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## 1.1 Purpose

This book is a practical guide for plaintiffs' and defense attorneys, and economists, on the proper estimation of economic damages in a litigation setting. It does so through real-world examples for wrongful death and personal injury losses, including lost wages, fringe benefits, household services, medical costs, hedonic damages, and other losses. It discusses losses for commercial cases, antitrust, pension valuation, breach of contract, and labor cases, using proven and accepted methods. Settlement analysis, including the evaluation of structured settlements, is also provided. A unique feature of this book is the sample testimony for direct and cross-examination.

A second major feature of this book is the companion software which has been written to assist attorneys and economists to prepare a quick analysis of economic damages. The software is simple to use for computer novices and contains helpful references to sections in this book.

The methods presented here are "neutral" in that they can be used, and have been used, by both defense and plaintiffs' counsel and by arbitrators of economic damages. For each procedure and approach, we discuss the advantages for each side, and provide ample warning of the possible pitfalls. Naturally, all methods can be critiqued, and such critique is also provided.

This book is oriented toward trial attorneys and contains discussions of strategic and tactical approaches to analysis, testimony and settlement. Every case has two parts. One part deals with proof of liability. The other deals with proof of damages. By virtue of training, attorneys are frequently more comfortable focusing on liability issues during the early stages of case preparation. However, we are increasingly seeing sophisticated attorneys examining economic damage issues from the very start. Frequently, economic analysis can have a substantial impact on the decisions regarding the liability side of the case, especially in commercial litigation. Attorneys are recognizing that the early bird in economic loss analysis is getting a better bite at the worm.

Chapter by chapter, we discuss the parameters affecting each type of loss. Along with a few other forensic economists across the nation who began to treat forensic economics as an important and maturing specialty, we pioneered a number of the techniques discussed here. Unlike pure theoreticians who could provide many alternative approaches, we take the hard-headed approach of practicing forensic economists, describing the preferred state-of-the-art analysis for each element of loss.

This is a handbook, not an encyclopedia. Attorneys cannot pause to ponder five theoretical approaches to discount rates and jurors don't share an academic's fascination with the third decimal place. But they will listen to a simple and clear presentation of the truth by economists presenting standard methodologies tested and proven through years of skillful cross-examination. Such is the guidance we attempt to present here.

Experienced and knowledgeable attorneys and economists who use this book can become quickly oriented to pragmatic approaches to damage estimation for settlement negotiations, depositions, and presentations at trial. We also provide analytical commentary and sample testimony for direct and cross-examination. Further, this book contains detailed legal guidelines affecting the economist in each jurisdiction. For the new and inexperienced economist, this volume can provide a helpful entry into this important specialty.

Today, litigation support often requires interdisciplinary approaches, involving the combined use of an economist with rehabilitation experts, psychologists, physiatrists, and others. This book describes these interdisciplinary approaches and can serve as an introduction to experts in other fields on how to work with economists.

More than any other society at any other time, America has developed sophisticated ways to seek redress of alleged wrongs. There are considerable cost consequences of our litigious society. At the same time, there is great protection not afforded in any other country for the average person. Happily, most cases settle even before a suit is filed, and a great majority of the balance settle before trial. The debate currently rages as to the efficacy of it all. Engaged daily in the fray as we are, we leave it to a future generation to decide, on balance, how the system fared.

For the moment, we hope this book serves to increase the efficiency and fairness of the court system. The perspective is that of two economists with collectively over two decades of experience, and more than one thousand cases relating to economic damages. To the extent that loss estimation techniques are produced with greater agreement and uniformity as to approach, both sides in lawsuits will be more likely to settle. This can lead to lower litigation costs, lower insurance premiums, relief of certain stresses in the judicial system, and an increase in fairness to all.

Recently, we and another dozen or so forensic economists across the nation founded the National Academy of Economic Arbitrators in Washington, D.C. It is our hope that the Arbitration Academy will serve to resolve economic disputes in cases involving international law, in private or alternate dispute resolution, and as "friends of the court" on behalf of judges who have the authority to retain outside experts for such instances. Our objective, like that of attorneys, is fair, speedy and

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reasonable resolution of disputes. We hope both the Arbitration Academy and the National Association of Forensic Economists will serve to further these objectives and to provide a measure of standardization and quality control within the profession. We hope this book can serve as a platform for NAFE and Academy members in realizing these objectives.

Ultimately, in the event a case does not settle, it is the triers of fact, whether judges or jurors, who must decide on the value of a loss. It is their responsibility, whether for a day or a career, to reach a verdict that provides "justice for all." It is our hope that this book indirectly serves them, also.

### 1.2 Organization

Chapters Two through Twelve of this book show how to calculate economic damages, how to evaluate settlement offers, and how to prepare for trial in personal injury and wrongful death cases. These types of cases form the vast majority of work by experts on damages. The topics are ordered in the logical progression that an attorney typically will work through in using an economic expert, starting with issues related to the decision to retain an expert, the techniques of loss estimation for the traditional areas of economic damages, an examination of special cases and circumstances, and the pragmatic issues concerning preparation for, and testimony at, trial.

Specifically, Chapter Two deals with the decision to engage experts, how to find and compensate them, and how to work with them in collecting the necessary information requisite to economic loss analyses. Chapter Three is the foundation for subsequent chapters, setting up a sample case carried throughout the book. This chapter details the techniques of projecting earnings growth, discounting to present value, and dealing with price inflation, worklife expectancy, personal consumption, and income taxes.

Chapters Four through Nine build upon the foundation of Chapter Three and the sample case. Chapter Four discusses the valuation of fringe benefits, including legally required employer contributions. Chapter Five describes the methodology for calculating the value of the loss of household services. Chapter Six discusses medical and institutional care estimates. Chapter Seven then takes the basic techniques and applies them to special cases, such as the death of minor children and other cases which require special considerations. Chapter Eight discusses partial disability, developing new technology for dealing with the many effects of significant injury upon earning capacity.

Chapter Nine describes the estimation of the loss of the pleasure of life, now frequently referred to as hedonic damages. It discusses the major issues in hedonic calculations and testimony from both defense and plaintiffs' points of view. Chapter Ten provides practical advice for pre-trial issues and considerations, including a detailed coverage of settlement analysis and structured settlements. Chapter Eleven discusses preparation for presenting proof of damages at trial, with extensive testimony illustrating the presentation for the sample case developed throughout the book.

Chapter Twelve discusses the law and public policy regarding economic damages. It includes comprehensive tables, with citations and explanations of legal parameters affecting the calculation of economic damages by jurisdiction. Finally,

Chapter Thirteen discusses economic loss calculations in commercial and antitrust litigation, pension cases, and discrimination and labor cases.

#### 1.3 Forensic Economics

The profession of forensic economics has developed into a mature specialty. In 1986, a group of experienced experts in the field formed The National Association of Forensic Economics (NAFE), which is an affiliate of the Allied Social Science Association and the American Economic Association. It now has several hundred members and publishes tri-annually a high quality, peer-reviewed periodical, the *Journal of Forensic Economics*. In 1988, a small group of about 15 members of NAFE formed the National Academy of Economic Arbitrators to aid in alternate dispute resolution.

Forensic economics has received substantial academic acceptance and credibility. Through NAFE, the Arbitration Academy and other organizations related to litigation support, including many bar associations, forensic economists provide seminars and workshops related to valuation of losses. Many of these programs allow attorneys to obtain CLE credit. Experts in the field routinely write for leading legal periodicals such as *The ABA Journal*, *Trial*, *For The Defense*, *The National Law Journal*, and state bar association journals, as well as for the *Journal of Forensic Economics*. The first text focusing exclusively on forensic economics, *Economic Damages*, is a predecessor volume to this book published in 1987. Several other texts followed quickly.<sup>2</sup> This book is the first to incorporate estimation techniques for hedonic damages, a topic of considerable impact and controversy in the area of forensic economics.

The specialty of forensic economics requires formal training in economic theory as well as practical training in techniques of estimating damages not now taught in formal economic theory programs. Just as physicists are not usually trained to build bridges, economists are not generally prepared to perform valuations, unless they have acquired the requisite "engineering" skills. Until recently, experts in this field have learned their trade from disparate published papers and from discussions with other experts whom they meet from time to time. That is now rapidly changing with the recent formation of NAFE and the Arbitration Academy.

Most experts participate in litigation support as an adjunct to a teaching career. The field is strengthened by its members' participation in, and dedication to, an academic base, which enhances the development of this entire field of endeavor. We foresee, in the future, the development of specialized training programs at the Master's and possibly Ph.D. levels in this new field of specialization.

Over the past twenty-five years, attorneys' reliance upon experts to estimate damages in a more scientific manner has grown at an extraordinary rate, although

<sup>&</sup>lt;sup>1</sup> Michael L. Brookshire, ECONOMIC DAMAGES: THE HANDBOOK FOR PLAINTIFF AND DEFENSE ATTORNEYS, (Cincinnati: Anderson Publishing Company, 1987). An early and important predecessor book, written by attorney Stuart M. Speiser, is RECOVERY FOR WRONGFUL DEATH, (New York: The Lawyer's Cooperative Publishing Company, 1970 and 1979).

<sup>&</sup>lt;sup>2</sup> For example: William Baker and Michael Seck, DETERMINING ECONOMIC LOSS IN INJURY AND DEATH CASES (Colorado Springs: Shepard's, 1987), and Gerald O. Martin, DETERMINING ECONOMIC DAMAGES, (Santa Ana, California: James, 1988).

attorneys still do often rely upon jurors' common sense to arrive at fair, "ball park" economic estimates. However, the rapid growth of forensic economic testimony has spurred the refinement and pooling of data sources and techniques. While a number of different professionals participate in this field, including accountants, actuaries and vocational experts who have received training in economic issues, the field is naturally dominated by economists with advanced education, usually at the doctorate level.

A recent survey of forensic economists and NAFE members provides much insight into current practitioners. On average, they receive approximately one third of their income from forensic work and have been in practice for an average of twelve years. The ratio of plaintiffs' to defense work is approximately 2:1. The majority of cases involve personal injury and wrongful death. Some 80 percent of the work originates in the home state of the economist. But a number of the more experienced and well-known experts derive the great majority of their work from across the nation, outside their home state. Forensic economists attribute their stock of knowledge more to their forensic experience than to formal academic training, suggesting that forensic skills acquired through experience are at least as important as academic content knowledge in economics *per se.*<sup>3</sup>

### 1.4 Emerging Trends

Several trends are evident in this field over recent years. First, as discussed earlier, both plaintiffs' and defense attorneys are increasingly relying upon economic experts to estimate the value of customary claims for losses such as wages. This can lead to a better informed and more fair jury decision, but it also increases litigation costs. Balancing these costs and the ability of jurors to absorb complex information is a topic of considerable debate.

A second recent and controversial trend is the increasing use of economists to estimate intangible losses, especially hedonic damages. The increase in sophistication in econometric measurement techniques is leading to higher quality estimates of losses that formerly could only be subjectively inferred. In some areas, such as the lost pleasure of life, the degree of quality of such measurements is still being debated by economists. But in measuring lost household services for example, standardized approaches are now not only well-accepted; they are virtually unchallenged.

Another trend is the wider application of econometric techniques to other types of cases beyond personal injury and commercial litigation. Economists are being used to assist in litigation involving divorce, false arrest, wrongful discharge, and other areas. As attorneys become increasingly familiar with economic estimation

<sup>&</sup>lt;sup>3</sup> Michael Brookshire, Frank Slesnick, and Robert Lessne, "The Emerging Industry of Forensic Economics: A Survey of NAFE Members," paper presented at the Allied Social Science Associations, Atlanta, Georgia, December 29, 1989. Also see Stephen T. Riley, "The Economic Consultant in Forensic Economics," JOURNAL OF FORENSIC ECONOMICS, August 1989, pp. 1-18.

<sup>&</sup>lt;sup>4</sup> Stan V. Smith, Ted R. Miller, W. Kip Viscusi and William Dickens presented a discussion of the measurement and application of hedonic damages at the American Economic Association Annual Meeting in Atlanta, Georgia, December 29, 1989. For a collection of discussion papers, see the Spring 1990 issue of the JOURNAL OF FORENSIC ECONOMICS.

processes, they will continue to expand the types of cases in which they seek litigation support.

A few specialized software programs with data bases, including the companion software to this book, have emerged in the past year. These programs should increase the speed of transmission of information and may lead to greater uniformity of estimation techniques and assumptions. These programs can assist attorneys in economic loss estimation prior to engaging an economist, for the purposes of settlement negotiations in the early stages of a case.

Importantly, there has been a many-fold increase in the use of structured settlements because of certain inherent advantages that are seen as offsetting prospective disadvantages. The increasing acceptance of structured settlements has led to an increase in overall pretrial settlements. While there are still many attorneys who view structured settlements with great skepticism, so long as the tax advantages are not withdrawn, it seems certain that their use will continue to increase.

Tort reform has expanded the need for experts in some cases, and has limited their need in other cases. Michigan, for example, sets forth its own peculiar discounting rule, 5% per year without compounding, which must be performed by the trier-of-fact or the judge, precluding the use of an expert for this purpose. Some jurisdictions require discounting techniques which virtually compel the use of an expert. Some states impose limits for certain types of damages that are so low that experts are not needed for a jury to conclude that the evident damages are at or above such "caps".

Hand in hand with these trends is the broader application of interdisciplinary approaches. As discussed in the relevant chapters in this book, these approaches involve integrating the results produced by experts in other disciplines: vocational and rehabilitation results to evaluate the impact of injury on future occupational prospects; physiatrist analyses in valuing life-care plans; psychological profiles to estimate the intangible damages in injury; statistical and survey techniques to develop sampling techniques for mass disaster litigation. The complexity of such approaches often requires more sophisticated jurors.

The overall growth in the field of forensic economics has resulted in the occasional use of non-economists, who do not have formal economic training, to provide expert witness testimony on valuation of losses. Mostly this is being done by actuaries, accountants, vocational rehabilitation specialists and insurance annuity salesmen who have testified in their own field. Frequently, such specialists seek to branch out of their primary field by relying upon books such as this as well as attendance at workshops and seminars on economic topics to develop economic skills.

In the main, these witnesses lack formal, accredited course work. The absence of a degree or academic training in economics does not disqualify a witness per se, nor does the presence of such attributes assure quality. But sometimes non-economists present widely varying and unorthodox methods in loss estimation that can confuse juries and judges alike. This has led to concern by attorneys as to proper qualification of such non-economists in providing economic estimates. Several certification processes to assure high quality testimony have been proposed, but as yet no well-recognized certification is at hand, and there is no major consensus

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in the profession that certification will assure quality. The National Academy of Economic Arbitrators seeks to promote quality control and devotes a major portion of its internal efforts to the issue of quality control, seeking to establish standards and consensus techniques. The existence of NAFE's Journal of Forensic Economics also serves to further this aim.

A further quality-related concern is that some economists and non-economists use different approaches for defense and plaintiff work. The use of these unethical "hired guns," whose techniques vary considerably with the client, has led to defense and plaintiffs' groups establishing expert witness data bases with transcripts and commentary to screen and impeach the practitioners who are not honest. Such data banks include information on experts in other fields, as well.

There has been an increase in interest in alternate dispute resolution in the 1980's, but it has not grown at the rate hoped for by its proponents, and thus the use of economists in such settings has been limited. The Arbitration Academy serves to facilitate the pretrial resolution of economic disputes. Whether the trend toward alternate dispute resolution can become significant, resulting in an increased use of economists in arbitration-style settings, remains to be seen.