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Junking the Junk Science in Catastrophic Injury Cases: Debunking the VEI Worklife Tables and Claims of Reduced Future Worklife

I. Introduction: Difference between Disability and Physical Impairment

A. What is a disability?

1. Formal definition

42 USC 12102 defines a disability as with respect to an individual— (A) a physical or mental impairment that substantially limits one or more major life activities of such individual…

B. What is a physical impairment?

1. Formal definition

Physical impairment is defined as "any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive, digestive, genito-urinary; hemic and lymphatic, skin; and endocrine." *Cato v. First Fed. Cmty. Bank*, 2009 U.S. Dist. LEXIS 103469 (E.D. Tex. Nov. 5, 2009)

II. The VEI New Worklife Expectancy Tables

The worklife tables purport to show, using statistical averages, how much work loss an injury will cause over the injured person's lifetime. These Tables are used by plaintiffs to establish damages, especially plaintiffs who have been injured and expect to return to work, or who have missed no work at all at the time of trial. The Tables have been criticized as unreliable. (see, Skoog, Gary R., and David Toppino, "Disability and the New Worklife Expectancy Tables From Vocational Econometrics, 1998: A Critical Analysis," Journal of Forensic Economics, 1999 12 (3), 239-254).

The Tables use the American Community Survey ("ACS"), which like the Community Population Survey ("CPS"), is a cross-sectional survey, which provide snapshots of the population at a single time. The population is not tracked over time and the studies miss other important datapoints. The ACS does not capture disabled persons who lost time from work but subsequently returned to the workforce, or those who missed no work but may or may not miss work in the future. Neither the CPS data nor the ACS data capture any changes in condition.

The Tables assume any disability plaintiff suffers is the direct result of the tort at issue and that the disability is permanent. The Tables fail to account for any disability that might have been present prior to the tort at issue.

The ACS, like the CPS, relies on self-reporting. Respondents themselves report whether or not they are "disabled." Self-reporting is a notoriously unreliable method of gathering data on disability. (See Bound, John, "Self Reported Versus Objective Measures of Health and Retirement," Journal of Human Resources 26(1) pp. 106-138)

The ACS considers only broad categories of physical and mental problems, not specific, sharply defined conditions. "Work" in the ACS is vaguely defined. Specific job requirements are not considered.

Estimates of lost worklife are subjectively manipulated to fit the plaintiff's "degree of disability. As many critics have noted, this allows for any interpretation of lost worklife the user desires.

a. Data sources:

1. Longitudinal Studies

A longitudinal study involves repeated observations of the same variables over short or long periods of time. Longitudinal studies are used to study trends across the life span. Unlike cross-sectional studies, in which different individuals with the same characteristics are compared, longitudinal studies track the same people, and so the differences observed in those people are less likely to be the result of meaningless variable differences. Longitudinal studies make observing changes more accurate and can predict certain outcomes and can identify changes due to altered variables- thus causation. It is impossible to conclude causation by using one-off cross-sectional studies.

Longitudinal studies can look back in time, thus using existing data such as medical records or claims database) or prospective (requiring the collection of new data). (Shadish, William R.; Cook, Thomas D.; Campbell, Donald T. (2002). Experimental and Quasi-Experimental Designs for Generalized Causal Inference (2nd ed.). Boston: Houghton Mifflin Company. p. 267. ISBN 0-395-61556-9.)

2. Cross-sectional Studies.

A cross-sectional study analyzes data from a population, or a representative subset, at a specific point in time—that is, cross-sectional data. Cross-sectional studies aim to provide data on the entire population under study, versus studies of individuals with a specific characteristic. Cross-sectional studies are descriptive. They may be used to describe some feature of the population, such as prevalence of an illness.

Cross-sectional studies involve data collected at a defined time. They are often used to assess the prevalence of acute or chronic conditions but cannot be used to answer questions about the causes and effects or the results of intervention. Cross-sectional data cannot be used to infer causality because temporality is not known. Cross-sectional studies are subject to relational bias.

In cross-sectional studies, routine does not normally describe which variable is the cause and which the effect. Cross-sectional studies using data originally collected for other purposes are often unable to include data on confounding factors.

The inadequacy of cross-sectional data to estimate dynamic behavior patterns has been recognized since 1973 in the scholarly literature of econometrics, the application of statistical techniques to economic data:

"In a widely cited study of labor supply, Ben-Porath observes that at a certain point in time, in a cohort of women, 50 percent may appear to be working. It is ambiguous whether this finding implies that, in this cohort, one-half of the women on average will be working or that the same one-half will be

working in every period. These have very different implications for policy and for the interpretation of any statistical results. Cross-sectional data alone will not shed any light on the question". *Green, W.H. Econometric Analysis, Fifth Edition (Englewood Cliffs, N.J.: Prentice Hall, 2008), p. 284*

B. Use in Economic Analysis

1. Economics

The cross-sectional study has the advantage that it can investigate the effects of various demographic factors (age, for example) on individual differences; but it has the disadvantage that it cannot find the effect of differences, because in the cross-sectional study at a particular point in time all observed units are faced with the same current variable.

In order to use cross-sectional data like the ACS data to validly estimate lifetime patterns of the impact of disability, the survey must take account of past behavior of the individuals in the sample that allow for eliminating errors introduced by using cross-sectional data.

i. American Community Survey data

The American Community Survey (ACS) is an ongoing survey by the US Bureau of the Census that provides information on a yearly basis about U.S. citizens. Information from the survey generates data that help determine how $675 billion in federal and state funds are distributed each year. The ACS asks about jobs and occupations, educational attainment, veterans, whether people own or rent their homes, and other topics.

The ACS data are inadequate to estimate life-cycle measures of unemployment and earnings due to their cross-sectional nature which omits consideration of individual behavioral effects and the additional possibility of omitted variables related to earnings, unemployment, self-reported disability, and life-cycle changes.

ii. Current Population Survey

The Current Population Survey (CPS) is a monthly survey of about 60,000 U.S. households conducted by the United States Census Bureau for the Bureau of Labor Statistics (BLS). The BLS uses the data to publish reports early each month called the Employment Situation.

B. How are the tables employed and relied upon by Plaintiffs.

Plaintiff's experts use worklife tables developed from flawed cross-sectional studies to determine reduced post-injury work life. Due to limitations in the CPS and ACS data, this method has not been generally accepted within the economic community. To use the Tables an expert will have an interview with plaintiff and then create a table of data assessing the work life probability for a "Statistical cohort of similar persons" without considering individual factors.

III. Defending Against Claims Relying Upon the New Worklife Expectancy Tables

The object is to engage in a detailed analysis of the variables applicable to the specific plaintiff and his or her situation. The best place to begin to assault these assertions is in discovery where the defense must establish hard datapoints for - 1. Plaintiff's current and past employment status; 2. Plaintiff's

current and past medical records; 3. Plaintiff's education and aptitudes; 4. Plaintiff's prognosis and re-trainability. Responding to a VEI claim of economic loss is often times a collaborative effort utilizing the services of several damages experts. To fully respond to such claims you will want to develop a damages team including an Independent Medical Examination, Vocational Assessment and Economist. The Independent Medical Examination will set forth a summary of injuries, causation, and permanency of the injuries. A vocational assessment which includes testing of the specific plaintiff will directly undermine the questionable conclusions VEI arrives at from general data regarding the plaintiff's alleged reduction in worklife at the same or different vocation. The economic analysis will incorporate the findings of the Independent Medical Examination and Vocational assessment to arrive at any present value total economic loss. Additionally, an economist that is experienced in the underlying ACS data will provide relevant commentary regarding the deficiencies in the ACS data being applied to establish a "disability worklife." In sum, the defense response to a VEI claim of reduced worklife is specific versus general. The defense position must be one grounded in a fact specific driven analysis of the plaintiff in this matter. VEI's claim of reduced worklife expectancy is the reliance on questionable data that is overly broad and not specific to the plaintiff in a particular matter.

IV. What to do-

1. Motions in Limine, Motions to Preclude (Daubert/Frye)

PWC Consulting's 2018 study of *Daubert* challenges shows overall that experts, when challenged are excluded 48% of the time and included 52% of the time. The highest exclusion rate was in personal injury actions at 80%. Defendant side experts were excluded more often (54%) than plaintiff's side (45%). Economists faced the highest number of challenges at 45% of all expert challenges.

Legal Standard

Rule 702 of the Federal Rules of Evidence (FRE) provides that "[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

(a) The expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

(b) The testimony is based on sufficient facts or data;

(c) The testimony is the product of reliable principles and methods; and

(d) The expert has reliably applied the principles and methods to the facts of the case.

Determining whether to admit expert testimony under the rule requires the trial court to fulfill a "gatekeeping role." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993). When exercising this role, the judge must determine "whether the expert has sufficient qualifications to testify." *Humphrey v. Diamant Boart, Inc.*, 556 F. Supp. 2d 167, 174 (EDNY 2008). An expert meets the qualification requirement when he or she "possesses sufficient knowledge gained from practical experience," even though that person "may lack academic qualifications in the particular field of expertise." *Fox v. Dannenberg*, 906 F.2d 1253, 1256 (8th Cir. 1990).

The major governing standards for courts are *Frye v. United States*, 293 F. 1013 (DC Cir. 1923), and *Daubert*. The federal court exclusively follows *Daubert* while state courts are divided between the two. Each state has taken on its own interpretation of these cases.

The Frye Standard: General Acceptance in the Scientific Community

Frye v. *United States*, 293 F. 1013 (DC Cir. 1923) states that an expert opinion is admissible if the scientific technique on which the opinion is based is "generally accepted" as reliable in the relevant scientific community.

The *Daubert* Standard: Enumerated Factors to Consider

In *Daubert* the Supreme Court effectively overruled *Frye* in federal courts, holding that the case law was inconsistent with Rule 702. In *Daubert,* the Court held that the twin standards of Rule 702 – relevance and reliability – are incompatible with the stricter "general acceptance" test.

The trial judge is gatekeeper and must consider a non-exhaustive list of factors such as: 1) whether the technique or theory can tested and assessed for reliability, 2) whether the technique or theory has been subject to peer review and publication, 3) the known or potential rate of error of the technique or theory, 4) the existence and maintenance of standards and controls, and 5) whether the technique or theory has been generally accepted in the scientific community.

In *Kumho Tire Co. v. Carmichael,* 526 US 137 (1999) the *Daubert* standard applied to expert testimony that is not scientific in nature. The Court found no distinction between experts who rely on scientific principles and those who rely on "skill- or experienced-based observation." Rule 702 makes no distinction between scientific knowledge and technical or other specialized knowledge.

Daubert applies to all federal courts. A number of states continue to use the *Frye* general acceptance test, while the states that have adopted *Daubert* (approximately 27) have not all uniformly applied the standard. Only nine states have adopted *Daubert* in its entirety, while other states have their own completely different standard of admissibility.

2. When Daubert/Fyre Challenges Fail

Should the Court deny your motion in limine on precluding of VEI Worklife Tables and presentation of alleged economic loss the defense must take the affirmative role and present their damages team at the time of trial. Often times defense counsel is reluctant to present affirmative damages testimony out of perceived concern of "setting a floor." Do not view a defense damages presentation as setting a floor, rather it is providing a critical safety net from an unopposed expert that can likely impress a jury on Voir Dire. Once the VEI Tables get in front of the jury mere cross-examination will be insufficient to debunk their analysis and conclusions of economic loss. You will want the opportunity to give your defense damages team's narrative. By presenting affirmative evidence in a methodical manner, the independent medical exam's conclusions, the vocational conclusions and the economic conclusions you will provide the jury with a thorough fact specific basis why the plaintiff has sustained no to significantly less economic damages then what has been postulated by the VEI analysis. Another benefit of presenting your damages team at trial is the ability to compare and to contrast plaintiff's generic, non-specific analysis to the detailed and specific analysis of the plaintiff.