An Empirical Assessment of Early Offer Reform for Medical Malpractice

Joni Hersch, Jeffrey O'Connell, and W. Kip Viscusi

ABSTRACT

The early offer reform proposal for medical malpractice provides an option for claimants to receive prompt payment of all their net economic losses and reasonable attorney fees. Using a large sample of closed individual medical malpractice claims from Texas supplemented by data from Florida, this article provides an empirical assessment of the consequences of the early offer reform. Noneconomic damages make up about two-thirds of paid claim amounts. The minimum payment amount for serious injuries will affect the magnitude of insurer savings and claimant compensation. Payments to claimants will be expedited by 2 years by the early offer reform, and litigation costs will be reduced by an average of $100,000–$200,000 per claim.

1. INTRODUCTION

Medical malpractice litigation has long been a target of tort reform efforts.[1] Much of the stimulus for these reforms arises because insurers

JONI HERSCH is Professor of Law and Economics at Vanderbilt University Law School. JEFFREY O'CONNELL is Samuel H. McCoy II Professor of Law at University of Virginia Law School. W. KIP VISCUSI is University Distinguished Professor of Law, Economics, and Management at Vanderbilt University Law School.

1. For a brief critique of current medical malpractice law, see O'Connell and Boutros (2002). Hyman and Silver (2005) and Baker (2005) respond to criticisms of medical malpractice law but nonetheless propose substantial reforms. One of Hyman and Silver's

and defendants in these cases are subject to substantial costs that are often uncertain. Similarly, claimants who have suffered medical injuries face uncertainty regarding payment for their injuries as well as delays in receiving payment. Medical malpractice reforms to date have not attempted to revamp the underlying structure of the claims process but instead have focused more narrowly on ways to limit liability and the level of awards. A typical legislative reform has been the imposition of limits on the level of noneconomic damages.

This article focuses on a quite different reform approach known as the early offer reform.[2] In broad outlines, the insurer has the option of making a prompt early offer of net economic damages and attorney fees. If the claimant turns down the early offer, he or she can pursue a tort claim, but the legal standard of proof will be raised to gross negligence. The early offer approach consequently is in the spirit of both workers' compensation and no-fault auto insurance in that it attempts to reduce transactions costs, expedite payments, and address the accident victim's economic losses.

The rationale for the early offer approach can be conceptualized in terms of the optimal insurance compensation structure that patients would choose at an earlier preinjury point in time. Suppose patients do not know in advance that they will suffer a medical injury but can assess the probabilities of the possible outcomes. How would patients structure the medical malpractice compensation system if they had to pay the full actuarial cost of this medical malpractice insurance? If patients in our thought experiment were paying the insurance costs and structuring their own insurance, they would fully insure their economic losses but would not purchase coverage for pain-and-suffering damages.[3] Consistent with this optimal insurance approach, the early offer reform addresses only

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suggested reforms is a variant of early offers as a way to diminish exposure to pain-and-suffering damages.

2. O'Connell (1976), O'Connell and Pohl (1997–98), O'Connell and Boutros (2002), and O'Connell, Kidd, and Stephenson (2005) provide background discussion and a more detailed presentation of the early offer reform concept. For an economic model of the cost and other effects of the early offer proposal, and for illustrative examples showing similar results, see O'Connell, Kidd, and Stephenson (2005). The model especially highlights the wedge effect that current law induces in placing a barrier between claimants and defendants that early offers greatly diminish (O'Connell, Kidd, and Stephenson 2005, pp. 280–97). See especially O'Connell, Kidd, and Stephenson (2005, figure 2) compared with their figure 6 and their discussions of these figures.

3. For a review of the evidence on pain-and-suffering compensation, see Viscusi (1996). In brief, it will not be optimal to insure pain-and-suffering damages if the injury reduces one's marginal utility of income.

economic losses. Current tort reform efforts such as caps on pain and suffering likewise limit the noneconomic damages component, but unless there is a provision for attorney fees as in the early offer reform, these caps may lead to situations in which claimants are not fully compensated for their economic damages.[4]

Damages payments in theory serve a deterrence objective. Cost savings for the insurer imply lower tort costs for physicians guilty of malpractice as well as lower medical malpractice insurance costs and thereby may reduce any existing deterrence effect.[5] Most empirical evidence examines only the effect of medical malpractice in encouraging defensive medicine.[6] There is little compelling statistical evidence that on balance medical malpractice enhances patient health, so it is not possible to assess the lost deterrence value.

This article does not address normative questions related to early offer reform. Rather, we provide an empirical examination to assess the consequences of early offers: who gains, who loses, how the timing of payments is affected, and the effect on litigation costs.

The analysis is made possible by the use of data on individual closed medical malpractice claims from Texas (State of Texas 1988–2002), which we supplement with a comparable medical malpractice data set from Florida (State of Florida 1974–2002). Together, these data provide a basis for assessing how claims that are paid under the existing medical malpractice regime will fare under an early offer reform.

Section 2 describes the functioning of the early offer reform in detail and also examines how we implement the empirical analysis to capture the implications of this structure. In Section 3, we develop the operational components of the early offer reform. Many of the empirical issues considered are of independent interest, including the noneconomic damages share of awards, the role of collateral source payments, and the level of litigation costs incurred by defendants in medical malpractice cases. Section 4 examines the implications of different variants of the early offer reform. In Section 5, we present the conclusions from our assessment.

4. For example, if the contingency fee share is one-third and economic damages are 75 percent of the award, there will be an 8 percent shortfall in covering economic losses if there is no payment for noneconomic damages.

5. The increased promptness of payments under the early offer reform will in part bolster the incentive effect of damages payments by raising their discounted present value.

6. See Kessler and McClellan (2002) for a study of the effect of malpractice claims on defensive medicine. Kessler and Rubinfeld (2004) review this evidence in detail.

2. THE EARLY OFFER REFORM

The early offer reform gives defendants the option of making an early offer that will expedite payment of claimants' economic losses.[7] Under the early offer reform for medical malpractice claims, within 180 days after a claim is filed, liability insurers for health care providers, who hereafter will be referred to as insurers and providers, respectively, may offer claimants a payment equal to the claimant's net economic loss (that is, the loss beyond any other insurance applicable to the claim) plus reasonable legal fees. If the claimant does not accept this offer, the injured victim can proceed with a normal tort claim for both economic and noneconomic damages. However, the legal standards of both the burden of proof and level of misconduct applied to the claim would be raised, and the claimant would have to prove gross negligence beyond a reasonable doubt. If the insurer does not make an offer, the current tort regime would apply.

Insurers would decide whether to make an early offer by comparing the cost of the early offer to their expected cost under normal tort rules if the claim were not settled under the early offer reform. This expected cost would equal the net economic damages (medical expenses and wage loss but not noneconomic damages) plus attorney fees, which as an illustrative calculation in this article are presumed to be 10 percent of the value of the early offer. Let c be the expected liability and litigation costs if the claim is not settled under the early offer approach. For any given claim, the value of c is the same as that under the current tort regime. Let c' be the portion of the litigation costs already incurred before making an early offer. Let d be the value of the claimant's economic damages, and let s be the value of the collateral source payments received by the claimant. The insurer will make an offer if

$$c - c' > 1.1(d - s). \tag{1}$$

Note that the costs c' incurred by the insurer have been netted out of the cost figure because they will not affect whether it will be desirable to make an early offer. These costs have already been incurred as part of the claim evaluation process and are sunk costs that are not pertinent to the subsequent decision of whether to make an early offer.

7. This theoretical model differs in several key ways from the Department of Health and Human Services (DHHS) early offer pilot program, which attempts on a voluntary basis to promptly resolve claims that have been submitted to DHHS for alleged medical malpractice by its employees or at DHHS-sponsored community health centers.

The analysis below also considers two variants of this basic early offer reform. First, we consider the effect of a minimum payment m for a particular class of injuries. Requiring a minimum payment amount converts the criterion for an early offer to be desirable to the condition that

$$c - c' > 1.1 \max [d - s, \, m]. \qquad (2)$$

Thus, the claimant is ensured the maximum of either $d - s$ or m. An overall minimum payment amount provides a floor regarding coverage of economic losses that may come into play in situations in which the claimant does not have substantial economic losses.

The second set of variants of the early offer reform does not provide for a deduction for collateral source payments. With this approach, if there is no minimum payment amount, the early offer will be made if

$$c - c' > 1.1d, \qquad (3)$$

and if there is a minimum payment amount, the insurer will make an early offer if

$$c - c' > 1.1 \max [d, \, m]. \qquad (4)$$

Note that if there is no deduction for collateral sources and the minimum payment amount m is high, claimants will be able to receive more than 100 percent coverage of their economic losses as well as specific compensation for attorney fees.

Each of these four inequalities assumes that insurers act in a rational economic manner. The insurer will make an early offer when the insurer's expected exposure from a full-scale tort claim is greater than the amount of the early offer. Note that this formulation assumes that insurers are risk neutral, which is likely to be the case since any given claim involves a small amount of costs relative to the size of the entire portfolio of policies.

In the analysis below, we present calculations of the amounts that insurers would save by making early offers, since such savings are a prerequisite to making early offers. But savings to insurers do not necessarily imply losses to claimants of an identical magnitude. Consider for example the early offer reform variant given by inequality (1). Assume that the insurer finds making an early offer attractive. From the

vantage point of the time at which the early offer is made, the savings to the insurer will be given by

$$\text{Insurer savings} = c - c' - 1.1(d - s) \tag{5}$$

if we also include the costs c' incurred by the insurer to evaluate the claim initially.

Suppose that under the existing tort regime claimants receive non-economic damages n and that claimants will pay one-third of their award as a contingency fee payment to their attorneys. Then the net gain to claimants under the early offer reform, where this amount may be negative, is given by

$$\text{Claimant gain} = (d - s) - .67(d + n) \tag{6}$$

or

$$\text{Claimant gain} = .33d - s - .67n. \tag{7}$$

Claimants gain under the early offer reform if the one-third deduction from economic loss for attorney fees under the current tort regime is greater than the value of collateral source payments plus two-thirds of the noneconomic damages value. Insurers will always benefit if they choose to make an early offer.[8]

Some of the savings for both parties are in terms of lowered transactions costs, as attorney fees will be reduced by the early offer reform. If insurers make an early offer, claimants lose their normal recourse to full-blown tort litigation. Because claimants are risk averse, the value of the claim under the current tort regime is less than its expected monetary value.[9] The losses claimants currently experience due to uncertainty will not be calculated, but we take into account how early offers reduce delays before payment and also reduce transactions costs.

This article uses Texas and Florida medical malpractice data on closed individual claims to assess the performance of the early offer reform.[10] The core of the analysis is the Texas database because it is more comprehensive, but we also use the Florida data to impute data not included

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8. With perfect foresight, the expected costs c for the insurer will equal $d + n$ plus the insurer's litigation costs. However, after making this substitution in the equations, it can be shown that insurer savings will not generally equal claimant losses.

9. Empirical evidence documenting substantial claimant risk aversion for product-related claims appears in Viscusi (1988b).

10. Specifically, we use the Texas Department of Insurance (TDI) Commercial Liability Insurance Closed Claim Reports (State of Texas 1988–2002) and the Florida Medical Professional Liability Closed Claims database (State of Florida 1974–2006).

or with incomplete information in the Texas files. The Texas data are from the time period 1988–2002, before Texas modified its medical malpractice law in 2003 by, among other things, limiting noneconomic damages to $500,000.

The next section describes the calculation of the components of the early offer reform. The Texas data permit us to calculate three different measures of the expected liability cost and litigation cost of the claim c. The first measure is the insurer's initial reserve amount to pay the claim, which insurers calculate at the start of the claims process. The second measure is the final reserve amount, which is calculated at a later stage of the claims process. The third measure is the actual settlement or award plus the amount of litigation costs incurred by the insurer. The Texas data also provide a basis for calculating the economic damages amount d, and, in conjunction with the Florida medical malpractice data, it is possible to calculate collateral source payments s and noneconomic damages n. Our calculations focus on the amount of the settlement or award paid and do not distinguish whether the amount was due to settlement, trial, or appellate decision.

Based on this information, we calculate both the number of cases for which an early offer is attractive and the average insurer savings if an early offer were in fact made and accepted. We perform the calculations by analyzing the data in two ways: by injury type, for example, fatality or serious nonfatal injury; and by type of damages, for example, whether exemplary damages were reported, whether only noneconomic damages were reported, and whether both noneconomic and economic, but not exemplary, damages were reported, which is the more typical situation. The empirical assessment also examines alternative assumptions regarding a minimum payment amount m to include the effect of $100,000, $250,000, or $500,000 minimum payment amounts for fatalities and serious nonfatal injuries and the effect of including offsetting collateral sources s in determining net economic damages as part of the early offer. We also calculate how much time is saved if an early offer is made and accepted for each of these alternative specifications. In addition, we examine the effect on litigation cost savings, which consist mostly of attorney fees for both claimants and insurers.

Because the Texas data set includes only claims that are paid, we cannot analyze the effect of the early offer reform on the universe of cases.[11] Lawyers may file some claims not currently brought by searching

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11. Dewees, Duff, and Trebilcock (1996, p. 425) indicate that 60 percent of medical

for cases that are not economically viable under the present tort regime. If there is a behavioral response leading to more claims or claims with higher economic losses compared with current claims levels, the estimates based on current claims data will serve as an upper bound of the cost savings.

Several factors limit the extent of the overstatement of cost savings. First, the early offer reform restricts claimant attorney fees to a reasonable amount, such as 10 percent, which is below the more typical one-third contingency fee rate. Many cases not currently compensated will not be attractive to attorneys under an early offer approach because attorney fees are limited. Second, if it were easy for claimants to allege gross negligence or to boost the value of their damages claim in a credible manner to elicit an early offer, they would already have the incentive to do so under the current system. Third, most of the scenarios for emerging new claims involve claims with smaller losses, as there is already a strong incentive to bring claims for very serious injuries involving large losses. If the big stakes claims that will be filed are already in the data set, that will limit the extent to which our estimates overstate cost savings. Fourth, because the insurer can always choose not to make an early offer, it can revert to the existing tort regime and its associated payoff structure for claimants.

There also may be a response by juries that will reduce the cost savings under the early offer reform. Note that under the early offer reform, fewer claims will be decided by juries, so the magnitude of jury offsetting behavior is limited. Sharkey (2005) hypothesizes that juries respond to noneconomic damages caps by raising the award for economic damages. Sharkey analyzes medical malpractice cases reported in the waves of the Civil Justice Survey of State Courts and finds no significant effect of a noneconomic damages cap on the total level of compensation. However, this result does not imply that there is no effect of such caps or that there is offsetting jury behavior. The imposition of a noneconomic damages cap will induce a case selection effect whereby the cases filed will have a greater share and a greater level of economic damages than before the imposition of a cap. Thus, one will observe an apparent increase in the role of economic damages and a different case mix even without an offsetting jury response.

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malpractice claims are closed without payment. The economic model in O'Connell, Kidd, and Stephenson (2005, p. 295) indicates that more claims will be paid under an early offer regime but "the increase . . . will be too small to offset the savings."

If, however, there is any such offsetting behavior, it is not a complete offset. noneconomic damages caps substantially reduce medical malpractice insurance losses, as shown by Viscusi and Born's (2005) analysis of a comprehensive data set consisting of all U.S. medical malpractice insurers by firm, by state, and by year.[12] This result does not exclude the possibility that there will be some partly offsetting behavior that emerges once noneconomic damages are excluded from payment for typical claims filed under the early offer reform, but it does indicate that insurers' losses will decline significantly.

3. COMPONENTS OF THE EARLY OFFER REFORM

3.1. Expected Overall Insurers' Costs

The maximum amount c that an insurer would be willing to offer to resolve a claim under the early offer reform is determined by the insurer's expected liability and litigation costs of proceeding with the claim under normal tort law. This expectation takes into account the probability of settling the claim or losing the case at trial. These probabilities are incorporated in the reserve amounts, which are our first two measures of c. The actual claim cost is restricted to claims for which there was payment, so that the payment or settlement amount calculations for the third measure of c are not weighted by any probabilities. Because insurers get to decide whether to make an early offer, we focus on their decision.

As indicated above, in our calculations we use three different reference measurements to estimate the basis for that decision: the insurer's initial reserve amount, the insurer's final reserve amount, and the actual amount of the settlement or court award for the claim plus associated legal defense expenses. The use of the second or third measure to decide on the feasibility of an early offer assumes greater foresight on the part of the insurer than is the case with the initial reserve amount. However, if the early offer reform is enacted, one would expect insurers to refine their initial reserve estimates by obtaining additional information about the merits of the claim and the net economic damages. The Texas closed claim data used here report the initial and final reserves divided into indemnity reserve (that is, the reserve for payments) and expense reserve

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12. The noneconomic damages variable's negative and significant effect on medical malpractice insurer losses appears in the regression results in table 4 of Viscusi and Born (2005).

(that is, the reserve for all claim-related defense expenses). The expense-reserve information allows us to calculate the savings in expected legal defense expenses on the basis of the reserve amounts. We also calculate the savings on the basis of actual legal defense costs incurred for the claim because the Texas data set separately reports both total allocated loss adjustment expenses and allocated legal and administrative expenses assigned to a given case.

Our analysis considers a broad range of medical malpractice claims. Texas requires that insurers submit information on claims with bodily injury payments of at least $10,000. Payments over $25,000 are reported on a long form, and payments of $10,000–$25,000 are reported on a short form.[13] The years for which Texas data are currently publicly available are 1988–2003. We use data for the years 1988–2002, before Texas modified its medical malpractice law in 2003. We use supplemental data from Florida, which has two medical malpractice closed claim data sets: the archival data set from 1975 to mid-July 1999 and the current data set from mid-July 1999 to 2003. Until 1997, Florida insurers reported all closed claims, even those with zero payment. After that time, insurers reported claims with a nonzero payout, although there continued to be some voluntary reporting of zero claims.[14]

The primary insurer, which is the principal insurer in a case, submits the Texas closed claim forms to the Texas Department of Insurance (TDI). The primary insurer reports its reserve based on its expected payment and also reports information on its actual payment and what any other insurers of defendant parties contributed to the settlement or award. This means that the reported reserve corresponds to the portion of the claim the primary insurer expects to pay, while the total settlement or court award pertains to the actual full payment of the claim.

If it is desirable to make an early offer collectively on behalf of all the insurers involved in any given case, each individual insurer should usually find making an early offer attractive, and therefore insurers will join together in making an early offer. Otherwise, any nonofferer will face a claimant now seeking noneconomic damages and economic dam-

13. Reported information on reserve amounts and defense litigation expenses is not available in any other data set that reports medical malpractice claims, such as the Florida medical malpractice data set analyzed by Vidmar et al. (2005).

14. Note that throughout the article, all dollar values are adjusted to 2002 dollars using the Consumer Price Index for All Urban Consumers. Tables A1, A2, and A3 provide selected descriptive characteristics of the Texas closed claim sample, including information on the distribution of total settlements or court awards.

ages with no collateral source offset.[15] Assuming then that the early offer will be a collective venture among the applicable insurers, the pertinent reserve values to determine the willingness to pay for the early offer are the projected amounts for all insurers, not simply that for the primary insurer. To obtain this projection, we scale up the primary insurer reserve amount by the size of the total settlement or award, divided by the payment by the primary insurer plus any deductible.

3.2. Defense Legal Expense

Not all of the defense legal expenses will be saved if an early offer is accepted because some costs, given by c' above, must be incurred to evaluate the claim before deciding whether to make an early offer. To assess the share of costs that would be saved, we adopt an approach that is consistent with the early offer reform's projected treatment of a claimant's legal fees. Assuming that the usual claimant's attorney fee would be one-third of any normal tort settlement or award, the presumed early offer reform attorney fee of 10 percent of net economic loss provides payment of 10/33 of the otherwise normal contingency fee as a part of the early offer.[16] Making a parallel share assumption for insurers, we assume that the fraction 10/33 of defense legal expenses will be incurred before the early offer is accepted. If the insurer chooses instead to litigate the claim, it will incur this 10/33 fraction of defense costs plus the remaining 23/33 fraction. Thus, by settling a claim on the basis of an early offer, the insurer saves the 23/33 fraction of legal expenses. As with reserves, we scale up the primary insurer defense costs.

In our calculation of whether an early offer is desirable, the maximum an insurer would be willing to offer is the expected tort settlement or award plus this 23/33 defense costs share. If the early offer is accepted, the only defense costs that count as insurer savings are the 23/33 share amount because, as indicated, the other defense costs will already have been incurred.

3.3. Net Economic Loss

Of the 16,437 claims in the Texas data set, 5,733 reported a breakdown of the damages into four possible categories: (1) economic damages,

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15. For purposes of the empirical analysis, we assume that the insurers can be treated as a collective entity and that in practice any disputes over division of costs among insurers will be handled later through arbitration.

16. Our analysis will not consider different percentage amounts, but the choice of the claimant attorney fee percentage is a key parameter that will be negotiated as part of any early offer reform legislation.

which, net of collateral sources, are payable under an early offer, (2) noneconomic damages, which are not payable under an early offer, (3) exemplary damages, which indicate cases for which an early offer would more likely be declined, and (4) prejudgment interest, which will be largely eliminated because of the promptness of early offer payments.[17] For cases in which the breakdown of economic damages is included in the Texas data, we use that damages amount. For all other cases, we use the average economic damages share calculated using the Florida medical malpractice data. In particular, we distinguish four different economic damages share values based on injury type (fatal or nonfatal) and age (under age 18 or 18 and over). The economic damages shares of the total award are as follows: .359, nonfatal, under age 18; .156, nonfatal, age 18 and over; .345, fatal, under age 18; and .246, fatal, age 18 and over. Because age and injury type are not reported for the TDI short form claims, we use the same economic share of .348 for all short form claims which is calculated as the weighted average of the economic damages share for all nonfatal claims.[18]

The large noneconomic damages share of the total award accounts for most of the large insurer cost savings under the early offer reform and is of independent interest in its own right. These noneconomic damages amounts, which are chiefly for pain and suffering, greatly exceed the comparable values for product liability cases, which range from .26 for paraplegia or quadriplegia to a high of .54 for cancer (see Viscusi 1988a, p. 207).

Because the focus of the early offer plan is to compensate for economic loss, and because the Florida data do not report either exemplary (punitive) damages or prejudgment interest as separate categories, we also do not provide imputed noneconomic damages, exemplary damages, or prejudgment interest. To provide more information on the allocation of damages into the four categories, we report detailed information on the distribution of economic damages, noneconomic damages, exem-

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17. The actual breakdown is reported for court awards and is an estimate as contemplated in the settlement for those without court decisions. Per TDI staff, for cases that settled out of court, the breakdown is asked to be reported only if, in the opinion of the individual completing the form, the settlement was influenced by a demand or possible award of noneconomic damages, exemplary damages, or prejudgment interest. Also per TDI staff, this is the best and only information available using Texas closed claim data on the components of damages awards, as most insurers do not record information with even this level of detail.

18. The indemnity cap is $25,000 for short form closed claim reports, so the injuries are unlikely to entail fatality or serious nonfatal injury.

Table 1. Distribution of Damages for Claims in Which Breakdown Is Reported ($N = 5{,}733$)

	Economic Damages ($)	Noneconomic Damages ($)	Exemplary Damages ($)	Prejudgment Interest ($)	Total Settlement or Court Award ($)
10th percentile	0	15,237	0	0	33,626
25th percentile	10,000	39,626	0	0	72,095
50th percentile	33,021	112,087	0	0	203,162
75th percentile	121,390	323,950	0	0	544,052
90th percentile	396,256	800,000	0	34,711	1,325,772
Mean	181,330	344,875	41,579	24,533	592,316
Standard deviation	613,140	777,297	330,858	146,451	1,336,522

plary damages, prejudgment interest, and the total settlement court award in Table 1 for the 5,733 claims in which a breakdown is reported.

Although the TDI long form allows reports of whether any collateral sources were available to the injured party, claimants are not required to report such sources to the insurer. Investigation of these data suggests that reports of collateral sources were incomplete.[19] We therefore impute the percentage of economic loss offset by collateral sources under early offer reform using the Florida medical malpractice data, which provide more complete information on collateral sources. For claims with positive economic loss in the Florida data, we calculate the share of economic loss that will be offset by collateral sources as the sum of the percent of total recovery from the following insurance categories: health, disability, workers' compensation, automobile,[20] and Medicare. We then translate this percentage into a dollar value based on the total economic loss. The average percent collateral offset for the different classes of cases is then calculated as the average dollar value of collateral offset divided by the total economic loss, calculated for each of the four age and fatality categories used to impute economic loss. The specific collateral source fractions of economic loss are as follows: .249, nonfatal, under age 18; .281, nonfatal, age 18 and over; .213, fatal, under age 18; and .199, fatal, age 18 and over. Because age and injury type are not reported for the TDI short form claims, we use the same collateral

19. While 40 percent of the claims reported on the long form indicate at least one payment by a collateral source, the estimated collateral source offset using the share of economic loss offset by collateral sources in the Texas data yields an estimate of only 4.8 percent. This value is far below the collateral source share calculated directly from the Florida data, which is a more reasonable 25 percent as described in the text.

20. Although the Florida data documentation does not state this explicitly, we assume the "automobile" category is limited to first-party automobile coverage such as no-fault or medical pay coverage.

source offset for all short form claims of .264, calculated as the average for all nonfatal claims.[21]

3.4. Exemplary Damages

Claimants who do not accept an early offer must show that the provider's conduct was grossly negligent, which is variously but similarly defined in several states, in order to collect full tort damages. A useful measure of whether claimants would anticipate that this higher legal standard could be met, and therefore opt out of the early offer settlement and choose instead to litigate, is whether exemplary damages in the tort settlement or court award are reported to the TDI. In the case of settlement, reported exemplary damages were those estimated as part of the settlement rather than awarded by the court. For purposes of our analysis, we assume that all claims in which there are such reports of exemplary damages will opt out of the early offer and that all claims without exemplary damages will be in a position to accept an early offer if one is made.

On the basis of these assumptions, we distinguish claims that report exemplary damages from those that do not, and we indicate the results under the early offer reform with and without these claims. As the breakdown in damages categories in Table 2 indicates, only 521 of the 16,437 claims involve exemplary damages. In practice, some claimants who ultimately might have received exemplary damages may choose to accept the early offer, since there is substantial uncertainty as to whether such damages will be awarded. Likewise, some claimants who ultimately will not receive exemplary damages will choose to reject the early offer because they overestimate their chances of receiving such damages.

3.5. Minimum Payment for Fatalities or Serious Nonfatal Injuries

Another feature in the reform arises from the treatment of serious tort claims in which economic damages would be small, although noneconomic losses would be substantial. Fatalities to children and older people with no or low levels of earnings would, for example, tend to produce few economic damages, although the nonpecuniary costs to the survivors would, of course, be large. As a result, we explore two alternative ap-

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21. These collateral source share estimates may be low in that they are based on reports by insurers rather than on reports by claimants, who would be expected to have more knowledge of such payments. However, the estimated level of collateral source payments is not too dissimilar from the 30–40 percent estimate obtained by Danzon (1985) using California medical malpractice data.

Table 2. Projected Reserve, Total Settlement or Court Awards, and Economic Loss

	Projected Total Initial Reserve ($)	Projected Total Final Reserve ($)	Total Settlement or Court Award ($)	Economic Loss ($)	N
By damages category:					
Exemplary damages reported	599,128	1,486,955	1,190,432	249,636	521
No exemplary damages:					
Economic damages reported as zero	276,400	686,232	404,274	0	645
Positive economic damages	318,298	797,046	550,641	199,147	4,567
Imputed economic damages	233,865	633,695	385,721	98,828	10,704
All claims	270,572	708,189	457,779	127,604	16,437
By injury type:					
Fatality	366,497	822,464	490,373	123,023	4,609
Serious nonfatal injury	578,209	1,892,127	1,257,676	430,225	1,938
Other nonfatal injuries and short form claims	141,476	363,766	235,541	60,473	9,369
All claims without exemplary damages	259,817	682,697	433,796	123,609	15,916

Note. Results by injury type exclude claims reporting exemplary damages.

proaches to treating serious claims, which we define as fatalities, amputations, brain injuries, and spinal cord injuries. These are the claim categories in the TDI data with the largest amounts of noneconomic damages. First, we consider the effect of basing the early offer decision on actual net economic damages incurred, and second, we consider the effect of setting a floor of $250,000, or alternatively of $100,000 or $500,000, as the minimum amount of damages payable in such serious cases.

4. THE CONSEQUENCES OF EARLY OFFER REFORM

4.1. Reserve Amounts and Awards

Table 2 reports insurers' initial and final reserve, the total settlement or court award, and claimants' economic loss. The multiplication factor used for the results by damages category is described in Section 3.1; it scales up the reserve amount to reflect total payments by multiple parties.

In Table 2 and the subsequent tables, the results by damages category stratify the sample into four groups to show how different types of claims in the TDI data are handled by the early offer reform. It is important to remember that only about one-third of the claims report a breakdown of damages into the four possible categories of damages: economic damages, noneconomic damages, exemplary damages, and prejudgment interest. For these claims not reporting the allocation of damages into these four categories, we impute economic damages using the method discussed in Section 3.3. For those claims that do report the breakdown into the four categories of damages, one group is composed of claims with exemplary damages as well as other damages.[22] The next group is composed of claims for which neither exemplary damages nor economic damages were reported. For these claims, all damages amounts paid by the insurer were noneconomic and/or prejudgment interest. Thus, under an early offer reform that pays economic damages only, claimants with zero economic damages would receive zero payments. We analyze these claims separately because, first, these claims will be most affected by a

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22. Of the 16,437 claims in the data set, only 25 reported exemplary damages as part of a court award. Most of the court awards were subsequently reduced. The value we use for the total settlement or court award is the final payment, not the original court award, and whether a claim is included in the row "Exemplary damages reported" is based on whether exemplary damages are reported in the breakdown of the actual settlement or award not on whether the original court award included exemplary damages.

minimum-payment requirement in the early offer reform and, second, without a minimum payment, such claimants gain nothing from the early offer and will have the most incentive to pursue litigation. The final group is composed of claims with positive economic loss reported. Such claims typically also report noneconomic loss and/or prejudgment interest.

Several patterns are noteworthy. The cases with exemplary damages have the highest values for every reserve or loss value in the table. The other entries tend to be more similar in terms of reserve and award values, with the largest amounts being for cases for which positive economic damages are reported. The projected initial reserves for all categories are below the total settlement or court awards, which in turn are smaller than the projected final reserves. But one thing to note is that the reserve amounts in Table 2 include defense expense reserves, which are mainly legal expenses, in addition to indemnity reserves, whereas the settlement or court award values do not take such expenses into account. (These expenses are considered in Table 3.)

It may be puzzling that the initial reserves are so much lower than the final reserves, but there are several possible explanations for this difference. The fact that initial reserves are well below final reserves does not necessarily imply that insurers are underreserving on average with their initial reserve amounts, although that may well be the case, as indicated in the scholarly literature.[23] The initial reserve amount serves as a placeholder until the insurer researches the claim in detail. The cases observed in the data set are the successful claims that led to insurer payouts. If, for example, the insurer reserves the same amount for claims of a particular type, with this amount corresponding to the average claim costs, then the claims that are ultimately successful will be underreserved initially, while the unsuccessful claims will be overreserved. Thus, the selection of claims for inclusion in the data set alone could account for the observed pattern without any bias in the reserving practices. As the claims mature, insurers learn to distinguish which claims in this overall claims category are those with the highest expected losses, which leads the final reserve amount to exceed the initial reserve value for claims that are paid.

Table 2 also reports information by nature of injury, excluding claims

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23. That there may be systematic errors in loss reserving is well documented. Weak insurers have a tendency to underreserve to make their financial soundness appear brighter (see Petroni 1992). In addition, the amount of reported reserves may be affected by income-smoothing objectives and tax concerns (see Gaver and Paterson 1999; Grace 1990).

reporting exemplary damages because, as indicated, we assume such claims will most likely lead to claimants' opting out of an early offer. Information on the nature of injury is reported on the Texas long form and enables us to distinguish fatalities and serious nonfatal injuries (brain damage, spinal cord injury, and amputation) from other nonfatal injuries. Overall, 47 percent of the cases for which the injury type is given are either fatalities or serious nonfatal injuries (see the Appendix). The Texas short form does not record the nature of the injury. Because claims reported on the short form represent damages payments under $25,000, it is probable that these claims do not represent cases with a fatality or other serious nonfatal injury, and so these claims are grouped with nonfatal, nonserious injuries in the table.

In terms of empirical magnitudes, the serious nonfatal injuries in Table 2 involve the largest reserve amounts and settlement or award amounts. Indeed, this is the only category for which the average settlement or court award is above $1 million. The average economic loss for this category remains substantial but is well under $500,000.

4.2. Early Offer Outcomes

Whether insurers will choose to make an early offer and how much they will save relative to the current medical malpractice regime depends on the maximum amounts that they would be willing to offer under the present tort regime minus the amounts that they would have to pay under the early offer regime. We refer to these amounts as the insurer savings stemming from the early offer plan, meaning that compared with the current system, the early offer reform will save insurers these amounts. Table 3 reports insurer savings calculated from different assumptions about the insurer's expected costs: projected initial indemnity (that is, damages) reserve, projected final indemnity reserve, and actual total settlement or court award. In calculating economic loss plus legal fees, we assume that the early offer plan sets the claimant's attorney fees at 10 percent of the value of the tendered economic loss. Thus, the attorney fee payment is in addition to economic loss rather than being deducted from the loss payment as is done under the current tort regime. Table 3 reports the average insurer savings when they are positive or

Table 3. Average Insurer Savings, if Positive, from early offer Proposal

	N	Savings Based on Initial Reserve		Savings Based on Final Reserve		Savings Based on Total Settlement or Court Award	
		$	N	$	N	$	N
By damages category:							
Exemplary damages reported	521	650,021	337	1,214,004	501	1,097,922	521
No exemplary damages:							
Economic damages reported as zero	645	263,464	645	639,002	645	519,298	645
Positive economic damages	4,567	325,973	2,753	587,982	4,262	431,855	4,539
Imputed economic damages	10,704	209,649	7,648	497,173	10,487	380,071	10,704
All claims	16,437	253,869	11,383	549,871	15,895	422,661	16,409
By injury type:							
Fatality	4,609	388,282	3,074	652,102	4,522	483,062	4,605
Serious nonfatal injury	1,938	578,788	1,055	1,367,003	1,893	1,057,924	1,932
Other nonfatal injuries and short form claims	9,369	125,276	6,917	289,058	8,979	224,041	9,351
All claims without exemplary damages	15,916	241,783	11,046	528,257	15,394	400,517	15,888
Minimum $250,000:							
Fatality	4,783	791,456	1,124	790,815	2,937	620,139	2,655
Serious nonfatal injury	2,022	1,054,531	498	1,666,090	1,440	1,338,290	1,395
Minimum $100,000:							
Fatality	4,783	525,055	2,036	659,236	4,182	498,556	4,084
Serious nonfatal injury	2,022	716,723	808	1,418,017	1,789	1,110,130	1,796
Minimum $500,000:							
Fatality	4,783	1,306,106	549	1,043,995	1,722	787,494	1,504
Serious nonfatal injury	2,022	1,527,611	305	2,026,416	1,082	1,600,094	1,049

Note. Results by injury type exclude claims reporting exemplary damages.

zero based on the following calculations. Savings based on initial reserve are given by

$$\text{Insurer savings} = \text{Projected(initial indemnity reserve}$$
$$+ \ 23/33 \times \text{initial expense reserve)}$$
$$- \ 1.1 \times \text{economic loss.}$$

Savings based on final reserve are given by

$$\text{Insurer savings} = \text{Projected(final indemnity reserve}$$
$$+ \ 23/33 \times \text{final expense reserve)}$$
$$- \ 1.1 \times \text{economic loss.}$$

Savings based on total settlement or court award are given by

$$\text{Insurer savings} = \text{Total settlement or court award}$$
$$+ \ 23/33 \times \text{total allocated loss adjustment expenses}$$
$$- \ 1.1 \times \text{economic loss.}$$

We also calculate these insurer savings based on the assumption of a minimum payment of $100,000, $250,000, or $500,000 for fatalities and serious nonfatal injuries.

Interestingly, the imposition of the minimum payment increases the average savings per case. That seemingly paradoxical result can be traced to the change in the mix of claims for which an early offer is desirable. As the minimum payment amount is increased, it is desirable for insurers to make an early offer for fewer claims. Once a $250,000 or even a $100,000 minimum is imposed, it is only the very high stakes claims for which the insurer will find an early offer attractive. Raising the payment minimum consequently reduces the number of claims in which an early offer will be made but increases the average savings for this altered mix of cases. The savings are high because the mix of remaining claims have a high level of noneconomic damages, which are not compensated under the early offer reform.[24]

Repeating this analysis deducting imputed collateral sources from economic loss indicates that, naturally enough, the early offer reform will be attractive to insurers more often when collateral sources are offset from economic loss. But although collateral sources offset about 25

24. The same phenomenon applies to the effect of minimum payments on claimant losses recorded in Table 5.

percent of economic loss, the effects are generally similar to those reported in Table 3, with the largest increase in savings occurring when insurers are basing the attractiveness of the claim on final reserves.[25]

4.3. Expedited Payments

Table 4 reports time saved by the early offer reform under the assumption that offers will be made and accepted in 180 days. The early offer reform will expedite payments by about 2 years overall and by about 2.5 years for serious nonfatal injuries.

4.4. Litigation Cost Savings

Because the early offer reform expedites the claims process and limits attorney fees, the main quantifiable gain from the early offer reform is the savings in litigation costs.[26] These litigation cost savings are reported in Table 5. As discussed in Section 3.2, for insurers we estimate the litigation cost savings based on the fraction 23/33 of the reserve for legal expenses or actual legal expenses, depending on whether the calculations are based on reserves or actual expenditures. The initial reserve for legal expenses does not account for the fact that incurring these expenses will not be immediate. We convert these estimates to a present value (PV) assuming a 3 percent interest rate and a time period equal to the time-period savings under the early offer reform. For the other litigation cost estimates, we assume that no discounting is needed. In all cases, for claimants we estimate the litigation cost savings as .23 of what the total settlement or award would have been in the absence of the early offer reform.

The specific equations used to calculate litigation cost savings reported in Table 5 are as follows. When the early offer decision is based on the initial reserve,

$$\text{Litigation cost savings} = .23 \times \text{Total settlement or court award}$$
$$+ \text{PV}(23/33 \times \text{initial expense reserve}).$$

When the early offer decision is based on the final reserve,

$$\text{Litigation cost savings} = .23 \times \text{Total settlement or court award}$$
$$+ 23/33 \times \text{final expense reserve}.$$

25. An appendix with these results is available on request.
26. There are other gains that are more difficult to assess, such as the benefit of reduced-payment uncertainty.

Table **4.** Average Number of Days Saved from early offer Proposal

	N	Early Offer Based on Initial Reserve		Early Offer Based on Final Reserve		Early Offer Based on Total Settlement or Court Award	
		Days	N	Days	N	Days	N
By damages category:							
Exemplary damages reported	521	718	337	713	501	709	521
No exemplary damages:							
Economic damages reported as zero	645	697	645	697	645	697	645
Positive economic damages	4,567	699	2,753	753	4,262	733	4,539
Imputed economic damages	10,704	702	7,648	737	10,487	732	10,704
All claims	16,437	709	11,383	713	15,895	730	16,409
By injury type:							
Fatality	4,609	724	3,074	738	4,522	734	4,605
Serious nonfatal injury	1,938	859	1,055	899	1,893	899	1,932
Other nonfatal injuries and short form claims	9,369	680	6,917	708	8,979	694	9,351
All claims without exemplary damages	15,916	709	11,046	740	15,394	731	15,888
Minimum $250,000:							
Fatality	4,783	741	1,124	762	2,937	756	2,655
Serious nonfatal injury	2,022	877	498	927	1,440	930	1,395
Minimum $100,000:							
Fatality	4,783	707	2,036	739	4,182	737	4,084
Serious nonfatal injury	2,022	872	808	906	1,789	910	1,796
Minimum $500,000:							
Fatality	4,783	709	549	760	1,722	752	1,504
Serious nonfatal injury	2,022	844	305	918	1,082	909	1,049

Note. Results by injury type exclude claims reporting exemplary damages.

Table 5. Average Litigation Cost Savings from Early Offer Proposal

	N	Early Offer Decision Based on Initial Reserve		Early Offer Decision Based on Final Reserve		Early Offer Decision Based on Total Settlement or Court Award	
		$	N	$	N	$	N
By damages category:							
Exemplary damages reported	521	235,775	337	300,666	501	455,889	521
No exemplary damages:							
Economic damages reported as zero	645	104,912	645	132,272	645	208,007	645
Positive economic damages reported	4,567	107,159	2,753	159,332	4,262	224,725	4,539
Imputed economic damages	10,704	71,947	7,648	118,895	10,487	191,777	10,704
All claims	16,437	87,181	11,383	136,010	15,895	209,915	16,409
By injury type:							
Fatality	4,609	106,993	3,074	146,945	4,522	240,492	4,605
Serious nonfatal injury	1,938	225,200	1,055	333,671	1,893	560,406	1,932
Other nonfatal injuries and short form claims	9,369	50,085	6,917	79,643	8,979	108,737	9,351
All claims without exemplary damages	15,916	82,648	11,046	130,651	15,394	201,849	15,888
Minimum $250,000:							
Fatality	4,783	185,259	1,124	196,320	2,937	372,914	2,655
Serious nonfatal injury	2,022	404,064	498	420,837	1,440	751,975	1,395
Minimum $100,000:							
Fatality	4,783	135,615	2,036	155,974	4,182	266,963	4,084
Serious nonfatal injury	2,022	280,887	808	351,160	1,789	600,235	1,796
Minimum $500,000:							
Fatality	4,783	253,634	549	260,873	1,722	550,996	1,504
Serious nonfatal injury	2,022	546,911	305	522,211	1,082	949,709	1,049

Note. Results by injury type exclude claims reporting exemplary damages.

When the early offer decision is based on total settlement or court award,

$$\text{Litigation cost savings} = .23 \times \text{Total settlement or court award}$$
$$+ \ 23/33 \times \text{attorney fees.}$$

As the estimates in Table 5 indicate, the litigation cost savings are substantial, as these average savings are over $100,000 per claim for every category except for one of the estimates based on the initial reserve amount. As the analogous distribution by injury type indicates, the cases for which the litigation cost savings are under $100,000 are the non-serious, nonfatal injuries and short form claims. Even this category for less serious claims has average litigation cost savings ranging from $50,085 to $108,737.

4.5. Gains or Losses to Claimants

The effect of different early offer reform structures on different categories of claims can be assessed as well. Under the current tort system, we assume that claimants receive two-thirds of the total settlement or award, with the remaining one-third going to attorney fees. The early offer plan compensates claimants for net economic damages, which are paid earlier, thus increasing their discounted present value.[27]

Table 6 indicates the effect of early offers on claimants in terms of the average net gain or loss in dollars paid. Estimates for the percentage of claimants in each group who will gain from the early offer approach account for contingency fee shares under the current tort regime. Consider the effect on all claims. The percentage of claimants who gain in dollar payout is 4 percent or less, with an average loss of $134,601–$161,663, but the results by injury type indicate that the imposition of a minimum payment amount can substantially increase the percentage of claimants who benefit. The percentage of cases involving a fatal injury that would receive a higher net payment amount under the early offer reform is as high as 45 percent for a $250,000 minimum and 59 percent for a $500,000 minimum.

5. CONCLUSION

This article analyzes the empirical implications of the early offer reform of medical malpractice liability insurance.[28] This approach would reduce

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27. We use a 3 percent interest rate as in Section 4.4.
28. The early offer reform analyzed here could be applied more narrowly or more

Table 6. Average Gains or Losses to Claimants from Acceptance of Early Offer Proposal

		Early Offer Decision Based on Initial Reserve			Early Offer Decision Based on Final Reserve			Early Offer Decision Based on Total Settlement or Court Award		
	N	$	N	%	$	N	%	$	N	%
By damages category:										
Exemplary damages reported	521	−456,343	337	1.48	−493,785	501	2.59	−494,558	521	3.07
No exemplary damages:										
Economic damages reported as zero	645	−252,656	645	.0	−252,656	645	.0	−252,656	645	.0
Positive economic damages	4,567	−152,458	2,753	7.12	−154,840	4,262	11.78	−147,702	4,539	12.10
Imputed economic damages	10,704	−104,039	7,648	.0	−142,973	10,487	.0	−142,751	10,704	.0
All claims	16,437	−134,601	11,383	1.77	−161,663	15,895	3.24	−159,611	16,409	3.44
By injury type:										
Fatality	4,609	−171,079	3,074	1.40	−186,155	4,522	2.48	−185,483	4,605	2.61
Serious nonfatal injury	1,938	−321,583	1,055	2.75	−357,452	1,893	4.91	−357,364	1,932	5.33
Other nonfatal injuries and short form claims	9,369	−74,195	6,917	1.79	−89,520	8,979	3.31	−87,350	9,351	3.49
All claims without exemplary damages	15,916	−124,785	11,046	1.77	−150,854	15,394	3.26	−149,627	15,888	3.46
Minimum $250,000:										
Fatality	4,783	−162,354	1,124	41.10	−127,692	2,937	45.45	−170,266	2,655	37.51
Serious nonfatal injury	2,022	−488,548	498	29.12	−371,583	1,440	33.06	−405,252	1,395	29.03
Minimum $100,000:										
Fatality	4,783	−173,004	2,036	24.21	−160,067	4,182	26.52	−171,523	4,084	22.65
Serious nonfatal injury	2,022	−372,861	808	18.81	−353,744	1,789	20.35	−361,717	1,796	18.82
Minimum $500,000:										
Fatality	4,783	−102,813	549	53.55	−53,969	1,722	59.06	−136,904	1,504	50.13
Serious nonfatal injury	2,022	−564,263	305	35.41	−375,841	1,082	41.87	−429,863	1,049	37.65

Note. Percentage values are the percentage of claimants in each group who will gain from the early offer approach. Results by injury type exclude claims reporting exemplary damages.

insurer costs, provide payments of claimants' economic losses, expedite the timing of payments, and lower transactions costs. The magnitude of these effects is highly dependent on the structure of the early offer reform, especially the different minimum payments ranging from $100,000 to $500,000 for fatalities and serious nonfatal injuries. These minimum payment amounts influence the net gains or losses of the parties, with these effects varying by injury type.

Because noneconomic damages make up about two-thirds of current medical malpractice settlements and awards, insurers usually reap greater net financial benefits than do claimants. Except when there is a minimum payment amount, most but not all claimants will suffer a loss in expected payoff amounts. However, these calculations do not account for the risk premium claimants would be willing to pay for compensation that avoids the uncertainties of the current tort system. Seriously injured patients also may benefit in expected value terms if there is a high minimum payment amount. All early offer payees will benefit from the increased promptness of payments. On average they will receive compensation 2 years earlier than they would under the current tort system. For all injury categories and all the variants referred to above, there are also savings in both overall insurer costs and litigation costs averaging $100,000–$200,000 per case. Such savings in turn should substantially reduce medical malpractice insurance premiums in the long run.[29]

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broadly than to medical malpractice claims, for example, to only natal or surgical cases or to all personal injury claims.

29. For documentation of the effect of medical malpractice losses on premiums, see, among others, Born and Viscusi (1998).

APPENDIX

Table A1. Selected Sample Characteristics of the Texas Department of Insurance Commercial Liability Insurance Closed Claim Reports: Medical Malpractice

	N	%
Long form	14,563	88.60
Short form	1,874	11.40
Total number of claims	16,437	100.00
Damages components reported	5,733	34.88
Exemplary damages reported	521	3.17
Primary insurer payment = total settlement or court award	10,283	62.56
Primary insurer payment + deductible = total settlement or court award	10,810	65.77
Multiparty claim	9,418	57.30
Duplicate report within same year	926	5.63

Table A2. Age and Injury Characteristics: Long Form Claims

	All		Fatality		Serious Nonfatal Injury	
	N	%	N	%	N	%
Fatality	4,826	33.14				
Serious nonfatal injury	2,034	13.97				
Under age 18	3,024	20.76	862	17.86	1,126	55.36
Age 18 or older	11,539	79.24	3,964	82.14	908	44.64

Table A3. Distribution of Total Settlements or Court Awards

	%
$10,000–$100,000	37.90
$100,001–$500,000	40.52
$500,001–$1,000,000	11.26
$1,000,001–$5,000,000	9.28
$5,000,000 and over	1.04

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