Economic damages: What the infant or child "could have been"

A discussion of methodology to forecast the lost future earning capacity of a disabled child, assessing "human capital" and prospective earning capacity

By Anthony Gamboa, Phillip Sidlow and Enrique Vega

What the infant or Child Could Have Been is the title of an article first published in Trial in 1986 and later published in The Best of Trial in 1990. (Gamboa, Anthony M., Jr., "What the Infant or Child Could Have Been." *The Best of Trial,* 1990:339-343. (American Trial Lawyers Association Press).) While the title is somewhat misleading in that no one can predict what an infant or child "could have been," it is possible to forecast the earning capacity of an infant or child without or with either a partial or total disability. The standard methodology described in the 1986 article is still valid and will be reintroduced below.

In addition, the data used to assess future loss of earning capacity has improved greatly since 1986. Both the earning data and the worklife expectancy data contained in this article are based on the most current data from the U.S. Department of Commerce, Bureau of the Census. This agency collects both earning data by gender and level of educational attainment, and disability versus non-disability status. These surveys also provide employment data that permits assessment of worklife expectancy specific to persons without and with a disability. (U. S. Census Bureau. "ACS Public Use Microdata Sample (PUMS)." *American FactFinder.* 2008. http://factfinder.census.gov/home/en/acs_pums_2006.html (accessed December 2008). U. S. Census Bureau. *Public Use Files from the March Current Population Survey (CPS).* 1998 forward. http://www.bls.census.gov/ferretftp.htm#cpsmarch (accessed December 2008).)

[This is the third in a series of five articles on the determination of damages from loss of future earning capacity in cases of partial disability. The focus of the first article was on *earning capacity*; the second addressed the effect of disability on earnings and worklife capacity; the fourth will focus on defining earning capacity loss for a partially disabled worker who has returned to work earning more money than before the injury, and the final article will focus on understanding the present value of future earnings.

Parts 1 and 2 can be found at www.plaintiffmagazine.com. If you would like a prepublication copy of any future article in this series, please contact editor@plaintiffmagazine.com.]

Vocational economic assessment

A vocational economic assessment (VEA) defines loss of earning capacity in cases involving infants, children, or adults. The VEA consists of five steps:

- Determine the pre-injury earning capacity
- Determine the pre-injury worklife expectancy
- Determine the post-injury earning capacity
- Determine the post-injury worklife expectancy

Determine the present value of the loss

In cases of partial disability, the pre-injury earning capacity figure is coupled with a pre-injury worklife expectancy specific to persons without a disability. Similarly, the post-injury earning capacity

figure is coupled with a post-injury work-life expectancy specific to persons with either a physical, cognitive or work disability. The final step is to determine the present value of the loss. We believe that a pure offset or net neutral discount is the fairest and most sensible approach toward determining present value.

Obviously, in a wrongful death or total disability case, the infant or child has a total loss of future earning capacity. In such cases, the third and fourth steps of the process described above are skipped.

Earning capacity defined

You may be wondering how a vocational expert can go about determining the pre- and post-injury earning capacity of an infant or child. After all, the individual does not have any earnings history. The answer hinges on the difference between the terms *loss of earning capacity* and *wage loss*. As discussed in a previous article, wage loss is *retrospective*, while earning capacity is *prospective*. Economists have a term that is synonymous with earning capacity, "human capital," which they define as the acquisition of knowledge, skill and understanding as a result of education, training and experience that allows an individual to sell his or her services in the marketplace in exchange for money. The precursors for human capital – and thus for having an earning capacity – are general learning ability and physical ability. If an infant suffers a diminution of his or her human capital, it is likely and probable that a loss of future cash flows will result.

To measure the potential human capital a particular infant or child may possess, the expert relies on a *proxy* derived from statistical data. There is a strong correlation between earnings and level of educational attainment, and level of potential educational attainment is a function of *general learning ability.*

Thus, in all cases involving injured infants or children, the first objective of the vocational expert is to define the probable pre-injury level of general learning ability. If a residual capacity to perform work and earn money exists, the post-injury level of intellectual functioning can be examined in combination with existing exertional or non-exertional physical limitations to determine a proxy for post-injury earning capacity.

General learning ability

The approach to measuring loss of future earning capacity in cases involving infants or children requires a measurement of the individual's level of general learning ability. If the child is capable of being tested or is in school, academic records typically provide a reasonable basis from which to assess earning capacity based on general learning ability. However, if the injured individual is under the age of four, there are no reliable testing measures to predict general learning ability, unless he or she is severely developmentally delayed. Thus, in cases where the individual is age four or younger, one of two alternative approaches must be taken.

One approach is to have the parents tested by a qualified professional, who can state, within a reasonable degree of certainty, the level of general learning ability of each parent. In the case of a decedent, a professional will typically administer a Wechsler Adult Intelligence Scale to each parent, and, through the use of a probability formula to arrive at a predicted I.Q. score for the decedent. (Willerman, Lee. *The Psychology of Individual and Group Differences.* Oxford, England: W. H. Freeman. (1979).) In the case of a brain-damaged infant or child, the parents will be tested, and, typically, a neuropsychologist with training and experience in assessing gross and subtle indicators of neuropsychological impairment will test the child to determine pre- and post-injury level of intellectual functioning.

Once a reasonable rendering of an individual's general learning ability has been captured, the vocational expert can opine on the individual's capacity to complete formal education. The greater the degree of formal education the individual has the capacity to complete, the greater the earning potential. While earnings have a strong positive correlation with level of educational attainment, intellectual capability alone, regardless of educational attainment, also correlates strongly with earnings. (Herrnstein, Richard J., and Charles Murray. *The Bell Curve: Intelligence and Class Structure in American Life.* New York: The Free Press, 1994.)

Another approach in assessing an infant's level of probable intellectual functioning is to examine the level of educational attainment completed by each parent. Parents who are college graduates will typically function in an average to above-average range in terms of intellectual functioning. Parents who have completed less than high school or less than a ninth-grade education will typically function in the low average to significantly below average range of intellectual functioning. Obviously, there are exceptions. When there is doubt, the parents should be tested in an attempt to gather more data about the infant or child's potential capacity to complete formal education.

Earnings

If the case involves a physical disability, the pre-injury and post-injury level of intellectual functioning is constant. The expert defines the plaintiff's capacity to complete formal education, which correlates highly with the level of education attainment. Although it cannot be known what actual level of educational attainment the infant or child will achieve in the future, the vocational expert can opine on what is probable by establishing the individual's capacity to achieve a particular level of educational attainment based on the level of general learning ability. The focus is on the capacity to complete formal education as opposed to the actual level of education that will be completed.

The expert has the ability to define average earnings by gender, level of

Table 1 – Earning Capacity for Males

Education Level	Disability Status	Pre-Injury	Post-Injury
Professional degree	No disability	$181,489	
Professional degree	Physical disability		$126,081

Table 1

Table 2 – Worklife Expectancy for Males

Education Level	Disability Status	Pre-Injury	Post-Injury
Professional degree	No disability	40.4 years	
Professional degree	Physical disability		32.0 years

Table 2

educational attainment, and disability versus non-disability status. For example, according to the American Community Survey (2005-07), males with a professional degree who are without disability earn at an average rate of $181,489 per year. The same survey indicates that males with a professional degree and a *physical* disability earn at an average rate of $126,081 per year. (A professional degree is defined as a doctorate-level degree for professionals who practice in their field, i.e. medical doctors, dentists, attorneys and veterinarians, but not researchers or professors.)

These statistics are worth contemplating for a moment, because some may find them counter-intuitive. For the most part, occupations that require a professional degree are not physically demanding. Most such positions would be categorized as sedentary or light in the Dictionary of Occupational Titles put out by the United States Bureau of Labor Statistics. And yet, data from the American Community Survey indicates that males with a professional degree and a physical disability earn to the tune of over $55,000 per year less than their non-disabled counterparts. As we discussed in a previous article, we believe that the primary reason for this disparity is that persons who have a disability are likely to be less productive than their non-disabled cohort group.

Oftentimes, a defense expert will be enlisted to refute this data. The defense expert will say something like, "Look at Stephen Hawking. Look at Helen Keller." However, these examples are *outliers*. In every sample there are going to be exceptions to the rule. No one can predict whether an individual plaintiff is going to be that one-in-a-million example who defies the statistics. But another possibility is that an individual plaintiff could be considerably worse off than the average. By definition, in working with statistical averages we are looking at what a typical individual like the plaintiff is likely to earn, and when predicting the future, the statistical average is often what is most probable for the individual plaintiff.

Worklife expectancy

In addition to the earning differential that exists as a function of disability, a worklife expectancy differential exists as well. Based on data from the American Community Survey, males with a professional degree and no disability have a worklife expectancy of 40.4 years, while males with a professional degree and a physical disability have a worklife expectancy of 32 years.

Calculation example

Table 1 (on previous page) summarizes earning capacity values for a hypothetical case of a three-year old male who suffers a brachial plexus injury. In this example, the father is a physician and the mother is a nutritionist. Based on the educational attainment of the parents, the expert has determined that the child has the capacity to complete a professional degree.

Table 2 (on previous page) summarizes worklife expectancy for the same hypothetical case, starting at age 25:In this example, the projected loss would come to approximately *$3.3 million*, using a net neutral discount in calculating present value. It should be noted that fringe benefits are not considered in this example.

Conclusion

A vocational expert can assess loss of capacity to perform work and earn money in a case of infant or child death or partial disability. Whether the partial disability is physical, cognitive, or both, the expert can assess pre- and post-injury capacity to perform work and power to earn money through use

of government data collected by the U.S. Department of Commerce and the U.S. Department of Labor. Because government data regarding earnings and employment levels or worklife expectancy for persons without and with a disability now exists, the ability of a vocational expert to project loss of earning capacity for infants and children is superior today than it was in 1986.

Anthony Gamboa, Jr., Ph.D., MBA, is the founder and CEO of Vocational Economics, Inc. *He functions as a vocational economic analyst in the Fort Lauderdale, FL, office of the firm.*

Phillip Sidlow, M.S., and Enrique Vega, M.S. are vocational economic experts with Vocational Economics, Inc. *based in Los Angeles, CA.* www.vocecon.com