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## Calculating With LPE

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*Special to the Legal*

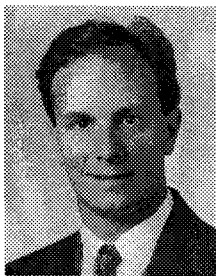
Following the accidental death of John Black at age 30, an insurance company's expert calculated that Black's total future earnings and fringe benefits, minus personal maintenance, for the next 35 years (until retirement age 65), would be \$1 million.

While the expert's math was accurate, there was a serious flaw in the calculation. He assumed Black would have been able to work and remain employed for 35 continuous years. He did not take into account the probability that Black would not, in fact, achieve those results.

The expert's assumption was contrary to common sense. More importantly, it also failed to factor in U.S. Government statistics that track workforce employment probabilities.

Three separate government statistics, collectively known as LPE, are reasonable tools to measure the risk that a person will not achieve earnings in a given year. These statistics inject a much-needed level of business and lifestyle reality into determining a future earnings estimate.

Many financial experts who project future earnings choose not to use LPE statistics in calculating future lost earnings. As a result,



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Age	LPE Ratio	Earnings using LPE ratio	Earnings not using LPE ratio	Difference
34	0.8786	\$26,359	\$30,000	\$3,641
35	0.8732	\$26,196	\$30,000	\$3,804
36	0.8714	\$26,141	\$30,000	\$3,859
63	0.6302	\$18,905	\$30,000	\$11,085
64	0.6179	\$18,538	\$30,000	\$11,462
65	0.1324	\$3,973	\$30,000	\$26,027
x	Totals	\$706,262	\$960,000	\$253,738

their damage estimates are inflated.

### WHAT IS LPE?

Life, labor force participation and employment (LPE) statistics combine data from the U.S. Department of Labor and Commerce to assess the probabilities that an individual will survive the year (L), participate in the work force (P), and be employed (E).

Michael L. Brookshire, an author of "Economical/Hedonic Damages, The Practice Book for Plaintiff and Defense Attorneys," is an acknowledged pioneer of the LPE concept. This concept is sometimes confused with the term "work life expectancy," which refers to the number of years an individual is expected to be in the work force based on similar LPE criteria.

Worklife expectancy refers to an "early" retirement age, which is a cumulative probability of attaining earnings over an individual's life expectancy. LPE statistics, however, are broken down by age, race, sex, marital status, disability status and education and change annually.

An LPE factor is determined each year representing the probability of achieving earnings and is multiplied by individual's estimated gross earnings. One must be alive to participate in the economy and be participating in the work force to have a chance of being employed. Therefore, LPE is the joint probability that the average person would be alive, trying to find a job and be employed.

More specifically, LPE represents three main factors that directly impact the probabilities of achieving earnings:

- The life rate (L) statistic is based on mortality tables and assesses the probability that the individual will survive the year. Understandably, the probability of not surviving the year increases over time, which must be factored when estimating future earnings.

- The labor force participation (P) statistic is based on the probability that a person will participate in the work force in a given year. Even if the individual survived the year, he would not have received earnings if he had become disabled, injured, retired or, for some other reason, not participated in the workforce.

It is reasonable to conclude an individual's decision (sometimes it's not his decision) to participate in the workforce changes over time, especially when approaching retirement years.

● The chance of unemployment (E) assesses the general risk of unemployment in a given year. More recent unemployment statistics are broken down based on age, race, sex and educational attainment.

### **AN EXAMPLE**

The following example illustrates the difference between using and not using LPE statistics in estimating a loss of future earnings:

A 34-year-old, white, married male with a high school diploma, earning \$30,000 per year, claims that his earnings dropped due to an injury. The above chart is an economic model of his estimated future earnings with retirement at age 65. As the example shows, there is a \$253,738 difference between the two methods. The LPE statistic decreases every year, reflecting the actual data of persons within that statistical cohort. It's obvious that the probabilities of being alive, working and employed are far different at age 34 (an 88 percent chance) than at age 65 (a 13 percent chance). Yet many

experts ignore these statistics and frequently project future earnings to ages 70 and 75, without considering the probability that an individual might not achieve them.

The downside of using LPE is that the statistics are general to a certain statistical cohort: they assume all members in that group will conform to the statistic (i.e., all white males, all those with high school degrees, etc). Presumably, you can have police officers and accountants (members of dangerous and not dangerous professions), smokers and non-smokers (serious health risks) all contained in one group if they share the same general statistical cohort.

In reality, all individuals have their "own" LPEs, which can be influenced by remaining healthy, working in a non-dangerous job, choosing a stable industry or profession, etc. However, one look around at the court dockets filled with personal injury cases will confirm the reasonableness of LPE's application to future earnings calculations.

All types of people in different professions can become injured and make claims. These people become the statistics used in LPE. Future uninterrupted earnings were not a

"given" for them. It is unreasonable to assume an individual will earn a certain annual amount with absolutely no chance of not attaining it.

These claimants are proof that people do have accidents, leave the work force and sometimes don't achieve expected earnings. This basic logic is largely ignored by many experts when they calculate future earnings because they don't use LPE and assume a consistent, uninterrupted earnings stream into the future.

### **CONCLUSION**

The majority of economists who work on personal injury cases do not use LPE in determining future earnings. Although there are some downsides to using LPE, they are far outweighed by the positive reasons for using it.

LPE is a statistically supported and commonsense way to assess the risks of an individual not achieving future earnings in a given year. This concept is clearly supported, in part, by the sheer volume of personal injury and worker's compensation cases in the judicial system today. Accordingly, the consistent application of LPE statistics to a future earnings model will result in a loss estimate that is more realistic, reasonable and supportable.