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THE EXPERTS

Two plus two equals – what?

With the legal profession relying more and more on economic experts, checking out their credentials is crucial

By STAN V. SMITH

Economists are being used more and more by attorneys nationwide. This increased reliance upon economic experts in commercial damage cases, as well as in personal injury and wrongful death cases, calls for increased scrutiny by defense attorneys regarding the expert's credentials and increased vigilance of the potential biases in assumptions and methodology.

This article is the first of three written for the California Bar Journal. While this article focuses on credentials, the second and third parts will focus on biased methodology.

Defense attorneys can learn some simple rules to check an expert's methods and background. Plaintiff attorneys should also be aware of the degree of professionalism and neutrality exercised by their own expert, since unbiased estimates produced by properly trained economists will almost certainly shorten the dispute and reduce the expense, thereby increasing the likelihood of a settlement.

Deficient credentials

Lack of proper credentials can negatively impact the jury and reduce the weight given to expert economic witness testimony. So check out the expert's credentials carefully.

Many would-be economists have no serious economic training in a

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degree-oriented curriculum in economics or finance. You should challenge the admissibility of any economic testimony proposed by experts who are not economists.

At times, nurses, psychologists, physicians and life care planners purport to estimate the present value of future medical care cost assessments merely by multiplying the actual annual costs by the number of years of remaining life expectancy, circumventing the present value process completely. They have no more business in providing economic analysis than economists have in recommending medical treatment.

Mathematicians and CPAs also

frequently estimate the present value of a business or future lost income, but they are not trained in estimating future economic growth or the likely future rate of interest as a discount rate.

The 'so-called's'

Increasingly, vocational rehabilitation counselors are also purporting to provide economic forecasts. Some of these consultants are educated and trained solely as high school guidance counselors. Armed with the "Dictionary of Occupational Titles" and a calculator, these "experts" estimate, willy-nilly, economic losses in injury cases, indiscriminately plucking economic growth and interest rates from the Wall Street Journal and other sources.

Some in this group promote themselves as so-called "vocational/economic" experts, having taken a "post doctoral" course or two in economics — but not in a degree-oriented program. There is no accredited university curriculum leading to a degree in vocational/economics, nor is there any peer-reviewed journal associated with any university that is devoted to this mythical hybrid.

Not even Einstein

Even if Einstein took a summer course in economics, he wouldn't be an economist. With claims that plaintiffs can get the combined assessment of two professions for the cost of only one, these vocational/economic experts frequently have the credentials and training of neither. This is reflected in the poor quality of their reports, indiscriminately ballooning projected losses.

Some consultants have a master's degree in business administration which, per se, does not indicate serious training in economics. After hearing testimony on lost earnings from one West Coast "MBA/economist," one judge commented that he had never heard an expert so "utter-



Economist Stan Smith

ly and totally lacking in credibility." A number of MBA programs do offer rigorous training in economics and finance, some with Nobel Prize winners in economics on the faculty.

What does credentialize an economist?

There is no substitute for serious academic training, acquired through advanced courses in economics while registered in a degree orient-

ed program in economics or finance. Additional, practical experience working in the field of economics and finance in academia, or in industry, outside the area of expert witness testimony, should be viewed as a necessity.

Advantage for the defense

If the consultant does not have the proper education and training, barring his or her testimony should be relatively easy. If the judge does not exclude it, the cross-examination should concentrate on establishing for the jury that the proposed expert is not an economist.

If the expert is obviously unqualified, the lack of expertise may serve as an advantage to the defense.

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THE EXPERTS

Detecting bias in economics

Defense attorneys should learn some simple rules to check for bias in so-called economic experts' determinations

By STAN V. SMITH

This is the second of a three-part series on evaluation economic experts. Last month covered checking proper credentials and background of a purported economic expert witness. This month focuses on how defense attorneys can learn some simple rules to check for bias in the expert's methods.

Plaintiff's attorneys should also be

aware of the degree of professionalism and neutrality exercised by their own expert: Unbiased estimates produced by properly trained economists will almost certainly shorten the dispute and reduce the expense, thereby increasing the likelihood of a settlement.

Biased economic assessments

Economic experts at times use biased methods to portray favorable results in injury or death resulting in wage losses, breach of contract, libel, patent infringement cases or other cause of lost sales.

There are four main determinants of such lost earnings: the earnings base, the expected economic growth rate of earnings, the period of future



Economist Stan Smith

loss and the interest rate used to discount to present value.

Biases may appear modest in any one of the four assumptions but can lead to a significant bias in the overall result. Many of these biases are simple to detect, but unless flushed out and routed, these biases can waylay an entire jury.

Earnings base

The estimate of the earnings loss

expected in the first year after the plaintiff's injury is the platform upon which all else is built.

Suppose that an earnings history,

whether of a company, a product or an injured employee, has progressed upwards for a five-year period prior to the injury in the following manner: \$70,000, \$72,000, \$74,000, \$76,000 and \$78,000. To the untrained eye, a projection of \$80,000 the following year appears reasonable.

To properly forecast the future, the past earnings must first be recalculated and stated in the same year's (constant) dollars. If inflation for the five-year period in question had been 10, 8, 6, 4 and 2 percent respectively, the losses all recalculated and stated in the base year's (constant) dollars are \$93,501; \$87,440; \$83,210; \$80,620; and \$79,560.

This shows a distinct pattern of declining real wages, falling by an average of over 4.25 percent per year during the five-year period in question. We can estimate that the actual earnings may remain close to \$78,000, or even fall.

Other biases result from assuming that recessions will not impact earnings, that overtime hours worked in the past will persist long-term, or that economic expansions either in an

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industry or in the overall economy will not end. Sometimes an economist will use just one strong-year earnings to project the future.

Economic growth rates

Nothing can compound the bias of an inflated earnings base like an inflated growth rate. In the example above, a growth rate above zero does not appear justified. Over most post-World War II time periods, average wages have outpaced inflation, but the selection of the particular time period is important.

Real wage growth rates (actual wage growth over and above inflation) were quite high in the 1950s and 1960s, averaging approximately 3.5 percent and 2.75 percent respectively during those two decades. Including those two decades into an average for future growth can add significant bias.

Seven of the last 20 years, including 1987, 1989 and 1991, have shown negative real wage growth. A fair estimate is to use the last 20 years or so as a standard, which has been shown to be a good predictor of the future.

Real wage growth rates averaged approximately 1.75 percent since the end of the Korean War 40 years ago, but only .68 percent since 1972. Increasing an inflated \$80,000 earnings base by 1.75 percent for 30 years versus a fair \$78,000 base at .68 percent for 30 years produces a future value of \$135,000 versus \$96,000 — an overestimate of 60 percent. If a zero percent growth rate is justified, the bias grows to almost 75 percent.

Period of economic loss

Economists frequently overestimate the number of years over which they project an economic loss. Many

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economic assessments for commercial losses incorrectly assume that damages will continue indefinitely into the future, ignoring the fact that products have a finite market life and that company fortunes change for many reasons. Witness Sears, IBM and General Motors, to name a few.

The difference between a 10-year product life and a 40-year life of a \$1 million earning stream discounted at a 3 percent rate is enormous: \$8.5 million versus \$23 million, or almost 300 percent. Therefore, limiting the number of years of future sales to a credible future is very important.

Statistical average

To determine a statistically average work life for people in the labor force, economists use work life tables published by the U.S. government that show the total number of future years of participation in the labor force, adjusted for age, race, gender and education. These tables do not take into account unemployment, but, incredibly, most economists fail to reduce the work life for this factor, thereby producing a 5 percent to 7 percent upward bias for white males, and even more for other categories of people in the work force.

Further, economists typically "front load" the work life by assuming that future years of salary would have been earned through consecutive, full-time employment instead of spreading out over all future years in a manner equal to the statistical work life expectation of an average worker, again removing some 5 percent to 10 percent upward bias.

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THE EXPERTS

Striving for economic fairness

It's never a perfect world, but when it comes to determining economic assessments, all parties should be aware of bias factors

By STAN V. SMITH

This is the third part of a three-part series on evaluation economic experts, which concludes by showing how defense attorneys can learn some simple rules to check the expert's methods regarding discounting.

Plaintiff's attorneys should also be aware of the degree of professionalism and neutrality exercised by their own expert: Unbiased estimates produced by properly trained economists will almost certainly shorten the dis-



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There are four main determinants of such lost earnings: the earnings base, the expected economic growth rate of earnings and the period of future loss, all of which were covered in last month's article, and the interest rate used to discount to present value.

Biases may appear modest in any one of the four assumptions but can lead to a significant bias in the overall result. Many of these biases are simple to detect, but unless flushed out and routed, these biases can waylay an entire jury.

Discount to present value

Discounting to present value means taking into account the fact that the value today of a dollar to be received in the future is not the same as the value of having that dollar today. In commercial cases, one of the most common errors in discounting is to assume a discount rate based on safe U.S. Treasury instruments, failing to take into account the riskiness of the earnings from a patent, or from product sales.

Instead, these future earnings should be discounted by a risky discount rate, such as the return to small-capitalization stocks or even rates on junk bonds. These rates can be in the nature of 10 percent to even 15 percent above the rate of inflation.

U.S. Treasury bonds in 1994 are about 3 to 4 percent above inflation. The bias introduced by discounting future revenue streams at 3 percent versus 15 percent for any reasonable length of time — say 15 years — is enormous: \$80,000 per year discounted at 3 percent for 15 years is worth \$900,000, but when discounted at 15 percent, is worth only \$450,000, a bias

of 100 percent.

Another of the common plaintiff-biased approaches is to use the total-offset method which wrongly assumes that the discount rate is equal to the earnings growth rate and that they thus offset each other exactly. If this were true, the earnings loss could merely be multiplied by the number of years of future loss; no growth and reduction to present value would be needed. This is frequently a

standard assumption adopted by vocational counselors and other non-economic experts who cannot academically justify the selection of individualized growth and discount rates.

Most major texts in economic damages assessment recognize that this approach is patently plaintiff-biased. These rates are not equal and offset-

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ting and by assuming so, another 40 percent or more bias is introduced.

Since 1970, discount rates have exceeded growth rates by more than 1 percent. The present value of a year's loss 30 years from now, based on \$80,000 in earnings today, using the total offset, is still worth \$80,000 in present value terms.

But assuming the discount rate is greater than the earnings growth by at least 1 percent, the present value of that 30th year hence is worth less than \$60,000. The total offset produces a 35 percent upward bias just on this one assumption alone.

The total offset bias, taken in combination with the biases discussed above, can produce estimates that can easily double or triple a proper estimate of loss, all the while appearing within the range of credibility.

Conclusion

There are other possible sources of bias in economic loss projections, including the erroneous application of income tax effects, faulty calculation of fringe benefits, and the failure to subtract the personal consumption of

a catastrophically injured plaintiff from lost earnings, calculation of household services losses, and post-injury wage earnings as a collateral offset to pre-injury wages. You don't have to be an economist to pick up on basic methodological flaws and biases in a plaintiff's economic loss report.

The simple and obvious biases discussed here are easy to detect and should definitely not be tolerated by either side. More subtle biases in these areas probably require expert economic assessment with computer-generated verification of economic calculations.

Whether you retain an economist as a plaintiff's attorney, or whether you review the opposing side's economic report as a defense attorney, both sides should help insure adherence to certain standards by keeping in mind some simple principles. Laid head to toe, all the biased economists of the world may never reach a fair conclusion. Nevertheless, you should not be forced to accept anything less.

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