

Trial Talk:

The Myth of Flawed “Methodology”

By Sara A. Ford

Imagine the scenario. As an attorney preparing for trial, you are handed a note that your opposition will soon file a Daubert motion challenging the “methodology” your expert used to determine future lost earnings. The opposition challenges that the testimony does not meet the standard regarding general acceptance in the relevant community. Examination of both the standard and the “methodology,” however, reveals that the opposition misunderstands both in the attempt to exclude valuable testimony regarding future lost earnings. In many cases, the method is consistent and thus generally accepted across experts and only the opinion testimony differs.

GENERAL ACCEPTANCE

The Daubert test requires experts to apply generally accepted methodology. Present value in a litigation context specific to loss of earning capacity refers to the amount of money needed today which, when prudently invested, will replace a future stream of lost earnings. The present value sum plus accumulated interest should provide periodic cash payments to replace the expected lost earnings over the plaintiff’s worklife expectancy, with no shortfall or overage. The methodology used to calculate present value requires a formula readily available in elementary finance texts. The question to be answered, then, is why something so readily available and generally accepted would be challenged as otherwise.

The formula is as follows:

$$PV = \sum CF \left(\frac{1+G}{1+D} \right)^n$$

PV = Present Value

∑ = Summation of the cash flows

CF = Cash flows

G = Growth rate for compensation

D = Discount rate or interest rate

n = Years of compounding and discounting

A return to basic algebra reveals variables that need to be substituted to complete the formula. All present value calculations assessing loss of expected earnings utilize this methodology. Opinion testimony is offered on all of the above variables (CF, G, D, and n) to aid the trier of fact in arriving at an award for future lost earnings. Of these variables, the biggest decisions to be made often involve the appropriate rates of growth and discount.

Let’s use a case example to examine the impact of opinion testimony for all variables. For simplicity, we’ll use a wrongful death case. However, the applications carry over to personal injury and medical malpractice, to name a few.

CASE SPECIFICS

A male worker is wrongfully killed on his 50th birthday in an automobile accident. At the time of his death, he was earning \$50,000 per year at the same employer he had worked at for almost 20 years. Your expert must offer opinion testimony on both earnings and worklife expectancy before a calculation of present value occurs.

EARNING CAPACITY

In assessing an individual’s annual earning capacity, the choices are to use either actual earnings or a proxy. In most instances, a mature worker has actual earnings that are congruent with future lifetime earning capacity. Although opinion testimony is offered on this topic, for simplicity, the \$50,000 per year earning capacity is used here.

WORKLIFE EXPECTANCY

Experts addressing the issue of future worklife expectancy can quantify future worklife based on a reasonable assumption or on a statistical estimate. For instance, an individual’s historical work pattern may provide a reasonable assumption of future worklife. Assume the plaintiff stated prior to his death his intention to stay on the job until his seventieth birthday. An expert would be justified in assuming twenty year future worklife expectancy as at least one option for consideration by the trier of fact.

Statistical estimates of future worklife expectancy can provoke confusion regarding the difference between methodology and opinion testimony. There are five generally accepted statistical models or methods for assessing future worklife expectancy. They are: the Conventional or Traditional

method; the Increment Decrement Method; the Median Years to Retirement Method; the Econometric Method; and the Life Participation, and Employment (LPE) Method. Each method brings certain advantages and disadvantages. For example, the Increment Decrement Method considers whether a person is active or inactive in the labor market with the result that active persons have a longer worklife expectancy than nonactive persons. The LPE method focuses not only on labor force participation but also employment which results in a more conservative estimate of worklife expectancy as compared to other models.

These five models constitute the methodology for calculating future worklife expectancy. They provide the basic formula. On the other hand, the data that the expert applies or plugs into the formula represent what, in that expert's opinion, are the best available data to assess worklife expectancy in this case. The role of an expert in the courtroom is to aid the trier of fact in decision making. Demographic data that describes a particular population are helpful in the decision making process. The use and transmission of such information by an expert requires the expression of an opinion as to why the particular person being evaluated is most like the data being presented. Opinions of experts on both sides are subject to cross examination, and the trier of fact will weigh both based on their pros and cons. However, neither opinion should be excluded based on the assertion they are methodologically flawed since the methods for quantifying worklife used by both experts are generally accepted in their relevant scientific field.

For purposes of our case study, worklife expectancy opinion testimony is offered that his worklife expectancy is 20 years.

PRESENT VALUE

Your expert concludes that the plaintiff's loss of earning capacity as a result of death was \$50,000 per year over a twenty year worklife expectancy. This future sum must be restated to present value, based on the previously mentioned formula.

Present value, as previously mentioned, is the amount of money needed in a lump sum which, when invested, will replace a lost earnings stream so that with the final payment, the entire amount, principal and interest, is depleted. If there is something left after the last payment, the person has been overcompensated. If there is not enough to meet all payments, the individual is undercompensated.

In computing present value, an economist can make one of three assumptions:

- Growth rates will exceed interest rates over future worklife expectancy. Using this assumption, the economist would be said to apply a net negative discount. Based on the above example, the present value would be greater than \$1 million dollars.

- Interest rates will exceed growth rates over future worklife expectancy. Using this assumption, the economist would be said to apply a net discount. Based on the above example, the present value would be less than \$1 million dollars.
- Interest rates and growth rates will be equal over future worklife expectancy. Using this assumption, the economist would be said to apply a total offset. Based on the above example, the present value would be \$1 million dollars.

Your opponents cite the results of questionnaires sent to forensic economists who show a majority of respondents support the application of a net discount rate. Therefore, they conclude that your economist uses a methodology which is out of the mainstream of forensic economic thought and therefore fails to meet the Daubert standard that the methodology must be generally accepted in the relevant community.

Your opponents have confused methodology and the application of opinion testimony. Methodology in this case is application of the correct formula in computing present value. Opinion testimony in this case addresses a particular expert's opinion regarding the relationship or ratio between compensation rates and interest rates in the future. Even a superficial glance at the history of forensic economics will reveal that this issue is probably the most debated in the field. Clearly, the trier of fact can decide what weight to give your expert's testimony based on the controversy in the field, but there is no basis for the trial judge to exclude the testimony because the methodology meets Daubert's general acceptance standard.

There is a clear difference between the method an expert uses for calculating present value and the opinion regarding the interrelationship or ratio between compensation growth rates and interest rates over time. Likewise, there is a clear difference between the methodology or worklife expectancy model used and the opinion regarding the most reasonably probable data to apply to the model. In short, there is a clear difference in what constitutes a generally accepted methodology under Daubert and what constitutes opinion testimony in a particular case.



Sara A. Ford, MRC, CRC is a vocational economic analyst with Vocational Economics, Inc. based in the Louisville, Kentucky and Cincinnati, Ohio offices of the firm. She can be reached at 502-589-0995 or visit the Web site: www.vocecon.com