

**The Effect of Bad Faith Laws on First-Party
Insurance Claims Decisions**

Mark J. Browne, Ellen S. Pryor and Robert Puelz*

*Associate Professor of Insurance, University of Wisconsin, Madison, Professor of Law, Southern Methodist University, and Dexter Professor of Risk Management, Cox School of Business, Southern Methodist University, respectively.

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Abstract

This is the first empirical study relating to the effects of "bad faith" in first-party insurance contexts. This tort or extracontractual cause of action was adopted by most states in the 1970s through 1990s, but has been controversial both under theoretical and practical analyses. After developing the legal distinctions among bad faith laws and providing a theoretical foundation for our hypotheses, we make use of a large database that includes detailed information about "closed claims" - that is, claims that have either been settled or that have been paid or closed after trial- under automobile policies from over 60 insurance companies in over 40 jurisdictions in 1992. In this study, we identify the minority of states that did not, in 1992, recognize a bad faith remedy that allows for mental anguish and punitive damages, and identifies those that did recognize such a remedy. We then isolate the claims for uninsured motorist or underinsured motorist coverage, coverages that represent a form of first-party insurance in automobile policies. While controlling for multiple other factors that are expected to be associated with the size of settlement payments, we examined whether the existence of a bad faith remedy affected the size of settlement payments and the allocation of settlement payments between economic and non-economic damages. We find a positive correlation between the existence of a bad faith remedy and higher settlement payments. Further, consistent with our theory, these higher payments tend to be concentrated in the non-economic damages component of the claim payment.

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I. Introduction

One of the most notable and debated developments in the law of insurance and tort during the past 25 years has been the recognition, in most states, of an extracontractual cause of action against insurers for bad faith denial of a claim filed by an insured for benefits allegedly due to the insured under the policy. Although the notion that an insurer's obligation of "good faith and fair dealing" has a long history, the breach of this obligation traditionally gave rise only to a contractual remedy.¹ This contractual remedy usually was restricted to the economic consequences of the breach, and did not include mental anguish damages or punitive damages. During the 1980s, however, a majority of states expanded this remedy. Usually, this expansion took the form of a tort cause of action for "breach of the duty of good faith and fair dealing" in handling a claim filed by an insured.² Under this theory, insureds could recover not just their economic losses, the policy amount and consequential economic damages, but mental anguish and, upon proper proof, punitive damages.³

This relatively new tort cause of action continues to generate controversy. Many courts and scholars believe that the content and application of bad faith law have stabilized and

¹ Robert H. Jerry, II, *The Wrong Side of the Mountain: A Comment on Bad Faith's Unnatural History*, 72 *Tex. L. Rev.* 1317, 1318-37 (1994).

² The development refers to a claim filed by an insured, sometimes referred to as a "first-party claim." This is a claim that the insured files for loss incurred by the insured, such as claims for property damage under homeowner or automobile policies. By contrast, under "third-party" or "liability" coverage, the insured requests that the insurer pay some third-party for a loss caused by the insured, such as the injuries suffered by a pedestrian when the insured driver strikes the pedestrian. For more detail, see *infra* text accompanying notes *.

³ Many states also enacted unfair claims processing statutes, which among other features included a remedy for unreasonable or bad faith denials of first-party claims. As with the tort cause of action, these statutory causes of action are not limited to economic damages, but often include non-economic damages and penalty damages, such as a sum two or three times the amount of the actual damages found.

become more predictable.⁴ Nonetheless, bad faith laws still present a potent threat of liability to insurers, and the legal system--including the highest courts in many states--continues to struggle over how to define and apply the bad faith tort.⁵ For instance, the Texas Supreme Court recently debated whether to retain the tort at all; after the divided court agreed to keep the tort, the court struggled with how to reformulate the tort to make its application by juries and courts more understandable and workable.⁶

The literature on bad faith law includes considerable analyses from various perspectives, including economics,⁷ fairness or justice-based views,⁸ and practice-oriented.⁹ Yet virtually no empirical work on the effects of bad faith laws has appeared in the literature of law or insurance economics. In part, this results from the well-known difficulties of conducting empirical research about the tort law system.¹⁰ Some of these difficulties apply

⁴ See Kenneth S. Abraham, *The Natural History of the Insurer's Liability for Bad Faith*, 72 *Tex. L. Rev.* 1295 (1994).

⁵ For a general introduction to the debate over the fairness or efficiency benefits of bad faith laws, see Symposium, *The Law of Bad Faith in Contract and Insurance*, 72 *Tex. L. Rev.* 1203 (1994). For analyses of the various costs and benefits of a tort-based cause of action for bad faith denials of first-party claims, see Kenneth S. Abraham, *Distributing Risk* 183-88 (1986); Mark Gergen, *A Cautionary Tale About Contractual Good Faith in Texas*, 72 *Tex. L. Rev.* 1235 (1994); Robert H. Jerry, II, *Remedying Insurers' Contract Performance: A Reassessment*, 18 *Conn. L. Rev.* 271 (1986); Alan O. Sykes, "Bad Faith" Breach of Contract By First-Party Insurers, 25 *J. Leg. Stud.* 405 (1996).

⁶ See *Universe Life Ins. v. Giles*, 950 S.W.2d 48 (Tex. 1997).

⁷ See Sykes, *supra* note *.

⁸ Most scholars draw in part on fairness or justice-based analysis in their work on insurance and bad faith. For a superb introduction to justice-based goals of insurance law, see Abraham, *supra* note *, at 18-36. For discussion of justice-based goals as they relate to bad faith doctrines, see Tom Baker, *Constructing the Insurance Relationship: Sales Stories, Claims Stories, and Insurance Contract Damages*, 72 *Tex. L. Rev.* 1395 (1994); Ellen S. Pryor, *Comparative Fault and Insurance Bad Faith*, 72 *Tex. L. Rev.* 1505, 1525-29 (1994).

⁹ See, e.g., William M. Shernoff, et al., *Insurance Bad Faith Litigation* (1992). Continuing legal education programs and practice-oriented journals frequently focus on various issues in bad faith law.

¹⁰ For an introduction to the difficulties posed by, and gaps in, empirical research on the tort system, see Michael J. Saks, *Do We Really Know Anything About the Behavior of the Tort System-- And Why Not?*, 140 *U. Penn. L.*

with particular force to research on a subcategory of tort claims such as bad faith claims. For instance, any research based on state court filings or jury verdict reports would require that the underlying data distinguish between claims for bad faith and claims grounded in contract or some other type of tort. For the most part, state court records do not make these distinctions.¹¹

This article represents the first empirical study of the effect of bad faith laws on claims decision-making by insurance companies. We make use of the 1992 database developed by the Insurance Research Council (IRC) drawn from thousands of “closed claims” under automobile insurance policies from over sixty insurance companies. The work product of the IRC study consisted of a sample of claims closed by participating insurers in 1992 in which the claims adjuster recorded extensive information about the claim, such as demographics, attorney involvement, amounts paid out in numerous categories (including economic and non-economic), time lapse between claim and payment, and other factors.

Starting with our underlying theory and detailed closed claims information, we fashioned a study made possible by two features of bad faith law. First, although the IRC data consists of a distinct set of *liability* claim data—a type of claim that for various reasons we did not include in this study¹²—it also consists of distinct data relating to claims made by the

Rev. 1147 (1992). Much quality empirical research does now exist on various features of the tort system, but virtually none of this applies to tort or tort-like causes of action for bad faith.

¹¹ See Ellen S. Pryor & Charles Silver, Introduction to Symposium on the Law of Bad Faith and Insurance, 72 Tex. L. Rev. 1203, 1206-07 (1994).

¹² Most states do recognize a tort-based cause of action in the third-party insurance claim setting: the insurer’s breach of the “duty to settle.” This duty, which is not specifically stated in standard policies, is based on the conflict of interest that can arise between the carrier’s and insured’s interests when the injured claimant makes a settlement demand that is at or within policy limits and when the claim, if it went on to trial, could well result in a higher verdict. Recognizing this conflict, most courts impose on the carrier a duty to evaluate a within-limits settlement offer in light of the expected value of the suit, disregarding the policy limits that cap the insurance company’s own exposure. For classic and detailed expositions of the duty to settle and its rationale, see Robert E. Keeton, Liability Insurance

insured against his or her own insurer under the uninsured (UM) or underinsured (UIM) motorist coverage under the policies. In most states that recognize an extracontractual cause of action for bad faith, this cause of action includes UM and UIM coverage. Thus, the final dataset used in this study includes over 2,000 claims for a type of claim that is subject in many states to an extracontractual claim filed by an insured against its insurer. Second, not all states recognize an extracontractual cause of action for bad faith denials or delays of claims by insureds against insurers. In 1992, the year of the IRC data, twelve states did not recognize an extracontractual bad faith cause of action, whether grounded in tort or in statute.

We reasoned that, by controlling for other variables that plausibly are associated with the amount of the payments made on UM and UIM claims—variables that include significance of injury, tort reform measures, attorney involvement, and others—we could determine whether the presence of a bad faith remedy affected amount or allocation of payments made to the insured. Specifically, we hypothesized that, since settlement decisions are made in the “shadow of the law,” the potential penalties attached to bad faith delays or denials of claims would increase the amount paid out on otherwise similar claims in a state with a bad faith remedy.¹³ A second hypothesis was that the increase in payment amount, if any, in a bad faith claim would tend to fall under the category of non-economic damages. This is because, from the claim-handler’s perspective, the potential exposure to bad faith penalties would be hardest

and Responsibility for Settlement, 67 Harv. L. Rev. 1136 (1954) ; Kent D. Syverud, The Duty to Settle, 76 Va. L. Rev. 1113 (1990). For a recent economic treatment, see Alan O. Sykes, Judicial Limitations on the Discretion of Liability Insurers to Settle or Litigate: An Economic Critique, 72 Tex. L. Rev. 1345 (1994). As with first-party bad faith, the effects of the duty to settle have been studied analytically, but little empirical work exists. A very different type of study, however, would have to be designed for this purpose. We chose to focus on first-party bad faith because the data lent itself more readily to this, and because the rationales and benefits of the first-party tort—which is of more recent vintage than the duty to settle—have been more controversial than the duty to settle.

to predict with respect to non-economic damages. In our study we find strong support for our hypotheses.

Part II outlines in more detail the design of the study. This includes our reasoning for drawing on UM and UIM claims, some details about bad faith laws and legal distinctions that are relevant to this study, and the theoretically underpinnings of our hypotheses,. Part III describes more precisely the methodology of the study, including a description of the data and the variables for which we controlled and the formula of analysis. Part IV sets out the findings, and Part V contains some concluding observations.

II. Design of the Study

A. First-Party Bad Faith Liability

To understand the design of the study, some additional explanation is necessary about the bad faith legal framework, and how UM and UIM insurance fits within that framework. Extracontractual remedies for insurer bad faith exist as to both the insurer's handling of third-party coverage and the insurer's handling of a first-party claim. First-party claims are claims filed by insureds seeking recovery for losses sustained directly by the insured. Third-party insurance coverage, by contrast, provides coverage to the insured for damage or loss that the insured has caused to some third-party. Loosely speaking, most liability insurance is third-party insurance. This includes, for instance, the liability portions of an automobile policy, the liability portions of a homeowner's policy, and the commercial

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See *infra* text accompanying notes *.

general liability insurance policy. Obviously, then, some insurance policies contain both first-party and third-party coverage.

The primary extracontractual remedy available to third-party claims is the so-called “duty to settle,” a duty that does not exist explicitly in the language of standard insurance policies. Rather, beginning in the 1950s, most jurisdictions eventually imposed an extracontractual duty to settle, which requires the insurer to evaluate reasonably any settlement offer made by the third-party claimant against the insured within the limits of the policy.¹⁴ The concern underlying this remedy is that insurers will favor their own interests and take a gamble on winning a lower verdict at trial, rather than paying the within-limits settlement offer.¹⁵

The extracontractual cause of action applicable to first-party claims is of a more recent vintage.¹⁶ In the late 1970s and early 80s, a number of courts adopted a bad faith cause of action for first-party claims.¹⁷ But the justifications for the first-party cause of action have always been more controversial than those for the failure to settle in the liability context. First, insurance contracts explicitly require the insurer to pay the insured for covered claims. Hence, a contract remedy is already in place, which is not the case with the duty to settle. Second, in practice it has been quite difficult to articulate and implement an extracontractual

¹⁴ For historical account, see Robert H. Jerry, II, *Understanding Insurance Law* § 25G[b] (1996). For seminal theoretical accounts of the duty to settle, see Keeton, *supra* note *; Syverud, *supra* note *.

¹⁵ See Jerry, *supra* note *, § 25G[b], at 155; Keeton, *supra* note *, at 1142-48.

¹⁶ For historical background, see Jerry, *supra* note *, § 25G[c].

¹⁷ The key early decision was *Gruenberg v. Aetna In. Co.*, 510 P.2d 1032 (Cal. 1973). For a recent state supreme court decision recounting the history and debating the merits of the first-party bad faith, see *Universe Life Ins. v. Giles*, 950 S.W.2d 48 (Tex. 1997).

standard that will not yield too many false negatives or false positives.¹⁸ Most jurisdictions require the insured to prove more than that the insurer made a wrong decision; most require the insured to show that the insurer's decision was reckless and that the insurer knew this.¹⁹ Whatever the precise wording, all of the extracontractual first-party states require some level of aggravated error, such as recklessness.

A number of states have also adopted, either in addition to or in place of a judicially-created remedy for first-party bad faith, a statutory cause of action that provides more than the usual contract remedies. An example is the Texas Insurance Code, which contains a private right of action for unfair claims handling practices, including "failing to attempt in good faith to effectuate a prompt, fair, and equitable settlement of a claim with respect to which the insurer's liability has become reasonably clear."²⁰ These statutory provisions, like the judicially-created tort remedy, allow for more than the standard contract damages. But the statutory remedies usually are more bounded than the tort remedies. For instance, the statutory remedies are often some multiple, such as three times, of the actual damages. They do not always provide for punitive damages or mental anguish.²¹

¹⁸ For detailed analysis of whether the extracontractual cause of action for bad faith matches the theoretical justifications that might be advanced for the remedy, see Mark Gergen, A Cautionary Tale About Contractual Good Faith in Texas, 72 Tex. L. Rev. 1235 (1994); Sykes, *supra* note *.

¹⁹ See generally Roger C. Henderson, The Tort of Bad Faith in First-Party Insurance Transactions: Refining the Standard of Culpability and Reformulating the Remedies by Statute, 26 U. Mich. J. L. Ref. 1 (1992). A recent case decided by the Texas Supreme Court offers a good look at the problems with formulating and applying the bad faith standard. See *Universe Life Ins. v. Giles*, 950 S.W.2d 48 (Tex. 1997). For analysis of the difficulties in formulating a coherent and workable standard, see Gergen, *supra* note *, at *.

²⁰ Tex. Ins. Code, art. 21.21, § 4(10)(ii) (1999).

²¹ In Alaska, for instance, at the time the Alaska Supreme Court adopted the tort of first-party bad faith, claimants could pursue statutory remedies under the state's unfair claims processing statute. But the penalty was limited to \$25,000, and required proof of frequent commissions by the insurer of the practice. See *State Farm Fire & Cas. Co. v. Nicholson*, 777

As of 1992, the year of the IRC database, most courts had adopted a first-party bad faith remedy, and of these many had specifically applied the tort to a claim for UM or UIM benefits.²² However, seven states had rejected or had not yet accepted the tort cause of action.²³ In five states, bad faith causes of action were allowed, but statutes substantially limited the damages recoverable.²⁴

This jurisdictional split provides the entry point to this study. Presumably, the most potent threats posed by a tort remedy, as distinct from a contract remedy or a limited statutory remedy, are two categories of damages that remain controversial in tort generally: mental anguish and punitive damages. Mental anguish damages are not awarded according to fixed

P.2d 1152, 1157 (Alaska 1989) (explaining the limited nature of the statutory remedy).

²² See, e.g., *State Farm Fire & Cas. Co. v. Nicholson*, 777 P.2d 1152, 1154-56 (Alaska 1989) (adopting the tort of first-party bad faith, notwithstanding contract remedies and limited statutory remedies); *State Farm Mut. Ins. Co. v. Weiford*, 831 P.2d 1264, (Alaska 1992) (applying the tort of bad faith to a claim for uninsured motorist coverage, although finding that the claimant had not produced enough evidence to suffice for punitive damages); *Hoskins v. Aetna Life Ins. Co.*, 452 N.E.2d 1315, 1318-19 (Ohio 1983) (recognizing a tort cause of action for breach of the duty of good faith and fair dealing in the first-party context, including punitive damages upon proper proof); *Christian v. American Home Assurance Co.*, 577 P.2d 899, 903 (Ok. 1978); *Champion v. United States Fid. and Guar. Co.*, 399 N.W.2d 320, 322-23 (S.D. 1987) (in a workers' compensation context, applying the tort cause of action for bad faith failure to pay benefits); *Isaac v. State Farm Mut. Auto Ins. Co.*, 522 N.W.2d 752, 759-60 (S.D. 1994) (applying the bad faith tort in the context of a claim for uninsured motorist benefits); *Arnold v. Nat'l County Mut. Ins. Co.*, 725 S.W.2d 165, 167 (Tex. 1987) (adopting the tort cause of action for breach of the duty of good faith and fair dealing in a first-party context); *Hampton v. State Farm Mutual Ins. Co.*, 778 S.W.2d 476 (Tex. App.—Corpus Christi 1989, no writ history) (applying the tort of breach of the duty of good faith and fair dealing in to a claim for underinsured motorist benefits); *McCullough v. Golden Rule Ins. Co.*, 789 P.2d 855, 855-58 (Wyo. 1990); *Shrader v. State Farm Mut. Auto. Ins. Co.*, 882 P.2d 813, 826 (Wyo. 1994) (applying the tort of first-party bad faith to a claim for uninsured motorist coverage, and specifically rejecting the insurer's argument that a claim for UM should not be subject to the tort).

²³ See, e.g., *Beck v. Farmers Ins. Exch.*, 701 P.2d 795, 798-802 (Utah 1985) (restricting the cause of action to a contractual one, and noting that in "unusual cases," mental anguish damages might be recoverable); *A&E Supply Co. v. Nationwide Mut. Fire Ins. Co.*, 798 F.2d 669 (4th Cir. 1986) (reviewing Virginia law and concluding that Virginia law would not recognize the tort of first-party bad faith or an implied right of action under the state's unfair claims processing statute).

²⁴ See, e.g., Ga. Code Ann. §33-7-11 (j) (1999) (providing for a penalty of not more than 25% of the amount of recovery and reasonable attorneys' fees).

standards, and tort reform proponents continue to cite these as one of the main sources in the unpredictability and variability of tort awards generally. As to punitive damages, a major national debate has raged for the past twenty years over the justification and merits of punitive damages in tort. Many states have enacted caps on mental anguish damages, punitive damages, or both. Sometimes these caps apply to bad faith torts; sometimes they do not.

Despite some variation in the standards for and potential size of punitive and mental anguish damages in different states, it remains plausible to view these two categories of damages as a far more potent monetary threat than a remedy that allows only contract-based recovery (the amount that the insurer owed under the contract), whether or not the contract route also allows for attorneys' fees. Thus, we identified the states that, in 1992, recognized a tort or statutory cause of action for first-party bad faith, when that cause of action includes punitive damages and mental anguish. We also identified the states that did not recognize such a cause of action in 1992.²⁵ Of the states included in our final sample, 30 plus the District of Columbia recognized an extracontractual cause of action that clearly or likely does allow mental anguish and punitive damages upon proper proof. Ten states either had rejected an extracontractual claim for first-party bad faith, or allowed statutory or contract-based remedies that ordinarily do not include mental anguish and punitive damages. Closed claims data from the states falling in these two groups formed the basis of our study.

Several other points should be noted about this study's two-category classification of the jurisdictions. First, in some states, the caselaw as of 1992

²⁵ In our research, the jurisdictions that in 1992 either did not recognize tort of bad faith in a first-party context, or limited allowed only limited or capped damages for first-party bad faith (for instance, a statutory remedy with attorney's fees) were Florida, Georgia, Hawaii, Kansas, Maryland, Michigan, Minnesota, Missouri, Tennessee, Utah, Virginia and West Virginia.

recognized an extracontractual cause of action that includes punitive damages and mental anguish, but the supreme court of the state had not yet spoken on the question. When appellate cases in the state recognized the cause of action in 1992 and when no appellate split on the issue seemed to appear, we placed this jurisdiction in the category that recognized an extracontractual cause of action. It is possible, of course, that a given supreme court would go on to deny the cause of action. But this study made the plausible assumption that claims decision-makers in 1992 would operate under the existing appellate law.

Second, in some states that recognized a first-party bad faith tort cause of action as of 1992, the caselaw recognized and applied the tort, but did not specifically address both the availability of mental anguish and punitive damages. For instance, a given case might address the availability of punitive damages, but not specifically mention mental anguish.²⁶ We have assumed that, when a jurisdiction clearly allows a first-party bad faith tort, this includes punitive damages and mental anguish unless the caselaw specifically limits this.²⁷ Indeed, the

Among these states, Hawaii and Kansas were excluded from the final sample because of insufficient data.

²⁶ An example is *Murray v. Nationwide Mut. Ins. Co.*, 472 S.E.2d 358, 368 (N.C. Ct. App. 1996), rev. denied.

²⁷ Proof of the tort cause of action, by itself, is not necessarily enough to allow a claim of punitive damages to go to the jury. So a claimant could succeed on a bad faith claim and yet not win on the claim for punitive damages. See *State Farm Mut. Ins. Co. v. Weiford*, 831 P.2d 1264, (Alaska 1992) (applying the tort of bad faith to a claim for uninsured motorist coverage, although finding that the claimant had not produced enough evidence to suffice for punitive damages); *McCullough v. Golden Rule Ins. Co.*, 789 P.2d 855, 859-61 (Wyo. 1990) (explaining why proof of the elements of the tort will not by itself allow punitive damages, and that the standard for punitive damages remains that of general Wyoming law, which requires wanton or willful conduct). Nonetheless, in a jurisdiction that recognizes the tort cause of action for breach of the duty of good faith and fair dealing, the claimant

seminal California case on first-party bad faith, frequently cited by other jurisdictions when adopting the tort, specifically held that mental anguish damages would be available as long as the plaintiff suffered "substantial" economic losses apart from the allegations of mental anguish.²⁸

Third, as of 1992, some states had recognized the tort cause of action for breach of the duty of good faith and fair dealing, but reported decisions had not yet applied it in the underinsured or uninsured motorist context. We have included such states in the category of bad faith states, unless the caselaw indicated some sort of restriction on the ambit of the tort. It is plausible that, in 1992, a claims decision-maker in a state that recognized a tort of first-party bad faith would assume that the tort would apply to claims for UM or UIM. No jurisdiction adopting the tort of first-party bad faith had refused to apply it to UM or UIM, and UM/UIM coverage is widely regarded as a form of first-party coverage.²⁹

B. How Uninsured Motorist and Underinsured Motorist Coverages Fit Into the Bad Faith Fabric

might be able to recover for punitive damages, if she can satisfy the punitive damages standard in a given jurisdiction.

²⁸ In *Gruenberg v. Aetna Ins. Co.*, 510 P.2d 1032, 1041-42 (Cal. 1973), the court stated: "Here, plaintiff alleged that he suffered substantial economic losses apart from mental distress. He alleged that he suffered loss of earnings; that he was compelled to go out of business and that as a result he was unable to pay his business creditors; that he incurred that costs of defending lawsuits brought against him by his creditors; and that he incurred medical expenses. We conclude, therefore, that since plaintiff has alleged substantial damages for loss of property apart from damages for mental distress, the complaint is sufficiently pleaded with respect to the latter element of damages." Other courts seem to agree. See *Shrader v. State Farm Mut. Auto. Ins. Co.*, 882 P.2d 813, 833-34 (Wyo. 1994) (rejecting the insurer's argument that a claim for first-party bad faith should include only economic damages and not mental anguish, and citing *Gruenberg's* requirement of other economic loss).

²⁹ For more detail, see discussion *infra* notes * and accompanying text.

As noted, most of the claims data in the IRC database relates to liability claims filed by the injured person against the insured. But the IRC database also includes substantial information about any claim made by the insured against the insurer for either uninsured motorist or underinsured motorist benefits. This is a form of “first-party” coverage, because it is a claim for losses that the insured has incurred. In most states that recognize a first-party bad faith remedy, the remedy extends to UM and UIM insurance. A brief explanation about UM and UIM coverage is necessary to understand fully the design of the study.

UM and UIM insurance are included in most standard automobile insurance policies. These coverages are aimed at addressing the not-infrequent situations in which the insured under the policy is injured by another driver who is at fault and who would be responsible in tort for damages to the insured. This other driver, however, either does not have insurance or enough insurance to pay the damages for which the driver would be responsible in tort. When this occurs, the insured can make a claim under his own insurance policy for either UM or UIM benefits. The claim will be successful if the insured can show (1) that the other driver would have been liable; and (2) that the other driver cannot pay some or all of what the insured driver would be entitled to receive under tort. When the insured can make this showing, he or she can receive the amount of the shortfall, up to the limit specified in the UM or UIM coverage.

At times, insurers have argued that uninsured or underinsured motorist recovery is not available unless and until the injured victim—the insured under the UM or UIM coverage—has obtained an adjudication of liability and damages against the underinsured or uninsured driver. Most jurisdictions have

rejected this approach.³⁰ Generally, therefore, the injured driver does not have to wait until trial against the other driver to request payment of the UM or UIM claim. Thus, disagreements about the extent of liability and amount of damages frequently arise under claims for UM or UIM.

C. Theory in a Bad Faith Environment

In conducting the study, we developed several hypotheses about insurer behavior when faced with first-party claims. Before outlining these specifically, one overall observation should be noted. Individuals and even corporations often make decisions and take actions without much awareness of, or influence by, the formal rules of law. Claims decision-makers in insurance companies, however, are aware of the remedial regime that applies in a given jurisdiction. Institutionally, insurers have incentives to communicate this information, the information can be distributed efficiently through in-house education programs or educational programs run by insurer trade organizations, and individual claims adjusters have incentives to internalize and take account of the legal consequences governing their decisions.

We posit that a claim involving a significant component of non-economic damages—the damages for mental anguish, pain and suffering, or impairment that the uninsured or underinsured driver would have had to pay the victim-claimant—will complicate the decision calculus for the adjuster than would a claim involving mainly economic damages. When presented with an insurance claim, an adjuster must determine whether it is legitimate or fraudulent, and must determine the amount of the claim the insurer should pay. The insurer

³⁰ See *Winner v. Ratzlaff*, 505 P.2d 606, 609-11 (Kan. 1973) (summarizing caselaw on this issue and agreeing with the majority position, which does not

must also determine how much to spend on the investigation of the claim. To determine the legitimacy of the claim, the adjuster may engage in a number of different investigative activities. These often include such things as examining damage related to the loss, questioning the claimant and reviewing documents. This investigation consumes resources and is therefore costly. In theory, a second strategy that an adjuster may adopt is to deny the claim without undertaking an investigation. Presumably, this strategy will more often result in the filing of a legal action against the insurer than the strategy of investigation and payment or investigation and then denial. Both the claimant and the insurer will incur additional expenses if the claim enters the judicial system. While the judicial proceedings might not lead to complete information about the claim, much will typically be learned through this process, and the claim will be resolved one way or another.

An insurer attempting to maximize its profits must choose both how many resources to expend upon investigation, and how many dollars, if any, to pay to resolve the claim (or what the insurer's likely exposure will be if the insurer refuses to investigate or pay). Figure 1 depicts the information benefit/investigation cost choice an insurer must make when confronted with a claim. In the figure, curve B represents the expected costs an insurer incurs to acquire information about the claim through the court system. Horizontal line I_1 represents the maximum amount of information that could possibly be gained about the claim through the judicial process. With this amount of information the claimant and insured can reach a mutually agreeable settlement. Horizontal line I_2 represents full information.

The claim might be relatively inexpensive for the insurer to investigate and resolve. The expected cost of information acquisition for a claim of this type is represented by Curve

require adjudication of the underlying tort claim).

A. In contrast, some claims may be relatively more expensive to investigate. Curve C represents the expected cost of information acquisition for a claim that is more expensive to resolve. If an insurer is presented with a claim that it can investigate more cheaply using an adjuster than the court system, it will follow that resolution strategy. In this case, the nature of the claim permits information acquisition along Curve A and Curve B. Alternatively, if the litigation process offers a lower cost route for acquiring the necessary, the insurer will allow the case to enter that process. In this case, the nature of the claim permits information acquisition along Curve B and Curve C. The expected cost of information acquisition through the legal process may be less than the cost of the insurer's own investigation because in many cases insureds will choose not to bring a legal action against the insurer.

[Figure 1 about here]

In general, losses that are more easily verified and measurable are less expensive for an insurer to adjust. Economic damages, which are awarded for readily measurable items – for instance, the loss of wages, physical damage to property, medical expenses incurred – will be less costly to verify and quantify than non-economic damages. Non-economic damages are awarded for such hard to quantify losses as those arising from pain and suffering, bereavement and loss of consortium. As a result, we expect that claims for economic damages typically permit the insurer to follow curve A. In contrast, we hypothesize that claims for non-economic damages often entail claims investigations that would follow Curve C.

1. Size of Overall Settlement Payments

Because insurance adjusters presumably make settlement decisions in the “shadow of the law” and the potential liability that the company will face if a wrongful decision is made, significant differences in potential liability for wrongful decision-making could plausibly affect adjuster behavior in all cases. Specifically, it is plausible to suppose that, when faced with a claim for benefits in state A, which recognizes the tort cause of action for bad faith, the company will pay more frequently, more quickly, or more in total amount than would a company faced with a similar claim in state B, which allows only contract remedies and attorney’s fees.

2. Increased Payment Size for Non-Economic Damages

As discussed earlier, bad faith laws impose significant financial penalties on an insurer if it denies a claim with no reasonable basis for denial, and if it knew or recklessly failed to ascertain that a claim should have been paid. By the above analysis, bad faith will primarily be a factor in an insurer’s decision-making process when it is evaluating claims for non-economic damages as opposed to claims for economic damages. We hypothesize that bad faith statutes will result in insurers paying more generous loss settlements to insureds claiming non-economic damages. More generous settlements will be paid by the insurers to avoid the court costs, investigative costs and potential penalties associated with bad faith. In contrast, we hypothesize that bad faith statutes will have a lesser effect on the resolution of claims for economic damages.

III. Methodology, Data and the Empirical Models

To test our hypotheses we obtained data from a few sources. First, we have 2,263 individual uninsured and underinsured motorists paid and closed claims from 1992. The data were taken from the 1992 insurer study of automobile closed claims, conducted by the Insurance Research Council (IRC). All claims embodied both economic and non-economic damages. The IRC survey obtained information from 61 insurers, listed in Table 1, that represent about 70% of the premium volume of private passenger automobile insurance in the United States.³¹ The data fields are numerous and include information about the accident, the type and cause of loss, legal representation, geographic location, demographic traits of the claimant and the driver, whether the case involved a lawsuit and the quantity of insurance coverage.

[Table 1 about here]

We also have state specific tort reform information from the American Tort Reform Association (ATRA); this information encompasses reform laws enacted from 1980 through 1992, as well as subsequent court interpretations of the statutes. As explained previously, we control for tort reform effects because claims decisions about uninsured or underinsured motorist claims depend in part on assessment of the liability that should have been paid by a third-party under tort. Hence, tort reforms are expected to have at least an indirect effect on the first-party claims we examine in this research. Thus, our analysis takes account of the following reforms: modification of joint and several liability, modification of the collateral source rule, limits on non-economic damages, limits on punitive damages, sanctions on

³¹ States not utilized in our study because of insufficient data were Alabama, Alaska, Delaware, Hawaii, Indiana, Kansas, Maine, North Dakota, Oklahoma, and Wyoming.

frivolous suits or defenses, modification of rules pertaining to pre-judgment interest, and provisions for structured settlements.³²

A. Effect of Bad Faith by Damage Type

We begin by focusing on the association between bad faith law and other legal rules and cost drivers, and the severity of economic, non-economic and total claims. Our primary interests are the role of bad faith and its relationships to the overall claim amount and whether bad faith shows a strong association to non-economic damages. In addition, we have a secondary interest is the role of tort reform statutes and other variables expected to be related to the value of a claim, and the estimated impact each statute has on the average size of a claim. The reforms we consider and their empirical attributes are summarized in Table 2.

[Table 2 about here]

³² To obtain information on current tort reform and tort reform efforts over the previous years, see www.atra.org. A number of empirical studies have examined the effects of various tort reforms, beginning with the work of scholars who examined the effects of the medical malpractice tort reforms enacted in many states in the mid-1970s. See Frank A. Sloan, Randall R. Bovbjerg & Penny Githens, *Insuring Medical Malpractice* (1991); Patricia Danzon, *The Frequency and Severity of Medical Malpractice Claims: New Evidence*, 49 *L. & Contemp. Prob.* 57 (1986). Researchers at the Rand Institute have conducted many of the empirical studies on the tort system. See www.rand.org. For some of the studies relating to tort reform, see Mark J. Browne & Robert Puelz, *The Effect of Legal Rules on the Value of Economic and Non-Economic Damages and the Decision to File*, 18 *J. Risk & Uncertainty* 189 (1999); Joan T. Schmit, Mark J. Browne, and Han Duck Lee, *The Effect of State Tort Reforms on Claim Filings*, 1 *Risk Management & Insurance Review* 1 (1997); Mark J. Browne and Robert Puelz, *Statutory Rules, Attorney Involvement, and Automobile Liability Claims*, 63 *J. Risk & Insurance* 77 (1996); W. Kip Viscusi, Richard J. Zeckhauser, Patricia Born, and Glenn Blackmon, *The Effect of 1980s Tort Reform Legislation on General Liability and Medical Malpractice Insurance*, 6 *J. Risk & Uncertainty* 165 (1993); W. Kip Viscusi, *The Performance of Liability Insurance in States with Different Products-Liability Statutes*, 19 *J. Legal Stud.* 809 (1990). See generally Michael J. Saks, *Do We Really Know Anything About the Behavior of the Tort Litigation System— And Why Not?*, 140 *U. Penn. L. Rev.* 1147 (1992).

We control for claim characteristics and individual attributes as well as economic and environmental traits that are state specific and hold a plausible relationship to claim severity in the uninsured motorist market. We implement the following log-linear specification,

(3)

$$\begin{aligned} \ln L = & \beta_0 + \beta_1 \cdot \text{Bad Faith} + \beta_2 \cdot \text{Attorney} + \beta_3 \cdot \text{Suit} + \beta_4 \cdot \ln(\text{Urban}) + \beta_5 \cdot \ln(\text{Unemp}) + \\ & \beta_6 \cdot \ln(\text{income}) + \beta_7 \cdot \text{Gender} + \beta_8 \cdot \text{Age} + \beta_9 \cdot \text{Claimant's Status} + \beta_{10} \cdot \text{Claimant's \% Fault} + \\ & \sum_{i=11}^{14} \beta_i \cdot \text{Injury type}_i + \beta_{15} \cdot \text{JS} + \beta_{16} \cdot \text{Coll} + \beta_{17} \cdot \text{Caps} + \beta_{18} \cdot \text{Puni} + \beta_{19} \cdot \text{Puniins} + \\ & \beta_{20} \cdot \text{Puniins} \cdot \text{Puni} + \beta_{21} \cdot \text{Minor reforms} + \beta_{22} \cdot \text{Eventyr} + \beta_{23} \cdot \text{Exceed} + \beta_{24} \cdot \text{Stack} + \varepsilon \end{aligned}$$

where the dependent variable is the natural logarithm of the individual loss. We estimate three versions of equation (3) that differ only in how the loss is defined, e.g., the value of the total claim, the value of the economic claim only, or the value of the non-economic claim only. The total claim variable is the summation of the economic claim and non-economic claim. The economic claim variable is comprised of wage losses and medical losses, where we modified the medical loss component of a claim by an index value representing the average cost of a hospital stay per patient per day in the state where the loss was incurred relative to a countrywide average. We did not utilize the same medical cost modification for the non-economic claim dependent variable since non-economic claims do not incorporate medical losses. We undertake a logarithmic transformation of the dependent variable under the assumption that changes in tort

reforms and other exogenous factors will have a proportional effect on the damage severity of the three dependent variables.

As stated, our primary interest is in the relationship between the presence of a bad faith statute and claim severity. We define Bad Faith equal to 1 when a jurisdiction recognizes tort of bad faith in a first-party context, and 0 when either a jurisdiction does not recognize tort of bad faith or limits damages by statute in a first-party context. When uninsured motorist incidents arise in states that will penalize an insurer through bad faith liability for unreasonable delay or wrongful payment, we expect the adjusting calculus to be altered, and hypothesize that claim amounts are higher under these circumstances. Moreover, we expect the major influence of bad faith liability to be revealed in non-economic damages rather than in economic damages for the reasons previously discussed.

1. Attorney Involvement, Lawsuit Filing, and Environmental and Demographic Factors

The information in our data concerning legal representation is defined as whether the injured party retained counsel. The Attorney variable is a binary variable that takes the value of 1 when an attorney is involved, and 0 otherwise. For both economic and non-economic claims, we expect that the coefficient $\hat{\beta}_2$ on the variable Attorney is positive, indicating that higher claims are associated with attorney involvement, although we expect legal representation would have a more dramatic impact on non-economic claims. Support for the attorney involvement hypothesis in the uninsured motorist market would be consistent with the empirical that attorney involvement results in higher average automobile claim settlements.³³ We also introduce the variable Suit, which takes the value of one if a lawsuit was filed, and zero otherwise. The prediction about the empirical relationship between a lawsuit filing and claim value is unclear, although theoretical work in this area boils down to the relationship between the injured party's asking price and the defendant's maximum offer, accounting for the parties' respective litigation costs.³⁴

We also controlled for environmental and demographic factors by including three variables: degree of urbanization, the unemployment rate, and average per capita income in 1992. Our

³³ See Browne & Puelz, *supra* note *, at *.

³⁴ See John Gould, *The Economics of Legal Conflicts*, 2 J. Leg. Stud. 279 (1973); William M. Landes, *An Economic Analysis of the Courts*, 14 J. Law &

measure for urbanization comes from the *Statistical Abstract of the United States* and is defined as the percentage of the state population living in a metropolitan area.³⁵ Higher values for the urbanization variable, $\ln(\text{Urban})$, are expected to be associated with higher injury rates and increased claim values. Higher values of the state unemployment rate variable, $\ln(\text{Unemp})$, are expected to be associated with higher claim amounts.³⁶ Similarly, we expect higher values of income are associated with higher claim levels, particularly when estimation involves claim amounts that include an economic component.

We expect claim amounts to be related to the claimant's age, since the two major determinants of economic damages, income and medical expenses, both increase with age. Non-economic damages may also be greater, reflecting the greater severity of the injury due to age. The variable age is the age of the claimant at the time of the accident. The effect of gender on claim severity is unclear. Economic damages of males may exceed those of females as the average wage earned by males exceeds the average wages earned by females. However, if medical expenses incurred by females as a result of automobile injuries surpass those of males, then a discernible statistical relationship may

Econ. 61 (1971); Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. Leg. Stud. 399 (1973).

³⁵ "Metropolitan" refers to the 250 metropolitan statistical areas and 18 consolidated metropolitan statistical areas as defined by U.S. Office of Management and Budget, June 30, 1993.

³⁶ Some research indicates that unemployment is related to the willingness of injured parties and their attorneys to seek additional compensation for losses. See Danzon, *supra* note *, at *; J. David Cummins and Sharon Tennyson, *Moral Hazard in Insurance Claiming: Evidence from Automobile Insurance*, 12 J. Risk & Uncertainty 29 (1996).

be difficult. The variable gender takes the value 1 if the claimant is a female, and 0 if a male.

The variable, Claimant's Status, represents the relationship between the claimant for whom there is an uninsured motorists claim and the underlying policy providing this coverage. Claimant's Status equals one when the claimant is either the named insured on the policy providing payment or a family member living in the household of the named insured, and equals zero when the injured is a third-party claimant of the policy, that is, any other person who is occupying the insured's vehicle. Since the third-party claimant maintains the right to collect on a first-party basis under their own uninsured motorists coverage, we expect that first-party claims are associated with higher uninsured motorist claim severities. Finally, we specify the variable, Claimant's % Fault, which is the percentage degree of the claimant's fault in the accident. In the underlying uninsured motorist claim data, the assignment of percentage fault is accounted for either through an available police report, or by an interview of a witness to the accident.

2. Injury Type, and Tort Reform Measures

We control for the injury type by following the injury categorization scheme used in the compilation of the IRC data. Claims adjusters were asked in the IRC questionnaire to assess the overall extent of the trauma, indicating the seriousness of the injury. Five categories are specified for injury types, and we let the category defined as "no trauma" be our benchmark category in the empirical models. The variable Injury type₁₁

takes the value of one for a minor injury, and zero otherwise. The variable Injury type₁₂ takes the value of one for a moderate injury, and zero otherwise. The variable Injury type₁₃ takes the value of one for a severe injury, and zero otherwise. The variable Injury type₁₄ takes the value of one for a catastrophic injury, and zero otherwise. Relative to our benchmark category, more traumatic injuries are expected to be associated with higher damage values across all damage types.

For a state with a given joint and several liability reform (JS = 1) the effect of the reform on the value of economic and non-economic claims is unclear for a couple of reasons. On the one hand, reform will result in claims being less if injured parties are unable to link deep pockets defendants who are only slightly responsible for a loss. Moreover, one could predict that anticipating lower potential court awards a plaintiff under a reform regime may choose not to engage legal action and instead agree to a lower settlement amount depending on the relative costs of pursuing legal action and the probabilistic settlement amounts and trial awards. On the other hand, the recent work of Chang and Sigman (2000) suggests that joint and several liability promotes settlement and the likelihood of settlement increases with the number of defendants. Indeed, they suggest that moving to a non-joint rule may decrease the likelihood of settlement.³⁷

³⁷ Chang and Sigman provide the most recent empirical work to date on joint and several liability utilizing data gathered from federal civil suits under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Furthermore, Chang and Sigman clarified earlier work by Kornhauser and Revesz who found an ambiguous relationship between joint and several rules and settlement. See Howard F. Chang & Hilary Sigman, Incentives to Settle under Joint and Several Liability: An Empirical Analysis of Superfund Litigation, 29 J. Legal Stud. 205 (2000); Lewis A. Kornhauser &

We expect the effect of a statute modifying the collateral source rule (Coll = 1) to reduce the size of both economic and non-economic claims since it is more likely that the injured party is precluded from receiving multiple indemnifications on a single loss. This expectation is supported by the earlier work of Viscusi (1990) who found product liability premiums to be lower in states that had collateral source rule provisions for the period prior to 1984.

Caps on non-economic damages are expected to be associated with a reduction in severity of non-economic claims. Since we are only concerned with uninsured motorist claims, we let Caps = 0 for those states which either have a liability limit for medical malpractice claims only or no limit at all. Since the reform limits the amount of non-economic damages that can be awarded at trial, claims that would have resulted in awards higher than the cap will be awarded less as a result of the cap. We do not expect any statistically significant relationship between this reform and the value of claims for economic damages.

While the reforms directed at punitive damages vary they all decrease either the likelihood that a plaintiff will receive punitive damages or the amount that a plaintiff will receive.³⁸ If reforms exist we let Puni = 1, and 0 otherwise. As a result of these reforms plaintiffs may choose in some cases not to

Richard L. Revesz, *Multidefendant Settlements: The Impact of Joint and Several Liability*, 23 J. Legal Stud. 41 (1994).

³⁸ Punitive damage reform measures include: setting limits on the amount that may be awarded in total or relative to compensatory damages; limiting the type of case in which punitive damages may be awarded; dictating that damage awards are paid to the state; or requiring hearings to establish a case for punitive damages before they may be sought in court. For a summary and cites to representative statutes, see George C. Christie, James E. Meeks, Ellen S. Pryor & Joseph Sanders, *The Law of Torts* 801-03 (3d ed. 1997).

pursue punitive damages, particularly when it is costly to do so. Awards for economic and non-economic damages may be affected by the decision of the plaintiff not to pursue punitive damages, as evidence brought to trial will be different. If the gathering of evidence is costly and punitive damage reforms reduce the economic payoff from doing so, less evidence will be gathered. We hypothesize that economic and non-economic claims will be lower as a result of reforms directed at punitive damages, since the plaintiff will be less likely to pursue evidence.

To indicate claims that were filed in states where punitive damages are insurable and those in which they are not, we specify the variable *Puniins*, which equals one when damages are insurable, and zero when they are uninsurable.³⁹ We have included the term, *Puni·Puniins*, which allows the overall effect of punitive damage tort reform on individual loss to depend on the insurability of punitive damage claims. We expect that, in states prohibiting the insurability of punitive damages, plaintiffs will have less economic incentive to invest in uncovering evidence because they have a lower likelihood of payment, and the decreased evidence at trial will result in lower economic and non-economic claims.

The final tort reform variable, *Minor Reforms*, takes the value of one when at the time a claim is filed one of the following minor reforms is in place: limitations on prejudgment interest, provision for periodic payments, and sanctions on

³⁹ Information on the legal status of punitive damages insurability was obtained from the *FC&S Bulletins*.

frivolous claims. Since these reforms either raise the cost of pursuing a legal claim or limit the value of the claim, we expect the presence of one of these reforms to be associated with a reduction in the level of both economic and non-economic claims.

3. Other Control Variables

We have specified the variable *Eventyr*, which is the difference in time between 1992 and the year the claim was commenced to approximate the number of years claims in our data were open prior to their ultimate closing in 1992. We expect a positive coefficient on *Eventyr*, consistent with the findings of several studies that claim severity is higher as the number of years between the occurrence date and the settlement date increases.⁴⁰

Since the loss data are obtained from a sample of insurers, there is some chance that actual damages are greater than the amount of insurance, thereby triggering an upper limit and altering the behavior of the injured party. Fortunately, we have information in the data that specifies when damages exceed the policy limit. In our empirical specification we introduce the variable *Exceed* to control for differences between damages insured and uninsured.

Finally, to provide more compensation to accident victims, some states allow the limits of uninsured motorist insurance to be stacked. Stacking is accomplished by combining policy limits from the same policy (depending on the number of vehicles insured) or from a different

⁴⁰

See Browne & Puelz, *supra* note *, at *.

policy, so-called “inter-policy” stacking.⁴¹ Stack equals one for claims in states that permit stacking, and stack equals zero otherwise. Since stacking is effectively increasing the expected economic benefits associated with a single loss event by ratcheting coverage limits, we expect to be associated with high claim severities in those states where its usage is approved.⁴²



IV. Empirical Results

The final sample numbered forty-one jurisdictions. Our final dataset numbered 2,263 insurance claims; each claim contained an economic and non-economic component. Sample statistics of the variables used in the analyses are reported in Table 3. Mean and standard deviations of the claim values are reported prior to taking logarithms. The mean values reflect the underlying characteristics of an uninsured motorist claim: the total claim value of \$11,432 is relatively low and the injuries associated with these losses are predominately classified as minor or moderate. The mean value of the non-economic portion of a claim exceeds the mean value of the economic portion by nearly 80%. The presence of a bad faith statute is evident in 85% of our sample of claims and 66% of the time an attorney was involved.

[Table 3 about here]

The estimated empirical models on claim severity fit the data well; the models explain from 44% of the variation in damage

⁴¹ Stacking information is contained in *Uninsured Motorists* published by the All-Industry Research Advisory Council (1989) and the Insurance Research Council (1999).

⁴² The All-Industry Research Advisory Council found that UM payments were 28% greater in stacking states compared to states that do not permit stacking. All-Industry Research Council, *Compensation for Automobile Injuries in the United States* (1989).

size (economic claim only) to 56% of the variation in damage size (total claim value). The estimated parameter values for each version of equation (3) are reported in Table 4. We calculated Breusch-Pagan's (1979) Lagrange multiplier statistic to test for heteroskedasticity and rejected the hypothesis of homoskedasticity for each of our equations at the 0.01 significance level. The t-ratios reported in Table 4 have standard errors corrected for heteroskedasticity. Each of the overall empirical models is significant at the 0.01 level as reflected by their F-statistics.

[Table 4 about here]

1. Strong Support for Hypotheses related to Bad Faith

A set of hypotheses is explored by looking at the empirical association between bad faith statutes and claim value. While jurisdictions that recognize the tort of bad faith are expected to have little association with claims whose loss amounts are easily identifiable *ex ante*, they are expected to have an association with claims that possess more *ex ante* uncertainty prior to their ultimate settlement. Indeed, our findings reveal strong support for these hypotheses. In particular, we find a 39% higher non-economic payment amount among jurisdictions where the tort of bad faith is established without restriction relative to when it is not, reflecting the upward movement in the equilibrium price of settlement as both parties value the investigative costs and potential penalty costs associated with bad faith. Moreover, we find no statistically significant

association between the tort of bad faith and the value of the economic portion of a claim. This is consistent with our expectation that easily identifiable and more transparent losses are less costly to handle by the parties involved in the settlement. Examining the relationship looking at the overall claim value rather than the underlying claim components shows that total claims are higher by 19.4% for jurisdictions that permit tort of bad faith.

2. The Association between Claim Amounts and Other Factors by Damage Type

The relationship between the presence of an attorney and claim value was very strong across all the estimated equations. Attorney representation is associated with 135% higher claim amounts for economic claim amounts to 153% higher claim amounts for non-economic claim value; results consistent with an earlier study.⁴³ The overall value of a claim increases by 141% when an attorney is involved. By contrast, we find no association between the filing of a lawsuit and the total value of the claim or either of its components.

Between environmental and demographic variables the latter proved pre relevant empirically. The urbanization variable is not statistically significant except in its negative relation to the value of an economic claim indicating, contrary to our hypothesis, that the average economic portion of an uninsured

⁴³ Using third-party auto liability claim data, one study found that attorney involvement was associated with a 153% increase in the value of an economic claim and a 180% value of a non-economic claim. See Browne & Puelz, *supra* note *, at *.

motorist claim is less severe in urban areas. This may be due to accidents in urban areas being, on average, less severe than in more rural areas. We find income level to be positively related to the value of an economic claim, consistent with our hypothesis, but we did not find statistically significant support for this relationship in the estimated total claim equation. The rate of unemployment is not related to the value of a claim in any of the estimated equations.

Among demographic variables the claimant's age, claiming status relative to the underlying policy providing coverage, and degree of fault are all statistically significant, while gender is not. For each year increase in the claimant's age the value of the claim increases by an economically insignificant 0.96%. A first-party claimant, on average, receives 10.1% more in total claim value and 14.7% more in non-economic claim value relative to a third-party claimant. We also find that incrementally higher degrees of fault are associated with higher claim, ranging from 3.22% for the non-economic component to 2.52% for total claim value.

All of the control variables for injury type are positive and highly significant and, regardless of claim type, increase in magnitude in their association between the value of an uninsured motorist claim and injury severity. Relative to our benchmark "no trauma" category, catastrophic injuries are associated with an increase of 1,271% in the average value of a non-economic portion of the claim, and an increase of 5,614% in the average value of the economic portion of the claim. Injuries classified

as severe are associated with a 1,151% increase in non-economic claims, and a 1,034% increase in economic claim. Even those injuries classified as "minor" are more costly relative to the benchmark category: 54% more for economic claims and 76% more for non-economic claims.

We control for the impact of tort reforms since the adjusting calculus of an uninsured motorist claim by the first-party insurer is based on a determination, albeit indirect, of the liability that would have been paid by a third-party under tort. Generally, we expect that tort reforms will be associated with lower claim severities across all damage types and our results, taken together, are mixed. Modification of the collateral source rule is associated with a decrease in claim severity, from a decline of 20% in the value of economic claims to a decline of 21.8% in total claim value. By contrast, reform of the joint and several liability rule is associated with a 27% increase in the value of an economic claim and a 19.5% increase in total claim value. Caps on non-economic damages and the minor reforms are not associated with any statistically significant change in the value of uninsured motorist claims, and punitive damage reform is associated with an increase in the value of claims although this is economically insignificant for the non-economic portion of the claim. ⁴⁴

⁴⁴ To assess the change in the average claim size indicated by reform of punitive damage statutes, we specified three variables. Since the data represent insured claims, we control for punitive damage insurability in addition to indicating claims subject to punitive reform laws. To evaluate the marginal impact of the punitive damage tort reforms on claims, partial differentiation of the empirical equation with respect to the variable Puni reveals that the average value of total claims increased, but by an economically insignificant 0.94%. To see this, partial differentiation of the

The sign of the coefficient on Eventyr in each equation is positive revealing that average claim size is larger the greater the number of years between the occurrence date and the final settlement. Our expectation that uninsured motorist claim values are higher in states that permit stacking is strongly supported. We find that the economic component of the uninsured motorist claim increased by 107% in stacking states, while the non-economic component increased by 127% in stacking states. Finally, we were able to detect a weak statistically significant positive relationship between reported claims that exceeded policy limits and total claim severity, where claim severity was higher by 31% when the claim was reported to exceed underlying policy limits.

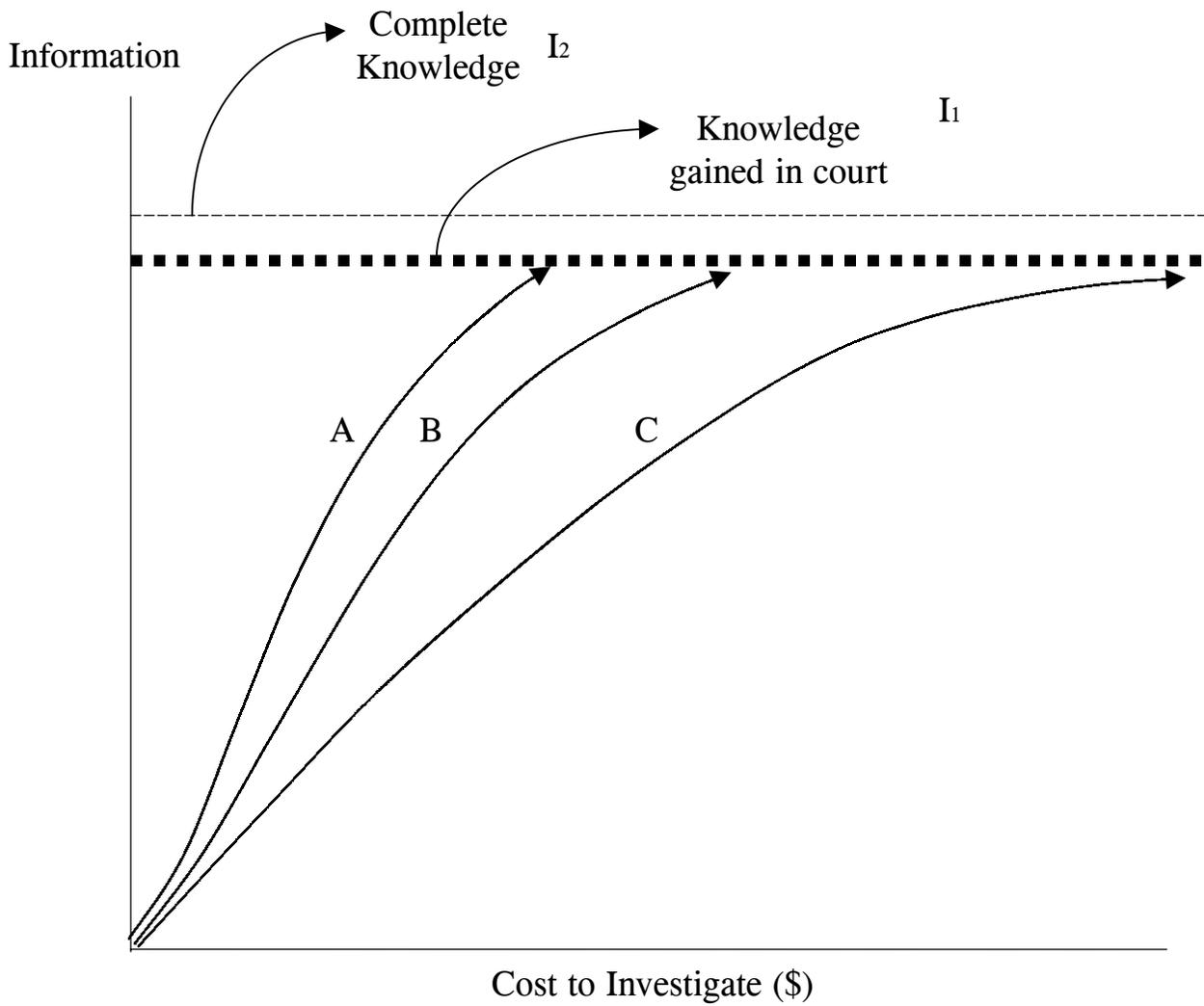
V. Observations and Implications

Our study supports several assumptions about how the law of bad faith affects insurers' claims settlement practices. Higher overall settlement amounts are paid in states with a bad faith remedy. Moreover, consistent with the reasoning outlined earlier, the higher overall settlements primarily are a result of higher payments for non-economic damages. We find no statistically significant difference in the payment of economic damages under this coverage between states recognizing the tort of bad faith and those that do not.

Our analysis and findings suggest that the tort of bad faith is not an important determinant of claims settlement practices

total claim empirical equation reveals $\partial \ln L / \partial \text{Puni} = -0.2156 + 0.2252 \cdot \text{Puniins}$. Evaluation at $\text{Puniins} = 1$ and exponentiating yields $(e^{0.0094} - 1) = q$

when the true cost of a claim is readily verifiable. Rather, the tort of bad faith affects the settlement of claims when costs are difficult to ascertain. Our empirical results are consistent with the argument that the threat of extracontractual damages arising from this tort encourages insurers to settle ambiguous claims for higher amounts in order to avoid litigation. To the extent the tort of bad faith reduces litigation costs, the tort would lead to a more efficient resolution of claims. If, however, the tort is resulting in inappropriately higher payments to insureds, the tort is contributing to unnecessarily high insurance costs. The economic efficiency of the tort of bad faith warrants future research.



- A) Company investigation - economic damages
- B) Court investigation
- C) Company investigation - non-economic damages

Figure 1

Table 1

Insurers in the Data

Aetna Life and Casualty	Liberty Mutual Group
ALFA Insurance Group	Maryland Insurance Group
All Nation Insurance Group	Merchants Insurance Group
Allstate Insurance Group	Meridian Mutual Group
American Family Insurance Group	Metropolitan Group
Amica Mutual Insurance Company	Motorists Mutual Insurance Company
Automobile Club of Michigan Group	Modern Service Insurance Company
Auto-Owners Insurance Company	National Farmers Union Property & Casualty Company
California Casualty Group	Nationwide Insurance Enterprise
CNA Insurance Companies	New Jersey Manufacturers Insurance Company
Concord General Corp. Group	North Carolina Farm Bureau Mutual Insurance Company
Cotton States Mutual Insurance Company	PEMCO Insurance Companies
Country Companies	Plymouth Rock Assurance Corporation
California State Automobile Association Inter-Insurance	Preferred Risk Mutual Insurance Company
Erie Insurance Group	Prudential Property and Casualty Insurance Company
Indiana Farm Bureau Group	PW Group, Inc.
Farmers Mutual Insurance Company of Nebraska	The Royal Insurance Group
Farmers Insurance Group of Companies	SAFECO Insurance Companies
Farmers Casualty Company Mutual	Secura Insurance A Mutual Company
Fireman's Fund Insurance Companies	Selective Insurance Group
Foremost Corporation Group	Shelter Insurance Companies
Fortune Insurance Company	Southern Farm Bureau Casualty Insurance Company
GEICO	State Farm Insurance Companies
General Casualty Company of Wisconsin	Tennessee Farmers Insurance Companies
Georgia Farm Bureau Mutual Insurance Company	The Brethren Mutual Insurance Company
ITT Hartford Insurance Group	The Shelby Insurance Company
Interinsurance Exchange of the Automobile Club of Southern	Transamerica Insurance Group
Island Insurance Group	USAA Group

Kansas Farm Bureau Mutual Insurance Company	Wisconsin Mutual Insurance Company
Kemper National Insurance Companies	
Keystone Insurance Company	

Table 2

Empirical Treatment of the Tort Reforms

<i>Joint and several</i>	JS = 1 if at the time of loss the state where the loss occurred has either abolished or modified the statute that allows an injured plaintiff to collect an entire award from any one defendant, and 0 otherwise.
<i>Collateral source rule</i>	Coll = 1 if at the time of loss the state where the loss occurred has permitted insurance recovery from a victim's first-party insurer to offset the damage judgment, and 0 otherwise.
<i>Limitations on non-economic damages</i>	Caps = 1 if at the time of loss the state where the loss occurred has set a maximum on the recovery of non-economic damages, and 0 otherwise.
<i>Limits on punitive damages</i>	Puni = 1 if at the time of loss the state where the loss occurred has set a maximum on the recovery of punitive damages, and 0 otherwise.
<i>Minor reforms</i>	A variable taking the value of 0 or 1, depending on whether any of the minor reforms are in place at the time of loss. Candidate reforms include prejudgment interest, provisions for periodic payments, and sanctions on frivolous suits or defenses.

Table 3
Sample Statistics

Variable	Mean	Standard Deviation
<i>Claim Types</i>		
Total Claim	\$11,432	\$28,532
Economic Claim	\$4,084	\$14,170
Non-Economic Claim	\$7,348	\$18,177
<i>Legal Variables</i>		
Bad Faith	0.8563	0.3507
Attorney	0.6654	0.4719
Suit	0.1264	0.3325
<i>Environmental and Demographic</i>		
Urbanization	4.4348	0.1999
Unemployment Rate	2.0598	0.1624
Claimant's Gender	0.5475	0.4978
Claimant's Age	33.9089	15.1709
Claimant's Status	0.8493	0.3578
Claimant's % Fault	3.6251	1.8383
<i>Injury Type</i>		
Minor	0.4856	0.4999
Moderate	0.4105	0.4920
Severe	0.0773	0.2671
Catastrophic	0.0013	0.0364
<i>Tort Reforms</i>		
Joint and Several	0.3575	0.4794
Collateral Source Rule	0.1674	0.3734
Caps on Non-economic damages	0.0106	0.1024
Punitive Damages	0.6902	0.4624
Insurable Punitive Damages	0.3778	0.4849
Puni•Puniins	0.2271	0.4191
Minor Reforms	0.3539	0.4783
<i>Event Year</i>		
Exceed	1.1546	1.2615
Stack	0.0132	0.1144
	0.0229	0.1498

Table 4
Estimates of the Empirical Model

Dep. Variable: Variable	ln (total claim)		ln (economic claim)		ln (non-economic claim)	
	Coefficient	t-ratio	Coefficient	t-ratio	Coefficient	t-ratio
Intercept	3.7807	1.448	-2.8528	-0.902	5.3262	1.612
Bad Faith	0.1773	2.674	0.0315	0.386	0.3276	4.039
Attorney	0.8814	17.302	0.8571	15.010	0.9280	15.213
Suit	0.0648	0.749	-0.0066	-0.073	0.0823	0.810
<i>Environmental and Demographic</i>						
Urbanization	-0.1082	-0.771	-0.4426	-2.697	-0.0334	-0.203
Unemployment Rate	0.0698	0.408	0.2031	0.977	0.1005	0.479
Income Level	0.2795	0.286	0.9933	2.844	-0.3276	-0.009
Claimant's Gender	-0.0279	-0.782	-0.0573	-1.317	-0.0414	-0.913
Claimant's Age	0.0096	7.311	0.0099	6.137	0.0094	5.900
Claimant's Status	0.0964	1.911	0.0735	1.201	0.1368	2.043
Claimant's % Fault	0.0249	2.526	0.0184	1.563	0.0317	2.494
<i>Injury Type</i>						
Minor	0.5455	3.585	0.4331	2.589	0.5666	3.638
Moderate	1.4493	9.451	1.3196	7.814	1.4811	9.337
Severe	2.5633	14.885	2.4289	12.762	2.5271	13.654
Catastrophic	3.2876	4.442	4.0456	5.089	2.6181	3.664
<i>Tort Reforms</i>						
Joint and Several	0.1785	2.373	0.2419	2.644	0.0554	0.531
Collateral Source Rule	-0.2457	-3.145	-0.2256	-2.458	-0.1442	-1.338
Caps on Non-economic damages	0.1412	0.892	-0.4206	-1.876	0.1895	0.937
Punitive Damages	-0.1821	-2.413	-0.0340	-0.368	-0.2156	-2.354
Insurable Punitive Damages	-0.2351	-2.259	-0.1589	-1.237	-0.1467	-1.133
Puni•Puniins	0.3729	3.238	0.4900	3.411	0.2252	1.669
Minor Reforms	-0.0523	-0.814	-0.1069	-1.367	-0.0068	-0.087
Event Year	0.1292	2.523	0.0900	1.946	0.1494	2.689
Exceed	0.2697	1.688	0.3562	1.441	-0.0264	-0.109
Stack	0.7640	5.297	0.7291	4.402	0.8219	4.457
Adjusted R ²	0.563		0.439		0.452	
n	2,263		2,263		2,263	

Note: t-ratios reflect standard errors that have been corrected for heteroskedasticity.