

Legal Decisions Regarding Work-Life Expectancy in a Personal Injury Analysis: Do Economists and Vocational Experts Have Anything to Offer?

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This paper considers the roles of vocational and economic experts in sixteen legal decisions regarding two types of situations: One situation involves claims that a plaintiff would have worked longer than as shown in standard Markov process statistical work-life expectancy tables; The other situation involves uses and challenges to work-life expectancy tables developed by Gamboa and Gibson, most recently in 2015, using the LPE methodology, particularly with respect to claims that a plaintiff's work-life expectancy has been shortened by the plaintiff's injury.

This paper reviews sixteen legal decisions that have involved either vocational experts or economic experts in situations where pre-injury or post-injury work-life expectancy has been an issue. The cases were selected because the authors were aware of those decisions and not on the basis of an extensive effort to find all cases involving pre-injury and post-injury work-life expectancy issues. For each decision, there are two entries: An initial section that provides a short summary of the decisions and a second entry that interprets the decisions in a broader context. Decisions are listed in both sections alphabetically, not chronologically, and not on the basis of legal importance, and are numbered for ease in referencing those decisions. With the exception of *Phillips v. Industrial Machine* (1999), all decisions were reached in 2008 or later.

The sixteen decisions can be divided into two categories. The first category (#'s 1, 3, 5, 7, 8, 9, and 14) consists of claims that a given plaintiff would have worked longer on a pre-injury basis than as indicated in work-life expectancy tables using a Markov process increment-decrement method originally developed by the Bureau of Labor Statistics and updated and expanded upon by James E. Ciecka, Gary R. Skoog, Kurt V. Krueger, and others. The "increment-decrement" Markov Process methodology used to compile that literature is conventionally assumed to have started with Smith (1982; 1986). See particularly, Skoog, Ciecka, and Krueger (2011) for a background discussion of this literature, and for the tables most often relied upon to measure work-life expectancy by economic experts. The primary training of all experts in that literature are economists.

The second category (#'s 2, 4, 6, 10, 11, 12, 13, 15, and 16) consists of challenges to or uses of work-life expectancy tables provided by Anthony M. Gamboa and David S. Gibson. The authors of the tables have primary training as vocational experts. To the knowledge of the authors of this paper, the only work-life expectancy tables that have ever been developed for disabled persons have been the tables developed by Anthony Gamboa and David Gibson, who have been preparing disability work-life expectancy tables in some form since 1987, with revisions in 1991, 1995, 1998, 2002, 2006, 2010 and 2015. (Gibson was not added as a listed co-author until the 2006 edition.) Literature that Gamboa and

Gibson regard as supporting their methods is discussed at length in each of the editions of their tables. In contrast, the Gamboa-Gibson tables have never been accepted by the community of forensic economists as reliable or useful. The lack of general acceptance of the Gamboa-Gibson tables by economic experts is indicated in Brookshire, Luthy, and Slesnick (2009) and Slesnick, Luthy and Brookshire (2013). In the 2012 survey of members of the National Association of Forensic Economics (NAFE), 76.76 percent of those who were familiar with those tables indicated that the disability work-life expectancy tables were not reliable, while 23.24 percent considered the tables reliable.

Our focus is on what judges have had to say about the role of economists and/or vocational experts with regards to estimating the pre-injury or post-injury work-life expectancy of injured workers who retain some amount of residual earning capacity. In addition, judges have commented on what other evidence may be required to support a forecast of work-life besides testimony by economists and vocational experts. This may include the role of other experts such as physicians, as well as the plaintiffs themselves concerning their own intended plans for future employment. It is hoped that this discussion will provide both economic and vocational experts with a better understanding of the legal parameters that are current today with regard to work-life expectancy and the roles that vocational experts and economic experts assume when they participate in the litigation process.

A final section will draw together some of the common issues found in these cases.

Short Summaries of Decisions

(1) *Barto v. Shore Constr., L.L.C.*, 801 F.3d 465 (5th Cir. 2015). At issue in this appeal by the defense of the district court's decision was the work-life expectancy of the plaintiff. The 5th Circuit said:

A damages award for future lost wages should generally be based upon a seaman's work-life expectancy, meaning "the average number of years that a person of a certain age will both live *and* work." *Madore v. Ingram Tank Ships, Inc.*, 732 F.2d 475, 478 (5th Cir. 1984). "Such an average is not conclusive. It may be shown by evidence that a particular person, by virtue of his health or occupation or other factors, is likely to live *and* work a longer, or shorter, period than the average." *Id.* "Absent such evidence, however, computations should be based on the statistical average." *Id.* □

[T]he district court noted that expert economists provided wage loss estimates for work-life expectancies of age 55 to "age 67, which is the Social Security requirement age for Mr. Barto." The district court then said, "What I'm going to do is award something in the middle. I think that's a reasonable estimation of his loss of future earning capacity." Accordingly, the district court awarded Barto \$300,000 for future lost wages. McDermott argues that the district court erred by relying upon an above-average estimate for work-life expectancy.

The 5th Circuit held that the trial court was in error using an above average for work-life expectancy without supporting evidence and reduced the award for lost future earnings to an assumed work-life expectancy to age 55.8.

(2) *D'Ambrosia v. Lang*, 985 So. 2d 800 (LA App. 2008). The Court of Appeals affirmed the court decision to allow the testimony of vocational expert Thomas Meunier that the plaintiff had a severe work disability that "would result in either a shortened work life or a reduction in earned wages, on the basis of which the jury awarded \$100,000 for loss of future earning capacity. The Louisiana Court of Appeals described the role of vocational expert Thomas Meunier in this case as follows:

A vocational rehabilitation counselor considers age, academic achievement, and skill level involved in the training, ultimate career goal, and physical ability to do that type of job. With someone without an established earning capacity, a vocational counselor typically considers tables used by governmental entities as well as by his profession. Typically, he uses tables that outline earnings and average earnings for different occupations.

He also looks at the physical demands of an occupation—in this case an orthopedic surgeon. The United States Department of Labor publishes *The Dictionary of Occupational Titles* that de-

scribes the physical, intellectual, and aptitude demands of a career. The Department of Labor also publishes an *Occupational Outlook Handbook* which describes the demand for certain occupations, the working conditions, and earnings by region.

Mr. Meunier uses work-life expectancy tables for people with severe disabilities, and non-severe disabilities compared to people of the same age and level of education. Through this means, he determines a difference in work life. This can be done for a child, a teenager, or someone who is still in school and who has not actually earned money. It is accepted in his profession to be able to project those types of earnings based on intelligence, physical ability, demand for the occupations, and similar factors. He reviews information from the treating physicians, such as functional impairments.

(3) *Deperrodil v. Bozovic Marine, Inc.*, 842 F.3d 352 (5th Cir. 2016). This was an appeal by a defendant of a district court decision under the Longshore and Harbor Workers' Compensation Act (LHWCA) that had projected the work-life of the decedent to have been to age 75. In affirming the district court's determination of age 75 retirement, the court said:

Courts use work-life expectancy data to calculate future earnings, unless there is evidence supporting a variation from the average. *E.g.*, *Madore v. Ingram Tank Ships, Inc.*, 732 F.2d 475, 478 (5th Cir. 1984). "Such an average is not conclusive. It may be shown by evidence that a particular person, by virtue of his health or occupation or other factors, is likely to live and work a longer, or shorter, period than the average." *Id.* (emphasis omitted).

According to BLS data, dePerrodil had a work-life expectancy of 72 years. At trial, however, dePerrodil presented a vocational-rehabilitation counselor as an expert witness. She interviewed dePerrodil on two occasions and reviewed his medical history. She concluded it was "very reasonable" dePerrodil would work until age 75; this conclusion was based on: dePerrodil's testimony that he and his wife had an agreement he would work until age 75; his work history; his earnings records; and his healthcare providers' recommendations for future treatment. DePerrodil's expert economist then provided the court with two calculations, one using BLS' age-72 work-life expectancy; the other, the vocational counselor's age-75 expectancy. With both calculations before it, the court awarded future lost wages based on an age-75 retirement.

(4) *Dorman v. Anne Arundel Medical Center*, 2018 U.S. Dist. LEXIS 75560 (D. MD 2018). This case involved losses resulting from a birth injury that would permanently affect the child's mobility. The plaintiff proffered testimony from both Dr. Tanya Rutherford Owen, a vocational expert and Dr. Patricia Pacey, an economic expert. Federal District Judge Marvin J. Garbis denied a defense motion to exclude the testimony of Dr. Owen, but limited the testimony of economist Dr. Patricia Pacey to providing a projection of the value of lifetime earnings of healthy male college graduates and precluded her testimony regarding reductions in those earnings based upon assumed disabilities of the plaintiff. Judge Garbis explained his reasoning as follows:

It appears clear any possible economic evaluation methodology would reasonably find that a mobility disability, such as the one that B.M. has, will cause some future income loss. The question is how that future income loss can be reliably measured. The Court is troubled by the specificity of Dr. Pacey's opinion that B.M. would suffer a "16.9%" loss of income over his lifetime because Dr. Pacey's methodology does not appear to be based on any equally specific analysis. Dr. Pacey used Census Bureau data (and other sets of similar data) to compare the lifetime income of (1) a healthy, able-bodied male with a college degree with (2) a "moderately disabled" male with a college degree. Because disabilities come in all types, this broad comparison of "healthy" to "moderately disabled" is unreliable and speculative. As an example, Dr. Pacey does not account for differences between mobility disabilities and cognitive disabilities, or between mobility disabilities and other physical disabilities such as eye or hearing disabilities. The nature of those disabilities would naturally change the nature of any occupation that those individuals choose. Dr. Pacey also does not adjust the data for any other factors (beyond assuming that B.M. will get a bachelor's degree), including, for example, the degree of disability, the age of disability onset, or the nature of the relevant occupation.

Owen's proffered testimony was based on a Vocational Worksheet that explained four factors she used to arrive at her opinion that the plaintiff child would "sustain some loss of earning capacity," but no details were provided in the decision. Judge Garbis' cited two previous decisions that are discussed in this paper: *Kempf Contracting and Design, Inc. v. Holland Tucker* (2008) and *Phillips v. Industrial Machine* (1999). Both of those decisions involved rejection of testimony based on the Gamboa-Gibson disability worklife expectancy tables. However, Judge Garbis did not explicitly indicate whether Dr. Pacey had assumed a reduction in work-life expectancy for the child and, if so, how much of a reduction, in arriving at her overall conclusion that the child's earning capacity had been reduced by 16.9%.

(5) *Faulkenberry v. Yost*, 2018 U.S. Dist. LEXIS 1248, 2018 WL 297615 (W.D. TX 2018). Regarding work-life expectancy, Federal Judge Sam Sparks said:

At trial, Faulkenberry produced no evidence as to work-life expectancy, except to testify he hoped to work until age 65. Trial Tr. of Sept. 18, 2017 at 114. He did not offer expert testimony as to his work-life expectancy, nor did he provide testimony or evidence as to the average statistical work-life expectancy of someone in his line of work. See Trial Tr. of Sept. 18, 2017 at 43 (testifying work at the chop shop required substantial "physical strength" because inventory pieces weighed 25 to 50 pounds on average); cf. *Barto v. Shore Constr., LLC*, 801 F.3d 465, 475 (5th Cir. 2015) (holding testimony plaintiff wants to work until a particular age is insufficient to rebut presumption the average work-life expectancy should apply). Finally, Faulkenberry presented no evidence of applicable discount rates to allow the jury to properly discount the award to present value.

(6) *Figurski v. Trinity Health-Michigan*, 2015 Mich. App. LEXIS 452 (MI 2015). This decision reversed the trial court decision on the ground that the trial court should have permitted plaintiff's causation experts to testify, but agreed with the trial court's decision to allow testimony of Dr. Anthony M. Gamboa regarding plaintiff's future wage loss. Gamboa's five-step method was described in the decision in some detail and included his opinion that the plaintiff's child had no post-injury earning capacity. Dr. Gamboa projected 36.6 years of work-life expectancy with a pre-injury high school degree and 37.7 years with an Associate's Degree. Gamboa's "total offset" method was based on a 5.2% wage growth rate for 1951-2011, with an earning capacity loss in the range between \$2.2 million and \$2.9 million, depending on educational achievement. The decision also describes Gamboa's growth rates of 3.2% from ages six to 12 and 5.2% thereafter for home health care workers in plaintiff's life care plan. The court said of Gamboa:

Gamboa was qualified as a vocational rehabilitation expert. He held a number of degrees, including a Master's in Vocational Counseling and Ph.D. in an area that included vocational counseling and education. Gamboa also received an MBA and testified that he liked to focus on statistics. Gamboa had been with Vocational Economics in one capacity or another since 1977. His work there necessarily included offering expert opinions on the cost of future care and compensation loss. He was a prolific writer in the area of earning capacity loss and work-life expectancy.

(7) *Hartness v. Union Pacific Railroad Company*, 2008 U.S. Dist. LEXIS 106319 (E.D. AR 2008). In this memorandum, Judge Garrett Eisele tentatively excluded the testimony of Bob White, a vocational expert, that the plaintiff would have retired at age 62. Judge Eisele said:

It appears, based on the record, that Dr. Schoedinger has provided no opinions regarding Plaintiff's current physical limitations, no disability rating, and has offered no medical testimony to support the conclusion that Plaintiff must retire at age 62. Mr. White indicates in his Affidavit that "Mr. Hartness was advised in 2006 by his treating doctor, George Schoedinger, M.D., not to attempt to return to his railroad occupation." [Footnote removed] As Union Pacific points out, however, this portion of Dr. Schoedinger's deposition testimony simply states that Plaintiff "may be forced to discontinue railroad work." But, this "may be" opinion is arguably undercut by Dr. Schoedinger's subsequent decision to return Plaintiff to work without limitation. There is nothing in the record before the Court to indicate that Dr. Schoedinger believes that Plaintiff's medical condition will render him unable to perform his current job duties beyond the age of 62.

In the absence of some medically supportable basis for his prediction that Plaintiff will not be able to perform any work beyond the age of 62, the Court can not allow Mr. White to testify that in his opinion Plaintiff's best case scenario is retirement at age 62. Plaintiff has failed to establish that Mr. White, a vocational rehabilitation expert, is qualified to make this prediction.

Judge Eisele indicated that he was willing to hold a pre-trial hearing to consider whether White's testimony would ultimately be allowed.

(8) *Huckaba v. CSX Transportation, Inc.*, 2014 U.S. Dist. LEXIS 192918 (S.D. IL). Defense moved in this FELA action to exclude the testimony of economic expert Dr. Karen Tabak on three grounds. First, the defense argued that Huckaba had in fact retired at age 60 and not at age 63 or 66 as projected by Tabak. This was rejected on the ground that Huckaba might not have retired if he had not been injured. Second, the defense argued that Tabak had failed to subtract railroad retirement taxes from the earnings of Huckaba. Judge Michael J. Reagan indicated that CSX was correct in pointing out that those taxes should have been deducted and that Tabak was erroneous for not deducting those taxes, but that this was a proper subject of cross examination and did not render Tabak's testimony "wholly irrelevant or unreliable." Third, the defense argued that Tabak should be excluded based upon her assumption that Huckaba was permanently, totally unemployable because that opinion was unsupported by medical or vocational rehabilitation testimony and lies outside Tabak's expertise. The judge indicated that Tabak did not appear to intend to offer testimony to that effect that Huckaba was unemployable and did not exclude her testimony on that basis either.

(9) *In the Matter of Parker Drilling Offshore USA*, 2018 U.S. Dist. LEXIS 32741 (W.D. LA 2018). This was a ruling in a personal injury case under the Jones Act, 49 U.S.C. § 30104, and general maritime law of the United States, 28 U.S.C. § 1333. The economic expert for the plaintiff was Dr. Charles O. Bettinger, III. The economic expert for the defendant was Dr. Kenneth J. Boudreaux. The damages portion of the decision related to issues of work-life expectancy and the use of a worker's earnings history versus amount being earned at the time of injury by the worker. On both issues, federal judge Dee D. Drell held that Boudreaux was correct under 5th Circuit standards. Regarding work-life expectancy, Boudreaux had relied upon work-life expectancy tables produced by Ciecka, Donley and Goldman, *Journal of Legal Economics*, Vols. 9, No. 3 (Winter 1999-2000) and 10, No. 3 (Winter 2000-2001), while Bettinger had assumed that the plaintiff (Wilbert Mays) would have retired at "a normal male retirement age of 65." Regarding work-life expectancy, Judge Drell said:

The court adopts Dr. Boudreaux's work life average and not a "normal male retirement age." Dr. Bettinger's assumption clearly does not take into account Mays' overall physical condition nor does it consider interim labor separations which are evidenced by Mays' own work history. These considerations are consistently noted as reasons why the Fifth Circuit in *Culver II* and the courts applying the *Culver II* framework adopt a work life average rather than a retirement age as the proper standard.

The court adopted the Boudreaux earnings history approach rather than the Bettinger current-amount-being-earned approach, saying:

The record evidence shows Mays' work history was inconsistent and that he did not remain in employment within the oil and gas industry for any significant period of time. Thus, we determine a figure commensurate solely with his income in 2013 to be significantly inflated. We also find that Dr. Boudreaux's use of an average of Mays' earnings over an eight year period is fair and equitable as it even takes into consideration years where his pay was much higher. Additionally, by taking an average of eight years, versus the usual five, less weight is afforded to year five (2009) when Mays did not earn any income.

In a footnote, a number of decisions were cited indicating that use of averages based upon a worker's earnings history was to be preferred.

(10) *Kempf Contracting and Design, Inc., v. Holland-Tucker*, 892 N.E.2d 672 (IN App. 2008). Kempf argued that the trial court abused its discretion in allowing the testimony of John Tierney of Vocational Economics based on "sound scientific principle" under a *Daubert* standard. According to the

Court, Tierney had based his opinion that Tucker suffered a permanent disability under the definition used by the American Community Survey (ACS). The Court said:

Tierney [] used databases compiled by the government to determine the earning capacity of people with a physical disability who have attained a bachelor's degree, as Tucker had, and to determine the work life expectancy of people in the same category. He did not look at data regarding people with a physical disability in Tucker's specific profession of engineering, as that information was not available in the databases he utilized. Tr. at 43. The databases Tierney used in reaching his opinion were also not specifically geared to Tucker's specific disability as defined by the ACS []

Tucker failed to present any evidence to establish the scientific reliability of Tierney's methodology in determining Tucker's reduction in earning capacity and work life expectancy. As the proponent of the expert testimony, Tucker had the burden of establishing the reliability of the scientific tests upon which the expert's testimony is based. Tucker presented no evidence, however, that this process had been tested or subject to peer review, or whether there was a known or potential error rate. Further, no testimony was given that standards existed to control how the process was utilized by people in the vocational economic field. At the motion to exclude hearing, Tierney testified that database and methodology he used to determine Tucker's future earning capacity were well known in the field of vocational disability and that private parties have written on the effect that disability has on earnings and employment. Tr. at 37, 40. However, Tierney did not name any peer-reviewed publication or provide any citation to authority that supported his bald assertion that his methodology to determine Tucker's lost future earnings was generally accepted in the field of vocational economics. Additionally, even though Tierney may have testified previously regarding this methodology, such fact does not establish that his methodology was scientifically reliable.

The court, however, added the footnote: "We do not hold that the methodology utilized by Mr. Tierney is not scientifically reliable. Rather, we hold that Tucker failed to produce sufficient evidence to establish such reliability."

(11) *Knitowski v. Gundy*, 2011 N.J. Super. Unpub. LEXIS 2797 (N.J. Super. 2011). In an unpublished decision, the New Jersey Superior Court upheld the trial court's admission of testimony from Dr. Anthony Gamboa as a "vocational economist." Gamboa testified based on his study of data from the American Community Survey (ACS) that workers with a cognitive disability earn an average of 6.1% less and work an average of 7.1 fewer years than their "non-disabled counterparts." Trial court Judge Buchsbaum had concluded that "Dr. Gamboa's testimony concerning plaintiff's reduced worklife expectancy was based upon an accepted methodology and reliable data" and that "any possible shortcomings in Dr. Gamboa's opinion went to the weight of his opinion, not to its admissibility." The Superior Court said: "Our courts adopt a liberal approach when assessing an expert witness's qualifications" and concluded that "Judge Buchsbaum did not abuse his discretion when he concluded that Dr. Gamboa was qualified by experience, education and training to offer expert testimony in the field of vocational economic analysis."

(12) *Lackey v. Robert Bosch Tool Corporation*, 2017 U.S. Dist. LEXIS 4956; 102 Fed. R. Evid. Serv. (Callaghan) 396 (E.D. KY 2017). District Court Judge Amul Thapar excluded the testimony of Lawrence Lynch based upon Lynch's use of the Gamboa-Gibson tables, saying:

The Gamboa-Gibson tables are apparently highly controversial. See, e.g., Thomas R. Ireland, *Why the Gamboa-Gibson Disability Work-Life Expectancy Tables Are Without Merit*, 15 J. Legal Econ. 105 (Apr. 2009). And even setting aside broader methodological concerns, it is not hard to see why Bosch Tool criticizes their application to this case: Lynch grouped Lackey with a wide range of "disabled" persons, with little to no regard for the type or permanency of the injury, work history, or the ability and intention to return to work. Then, Lynch compounded the problem by not considering Lackey's own ability to return to work as a carpenter or to pursue a different field after he completes his college degree. Instead, Lynch ended up with a work-life projection that might, by his own concession, have worked equally well for Lackey and someone with a broken

arm that will heal. . . . So it would seem there is good reason to doubt the reliability of the tables and Lynch's calculations. [Footnote 9 and reference removed.]

(13) *Noel v. Inland Dredging Company, LLC*, 2018 U.S. Dist. LEXIS 67768 (E.D. LA 2018). This memorandum granted a defense motion to exclude testimony based upon the Gamboa Gibson Worklife Tables by both vocational expert Glen Hebert and economic expert G. Randolph Rice. Federal Judge Sarah S. Vance said:

Hebert's report quotes the Gamboa Gibson treatise for the proposition that "[d]isability significantly reduces both earnings and worklife expectancy," but Hebert does not explain how plaintiff's particular disability is likely to affect his individual work-life expectancy. Individuals can be classified as disabled for many different reasons, with widely varying possibilities of returning to work. Even assuming that the Gamboa Gibson tables accurately reflect the average work-life expectancy of disabled versus non-disabled populations, plaintiff fails to show that these tables can reliably predict the future work-life expectancy of a specific person. *See Lackey v. Robert Bosch Tool Corp.*, No. 16-29, 2017 WL 129891, at *10 (E.D. Ky. 2017) (excluding expert testimony based on the Gamboa Gibson tables because the expert "grouped [plaintiff] with a wide range of 'disabled' persons, with little to no regard for the type or permanency of the injury, work history, or the ability and intention to return to work"). Accordingly, the Court finds that Hebert's opinion as to plaintiff's reduced work-life expectancy is unreliable, and thus inadmissible.

Judge Vance indicated that Rice could also not testify based on the Gamboa Gibson Worklife Tables, but that:

In the alternative, Dr. Rice calculates plaintiff's future earnings if he continues to work for another 20.87 years. This reflects the future work-life expectancy of an individual of plaintiff's gender, age, and education, according to a Bureau of Labor Statistics study. The parties have not suggested that the Bureau of Labor Statistics data is unreliable. Dr. Rice may rely on the Bureau of Labor Statistics work-life expectancy data in his testimony as to plaintiff's future economic loss.

(14) *Parekh v. Argonautica Shipping Invs., B.V.*, 2018 U.S. Dist. LEXIS 341700 (E.D. LA 2018). This was a maritime wrongful death action. The surviving widow tried to argue that her husband had a work-life expectancy to age 75. Federal Judge Susie Morgan said:

The Court finds, even weighing all evidence in favor of Plaintiff, that she has not created a genuine dispute of material fact regarding Captain Parekh's capability of working longer than his statistical work-life average. Under *Madore*, Plaintiff must provide "evidence that a particular person, by virtue of his health or occupation or other factors, is likely to live and work a longer, or shorter, period than the average." None of Plaintiff's evidence does so. First, Plaintiff's self-serving affidavit is not persuasive summary judgment evidence. The Fifth Circuit rejects attempts to defeat summary judgment by the submission of self-serving affidavits and testimony. [] Captain Parekh was employed in a highly dangerous, physically demanding field. As the Fifth Circuit stated, an employee in such a field "might have become disabled before [his intended retirement] as a result of illness or some other misadventure []. [Plaintiff] presented no evidence that such events were particularly unlikely given his health or other factors. In this case, Plaintiff has likewise failed to provide evidence that "such events were particularly unlikely" to occur with respect to Captain Parekh. [Footnotes removed.] []

Without expert testimony, medical records, or other valid summary judgment evidence to describe the state of Captain Parekh's health and the nature of his duties, Plaintiff's submissions do not amount to more than the assertion that Captain Parekh "had no plans to retire and intended to work for the rest of his life." This does not "fully develop[] the evidentiary basis for [a] departure" from the work-life expectancy average. Although under *Deperrodil* the Fifth Circuit does not mandate that Plaintiff hire a vocational rehabilitation expert in order to meet the *Madore* standard, Plaintiff must provide evidence that explains why Captain Parekh was "likely

to live and work [] longer" than the statistical average. The Court finds Plaintiff has failed to create a genuine dispute of material fact with regard to Captain Parekh's likelihood of working longer than the average work-life expectancy. Defendant is entitled to a ruling that Plaintiff may only recover loss of support damages consistent with average work-life expectancy. [Footnotes removed.]

(15) *Phillips v. Industrial Machine*, 257 Neb. 256; 597 N.W.2d 377 (Neb. 1999). The Nebraska Supreme Court held that the trial court judge was correct in ordering a new trial based on the vocational rehabilitation expert testimony of Alfred J. Marchisio, Jr. Marchisio had relied on the New Worklife Expectancy tables produced by Vocational Econometrics to project a shortened worklife expectancy for the plaintiff. The trial court had "concluded that given the broad definition of a disabled person as used in the New Worklife Expectancy Tables and Marchisio's vague conclusion that Phillips would work 'less' as a result of her disability, the testimony 'was so generic and lacking in certainty that it failed to make the existence of a disputed fact more or less probable, and was of no value to the jury.'" The Nebraska Supreme Court went on to say: "The court noted that the definition of 'disabled' as used in the New Worklife Expectancy Tables made no differentiation between people with minor disabilities and those with serious disabilities or between people with disabilities that affect their work and those with disabilities which have no effect on their work. The court explained that under these circumstances, Marchisio 'could present virtually the same opinion testimony he presented in this case in any courtroom, with any injured plaintiff, without modifying the opinion at all.' . . . We agree."

(16) *Toor v. Homegoods, Inc.*, 2018 U.S. Dist. LEXIS 24901 (D. NJ). The testimony of Dr. Anthony M. Gamboa was excluded in response to a defense motion in limine. The defense economic expert was Chad Staller, District Judge Anne E. Thompson said:

The Court first turns to fit: whether Dr. Gamboa's report and proffered testimony is a reasonable measure of post-injury work life expectancy, as tailored to Mr. Toor. The disability questions in the ACS are generalized, ambiguous, yes or no questions. Question 17 asks, "Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions?" (ACS at 9, Ex. E, ECF No. 20-5.) Subparts of question 17 and question 18 then ask whether this "physical, mental, or emotional condition" limits the individual's everyday activity. (*Id.*) These questions do not parse between types of impairments or causes of disability, and there is no objective measure for individuals answering the survey to determine what qualifies as a condition or limitation. (*See* Defs.' Mot. at 16.)

The employment questions are similarly imprecise. Question 33 asks whether someone was temporarily absent from a job, with the option "Yes, on vacation, temporary illness, maternity leave, other family/personal reasons, bad weather, etc.," or "No." (ACS at 10.) Other questions ask how long the person has worked in recent time periods. (*Id.*) As Defendants note, responses to these questions do not "go to the issue of future employment," and "the answer does not give any information about the reason for why someone is not working." (Defs.' Mot. at 11.) Moreover, longitudinal data would better assist the jury in determining Mr. Toor's future work life expectancy. (*See id.* at 15 ("Dr. Gamboa makes predictions about how long Mr. Toor will work based upon . . . one year's worth of data . . . Logically, the ACS data cannot predict future work life data, as the ACS does not follow individuals who respond to a given year's survey across additional years.").)

Dr. Gamboa's proposed testimony based on the ACS is not a reasonable measure of damages for Mr. Toor and his injury. Mr. Toor continues to work as a software engineer, has lost no time at his job, and has received a promotion. Generalized community data is insufficiently tailored to these facts as presented, and therefore, will not assist the jury in the determination of a damages award. Having found this report is not an appropriate fit for this case due to its irrelevance and lack of value to the jury, the Court need not address whether Dr. Gamboa is qualified or whether Dr. Gamboa's ACS methodology is reliable. (*See* Defs.' Mot. at 19-22; *see also* Vocational Economic Assessment for Ali Toor at 14, 16 (report discussing how it meets the evidentiary *Daubert* and *Khumo* requirements).) On balance, Dr. Gamboa's testimony should not be admissible at the trial of this case.

Further Evaluation of the Decisions

(1) *Barto v. Shore Construction* (2015). This decision of the 5th Circuit appears to treat an average worklife expectancy as a kind of null hypothesis. The 5th Circuit indicated that with sufficient evidence, including as examples the plaintiff's pre-injury health and occupation, a plaintiff could try to establish a greater than average work-life expectancy that was specific to the plaintiff. However, testimony by a plaintiff that the plaintiff, on a pre-injury basis, wished to work to a certain age (or date) is not, by itself, sufficient to justify making a claim based on more than an average worklife expectancy derived from statistical averages. The plaintiff's economist (unnamed in the decision) offered calculations based upon ages 55.2 and age 67, but argued for age 67 without apparently providing a basis for making that argument. The 5th Circuit pointed out that Barto himself did not testify to any particular retirement intentions. In criticizing the trial court, the 5th Circuit said that even if Barto had testified that he wanted to work to age 67, "*wanting* to work until age 67 is not the only or even the most significant factor in determining whether someone actually *will* work until age 67."

The Court indicated that the plaintiff's economist arrived at a work-life expectancy equivalent of age 58.2 years by using "a table of work-life expectancies prepared by other economists," but did not indicate which table had been used. The defense economist (also unnamed) "provided a different range of estimates based on a retirement age of 58.2, which its expert selected based on a work-life expectancy table from the U.S. Department of Labor's Bureau of Labor Statistics." One reason for this difference may have been that the plaintiff's economist used more recent work-life expectancy tables such as Skoog, Ciecka and Krueger (2011) that have been published in forensic economics journals and that the defense economist used Bulletin 2254 (1986) of the Bureau of Labor Statistics. To the knowledge of the current authors, no work-life expectancy tables based upon seamen exist.

Using ages of retirement equivalency is misleading in the sense that a work-life expectancy is a number of years that an individual at a given age, of a given sex, with a given education, would be expected to be active in the labor market. It does not provide an estimate of an exact age at which an individual would be expected to retire. However, work-life expectancies are often summarized in legal decisions as was done in the *Barto* decision. This difference has been addressed in the forensic economics literature by Skoog and Ciecka (2006). With any positive net discount rate, use of retirement equivalencies will slightly increase damages.

The 5th Circuit also "credited" a vocational expert (also unnamed and probably retained by the defense), who testified that Barto would have been employable as an unarmed security guard after his injury to age 55.8, which the defense economist testified would have reduced \$300,000 in lost earnings to \$209,533. There is no indication that the vocational expert testified to any reduction in the post-injury work-life expectancy of the plaintiff.

(2) *D'Ambrosia v. Lang* (2008). Judge Fredericka Homberg Wicker wrote this decision for the Louisiana Court of Appeals. It is interesting that the Court of Appeals stated that the VE could not testify about economic loss because Thomas Meunier, the vocational expert, admitted that he was incapable of calculating the present value of lost future earnings. Meunier testified that he would normally have been working with an economic expert who would have made that calculation. Judge Wicker provided a clear statement about the Court's view of the functions of a vocational expert. The judge had the impression, probably unchallenged by the defense, that it was reasonable for the vocational expert to rely upon "work-life expectancy tables for persons with severe disabilities, and non-severe disabilities compared to people of the same age and level of education." Since no other tables than the Gamboa-Gibson work-life expectancy tables purported to provide work-life expectancy based up "severe" and "non-severe" disabilities, Meunier must have been using those tables. If the defense had directly challenged the reliability of those tables, the Court would presumably have had to comment one way or the other regarding the reliability of those tables.

Meunier testified that persons with the disability level of the plaintiff earned 15 percent less than similarly non-disabled persons and also had 5.8 years less of work-life expectancy, but was not permitted to testify to any specific overall loss of earning capacity because of Meunier's inability to calculate present value. Thus, ultimately, Meunier was only able to testify that the plaintiff's earning ca-

capacity as an orthopedic surgeon had been reduced by some amount, on the basis of which the jury awarded \$100,000 for earnings loss.

(3) *Deperrodil v. Bozovic Marine, Inc.* (2016). As in the *Barto* decision in 2015, Judge Rhessa Hawkins Barksdale, speaking for the 5th Circuit, used language referring to work-life expectancy that appears to reflect a misunderstanding of the meaning of that term. She said, "According to BLS data, dePerrodil had a work-life expectancy of 72 years." This is clearly incorrect in the sense that dePerrodil, as a 70 year old oilfield consultant, could not have worked another 72 years to age 142, but it is also incorrect in that work-life expectancy does not refer to any assumed date at which a worker would retire. Work-life expectancy refers to the number of years a person would be expected to be active in the labor market before either death or final retirement from the labor market based upon statistical averages. It does not refer to a specific number of years until retirement. It appears from this decision that the unnamed economic expert was probably relying on Bulletin 2254 (1986) to determine that an average 70 year-old worker with the same education as dePerrodil had a two year work-life expectancy. If two years were worked consecutively, that would imply a retirement-equivalency of age 72. However, dePerrodil could have retired for four years and then returned to work for two years and finally retired at age 76 and still have had two years of work-life expectancy at age 72.

The unnamed vocational expert testified that working to age 75 was "a 'very reasonable' goal, but goals do not automatically translate into actual outcomes." Judge Hawkins, citing the 5th Circuit 1984 decision in *Madore* (also discussed in this paper), found use of statistical tables for work-life expectancy more reasonable than what might or might not have been the goal of the plaintiff.

(4) *Dorman v. Anne Arundel Medical Center* (2018). This decision by Judge Marvin J. Grabis held that the data used by the economic expert, Dr. Patricia Pacey, to arrive at a 16.9% reduction in the plaintiff's future earnings were not sufficiently specific to the circumstances of the plaintiff, an injured infant, to be reliable. The child had mobility limitations that Dr. Owens, the vocational expert, thought would generally limit the child's future earnings, but not by any specific amount. Judge Grabis also pointed out that the limitation would affect possible future occupations of the child in different ways. As a result, he permitted Dr. Pacey to testify about the value of the child's pre-injury expected earnings as a college graduate, but not to testify to an any specific reduction in that amount. Based on the decision, Dr. Pacey had projected that the child would have a 16.9% reduction in lifetime earnings. However, the decision did not indicate how much of the 16.9% reduction resulted from lower expected earnings as a disabled child and how much of the reduction resulted from an assumed reduction in work-life expectancy. It is also not clear whether Dr. Pacey relied upon the Gamboa-Gibson tables or prepared her own calculations based upon "Census Bureau data (and other sets of similar data." Judge Grabis referred in his decision to Dr. Pacey's comparison of a "healthy" male to a "moderately disabled" male with a college degree. This does not sound like a description that would have come from the Gamboa-Gibson tables that would ordinarily have used terms like "not disabled" and "not severely disabled" to describe categories used in their tables.

(5) *Faukenberry v. Yost* (2018). In this case, there is no indication that the plaintiff hired either an economist or a vocational expert. Faukenberry claimed that he intended to work until age 65. Judge Sam Sparks pointedly noted that Faukenberry presented no expert testimony regarding his work-life expectancy or the work-life expectancy of someone in Faukenberry's line of work. He also noted that the lack of an economic expert to discount earnings losses to present value precluded the jury from being able properly calculate present value. All of these flaws resulted in the judge reducing the jury's award of \$250,000 for future lost earning capacity to \$50,000. However, it is not clear what assumptions about work-life expectancy were reflected in the judge's decision to make this reduction. It appears likely that Faukenberry's failure to retain vocational and/or economic experts substantially reduced amounts that Faukenberry was able to recover for his injury.

(6) *Figurski v. Trinity Health-Michigan* (2015). This was a medical malpractice case involving a birth defect that left no post-injury earning capacity, so that the issue of reduced work-life expectancy caused by the injury was not an issue in this case. The defense challenge was focused on Dr. Anthony Gamboa's credentials as an economic expert, which the court rejected. Gamboa used the

Gamboa-Gibson work-life expectancy tables to measure pre-injury work-life expectancy. Differences between work-life expectancy for minor child who was non-disabled in the Gamboa Gibson tables and in conventional Markov process tables are not significantly different so that there would be no significant incentive for a defendant to challenge use of the Gamboa-Gibson source for work-life expectancy. The decision indicates that Dr. Gamboa projected 36.6 years of work-life expectancy with a high school degree and 37.7 years with an Associate Degree. At age 18, Skoog, Ciecka and Krueger (2011) show an "active" male high school graduate as having 38.7 years of work-life expectancy. At age 20, Skoog, Ciecka and Krueger show an "active" male with an Associate Degree as having 39.27 years of work-life expectancy. If those figures were averaged with figures for "inactive" males at the same ages with the same degrees, the results would be close to the figures to which Gamboa testified.

The *Figursky* decision strongly supported both Anthony Gamboa and the use of the Gamboa-Gibson tables to measure reduced work-life expectancy of the plaintiff. The court also accepted Gamboa's designation of "vocational economic analysis" as a legitimate field even though that term is not recognized by either economic experts or most vocational experts.

(7) *Hartness v. Union Pacific Railroad* (2008). This decision was based upon the lack of foundation for the opinion of vocational expert Bob White that Hartness would be forced to retire at age 62 because of his injury. Dr. George Schoedinger, Hartness's orthopedic surgeon medical expert had released Hartness to return to work without conditions, but had indicated in his own deposition that Hartness "may be forced to discontinue railroad work," presumably at some point in the future. Judge Garret Eisele determined that on the record presented there was no basis for vocational expert Bob White to reach that conclusion, but left open the opportunity for the plaintiff to make that case in hearing prior to trial. Judge Eisele instructed Robert Marsh, the economic expert, to revise his calculations "accordingly." In a footnote to this instruction, Judge Eisele said that: "The Court cannot determine, on this record, what adjustments, if any, will be necessary. It appears that Mr. Marsh also made future loss calculations based on retirement ages of 67 and 70." This decision stresses the importance of all experts being regarded as credible. Judge Eisele (and the defense) did not challenge the credibility of the medical expert or the economic expert, but the strength of the case presented by Hartness was only as strong as its weakest link. Without more support from the medical expert, White's testimony could not stand on its own. This was not a determination that the vocational expert was unqualified to render any judgement, but a decision that all judgments must have a reliable foundation.

(8) *Huckaba v. CSX Transportation* (2014). This case apparently did not involve vocational experts on either side of the case. Dr. Karen Tabak had been asked to base her calculations on the assumption that Huckaba was "permanently, totally unemployable" after his injury. Judge Michael Reagan held that this did not preclude Tabak's testimony because she did not intend to offer any testimony that Huckaba was unemployable. Judge Reagan, however, agreed with the defense that Dr. Tabak was not qualified to provide testimony about Huckaba's employability. Judge Reagan also rejected a challenge to Tabak's testimony based on the fact that Huckaba had, in fact, retired at age 62. The defense appears not to have made a case that the assumption of retirement at age 62 was not reasonable for any other reason than that Huckaba had actually retired at age 60. The defense had also challenged Tabak's testimony based upon the fact that she did not reduce Huckaba's lost earnings for income taxes, as required in FELA cases. Judge Reagan held that those taxes should be deducted, but held that Tabak's testimony was not irrelevant for that reason either. Judge Reagan noted that "CSX makes solid arguments as to shortcomings in Tabak's analysis, but those failures go to the weight the jury should afford Tabak's testimony" and do not warrant finding her testimony inadmissible.

In a footnote, Judge Reagan said, regarding *Daubert* requirements, that a judge "should permit the jury to weigh the strength of the expert's conclusions, provided such shortcomings are within the realm of a lay juror's understanding." This is an important question as it relates to work-life expectancy in that even many judges appear not to have a good understanding regarding what the term "work-life expectancy" means, let alone how figures being used for measuring "work-life expectancy" were being used by an expert proffering specific values for work-life expectancy. In this case, Dr. Tabak made the assumption that Huckaba would have retired at either age 63 or age 66 instead of age 60, when he actually retired after his injury. It would not be hard for a juror to understand the

fact that an injury could cause a railroad worker to retire sooner than the railroad worker would otherwise have chosen to retire. The framework of this decision is different from other decisions discussed in this paper in which the defense has challenged methodology used in the construction of work-life expectancy tables used by a plaintiff's vocational expert or economic expert. While retirement at age 60 or at ages 63 or 66 is "within the realm of a lay juror's understanding," differences between work-life expectancy tables constructed using Markov process methods versus LPE methods are not and discussions regarding extractions from micro-data available from the website of the American Community Survey are not.

(9) *In the Matter of Parker Drilling Offshore, USA* (2018). In this case the plaintiff's economic expert Charles O. Bettinger calculated lost earnings on the basis that the plaintiff would have worked with certainty to a "normal male retirement" age of 65, while the defense economic expert Kenneth Boudreaux used the Bulletin 2254 (1986), Ciecka, Donley and Goldman (1999-00), and Ciecka, Donley, Goldman (2000-01) work-life expectancy tables. Under the circumstances, no plaintiff challenges were based on the fact that the Skoog, Ciecka and Krueger (2011) tables are much more recent than the Bulletin 2254 or Ciecka, Donley and Goldman tables, and also include much more detailed information about distributions around work-life expectancies. As noted above, Bulletin 2254, which was based on 1979-80 data, was still being used in *Barto* (2015) and in *Deperrodil* (2016) in spite of being based on labor market data that was 35 year old. Ciecka, Donley and Goldman (2000-01) and (2000-01) were both based on the 1997-98 period. Skoog, Ciecka, and Krueger (2011) was based on pooled data from January 2005 through December 2009. All four sets of tables use the Markov process method and differ primarily in that they are based on different time periods, though the statistical methods used were becoming more sophisticated over time. Over the past 40 years and at least until very recently, male work-life expectancies have changed very little so that use of very old tables for male work-life expectancy makes very little difference. It makes a large difference for female work-life expectancies such that using Bulletin 2254 for female workers results in much smaller earnings loss values than using more recent tables. However, the authors of this paper are not aware of any legal decisions in which the historical period used to develop work-life expectancy tables has been an important issue.

Judge Drell assumed that Charles Bettinger's age 65 was allegedly based upon "Civilian Labor Force and Participation Rates with Projections, 1980-2018," Table No. 587, U.S. Census Bureau, Statistical Abstract of the United States: 2012, (131st Ed.) Washington, D.C. She said about Bettinger's analysis of work-life:

Dr. Bettinger's assumption clearly does not take into account Mays' overall physical condition nor does it consider interim labor separations which are evidenced by Mays' own work history. These considerations are consistently noted as reasons why the Fifth Circuit in *Culver II* and the courts applying the *Culver II* framework adopt a work life average rather than a retirement age as the proper standard.

(10) *Kempf Contracting and Design* (2008). In this decision, the Indiana Court of Appeals reversed and remanded the trial court decision for several reasons, one of which was the admission of testimony by John Tierney, the plaintiff's vocational expert. The decision did not mention the Gamboa-Gibson work-life expectancy tables or indicate the level of reduced work-life expectancy assumed by Tierney in arriving at his opinion that the plaintiff Cynthia Holland-Tucker had suffered a loss of earning capacity. Tierney's opinion regarding the amount of loss was based on both lower earnings and a shorter work-life expectancy, though no amounts or percentages were given. The only specific information about earnings loss that was provided was that the trial court jury had awarded \$325,000 for earnings loss, which was reduced to \$292,500 based on the plaintiff's ten percent fault. The Court of Appeals indicated that Tierney should not have been permitted to testify because of his lack of specificity with respect to the plaintiff's disability and how it would affect the plaintiff's work life in the field of engineering. Tierney claimed that the methods he used were "well known in the field of vocational disability," but was "unable to name any peer-reviewed publication or provide any citation to authority that supported his bald assertion that his methodology to determine Tucker's lost future earnings was generally accepted in the field of vocational economics."

There is no field of “vocational economics.” The field of forensic economics involves economic experts who specialize in determining economic damages suffered by plaintiffs in courts of law. The field of vocational/rehabilitation expertise determines probable courses of future employment and earnings based on the education, interests, skills, and limitations of workers. Some vocational/rehabilitation experts acquire sufficient expertise in economics to represent themselves as also economic experts, but the two types of expertise are completely separate from each other and do not enhance each other. Thus, the term “vocational economics” represents a category of expertise that does not exist even though the Kempf court was persuaded that such an expertise existed. It would be impossible to find peer-reviewed publications or authority in a field that does not exist.

(11) *Knitowski v. Gundy* (2011). In this case, Dr. Anthony Gamboa reduced the plaintiff's earnings by 6.1% and also shortened the work-life expectancy of the plaintiff by 7.1 years. On the critical issue of the heterogeneity of persons with different levels and types of disability being grouped together, the Court said:

The tables on which Dr. Gamboa relied are well-accepted, broadly-based census data that correlate the work-life expectancy of two similarly-situated groups of wage earners matching plaintiff's age, gender and level of education attained, the only distinction between the two groups being the absence or presence of a non-severe head injury. While it is true that some people within ACS data may have sustained injuries greater than the injuries that plaintiff sustained, the ACS data also includes individuals who suffered a lesser injury. [] [W]e reject defendants' contention that Dr. Gamboa's testimony was rendered inadmissible simply because the ACS data upon which he relied was not identical to plaintiff's occupation and precise injury.

This is another instance of a court accepting the Vocational Economist's claim that there is such a field as “vocational economics” even though no such field exists. The defense does not seem to have pointed out that the data being used by Gamboa and Gibson is not published in a form that is only accessible by extraction from micro data in the ACS, that the extraction methods being used are not described in reports of employees of Vocational Economics or other persons using the Gamboa-Gibson tables, and that all data in the ACS is self-reported with no way to check the accuracy of the answers given by survey respondents.

(12) *Lackey v. Robert Bosch Tool Corporation* (2017). Judge Thapar noted the controversy over the validity of the Gamboa-Gibson tables as part of the reason why he excluded the testimony of Dr. Lawrence Lynch. The primary objection, however, was not the invalidity of the methodology used to construct the tables, as such, but the failure of Lynch to be able to apply the results of the table to the specific circumstances of the plaintiff. This, however, is one of the major criticisms of the Gamboa-Gibson work-life expectancy tables. Some disabilities will shorten work-life expectancy, but others do not. The degree to which given disabilities shorten work-life expectancies depends on the educations and occupations of individual plaintiffs. Work-life expectancy tables for specific disabilities at specific education levels and for specific occupations do not exist so that any projection for a shortened work-life expectancy must be narrowly based upon the circumstances of the plaintiff.

Judge Thapar defined “work-life expectancy” as:

Work-life expectancy is the average number of years someone in a given group will spend working (or actively looking for work) during the remainder of his or her life. See Edward M. Foster & Gary R. Skoog, *The Markov Assumption for Worklife Expectancy*, 17 J. Forensic Econ. 167, 167 (2004).

This definition is not the definition used in the Gamboa-Gibson work-life expectancy tables. The underlying LPE methodology of the Gamboa-Gibson tables excludes periods of unemployment. The “E” in LPE refers to the probability that a worker who is alive and a participant in the labor market will also be employed. Thus an important difference between standard work-life expectancy tables and the Gamboa-Gibson tables is that the possibility of unemployment must be separately taken into account when using standard work-life expectancy tables. Another key difference is that standard work-life expectancy tables take into account whether or not the plaintiff was “active” or “inactive” in

the labor market at the time of an injury. Work-life expectancy is significantly greater for “active” plaintiffs than for “inactive” plaintiffs.

There is no indication that the plaintiff had retained a vocational expert in this case. Dr. Lynch is an economist with no credentials in vocational expertise of the sort necessary for determining what occupational limitations a worker might face based on assumed disabilities. An economist is not qualified to interpret the future earnings of a disabled individual.

(13) *Noel v. Inland Dredging Company, LLC* (2018). This decision excluded the testimony of Glen Hebert, the vocational expert for the plaintiff, because Hebert used the Gamboa-Gibson work-life expectancy tables to argue that the plaintiff’s post-injury work-life expectancy had been reduced by between 10.1 and 12.3 years, compared with the economic expert Dr. G. Randolph Rice’s pre-injury work-life expectancy estimate of 20.87 years. Rice’s pre-injury work-life expectancy estimate was taken from a Bureau of Labor Statistics publication, probably Bulletin 2254 (1986). The Court allowed Rice’s calculation based on a post-injury work-life expectancy of 20.87 years, but excluded Rice from presenting testimony based upon shortened work-life expectancy figures taken from the Gamboa-Gibson table. Judge Vance cited *Lackey v. Robert Bosch Tool Corp.* (2017) while pointing out that the Gamboa-Gibson tables group individuals of widely varying types of disabilities in arriving at estimated reductions. The court emphasized the standard two-part analysis concerning reliability and that failure at either step would disqualify the expert from using the analysis: First, is the analysis itself reliable? Second, even if the analysis itself is determined to be reliable, has the expert applied the analysis reliably in an appropriate manner? The focus of Judge Vance was on the lack of fit at the second step because of the wide variety of disabilities that went into the construction of the Gamboa-Gibson tables. However, both Hebert and Rice were permitted to testify using a standard work-life expectancy table that was not based upon disability groupings.

(14) *Parekh v. Argonautica Shipping Invs., B.V.* (2018). This decision was in a wrongful death action so that there was no controversy about post-injury work-life expectancy. The surviving widow argued that her husband would have worked to age 75. Judge Morgan held that she had made no “genuine dispute of material” regarding her husband’s work-life expectancy and held that damages should be calculated based upon an average work-life expectancy. Judge Morgan, however, indicated that arguments based upon good health, occupation and other factors could be mounted to justify a longer than average work-life expectancy, but that such evidence was not provided in this case. She cited *Deperrodil* (2016) as authority.

(15) *Phillips v. Industrial Machine* (1999). Phillips is the oldest decision discussed in this paper. It is included because of its focus on the difference between a disability rating and an impairment rating. It suggests that both a medical expert and a vocational expert may be necessary to establish a loss based upon reduced work-life expectancy. Most courts require a medical basis for saying that a person will have disabling difficulties in the future. A vocational expert connects the medical information to the “personal, social, and occupational demands” the plaintiff will encounter, particularly in the area of occupational activity. The Nebraska Supreme Court felt that the vocational expert was qualified, but that the Gamboa-Gibson tables being used at the time were not reliable. The Court went through a list of problems posed by the tables, the most important of which was the heterogeneity problem that different persons in the disability groupings in the table had significantly different disability conditions. The Court made it clear that use of the tables by other experts was not a sufficient argument for using the tables and that each Court must make its own determination whether the data being used was reliable.

(16) *Toor v. Homegoods, Inc.* (2018). The quoted part of this decision in the previous section of the paper was sufficiently detailed that additional observations about methodological problems posed by the Gamboa-Gibson tables are not needed. The point is made that even if a plaintiff has some kind of disability, an “appropriate” job that fits well with that disability may result in no work-life loss due to the disability. In this case, the plaintiff was a software engineer, which is a sedentary position. Many physical disabilities that might limit work opportunities in other occupations would not limit work-life expectancy in sedentary occupations. In this case, there was no rehabilitation plan, no labor

market access study or other analysis that a vocational expert would ordinarily have provided. In cases like this, vocational experts using other more complex testing and evaluation processes might have been useful.

Concluding Observations

(1) One very clear message derived from most of these cases is that statistical worklife tables are usually considered a null hypothesis unless there is very good evidence to the contrary. Several cases specifically mentioned data originally assembled by the Bureau of Labor Statistics as generally acceptable. At least based on these court documents, however, it is not entirely clear what specific factors count for an estimation of worklife other than those found in the standard tables such as age, education, and gender.

(2) Nevertheless, with "plausible" evidence, the court could accept an estimation of worklife other than those indicated in statistical worklife tables. In one case, it was indicated that the individual would have been in a relatively safe occupation and that prior to his injury, he was in good health. Further, he and his wife had previously discussed their intention of working past the average retirement age. However, the testimony by the plaintiff him or herself is certainly not enough. It may be part of the information entered into evidence, but by itself will usually not be sufficient.

(3) In most of the discussion related to this issue, the reference was to pre-injury worklife. One could ask whether the null hypothesis might also relate to post-injury worklife. That is, given an injury and related disability, will the plaintiff have an average worklife unless there is good evidence that proves otherwise? The limited discussion in these cases related to post-injury worklife seems to imply that such "good evidence" would require some support from a medical professional.

(4) Not surprisingly, the courts insist that an expert must stick to his or her area of expertise. Several of the cases pointed out that an expert was going beyond his or her expected boundaries. For example, in one of the cases, the court ruled that the economic expert couldn't make decisions on his own concerning reduced worklife. Several vocational experts were also cited for going beyond their area of expertise. This implies that for a disability case, it is usually necessary to hire both a vocational expert and a forensic economist. In contrast, some of the cases mentioned that an economic expert or vocational expert (or both) is not always necessary in every situation.

(5) Use of the Gamboa-Gibson tables published by Vocational Economics, Inc., which are intended to calculate worklife based on disabilities, was accepted in some cases and rejected in other cases. The courts make a distinction between a methodology and its application in specific cases. In some of the decisions, the methodology itself was questioned with the most frequent objection relating to the heterogeneity of disability categories. Other issues related to methodology concerned lack of peer review, lack of acceptance in the relevant scientific community, and assertions that the ACS survey data utilized in the tables should not be used in a legal setting. In some of the cases, the objection was not the tables themselves but that they were used inappropriately. For example, the expert basing their opinion on the tables did not have reliable credentials.

(6) Other cases, however, accepted the Gamboa-Gibson tables. The methodology of the tables was found to be reliable. Those courts that accepted the tables also approved of the background and experience of the expert witness proffering testimony based on the tables. In most such cases, the court assumed that any shortcomings of the methodology of the tables and the background of the expert could be raised in court.

(7) The legal decisions in this paper have varying standards for evaluating worklife. Given *Daubert* and related standards for admission of expert testimony, it is critical that the expert focuses on their own expertise, attain support from other experts when needed, and fully justify their conclusions. Perhaps the one word courts use when criticizing experts is that they do not approve when offered evidence they deem "speculative".

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