

11-2006

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Recommended Citation

Frank Cross and Charles Silver, In Texas, Life Is Cheap, 59 *Vanderbilt Law Review* 1873 (2019)

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In Texas, Life Is Cheap

Frank Cross

Charles Silver

59 Vand. L. Rev. 1875 (2006)

This article examines the valuation of human life in the Texas tort compensation system. Using a large database that reports settlement amounts in over 11,000 cases seeking compensation for death, we find that the median settlement compensation is around \$200,000. This is far below the \$5-\$6 million used by administrative agencies, which base their valuation of human life upon economic studies. We also examine the determinants of compensation for death. The data show that compensation corresponds to legal standards for damages valuation, such as expected income loss. However, compensation in these cases is also significantly affected by other factors, such as insurance policy limits, location of injury, and nature of the defendant. We propose the adoption of a presumptive minimum award in wrongful death cases, to correct for undercompensation and associated underdeterrence

In Texas, Life Is Cheap

Frank Cross* & Charles Silver**

I.	VALUATION OF LIFE BY DIFFERENT INSTITUTIONS.....	1877
A.	<i>Federal Administrative Agencies</i>	1878
1.	Value of a "Statistical Life" for Regulation.....	1878
2.	The 9-11 Compensation Commission	1885
B.	<i>Common Law Courts and Wrongful Death</i>	1888
C.	<i>Reconciling Administrative and Litigation Value</i>	1897
II.	THE TEXAS CLOSED CLAIM DATABASE	1898
A.	<i>Data Description</i>	1898
B.	<i>Limitations</i>	1899
III.	VALUATION OF LIFE IN TEXAS LITIGATION	1900
A.	<i>Descriptive Statistics</i>	1900
B.	<i>Factors Influencing Valuation of Life</i>	1904
1.	Age and Employment	1904
2.	Insurance Policy Limits	1908
3.	Location of Injury	1911
4.	Potential Defendant	1912
5.	Cumulative Multiple Regression	1913
IV.	IMPLICATIONS OF LITIGATION VALUATION OF DEATH IN TEXAS	1915
A.	<i>The Overall Value of Life in Tort Compensation</i>	1916
B.	<i>The Determinants of the Value of Life in Tort Compensation</i>	1920
C.	<i>Tort Reform in Death Cases</i>	1921
	CONCLUSION.....	1923

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What is the life of a Texan worth? Some might suggest very little. Payments in thousands of tort cases in which Texans died provide some evidence for this hypothesis. Although Texas has been a focus of much of the national controversy over the costs of tort litigation,¹ payments in death cases have seen relatively little disciplined research. Existing research often misses the primary effect of the system because it focuses on trial outcomes rather than settlement payments. This Article provides some evidence of the actual payments made in Texas in death cases, their determinants, and the implications of those findings for tort policy.

Death cases provide a particularly useful tool for studying the effect of the tort compensation system, because the actual injury suffered is constant across all cases (though damages will differ among individuals). Moreover, appropriate economic valuation for death has been particularly well studied in economics scholarship and by government agencies. The context enables an analysis of how appropriate (legally and theoretically) tort compensation payments are.

The first Section examines the legal structure for the valuation of life in different institutional settings. Administrative agencies have set quantitative economic values for life-saving, in order to assess the propriety of adopting protective regulations. These values have been grounded closely in a very large body of social scientific research that measures the economic valuation that individuals place on protecting their lives. In addition, the 9-11 Compensation Commission placed a value on life in determining the amount of payments to the next of kin of those who died in the terrorist attack. Furthermore, the legal system has its own rules for assessing tort damages. The legal system's rules are more restrictive and generally do not attempt to fully capture the value of life.

The second Section describes the data used in this analysis, which is drawn from an extensive database maintained by the Texas Department of Insurance on closed claims. Here we describe the data and some of its limitations. The third Section examines the actual valuation of life in the Texas tort compensation system using this database. We find that the typical payment in death cases is quite low, far less than the valuation suggested by the social science research on life valuation. This is in part due to the restrictive standards for damages of tort law, which limit the recoverable damages. We also

1. See Michael L. Rustad, *Nationalizing Tort Law: The Republican Attack on Women, Blue Collar Workers and Consumers*, 48 RUTGERS L. REV. 673, 711 (1996) ("Reformers consider Texas as a hot spot in the country for jury verdicts.").

find that several legally inappropriate factors (such as insurance coverage, location, and nature of defendant) are statistically significant determinants of death payments in these claims.

The fourth and final Section examines the policy implications of these findings and makes reform proposals. The value of life in the tort compensation system is far too low to induce the optimal deterrence of death-causing behavior by potential defendants. Moreover, the damages paid through the compensation system are infected by various inappropriate determinants. Therefore, we suggest a schedule providing a presumptive amount of damages for death at a level high enough to improve the system's ability to deter potential tortfeasors.

I. VALUATION OF LIFE BY DIFFERENT INSTITUTIONS

Although it is common to speak of human life as priceless, the law cannot treat it as such.² Society has limited resources for life-saving precautions and for compensation of lost lives, and as a result the law must attach a price tag to human life. The law must decide how many dollars people must spend to avoid harming others, and how much compensation must be paid for death caused by negligence. The valuation of life occurs in two very distinct contexts: (1) the ex ante value of unknown future losses of life used in designing administrative regulations to prevent such losses and (2) the ex post value of actual lives lost in the tort compensation system for providing damages to survivors.³

These two separate systems of legal life valuation have very different aims. Regulation seeks to prevent actions that cause loss of life. The primary goal of the tort system is to compensate survivors when another party is legally responsible for causing a person's death. Given these different goals, the two systems have developed very different techniques for assigning monetary value to life. This Section discusses the operation of both systems, as well as the administrative compensation system established for survivors of those killed in the 9-11 tragedy.

2. See, e.g., Einer Elhauge, *Allocating Health Care Morally*, 82 CAL. L. REV. 1449, 1459 (1994) (noting that "moral absolutism is wholly untenable as a societal system of resource allocation").

3. An excellent review of these theories, on which we draw heavily for our study, is Eric A. Posner & Cass R. Sunstein, *Dollars and Death*, 72 U. CHI. L. REV. 537 (2005).

A. Federal Administrative Agencies

Federal administrative agencies have considerable experience in assigning a value to human life. Regulators who make policy choices in areas where deaths may result routinely take into account the economic valuation of those deaths when promulgating regulations. In addition, the 9-11 Compensation Commission had to determine the appropriate level of compensation for survivors of those who died in the terrorist attacks on the World Trade Center. This section reviews the decisions made in these contexts.

1. Value of a "Statistical Life" for Regulation

Any regulation that is aimed at saving lives and that is subject to a statutory cost-benefit test must put some monetary value on the lives it saves. Even when the statute does not contain an explicit cost-benefit test, executive orders require some balancing of costs and benefits,⁴ and agencies typically consider this balance. The analysis of agency valuation of life has been extensive, and thus our review is necessarily very abbreviated.

Agency valuations of life are necessarily anonymous because they are designed to prevent deaths. They generally identify few or none of the features of the individual whose life is saved by the regulation.⁵ These are often called valuations of a "statistical life," because the regulations prevent statistical probabilities of future lives lost. The typical regulation would protect against, say, a one-in-one million risk of death in a population of ten million at risk. This regulation would have an expected value of ten lives saved, so the agency would assign a value for life, multiply it by ten, add up the economic value of other regulatory benefits, and compare that sum to the estimated costs of the regulation. This measure is sometimes called the value of a statistical life ("VSL").

The *ex ante* VSL valuations of life by executive agencies are relatively uniform (though they vary somewhat across agencies and individual regulations). Such uniformity may be due in part to administrative feasibility considerations, but the primary reason is the lack of information about the nature of the lives to be saved.

4. President Reagan issued dramatic Executive Order 12,291, which directed all executive agencies to balance costs and benefits before regulating. *See* Exec. Order No. 12,291, 46 Fed. Reg. 13193 (Feb. 17, 1981). President Clinton modified this executive order with Executive Order 12,286 but endorsed the basic requirement of cost-benefit balancing before regulating. Exec. Order No. 12,866, 3 C.F.R. 638 (1993), *reprinted as amended in* 6 U.S.C. § 601 (1993).

5. *See* Cass R. Sunstein, *Valuing Life: A Plea for Disaggregation*, 54 DUKE L.J. 385, 386 (2004) (noting that "uniformity" is the practice of such agencies).

Because the lives are statistical ones, the agency has relatively little information about the characteristics of the individuals whose lives are saved.⁶ Hence, the agency must value human life in general, or perhaps assign the median value of human lives.

To calculate the value of a life, the agencies have relied heavily on econometric analyses of how people value their life in making their life decisions. For example, one set of studies examines “wage premiums.” These are measures of the increased wages demanded by workers in risky occupations to accept the greater risks to life associated with those jobs. If workers demand a certain increased wage to assume a certain increased risk of loss of life, those numbers allow a calculation of the value assigned to life by the worker.⁷ This measure captures all the life values appreciated by the workers in question and surely incorporates a substantial measure of the happiness of living, sometimes called hedonic value.

The wage premium studies have the virtue of using revealed preferences based on the actual decisions of individuals. However, they also have shortcomings. One problem with the wage premium studies is that they assume workers are informed. If workers don’t appreciate the risks of death that they face, one can draw no valuation inferences from their decisions. Some of the wage premium studies have found life valuations of zero,⁸ an implausible result that might be explained by the fact that these workers don’t know the risks they are taking. An alternative explanation is the absence of a truly competitive wage market, with non-unionized workers unable to bargain for wage increases to compensate for risk.⁹ Other studies have found very high wage premiums for accepting additional risk,

6. The nature of the regulation provides some information about the lives at risk. For example, an OSHA regulation will protect workers, not the unemployed. But this is relatively little information, and other rules, such as environmental regulations designed to protect the general public lack even this limited information about the characteristics of the individual lives saved.

7. If workers demanded an additional \$1000 in wages for a job with an elevated risk to life of 1 in 10,000, this would yield an implicit value of life of the worker at \$10 million.

8. There is considerable variance in the results of these studies. See Dennis C. Taylor, *Your Money or Your Life? Thinking about the Use of Willingness-To-Pay Studies to Calculate Hedonic Damages*, 51 WASH. & LEE L. REV. 1519, 1526 (1994) (“WTP studies produce a wide range of estimates, from as low as \$0 to as high as \$15 million and beyond, for the value of a statistical life.”).

9. See Peter Dorman & Paul Hagstrom, *Wage Compensation for Dangerous Work Revisited*, 52 INDUS. & LABOR REL. REV. 116, 134 (1998) (suggesting that non-unionized workers in dangerous jobs are paid less than their counterparts in less dangerous jobs). Evidence for this is found in research showing that union membership is associated with a higher VSL. See Alan Krupnick, *Valuing Health Outcomes: Policy Choices and Technical Issues*, RESOURCES FOR THE FUTURE REP., Mar. 2004, at 50, available at <http://www.rff.org/rff/Documents/RFF-RPT-ValuingHealthOutcomes.pdf>.

reaching \$22 million.¹⁰ In the presence of such variation, one might question the reliability of the methodology, but some measure is necessary for value quantification. A statistical approach known as meta-analysis can combine the various studies to produce an overall value. One such analysis found that most studies yielded a value range between \$3 and \$7 million.¹¹ The Environmental Protection Agency ("EPA") has used this research to set a life value of \$6.77 million in its arsenic regulation.¹²

Wage premium studies are not the only source of market-based estimates of life value. Some researchers have considered what people are willing to pay to protect their lives with consumer goods, such as smoke detectors. One set of studies involve auto safety purchases, which have yielded varying valuations, but average around \$3 to \$4 million per life, based on the price consumers are willing to pay for safer cars.¹³ Other "studies have examined price-risk tradeoffs for seatbelt use, cigarette smoking, home fire detectors, automobile safety, bicycle helmets, and housing price responses to hazardous risk sites. In general, these studies have found an implicit VSL on the same order of magnitude as labor-market studies, though on average slightly lower," which gives some basis for confidence in the results of the research.¹⁴

Various heuristic features also complicate the valuation process. For example, some research suggests that individuals put different values on the loss of life, depending on its cause. Cancer, for example, may be especially feared, and deaths from cancer given greater value (at least for avoidance).¹⁵ Some research suggests that altruism causes individuals to value others' lives more than their own.¹⁶ This may actually be a feature of the control heuristic. People take greater risks when they control the situation (an auto driver, for

10. W. Kip Viscusi & Joseph E. Aldy, *The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World*, 27 J. RISK & UNCERTAINTY 5, 23 (2003).

11. W. Kip Viscusi, *Equivalent Frames of Reference for Judging Risk Regulation Policies*, 3 N.Y.U. ENVTL. L.J. 431, 441 (1995).

12. See Thomas O. McGarity, *Professor Sunstein's Fuzzy Math*, 90 GEO. L.J. 2341, 2343 (2002). The rule itself is found at National Primary Drinking Water Regulations; Arsenic and Clarifications to Compliance and New Source Contaminants Monitoring, 65 Fed. Reg. 38888, 38897-98 (June 20, 2000) (to be codified at 40 C.F.R. pts. 141, 142).

13. Viscusi, *supra* note 11, at 443.

14. See Krupnick, *supra* note 9, at 50.

15. In one study, "the willingness to pay for cancer mortality reductions in the general public was found to be twice that of reducing deaths by heart attack and three times that of reducing deaths in automobile accidents." See *id.* at 58-59.

16. *Id.* at 47.

example) than not (an auto passenger).¹⁷ The revealed preference research often involves circumstances in which the actor, such as the worker, has at least some measure of control over risk, which could yield a lower valuation. In addition, the valuation based on a particular increase in risk seems to vary, depending on the magnitude of the baseline risk on which it is superimposed.¹⁸

Another economic measure for the value of human life comes from contingent valuation studies. These studies survey the amount individuals are willing to pay to reduce a certain statistical increase in risk of death. These studies are generally regarded as somewhat less reliable because they are hypothetical,¹⁹ and they do not require subjects to “put their money where their mouth is.” Researchers have designed studies to compare the revealed preference studies, such as those using wage premiums. While there is a rough association between the results of the two, the contingent valuation stated preference studies and found that the latter may produce a lower life valuation.²⁰ The EPA used the contingent valuation studies in one of its rules, setting the value of a life at \$3.7 million based on five such studies.²¹ Taking this research into consideration, federal agencies have converged on an estimate of the value of a life at between \$5 million to \$6.5 million.²² This amount may be higher than justified by the research. One comprehensive study found that the appropriate VSL was less than \$2.5 million.²³ The research does not permit one single amount to be assigned as the VSL. Valuation may differ depending on various circumstances. It is generally clear from the research, however, that the appropriate VSL should be at least \$2 million.

17. Andreas Teuber, *Justifying Risk*, 119 DAEDALUS 235, 236 (1990) (“[W]e respond differently to risks . . . over which we believe we have some degree of control.”).

18. See J.R. Mrozek & L.O. Taylor, *What Determines the Value of Life? A Meta-Analysis*, 21 J. POLY ANALYSIS & MGMT. 253 (2002) (reporting change in VSL estimates as risk level changed).

19. See Charles C. Fischer, *Forensic Economics and the Hedonic Value of Life*, J. LEGAL ECON., July 1991, at 19-20 (noting that respondents in such studies “are asked to evaluate . . . hypothetical situations often not found in markets” and the “values given by the respondents may be their true, honest values but estimated with much uncertainty and subject to biases/influences inherent in the design of any survey instrument”).

20. See Krupnick, *supra* note 9, at 45-48.

21. The rule in question was the Nonroad Spark-Engine rule. See Control of Emissions From Nonroad Large Spark-Ignition Engines, and Recreational Engines (Marine and Land-Based), 67 Fed. Reg. 68242-01 (Nov. 8, 2002) (to be codified at 40 C.F.R. pts. 89, 90, 91, 94, 1048, 1051, 1065, and 1068).

22. See Posner & Sustain, *supra* note 3, at 549.

23. Mrozek & Taylor, *supra* note 18, at 253.

While the conventional regulatory decision placed a single value on statistical human lives saved without any differentiation for the characteristics of those lives, many have argued for a more individuated approach, which would consider factors such as the age of the individual life saved.²⁴ Because everyone eventually dies, lives are not so much saved as they are extended. Because a younger person has more life to live, some have suggested that their lives should be valued more highly, and have proposed a measure known as quality-adjusted life years, or "QALYs."²⁵ This measure is used for a variety of health impairments and is also directly translatable to lost life.

Some have argued that the use of QALYs provides a more sophisticated basis for government regulators to value life than measures that do not take age into account.²⁶ Professor Sunstein has argued vigorously for the use of this measure in regulatory decisionmaking.²⁷ He asserts that the policy is not discriminatory, but simply recognizes that saving more years of life is better than saving fewer years of life. QALYs have been increasingly considered in making health care decisions.²⁸

While there is an obvious logic to age-dependent valuation, the empirical research on life's value does not consistently support it. The data supporting a reduced life valuation for the elderly has been somewhat sketchy.²⁹ One study found that life valuations steadily increase with age.³⁰ Another found that the wage premium data supported a decrease as age increased, down to around \$2.5 to \$ 3

24. See generally Sunstein, *supra* note 5, at 390 (arguing VSLs should be individualized because they vary across risks and because different individuals are willing to pay different amounts to avoid risks).

25. A seminal article arguing for the use of this measure is Richard Zeckhauser & Donald Shepard, *Where Now for Saving Lives?*, 40 LAW & CONTEMP. PROBS. 5 (1976).

26. See John D. Graham, *Legislative Approaches to Achieving More Protection Against Risk at Less Cost*, 1997 U. CHI. LEGAL F. 13, 33. A detailed analysis of the approach is provided by Matthew D. Adler, *Law and Psychology, Economics, and Biology: Fear Assessment: Cost-Benefit Analysis and the Pricing of Fear and Anxiety*, 79 CHI.-KENT L. REV. 977 (2004).

27. See Cass R. Sunstein, *Lives, Life-Years, and Willingness To Pay*, 104 COLUM. L. REV. 205, 245 (2004).

28. See, e.g., Einer Elhauge, *Allocating Health Care Morally*, 82 CAL. L. REV. 1449, 1544 (1994) (noting that while no single system can solve the health care crisis, a QALY system offers more advantages than others).

29. See Jeffrey C. Corey, *Discounting, EPA's Nonroad Spark-Engine Rule, and the Hidden Anti-Regulatory Agenda of Cost-Benefit Analysis*, 22 UCLA J. ENVTL. L. & POL'Y 77 (2004) (critically reviewing the limited research cited by EPA for supporting such a differentiation); Richard Raymond, *The Use, or Abuse, of Hedonic Value-of-Life Estimates in Personal Injury and Death Cases*, J. LEGAL ECON., Winter 1999-2000, at 73-74 (noting conflicting evidence).

30. See Corey, *supra* note 29, at 98 (reporting unpublished research finding this result).

million for sixty year olds.³¹ The contingent valuation studies have also generally supported such a decline in value among the elderly.³² However, if people tend to defer their life-cycle consumption until old age, it might be appropriate to value elderly lives at a higher level than those of the young.³³ Indeed, there is research that older workers place a greater value on their life.³⁴ The Office of Management and Budget tentatively embraced the age-dependent value of life calculations under the EPA, valuing lives of those over seventy less. The valuation was a controversial one, however, and was subsequently abandoned.³⁵

The same theory that suggests that superannuated individual lives might be valued less implies that the lives of young children might be valued more highly as they have so many QALYs ahead of them. The empirical evidence on this effect is mixed. A study on parental purchases of bicycle safety helmets for children found an implicit VSL of only around \$2.7 million.³⁶ Other research has found that children received a higher value, both absolutely and vis-à-vis adults.³⁷

The regulatory valuations of life are clearly flawed to some degree, though this does not render the regulatory effort unjustifiable. Agencies must adopt some value for cost-benefit analysis, and they have converged on values arrived at by using the best available evidence. For our purposes, though, it is important to recognize the flaws in the methods used to arrive at these values and to recognize the fact that the flaws tend to result in an underestimation of life's quantitative economic value. For example, one major theoretical flaw of the wage premium studies involves a selection effect. Individuals

31. See Joseph E. Aldy & W. Kip Viscusi, *Age Variations in Workers' Value of Statistical Life* 4 (Nat'l Bureau of Econ. Research, Working Paper No. 10199, 2003).

32. See *id.* at 3 (reviewing multiple studies).

33. See Thomas J. Kniesner, W. Kip Viscusi, & James P. Ziliak, *Life-Cycle Consumption and the Age-Adjusted Value of Life* 4 (Nat'l Bureau of Econ. Research, Working Paper No. 10266, 2004) (suggesting that the lives of the elderly under these circumstances might be twice as valuable as those of the young).

34. See Sunstein, *supra* note 27, at 232 (reviewing a study that found that VSL increases with age, from \$7.4 million for workers between fifty-one and fifty-five, to \$10.2 million for workers between fifty-six to sixty, to \$14 million for workers between sixty-one and sixty-five).

35. See John Tierney, *Life: The Cost-Benefit Analysis*, N.Y. TIMES, May 18, 2003, at 14. For some criticism of the age-based valuation, see Jocelyn Kaiser, *How Much are Human Lives and Health Worth?*, SCIENCE, Mar. 21, 2003, at 1836-37.

36. See Robin R. Jenkins, Nicole Owens, & Lanelle Bembenek Wiggins, *Valuing Reduced Risks to Children: The Case of Bicycle Safety Helmets*, 19 CONTEMP. ECON. POL'Y 397, 404 (2001).

37. See Glenn C. Blomquist, Ted R. Miller & David T. Levy, *Values of Risk Reduction Implied by Motorist Use of Protection Equipment*, 30 TRANSP. ECON. & POL'Y 55, 64 (1996) (noting that in automotive safety, parents valued children's lives at around \$5 million, more than twice the value of their own lives).

may place very different values on risks of death.³⁸ Employers in risky occupations who want to minimize costs are likely to employ workers who place a lower value on their lives, such as the risk-taking individual rather than the risk-averse one. Thus, the wage premium studies may measure only the value of life to risk-takers rather than that of the median American.³⁹

Other factors also combine to produce an artificially low value of life in the wage premium studies. These studies generally involve blue collar workers with relatively low incomes. Because life valuation increases with income, they will underestimate the value placed on life by the "more representative" American.⁴⁰ Another shortcoming of these studies (and all market-based studies) involves transaction costs. The costs of discovering the magnitude of the risk, available protection devices and their effectiveness, and the negotiating of such protections involve transaction costs, which should be incorporated into the valuation of life but are not measured by the research.

While the wage premium calculations contain some biases causing the valuation of life to be underestimated, they may also overestimate its value. For example, the same protective measures that prevent loss of life also probably prevent serious injuries. In this case, the wage premium would reflect both values and could not entirely be attributed to loss of life. For at least some of the research, a publication bias may have resulted in overestimation.⁴¹ Professor Sunstein has suggested that the resulting \$6.77 million valuation was "too high" and should be adjusted to around \$4.5 million.⁴² Given all of the sources of underestimation, though, it seems more likely that the valuation is, if anything, too low. The EPA acknowledged in its arsenic rule that consideration of such unmeasured factors "may significantly increase the present value estimate" for life.⁴³

38. See Viscusi, *supra* note 11, at 442 n.27 (reporting results showing that risk aversion for loss of life varies at least three fold across a sample of individuals).

39. Economists have begun to analyze this bias as it effects the valuation of life. See, e.g., J.F. Shogren & T. Stamland, *Skill and the Value of Life*, 110 J. POL. ECON. 1168 (2002); Thomas J. Kniesner, W. Kip Viscusi, Christopher Woock & James P. Ziliak, *How Unobservable Productivity Biases the Value of a Statistical Life* (Nat'l Bureau of Econ. Research, Working Paper No. 11659, 2005). The effect of these adjustments varies but all have found that risk heterogeneity means that the standard wage premium values are biased downward by over one million dollars.

40. See Raymond, *supra* note 29, at 73 (noting that life valuation increases "as wealth increases").

41. See Orley Ashenfelter & Michael Greenstone, *Estimating the Value of a Statistical Life: The Importance of Omitted Variables and Publication Bias* 8 (Nat'l Bureau of Econ. Research, Working Paper 10401, 2004).

42. Cass R. Sunstein, *The Arithmetic of Arsenic*, 90 GEO. L.J. 2255, 2287-88 (2002).

43. 66 Fed. Reg. 7013 (Jan. 22, 2001).

One other conservative feature of the regulatory valuations and underlying studies is their focus on the value of life to the deceased; they typically do not consider external losses to others. These losses are, of course, substantial. Anyone who has lost a relative can appreciate the enormity of emotional loss felt by those who have lost a loved one, not to mention the possible economic losses that relatives of the deceased suffer. In the context of administrative regulation, neglecting to consider such losses is a reasonable approach, because the United States has a tort compensation system to measure and require payments for those losses.

The bottom line valuation of life by regulatory agencies varies but is today typically around \$5-\$6 million.⁴⁴ Professor W. Kip Viscusi, the leading researcher in the area, has recently found that the social scientific valuation estimates “are clustered in the \$4 million to \$10 million range, with an average value of life in the vicinity of \$7 million.”⁴⁵ These figures capture much of the individual value of life but may be biased downward by features of the studies on which they are based. The number might be considered as a lower bound of the reasonable true economic valuation of life by those at risk.

2. The 9-11 Compensation Commission

After the 9-11 tragedy, Congress enacted legislation to create a fund and provide compensation for the survivors of those who died in the attack.⁴⁶ The Department of Justice quickly adopted an Interim Final Rule to guide payments⁴⁷ and appointed Kenneth Feinberg as the Special Master to administer the fund.⁴⁸ Under the compensation

44. In the NESHAPs for Hazardous Waste Combustors, the EPA used a VSL of \$6.2 million. 70 Fed. Reg. 59,402, 59,533 (Oct. 12, 2005). In Regional Haze Regulations, the EPA employed a VSL of \$5.5 million. 70 Fed. Reg. 39,104, 39,150 (July 6, 2005). The Department of HHS Standards for Coverage for Organ Procurement Organizations used a VSL of \$5 million. 70 Fed. Reg. 6,086, 6,128 (Feb. 4, 2005). The Food and Drug Administration has recommended use of a default VSL of \$5 million in its proposed rule on dietary ingredients and dietary supplements. 68 Fed. Reg. 12,158, 12,229 (Mar. 13, 2003).

45. W. Kip Viscusi, *The Value of Life* 5 (Harvard John H. Olin Center for Law, Econ., & Bus., Discussion Paper No. 517, 2005). This assessment was based on the wage premium studies; use of consumer safety purchasing data suggests a value of life of about \$5 million. *Id.* at 11.

46. Air Transportation Safety and System Stabilization Act § 405(c), Pub. L. No. 107-42, 115 Stat. 230 (codified as 49 U.S.C. § 40101 (2006)). For the story of the creation and implementation of the fund, see KENNETH R. FEINBERG, *WHAT IS LIFE WORTH?: THE UNPRECEDENTED EFFORT TO COMPENSATE THE VICTIMS OF 9/11* (2005).

47. September 11th Victim Compensation Fund of 2001, 66 Fed. Reg. 55,901 (Nov. 5, 2001) (to be codified at 28 C.F.R. pt 104).

48. For a good review of this process, see Ronald A. Fein & Janet Cooper Alexander, *Appendix: The History and Structure of the September 11th Victim Compensation Fund*, 53 DEPAUL L. REV. 692 (2003).

system, survivors forego their possible recovery in traditional tort litigation if they choose the more expeditious option of payments from the new federal fund. The purposes of the Commission were to provide for victims and limit litigation, and perhaps also to protect defendants from potential liability.

The 9-11 Compensation Commission utilized methods that were very different from those employed in standard executive agency valuations. Rather than placing *ex ante* values on statistical lives, the commission had to put *ex post* values on particular individual lives in compensating the survivors. The Special Master was directed to determine the amount of compensation based on “the harm to the claimant, the facts of the claim, and the individual circumstances of the claimant.”⁴⁹ These vague statutory instructions provided little guidance to the method of valuation, other than directing that it be somehow individualized. Compensation was to cover economic and noneconomic losses, and the latter category was to include “losses for physical and emotional pain, suffering, inconvenience, physical impairment, mental anguish, disfigurement, loss of enjoyment of life, loss of society and companionship, loss of consortium (other than loss of domestic service), hedonic damages, injury to reputation, and all other nonpecuniary losses of any kind or nature.”⁵⁰ The very general directions only made clear that noneconomic losses should be defined very broadly.

The Special Master gave flesh to these statutory directions and created an income-based grid for calculating economic losses but permitted appropriate departures from the grid. While economic loss was defined broadly, its scope was confined by the statutory reference to “applicable State law,”⁵¹ a phrase interpreted with reference to tort law. Noneconomic loss was not necessarily so limited; rather than seeking to fully calculate such losses for each individual, the Special Master initially set by regulation a minimum payout of \$500,000 for deceased victims with dependents and \$300,000 for deceased victims who were single with no dependents, but later reduced the amount to presumed noneconomic losses of \$250,000.⁵² He explained this decision as follows: “I solved this problem. I told everybody in the program everybody gets \$250,000 for the death of the victim and \$100,000 for each surviving souse and dependent. That’s it. That’s the rule. I’m not Solomon, and I’m not making distinctions based on noneconomic

49. Air Transportation Safety and System Stabilization Act § 405(b)(1)(B)(ii).

50. Air Transportation Safety and System Stabilization Act § 402(7).

51. Air Transportation Safety and System Stabilization Act § 402(5).

52. 28 C.F.R. § 104.41 (2006).

loss.”⁵³ While this compromise may be understandable under the circumstances, it is a considerable departure from tort standards and reflects an administrative decision.

After facing political backlash about disparate compensation for the rich, the Special Master did not attempt to compensate fully victims for economic loss under the governing tort law standards.⁵⁴ A two-track system was created, in which beneficiaries could either accept the presumed compensation calculation or demand a hearing to account for extraordinary circumstances warranting a departure from the presumptive award.⁵⁵ The Compensation Commission procedure yielded a court challenge, brought by survivors of those with high incomes who argued that the system undercompensated them. The challengers argued that the system departed from state law in calculating economic losses (for example, by using after-tax income) and failed to provide for the individualized calculation of economic damages, as in litigation. The court rejected the challenge, granting deference to the Commission and finding that Congress did not require “the Special Master to engage in the intricate calculations mandated by state tort law in crafting awards.”⁵⁶

Eventually, nearly 3000 families, representing about 97% of those eligible, obtained fund compensation that averaged approximately \$2.1 million per applicant.⁵⁷ The payments ranged from \$250,000 to over \$7 million.⁵⁸ Individual features of the victims, such as age and gender, were factors in payment amounts. Those under twenty-five received on average about \$1.6 million.⁵⁹ Women between thirty-one and forty received slightly more (\$1.68 million) but men in that age range received nearly \$2.8 million in average payment.⁶⁰ Those between sixty-one and seventy who died in the attack received average compensation of less than \$1 million.⁶¹ Income of the deceased

53. Kenneth R. Feinberg, Special Master, September 11th Victim Compensation Fund, Address at the 82nd Annual Meeting of the American Law Institute (May 17, 2005). For additional explanation, see FEINBERG, *supra* note 46, at 75-77.

54. See Robert M. Ackerman, *The September 11th Victim Compensation Fund: An Effective Administrative Response to National Tragedy*, 10 HARV. NEGOT. L. REV. 135, 151 (2005).

55. 28 C.F.R. § 104.31(b) (2006).

56. *Colaio v. Feinberg*, 262 F. Supp. 2d 273, 294 (S.D.N.Y. 2003).

57. David W. Chen, *After Weighing Value of Lives, 9/11 Fund Completes Its Task*, N.Y. TIMES, June 16, 2004, at A1.

58. *Id.* The highest award actually went to a woman who survived, with severe burns, and received \$8.6 million. Feinberg Address, *supra* note 53.

59. FEINBERG, *supra* note 46, at 195 (using date in Appendix for calculation).

60. *Id.*

61. *Id.*

was a significant factor in the amount of individual compensation as well.⁶²

The general "value of life" provided as compensation by the 9-11 Commission was considerably less than that proposed by regulatory agencies for VSL purposes. This might be considered surprising because the "average income of the September 11 victims" was much higher than that of the general population.⁶³ The lower value may have been due to a desire to conserve government resources⁶⁴ or to the Compensation Commission's partial use of tort standards to value lost life, standards discussed in the following section.

B. Common Law Courts and Wrongful Death

The valuation of life in the tort compensation system is somewhat more complicated. The central focus of the tort system is to provide compensation to the living, not to value the life of the deceased. The societal value of the tort compensation system, however, is to deter potential tortfeasors from engaging in risky behavior that could result in the loss of life.⁶⁵ An efficient deterrence system would not ignore the losses of the deceased. While tort awards are ex post after someone has died,⁶⁶ the societal significance of the valuation of life is ex ante, giving potential defendants the optimal financial incentive to prevent causing the loss of life.

The tort compensation system is state-based and consequently not uniform. Some states have wrongful death provisions that compensate survivors for the value of the lost benefits they would have received from the decedent. Other states have somewhat different survival statutes that allow the decedent's own claims of harm to survive his or her death, though these often measure damages similarly in the amount of economic income foregone. Some

62. *See id.* at 194 (providing a breakdown of payments by income level).

63. Posner & Sunstein, *supra* note 3, at 553.

64. The Special Master expressed concern "about an open-ended run on the U.S. Treasury." FEINBERG, *supra* note 46, at 42.

65. *See infra* Part I.C.

66. Some cases allow a still living plaintiff to recover for an enhanced risk of loss of life imposed by a defendant, but these cases are not common and not the subject of this study. *See generally* Christopher H. Schroeder, *Corrective Justice and Liability for Increasing Risks*, 37 UCLA L. REV. 439 (1990) (emphasizing the importance of an increased risk of harm to the doctrine of corrective justice).

states have provisions for both types of action. Texas law provides both authorities for recovery.⁶⁷

The various state rules for compensating lost life in tort share many features in common. While the empirical analysis of compensation in this article is limited to Texas, we also review the more general and common features of the law. Given the amount of litigation on damages valuation, this section also must be quite abbreviated. Recovery in death cases can take two forms – damages suffered by survivors from the loss of life of the deceased and damages suffered by the deceased (*e.g.*, pain and suffering before death) that can be paid to the deceased's estate.

The foundational measure of lost life in the tort system is economic damages. This is a rough measure of the future income of the deceased that is lost to the survivors, sometimes called "loss of support." It requires a calculation of the deceased's expected earnings for the remainder of his or her life, minus expenditures for the benefit of the deceased, discounted for time.⁶⁸ These damages are based centrally on the earning capacity of the deceased. Other forms of economic damages may sometimes be recovered, such as medical care costs before death or funeral expenses. Many states allow some recovery for the economic value of non-market services provided by the deceased (such as household care). In general, though, damages are proportional to lost income, and the unemployed (including children and the elderly) can receive little in economic damages.⁶⁹

States typically also provide recovery for noneconomic damages. The basic concept of such damages is "to make the plaintiff whole," compensating him or her for any losses suffered. The very concept of making the plaintiff whole, though, is difficult to apply in cases of death. Courts of the various states recognize sundry theories of noneconomic damages. One is damages for loss of society or consortium of the deceased, usually recoverable by a spouse or

67. The Texas survival statute is found at TEX. CIV. PRAC. & REM. CODE ANN. § 71.021(a) (Vernon 2005). The wrongful death statute is located at § 71.002(b).

68. See JAMES M. FISCHER, UNDERSTANDING REMEDIES 406-07 (1999).

69. See, *e.g.*, Michael Oakes Finkelstein et al., *The Death of Children: A Nonparametric Statistical Analysis of Compensation for Anguish*, 74 COLUM. L. REV. 884 (1974) (arguing that deaths of children are undercompensated by tort system); Andrew J. McClurg, *Dead Sorrow: A Story about Loss and a New Theory of Wrongful Death Damages*, 85 B.U. L. REV. 1, 20 (2005) (observing that under the literal economic damages rule children "have a negative net worth because child-rearing costs exceed the value of monetary and service contributions that children make" and the "lives of elderly people similarly have little value because they have used up most of their economic productivity").

children.⁷⁰ States also allow some recovery for services, such as household maintenance, that are not marketed.⁷¹ Recovery is commonly allowed for the conscious pain and suffering of the deceased prior to death. Some states allow recovery for the estimated economic loss from the grief suffered by survivors. As a general rule, juries are given very little guidance about the proper calculation of such damages.⁷²

Theoretically, one might expect hedonic damages (meant to measure the value of life itself to a person) and the empirical studies on the value of life to be considered as noneconomic damages in death cases. In practice, however, courts have generally rejected evidence on such a measure of damages, at least in wrongful death cases.⁷³ Some states have allowed evidence on such hedonic damages, though, and a recent article detected a trend in their favor.⁷⁴ Texas has allowed such damages in non-death cases for loss of quality of life.⁷⁵ Most states still do not recognize this measure, which raises some serious evidentiary questions,⁷⁶ but the availability of such damages could considerably alter the total amount of damages available.

The measure of all forms of noneconomic damages is quite imprecise and accordingly leaves plenty of "play in the joints." The noneconomic losses in tort law "are imprecisely defined" with "very little constructive guidance" to judges and juries, and hence are

70. These awards are potentially quite substantial. *See, e.g., Sanchez v. Mica Corp.*, 107 S.W.3d 13, 35 (Tex. App. 2002) (upholding \$7 million award for loss of consortium to children after parents' were killed). But they are not necessarily so substantial. *See, e.g., Diamond Offshore Mgmt. Co. v. Guidry*, 84 S.W.2d 256, 262 (Tex. App. 2002) (awarding \$400,000 in such damages to child who lost parent).

71. *See* Thomas R. Ireland, *Compensable Nonmarket Services in Wrongful Death Litigation: Legal Definitions and Measurement Standards*, J. LEGAL ECON., Fall 1997, at 15 (discussing generally the availability of such damages).

72. *See* Ronen Avraham, *Putting a Price on Pain-and-Suffering Damages: A Critique of the Current Approaches and a Preliminary Proposal for a Change*, 100 NW. U. L. REV. 87, 90 (2006) (noting that juries receive only "vague instructions" on this calculation).

73. *See* Joseph A. Kupier, *The Courts, Daubert and Willingness-To-Pay: The Doubtful Future of Hedonic Damages Testimony Under the Federal Rules of Evidence*, 1996 U. ILL. L. REV. 1197, 1199 (1996) ("Most states have allowed damages for the loss of enjoyment of life in personal injury cases, and a minority of states have even allowed such damages in cases of wrongful death."); Reuben E. Slesinger, *The Demise of Hedonic Damages Claims in Tort Litigation*, J. LEGAL ECON., Fall 1996, at 17 (discussing decline in use).

74. *See* Victor E. Schwartz & Cary Silverman, *Hedonic Damages: The Rapidly Bubbling Cauldron*, 69 BROOK. L. REV. 1037, 1039 (2004) (reporting that a "growing minority of state courts are gradually expanding the availability of hedonic damages").

75. *Golden Eagle Archery, Inc. v. Jackson*, 116 S.W.3d 757 (Tex. 2003).

76. *See* Kuiper, *supra* note 73, at 1254 (arguing that the measures for such damages will not satisfy the federal standard for admissible evidence); Schwartz & Silverman, *supra* note 74, at 1037-38 (suggesting that expert testimony on the issue was scientifically unsound and inadmissible).

“tremendously variable in practice.”⁷⁷ One might guess that juries are adjusting their noneconomic damages awards to account for hedonic considerations. One study evaluated noneconomic awards in cases involving physical injuries and sought to extrapolate a value of life.⁷⁸ The study examined jury awards and found an implied life valuation between \$1.9 million and \$3.8 million in these cases, with considerable variance by cause of harm.⁷⁹

There is some anecdotal evidence from reported cases in Texas that juries sometimes make this adjustment for hedonic damages. When a boy was trapped underneath a garage door and conscious for no more than a few hours, the court upheld an award of \$1 million for pain and suffering.⁸⁰ In a series of recent Texas cases involving deaths for which nursing homes were liable, juries assessed, and courts upheld, noneconomic damages ranging from \$75,000⁸¹ to around \$400,000⁸² to \$3,000,000⁸³ for relatively brief periods of suffering. The cases suggest that while noneconomic damages may sometimes provide material compensation, the results seem somewhat arbitrary.

There is little evidence that the tort compensation system addresses concepts such as QALYs or other theoretical adjustments for loss of life of the young who may lack traditional economic damages. In one Texas decision, a fourteen year old died as a result of auto injuries.⁸⁴ The court found no economic damages but awarded the surviving parents \$102,500 for their mental anguish. The noneconomic damages here came far short of compensating for the hedonic loss of life of the youth. Courts generally provide less compensation for the young who are not yet employed.

77. Randall R. Bovbjerg & Brian Raymond, *Patient Safety, Just Compensation and Medical Liability Reform*, ISSUE BRIEF (Kaiser Permanente Inst. for Health, Oakland, Cal.), Summer 2003, at 2, available at http://www.kpihp.org/publications/docs/safety_brief.pdf.

78. See Mark A. Cohen & Ted R. Miller, “Willingness to Award” *Nonmonetary Damages and the Implied Value of Life from Jury Awards*, 23 INT’L REV. L. & ECON. 165, 170-71 (2003) (using proportional life impairment scales developed for medical care and examining awards for such impairments as measures for the loss of a full life).

79. See *id.* at 179.

80. *Wellborn v. Sears, Roebuck & Co.* 970 F.2d 1420 (5th Cir. 1992).

81. *HCRA of Tex., Inc. v. Johnston*, 178 S.W.3d 861 (Tex. App. 2005) (upholding this sum for pain and suffering prior to death involving malnourishment and back ulcers oozing blood).

82. *SunBridge Healthcare Corp. v. Penny*, 160 S.W.3d 230, 252-53 (Tex. App. 2005) (reducing jury award of nearly \$500,000 to approximately \$400,000 where patient suffered facial disfigurement but for only four days prior to death).

83. *CIGNA Healthcare of Tex., Inc. v. Pybas*, 127 S.W. 3d 400, 414 (Tex. App. 2004) (upholding this sum when plaintiff suffered six days of pain and anguish from lack of oxygen supply), *withdrawn per settlement*, No. 05-03-00517, 2004 WL 585008 (Tex. App. Mar. 25, 2004).

84. *Sanchez v. Schindler*, 651 S.W.2d 249 (Tex. 1983).

Finally, the tort system provides for awards of exemplary or punitive damages. These damages, though, are based on the defendant's conduct rather than the plaintiff's actual losses. The Restatement provides that punitive damages "may be awarded for conduct that is outrageous, because of the defendant's evil motive or his reckless indifference to the rights of others."⁸⁵ These damages may supplement the damages available for economic and noneconomic losses in death cases,⁸⁶ though punitives are unavailable for merely negligent behavior. Amounts provided in settlement may be affected by the threat of a punitive damages award. The threshold showing necessary for punitive damages in Texas is a high one, though, so they are not generally available to compensate for causing death.⁸⁷

Some evidence regarding death compensation in tort actions is available. A study of airline accident crash victims found that the system undercompensated for large economic losses.⁸⁸ There is some limited data existing on the value of life assigned in tort litigation. A Civil Justice System ("CJS") dataset reports the awards in death cases from trials in the seventy-five largest counties of the United States during the year 2001.⁸⁹ In these cases, the median award was \$961,000, while the mean award was around \$3.75 million for the 162 cases in which the plaintiff prevailed.⁹⁰ Judge Posner and Professor Sunstein also report some results for the value of life in tort litigation. In an "unscientific" data set from Lexis, they find that the mean award for loss of life was \$3.1 million, and the median award was \$1.1 million.⁹¹ There was considerable variance in the amount awarded, with some very high awards driving up the mean.

The figures arrived at by Judge Posner and Professor Sunstein may not truly represent the value of life in tort litigation for several

85. RESTATEMENT (SECOND) OF TORTS § 908(2) (1978).

86. See *Oczarak v. Emeritus Corp.*, No. 2003 CI 13504 (Tex. Dist. Ct. Feb. 23, 2005), *withdrawn per settlement*, No. 04-05-00530-CV, 2006 WL 923534 (Tex. App. Apr. 5, 2006).

87. Although the threshold finding warranting punitive damages has a substantial factual component that demands appellate deference, the Texas Supreme Court has in two recent wrongful death cases reversed punitive damages awards, finding that the threshold was not in fact satisfied. See *Diamond Shamrock Ref. Co. v. Hall*, 168 S.W.3d 164, 165-66 (Tex. 2005); *Sw. Bell Tel. Co. v. Garza*, 164 S.W.3d 607 (Tex. 2005).

88. JAMES S. KAKALIK ET AL., COSTS AND COMPENSATION PAID IN AVIATION ACCIDENT LITIGATION 86-95 (1988).

89. See THOMAS H. COHEN & STEVEN K. SMITH, U.S. DEP'T OF JUSTICE, BUREAU OF JUSTICE STATISTICS BULLETIN NCJ 202803, CIVIL TRIAL CASES AND VERDICTS IN LARGE COUNTIES, 2001 10 (2004).

90. See *id.* Some additional data come from the Jury Verdict and Settlement data that are reported on Lexis. For these cases, the median award for loss of life was \$1.1 million and the mean award around \$3.1 million. See Posner & Sunstein, *supra* note 3, at 548.

91. Posner & Sunstein, *supra* note 3, at 548.

reasons. For example, the numbers may have been reduced by various defenses, such as the plaintiff's comparative negligence. Thus, it is possible that the jury assigned a value to life of \$2 million, found the plaintiff 50% responsible for the death, and awarded \$1 million in damages. In this case, the actual trial awards would understate the true value of life in the tort system. In addition, the results may systematically overstate the valuation of life because they report trial court verdicts. If these cases are appealed, the award may subsequently be reduced, or the plaintiff may settle the appeal for less than the verdict. Such reductions are common.⁹² When they occur, they reduce the amount awarded for loss of life. Moreover, the databases used were not comprehensive and may not be representative of actual payments received. One other report that considered trial outcomes and settlements found an average payment for loss of life of only \$219,237 (in 1985 dollars), far less than the trial payments reported by Judge Posner and Professor Sunstein.⁹³

Yet another complication in the tort system valuation of life involves the payment of attorneys. Such cases are usually brought on a contingency fee basis, and plaintiffs' attorneys typically receive around a third of the ultimate fee award as compensation for their services.⁹⁴ These transaction costs are associated with the societal value of screening justifiable claims from the unjustifiable ones.⁹⁵ They do not provide compensation for loss of life, however, and don't reflect the value of life.⁹⁶ The latter two considerations suggest that the Posner and Sunstein figures significantly overestimate the valuation of life in the tort liability system.

The Posner and Sunstein figures also overemphasize trial awards and not settlements. It should generally be the economically efficient action to settle a claim and thereby avoid litigation costs. In practice, the vast majority of tort cases settle. Data suggest that

92. See, e.g., Ivy E. Broder, *Characteristics of Million Dollar Awards: Jury Verdicts and Final Disbursements*, 11 JUST. SYS. J. 349, 353 (1986) (reporting that successful plaintiffs received on average only 57% of the amount awarded at trial).

93. W. Kip Viscusi, *Liability for Occupational Accidents and Illnesses*, in *LIABILITY: PERSPECTIVES AND POLICY* 155, 173 (Robert E. Litan & Clifford Winston eds. 1988).

94. See, e.g., HERBERT M. KRITZER, *RISKS, REPUTATIONS, AND REWARDS* 39-43 (2004) (reporting results study of Wisconsin practitioners that one-third contingency fee was most common among plaintiffs' lawyers but that adjustments were sometimes made).

95. See Charles Silver, *Does Civil Justice Cost Too Much?*, 80 TEX. L. REV. 2073, 2112-13 (2002) (discussing screening function of civil justice system).

96. The contrast is evident in the fact that the administrative transaction costs of the regulatory system in computing the value of life are not incorporated into the regulatory estimates of this value.

settlements resolve about 95% of all filed actions.⁹⁷ There is no reason to think that the tried cases represent a random sample of either disputes or damages paid per plaintiff, thus the trial outcomes offer a poor measure for compensation in the tort system. The American tort system's true measure of compensation for lost life must thus be derived from examination of settlements, not trial awards. Compensation in the tort liability system rarely results from a jury's decision at trial, as the vast majority of cases are settled before such a decision is reached.

This result might suggest that we pay far too much attention to the standards of the law, of evidence, and of other trial procedures, as trials dictate a miniscule number of compensation awards. However, the small number of cases that go to trial may indirectly control the compensation in all other cases, including those in which a lawsuit was not even filed. Settlement is said to be "in the shadow of the law."⁹⁸ When an insurer decides to settle a claim, it is not philanthropic but an attempt to ascertain the amount the insurer is legally obligated to pay under its policy, as a basis for negotiating a settlement. Consequently, the amount of settlement should be related to the expected consequences if the claim actually proceeded to a formal legal outcome. The effect is an indirect derivative one, though, that is surely mitigated by a variety of features, such as bargaining position, information asymmetries, and readily available resources (e.g., insurance coverage) for payments to claimants. To truly understand the reality of compensation in the tort system, one must examine settlements.

A substantial body of legal and economic research addresses the settlement of claims in the shadow of the law. The foundation of such research is commonly known as the "Priest-Klein hypothesis."⁹⁹ Bringing a case to trial may involve considerable litigation costs,

97. Information from state courts shows that about 96% of civil cases are concluded without trial. See BRIAN J. OSTROM ET AL., NAT'L CTR. FOR STATE COURTS, EXAMINING THE WORK OF STATE COURTS, 1999-2000: A NATIONAL PERSPECTIVE FROM THE COURT STATISTICS PROJECT 29 (2000). Data from the federal courts report that about 98% of civil cases are resolved without trial. See LEONIDAS RALPH MECHAM, OFFICE OF THE U.S. COURTS, JUDICIAL BUSINESS OF THE UNITED STATES COURTS: 2001 ANNUAL REPORT OF THE DIRECTOR (2001); see also Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LITERATURE 1067, 1070 (1989) (reporting that a "typical finding is that ten disputes settle out of court for every one that is tried"); Silver, *supra* note 95, at 2112 (estimating from the data that "trials occur in about 3% of all litigated cases").

98. Herbert Jacob, *The Elusive Shadow of the Law*, 26 LAW & SOC'Y REV. 565 (1992) (quoting Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979)).

99. This theoretical assessment of tried versus settled claims was propounded in George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).

including the payment of attorneys, expert witness fees, and time.¹⁰⁰ Consequently, the parties have an economic incentive to settle when possible. The Priest-Klein hypothesis suggests that the “easy” cases (those where either a plaintiff or defendant victory is highly probable) will settle because their outcome is relatively predictable. The cases that go to trial are the “close” cases in which the trial outcome is highly uncertain.¹⁰¹

The Priest-Klein hypothesis, in its simplest iteration, is not a precise determinant of when settlement will occur. The authors’ prediction, that trial outcomes should be roughly 50% for plaintiff and 50% for defendant, has been empirically tested and only partially confirmed.¹⁰² The predictive inaccuracies of the hypothesis do not undermine the basic validity of the model, however. When plaintiffs win a preponderance of cases, as in some areas of the law, this is easily explained by the fact that the “close” legal issue is not one of liability but one of recoverable damages. The preponderance of defendant victories in other areas of the law may be explained by asymmetries of information about the quality of the lawsuit¹⁰³ or asymmetries of interest in the outcome (e.g., the value of creating a precedent to control similar future litigation).¹⁰⁴ Once adjusted for

100. Attorneys for plaintiffs operating on contingent fees have a considerable incentive to settle cases, because this minimizes the time and effort required to obtain a fee and enables them to take on more cases and receive more fees. See, e.g., Frank B. Cross, *The Role of Lawyers in Positive Theories of Doctrinal Evolution*, 45 EMORY L.J. 523, 544-45 (1996) (discussing this incentive and citing supporting literature).

101. See Priest & Klein, *supra* note 99, at 13-16.

102. See, e.g., Kevin M. Clermont & Theodore Eisenberg, *Trial by Jury or Judge: Transcending Empiricism*, 77 CORNELL L. REV. 1124, 1137 tbl. 3 (1992) (summarizing types of cases where plaintiff win rates diverge from 50%); Daniel Kessler et al., *Explaining Deviations from the Fifty-Percent Rule: A Multimodal Approach to the Selection of Cases for Litigation*, 25 J. LEGAL STUD. 233, 238-41 (1996) (same).

103. See, e.g., Bruce L. Hay, *Effort, Information, Settlement, Trial*, 24 J. LEGAL STUD. 29 (1995) (discussing significance of asymmetric information in the parties’ decision between settling and proceeding to trial); Keith N. Hylton, *Asymmetric Information and the Selection of Disputes for Litigation*, 22 J. LEGAL STUD. 187, 205 (1993) (describing how asymmetric information affects outcomes, generally to the benefit of defendants in tort litigation).

104. For a discussion of how such strategic litigation influences the selection of cases for trial and outcomes, see Frank B. Cross, *In Praise of Irrational Plaintiffs*, 86 CORNELL L. REV. 1, 5-15 (2000) and research cited therein describing theory and evidence supporting notion that defendants selectively settle and try cases to produce precedents. See also Gary M. Fournier & Thomas W. Zuehlke, *The Timing of Out-of-Court Settlements*, 27 RAND J. ECON. 310, 317 tbl.3 (1996) (empirically demonstrating the significance of asymmetric stakes); Joel Waldfogel, *The Selection Hypothesis and the Relationship between Trial and Plaintiff Victory*, 103 J. POL. ECON. 229, 253-54 (1995) (demonstrating that asymmetric stakes explain a very low plaintiff win rate in tort litigation).

these additional considerations, the data provide at least rough support for the Priest-Klein hypothesis.¹⁰⁵

The hypothesis does not tell us the precise nature of the claims that settle but suggests that they include both very weak and very strong claims. The adjustments to the hypothesis that evolved out of the empirical findings suggest that very strong claims are relatively more likely to settle than very weak ones. If the population of claims reflected a normal distribution, the mean strength of the settled case would be a moderately strong one, with perhaps a 50% chance of success (though cases at this precise point would tend to be tried). Because of asymmetric information and stakes (both of which empirically tend to favor defendants), the settled cases are probably a little stronger than the true median case.

This theoretical conclusion probably somewhat understates the strength of the settled claims. Plaintiffs' lawyers tend to screen out the weakest cases as not worth their time.¹⁰⁶ In addition, available research suggests that Americans are not as litigious as they are commonly proclaimed to be.¹⁰⁷ The issue has been most closely researched in the context of malpractice claims, which yields the following findings:

[T]he California study showed that there were ten serious injuries from medical malpractice for every medical malpractice lawsuit filed in the 1970s. The Harvard research showed that there were at least seven serious injuries from medical malpractice for every medical malpractice lawsuit filed in New York in the late 1980s and at least six serious injuries from medical malpractice for every medical malpractice lawsuit filed in Utah and Colorado in the early 1990s. . . . [T]he Harvard researchers and the Chicago researchers each found that only one out of every twenty-five patients with a negligent or preventable medical injury brought a medical malpractice claim.¹⁰⁸

The studies do not suggest that Americans injured by tortious behavior rush to bring weak claims; they do not even bring many strong claims. The national "pattern is one of under-claiming, not

105. See Peter Siegelman & John J. Donohue III, *The Selection of Employment Discrimination Disputes for Litigation: Using Business Cycle Effects To Test the Priest-Klein Hypothesis*, 24 J. LEGAL STUD. 427 (1995) (providing support for the Priest-Klein hypothesis with the condition that parties with greater stakes in the outcome tended to win a higher percentage of cases).

106. See KRITZER, *supra* note 94, at 71-74, 84 (studying this selectivity and noting that lawyers decline cases most often because the facts do not appear to support liability).

107. See, e.g., Herbert M. Kritzer, *Lawyer Fees and Lawyer Behavior in Litigation: What Does the Empirical Literature Really Say?*, 80 TEX. L. REV. 1943, 1982 fig. 1 (2002) (reporting data showing that litigation rate in United States is well below that of other developed countries, such as Germany); Richard A. Posner, *Explaining the Variance in the Number of Tort Suits Across U.S. States and Between the United States and England*, 26 J. LEGAL STUD. 477, 487-88 (1997) (concluding that after controlling for variables such as income, education, and urbanization, English citizens appear to file more tort suits than Americans).

108. TOM BAKER, *THE MEDICAL MALPRACTICE MYTH* 37 (2005).

over-claiming.”¹⁰⁹ Moreover, contingency-fee plaintiffs lawyers typically reject claims where the case is especially weak on the merits.¹¹⁰ It is impossible to assess the legal validity of the settled cases in the sample, but there is ample reason to believe that they are not systematically weak.

C. Reconciling Administrative and Litigation Value

We currently operate under both administrative regulation that values statistical lives and tort litigation that provides compensation for the loss of life. The two systems are not exclusive or discrete. Although both operate concurrently, it would be inaccurate to sum the valuation of the two systems for a value of life. The administrative value of life used in regulation-setting covers only a very small slice of life risks. For most risks in life, only the tort compensation system is relevant.

Judge Posner and Professor Sunstein view the administrative and litigation systems as complementary systems of risk regulation to be coordinated.¹¹¹ If the tort system worked perfectly, there would arguably be no need for regulation, as liability would send the proper deterrence signal to potential defendants. The overall liability system falls far short of serving this role, however. Many of those harmed by torts do not even sue. When a lawsuit is filed, it may fail, even when deserving, for a variety of reasons, such as an inability to prove true causation. Deaths from disease, such as cancer, have multiple possible causes and may not be traceable to the responsible party.¹¹² Tort law cannot effectively promote the optimal level of safety by itself, but it remains a vital cog in the American legal system’s protections. For informational reasons, tort law may be more effective than the regulatory system at protecting public health and safety.¹¹³ Thus, the accurate valuation of life in one legal sphere does not supplant the need for accurate valuation in others.

109. Thomas A. Eaton et al., *Another Brick in the Wall: An Empirical Look at Georgia Tort Litigation in the 1990s*, 34 GA. L. REV. 1049, 1096 (2000).

110. See Herbert Kritzer, *Seven Dogged Myths Concerning Contingency Fees*, 80 WASH U. L.Q. 739, 753 (2002) (discussing reason for declining representation).

111. See Posner & Sunstein, *supra* note 3, at 563.

112. *Id.* (giving the example of air pollution, where “chains of causation are exceedingly difficult to trace, and those who fall prey to life-threatening or fatal diseases are unlikely to know that pollution is responsible”).

113. See Robert E. Litan & Clifford Winston, *Policy Opinions*, in LIABILITY: PERSPECTIVES AND POLICY, *supra* note 93, at 223, 240 (noting that the “virtue of tort law is that it provides a decentralized mechanism for determining the hazards in substances, product designs or behavior that in many situations may be superior to relying on centralized government regulation”).

One might argue that full tort compensation for loss of life could involve duplicative recoveries, at least for those workers who have first received a wage premium for accepting the risk of death and then full compensation for deaths that occur.¹¹⁴ However, the wage premium bargains are with employers, who are typically covered by the worker compensation system, not the tort system. The tort system, therefore, does not implicate wage premium bargains. Moreover, there is no such risk of double compensation for victims who are not able to bargain for wage premiums as workers (such as victims of malpractice).

The regulatory and tort compensation systems are duplicative structures, both aimed in part at the protection of life through proscription or deterrence of risky activities. For either structure to function best, it must have an appropriate valuation of life in order to ascertain when proscription or deterrence is appropriate. The regulatory system has settled on a valuation of roughly \$6 million, grounded in considerable social scientific research. The following section analyzes the valuation of life in the Texas tort system.

II. THE TEXAS CLOSED CLAIM DATABASE

The Texas Department of Insurance ("TDI") maintains a large Texas Closed Claim Database ("TCCD") of insurance payments.¹¹⁵ This data has been described in detail in an existing article that addresses malpractice litigation.¹¹⁶ This section contains an abbreviated discussion of the data and its limits.

A. Data Description

TDI requires commercial liability insurers to report all closed claims involving bodily injury, reports that are cumulated in the TCCD. The TCCD currently includes claims that closed from 1988 to 2003. The reporting format has changed little over time. Some concerns about under-reporting in 1988 and 1989 led TDI to begin auditing the TCCD in 1990. Reports for subsequent years are thought

114. This risk of double compensation may be self-correcting in the labor market. The greater the *ex post* compensation, the less *ex ante* compensation would be provided. The self-correction will be imperfect, though, because the individual workers who suffer deaths will not personally receive the *ex post* payments, which go to their survivors, so they might continue to bargain for the wage premiums.

115. See Tex. Dep't of Ins., Prop. and Cas. Div., Data Services, TEXAS CLOSED CLAIM REPORTING GUIDE (2002).

116. See Bernard Black et al., *Stability, Not Crisis: Medical Malpractice Claim Outcomes in Texas, 1988-2002*, 2 J. EMPIRICAL LEGAL STUD. 207 (2005).

to be complete. While reports for 1988 and 1989 may be incomplete, they should nonetheless be unbiased. TDI also identifies duplicative reports relating to the same claim.¹¹⁷

The TCCD contains claims that fall within five lines of *commercial* insurance coverage: mono-line general liability, commercial auto liability, Texas commercial multiperil, medical professional liability, and other professional liability. It does not include claims covered by personal lines of insurance, such as personal automobile or homeowner's policies. It also excludes workers' compensation payments. Even within the category of commercially insured claims, it excludes certain categories of payments, and it also excludes class action claims and mass torts.

The TCCD contains three types of reports: brief aggregate reports of claims with payments of \$10,000 or less, moderately detailed individual reports of claims with payments between \$10,001 and \$24,999, and extensive reports on claims with payments of \$25,000 and up (all dollar values nominal). Only the extensive reports of the latter group require insurers to indicate whether death was the injury compensated. Consequently, we focus on these claims.

TDI does not adjust the reporting thresholds for inflation, which creates a "bracket creep" phenomenon. That is, as inflation drives up the value of claims over time, the coverage of the \$25,000 and up group naturally increases. We address this problem by adjusting for inflation, using the Consumer Price Index, and excluding claims with total payouts below \$25,000 in 1988 dollars.

B. Limitations

The TCCD is not a complete sample of all tort claims in Texas. It excludes claims that are covered by excluded lines of insurance and claims against uninsured defendants. The TCCD is also not a random sample of the larger tort universe, so caution is required before using it to generalize about all claims in Texas or in other states. The TCCD is still useful, though, because it is very large and because reporting is mandatory. It directly measures the amounts paid in over ten thousand death cases and is free of biases that can be introduced when researchers select a group of claims.

As noted above, the nature of the plaintiff's injury is reported only when payments exceed \$25,000. Death cases should generally yield awards larger than this amount, so we presume this is not a

117. We have supplemented TDI's auditing process by identifying some additional duplicate reports.

significant limitation. Conceivably, some number of death cases might have been resolved for smaller amounts and therefore been excluded from our data. Insurers file reports only when they make payments, so the TCCD does not include zero payment results, such as could occur when the defendant prevails at trial. We presume that these cases were resolved in the defendants' favor on liability issues, so the importance of this limitation for measuring the value of life as damages is small.

III. VALUATION OF LIFE IN TEXAS LITIGATION

In this Section, we review the data on the functioning of the tort compensation system in Texas and the amount received by plaintiffs in death cases. This enables us to analyze some of the general presumptions about trial, settlement and damages. We then review the awards to plaintiffs in death cases. The latter analysis includes summary statistics to see how those awards conform to the estimated value of life set out in the preceding section. We are also able to consider whether a few variables used in the preceding quality of life analysis truly affect the awards given for death in Texas.

A. Descriptive Statistics

We begin by reporting some general information from the TCCD, such as summary statistics on the amount paid out under different circumstances, the stage at which compensation was paid, and whether there was any trend in the magnitude of such payments over time (in real dollars). Table 1 reports the number of total claims for all injuries, average payments, and standard deviation of payment for the entire database, in 1988 dollars, with duplicates excluded.

Table 1

Summary Statistics on TCCD Payouts

	<i>Number</i>	<i>Median</i>	<i>Mean</i>	<i>Standard Deviation</i>
Total Claims	165,215	\$26,168	\$135,628	\$522,409
Claims > \$25,000	74,349	\$72,161	\$215,924	\$572,119
Death Claims	11,502	\$199,586	\$413,153	\$728,144

Several findings are evident. First, payments in death cases are much larger than individually-reported payments in general. The mean death payment is three times the size of the average payment for all individually reported claims and almost twice the size of the average for all claims with payments above \$25,000 (in 1988 dollars). The median death payment is more than seven times the general median and almost three times as high as the median for claims with payments exceeding \$25,000. Presumably, these differences are due to the presence of many claims involving much less severe injuries. Second, payouts in death claims are quite low compared to the VSL estimates and the 9-11 Compensation Commission payments. The median is less than ten percent of the Compensation Commission payments and less than five percent of the VSL estimates. Third, the standard deviation in mean payments in all categories indicates significant variation. This is logical for claims in general, given the diversity of potential injuries and the cost of dealing with them. This variation could also be attributed to the highly individualized damages measure employed by the tort compensation system (though it might also be due to certain irrational features of the system analyzed below).

We next review the stage of the proceedings at which the plaintiff received compensation. The data enable us to isolate the number of cases in which a lawsuit was filed by plaintiffs in death cases, and the stage at which the insurance company provided compensation to the plaintiffs. We can ascertain the percentage of cases that proceed to a final trial and appeal before compensation is paid. Table 2 sets forth the number of cases in which compensation was paid at various stages coded by the closed claim database.

Table 2*Stage at Which Compensation Was Paid*

	<i>Number of cases</i>
ADR/No Lawsuit	219
No Lawsuit	1047
ADR/Lawsuit	2950
Lawsuit/Settled Before Trial	7826
Lawsuit/Settled During Trial	309
Court Verdict	48
Settlement After Verdict	151
Settlement After Appeal	112

These results give considerable information about the compensation system for death cases in Texas. In about 90% of death closed claim cases in the state, a lawsuit was filed, though 99% of the reported claims were resolved before a trial and verdict. This number is imprecise, as a number of defense victories are excluded from the data because they involved no payout. The Texas tort system plainly relies overwhelmingly on settlements for providing compensation in death cases.

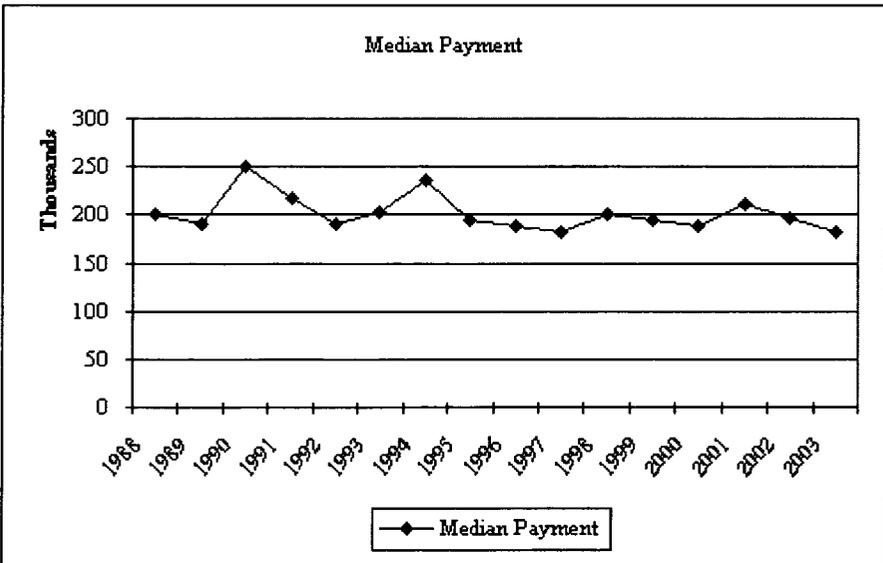
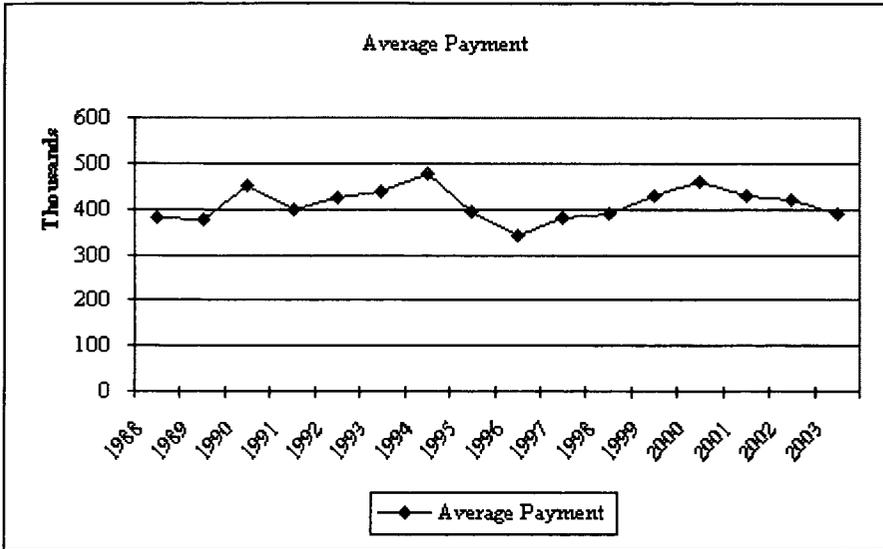
Our next set of summary data examines any time trends in the payout in Texas death cases. One frequently hears that payments on tort claims have risen substantially and that these alleged increases have been driven by forces including jury verdicts, plaintiffs' attorneys, and medical costs. In response, tort reform advocates have been working to reduce payments, mounting public campaigns, funding candidates in judicial elections, and obtaining favorable legislation.

In principle, payments on tort claims, including death claims, may have risen, fallen, or remained the same. A prior study using the TCCD found that real payments in medical malpractice claims have changed little over time,¹¹⁸ and we expect death payments to show no significant time trend. Figure 1 shows this to be the case. When adjusted only for general inflation, mean and median payments on death claims were highly stable from 1988 to 2003. We confirmed the absence of a time trend by regressing the real payment against the year, and there was no statistically significant change over time.

118. See Black et al., *supra* note 116, at 238-39.

Figure 1

Payouts over Time



From this finding, we can conclude that we need no time-based variable when evaluating the factors associated with payments in death cases.

B. Factors Influencing Valuation of Life

This section identifies several plausible determinants of payments in death cases, discusses their theoretical significance for valuation of lost life, and provides basic summary statistics for each. As part of our analysis, we present the results of a simple single-factor regression on payment amount. The distribution of payments in the TCCD is somewhat skewed; it is clustered toward lower amounts with a long right tail of higher payments. Consequently, we use a log scale for payment amount in the regressions in order to yield a more normal regression pattern. Our analysis concludes with a capstone multiple regression that considers all the determinants for effect on the log of real payment size.

1. Age and Employment

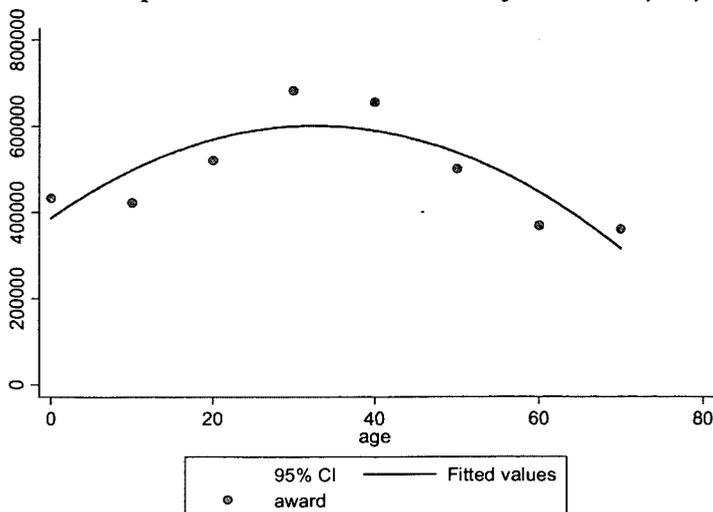
There is considerable theoretical literature on the effect of the deceased's age on the appropriate damages award, as discussed above in Section I. In general, the theoreticians suggest that death at an earlier age should yield greater damages, in roughly descending proportion to age, though some suggest that age should not be a factor. Doctrines of tort damages, at least economic damages, suggest a different outcome. Under these doctrines, one would expect relatively low awards for minors and increasing awards as a person reaches his or her peak earnings, after which such damages awards might be expected to decline with superannuation. Under "value of life" theories, one should see a relatively linear relationship declining with age. In contrast, tort doctrine suggests that the relationship would appear to be a quadratic one. In this section, we examine whether either of these theories holds up in actual compensation in Texas.

The TCCD data enable the compilation of summary data on claims by age as well as payments in those claims. Table 3 presents this data with the number of claims by decade (though we use 0-20 for the young and 80+ for the superannuated), with mean, median, and standard deviation of payments.

Table 3*Death Claims by Age Group*

	<i>Number</i>	<i>Median</i>	<i>Mean</i>	<i>Standard Deviation</i>
0-20	2306	\$172,445	\$345,011	\$618,182
21-30	1797	\$225,000	\$459,201	\$758,528
31-40	1868	\$263,894	\$560,352	\$961,620
41-50	1530	\$255,435	\$514,167	\$907,393
51-60	1327	\$192,880	\$388,588	\$633,437
61-70	1095	\$181,442	\$296,780	\$366,965
71-80	914	\$147,608	\$290,633	\$538,675
80+	665	\$139,693	\$288,159	\$464,957

The results support the legal hypothesis that payments to children, who are not yet employable, would be lower and grow with age and possible employment, as the courts can calculate greater future income losses for victims. Then, as expected, the sums peak and decline as workers reach an age at which their expected future income is less. If the basic legal tort rules are operating, we would expect an inverse U-shaped quadratic relationship for damages, as discussed above in section I. Figure 2 graphically displays the median amount of damages paid in death cases by decade of life, with the best available smoothed curve and the surrounding 95% confidence interval.

Figure 2*Total Compensation in Settlements by Decade of Life*

Thus, the basic relationship is the quadratic one that might be expected from tort compensation rules. The settlement amounts by age increase until they peak at around forty, after which they dramatically decline. While these results are a much better fit for the tort legal pattern than the theoretical economic pattern, the magnitude of the effect is not as great as one might expect under the tort legal pattern. Settlement compensation for those at the peak of their earning potential is only about 50% greater than compensation for those who are minors. This size might be attributable to the predominance of noneconomic damages. Seniors obviously receive lower awards. In summary, age appears to be a determinant of payments in settled death cases along a pattern that fits the tort law damage standards including economic losses.

One of the variables reported in the closed claim database is the plaintiff's employment status. This is reported only as a binary variable, so valuable information about the nature of the employment or the amount of compensation is not available. Nevertheless, employment status alone should have some impact on the amounts awarded under both the economic theory and the tort rules for compensation. Employed victims would be expected to have greater economic damages, perhaps substantially greater.

To consider this effect, we provide summary statistics for death claims by working status overall. Table 4 breaks down the claims for employment status, by all claims, as well as for non-work-related claims, with average payouts and standard deviations in constant dollars.

Table 4

Death Claims by Employment

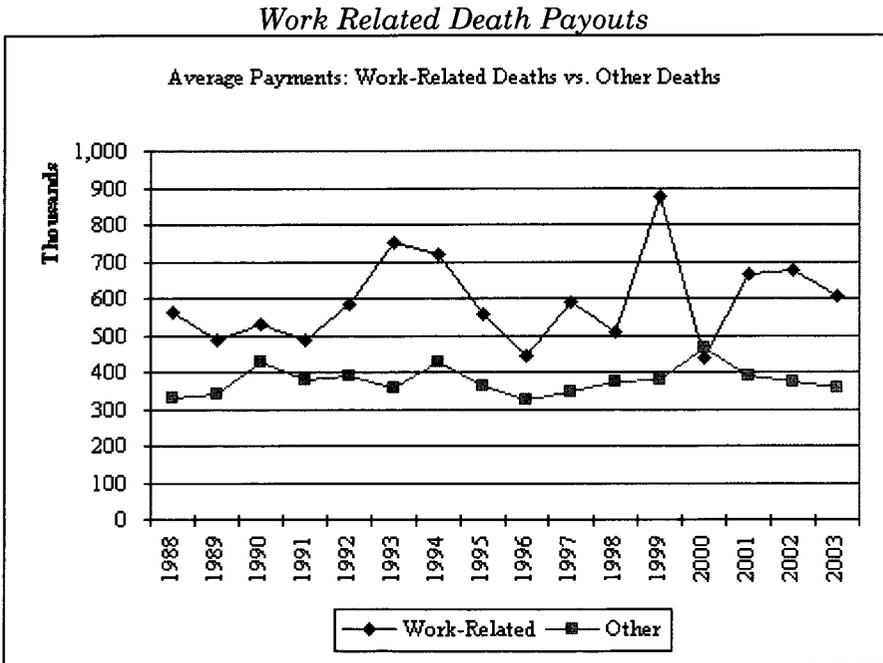
	<i>Number</i>	<i>Median</i>	<i>Mean</i>	<i>Standard Deviation</i>
Victim Employed	5345	\$254,018	\$512,917	\$864,105
Victim Unemployed	6157	\$166,996	\$326,547	\$571,145
Employed & Work-Related	1883	\$293,683	\$589,709	\$985,939
Employed & Not Work-Related	3462	\$233,795	\$471,149	\$787.004

As anticipated, employed individuals in Texas death cases receive materially larger settlement payments than those who are not employed. This fits the predictions of the legal model for economic damages, which posits that compensation should be greater for employed individuals. Even after considering employment status, however, work-related injuries appear to receive greater compensation. There is no obvious legal reason for this finding, though some features of work-related deaths might conceivably be associated

with higher levels of noneconomic damages or perhaps a greater threat of punitive damages being incorporated into the settlement amount.

One additional variable is whether the claim itself was work-related (as distinguished from the employment status of the claimant), as the TCCD separates out work-related claims from those unrelated to the work place. Figure 3 displays the mean payments in these claims (in real dollars) for death damages over time.

Figure 3



Work-related claims vary more over time but consistently result in higher payments compared to other types of claims. This finding may not be intrinsic to the workplace, but instead simply may be due to the fact that those who died in work-related claims were employed, while a number of the other claimants were not, thus yielding higher economic damages.¹¹⁹

119. Alternatively, the results might be due to some other factor, such as the extent of insurance or the identity of the potential defendant, effects that are analyzed below.

2. Insurance Policy Limits

As a matter of economic theory or tort law, there is no reason why the size of a defendant's liability insurance policy should affect a victim's recovery. As a practical matter, though, insurance could be a relevant factor. By expanding a defendant's assets, insurance permits a recovery when a defendant is insolvent, reduces a plaintiff's collection costs, and increases a defendant's willingness to pay. Second, insurance changes the litigation dynamic by shifting control from a defendant to an insurer and by fractioning responsibility for defense and settlement between them. Typically, the insurer, a repeat player in litigation with sufficient wealth to try or settle the claim, assumes the defense of a case and decides whether to settle within policy limits. Unsurprisingly, then, a prior study using medical malpractice payments in the TCCD found that recoveries "stack up" at the insurance policy limits and recoveries above these limits are rare.¹²⁰ Dean Syverud suggests that "as policy limits increase, larger judgments and settlements tend to result . . . because the amount of insurance affects both the litigants in their negotiations and the factfinders in their judgments."¹²¹

Prior research suggests two conclusions: First, payments on insured claims are likely to exceed those on uninsured claims; second, payments on insured claims will correlate positively with policy size. We cannot test the first conclusion using the TCCD, because it contains only insured claims. We can test the second by comparing death claims covered by policies of different sizes. This analysis is complicated by the fact that a number of claims involve multiple defendants. The data report only claims against individual policy limits, not combined policy limits, and hence do not reveal the true limit of insurance coverage in these cases. To test this conclusion, we first isolate the cases with only one applicable policy and examine the magnitude of the payments for death as a ratio of the insurance policy limit.¹²² If few claims provide payments exceeding the policy limit, this may suggest that the policy limit is artificially restraining recoveries. Figure 4 graphically displays the association of policy limits in single defendant cases, showing the ratio of payment as a ratio of the policy limit.

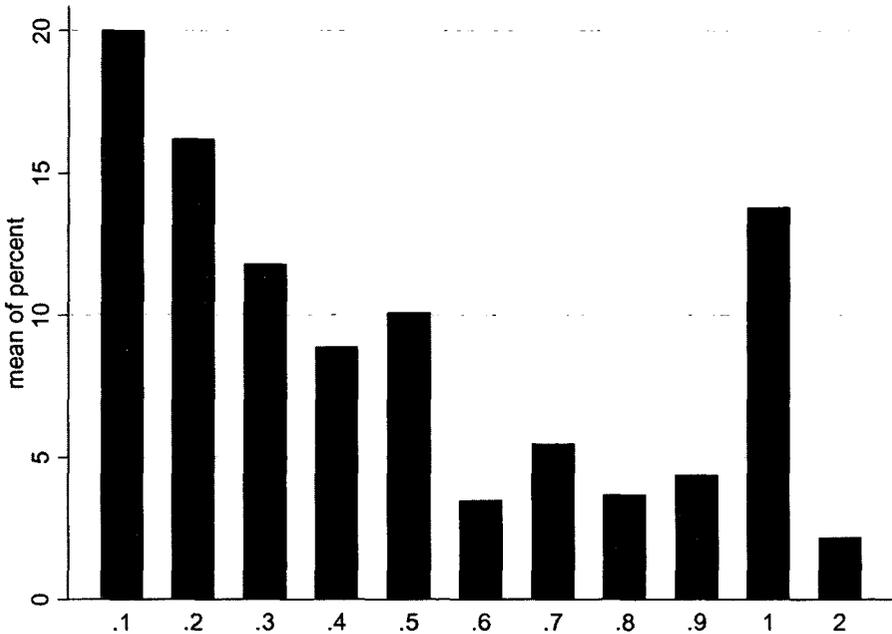
120. See Black et al., *supra* note 116.

121. Kent D. Syverud, *On the Demand for Liability Insurance*, 72 TEX. L. REV. 1629, 1635 (1994).

122. The ratio is expressed in deciles, e.g., payments <0.1 of policy limits, payments between 0.1 and 0.2 of policy limits, etc. Payments of more than the policy limit (>1.0) are expressed as "2".

Figure 4

*Payments in Relation to Insurance Policy Limits in
Single Defendant Cases*



These results confirm the relevance of policy limits for settlement payouts. The most common payment amount (20%) is a small fraction of the policy limits, less than 0.1. Payments decline until approaching the policy limits (ratio of 0.9 to 1), where they spike up to 13.8%. Only 2.2% of the claim payments exceeded the policy limits in these single defendant cases.

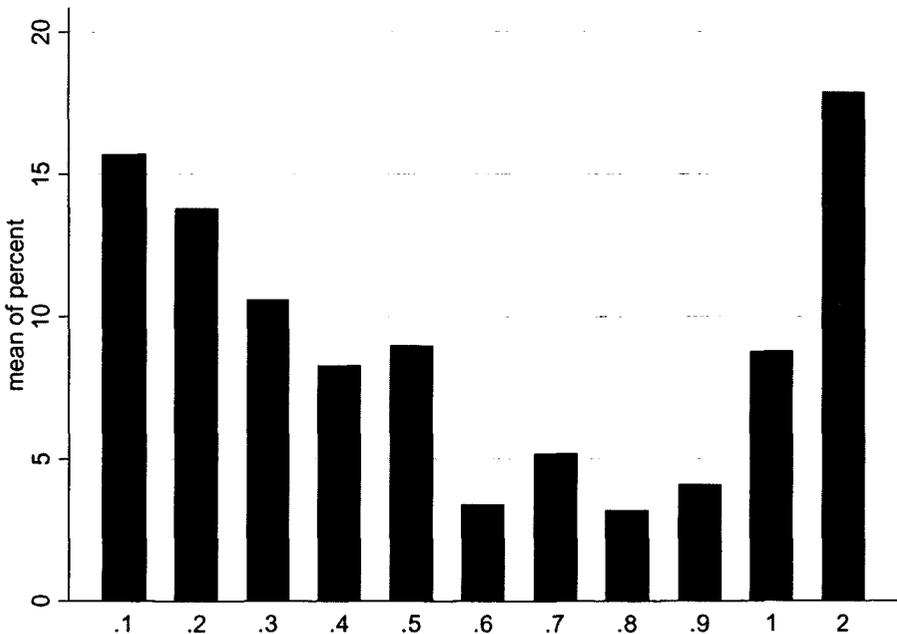
These summary statistics appear to show that policy limits have a significant impact on the size of recoveries. The fact that the payments stack up at the policy limit at least suggests that the system causes many plaintiffs to choose to settle for the maximum insurance available, rather than pursue the defendant for additional recovery. This effect only influences about ten percent of the claims, however. While the theoretical basis for such a relationship is unclear, it is conceivable that policy limits are influencing recoveries at ratios below 1.0 as well.

The next analysis includes multiple defendant cases. The data here do not permit as clean a test of the policy limits because the recovery is measured against only one of the multiple insurance

policies on which the plaintiff may possibly recover (assuming more than one defendant carries insurance). However, the results can illuminate the extent to which insurance policy limits are holding down potentially deserving award. If the payments in excess of policy limits are greater in this analysis, where an additional policy may be available, it would suggest that policy limits are in fact constraining meritorious recoveries. Figure 5 illustrates recoveries in relation to single policy limits in multiple defendant cases, using the same procedure as the preceding figure.

Figure 5

Payments in Relation to Insurance Policy Limits in Multiple Defendant Cases



This result confirms the finding that policy limits restrain recoveries. The percent of payments in excess of a single policy limit jumps to 17.9%. Moreover, we still see a spike at the individual policy limit (8.8%), which suggests that these payments may also be affected by insurance policy limits in multiple defendant claims. This may suggest that the other defendant was uninsured or that the claimant received payments at the limits of both policies. From this data, we

can make an inference that over twenty percent of claims may be undercompensated because of policy limits.¹²³

Moreover, these results indicate that the low ratio payments may possibly be influenced by the policy limits. In single defendant cases, about seven percent fewer cases settle for less than twenty percent of the individual policy limit, even though these claims may also involve additional recovery from the additional available insurance policy. There are alternative explanations for this finding, however. It may be that claims against multiple defendants intrinsically tend to be more meritorious and hence likely to settle for greater sums. Another more likely explanation of this result might involve the type of defendants and the nature of the claims. For example, medical malpractice claims more typically involve only one policy, and these claims may settle for less. It is possible to control for this effect through a multiple regression that incorporates both the policy limit and the nature of the potential defendant of the claim, which we provide below.

3. Location of Injury

Another possible factor influencing payment amounts is the county in which the claim would proceed to trial. Certain locations in Texas have a reputation for awarding higher damages in trials. Some have even been described as “judicial hellholes” by the American Tort Reform Association (“ATRA”).¹²⁴ Over the past three years, the ATRA has designated four Texas counties—Jefferson, Hidalgo, Nueces and Starr—as such judicial hellholes.¹²⁵ These counties are all relatively poor. Three are located near the border with Mexico, and the fourth is located in East Texas, near Louisiana.

ATRA’s designation calls to mind the “folk wisdom” that minorities “favor injured plaintiffs and give them inflated awards.”¹²⁶

123. Syverud suggests a contrary explanation, that policy limits may be unduly high due to the interests of insurers and the plaintiffs’ bar. *See* Syverud, *supra* note 121, at 1649-50. Our results do not particularly support this explanation, though, as policy limits appear to serve as a ceiling, but not any sort of a floor, for settlement compensation payments, and the absolute amount of such payments in death cases is quite low.

124. ATRA, *Judicial Hellholes 2005*, <http://www.atra.org/report/hellholes/> (last visited Sept. 1, 2006). The ATRA website reports that “[p]ersonal injury lawyers seek out these places because they know that they will produce a positive outcome—an excessive verdict or settlement, a favorable precedent, or both.” *Id.* These counties were identified using a survey of ATRA members and comprehensive follow up research. *Id.*

125. *Id.*

126. Theodore Eisenberg & Martin T. Wells, *Trial Outcomes and Demographics: Is There a Bronx Effect*, 80 TEX. L. REV. 1839 (2002). The authors’ empirical study, though, found little support for such an association. *Id.* at 1869. *See also* Michael J. Saks, *Trial Outcomes and*

In Texas, there is a common belief that Hispanic juries favor plaintiffs and provide them high awards. Some empirical analysis supports this demographic effect in trials and settlements.¹²⁷

A county's wealth could influence payments, separately or conjointly with ethnicity. Wealthier individuals tend to place a greater economic value on life, and wealthy jurors may therefore tend to issue larger damage awards in tort cases. Alternatively, poor persons might be more generous jurors because they see trials as opportunities to transfer wealth from rich defendants to poor persons like themselves. This temptation might be especially strong in the cases covered by the TCCD because they involve commercial defendants.

Texas has 299 counties. Some have hundreds of death cases, while others have few. To test the effect of location, we used several dummy variables. First, we created a "hellhole" variable with a value of 1 for the four ATRA hellhole counties and a value of 0 for all others. Second, we created a "Hispanic" variable for counties in which the Hispanic population was over 80%.¹²⁸ Given the demographic breakdown of Texas, this also serves as a rough proxy for poverty. Third, we created a "wealthy" variable to separate out counties with higher average incomes. In 2000, the median income of Texans was \$28,313. Eight counties of the state had median incomes of more than \$35,000, and they were coded as wealthy.

4. Potential Defendant

A final factor that might influence payments in death cases is the identity of the potential defendant on whose insurance the claim was made. Although defendant type should have no legal bearing on compensatory damages in death cases, some defendants may tend to be more tortious and therefore more liable or more exposed to punitive

Demographics: Easy Assumptions Versus Hard Evidence, 80 TEX. L. REV. 1877, 1878 (2002) (discussing lack of data supporting presumption of association).

127. See Eric Helland & Alexander Tabarrok, *Race Poverty, and American Tort Awards: Evidence from Three Datasets*, 32 J. LEGAL STUD. 27 (2003). The study found that a one percent increase in the Hispanic poverty rate of a county raised trial awards by up to seven percent and settlements by over two percent. *Id.* at 50, 52. See also Frank A. Sloan, *Limiting Damages for "Pain and Suffering" in Medical Malpractice*, 64 N.C. MED. J. 191, 192 (2003) (pointing to "empirical evidence that patterns of awards reflect the income, racial, and ethnic composition of the area in which cases are tried").

128. These counties are Brooks County, Cameron County, Dimmit County, Duval County, El Paso County, Hidalgo County, Jim Hogg County, Maverick County, Presidio County, Starr County, Webb County, Willacy County, Zapata County, and Zavala County. 2000 census demographic data for the variable came from <http://www.txcip.org/tac/census/index.php>. The eighty percent cutoff was used because any materially lower cutoff (e.g., fifty percent) would capture most of the state.

damages claims. Some types of defendants may be systematically richer than others. Given the widespread (though rarely evidenced) belief that jury awards reflect the depth of defendants' pockets, defendant type could affect payment amounts.¹²⁹ Jurors may also find certain types of defendants relatively attractive or repugnant because of the nature of their activities.

The TCCD contains twenty-six categories of "business class as policyholder," which presumably identifies the nature of the potential defendant for the claim. The raw data suggest that there may well be some effect here. For example, the mean payment in the 3425 claims against physicians and surgeons is only \$304,183, an amount that is less than for other claims, with statistical significance at the .01 level. By contrast, the mean payment in the 1047 claims against construction firms is \$516,928, an amount that is greater than that for other claims, also with statistical significance at the .01 level. These differences might be related to other features of the claims, such as age of the deceased, so we incorporate them into a broader analysis below.

To test the effects of the different potential defendants on awards, we have regrouped the TCCD categories into ten categories of related businesses that roughly parallel Standard Industrial Classification ("SIC") codes, each of which has at least two hundred TCCD-recorded payments in death cases. These categories for potential defendants are: Agriculture; Mining and Oil Production; Construction; All Manufacturing; Transportation; Wholesale and Retail Sales; Apartment and Office; Municipal and Nonprofit; Medical; and Daycare and Nursing Homes. As with the county location section, each of these categories is analyzed as a dummy variable in a regression against other categories of defendants. In one case, the results are influenced by legislative action. In 1977, Texas imposed a cap on damages for medical malpractice wrongful death actions of \$500,000, adjusted for inflation.¹³⁰ Adjusted for the 1988 dollars used in our study, damages were capped at \$975,000.

5. Cumulative Multiple Regression

Our analysis closes with a capstone regression that considers locational and defendant effects, incorporated with all the prior

129. There is some empirical evidence that damage awards are greater when the defendant is a (presumably deep pocket) corporation. Donald Wittman, *Is the Selection of Cases for Trial Biased?*, 14 J. LEGAL STUD. 185, 208 (1985).

130. See TEX. H.R., HOUSE RESEARCH ORG., FOCUS REPORT, CONSTITUTIONAL AMENDMENTS PROPOSED FOR SEPT. 2003 BALLOT 32 (2003) (discussing history of legislation).

potential determinants of payments in death cases. We report several different equations with different sets of independent variables, as follows:

1. The variables age and age-squared (to capture the quadratic nature of age-related payments), employment status, and whether the death was work-related.
2. The variables of equation (1) plus the potential defendant categories.
3. The variables of equation (2) plus the county locational categories
4. The variables of equation (3) plus the insurance policy limits, for the limited number of cases with a single defendant.

The distribution of payments in the TCCD is somewhat skewed, clustered toward lower amounts with a long right tail of higher payments. Consequently, we use a log scale for payment amount to yield a more normal distribution pattern. Table 5 reports the results of the four equations on death payments, with the statistical significance for each independent variable.

Table 5

Determinants of Payments for Loss of Life

	(1)	(2)	(3)	(4)
Age	.008 (4.74)***	.009(5.18)***	.009 (5.06)***	.006 (2.29)**
Age-Squared	-.012 (5.91)***	-.014 (6.88)***	-.013 (6.67)***	-.009 (3.36)***
Employed	.225 (8.19)***	.204 (7.48)***	.208 (7.64)***	.212 (5.48)***
Work-related	.145 (4.23)***	.064 (1.71)*	.061 (1.63)	-.097 (1.80)
Agriculture		-.215 (2.41)**	-.216 (2.44)**	.045 (0.41)
Mining/Oil		.213 (2.87)***	.219 (2.97)***	.132 (1.32)
Construction		.080 (1.58)	.073 (1.45)	.212 (3.11)***
Manufacturing		.201 (3.75)***	.177 (3.30)***	.112 (1.38)
Transportation		.146 (3.09)***	.147 (3.12)***	.240 (4.08)***
Sales		.012 (0.25)	.002 (0.05)	.100 (1.58)
Apt/Office		-.085 (1.17)	-.094 (1.30)	-.085 (0.89)
Munic/Nonprofit		-.663 (11.44)***	-.670 (11.45)***	-.524 (7.32)***
Medical		-.037 (1.01)***	-.046 (1.27)***	-.147 (2.87)***
Daycare/Nursing		.209 (3.55)***	.208 (3.55)***	.083 (1.15)
High Income			.070 (3.03)***	.041 (1.20)
Hellhole			.167 (4.35)***	.174 (2.83)***
Hispanic			.155 (4.19)***	.048 (.082)
PolicyLimit				.299 (18.17)***
Observations	11,502	11,502	11,502	4896
R-squared	.0318	.0515	.0562	.1386

These extensive regressions permit some fairly clear conclusions. First, the effect of age and employment is exactly as predicted and consistently at a level of statistical significance. This is

consistent with the legal rules and suggests that settlements are indeed occurring in the shadow of the law. Second, payments systematically vary by type of defendant, though there is no obvious legal basis for this (save for the medical malpractice statutory cap). The greater payments in some industries might be evidence that some defendants are perceived as unsympathetic, though it may also be due to some relevant feature of the deceased that our model did not capture. Third, payments vary by county as predicted by our hypotheses. High income counties, judicial “hellholes,” and counties with high Hispanic populations seem to have higher payments in death cases but only the effect of being in a “hellhole” was statistically significant once policy limits were incorporated in the equation, though there is no good legal or theoretical reason for this effect. Fourth, policy limits appear to be a very significant determinant of payments, at least in the single-defendant cases for which we can measure them. Once again, this is theoretically and legally inappropriate, as it enables defendants to limit compensation without regard to damages or liability.

The settlement data analyzed in this regression do not directly tell us the precise value of life in Texas tort litigation, because the payments are colored by factors such as the strength of the plaintiff’s legal case. However, they do permit us to extract a rough life valuation. The theoretical discussion above suggests that the probability of plaintiff victory in a settled case is at least 50%, and probably higher. If we adjust the settlement payments accordingly (based on a 50% probability of success), the actual life valuation in tort settlements would be a median of nearly \$400,000 and a mean of over \$800,000. This analysis is, of course, quite speculative but allows some very rough measure of the value of life in Texas.

IV. IMPLICATIONS OF LITIGATION VALUATION OF DEATH IN TEXAS

One major purpose of tort law is the deterrence of harm.¹³¹ For such deterrence to function appropriately, those who cause externality damages, such as death, should bear the costs of those damages by internalizing them. This is necessary to create the correct economic incentive to avoid causing death.¹³² For the “optimal allocation of

131. See, e.g., WILLIAM LANDES & RICHARD POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 10 (1987) (discussing the deterrent effect of tort law); STEVEN SHAVELL, *ECONOMIC ANALYSIS OF ACCIDENT LAW* 133-34 (1987) (stating that liability rules can create “incentives to reduce risks”).

132. See, e.g., Erin Ann O’Hara, Note, *Hedonic Damages for Wrongful Death: Are Tortfeasors Getting Away with Murder?*, 78 GEO. L.J. 1687, 1690-91 (1990) (noting that torts “can be used to

resources from the standpoint of society," it is necessary that "the firm bear the full cost of its actions."¹³³

A. *The Overall Value of Life in Tort Compensation*

If we wish to provide optimal economic deterrence of death-causing behavior, the evidence on payments from the TCCD suggests that the current tort compensation system falls woefully short. The payments in death cases are less than \$200,000. At this level, loss of life is substantially undercompensated, according to the best available measures, such as the VSL calculations, at a level less than ten percent of even the lower figures. This creates an insufficient economic incentive for potential defendants to engage in economically efficient measures to avoid causing deaths.¹³⁴ The insufficient incentive is compounded by the fact that a significant number of plaintiffs with meritorious claims do not even sue for damages.¹³⁵ Thus, this inefficiency might be reduced by the use of VSL estimates as a measure of hedonic damages to be recovered by plaintiffs in wrongful death cases.

Some commentators have suggested that the VSL research be used to provide a compensable hedonic damage measure in wrongful death cases for economic or moralistic reasons.¹³⁶ Under their theory, the studies on VSL could be admitted at trial to provide a hedonic value that the judge or jury might use as evidence of damages to be awarded. These suggestions have provoked responsive criticisms. The central early criticism of this practice was presented by Thomas Havrilesky, a Professor of Economics at Duke, who contends that a "professional consensus" questions the use of VSL studies.¹³⁷ His central criticism is that the VSL studies are calculated based on the

help society reach an efficient level of risk-imposing activities" and that the system does a "particularly poor job" in death cases of "forcing tortfeasors to internalize all the costs of their activities").

133. Roy F. Gilbert, *The Application of Hedonic Models to Personal Injury Litigation*, J. LEGAL ECON., Winter 1994, at 20.

134. See, e.g., Thomas R. Ireland & James D. Rodgers, *Hedonic Damages in Wrongful Death/Survival Actions: Equitable Compensation or Optimal Life Protection?*, J. LEGAL ECON., Dec. 1993, at 49 (providing a hypothetical example of deterrence: "Would a rule limiting damages to \$578,988 [calculated based on a 40-year old earning \$35,000/year] provide too little incentive for care to be taken by a potential malfeasor? Yes.").

135. See *supra* pp. 122-23.

136. See, e.g., Andrew J. McClurg, *It's a Wonderful Life: The Case for Hedonic Damages in Wrongful Death Cases*, 66 NOTRE DAME L. REV. 57 (1990) (defending the use of hedonic damages in wrongful death litigation); O'Hara, *supra* note 132 (asserting the value of hedonic measures).

137. Thomas Havrilesky, *The Misapplication of the Hedonic Damages Concept to Wrongful Death and Personal Injury Litigation*, 6 J. FORENSIC ECON. 93, 93 (1993).

value placed on the avoidance of relatively small risks of death to anonymous individuals. He also expresses some concern about the accuracy of the measures and the considerable business costs that would be associated with awards based on the multimillion dollar VSL estimates.¹³⁸

Professor W. Kip Viscusi of Vanderbilt has more recently made the case against use of hedonic considerations in tort law awards for loss of life and elaborated on Professor Havrilesky's arguments.¹³⁹ Professor Viscusi worries that procedures for calculating VSL are ill-suited for tort law, as the consideration of individual life value will lead to excessive awards for actual lives rather than statistical ones.¹⁴⁰ Like Professor Havrilesky, he suggests that the wage premium studies only value willingness to accept small statistical risks to life and shouldn't be used for ex post valuation of actual deaths.¹⁴¹ While tort law ordinarily provides the compensation that a victim would demand to compensate the loss, most individuals would find no amount satisfactory to compensate for their death. Professor Viscusi notes: "The value of life is not a total figure that represents the lump sum amount that one could receive and be indifferent between life and death."¹⁴² As such, he concludes that value of life estimates are inadequate for use in litigation. Others have concurred and made similar arguments against the use of hedonic damages measures.¹⁴³

Professor Viscusi finds it reasonable to use such valuation in determining punitive damages or in finding liability under a risk-utility test to determine negligence, and cites the Ford Pinto case as an example of a situation in which defendants placed too low a value

138. Havrilesky suggests that using such damages could produce awards amounting to ten to fifteen percent of the national gross domestic product but provides no data to support this claim. *Id.* at 97.

139. W. Kip Viscusi, *Misuses and Proper Uses of Hedonic Values of Life in Legal Contexts*, 13 J. FORENSIC ECON. 111 (2000).

140. *See id.* at 111 (observing that "[s]ociety has long displayed more attention to identified lives than to statistical lives," and that "[e]ven beached whales and identified animal lives often command more attention than statistical human lives").

141. *Id.* at 117. *See also* W. Kip Viscusi, *The Value of Life: Has Voodoo Economics Come to the Courts?*, 3 J. FORENSIC ECON. 1, 10 (1990) (suggesting that an individual's willingness to pay \$600 to avert a 1/10,000 risk of lost life does not necessarily mean that the individual would be willing to pay \$600,000 to eliminate a 1/10 risk).

142. Viscusi, *supra* note 139, at 119.

143. *See, e.g.*, Ireland & Rodgers, *supra* note 134, at 45 (suggesting that such damages cannot be estimated with a reasonable degree of accuracy and may result in overcompensation); Raymond, *supra* note 29, at 84 (noting variability of VSL studies and difficulty of applying them to individual victims); Schwartz & Silverman, *supra* note 74, at 1070 (complaining that the measure is too subjective and scientifically unreliable and provides an "opportunity for plaintiffs' lawyers to channel a jury's sympathy for an injured person or anger toward a defendant into an award that is neither subject to statutory limits nor to thorough judicial review").

on life in their ex ante cost-benefit calculations.¹⁴⁴ Of course, the reason that Ford placed an overly low value on life in these calculations was because it anticipated that liability awards would be at that low value. Professor Viscusi's attempt to cure the deterrence problem by use of life value in liability determinations fails because an economically rational Ford would have made precisely the same calculations under his regime, knowing that, though it would be liable, actual damages awards would be relatively small.

The above criticisms focus on the extension of calculations based on the value of avoidance of small ex ante risks to the ex post valuation of particular lost lives. There is considerable variation in VSL estimates, and no single estimate is necessarily reliable for a particular person.¹⁴⁵ This criticism seems to fail to appreciate that the ex post valuation of death in litigation is commonly the byproduct of some ex ante decision by defendants to risk the death of others. At the time of the ex ante decision, the particular identity of the victim is unknown, so particularized individual VSLs are not crucial for deterrence purposes. Professor Viscusi has previously noted that while the appropriate settlement compensation for a lost life may be \$300,000, "the appropriate value of life from the standpoint of prevention may be an order of magnitude higher."¹⁴⁶

In addition, the ex ante small risks are not divorced from the eventual loss of life. For the individual employees studied in the wage premium studies, it is the "knowledge of the value of a whole life" that is important in their calculations.¹⁴⁷ Moreover, as the risk level increases, more closely approximating the loss of a whole life, it appears that the relative risk premium actually becomes greater.¹⁴⁸ Thus, the anonymous statistical life based on small risk studies on balance probably causes some undervaluation of death.

The critics have stressed that VSL estimates are averages for an anonymous life and cannot, therefore, be directly translated to individual lives lost. Thus, Professor Havrilesky argues that they are inapplicable because "they do not reflect the decisions of a unique individual" whose life was lost.¹⁴⁹ The generalized measures of the

144. Viscusi, *supra* note 139, at 122.

145. See Raymond, *supra* note 29, at 84 (suggesting that the generalized VSL estimates are inapplicable to particular individuals).

146. Viscusi, *supra* note 93, at 174.

147. Gilbert, *supra* note 133, at 17.

148. See *id.* at 18 (noting that "the incremental demand for compensation for an increase in risk becomes higher at very high risk levels"). While there is a potential theoretical flaw in the VSL studies to the extent that workers might overestimate small probabilities of injury, this does not appear to be an accurate premise. *Id.* at 21.

149. Havrilesky, *supra* note 137, at 95.

value of a statistical life cannot capture the damages suffered by the particular deceased. Even if the average VSL is an imprecise measure of hedonic damages in a particular case, we can fairly draw the conclusion that the average compensation provided by the tort system is far too low, given the VSL measures. Indeed, even those measures probably underestimate the economic value of lost life and represent "lower bound estimates of the average value of life."¹⁵⁰ Thus, VSL calculations based on relatively small risks would often understate the true value of a particular lost life and better capture the value of that life than prevailing standards which assign zero value to hedonic life benefits.

There are two theoretically plausible reasons why the VSL measures might actually result in overdeterrence. First, the VSL calculation may involve some double-counting. Thus, a wage premium could compensate in part for anticipated pain and suffering that would be calculated as part of noneconomic damages in traditional tort litigation. Hence, allowing recovery for both noneconomic damages and hedonic damages measured by VSL could involve double-counting of damages. Second, if VSL were to precisely capture the costs of death-causing, it could result in overdeterrence by failing to calculate other external costs of death-causing suffered by potential defendants. Liable tortfeasors internalize costs to at least some degree through nonlegal pathways. Fines, criminal penalties, and reputational losses for causing death are also costs internalized by a defendant.¹⁵¹ Adding a perfectly accurate VSL calculation to the costs already partially internalized through the other pathways would produce an over-internalization of these externalities, and thus overdeterrence of death-causing.

The critics' arguments against VSL measures for hedonic damages have some theoretical validity as a methodological matter, but they are not terribly significant as a policy matter. Centrally, those who emphasize shortcomings of the extrapolation never balance them against the shortcomings of the status quo. The overdeterrence argument based on fines, penalties, and reputational effects is unaccompanied by any evidence on the frequency with which those who cause death suffer such consequences. A theoretical criticism that use of VSL would over-deter by some uncertain amount adds little to the substantive policy debate without some evidence of its scope,

150. Gilbert, *supra* note 133, at 23.

151. Ireland & Rodgers, *supra* note 134, at 50; Paul H. Rubin & John E. Calfee, *Consequences of Damage Awards for Hedonic and Other Nonpecuniary Losses*, 5 J. FORENSIC ECON. 249, 255 (1992). For a more generalized discussion of this effect, see PAUL H. RUBIN, TORT REFORM BY CONTRACT 82-84 (1993).

combined with a comparison of the degree to which the status quo may under-deter. By virtually every available quantitative measure, the status quo undercompensates survivors for death and, in the process, sends an inappropriate signal to potential defendants about actions that cause risk of death. If prevailing compensation is vastly low, some use of VSL may improve the situation.¹⁵²

B. The Determinants of the Value of Life in Tort Compensation

The preceding section demonstrates that claim payments are significantly associated with certain variables that can be measured with the TCCD. The age and employment variables are related to the size of recovery in the way that one would expect under the legal standards of tort law, but theoretically more dubious for life valuation and deterrence purposes. The other determinants, such as insurance policy limits, location, and potential defendants, are inappropriate under either legal or theoretical rationales. Their effect is perhaps unsurprising but nonetheless undesirable.¹⁵³

Many of the determinants seem inappropriate, whether the concern is equity or efficiency. Basing compensation for a lost life on features such as insurance policy limits or the characteristics of the defendant seems to violate horizontal equity, as these features are apparently unrelated to the actual damages suffered by plaintiffs.¹⁵⁴ Economic efficiency is compromised because some types of defendants will be led to take relatively more expensive precautions to protect life, while others will reject measures of comparable cost. Specifically, the significance of insurance policy limits is especially troubling because it provides potential defendants with an incentive to underinsure for causing loss of life, and thereby manipulate the tort compensation system.

The use of a more standardized measure for life valuation, like VSL, could reduce the arbitrary and inappropriate aspects of such

152. See O'Hara, *supra* note 132, at 1709-10 (noting that even if the VSL could not be actually calculated, its rough approximation would be preferable to ignoring the hedonic value of life).

153. See Sloan, *supra* note 127, at 192 (reporting that in malpractice cases, damages seem determined by "factors that should have no bearing on the individual plaintiff's loss" and noting that this creates problems for insurers, in addition to any horizontal inequities).

154. See Randall R. Bovbjerg, Frank A. Sloan, & James F. Blumstein, *Valuing Life and Limb in Tort: Scheduling "Pain and Suffering"*, 83 NW. U. L. REV. 908, 924 (1989) (reporting on lack of horizontal equity in noneconomic damages awards); Mark Geistfeld, *Placing a Price on Pain and Suffering: A Method for Helping Juries Determine Tort Damages for Nonmonetary Injuries*, 83 CAL. L. REV. 773, 777 (1995) (describing considerable variance in awards for equally severe injuries).

valuation in the judicial system. Although some factors, such as economic losses, will inevitably vary for the deceased, the central hedonic value of life should not vary based on insurance policy limits, location, or the potential defendants available. The following Section addresses how the use of VSL measures in the tort compensation system could provide more appropriate compensation levels, reducing the arbitrary and inappropriate determinants of payments.

C. Tort Reform in Death Cases

In general, the tort reform movement has been aimed at reducing damage awards. In death cases, at least, this direction is perverse—the tort law system significantly and systematically undercompensates loss of life. This undercompensation undermines deterrence and encourages the creation of unduly high risks of death. As such, in this sense, the tort compensation system in Texas (and presumably elsewhere) is malfunctioning and requires reform in the direction of expanding awards in cases where death resulted from negligence or other tortious action.

The undercompensation of death in tort may be partially due to inherent features of the liability system, which restricts damages and commonly excludes any recovery for hedonic losses. This structural flaw can create a truly perverse incentive, in which defendants are economically encouraged to cause a death in lieu of an especially serious injury, for which it must compensate the victim, not the survivors. Addressing this problematic incentive would require either a radical shift in precedent or statutory reform of the system.

Irrationalities in compensation are another shortcoming of the prevailing tort compensation system. There is no good reason under the law why awards should vary significantly depending on factors such as the identity of the defendant, the amount of insurance coverage available, or the situs of the injury. To some degree, such an effect is an inevitable consequence of the system's reliance on the judgment of humans. But the magnitude of this arbitrariness may be minimized through structural reforms.

The ideal structure for statutory reform of the tort system would be to create a system somewhat like that established by the Special Master to compensate survivors of those who died in the 9-11 attacks. The legislature could create a schedule of a presumptive minimum award for loss of life based in part on the VSL studies. The schedule would not guarantee payments of a certain amount to all of the deceased as in the 9-11 case. Rather, it would guarantee payments of a certain amount to all those with fully meritorious legal claims.

One might expect settlements to be for less than the scheduled amount, given the uncertainty of a claim's merits, but the scheduled amount would set the starting point from which such settlement amounts would be determined.

The creation of such a presumptive award would have some advantages over allowing traditional tort recovery for hedonic damages. First, it would overcome some of the irrationalities that appear to influence jury awards, such as the defendant's identity, and bring some predictability to awards.¹⁵⁵ Second, it would have a considerable procedural efficiency benefit.¹⁵⁶ There would be a substantial unnecessary cost involved in retrying the VSL in every wrongful death case, which would inevitably involve extensive and expensive expert testimony. Third, there could be some substantive efficiency benefit to a presumptive award, as potential tortfeasors would be better able to calculate the costs of causing death.

The amount of the presumptive wrongful death award should be considerably more than the small \$250,000 award set by the Special Master. Given our understanding of the value of life from the economic studies, such as the wage premium analyses, this presumptive minimum might be set at \$2 million for noneconomic damages. Such a minimum would surely produce much greater insurance coverage for damages risked by potential defendants. This in turn would also color settlement negotiations and should result in significantly increased payouts in this process as well. Thus, a plaintiff with a 75% probability of winning at trial might be expected to recover \$1.5 million in settlement. The hypothesized \$2 million figure represents only a fraction of the VSL estimates on life and thus accounts for possible overdeterrence risks. While this proposal would work a radical change in Texas payouts, it is actually a relatively conservative figure for the value of lives lost when compared to the VSL research.

Given the contemporary political realities, passage of tort reform that increases damage awards seems unlikely. Potential tort defendants, who are often members of wealthy interest groups, tend to have greater influence on legislatures.¹⁵⁷ In the absence of legislation,

155. See Ted R. Miller, *Willingness To Pay Comes of Age: Will the System Survive?*, 83 NW. U. L. REV. 876 (1989) (discussing this benefit of scheduling payments for noneconomic damages). Such predictability may have "both fairness and efficiency advantages." Avraham, *supra* note 72, at 96. Viscusi has argued for the creation of such a schedule to avoid the random arbitrariness associated with noneconomic damage awards. See Viscusi, *supra* note 141, at 13-14.

156. See Avraham, *supra* note 72, at 93 (discussing the high administrative costs of litigating any pain-and-suffering damages).

157. See Michael R. Rustad & Thomas H. Koenig, *Taming the Tort Monster: The American Civil Justice System as a Battleground of Social Theory*, 68 BROOK. L. REV. 1, 67 (2002) ("The

a useful intermediate step would be to allow hedonic damages based on the VSL research in courtrooms. Admittedly, as Professor Viscusi fears, such an action might well yield very high jury awards for loss of life and considerable variation among juries. Yet, over the long run, such a result might prove beneficial. It could stimulate defendants to favor legislative reform of the sort we propose, in order to protect them from high jury awards. Altering the judicial system's rules for measuring damages in death cases could thus provoke a superior legislatively systematized compensation system.

CONCLUSION

It may seem ethically problematic to attach a price tag to a human life, but it is a step that legal and political decisionmakers are required to take in a number of contexts. Ascertaining the proper value of life, though, is quite difficult. The economic studies on which such valuation is typically based are flawed and have produced results with considerable variance. However, they have consistently shown life valuations in the millions of dollars. Intuitively, this makes sense: life would seem to possess a value of at least this magnitude.

The tort compensation system, by contrast, provides much lower compensation to death victims with legitimate claims. The median recovery in Texas is only about \$200,000 per case, which is less than five percent of the econometric estimates of life's value. This extremely low valuation creates a correspondingly small economic incentive to avoid causing death. In addition, the settlements paid for loss of life seem to be influenced significantly by theoretically inappropriate factors. The best way to address these problems is through a schedule of presumptive damages like that applied in distributing awards for survivors of 9-11 victims.

Texans for Lawsuit Reform (TLR), one of two principal tort reform lobbying groups in Texas, received more than half of its Political Action Committee ("PAC") money (\$2,850,834) 'from just 20 donors—most of whom made fortunes in toxic chemicals, construction, energy or other dangerous industries with elevated legal liabilities.' PACs, businesses and individuals affiliated with TLR and The Texas Civil Justice League, the state's other major tort reform lobby group, contributed \$4.1 million to George W. Bush's two gubernatorial campaigns, outspending every other special-interest donor."); Steven P. Croley & Jon D. Hanson, *What Liability Crisis? An Alternative Explanation for Recent Events in Products Liability*, 8 YALE J. ON REG. 1, 5-6 nn.19, 21 (1991) (reporting role of businesses and insurance companies in launching a pro-defendant tort reform campaign).
