating cooperation over time. Holding the low-contributors liable for a greater share of the harm they impose leads to improved behavior from the perspective of social welfare.").} The final treatment allowed the imposition of damages that exceeded the overall harm caused to the entire group, thus resembling a punitive damages regime. Unlike all of the earlier treatments, this scenario resulted in increased cooperation over time.\footnote{id}{Id. at 323, 327-29 (The punitive treatment raised concerns about the possibility of antisocial punishment imposed by the active player. When one removes the concern regarding antisocial punishment, the results of the punitive treatment show non-deterioration in cooperation over time but no clear increase in cooperation over time.).} Overall, the authors found evidence suggesting:

\begin{quote}

a damages rule analogous to [traditional bilateral litigation] is sufficient to deter serious deterioration in cooperation over time. . . . A damages rule more closely tied to . . . damages in class action litigation, prevented the pattern of deteriorating cooperation over time. A more Draconian rule of damages, linked to income without requiring harm, promoted increased cooperation over time but at the cost of allowing socially unjust damages.\footnote{id}{Id. at 335.}
\end{quote}

Although the researchers comprehensively planned and meticulously executed both of these recent studies, they reached conflicting conclusions that suggest further research is necessary. By analyzing what the evidence in these studies shows, and fails to show, these studies point the way for further study.

Both of the recent studies analyze reported behavior, rather than actual behavior.\footnote{id}{Cardi et al., supra note 7, at 596 (recognizing that reliance on reported behavior rather than actual behavior is a weakness of the study because survey participants may over-report behaviors).} The studies seek to predict how actors will respond to a threat of...
liability based upon hypothetical factual scenarios. The nature of a hypothetical scenario raises the possibility that participants may incorrectly report how they would actually behave under similar circumstances. Indeed, by focusing the participants’ attention on isolated, hypothetical situations, the reported behavior is based upon a more simplified decision making process than actual behavior.\textsuperscript{48} Since it is impossible to measure how reported behavior varies from actual behavior, further research should focus on collecting data based on historical behavior.

The recent studies also provide vastly different opportunities for participants to learn from previous experience. The first study examines a single period experiment and finds little or no deterrent effect from the threat of damages. By limiting the experiment to a single period, however, the study fails to consider an actor’s behavioral revisions in light of previous experience. The second study, on the other hand, provides participants an opportunity to revise their behavior in thirty immediate periods of repeated play. Notably, levels of cooperation were quite different after ten periods, twenty periods and thirty periods of play. This suggests that behavior evolved over time as experience was reinforced. While each of these studies presents very different opportunities to learn from experience, it is unclear how closely these hypothetical scenarios resemble actual decision-making. Data based upon actual experience would close the gap.

Both studies simplify the problem of informational deficiencies. In order to predict a threat of liability, a corporation must estimate and then aggregate liability on individual claims.\textsuperscript{49} These estimates are subject to variability.\textsuperscript{50} Indeed, potential liability tends to change throughout the lifecycle of a lawsuit. For example, the expected loss from litigation at any particular point in time increases or decreases depending upon how a court rules on pivotal motions, such as a motion to dismiss for failure to state claim, class certification, admissibility behaviors they deem to be socially acceptable and under-report those deemed to be unacceptable.

\textsuperscript{48} Christine Jolls et al., \textit{A Behavioral Approach to Law and Economics}, 50 STAN. L. REV. 1471, 1477 (1998) (“To deal with limited memories we make lists. To deal with limited brain power and time we use mental shortcuts and rules of thumb. But even with these remedies, and in some cases because of these remedies, human behavior differs in systematic ways from that predicted by the standard economic model of unbounded rationality.”). \textit{Id.}

\textsuperscript{49} George Rutherglen, \textit{Future Claims in Mass Tort Cases: Deterrence, Compensation, and Necessity}, 88 VA. L. REV. 1989, 1994 (2002) (“All of the plausible means for determining overall liability require first an approximation and then a summation of liability on individual claims. No mass tort case seems to come with a figure for total liability attached.”).

\textsuperscript{50} For example, estimates are subject to variability depending upon risk preferences. Studies involving cognitive psychology have shown that individuals tend to be risk averse with respect to moderate to high probability gains (plaintiffs with strong cases), but risk seeking with respect to moderate to high probability losses (defendants with weak cases). On the other hand, studies also show that individuals generally tend to be risk seeking as to low probability gains (plaintiffs with weak cases) and risk averse as to low probability losses (defendants with strong cases). Richard A. Nagareda, \textit{1938 All Over Again? Pretrial as Trial in Complex Litigation}, 60 DEPAUL L. REV. 647, 657-58 (2011).
of expert testimony, or summary judgment.\textsuperscript{51} Reported behavior based upon hypothetical scenarios fails to account for these challenges.

Finally, both studies measure individual behavior rather than institutional behavior. To the extent that decision-making processes are different for individuals and corporations,\textsuperscript{52} data based upon individual behavior may not accurately predict institutional behavior.

The next section describes a new study designed to advance our understanding of deterrence and negative value class actions by focusing on historical experience with negative value class action litigation from the perspective of corporate decision makers.

\textbf{III. DETERRENCE: A VIEW FROM WITHIN THE FORTUNE 500}

\textit{A. Study Goals}

The study sought to refine our understanding of the relationship between negative value class action litigation and the prevention of harm. A comprehensive Questionnaire was sent to general counsel at each of the corporations on the 2011 Fortune 500 list.\textsuperscript{53} Unlike previous studies that relied upon randomly chosen study participants to report how they would respond to hypothetical situations, this study collected information from those individuals most likely to possess institutional knowledge regarding negative value class action litigation.\textsuperscript{54} In this sense, the study fills an important gap left open by previous studies.\textsuperscript{55}

The efficacy of deterrence theory depends upon the likelihood that an actor will predict a risk of future liability at a time when the actor may take precautions to avoid the liability. As illustrated by the deterrence formula, a number of variables affect the decision to invest in precautions to avoid future harm.\textsuperscript{56} Indeed, accurately predicting the variables that inform the left side of the equation—the avoidable cost of litigation—depends upon predicting the

\begin{itemize}
\item \textsuperscript{51} Id. at 649.
\item \textsuperscript{52} Cardi et al., supra note 7, at 597 (“Prior research has hinted that the threat of tort sanctions might have a greater deterrent effect on firms.”).
\item \textsuperscript{53} Questionnaire, infra App. A.
\item \textsuperscript{54} The survey was sent to general counsels on the assumption that they are most likely to possess institutional knowledge of how the companies have responded to the threat of class action litigation. To the extent that this assumption was inaccurate, the survey recipients were requested to forward the survey to a person who possessed such knowledge.
\item \textsuperscript{55} For example, in the previous studies based upon hypothetical scenarios, it was impossible to determine how informational deficiencies, risk preferences and cognitive limitations might change the reported behavior of participants. By relying upon actual historical experience, decision makers have incorporated any relevant practical limitations and made the best decision possible in light of these challenges.
\item \textsuperscript{56} See supra notes 10-11 and accompanying text for a discussion of the deterrence formula: \( EL \ast p + EC \geq I \).  
\end{itemize}
likelihood and magnitude of harm that may result from particular conduct (EL), as well as the legal implications that flow from the harm (p).

Several decades ago, Professor Francis McGovern popularized the concept of maturity in relation to class action litigation. He suggested that litigation is mature when “little or no new evidence will be developed, significant appellate review of any novel legal issues has been concluded, and at least one full cycle of trial strategies has been exhausted.” Prior to maturity, litigators continue to collect evidence, resolve legal issues, and develop trial strategies. In light of the fact that deterrence depends heavily upon the ability to anticipate future liability, this study seeks to better understand the relationship between litigation maturity and deterrence.

Intuitively, one would presume that prior litigation provides a valuable source of information from which a corporation may predict future liability. For example, a corporation that has been held liable for harm resulting from particular conduct in the past will possess information regarding the factual and legal assertions that formed the basis for liability in the previous litigation, and this information will inform a prediction about the risk of future liability for similar conduct. Indeed, once a corporation is held liable for particular conduct, one would expect the corporation to take affirmative action to avoid litigation regarding the same or similar conduct in the future.

Even when a corporation has not been a party to previous litigation, the imposition of liability against others can form the basis for predicting future liability. For example, a corporation that is aware of previous litigation against a competitor will be equipped to anticipate a risk of future liability for similar conduct. Indeed, if a corporation possesses information about the factual and legal assertions that formed the basis for the imposition of liability against a competitor, one would expect the corporation to attempt to avoid litigation for the same or similar conduct in the future.

When there is no track record from previous litigation, predicting future liability is much more difficult. One would expect that cases involving novel legal theories and/or unproven factual scenarios are hard to predict because there is little or no information to put a corporation on notice of the factual and legal assertions that may form the basis for liability.

The study presented in this Article tests these assumptions. The Questionnaire includes three basic parts: a statement of the study goal, a

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58. Id.

59. Id.

60. The survey states that the “goal of the study is to refine our understanding of the relationship between small-stakes class action litigation and the prevention of injury.” See Questionnaire, infra App. A, at 1. The Questionnaire refers to “small-stakes” class actions instead of “negative value” class actions. It should be noted that the phrases are synonymous.
definition section,\textsuperscript{61} and thirty-two questions. These questions seek to collect evidence to prove (or disprove) the following three hypotheses:

1. A risk of future liability is easier to anticipate when there is a well-developed record of the factual and legal issues from previous litigation than when there is no track record from previous litigation.
2. Corporations who have been held liable for particular conduct will successfully change their conduct to avoid future litigation regarding similar conduct.
3. Corporations who are informed about lawsuits filed against their competitors and who rely upon this information in making their own business decisions will successfully change their conduct to avoid subsequent similar litigation.

\textit{B. Reducing Survey Error}

The structure of the study reduces the potential for survey error. Survey error may arise from a variety of sources, including coverage error, sampling error, measurement error, and nonresponse error. Coverage error occurs when the list from which a researcher draws a sample fails to include all elements of a population, thus skewing the survey by failing to give all elements of the population a chance at participation.\textsuperscript{62} To reduce coverage error, the Questionnaire was sent to every company on the 2011 Fortune 500 list, giving every member of the list an equal chance to participate. The list of Fortune 500 companies was obtained from public records. Company websites provided the

\textsuperscript{61} To ensure that all respondents share similar understanding of the terminology, the Questionnaire included the following definitions:

\textit{Small-Stakes Class Actions}\textsuperscript{'} join together claims that cannot be economically litigated on an individual basis because each claim for relief is insufficient to cover the costs of litigation. Individual claims may seek damages ranging from a few pennies to several thousand dollars. Once joined together into a class, these claims become viable because the cost of litigation is spread among a large group of class members.\textsuperscript{62} See Questionnaire, infra App. A, at 1.

\textit{First Generation Small-Stakes Class Actions}\textsuperscript{'} are small-stakes class actions that involve novel legal theories and/or unproven factual scenarios.\textsuperscript{62} Id. [hereinafter First Generation Action].

\textit{Second Generation Small-Stakes Class Actions}\textsuperscript{'} are small-stakes class actions that involve legal theories and factual scenarios that have been previously argued in other cases but have not been definitively resolved. Thus while the case theories are not novel, ambiguity exists regarding the interpretation of important legal questions and/or the existence of evidentiary support for factual allegations.\textsuperscript{62} Id. [hereinafter Second Generation Action].

\textit{Third Generation Small-Stakes Class Actions}\textsuperscript{'} are small-stakes class actions that involve legal theories and factual scenarios that have been the subject of earlier class actions and enjoy fairly well developed legal and factual support from previous litigation. While some level of ambiguity persists, third generation class actions enjoy the most robust information from which to predict the likely outcome of a suit.\textsuperscript{62} Id. [hereinafter Third Generation Action].

identification of corporate counsels, and respondents were contacted via multiple means (i.e. multiple mailings and personal telephone calls). Finally, surveys returned to sender as undeliverable were checked, corrected and re-mailed with correct addresses. The overall risk of coverage error, therefore, is quite small.

Although the Questionnaire was sent to the entire population of Fortune 500 companies, not every recipient of the survey responded. The study relies upon the sample of responses received to generalize results of the Questionnaire to the entire survey population. Sampling error arises whenever data are collected from a subset of the relevant population and are used to estimate the distribution of characteristics of the entire population. While it is impossible to remove this potential for error without surveying every member of a population, it is possible to estimate sampling error with considerable precision. Thus, when estimating the characteristics of the population from the random sample of survey responses, sample results are accompanied by a 95% confidence interval which suggests that 95 out of 100 times a random sample is drawn from the population, the estimate from that sample will be within a specific range of the sample results. For example, if the results of a sample show that 20% of the respondents answered a particular question in the affirmative, a 95% confidence interval of +/- 5% would mean that 95 out of 100 times a random sample is drawn from the same population, 15-25% of the respondents will answer the same question in the affirmative.

Measurement error results from ambiguous questions that create imprecise responses. To reduce the risk of measurement error, the Questionnaire includes a variety of question and response formats. A number of questions employ a polar-point-labeled scale response system with verbally and numerically labeled end points and numerically labeled mid points, equally spaced along a horizontal continuum (the numerical scale ranges from 1-10). This question type provides an easy method for respondents to conceptualize relative preferences. Other questions provide a full set of verbal category labels, equally spaced in a vertical list. This type of response system offers more control over how researchers interpret each response. Some questions ask for a yes or no response. To the extent that any questions resulted in ambiguous responses, the question was omitted them from the study conclusions.

Nonresponse error occurs when those “who do not respond are different from those who do respond in a way that is important to the study.” Since the goal

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63. Id. (“Sampling error is the result of collecting data from only a subset, rather than all, of the members of the sampling frame.”).

64. Id.

65. Id. at 56-57.

66. Id. at 18.

67. Id. at 143 (discussing how some surveyors prefer this response system over a full set of verbal category labels because they believe that a numeric range provides an easier method for respondents to conceptualize relative preferences).

68. Id.

69. Id. at 17.
of the study is to analyze how corporations respond to the threat of negative value class action litigation, it is imperative that those who respond to the survey share a similar vulnerability to this type of litigation as those who do not respond.70 In other words, the sample must represent both the characteristics shared by the population and the diversity of characteristics that differentiate the members of the population in relation to the subject of the study. Although the population consists of a diverse group of companies operating in a wide variety of industries, every member of the population is subject to state and federal securities regulation as a publicly traded company. As such, every member of the population shares a similar vulnerability to securities class action litigation. Given that securities litigation is by far the single most common type of class action, this similarity among the population significantly reduces the risk of nonresponse error.71 Indeed, to the extent that securities class actions often

70. This does not mean that data can only be collected from respondents who have been named as defendants in such suits. Indeed, a lack of experience as a litigant may prove that a respondent is particularly well versed at recognizing the threat of litigation and averting the harm. Such a respondent would provide highly relevant information for this study.

71. The Administrative Office of the U.S. Courts reports that as of 2004, 47% of class actions pending in federal court involved securities regulation. See John C. Coffee, Jr., Private Securities Litigation Reform Act: Reforming the Securities Class Action: An Essay on Deterrence and Its Implementation, 106 COLUM. L. REV. 1534, 1539-40 (2006) (demonstrating that securities class actions are “the 800-pound gorilla that dominates and overshadows other forms of class actions”).

The following table shows class actions pending in federal courts as of September 30, 2002, 2003, and 2004:

<table>
<thead>
<tr>
<th>Type of Case</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>282</td>
<td>290</td>
<td>289</td>
</tr>
<tr>
<td>Real Property</td>
<td>33</td>
<td>38</td>
<td>34</td>
</tr>
<tr>
<td>Tort Actions</td>
<td>529</td>
<td>604</td>
<td>600</td>
</tr>
<tr>
<td>Antitrust</td>
<td>249</td>
<td>231</td>
<td>202</td>
</tr>
<tr>
<td>Employment Rights</td>
<td>164</td>
<td>159</td>
<td>173</td>
</tr>
<tr>
<td>Other Civil Rights</td>
<td>298</td>
<td>274</td>
<td>266</td>
</tr>
<tr>
<td>Prison, Prisoners</td>
<td>66</td>
<td>64</td>
<td>82</td>
</tr>
<tr>
<td>RICO</td>
<td>53</td>
<td>76</td>
<td>46</td>
</tr>
<tr>
<td>ERISA</td>
<td>134</td>
<td>183</td>
<td>216</td>
</tr>
<tr>
<td>Other Labor Suits</td>
<td>180</td>
<td>204</td>
<td>262</td>
</tr>
<tr>
<td>Securities/Commodities/Exchange</td>
<td>2325</td>
<td>2339</td>
<td>2480</td>
</tr>
<tr>
<td>Others</td>
<td>522</td>
<td>515</td>
<td>529</td>
</tr>
<tr>
<td>Total</td>
<td>4835</td>
<td>4977</td>
<td>5179</td>
</tr>
<tr>
<td>Securities Class Actions as a Percentage of Total</td>
<td>47.5%</td>
<td>47%</td>
<td>47.9%</td>
</tr>
</tbody>
</table>

involve negative value claims, exposure to this type of litigation is directly relevant to the subject of the study. In addition to potential securities class actions, members of the population share vulnerability to employment related class actions, including civil rights, ERISA, and other labor suits. Of course, vulnerability to class action litigation is not completely uniform across the population because industry specific class action suits are not equally prevalent for all members of the population. For example, companies in the retail industry are vulnerable to consumer class actions that companies in the oil pipeline industry likely are not. Overall, the similarity of exposure to securities and employment related class action litigation tends to reduce the risk of non-response error, while the relatively small risk of industry specific class action litigation minimally increases the risk of non-response error.

A number of techniques were used to motivate survey recipients to respond to the questionnaire. Each mailing included a personally addressed cover letter that described the significance of the study, a copy of the questionnaire, a biography of the author and a self-addressed return envelope. Approximately eight weeks after the first mailing, a follow-up letter was sent to all companies from whom a response had not been received (either a completed survey or correspondence indicating a lack of interest) along with another copy of the questionnaire. Approximately one to two weeks following the second mailing, a personal phone call was made to every recipient from whom a response had not yet been received. As a result, responses were received from forty-nine respondents who participate in thirty-one different industries. Overall,


72. See Table X4, 2002 ANNUAL REPORT, supra note 71 for the frequency of each of these categories.

73. Cover Letter, infra App. B. The cover letter ensured complete confidentiality, offered to share the results of the study with all survey participants and provided a telephone number and email address for correspondence with the author of the study.

74. Follow-up Letter, infra App. C.

75. Responses were received from companies in the following industries: metals; education; communication equipment; medical products; pharmaceuticals; construction and farm machines; insurance: life and health; insurance property and casualty; engineering and construction; health care: medical facilities; information technology services; motor vehicle and parts; telecommunications; food: consumer products; food: wholesale; general merchandise; specialty retailer; industrial machinery; utility: gas and electric; chemicals; pipelines; electronic equipment; aerospace and defense; automotive retailing services; mining, crude oil products; financial data services; computer services; scientific, photographic and control equipment; entertainment;
respondents represent a diverse group of publicly traded companies that share a vulnerability to class action litigation involving state or federal securities claims, civil rights claims, ERISA claims, and other labor related claims. Notwithstanding these efforts, some survey error likely remains. Although corporate counsel from each company had an equal opportunity to participate in the study, the sensitive nature of the subject matter likely discouraged many from participating. While the data provide adequate coverage of the population to draw conclusions within a 95% confidence interval for most questions, a higher participation rate would have allowed narrower confidence intervals.

Additionally, those who responded to the survey may have more experience with class action litigation and/or have a stronger opinion regarding the subject of the study than recipients who chose not to participate. Indeed, a small number of survey recipients communicated a hesitation to participate in the study precisely because they had little or no experience with class action litigation and therefore thought they had nothing of value to add. Finally, respondents have an incentive to downplay the validity of this costly regulatory device. While it is impossible to ignore this reality, the evidence does not indicate that the results are skewed to any significant degree by bias. The respondents do not have similar experience with negative value class action litigation. Thirteen respondents from thirteen different industries responded that they have never been named as a defendant in a negative value class action, suggesting that these respondents are less negatively disposed to the device than a respondent who has been dogged by such actions. Indeed, even among respondents who have been named as defendants in such litigation, most indicated such actions happened infrequently. Additionally, one would expect bias to result in uniform responses. However, the responses in this study are spread out, often covering the entire spectrum from “very low” to “very high.”

commercial bank; internet services; and retailing. The following industries had multiple respondents: communication equipment (two respondents); construction and farm machines (two respondents); insurance: life and health (three respondents); motor vehicles and parts (two respondents); food: consumer products (three respondents); general merchandise (two respondents); specialty retailer (two respondents); utility: gas and electric (four respondents); chemicals (two respondents); electronic equipment (three respondents); aerospace and defense (two respondents); automotive retailing services (three respondents).

76. Of the forty-nine survey responses, thirteen respondents have never been named as a defendant in a negative value class action.

77. When these thoughts were communicated, the author explained that the depth and breadth of exposure to class action litigation (or lack thereof) is, in and of itself, meaningful evidence that is relevant to the study. Notwithstanding, it is likely that some recipients of the Questionnaire chose not to respond for this reason.
C. Survey Results

Hypothesis 1: _A Risk of Future Liability Is Easier to Anticipate When There Is a Well-developed Record of the Factual and Legal Issues from Previous Litigation Than When There Is No Track Record from Previous Litigation_

In order to estimate future liability, an actor must be able to: (1) anticipate the legal and factual claims that may form the basis for liability in the future; (2) estimate a plaintiff’s likelihood of success on the merits; and (3) estimate the magnitude of the potential liability. An error in any of these estimates will result in under or over deterrence. The following questions seek to gauge respondents’ ability to anticipate the variables that inform deterrence at each stage of litigation maturity.

_With regard to the occasions when your company has been named as a defendant in a First Generation Small-Stakes Class Action, please rate your ability to anticipate the legal and factual claims at the time of the event or business decision that later became the subject of the class action suit. (emphasis in original)._\(^{78}\)

The response to this question suggests that most respondents have a very hard time anticipating the legal and factual claims that form the basis for First Generation Small-Stakes Class Actions. Indeed, only 10% of respondents rated their ability to anticipate these actions as high, 15% rated their ability to anticipate these actions as moderate, and a full 75% rated their ability to anticipate these actions as low.\(^{79}\)

In light of this data is not surprising that respondents also have difficulty anticipating a plaintiff’s likelihood of success in First Generation Small-Stakes Class Actions.

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78. The response scale ranges from “1 = We generally have not anticipated the legal and/or factual claims of First Generation Small-Stakes Class Actions” to “10 = We generally have anticipated the legal and factual claims of First Generation Small-Stakes Class Actions.” See Questionnaire, infra App. A, at question 15.

79. Throughout this Article, a rating between 7-10 is referred to as “high,” a rating between 4-6 is referred to as “moderate” and a rating between 1-3 is referred to as “low.” Among the twenty respondents to this question, two rated their ability to anticipate these actions between 7-10; three rated their ability to anticipate these actions between 4-6 (all three rated their ability at 4); and fifteen rated their ability to anticipate these actions between 1-3. A 95% confidence interval is +/- 13%. Respondents who rated their ability to anticipate actions as high, identify with the following industries: electronic equipment; and utility: gas and electric.

Respondents who rated their ability to anticipate actions as moderate, identify with the following industries: construction and farm machines; insurance: life and health; and commercial bank. Respondents who rated their ability to anticipate actions as low, identify with the following industries: construction and farm machines; insurance: life and health; insurance: property and casualty; engineering and construction; health care: medical facilities; food: consumer products; general merchandise; specialty retailer; utility: gas and electric; automotive retailing services; food: wholesale; computer services; and entertainment.
Class Actions. The following question asks:

*With regard to the occasions when your company has been named as a defendant in a First Generation Small-Stakes Class Action, please rate your ability to estimate the plaintiffs’ likelihood of success on the merits at the time of the event or business decision that later became the subject of the suit.* (emphasis in original)  

In response to this question, 20% of respondents rated their ability to estimate plaintiff’s likelihood of success as high; 25% rated their ability as moderate; and 55% rated their ability as low. Similarly, respondents had trouble estimating the magnitude of potential liability of First Generation Actions:

*With regard to the occasions when your company has been named as a defendant in a First Generation Small-Stakes Class Action, please rate your ability to estimate the magnitude of the potential liability at the time of the event or business decision that later became the subject of the suit.* (emphasis in original)

The response to this question suggests that many respondents are unable to accurately estimate the magnitude of the potential liability, with 20% rating their ability to estimate the magnitude of potential liability as high, 20% rating their ability as moderate, and a full 60% rating their ability as low.

The data suggest that a large margin of error exists for each of the relevant variables that inform the deterrence formula for First Generation Actions. While it is difficult to determine from this data if the margin of error on each variable is likely to give rise to under-deterrence or over-deterrence, a reasonably drawn conclusion from cost incentives suggests that respondents are more likely to under-estimate future liability than to over-estimate it.

While it is not surprising that many corporations have a hard time anticipating First Generation Actions, these actions pave the way for the development of mature litigation. The next series of questions focuses on Second Generation actions:

*With regard to the occasions when your company has been named as a defendant in a Second Generation Small-Stakes Class Action, please rate your ability to anticipate the legal and factual claims at the time of*
the event or business decision that later became the subject of the suit. (emphasis in original).\textsuperscript{84}

Not surprisingly, the response to this question suggests that respondents are better able to anticipate Second Generation Actions than First Generation Actions. Respondents are almost equally likely to rate their ability as high, moderate, or low, with 31\% of respondents rating their ability to anticipate such claims as high, 34.5\% rating their ability as moderate, and 34.5\% rating their ability as low.\textsuperscript{85} While it is not surprising that respondents are more prepared to anticipate a Second Generation Action than a First Generation Action, two-thirds of respondents rated their ability to anticipate such claims as moderate or low, suggesting that optimal deterrence is unlikely to be achieved in many Second Generation Actions. A related question asks:

With regard to the occasions when your company has been named as a defendant in a Second Generation Small-Stakes Class Action, please rate your ability to estimate the plaintiffs’ likelihood of success at the time of the underlying event or decision that later became the subject of the suit. (emphasis in original)\textsuperscript{86}

Similar to earlier questions, the response to this question suggests that respondents are better able to estimate the plaintiffs’ likelihood of success in Second Generation Actions than they are in First Generation Actions, with 34.5\%
of respondents rating their ability to estimate the plaintiff’s likelihood of success as high, 44.8% rating their ability as moderate, and 20.7% rating their ability as low. While these results demonstrate an improvement over First Generation Actions, there is still considerable inability to predict future liability.

With regard to estimating the magnitude of the potential liability, the following question asks:

*With regard to the occasions when your company has been named as a defendant in a Second Generation Small-Stakes Class Action, please rate your ability to estimate the magnitude of the potential liability to the class at the time of the underlying event or decision that later became the subject of the suit. (emphasis in original).*

In response to this question, 41.4% of respondents rated their ability to estimate the magnitude of the potential liability as high, while 24.1% rated their ability as moderate and 34.5% rated their ability as low.

Respondents rated their ability to anticipate the risk of legally cognizable harm much higher when litigation was fully mature, as supported by the responses to the following question:

*With regard to the occasions when your company has been named as a defendant in a Third Generation Small-Stakes Class Action, please rate your ability to anticipate the legal and factual claims at the time of the underlying event or decision that later became the subject of the suit. (emphasis in original).*

The response to this question shows an overwhelming improvement in the ability to anticipate the legal and factual claims asserted. A full 75% of respondents rated their ability to anticipate Third Generation Actions as high, with only 12.5% rating their ability as moderate, and 12.5% rating their ability as low. This is nearly the mirror image of respondents’ ability to anticipate First Generation Actions where 10% rated their ability as high, 15% rated their ability as moderate, and a full 75% rated their ability as low.

The following related question resulted in similar responses:

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87. The response scale ranges from “1 = We have not been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision” to “10 = We have been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.” A 95% confidence interval is ±10.5%. See Questionnaire, infra App. A, at question 23.

88. The response scale is based upon “1 = We generally have not anticipated the legal and/or factual claims of Third Generation Small-Stakes Class Actions” to “10 = We generally have anticipated the legal and factual claims of Third Generation Small-Stakes Class Actions.” See Questionnaire, infra App. A, at question 27.

89. Of the twenty-four respondents to this question, eighteen rated their ability to anticipate these claims between 7-10. Three rate their ability between 4-6, and three rated their ability between 1-3. A 95% confidence interval is ±12%.
With regard to the occasions when your company has been named as a defendant in a Third Generation Small-Stakes Class Action, please rate your ability to estimate the plaintiffs' likelihood of success at the time of the underlying event or decision that later became the subject of the suit. (emphasis in original)\(^90\)

Of the 24 responses, 75% rate their ability to estimate plaintiffs' likelihood of success as high, while 12.5% rate their ability as moderate and 12.5% rate their ability as low.\(^91\)

Finally:

With regard to the occasions when your company has been named as a defendant in a Third Generation Small-Stakes Class Action, please rate your ability to estimate the magnitude of the potential liability at the time of the underlying event or decision that later became the subject of the suit. (emphasis in original)\(^92\)

In response, 75% of respondents rated their ability to estimate magnitude of the loss as high, while 12.5% rated their ability as moderate, and 12.5% rated their ability as low.\(^93\)

The data support the first hypothesis that it is easier to anticipate a risk of future liability when there is a well-developed record of the factual and legal issues from previous litigation than when there is no record. Even when litigation is mature, however, the variables that induce a corporation to engage in anticipatory compliance are based upon estimates that are subject to variability. In fact, 87.5% of respondents rated their ability to anticipate even Third Generation Actions as a 9 or lower, suggesting that most respondents perceive some room for error in their estimates. Thus, while the deterrence formula helps to conceptualize the notion of anticipatory compliance, it is unlikely that most litigation induces the precise calculation of deterrence predicted by the formula.\(^94\)

However, this does not necessarily mean that deterrence is ineffective because a generalized perception of a risk of liability may be sufficient to induce a change in conduct. Consequently, deterrence may be more accurately assessed by how effectively an actor avoids future litigation, which is a question addressed by the second hypothesis.

\(^90\) The response scale ranges from “1 = We have not been able to accurately estimate the plaintiffs’ likelihood of success in Third Generation Small-Stakes Class Actions” to “10 = We have been able to accurately estimate the plaintiffs’ likelihood of success in Third Generation Small-Stakes Class Actions.” Questionnaire, infra App. A, at question 28.

\(^91\) A 95% confidence interval is +/- 12%.

\(^92\) The response scale ranges from “1 = We have not been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision” to “10 = We have been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.” Questionnaire, infra App. A, at question 29.

\(^93\) A 95% confidence interval is +/- 12%.

\(^94\) See supra notes 10-11 and accompanying text.
Hypothesis #2: Corporations who have been held liable for particular conduct will successfully change their conduct to avoid future litigation regarding similar conduct.

Deterrence theory suggests that if a company is sued in a First or Second Generation Action, the company will change its conduct to avoid being sued in a later generation of the same, or a similar, dispute. The following questions test this premise:

When your company has been named as a defendant in a Second Generation Small-Stakes Class Action, approximately how often has the company been named as a defendant in the earlier generation of a similar dispute? (emphasis in original).

Somewhat surprisingly, 51.7% of respondents report that they have been named in an earlier generation of a similar dispute, while 48.3% of respondents report that they have never been named in an earlier generation of a similar dispute. The responses to the following question are even more telling:

When your company has been named as a defendant in a Third Generation Small-Stakes Class Action, approximately how often has the company been named as a defendant in an earlier generation of a similar dispute? (emphasis in original).

In response, 84% of respondents reported having been named in an earlier generation of a similar dispute and only 16% reported never being named in an earlier generation of a similar dispute. The data contradict deterrence theory. Well over three quarters of the respondents were unsuccessful in avoiding subsequent litigation, even after being named in an earlier generation of a similar dispute.

Several possible explanations exist. It is possible that respondents were unable to change their behavior to avoid the subsequent suit either because both suits derived from the same behavior or because the time frame between the suits was short. If this is the case, respondents may be unable to respond to the information learned in the earlier generation suit in time to avoid subsequent

95. Possible responses included: (a.) Never; (b.) Infrequently (between 1-3 times); (c.) Somewhat often (four or more times). See Questionnaire, infra App. A, at question 20.

96. Based upon twenty-nine responses to this question, fourteen respondents answered “never”, twelve respondents answered “infrequently (between 1-3 times)” and three respondents answered “somewhat often (four or more times).” A 95% confidence interval is +/- 16.5%.

97. Responses include: (a.) Never; (b.) Infrequently (between 1 - 3 times); (c.) Relatively often (more than 4 times). See Questionnaire, infra App. A, at question 26.

98. Based upon 25 responses to this question, seventeen respondents have been named in an earlier generation of a similar dispute infrequently (1-3 times) and four have been named in an earlier generation of a similar dispute relatively often (more than 4 times). Only four respondents have never been named in an earlier generation of a similar dispute. A 95% confidence interval is +/- 18%.
litigation. Even when the time between multiple suits is relatively long, it is possible that large companies lack the flexibility and nimbleness to assimilate information, make policy changes, or adapt to new procedures in time to avoid follow-on litigation. Finally, it is possible that corporations are in fact changing their behavior to avoid future litigation but suits are being filed against them anyway. While a change in conduct to avert harm should result in protection from litigation exposure, defendants must bear the cost of defense even if the allegations of liability are not sustainable, thereby creating settlement value in filing frivolous suits.99

The data fail to confirm the second hypothesis.

Hypothesis #3

Corporations who are informed about lawsuits filed against their competitors and who rely upon this information in making their own business decisions will successfully change their conduct to avoid subsequent similar litigation.

The following questions focus on whether litigation against a competitor induces an actor who has not yet been the target of enforcement to change its conduct to avoid future liability:

Please rate your company’s awareness of class actions against your competitors (these are class actions in which you are NOT named as a defendant).100

The response to this question indicates that respondents believe they are fairly well informed about class actions within their industry. Specifically, 46.9% of respondents rate their awareness of class actions against competitors as high, 32.7% rate their awareness as moderate, and 20.4% rate their awareness of class actions against competitors as low.101 From an industry perspective, the companies who rate their awareness as high hail from nineteen industries,102 the companies who rate their awareness as moderate hail from fifteen industries,103

99. Some of the multi-generational litigation involving repeat defendants may involve situations where the cost of prevention is greater than the avoidable cost of litigation. In this scenario, companies will rationally choose not to invest in precautions, knowing that they will have to shoulder the burden of litigation if harm materializes.

100. The response scale ranges from “1 = Almost No Awareness” to “10 = Very Aware.” See Questionnaire, infra App. A, at question 2.

101. Based upon forty-nine responses, twenty-three respondents rate their awareness between 7-10; eleven respondents rate their awareness between 4-6; and ten respondents rate their awareness between 1-3. A 95% confidence interval is +/-8%.

102. The respondents who report the highest awareness of class action litigation against their competitors represent the following industries: education; pharmaceuticals; construction and farm machines; insurance: life and health; insurance: property and casualty; information technology services; telecommunications; food: consumer products; general merchandise; specialty retailer; utility: gas and electric; electronic equipment; automotive retailing and service; food: wholesale; mining, crude oil products; scientific, photographic and control equipment; entertainment; commercial bank; and internet services.

103. The respondents who report moderate awareness of class action litigation against their
and the companies who rate their awareness as low hail from nine industries. Interestingly, respondents within a single industry do not necessarily report the same level of awareness. For example, among the four respondents representing the industry “Utility: Gas and Electric,” two reported their awareness as high (7 and 9) and two reported their awareness as low (2 and 3). Similarly, among the three respondents representing the industry “Food: Consumer Products”, one respondent reported awareness as high (7), one respondent reported awareness as moderate (6) and one respondent reported awareness as low (3). Overall, the data suggest that participants in the same industry do not necessarily undertake the same effort to become aware of class action litigation against their competitors.

The Questionnaire also asks:

*Please rate the quality of information (level of detail, reliability, accuracy, etc.) that your company learns about the legal theories and factual assertions in class actions against your competitors.*

The response to this question suggests that many respondents believe the quality of information they possess about class actions against their competitors is relatively strong. Indeed, 44.7% of respondents rate the quality of information they possess as high, 46.8% rate the quality of information as moderate, and only 8.5% rate the quality of information as low. From an industry perspective, the respondents who rate the quality of information they possess as high hail from eighteen industries, respondents who rate the quality of information they possess as moderate hail from seventeen industries, and respondents who rate the quality of information as low hail from thirty industries.

104. The respondents who report the lowest awareness of class action litigation against their competitors represent the following industries: metals; communication equipment; medical products; construction and farm machines; insurance: life and health; engineering and construction; healthcare: medical facilities; motor vehicle and parts; food: consumer products; chemicals; pipelines; electronic equipment; aerospace and defense; automotive retailing services; financial data services; and computer services.

105. Of the twelve industries represented by more than one respondent, eight industries have respondents who rate their awareness in a different category (high, moderate, or low) than another respondent from the same industry. These eight industries are: construction and farm machines; communication equipment; food: consumer products; utility: gas and electric; chemicals; electronic equipment; aerospace and defense; and automotive retailing services.

106. The response scale ranges from “1 = The quality of information is very poor” to “10 = The quality of information is excellent.” See Questionnaire, infra App. A, at question 4.

107. Based upon forty-seven responses, twenty-one respondents rate the quality of information they possess between 7-10; twenty-two respondents rate the quality of information they possess between 4-6; and four respondents rate the quality of information they possess between 1-3. A 95% confidence interval is +/- 8%.

108. The respondents who report the highest quality of information regarding class action litigation against their competitors represent the following industries: insurance: property and casualty; education; pharmaceuticals; construction and farm machines; insurance: life and health;
possess as moderate hail from seventeen industries, and respondents who rate the quality of information they possess as low hail from three industries. Again, respondents from the same industry do not necessarily rate the quality of information they possess similarly. For example, respondents representing ‘Utility: Gas and Electric’ rate the quality of information they possess about class actions against their competitors from the very low to the very high (four respondents rated: 1, 3, 5, 9).

Of course, a company that possesses high quality information about class actions against its competitors will not be deterred from wrongful conduct unless it considers this information in making its own business decisions. Thus, the following question asks:

Please rate the relevance of the information you acquire about class actions against your competitors to your company’s business decisions. (emphasis in original)

Here, 41.7% of respondents report that information about class actions against competitors is highly relevant to their own business decisions, 25% report that such information is moderately relevant to their own business decisions, and 33.3% report that such information is not very relevant to their own business decisions. Those who report that the information is highly relevant to their

109. The respondents who report moderate quality of information regarding class action litigation against their competitors represent the following industries: metals; communication equipment; medical products; construction and farm machines; insurance: life and health; engineering and construction; health care: medical facilities; motor vehicles and parts; telecommunications; food: consumer products; utility: gas and electric; chemicals; electronic equipment; aerospace and defense; automotive retailing and service; financial data services; and scientific, photographic and control equipment.

110. The respondents who report the lowest quality of information regarding class action litigation against their competitors represent the following industries: motor vehicles and parts; utility: gas and electric; and aerospace and defense.

111. Of the twelve industries that are represented by more than one respondent, five industries include at least one respondent that rates the quality of information they possess in a different category than another respondent in that same industry. These five industries are: construction and farm equipment; food: consumer products; utility: gas and electric; electronic equipment; and insurance: life and health.


113. Based upon forty-eight responses, twenty respondents rate the relevance of such information between 7-10; twelve respondents rate the relevance of such information between 4-6; and sixteen respondents rate the relevance of such information between 1-3. A 95% confidence interval is +/- 8%. 
own business decisions hail from sixteen industries,\textsuperscript{114} those who report that the information is moderately relevant hail from nine industries,\textsuperscript{115} and those who report that the information is of low relevance hail from thirteen industries.\textsuperscript{116} Moreover, respondents within a single industry report varying degrees of reliance upon class action information against their competitors in making their own business decisions.\textsuperscript{117}

Not surprisingly, there is a relationship between the quality of information possessed and respondents’ willingness to rely on that information. Specifically, respondents who have high quality information overwhelmingly report that the information is highly relevant to their own business decisions.\textsuperscript{118} Overall, sixteen respondents reportedly possess high quality information concerning class actions against their competitors that is also highly relevant to their own decision making, and thirty-three respondents reportedly possess low or moderate quality information that is not highly relevant to their own business decisions. If deterrence theory holds water, the sixteen respondents who rely upon high quality information about class actions against their competitors in making their own business decisions should be named in fewer suits than the thirty-three respondents who have lower quality information and/or find the information less relevant to business decisions. [For ease of discussion, the sixteen respondents

\textsuperscript{114} The respondents who report that information about class actions against competitors is highly relevant to their own business decisions represent the following industries: education; pharmaceuticals; insurance: life and health; information technology services; motor vehicles and parts; food: consumer products; general merchandise; specialty retailer; utility: gas and electric; chemicals; pipelines; electronic equipment; food: wholesale; computer services; entertainment; and internet services and retailing.

\textsuperscript{115} The respondents who report that information about class actions against competitors is moderately relevant to their own business decisions represent the following industries: construction and farm machines; insurance: life and health; insurance: property and casualty; health care: medical facilities; food: consumer products; electronic equipment; automotive retailing services; mining, crude oil products; and scientific, photographic and control equipment.

\textsuperscript{116} The respondents who report that information about class actions against competitors are of low relevance to their own business decisions represent the following industries: metals; communication equipment; medical products; engineering and construction; motor vehicles and parts; telecommunications; utility: gas and electric; chemicals; electronic equipment; aerospace and defense; automotive retailing and service; financial data services; and commercial banks.

\textsuperscript{117} Of the twelve industries with multiple respondents, six industries have at least one respondent who rates the relevance of information about class actions against competitors in a different category than another respondent from the same industry. These industries are: food: consumer products; utility: gas and electric; chemicals; electronic equipment; automotive retailing and service; and insurance: life and health.

\textsuperscript{118} Specifically, of the twenty-one respondents who report possessing high quality information about class action litigation involving competitors, sixteen of them report that such information is highly relevant to their own business decisions, four report that such information is moderately relevant to their own business decisions and only one reports that such information is of low relevance.
will hereinafter be referred to as “The Best Practices Group” and the thirty-three respondents will hereinafter be referred to as “The Common Practices Group”.

The following questions probe this hypothesis.

To your knowledge, has your company ever been named as a defendant in a First Generation Small-Stakes Class Action? (emphasis in original).\(^{119}\)

The responses to this question indicate that 35.4\% of all respondents have been named as defendants in a First Generation Action, while 64.6\% have not been named in such suits.\(^{120}\) Among The Best Practices Group, 37.5\% have been named as defendants in a First Generation Action, and 62.5\% have not been named in such an action.\(^{121}\) Among The Common Practices Group, 34.4\% have been named in a First Generation Action, and 65.6\% have not been named in such an action.\(^{122}\) Overall, respondents from fourteen industries were named as defendants in First Generation Actions, with eight industries represented by respondents in The Best Practices Group\(^{123}\) and ten industries represented by respondents in The Common Practices Group.\(^{124}\)

The data suggest that The Best Practices Group of respondents have no advantage in avoiding First Generation Actions, with 62.5\% of the Best Practice Group and 65.6\% of the Common Practices Group reporting that they have never been named as a defendant in a First Generation Action.\(^{125}\) This is not surprising

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120. The question called for a “Yes” or “No” response. Based upon forty-eight responses, seventeen respondents report that they have been sued in a First Generation Action. A 95\% confidence interval is +/- 13.5\%. Questionnaire, infra App. A, at question 13.

121. Because the number of respondents who meet defining characteristics of The Best Practices Group is only sixteen, a 95\% confidence interval is +/- 24\%. Further study is necessary to narrow the confidence intervals.

122. Because the number of respondents who meet defining characteristics of The Common Practices Group is thirty-three, a 95\% confidence interval is +/- 16.5\%. Further study is necessary to narrow the confidence intervals.

123. In The Best Practices Group, respondents from the following industries report having been named in a First Generation action: insurance: life and health; food: consumer products; general merchandise; utility: gas and electric; electronic equipment; food: wholesale; computer services; and entertainment.

124. In The Common Practices Group, respondents from the following industries report having been named in a First Generation action: communication equipment; construction and farm equipment; insurance: life and health; insurance: property and casualty; health care: medical facilities; food: consumer products; utility: gas and electric; electronic equipment; automotive retailing and service; and commercial bank.

125. The Questionnaire also asks:

How frequently does your company tend to be named as a defendant in First Generation Small-Stakes Class Actions? (emphasis in original).

Three verbal category responses were: “infrequently (approximately 3 or fewer cases in any 5 year period of time)”; “A moderate number of times (approximately 4-10 cases in any 5 year period of
when one considers that First Generation Actions involve novel assertions that have not been aired in previous litigation. While The Best Practices Group does a better job than The Common Practices Group learning about previous class actions against their competitors and using that information in making business decisions, this effort is not likely to help anticipate the novel theories that are the subject of First Generation Actions. One would expect Second Generation Actions to present a different picture:

To your knowledge, has your company ever been named as a defendant in a Second Generation Small-Stakes Class Action? (emphasis in original).

The response to this question indicates that 58.3% of all respondents have been named in a Second Generation Action. Among The Best Practices Group of respondents, 56.3% have been sued in a Second Generation Action and 43.8% have not been named in a Second Generation Action. Among The Common Practices Group of respondents, 59.4% have been sued in a Second Generation Action and 40.6% have not been named in such an action. The data raise several interesting points worth noting. The overall percentage of respondents named in Second Generation Actions is higher than the overall number of respondents named in First Generation Actions (58.3% compared to 35.4%). This makes sense when we consider that Second Generation Actions benefit from the novel claims that are tested in First Generation Actions. Once a novel claim has been litigated in a First Generation Action, the theory can be copied and litigated repeatedly in Second Generation suits. Thus, the fact that more respondents report being sued in a Second Generation Action is expected.

A slightly larger percentage of The Best Practices Group (43.8%) has never been named in a Second Generation Action than The Common Practices Group (40.6%). This is precisely the opposite of First Generation Actions, where a

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127. A 95% confidence interval is +/- 24%.

128. A 95% confidence interval is +/- 16.5%.
slightly smaller percentage of The Best Practices Group (62.5%) has never been
named as a defendant in a First Generation Action than The Common Practices
Group (65.6%). One possible explanation for this reversal is that deterrence is
working more effectively in The Best Practices Group than it is in The Common
Practices Group. To the extent that The Best Practices Group is collecting and
relying upon high quality information about class action litigation against their
competitors, and The Common Practices Group is not, we would expect The Best
Practices Group to reduce its likelihood of being sued in a Second Generation
Action as compared to The Common Practices Group. The data suggest,
however, that the effect of collecting and relying upon high quality information
about class actions against competitors is quite modest.\footnote{129} Indeed, when one
considers the range of responses within a 95% confidence interval, there is no
statistically significant difference between the two groups.\footnote{130}

\footnote{129} The Questionnaire also asks:

How frequently does your company tend to be named as a defendant in Second
Generation Small-Stakes Class Actions? (emphasis in original).

Three verbal category responses were: “infrequently (approximately 3 or fewer cases in any 5 year
period of time)”; “A moderate number of times (approximately 4-10 cases in any 5 year period of
time)”; “Frequently (more than 10 cases in any 5 year period of time)”. Questionnaire, infra App.
A, at question 19. The data show that among the Best Practices Group, six respondents (66.7%)
answered that they were named as a defendant in a Second Generation Action “infrequently”, three
respondents (33.3%) answered that they were named as a defendant in a Second Generation Action
a “moderate number of times” and zero answered that they were named as a defendant in a Second
Generation Action “frequently.” In the Common Practices Group, fifteen respondents (68.2%)
answered that they were named as a defendant in a Second Generation Action “infrequently”, five
respondents (22.7%) answered that they were named as a defendant in a Second Generation Action
a “moderate number of times” and two respondents (9.1%) answered that they were named as a
defendant in a Second Generation Action “frequently.” Unfortunately, because the number of
respondents that have been named in Second Generation Actions is so small (particularly the Best
Practices Group with only nine respondents) no statistically significant comparison of frequency
can be drawn.

\footnote{130} It is possible that the respondents in The Best Practices Group would have been sued
more than the respondents in The Common Practices Group but for the efforts taken to reduce their
exposure to such suits. Since The Best Practices Group was approximately 3% more likely to be
sued in a First Generation Action than The Common Practices Group, we might assume that The
Best Practices Group of respondents hail from industries that shoulder greater exposure to class
action litigation than The Common Practices Group of respondents. Using this as a baseline, we
might assume that The Best Practices Group should be approximately 3% more likely to be sued
in a Second Generation Action than The Common Practices Group. Thus, if 40.6% of respondents
from The Common Practices Group have never been sued in a Second Generation Action, we might
predict that only 37.6% of The Best Practices Group would never have been sued in a Second
Generation Action but for the efforts taken to reduce exposure. Under these assumptions, the
efforts taken by The Best Practices Group resulted in an approximately 6% reduction in exposure
from the baseline prediction. When considered in light of the range or responses within a 95%
confidence interval, however, this difference is statistically insignificant.
When we focus on Third Generation Actions the data shift in a surprising manner:

To your knowledge, has your company ever been named as a defendant in a Third Generation Small-Stakes Class Action? (emphasis in original).

The response to this question indicates that 48.9% of all respondents have been named as a defendant in a Third Generation Action and 51.1% have not been named in such an action.\(^{131}\) If we isolate The Best Practices Group, 53.3% have been named as a defendant in a Third Generation Action, and 46.7% have never been named in such an action.\(^{132}\) Among The Common Practices Group, 46.9% have been named in a Third Generation action, and 53.1% have never been named in such an action.\(^{133}\)

The data suggest that the overall percentage of respondents named in Third Generation Actions is lower than the overall percentage of respondents named in Second Generation Actions (48.9% compared to 58.3%). This is not surprising when we consider that Third Generation Actions benefit from the legal and factual issues that have been resolved in Second Generation suits. At this stage of maturity, the outcome of litigation is more predictable and weak claims are not likely to be filed. Indeed, for precisely this reason we would expect that companies who collect and rely upon high quality information regarding class action litigation against their competitors will avoid being sued in Third Generation Actions more successfully than the Common Practices Group. Yet, the data fail to support this notion. Indeed, the data indicate that 46.7% of the respondents in The Best Practices Group have never been sued in a Third Generation Action, while a significantly larger percentage (53.1%) of respondents in the Common Practices Group have never been sued in a Third Generation Action.\(^{134}\) When one considers the range of possible responses within a 95% confidence interval is +/- 14%. Questionnaire, infra App. A, at question 24.

131. Among the forty-five responses to the question, twenty-three have been named in a Third Generation Action and twenty-two have not been named in such an action. A 95% confidence interval is +/- 14%. Questionnaire, infra App. A, at question 24.

132. Among the sixteen respondents in The Best Practices Group, nine have been sued in a Third Generation Action and seven have not been named in such an action. A 95% confidence interval is +/- 24%.

133. Among the thirty-three respondents in The Common Practices Group, thirty-two responded to this question. Fifteen respondents report that they have been sued in a Third Generation Action and seven have not been named in such an action. A 95% confidence interval is 16.5%.

134. The Questionnaire also asks:

How frequently does your company tend to be named as a defendant in Third Generation Small-Stakes Class Actions? (emphasis in original)

Three verbal category responses were: infrequently (approximately 3 or fewer cases in any 5 year period of time); A moderate number of times (approximately 4-10 cases in any 5 year period of time); Frequently (more than 10 cases in any 5 year period of time). Questionnaire, infra App. A, at question 25.
confidence interval, it is impossible to make any statistically significant distinctions between The Best Practices Group and The Common Practices Group. The data fails to confirm the hypothesis that Corporations who are informed about lawsuits filed against their competitors and who rely upon this information in making their own business decisions successfully avoid subsequent similar litigation.

Overall, the data collected in this study supports the notion that a relationship exists between litigation maturity and deterrence. Corporations report that it is easier to anticipate a risk of future liability when there is a well-developed record of the factual and legal issues from previous litigation than when there is no track record from previous litigation. In light of this finding, however, it is somewhat surprising that over three-quarters of the respondents have been sued in multiple generations of the same or a similar suit. Equally surprising is the finding that corporations armed with high quality information about previous litigation against their competitors are virtually no more successful in avoiding subsequent litigation than corporations who lack this information.

CONCLUSION

This Article offers new evidence to answer the primary question that has swirled around negative value class actions for decades: does the social utility derived from these actions outweigh “the limited benefits to individuals, the aroma of gross profiteering, and the transactional costs to the court.”\textsuperscript{135} The answer to this question hinges on deterrence.

The data presented in this Article suggest that negative value class actions may not be as effective at deterring wrongful conduct as we expect them to be. This study tested three inter-related hypotheses: (1) future liability is easier to anticipate when there is a well-developed record of the factual and legal issues from previous litigation than when there is no track record from previous litigation; (2) corporations who have been held liable for particular conduct will successfully change their conduct to avoid litigation regarding similar conduct in

\textsuperscript{135} John P. Frank, Whither Rule 23: Memorandum to the Honorable Patrick E. Higginbotham (Apr. 28, 1995) (unpublished memorandum on file with the Advisory Committee).
the future; (3) corporations who are informed about lawsuits filed against their competitors, and who rely upon this information in making their own business decisions, will successfully change their conduct to avoid subsequent similar litigation. The new data suggests that although there is a relationship between litigation maturity and deterrence, corporations are not successfully avoiding future litigation by relying upon information learned from earlier suits.

Before we conclude that small-stakes class actions are ineffective deterrents, however, we must consider whether corporations are partly to blame for the disappointing deterrence statistics. Indeed, with 84% of respondents reporting that they have been named as a defendant in multiple generations of the same (or a similar) dispute and a majority of respondents reporting that they do not collect high quality information about class actions against their competitors and/or consider such information when making their own business decisions, it is impossible to conclude that these corporations are investing their best efforts to avoid liability. To the extent that the data presented in this study brings attention to areas of weakness and highlights action that may be taken to address these weaknesses, everyone wins. Corporations do not want to be sued in negative value class actions any more than society wants to bear the expense associated with them. If this study motivates corporations to take efforts to improve deterrence, the study will have accomplished a great deal.
APPENDIX A
Small-Stakes Class Action Survey

I. Introduction
The goal of this study is to refine our understanding of the relationship between small-stakes class action litigation and the prevention of injury.

II. Definitions
For purposes of this survey, please apply the following definitions in answering the questions:
“Small-Stakes Class Actions” join together claims that cannot be economically litigated on an individual basis because each claim for relief is insufficient to cover the costs of litigation. Individual claims may seek damages ranging from a few pennies to several thousand dollars. Once joined together into a class, these claims become viable because the cost of litigation is spread among a large group of class members.

“First Generation Small-Stakes Class Actions” are small-stakes class actions that involve novel legal theories and/or unproven factual scenarios.

“Second Generation Small-Stakes Class Actions” are small-stakes class actions that involve legal theories and factual scenarios that have been previously argued in other cases but have not been definitively resolved. Thus while the case theories are not novel, ambiguity exists regarding the interpretation of important legal questions and/or the existence of evidentiary support for factual allegations.

“Third Generation Small-Stakes Class Actions” are small-stakes class actions that involve legal theories and factual scenarios that have been the subject of earlier class actions and enjoy fairly well developed legal and factual support from previous litigation. While some level of ambiguity persists, third generation class actions enjoy the most robust information from which to predict the likely outcome of a suit.

**Please note:** The following questions do not ask you to categorize specific class actions into one of these categories. Rather, the questions seek general impressions regarding your experience with class actions at various stages of maturity. The questions ask you to gauge the maturity of class actions in which you have been involved according to your own knowledge and impressions. It is NOT necessary to conduct research to supplement your knowledge of earlier generations of class actions to respond to these questions.

“**You**” refers to the entity or corporation on whose behalf you are responding.
III. Completed Surveys

Please return all survey responses to:

Professor Linda Simard
Suffolk University Law School
120 Tremont St.
Boston, MA 02108-4977

IV. Questions

1. Please state your company’s industry:
   _________________________________________________

2. Please rate your company’s awareness of class actions against your competitors (these are class actions in which you are NOT named as a defendant):

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1= Almost No Awareness (We generally don’t learn about class actions against our competitors)
10 = Very Aware (We learn about all class actions against our competitors very soon after they are filed)

Comment: _________________________________________________
   _________________________________________________
   _________________________________________________

3. Does your company have a system in place to learn about class actions against your competitors? (i.e. a formal or informal network of general counsels, a trade organization, etc.)

   a. No
   b. Yes

Comment (please describe the system):
   _________________________________________________
   _________________________________________________
   _________________________________________________
4. Please rate the quality of information (level of detail, reliability, accuracy, etc.) that your company learns about the legal theories and factual assertions in class actions against your competitors:

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1 = The quality of information is very poor.
10 = The quality of information is excellent.

Comment: ________________________________________________________________

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5. Please rate the relevance of the information you acquire about class actions against your competitors to your company’s business decisions:

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1 = Not relevant
10 = Highly relevant

Comment: ________________________________________________________________

_______________________________________________________________

_______________________________________________________________

6. Please rate the effectiveness of small-stakes class actions in regulating your competitors’ conduct (for example, do small-stakes class actions deter your competitors from breaking legal rules to gain a competitive advantage?):

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1 = Small-stakes class actions have not been effective in regulating our competitors’ conduct.
10 = Small-stakes class actions have been very effective in regulating our competitors’ conduct.

Comment: ________________________________________________________________

_______________________________________________________________

_______________________________________________________________

7. To your knowledge, has your company ever been named as a defendant in a small-stakes class action filed in a state or federal court in the United States that includes foreign citizens (non U.S. citizens) as class members?

a. No (please go on to question 9)
b. Yes
8. How frequently does your company tend to be named as a defendant in small-stakes class actions filed in state or federal court in the United States that include foreign citizens as class members?

a. Almost never (approximately 0-1 case in any 5 year period of time)

b. Infrequently (approximately 2-3 cases in any 5 year period of time)

c. A moderate number of times (approximately 4-10 cases in any 5 year period of time)

d. Frequently (more than 10 cases in any 5 year period of time)

9. To your knowledge, has your company ever been named as a defendant in a small-stakes judicial action filed in a court outside of the United States (i.e. an action involving a large number of people alleging small-stakes injuries)?

a. No

b. Yes

If yes, please rate your impressions of the process offered in these forums (efficiency, opportunity to present your case, outcome, availability of appellate review, etc.)

1 2 3 4 5 6 7 8 9 10

1 = Quality of the process was poor
10 = Quality of the process was excellent

Comments (please identify the countries where the proceedings occurred):

___________________________________________________________

___________________________________________________________

___________________________________________________________

10. To your knowledge, has your company ever been the subject of a non-judicial legal proceeding outside of the United States to redress a large scale, small-stakes dispute (i.e. an administrative or regulatory proceeding)?

a. No

b. Yes

If yes, please rate your impressions of the process offered in these forums (efficiency, opportunity to present your case, outcome, availability of review or reconsideration, etc.)

1 2 3 4 5 6 7 8 9 10

1 = Quality of the process was poor
10 = Quality of the process was excellent
Comments (please identify the countries where the proceedings occurred):

___________________________________________________________
___________________________________________________________
___________________________________________________________

11. To your knowledge, has your company ever been the subject of a legal proceeding outside of the United States (judicial or non-judicial) regarding a dispute that had previously been the subject of a class action suit in the United States?

a. No
b. Yes

If yes, did the foreign forum recognize the US class action judgment and accord it preclusive effect?

a. No
b. Yes

12. Do you believe that your foreign competitors have a competitive advantage over your company because they are less likely to be named as defendants in small-stakes class actions filed in state or federal courts in the United States?

a. No
b. Yes

13. To your knowledge, has your company ever been named as a defendant in a First Generation Small-Stakes Class Action?

a. No (please go on to question 18)
b. Yes

14. How frequently does your company tend to be named as a defendant in First Generation Small-Stakes Class Actions?

a. Infrequently (approximately 3 or fewer cases in any 5 year period of time)
b. A moderate number of times (approximately 4-10 cases in any 5 year period of time)
c. Frequently (more than 10 cases in any 5 year period of time)

15. With regard to the occasions when your company has been named as a defendant in a First Generation Small-Stakes Class Action, please rate your ability to anticipate the legal and factual claims at the time of the event or business decision that later became the subject of the class action suit:

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We generally have not anticipated the legal and/or factual claims of First Generation Small-Stakes Class Actions.

10 = We generally have anticipated the legal and factual claims of First Generation Small-Stakes Class Actions.

Comments: _________________________________________________
________________________________________________________________________
________________________________________________________________________

16. With regard to the occasions when your company has been named as a defendant in a First Generation Small-Stakes Class Action, please rate your ability to estimate the plaintiffs’ likelihood of success on the merits at the time of the event or business decision that later became the subject of the suit:

1 2 3 4 5 6 7 8 9 10

1 = We have not been able to accurately estimate the plaintiffs’ likelihood of success in First Generation Small-Stakes Class Actions.

10 = We have been able to accurately estimate the plaintiffs’ likelihood of success in First Generation Small-Stakes Class Actions.

Comments: _________________________________________________
________________________________________________________________________
________________________________________________________________________

17. With regard to the occasions when your company has been named as a defendant in a First Generation Small-Stakes Class Action, please rate your ability to estimate the magnitude of the potential liability at the time of the event or business decision that later became the subject of the suit:

1 2 3 4 5 6 7 8 9 10

1 = We have not been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.

10 = We have been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.

Comments: _________________________________________________
________________________________________________________________________
________________________________________________________________________
18. To your knowledge, has your company ever been named as a defendant in a Second Generation Small-Stakes Class Action?

a. No (please go on to question 24)
b. Yes

19. How frequently does your company tend to be named as a defendant in Second Generation Small-Stakes Class Actions?

a. Infrequently (approximately 3 or fewer cases in any 5 year period of time)
b. A moderate number of times (approximately 4-10 cases in any 5 year period of time)
c. Frequently (more than 10 cases in any 5 year period of time)

20. When your company has been named as a defendant in a Second Generation Small-Stakes Class Action, approximately how often has the company been named as a defendant in the earlier generation of a similar dispute?

a. Never
b. Infrequently (between 1-3 times)
c. Somewhat often (four or more times)

21. With regard to the occasions when your company has been named as a defendant in a Second Generation Small-Stakes Class Action, please rate your ability to anticipate the legal and factual claims at the time of the event or business decision that later became the subject of the suit:

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1 = We generally have not anticipated the legal and/or factual claims of Second Generation Small-Stakes Class Actions.
10 = We generally have anticipated the legal and factual claims of Second Generation Small-Stakes Class Actions.

22. With regard to the occasions when your company has been named as a defendant in a Second Generation Small-Stakes Class Action, please rate your ability to estimate the plaintiffs’ likelihood of success at the time of the underlying event or decision that later became the subject of the suit:

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1 = We have not been able to accurately estimate the plaintiffs’ likelihood of success in Second Generation Small-Stakes Class Actions.
10 = We have been able to accurately estimate the plaintiffs’ likelihood of success in Second Generation Small-Stakes Class Actions.
23. With regard to the occasions when your company has been named as a defendant in a Second Generation Small-Stakes Class Action, please rate your ability to estimate the magnitude of the potential liability to the class at the time of the underlying event or decision that later became the subject of the suit:

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1 = We have not been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.
10 = We have been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.

Comment: _________________________________________________
___________________________________________________________
___________________________________________________________

24. To your knowledge, has your company ever been named as a defendant in a Third Generation Small-Stakes Class Action?

a. No (Please go on to question 30.)
b. Yes

25. How frequently does your company tend to be named as a defendant in Third Generation Small-Stakes Class Actions?

a. Infrequently (approximately three or fewer cases in any five year period of time)
b. A moderate number of times (approximately four to ten cases in any five year period of time)
c. Frequently (more than ten cases in any five year period of time)

26. When your company has been named as a defendant in a Third Generation Small-Stakes Class Action, approximately how often has the company been named as a defendant in an earlier generation of a similar dispute?

a. Never
b. Infrequently (between one and three times)
b. Relatively often (more than four times)
27. With regard to the occasions when your company has been named as a defendant in a **Third Generation Small-Stakes Class Action**, please rate your ability to anticipate the legal and factual claims at the time of the underlying event or decision that later became the subject of the suit:

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</thead>
</table>

1 = We generally have not anticipated the legal and/or factual claims of Third Generation Small-Stakes Class Actions.  
10 = We generally have anticipated the legal and factual claims of Third Generation Small-Stakes Class Actions.  

Comment: _________________________________________________  
___________________________________________________________  
___________________________________________________________  

28. With regard to the occasions when your company has been named as a defendant in a **Third Generation Small-Stakes Class Action**, please rate your ability to estimate the plaintiffs’ likelihood of success at the time of the underlying event or decision that later became the subject of the suit:

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</table>

1 = We have not been able to accurately estimate the plaintiffs’ likelihood of success in Third Generation Small-Stakes Class Action.  
10 = We have been able to accurately estimate the plaintiffs’ likelihood of success in Third Generation Small-Stakes Class Action.  

Comment: _________________________________________________  
___________________________________________________________  
___________________________________________________________  

29. With regard to the occasions when your company has been named as a defendant in a **Third Generation Small-Stakes Class Action**, please rate your ability to estimate the magnitude of the potential liability at the time of the underlying event or decision that later became the subject of the suit:

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1 = We have not been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.  
10 = We have been able to accurately estimate the magnitude of the potential liability at the time of the underlying event or decision.
30. Please identify the factors that your company uses to determine whether to invest in precautions that may reduce the likelihood of a class action suit:

(Circle all that apply.)

a. Cost benefit analysis (invest in precautions when the cost of precaution is less than the expected loss from a class action lawsuit)

b. Customer relations (invest in precautions to maintain good customer relations, even when the cost of the precaution exceeds the expected loss from a class action lawsuit)

c. Publicity (invest in precautions to avoid bad publicity, even when the cost of the precaution exceeds the expected loss from a class action lawsuit)

d. Other (Please describe below.)

31. Based upon your experience, please rate the quality of the procedures applied in small-stakes class action litigation in the United States (i.e. efficiency, opportunity to present your case, outcome, availability of review or reconsideration, etc.):

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
---|---|---|---|---|---|---|---|---|---|----|
1  |   |   |   |   |   |   |   |   |   |    |
2  |   |   |   |   |   |   |   |   |   | 10 |
3  |   |   |   |   |   |   |   |   |   | 10 |
4  |   |   |   |   |   |   |   |   |   | 10 |
5  |   |   |   |   |   |   |   |   |   | 10 |
6  |   |   |   |   |   |   |   |   |   | 10 |
7  |   |   |   |   |   |   |   |   |   | 10 |
8  |   |   |   |   |   |   |   |   |   | 10 |
9  |   |   |   |   |   |   |   |   |   | 10 |
10 |   |   |   |   |   |   |   |   |   | 10 |

1 = Quality of the process is poor.
10 = Quality of the process is excellent.

32. Please indicate if someone from your company would be willing to participate in a follow up interview via telephone.

a. No

b. Yes (Please provide the name and contact information below.)

Please feel free to include any additional comments (in the space below, on the back of this page, or on a separate sheet):
Thank you for your time in responding to these questions.

Please return all completed surveys to:

   Professor Linda Simard  
   Suffolk University Law School  
   120 Tremont St.  
   Boston, MA  02108-4977
Dear (name):

I am writing to solicit ten to fifteen minutes of your time for a research project concerning so-called “small-stakes class actions.” The phrase “small-stakes class action” refers to a class action that joins together claims that cannot be economically litigated on an individual basis because each claim for relief is insufficient to cover the costs of litigation. When joined together into a class, these claims become viable because the cost of litigation is spread among a large group of class members. Notwithstanding the name “small-stakes class action,” these suits are anything but “small-stakes” to the defendants who are threatened with massive liability.

Academic theory suggests that small-stakes class actions serve important societal goals. Academic theory suggests that small-stakes class actions serve important societal goals. Yet, very little empirical evidence exists to support or refute the academic theory. This study provides you with an opportunity to provide valuable empirical evidence regarding the role small-stakes class actions play in corporate decision-making. The goal of this study is to refine our understanding of the relationship between small-stakes class actions and the prevention of injury.

In exchange for your participation in the study, you will be provided with the survey results and study conclusions. The survey is being sent to all Fortune 500 companies, and a high response rate will offer significant insights and valuable information regarding small-stakes class action litigation from the defense perspective. In an effort to reduce the perceived risk associated with participation in the study, all information collected from the study will maintain the anonymity of the participants in the study. Specifically, all survey responses will be kept strictly confidential; results, calculations, and conclusions will be communicated without attribution to any participant in the study (including information released to study participants), and no individual company or counsel will be identified as a participant in the study. Survey responses will be used to develop one or more scholarly papers discussing the results of the study.

I have enclosed a brief personal biography to provide you with information regarding my scholarly background. Please do not hesitate to contact me with any questions or comments.

Thank you for your contribution to the success of this study.

Sincerely,

Linda Sandstrom Simard

136. Specifically, small-stakes class actions are intended to: (1) minimize injury costs through prevention (deterrence) and (2) compensate for injuries that are not prevented. Most class members receive relatively small compensation from small-stakes class actions, making the deterrence function the primary rationale for these suits. See Brian Fitzpatrick, Do Class Action Lawyers Make Too Little?, 158 U. PA. L. REV. 2043, 2067-68 (2010).
Dear (name):

Several months ago, I requested your participation in an empirical study on class action litigation. Specifically, the study focuses on “negative value” or “small-stakes” class actions involving class members who allege very small losses. These class actions involve individual claims that are too small to justify an individual lawsuit because the cost of litigation exceeds the potential recovery for any individual class member. Thus, class certification under these circumstances allows litigation that otherwise would not be viable. This study seeks to determine when, if ever, these class actions make sense. The study promises to make a significant contribution to the ongoing debate by collecting empirical, anonymous, evidence from corporate decision makers who will provide a perspective that has been noticeably absent from academic literature on the subject.

To date, a number of your colleagues at other Fortune 500 companies have participated in the study. In order to generate credible results, however, I need your participation. I assure you that all information collected from the study will maintain the anonymity of the participants in the study. All survey responses will be kept strictly confidential; results, calculations and conclusions will be communicated without attribution to any participant in the study, and no individual company or counsel will be identified as a participant in the study. In exchange for your participation, I will provide you with access to the study results and conclusions, without attribution or identification of participants. Survey responses will be used to develop one or more scholarly papers for publication.

Thank you for your contribution to the success of this study. Please do not hesitate to contact me with any questions or comments.

Sincerely,

Linda Sandstrom Simard