IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
SOUTHERN DIVISION
NO. 7:23-CV-897

IN RE:

CAMP LEJEUNE WATER LITIGATION

This Document Relates To:

ALL CASES

UNITED STATES' MEMORANDUM OF LAW IN SUPPORT OF ITS MOTION TO EXCLUDE THE OPINIONS OF MR. PETER RYBOLT

TABLE OF CONTENTS

Pages

TABLE OF JOINT APPENDIX EXHIBITS

JA Exhibit Number	Short Citation	Full Title
737	Staller Rep. (Amsler)	Expert Report of Chad L. Staller, J.D., MBA, MAC, CVA Re: Karen M. Amsler v. United States of America October 29, 2025
766	Rybolt Rep.	Expert Report of Peter Rybolt January 20, 2026
786	Staller Dep. Tr.	Deposition Transcript of Chad Staller March 10, 2026
792	Rybolt Dep. Tr.	Deposition Transcript of Peter Rybolt March 13, 2026

TABLE OF AUTHORITIES

Pages

Cases

Statutes

Rules

Regulations

Other Authorities

INTRODUCTION

Plaintiffs' Leadership Group ("PLG") disclosed Mr. Peter Rybolt, an actor-turned-forensic economist, to offer untested and unsupported opinions on the United States' offset claims for those Track 1 Trial Plaintiffs receiving Veterans Benefits Administration disability compensation ("VBA Bellwether Plaintiffs" or "Plaintiffs").[1] Mr. Rybolt does not offer opinions regarding whether the amounts of VBA disability compensation claimed by the United States as offsets under the Camp Lejeune Justice Act ("CLJA")[2] are inaccurate or miscalculated.[3] In fact, Mr. Rybolt offers no damages or offset calculations at all. Rather, in the guise of economic opinions, he asserts legal conclusions based on his own reading of statutes, regulations, and case law—duplicative of the legal arguments PLG asserted in this litigation, *see*, *e.g.*, D.E. 805, 806, 819. In doing so, Mr. Rybolt asserts the legal conclusion that the United States is not permitted to claim *any* offsets for the VBA disability compensation paid or to be paid to the VBA Bellwether Plaintiffs because, in his view, none of the VBA Bellwether Plaintiffs are seeking "lost earning capacity" damages. That opinion violates Federal Rule of Evidence 704 because it is impermissible opinion testimony that

[1] Mr. Rybolt defines the "VBA Bellwether Plaintiffs" as including Mr. Mark Antony Cagiano, Mr. Jefferson Michael Criswell, Mr. Cometto Davis, Mr. David Bester Downs, Mr. David William Fancher, Mr. Joseph Mark Gleesing, Mr. Bruce W. Hill, Mr. Allan Wayne Howard, Mr. Scott Richard Keller, Mr. Jimmy Carroll Laramore, Mr. Gary Layne McElhiney Sr., Mr. Frank Wayne Mousser, Mr. Edgar Allen Peterson, and Mr. Richard Sparks. Rybolt Rep. at 4–5, n.4 (JA Ex. 766, 840-30).

[2] The CLJA requires "[a]ny award made to an individual" to be "offset by the amount of any disability award, payment, or benefit provided to the individual" under any program under, *inter alia*, the laws administered by the Secretary of Veterans Affairs "in connection with health care or a disability relating to exposure to the water at Camp Lejeune." *See* Pub. L. No. 117-168, § 804(e)(2), 136 Stat. 1759, 1802–04.

[3] Mr. Rybolt notes that "[t]hroughout this report, I assume as given the values of VBA disability payments. In other words, the government has determined the value of lost earning capacity in its own policy decisions. I do not offer an opinion about how those values are determined or how those values are calculated." Rybolt Rep. at 10, n.21.

provides a legal conclusion and invades the province of the Court as factfinder. Moreover, even if such a legal conclusion could be offered as an expert opinion, Mr. Rybolt—who is not a lawyer and has no legal training or expertise—is unqualified to offer such opinions and he has offered no methodology for reaching his legal conclusion.

Mr. Rybolt further opines that, even if the United States is entitled to offset potential awards by VBA disability payments, the United States' future offset calculations are "fundamentally speculative" because events could theoretically occur in the future to affect the amounts of those payments. Mr. Rybolt offers this broad—and ultimately unhelpful—opinion without the support to do so. This opinion is itself speculative. Moreover, such a conclusion flies in the face of routine standard forensic economic methodology for calculating future harm and damages. Indeed, as PLG's chief economist has done for numerous Track 1 Trial Plaintiffs, forensic economists routinely opine on future events based upon reasonable probabilities. Mr. Rybolt does not even attempt to base his opinions on this type of foundational information. Rather, without any reasonable foundation regarding the likelihood of certain events occurring or the impact of such events, he speculates that events may occur in the future that could change the amount of VBA disability compensation to which a Plaintiff is entitled. Mr. Rybolt offers no methodology for his opinion that certain future events may occur—he simply states that they may. Because Mr. Rybolt's opinions are speculative and unhelpful to the Court, and because he provides no reliable methodology in reaching his opinions, they should be excluded in their entirety under Federal Rule of Evidence 702.

BACKGROUND

Mr. Rybolt was a freelance producer, director, and actor for more than 24 years. Rybolt Rep., App'x A at 1 (JA Ex. 766, 840-30); *see also* Rybolt Dep. Tr. at 59:4–8 (JA Ex. 792, 841-23). After obtaining his MBA at the University of Southern California in 2006, Mr. Rybolt went

to work as a forensic economist at Analysis Group, Inc. from 2007 to 2023, where he was "generally known as the entertainment guy." Rybolt Report, App'x A at 1; Rybolt Dep. Tr. at 61:21–62:8. Mr. Rybolt lists a host of engagements and experiences in his resume with focuses ranging from general commercial litigation, intellectual property, media and entertainment, and securities. Rybolt Report, App'x A at 2–6. His listed expert witness experience has primarily involved testifying in cases regarding misappropriation of trade secrets, breach of contract, fraud, defamation, copyright infringement, trademark infringement, and royalty accounting. Rybolt Dep. Tr. at 72:4–73:7; *see also* Rybolt Report at 2 ("My work has addressed such complex issues as the statistical likelihood of claims and potential losses in mass tort; price and quantity effects in alleged restraint of trade; governance, fiduciary practices, and investment management in securities and retirement plans; rate-setting in regulated industries; and the valuation of businesses, equity interests, and intellectual property."). Noticeably absent from his resume is any experience in valuing damages related to personal injury or wrongful death matters, much less any experience predicting what may happen to present-day veterans' future disability benefits. Rybolt Dep. Tr. at 76:23-77:5. With this background, Mr. Rybolt purports to offer the opinions addressed below that, as he admits, he has never offered before. *See* Rybolt Dep. Tr. at 85:24–87:10.

I. Mr. Rybolt Offers the Impermissible Legal Conclusion that Only Claims for Lost Earning *Capacity* are Subject to Offsets Arising from VBA Benefits.

Mr. Rybolt opines that "VBA disability benefits are intended to compensate the beneficiary for a loss of earning *capacity*, not lost earnings." Rybolt Report at 10 (JA Ex. 766, 840-30). Mr. Rybolt differentiates between the two concepts, defining loss of earning capacity, without any supporting citations, as "a generally forward-looking, hypothetical measure of a person's ability to compete in the labor market" and defining lost earnings as a measure of actual loss, "directly attributable to the injury or illness at issue." *Id.* at 10–11. In conjunction with this distinction, Mr.

Rybolt further opines that "[n]one of the VBA Bellwether Plaintiffs' expert reports assert damages claims for lost earning capacity, thus the use of a benefit intended to compensate Plaintiffs for a loss of earning capacity as an offset is inapt." *Id.* at 4.

Mr. Rybolt further opines that "[n]one of the VBA Bellwether Plaintiffs' expert reports assert damages claims for lost earning capacity, thus the use of a benefit intended to compensate Plaintiffs for a loss of earning capacity as an offset is inapt." *Id.* at 4. This is because, in Mr. Rybolt's view, "lost wages and loss of earning capacity are separate economic concepts." *Id.* Mr. Rybolt categorizes Plaintiffs' past earnings, present reduction in earnings, and future loss of earnings, as "lost earnings." *Id.* Mr. Rybolt distinguishes those earnings from a given Plaintiff's lost ability to compete for earnings in the labor market, which he defines as "lost earning capacity." *Id.* at 11–12. Further, in his view, VBA benefits are only meant to compensate for lost earning capacity, and not, for instance, lost earnings. *Id.* at 10. According to Mr. Rybolt, none of the VBA Bellwether Plaintiffs are seeking lost earning capacity as damages; rather, they are only seeking lost earnings. *Id.* at 9. He therefore concludes that the United States should not be able to offset VBA disability compensation payments against potential CLJA awards for any of the VBA Bellwether Plaintiffs because again, in his view, those disability payments only compensate for lost earning capacity. *Id.* at 12. To justify this conclusion, Mr. Rybolt proclaims that the goal of an offset provision as provided for in the CLJA is to prevent a double recovery, *see id.* at 8, and he concludes that his reading of various federal statutes and regulations eliminates the risk of a Plaintiff obtaining a litigation award that includes lost earning capacity and the same Plaintiff continuing to receive VBA disability payments—in other words, he asserts it prevents a double recovery. *Id.* at 14.

Mr. Rybolt relies on his interpretation of 38 U.S.C. § 1155 and its corresponding regulation 38 C.F.R. § 4.1 to conclude that "VBA disability benefits are intended to compensate the beneficiary for a loss of earning *capacity*, not lost earnings." *Id.* at 10, nn.21–22. That is a legal conclusion based on the meaning of a statute enacted by Congress and related federal regulations. Indeed, PLG has offered the same interpretation in prior briefing. *See* D.E. 806 at 11 (citing 38 U.S.C. § 1155). Based on his personal reading and interpretation of Section 1155 and related federal regulations, Mr. Rybolt summarily claims that VBA disability compensation payments are only for lost earning capacity, and, further, that lost earning capacity is "disconnected" from other economic factors such as lost earnings. Rybolt Dep. Tr. at 160:3–14. In support of his opinion that a "distinction between lost earnings and loss of earning capacity" is "consistent with applicable law," Mr. Rybolt misstates the holdings of three federal cases. *See* Rybolt Report at 11, n.27 (citing *Warden v. United States*, 861 F. Supp. 400, 402 (E.D.N.C. 1993) (reciting that the plaintiff is seeking certain categories of damages including future lost earning capacity but failing to compare that claim with a claim for lost earnings, which is not mentioned in the case); *Moore v. Chesapeake & Ohio Ry.,* 649 F.2d 1004, 1006 (4th Cir. 1981) (stating that a plaintiff was only seeking past and future medical damages, loss of future earning capacity, and pain and suffering); *Sloas v. CSX Transp., Inc.,* 616 F.3d 380, 388 (4th Cir. 2010) (discussing the collateral source rule and making no mention of lost earning capacity). The effect of Mr. Rybolt's legal opinion is to nullify the CLJA's offset provision for VBA disability benefits based on his personal interpretation of federal statutes and regulations.

II. Mr. Rybolt Offers Unsupported, Unqualified, and Unhelpful Opinions to Criticize the United States' Experts' Opinions Regarding Future VBA Benefits.

Mr. Rybolt further opines that, even assuming VBA disability compensation payments are appropriate offsets, "the government's analyses are fundamentally speculative, and in many cases

include material omissions that collectively render the government's methodology and conclusions unreliable." Rybolt Report at 4. In his view, these "omissions" include the "failure to consider fluctuations in ratings for injuries attributed to Camp Lejeune exposure, fluctuations in ratings for injuries *un*related to Camp Lejeune exposure, fluctuations in life expectancy, fluctuations in amounts withheld from VBA benefits as a result of military pensions (or vice versa), and the inherent uncertainties of future VBA disability benefits themselves." *Id*. Mr. Rybolt's claim that the United States' experts cannot offer opinions given his hypothesized uncertainties is in contradiction to standard future economic analyses, including the economic calculations of PLG's chief economist, Chad Staller. Mr. Staller readily projected future damages for numerous Track 1 Trial Plaintiffs, resulting in economic value calculations for purported future harm, including, by way of example, future lost earning capacity and future household services. *See*, *e.g.*, Staller Dep. Tr. at 235:24–238:24, 261:2–263:8 (JA Ex. 786, D.E. 841-17); Staller Rep. (Amsler) at 3–4 (JA Ex. 737, D.E. 840-1).

Mr. Rybolt uniquely opines that *if* something "could happen" in the future that may impact offset calculations for VBA Bellwether Plaintiffs, the United States' experts' "failure" to consider infinite hypothesized possibilities renders the United States' experts' offset calculations unreliable and speculative. For instance, Mr. Rybolt suggests that a change in a Plaintiff's disability rating for service-connected conditions in the future, regardless of attribution to Camp Lejeune exposure, could lead to an overstated offset, and thus an undercompensated veteran. Rybolt Report at 16–17. However, Mr. Rybolt has not determined whether there is a reasonable likelihood that any of the VBA Bellwether Plaintiffs' disability ratings will actually change, nor has he made any attempt to determine what those ratings changes might be. Rybolt Dep. Tr. at 162:25–163:13.

He also suggests that the United States' experts' use of mean life expectancy, a standard tool for forensic economists, undercompensates half of the VBA Bellwether Plaintiffs. Rybolt Report at 20–21. This serves as a prime example of the type of broad, unhelpful opinion Mr. Rybolt offers—he opines about potential future issues but presents the Court with no opinions as to what is reasonably likely to happen or what changes can be reasonably expected to occur. For example, he opines that "[i]t is beyond the scope of this report to speculate on the difference, but to the extent the VBA Bellwether Plaintiffs *may be* expected to live shorter lives as a result of their Camp Lejeune exposure, the government's proposed VBA disability offsets would serve to undercompensate each Plaintiff so affected." *Id.* at 21 (emphasis added).

Further, Mr. Rybolt stated that some veterans must choose receipt of *either* VBA disability compensation *or* military retirement pay and alleges that the United States' experts failed to consider this when calculating VBA offsets. *Id.* at 21–22. However, Mr. Rybolt's deposition testimony does not support this opinion because, as discussed below, even though some programs exist to permit a veteran to receive *both* military retirement pay and VBA disability compensation, Mr. Rybolt testified that he was unaware of those programs. Rybolt Dep. Tr. at 214:9–216:15; 217:7–219:11; 220:25–222:11. Moreover, he had no knowledge whether any of the VBA Bellwether Plaintiffs qualified for those programs, despite the programs being expressly described in the website upon which he relied. *Id.* Mr. Rybolt also made no effort to determine the effect of any of the VBA Bellwether Plaintiff's military retirement benefit on that Plaintiff's disability benefit. Rybolt Dep. Tr. at 210:9–15.

Finally, Mr. Rybolt's opinions that other "factors and uncertainties" that "may" affect VBA benefits (and thus, offsets) in the future, including changes in VA policy, Congressional cost-saving measures, tax treatments, workplace reductions, or advances in medical treatments and

technology are unsupported. Rybolt Report at 22–23. Indeed, Mr. Rybolt is not aware of any of these "factors" ever being implemented or occurring and offers no opinions on whether such changes are reasonably likely or whether such changes would actually affect the United States' proposed VBA offset amounts even if they did occur. Rybolt Dep. Tr. at 233:20–234:3. As with Mr. Rybolt's other opinions, this assertion is unsupported and unhelpful to the Court.

STANDARD OF REVIEW

Under Federal Rule of Evidence 702 ("Rule 702"), expert testimony is admissible if it (a) "will help the trier of fact to understand the evidence or to determine a fact in issue," (b) "is based on sufficient facts or data," (c) "is the product of reliable principles and methods," and (d) "reflects a reliable application of the principles and methods to the facts of the case." Fed. R. Evid. 702. Under this Rule, courts must "ensur[e] that an expert's testimony . . . rests on a reliable foundation." *Belville v. Ford Motor Co.*, 919 F.3d 224, 232 (4th Cir. 2019) (quoting *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993)). The Court must assess "whether the reasoning or methodology underling the testimony is scientifically valid and whether that reasoning or methodology properly can be applied to the facts in issue." *Id.*

Courts "must probe the reliability and relevance of expert testimony any time 'such testimony's factual basis, data, principles, methods, or their application are sufficiently called into question.'" *EEOC v. Freeman*, 778 F.3d 463, 472 (4th Cir. 2015) (Agee, J., concurring) (quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999)). As recently amended, Rule 702 provides that "expert testimony may not be admitted unless the proponent demonstrates to the court that it is more likely than not that the proffered testimony meets the admissibility requirements set forth in the rule." Fed. R. Evid. 702 advisory committee's note to 2023 amendment. That standard applies regardless of the ultimate burden of proof. *Compare United States v. Rouse*, No. 22–4479, 2024 WL 2044630, at *1 (4th Cir. May 8, 2024) (per curiam)

(beyond a reasonable doubt), *with Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 198 (4th Cir. 2001) (more likely than not).

Further, Rule 704 advises that a basic approach to opinion testimony "is to admit them when helpful to the trier of fact." Fed. R. Evid. 704 advisory committee's notes (1972). "Opinion testimony that states a legal standard or draws a legal conclusion by applying law to the facts is generally inadmissible." *Brainchild Surgical Devs., LLC v. CPA Global Ltd.*, 144 F.4th 238, 253 (4th Cir. 2025); *see also United States v. Offill*, 666 F.3d 168, 175 (4th Cir. 2011); *United States v. McIver*, 470 F.3d 550, 561–62 (4th Cir. 2006); *United States v. Barile*, 286 F.3d 749, 759–60 (4th Cir. 2002); *Yates v. Ford Motor Co.*, No. 5:12-CV-752-FL, 2015 WL 3448905, at *6 (E.D.N.C. May 29, 2015) (Flanagan, J.); *SMD Software, Inc. v. Emove, Inc.*, No. 5:08-CV-403-FL, 2014 WL 1807809, at *1–2 (E.D.N.C. May 7, 2014) (Flanagan, J.); *HBC Ventures, LLC v. Holt MD Consulting, Inc.*, No. 5:06-CV-190-F, 2012 WL 4483625, at *7–10 (E.D.N.C. Sept. 27, 2012) (Fox, J.); *United States v. Freedman Farms, Inc.*, No. 7:10-CR-15-FL, 2011 WL 2534114, at *4–6 (E.D.N.C. June 27, 2011) (Flanagan, J.).

ARGUMENT

I. Mr. Rybolt's Opinion that VBA Disability Compensation Can Only Offset Lost Earning Capacity Should Be Excluded.

A. Mr. Rybolt's Opinion on Lost Earning Capacity Is an Improper Legal Conclusion.

The Fourth Circuit has held that when the expert "states a legal standard or draws a legal conclusion by applying law to the facts" those opinions are generally inadmissible. *Buser v. Eckerd Corp.*, No. 5:12-CV-755-FL, 2015 WL 1438618, at *7 (E.D.N.C. Mar. 27, 2015) (citing *McIver*, 470 F.3d at 561–62). Legal conclusions provide the trier of fact with "no information other than the witness's view of how the verdict should be read." *Id.* (citing *Offill*, 666 F.3d at 175). Under

Rule 704, such conclusions impermissibly tread on the Court's province as factfinder. *McIver*, 470 F.3d at 561–62.

The Court's task "is to distinguish helpful opinion testimony that embraces an ultimate issue of fact from unhelpful opinion testimony that states a legal conclusion." *HBC Ventures, LLC*, 2012 WL 4483625, at *7. A legal conclusion is unhelpful when it can be shown that "the terms used by the witness have a separate, distinct, and specialized meaning in the law different from that present in the vernacular." *McIver*, 470 F.3d at 563 (citing *Barile*, 286 F.3d at 760).[4]

Here, Mr. Rybolt is providing opinions on the meaning of specific legal statutory and regulatory terms. Specifically, his opinion that "VBA disability benefits are intended to compensate the beneficiary for a loss of earning *capacity*, not lost earnings," relies on his interpretation of 38 U.S.C. § 1155 and its intended purpose.[5] Rybolt Report at 10. Moreover, Mr. Rybolt's opinion that there is some sort of legal "distinction between lost earnings and loss of earning capacity" is yet another legal conclusion. Lost earnings and loss of earning capacity are both economic damages under the law.[6] 1 Marilyn Minzer et al., *Damages in Tort Actions* § 3.05

[4] In rare exceptions, expert testimony involving legal conclusions may be admitted in cases that involve highly technical legal issues—provided that the expert testimony would be helpful in explaining such technical issues to the trier of fact. *See* 4 *Weinstein's Federal Evidence* § 704.04 (2026) ("Although 'matters of law' are generally inappropriate subjects for expert testimony, there may be 'instances in rare, highly complex and technical matters where a trial judge, utilizing limited and controlled mechanisms, and as a matter of trial management, permits some testimony seemingly at variance with the general rule.'") (citations omitted).

[5] Other regulations in Part 4 of Title 38 provide further nuance on the basis of VA disability ratings, noting it primarily has to do with the injured veteran's body's ability to function in daily life. *See, e.g.*, 38 C.F.R. § 4.2 ("Each disability must be considered from the point of view of the veteran working or seeking work."); 38 C.F.R. § 4.10 (disability evaluations consider "the body as a whole . . . to function under the ordinary conditions of daily life including employment").

[6] Mr. Rybolt repeatedly makes further legal interpretations of law, equating the VBA's disability compensation payments as the calculation for each individual Plaintiff's lost earning capacity. *See*, *e.g.*, Rybolt Report at 10; Rybolt Dep. Tr. at 128:15–129:4; 130:9–21; 138:9–24;

(2026). Such interpretations should be adjudicated by the Court. Experts like Mr. Rybolt with no legal experience or training, cannot offer such legal opinions.

Indeed, Mr. Rybolt's report reads more like a legal brief than an expert report of a forensic economist. Rybolt Report at 8, n.16, 10–11, nn.21–23 & 27 (citing and relying on his interpretation of federal statutes and federal case law). Some of Mr. Rybolt's opinions are close to identical to legal arguments in PLG's Court filings. Notwithstanding his attempts to interpret the CLJA's offset provision, even PLG has acknowledged that interpretation of the CLJA's offset provision needs to be decided by the Court. D.E. 806. In PLG's Memorandum of Law in Support of Plaintiffs' Motion *in Limine* to Preclude Inappropriate Offset Evidence, PLG argued that "[w]here a Plaintiff has not claimed damages in the same category as an award, payment, or benefit, no offset is warranted, because the Plaintiff does not stand to receive a double recovery." *Id.* at 11. Like Mr. Rybolt's report, PLG's argument focused almost entirely on VBA disability compensation. PLG concluded that "VA disability benefits provided to Plaintiffs may offset *only damages for lost earning capacity*, and not other damages categories such as pain and suffering." *Id.* (emphasis added). Thus, PLG is seeking to advance what is clearly a legal conclusion in the guise of Mr. Rybolt's expert opinion.

Even if Mr. Rybolt were permitted to opine on how to interpret the CLJA, he conceded at deposition that there is no language in the CLJA that provides that offsets are tied to a specific claim of damages. Rybolt Dep. Tr. at 110:19–111:3. Instead, he relied on his personal

139:5–18; 140:15–23. This type of legal interpretation through expert opinion is similarly contrary to Rule 704 and should therefore be excluded. *See, e.g.*, *McIver*, 470 F.3d at 562.

interpretation of 38 U.S.C. § 1155,[7] and its corresponding regulation 38 C.F.R. § 4.1,[8] to conclude that VBA disability benefits are based solely on the beneficiary's loss of earning capacity. *Id.* at 111:11–21; Rybolt Report at 10, n.21 (citing to 38 U.S.C. § 1155 in support of his opinion that "VBA disability benefits are intended to compensate the beneficiary for a loss of earning *capacity*, not lost earnings"). But courts have held that statutory interpretation falls in the province of the Court. *See, e.g.*, *U.S. Aviation Underwriters, Inc. v. Pilatus Business Aircraft, Ltd.*, 582 F.3d 1131, 1151 (10th Cir. 2009) (finding expert's "testimony regarding the meaning of 14 C.F.R. § 23.903(e)(3) violated Fed. R. Evid. 702"); *Schmidt v. Int'l Playthings LLC*, 536 F. Supp. 3d 856, 915 (D.N.M. 2021) ("[T]he Court concludes that the experts may not testify on their interpretations of federal regulations and statutes, because such expert testimony invades the Court's role . . . ."); *Uzhca v. Wal-Mart Stores, Inc.*, No. 17 CIV. 3850 (NSR), 2023 WL 2529186, at *11 (S.D.N.Y.

[7] "The Secretary shall adopt and apply a schedule of ratings of reductions in earning capacity from specific injuries or combination of injuries. The ratings shall be based, as far as practicable, upon the average impairments of earning capacity resulting from such injuries in civil occupations. The schedule shall be constructed so as to provide ten grades of disability and no more, upon which payments of compensation shall be based, namely, 10 percent, 20 percent, 30 percent, 40 percent, 50 percent, 60 percent, 70 percent, 80 percent, 90 percent, and total, 100 percent. The Secretary shall from time to time readjust this schedule of ratings in accordance with experience. However, in no event shall such a readjustment in the rating schedule cause a veteran's disability rating in effect on the effective date of the readjustment to be reduced unless an improvement in the veteran's disability is shown to have occurred."

[8] "This rating schedule is primarily a guide in the evaluation of disability resulting from all types of diseases and injuries encountered as a result of or incident to military service. The percentage ratings represent as far as can practicably be determined the average impairment in earning capacity resulting from such diseases and injuries and their residual conditions in civil occupations. Generally, the degrees of disability specified are considered adequate to compensate for considerable loss of working time from exacerbations or illnesses proportionate to the severity of the several grades of disability. For the application of this schedule, accurate and fully descriptive medical examinations are required, with emphasis upon the limitation of activity imposed by the disabling condition. Over a period of many years, a veteran's disability claim may require reratings in accordance with changes in laws, medical knowledge and his or her physical or mental condition. It is thus essential, both in the examination and in the evaluation of disability, that each disability be viewed in relation to its history."

Mar. 15, 2023) (finding expert witness "is not permitted to testify to the meaning, intent, or applicability of any FMCSA regulations or other federal regulations").

Ultimately, Mr. Rybolt's legal interpretation opinion that VBA disability benefits cannot offset claims for "lost earnings" because the benefits are meant to cover "lost earning capacity" violates Rule 704 and improperly invades the province of this Court to declare the law. Therefore, these opinions should be excluded.

B. Mr. Rybolt's Lack of Qualifications and Sound Methodology Render His Opinions Regarding Lost Earning Capacity Unreliable.

Not only do Mr. Rybolt's opinions rest upon his inappropriate and unqualified interpretation of federal law, but they are otherwise inadmissible because he is not qualified to offer any legal interpretations. Additionally, his opinions are rife with conclusory statements. And he offers no reliable methodology to support them. As a result, even if Mr. Rybolt could offer his legal opinions under Rule 704, his opinions are inadmissible under Rule 702.

1. Mr. Rybolt Is Unqualified to Offer Opinions on Legal Interpretation.

Mr. Rybolt cites to case law and federal statutes in his report to distinguish between "lost earning capacity" and "lost earnings." *See*, *e.g.*, Rybolt Report at 11, n.27. Legal opinions are reserved for the Court. Mr. Rybolt's qualifications are far removed from the ability to provide, or even advocate for, judicial interpretations. Indeed, he is not an attorney, did not pass the bar exam of any state, and did not attend law school. Rybolt Dep. Tr at 40:15–41:3. At most, he points to legal studies as a part of his MBA training, *see id.*, but these limited studies do not make him qualified to offer opinions on interpretation of VA benefits law. Mr. Rybolt could not recall using federal regulations as a basis for opinions on VA disability benefits prior to preparing his opinions in this case. *Id.* at 41:23–42:6. He testified to conducting his own research, along with members

of his team, and he stated that he "might be pointed to some things by counsel," although he could not recall any specific examples at deposition. *Id.* at 40:2–13.

In short, Mr. Rybolt lacks any particular experience to be able to opine that "lost earning capacity" must be a claimed damage before offsets are taken for VBA disability compensation payments made to the VBA Bellwether Plaintiffs. As such, he is not qualified and his opinions on this matter should be excluded under Rule 702. *See Gladhill v. Gen. Motors Corp.*, 743 F.2d 1049, 1052 (4th Cir. 1984) (citing Fed. R. Evid. 702) ("Whether a witness is qualified can only be determined by the nature of the opinion he offers.").

2. Mr. Rybolt Failed to Use Proper Methodology to Reach His Opinions.

Despite Mr. Rybolt's lack of qualifications to offer opinions regarding how VBA disability benefits can be legally offset under the CLJA, he goes further and opines that an offset must be tied to a specific category of claimed damages. Yet, he fails to provide methodology for his opinions. Specifically, Mr. Rybolt cites nothing in his report and provided no deposition testimony to directly support the assertion that VBA disability benefits can only offset lost earning capacity claims. Indeed, aside from relying on his "experience and training" to reach this opinion, Mr. Rybolt stated that he did not "need any other support" because it "is such a basic concept that it probably has never been written down." Rybolt Dep. Tr. at 109:17–110:17.

This is the definition of *ipse dixit*, and the Fourth Circuit has repeatedly dismissed expert testimony that is supported only by the expert's own assurance. *See Cooper*, 259 F.3d at 203 (quoting *Kumho Tire Co.*, 526 U.S. at 157) ("[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert."); *Sardis v. Overhead Door Corp.*, 10 F.4th 268, 296 (4th Cir. 2021) (holding that it was error to admit an expert's testimony where "all that supported [his] opinions was his own *ipse dixit*"); *Pharmanetics Inc. v. Aventis Pharms., Inc.,* 182 F. App'x. 267, 270–71,

273 (4th Cir. 2006) (affirming exclusion of expert damages testimony as too speculative, misleading, and not sufficiently tied to the facts of the case).

Mr. Rybolt's lack of a proper methodology for his opinions renders them inadmissible under Rule 702. Mr. Rybolt's methodological deficiencies became even more obvious when compared to (1) the methodology of PLG's own chief economists' approach (Mr. Chad Staller) in calculating lost earning capacity, and (2) the methodology in the scientific literature that Mr. Rybolt himself relies upon.

PLG disclosed Mr. Staller to offer opinions on the economic damages purportedly incurred by 19 of the remaining 22 Track 1 Trial Plaintiffs. Staller Dep. Tr. at 37:20–38:9. For certain Track 1 Trial Plaintiffs, Mr. Staller, despite Mr. Rybolt's conclusory statements to the contrary, specifically calculated "lost earning capacity" as a form of damages. *Id.* at 228:2–7. In reaching his calculations for the lost earning capacity damages, Mr. Staller relied upon the individual's past and future lost earnings. *See id.* at 233:7–234:17; *id.* at 230:13–231:3; *see*, *e.g.*, Staller Rep. (Amsler) at 3–4 ("To estimate Ms. Amsler's earning capacity absent the incident, we utilize her annual earnings at the time of her 2020 diagnosis . . . ."). Also, in contrast to Mr. Rybolt's "disconnected" opinion, Mr. Staller readily admits that a person's expected earnings or wages is "definitely [] a factor" in determining a person's lost earning capacity. Staller Dep. Tr. at 228:15–22.

To align Mr. Staller's lost earning capacity opinions and testimony with Mr. Rybolt's opinions and testimony that Plaintiffs are seeking "lost earnings" but not "lost earning capacity," Mr. Rybolt states that Mr. Staller "loosely and inexactly use[s] the phrase 'earning capacity.'" Rybolt Report at 5, n.7. Unlike Mr. Rybolt, Mr. Staller's opinions and testimony regarding his methodology for calculating lost earning capacity, as well as the terminology he uses, are in line

with the scientific literature, including literature that Mr. Rybolt relies upon in his own report. Relying, in part, on an article by economists Stephen M. Korner and Frank Slesnick, Mr. Rybolt suggests that there is "a large body of economic literature describing these concepts and the difference between" lost earnings and earning capacity. *Id.* at 12, n.27; *see* **Exhibit A**, Stephen M. Horner & Frank Slesnick, "*The Valuation of Earning Capacity Definition, Measurement and Evidence*," J. Forensic Econ., 12, 13–32 (1999). But Mr. Rybolt's own relied-upon article clearly states: "[E]arning capacity has much in common with expected earnings . . . . Often, the most reliable evidence [for earning capacity] will be past earnings, which is also the most common basis for estimating expected earnings. In other words, the legal standard of loss in personal injury cases is usually earning capacity, but the evidentiary requirements of the legal process often lead to a estimation of earning capacity that is identical to an estimation of expected earnings." *Id.* at 15–16.

Mr. Rybolt's opinions, which amount to *ipse dixit* that contradict PLG's own expert and Mr. Rybolt's cited literature, cannot be considered reliable. As a result, they should be excluded under Rule 702. *See McEwen v. Baltimore Washington Med. Ctr. Inc.*, 404 F. App'x 789, 791–92 (4th Cir. 2010) (affirming exclusion of expert that relied on *ipse dixit* to dismiss medical literature that was at odds with the expert's opinion).

II. Mr. Rybolt's Speculative Opinions Should Be Excluded.

"A reliable expert opinion must be based on scientific, technical, or other specialized knowledge and not on belief or speculation, and inferences must be derived using scientific or other valid methods." *Oglesby v. Gen. Motors Corp.*, 190 F.3d 244, 250 (4th Cir. 1999) (citing *Daubert,* 509 U.S. at 590, 592–93). To the extent that an expert makes inferences based on the facts presented to him or her, the court must ensure that those inferences were "derived using scientific or other valid methods." *Id.* Here, Mr. Rybolt offers a host of speculative

opinions that are not sufficiently grounded in facts or specialized knowledge to meet the requirements of Rule 702, and therefore, should be excluded. *Id*. at 251 (affirmed the district court judgment that the expert opinion lacked "the reliability, foundation and relevance necessary for admissibility").

Mr. Rybolt's opinion that "[t]he government's estimates of future VBA disability benefits are unduly speculative" is not based on scientific, technical, or other specialized knowledge. Rybolt Report at 15. Specifically, Mr. Rybolt claims that the United States' experts failed to consider fluctuations in: (1) ratings for injuries attributed to Camp Lejeune exposure; (2) ratings for injuries unrelated to Camp Lejeune exposure; (3) life expectancy; (4) amounts withheld from VBA benefits as a result of military pension; and (5) general uncertainties of future VBA disability benefits. *Id.* at 4. Mr. Rybolt's opinion that the United States' experts failed to consider these hypothetical fluctuations is speculative because he offers no basis to conclude that such fluctuations are reasonably probable.

In order to conclude that the United States' experts' VBA offset opinions are speculative, Mr. Rybolt himself speculates that certain unknown events may occur in the future. Notably, forensic economists commonly formulate and calculate future damages in personal injury cases that are reasonably certain to occur; indeed, Plaintiffs' experts have done so here. This makes sense, as the law does not require absolute certainty, but rather only reasonable probability or reasonable certainty. *See, e.g.*, *Lohrmann v. Pittsburgh Corning Corp.*, 782 F.2d 1156, 1160 (4th Cir. 1986) ("[R]ecovery of damages based on future consequences of an injury may be had only if such consequences are reasonably probable or reasonably certain." (citation omitted)).

For instance, Plaintiffs have named life care planners to set forth opinions regarding the type of future care that will, in their view, reasonably likely be needed for certain Plaintiffs.

Similarly, Plaintiffs' chief economist, Mr. Staller, provided an economic value for each Plaintiff's reasonably likely future damages resulting from their injury including, by way of example only, future lost earning capacity and future household services. *See*, *e.g.*, Staller Dep. Tr. at 235:24–238:24, 261:2–263:8; Staller Rep. (Amsler) at 3–4. Such opinions are based on presently known information and presume–based on reasonable probabilities–that a host of events may or may not occur in the future. For instance, experts consider the probabilities that: a Plaintiff's health conditions will remain the same or decline at a projected rate; a Plaintiff will not move (as geography affects the cost of any future care and future earnings); and a Plaintiff will continue to perform the same household services in the future. However, the fact that events may or may not occur in the future does not mean that opinions based on future projections are inherently speculative or unreliable. An expert must have a foundation to conclude that a certain future condition is reasonably probable. Mr. Rybolt's rebuke of the United States' experts' alleged failure to consider hypothetical events, without any reasonable basis in probability, does not render their future calculations speculative or unreliable. Mr. Rybolt even admitted that his criticisms of the opinions of the United States' experts are based only on the sheer possibility that these future events might occur. *See* Rybolt Dep. Tr. at 239:22–240:9 ("Q: . . . Have you determined the likelihood of any of these changes occurring in the future? . . . A: I don't think that's relevant. But, no, I have not attempted to try to estimate the likelihood of these things occurring. Q: But you're suggesting that they could occur? A. Certainly.").

Moreover, as a practical matter, the logical conclusion to Mr. Rybolt's opinion is that future projections, whether they are damages or offsets, would never be permitted because certain hypothetical future events may occur. But that is not the law. *See, e.g.*, *City of Greenville v. W.R. Grace & Co.*, 640 F. Supp. 559, 569 (D.S.C. 1986) ("The guiding light for future damages is that

they need not be exact, as long as they have a reasonable basis."). If Mr. Rybolt were correct, then Mr. Staller's opinions concerning future economic damages would have the same flaw and Plaintiffs' claims for future damages would not be admitted into evidence. Mr. Rybolt's opinion is unhelpful, unreliable, and based on sheer speculation. As such, Mr. Rybolt's opinion should be excluded under Rule 702.

A. Mr. Rybolt's Speculative Opinion Regarding Theoretical Future Changes to VA Disability Ratings Is Unreliable and Should Be Excluded.

The amount of VBA disability compensation a veteran receives is tied to, in part, the veteran's disability rating for a given condition. Rybolt Report at 4. The Parties are aware of the VBA Bellwether Plaintiffs' present-day disability ratings for their service-connected conditions, including those that Plaintiffs allege are related to Camp Lejeune water contamination. *See id.* at 16, n.33. The United States' experts have calculated future VBA disability compensation for each VBA Bellwether Plaintiff, based on the reasonable presumption that their conditions remain the same. *Id.* at 23.

Mr. Rybolt has made no effort to determine whether any of the VBA Bellwether Plaintiffs' disability ratings will likely increase or decrease in the future or to what degree they may change. Rybolt Dep. Tr. at 194:10–195:15. At deposition, Mr. Rybolt could not provide specifics as to what factors go into a disability ratings determination. *Id.* at 94:17–25. He was unfamiliar with the process for a veteran to obtain a disability rating. *Id.* at 95:13–15. He was unfamiliar with how VA disability evaluations are performed. *Id.* at 149:2–11. He was unfamiliar with the questions asked or the information provided during a disability evaluation. *Id.* at 150:1–5. He could not define a disability benefits questionnaire (DBQ) and could not recall having ever seen a DBQ. *Id.* at 91:25–92:3; 150:12–17. He was unfamiliar with the terms "veterans service representative" and "ratings

veterans service representative." *Id.* at 149:13–17; 149:18–25. He was even unfamiliar with the process for altering a veterans' disability rating. *Id.* at 95:22–96:1.

Further, for a disability rating for an injury to change, a Plaintiff would need to undergo a future examination. *Id.* at 164:24–165:6. Mr. Rybolt, however, had no knowledge of the process for requesting future examinations, how such examinations are scheduled, or whether there were "routine future examinations. *Id.* at 164:19–165:1; 173:24–174:3. He had no knowledge of the M21-1 manual, which the VBA uses for processing and adjudicating claims for disability compensation benefits for veterans. *Id.* at 92:4–17. When Mr. Rybolt was shown policy documentation and agency regulations created to limit fluctuations in future service-connected benefits for all veterans, he stated that he was not aware of the information or that counsel had not asked him to review it. *See*, *e.g.*, *id.* at 172:8–174:10 (M21-1 adjudication procedures manual requiring prudence in scheduling review examinations), 176:8–179:9, (38 C.F.R. § 3.327 "Reexamination"); 181:15–182:8, (reexamination exception for static disabilities), 182:20–183:12 (reexamination exception for conditions persisted without material improvement for five years), 183:13–184:14 (reexamination exception for a service-connection in effect for 10 years of more), 187:22–191:22 (reexamination exception for veterans over 55 years of age). With respect to these provisions designed to limit benefit fluctuations, Mr. Rybolt was not aware how many of the VBA Bellwether Plaintiffs: (1) had static disabilities; (2) had conditions that had persisted without material improvement: (3) had been service-connected for 10 years or more: or (4) were over 55 years of age. Indeed, Mr. Rybolt had not even reviewed any individual Plaintiff records. *Id.* at 180:11–181:4. Thus, Mr. Rybolt had no factual basis to determine the likelihood of service-connected benefit changes in the future, regardless of whether the Plaintiff's condition is connected to Camp Lejeune. *Id.* at 195:2–15. His opinion is simply that the disability ratings may change in

the future. Without an identifiable and reasonable factual basis for this opinion, Mr. Rybolt is relying on unsupported speculation, and his opinion should be excluded under Rule 702. *See Sardis*, 10 F.4th 268 at 296.

B. Mr. Rybolt's Unsupported Assertions Regarding The United States' Experts Opinions on the Plaintiffs' Life Expectancy Should be Excluded.

Mr. Rybolt asserts that the United States' experts erred by using life expectancy data from the U.S Centers for Disease Control and Prevention ("CDC") as part of their VBA disability offset calculations because a Plaintiff could die before their average life expectancy. Rybolt Dep. Tr. at 203:5–11. Without providing any methodological basis for saying so, Mr. Rybolt concludes that this renders the calculations of the United States' experts unreasonable and speculative. *Id.* at 206:18–207:6; Rybolt Report at 20–21.

Mr. Rybolt does not offer a recommended alternative methodology for his opinion, nor does he opine on any individual Plaintiff's actual life expectancy. Rybolt Report at 21–22. Notably, there are no scientific citations or other factual support for his opinion. *See id.* at 20–21. In short, there is no proposed methodology—just his conclusory critique of the United States' experts' methodology.

Notably, PLG's own chief economist, Mr. Staller, disputed Mr. Rybolt's unsupported position regarding the United States' use of life expectancy tables. Staller Dep. Tr. at 111:6–114:6. In fact, Mr. Staller readily admits that statistical life expectancy is part of a forensic economist's standard methodology and is typically used to calculate future damages in personal injury cases. *Id.* at 107:10–108:15. Contrary to Mr. Rybolt's unsupported conclusion, Mr. Staller testified that the fact that an individual Plaintiff may die before or after his or her statistical life expectancy does not render opinions based upon that life expectancy unreasonable. Staller Dep. Tr. at 111:6–114:13 ("Q: So the fact that a Plaintiff may die before or after their statistical life expectancy, in your

opinion, does not render your opinions unreasonable or speculative, correct? A: True.").[9] Further, Mr. Staller disagrees with Mr. Rybolt's opinion that fluctuations in life expectancy render opinions relying upon life expectancy tables fundamentally speculative or unreliable. *Id.* at 123:10–125:18, 125:20–126:2 ("Q: . . . Do you disagree with Mr. Rybolt's assessment with regards to the use of statistical life expectancy tables? . . . A: I disagree with his conclusions, yes.")

As with Mr. Rybolt's other opinions, he provides no methodological support for his conclusory opinion on the use of life expectancy tables. Tellingly, Mr. Rybolt's opinion runs completely counter to the methodology relied upon by PLG's own chief economist which uses life expectancy tables (as well as the methodology used by United States' economists). Therefore, Mr. Rybolt's unsupported opinions regarding life expectancy are unreliable and should be excluded under Rule 702.

C. Mr. Rybolt Baselessly Opines on the Interplay Of "Veteran's Retirement" and VBA Disability Benefits.

In line with his previous conclusory opinions, Mr. Rybolt looks to "veterans' retirement"[10] and alleges that the United States' experts did not consider that some VBA Bellwether Plaintiffs' entitlement to military retirement benefits may be impacted by their receipt of disability benefits, because some veterans' cannot receive both. Rybolt Report at 19. Mr. Rybolt simply states that

[9] Mr. Rybolt, in fact, admitted to using life expectancy tables in other cases and agreed that they are empirically derived. Rybolt Dep. Tr. at 203:13–24.

[10] Mr. Rybolt uses the terms "military pension," "military retirement," and "veterans' retirement" interchangeably to refer to the same type of military retirement pay provided by the U.S. Department of War and processed through the Department's Defense Finance and Accounting Service. These examples of military retirement pay are earned through years of service and are dependent on the veteran's pay grade. There are several other examples of retirement compensation and pension available to service members that are not addressed by Mr. Rybolt. These benefits are separate from compensation and pension benefits provided through VBA. *See, e.g.*, 10 U.S.C. Ch. 71; 38 U.S.C. §§ 5304–5305.

military retirement benefits "may" impact a veteran's disability payments, but he made no effort to determine the effect of any retirement benefit on any Plaintiff's disability payments. Rybolt Dep. Tr. at 210:9–15 ("Q: Did you make any effort to determine what plaintiffs' disability benefits should be in light of their entitlement to military - - or entitlement to military retirement? . . . A: No, I wasn't asked to do that.")

In support of this opinion, Mr. Rybolt relies primarily on "The Military Wallet," a non-governmental website, rather than on publicly available policies and procedures from the VA or the U.S. Department of War. *Id.* at 212:16–213:5. Significantly, Mr. Rybolt failed to review the combat-related special compensation program or the concurrent receipt disability program. *Id.* at 217:7–15; 218:18–219:7; *see id.* 221:16–222:4 (testifying that he is not familiar with either program referenced in the website he relied upon). These programs create eligibility for *both* military retirement benefits *and* VA disability payments for certain veterans, including, notably, the VBA Bellwether Plaintiffs.

Mr. Rybolt's determination that certain individual Plaintiffs were entitled to military retirement benefits is based on data provided by the United States. *Id.* at 220:25–221:24. He claims that certain VBA Bellwether Plaintiffs have retirement benefits that may theoretically be affected by their disability payments; however, he failed to determine whether any VBA Bellwether Plaintiffs' benefits were actually affected. Mr. Rybolt also failed to provide any methodology for making that determination, let alone how the combat-related special compensation program or concurrent receipt disability program would affect VA disability payments or military retirement benefits, if at all. Rybolt Report at 22. Instead, Mr. Rybolt baselessly asserts that certain VBA Bellwether Plaintiffs' entitlement to VBA disability compensation may affect their military retirement benefits. Given his lack of familiarity with the process or programs at issue, and his

failure to apply a methodology to any VBA Bellwether Plaintiffs, the Court should exclude Mr. Rybolt's unsupported opinion on the effect of military retirement under Rule 702.

D. Mr. Rybolt's Unsupported Opinions Regarding Whether Other "Factors and Uncertainties" May Affect Future VBA Disability Benefits Should Be Excluded.

Mr. Rybolt broadly opines that the United States' experts improperly relied on future VBA disability benefits because there could be changes in VA and Congressional policy that affects these benefits. Rybolt Report at 22-23. However, he offers these opinions without any basis to conclude that such changes are reasonably likely to occur. Further, he fails to provide any methodology to make that determination. Even if he could support this conclusion, he fails to provide any information regarding how such changes would impact the VBA disability benefits received by the VBA Bellwether Plaintiffs. Instead, he retreads his familiar refrain that such future events may occur and may affect future VBA disability payments being sought as offsets to support his opinion that the United States' experts' offset calculations are speculative. Because Mr. Rybolt has no reasonable factual basis for this opinion, the Court should exclude it under Rule 702. *Daubert*, 509 U.S. at 592.

Nothing Mr. Rybolt cites and relies upon supports his conclusion. For example, he cites a Congressional Budget Office report which shows the trend since 2000 has been a steady *increase* in veterans who receive benefits as well as an *increase* in the amounts of benefits, without any of its cost savings options being implemented in the 12 years since publication. Rybolt Dep. Tr. at 232:10–233:1; 233:20–234:3 ("Q. Okay As you sit here, are you aware of any of the options or uncertainties that you listed in your report or that come from this CBO report have ever been implemented by Congress? . . . A: I am not aware of any changes. I didn't - - wasn't asked to track that. I didn't actually look into it."). In fact, Mr. Rybolt made no attempt to determine whether the future events referenced in the remaining articles he relies upon for his opinion are reasonably

likely to occur, much less affect VBA disability benefit payments for the VBA Bellwether Plaintiffs. *Compare* Rybolt Report at 23 n.58 (misinterpreting press release to suggest that VA disability compensation is too generous) *with* Rybolt Dep. Tr. at 237:11–14 (admitting that he has not been asked to look into whether there are any pending bills affecting VA benefits); *compare* Rybolt Report at 23 n.58 (article suggesting that the second Trump term would decimate VA benefits), *with* Rybolt Dep. Tr. at 237:15–240:5 (admitting that he does not know whether VA benefits have been changed and that he has not attempted to estimate the likelihood of changes occurring); *compare* Rybolt Report at 23 n.59 (two articles suggesting proposed workforce reductions at the VA may reduce capacity to assess veterans' health conditions), *with* Rybolt Dep. Tr. at 240:10–241:10 (admitting he does not know whether the VA has implemented workforce reductions and was not aware of any VBA Bellwether Plaintiffs' disability benefits decreasing because of such reductions). Tellingly, Mr. Rybolt has never provided an expert opinion on the continuity of government programs. Rybolt Dep. Tr. at 89:21–24; 90:17-91:1. His current "opinions" are simply a regurgitation of statements from public documents concerning the possibility of future events. Mr. Rybolt admitted that he is not aware of any such events occurring and he provided no methodology to determine whether such events were reasonably likely to occur. Indeed, these are yet more speculative statements cast as "economic" opinions. Such opinions are simply not permitted under *Daubert* or Rule 702.

Ultimately, Mr. Rybolt's conclusory opinions rest upon the faulty assumption that the United States' experts were required to account for all hypothetical events that could cause fluctuations in the VBA Bellwether Plaintiff's VBA disability compensation payments (which, in turn, would affect the United States' claimed offsets). Mr. Rybolt opines that the failure to account for these hypothetical events renders the United States' experts' offset calculations speculative.

But the law does not require experts to account for all hypothetical possibilities. Mr. Rybolt simply opines that potential fluctuations may occur, but he fails to even determine the degree of impact such theoretical fluctuations would have on the Plaintiffs' disability benefits. As such, Mr. Rybolt's "opinions" as to what may happen in the future are speculative, irrelevant, unhelpful to the trier of fact, and should be excluded under Rule 702.

CONCLUSION

For the reasons stated above, the United States respectfully requests that this Court exclude Mr. Rybolt's opinions from trial.

Dated: April 27, 2026

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CERTIFICATE OF SERVICE

I hereby certify that on April 27, 2026, I electronically filed the foregoing using the Court's Electronic Case Filing system, which will send notice to all counsel of record.

/s/ William V. Klotzbucher
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Exhibit A

Journal Of Forensic Economics 12(1), 1999, pp. 13—32

The Valuation of Earning Capacity Definition, Measurement and Evidence

Stephen M. Horner and Frank Slesnick*

In most courts of law, economic damages due to loss of wages or salary caused by injury or death is measured by an earning capacity standard rather than a standard of actual or expected earnings. Nevertheless, neither the courts, vocational experts, nor forensic economists have developed an explicit definition of earning capacity. As a result, there is considerable confusion as to how earning capacity should be measured. Our review of the forensic economics literature indicates that there has been relatively little written on this subject by economists.[1] The goal of this paper is to move the forensic economics profession, the vocational experts, and the courts closer to a practical and generally accepted approach to the measurement of earning capacity.

Economics is an analytic discipline. As such, its methods attempt to identify fundamental concepts, divide them into their constituent parts, and then to ascertain the rules that governs their interaction. One of the most fundamental concepts that economics can contribute to the discussion of earning capacity is the idea that earnings are determined in labor markets as a product of both supply and demand. The supply side encompasses consideration of what the person is able to do and willing to do for a given wage rate. What the person is able to do is a function of the person's capacities. What they are willing to do for a given wage rate is a function of their preferences, which are difficult to measure directly. The exercise of individual preference is at the root of many of the difficulties of measuring earning capacity through observation of past earnings. The demand side concerns the probabilities of a person actually finding a position at given wage rates, and is directly relevant to the question of whether an economic projection of future earnings has a reliable foundation, or is based merely on possibilities and speculation.

I. Definitions: Actual Earnings, Expected Earnings and Earning Capacity

While our focus is upon earning capacity, three related concepts must be separated: actual earnings, expected earnings, and earning capacity. Actual earnings are what a person *actually earns*, expected earnings are what a person is *expected* to earn, while earning capacity is what that person is *able to* earn. Each of these earnings concepts is a stream or series of values over an entire worklife and not just a single value. At various times, each of these con-

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[1]An article by Brookshire and Carruthers, in "Principles of Establishing the Earnings Base," *Litigation Economics Digest,* 1(1) 1995, which reports results of a survey of the methods of forensic economists, and refers to an earlier version of the present paper, is one example of such discussion.

cepts has been used as a standard of loss in personal injury cases. Thus, in the following sections, we consider their relationship in greater depth.

A. Actual Earnings

Loss of actual earnings is a standard that has been applied when such loss could be measured with reasonable, although not absolute, certainty. While loss of actual earnings seems the simplest standard to apply in personal injury cases, it is not necessarily simple to predict. The stream of actual earnings, which we shall call "actual earnings," is a series of outcomes of a complex stochastic process involving the interaction of a person's abilities and preferences with the needs of employers. In other words, actual earnings in various years are the observations of a random variable. Of course, actual earnings can only be observed in the past. Without a crystal ball, *future* actual earnings, which are determined by chance and choice, as well as skill and ability, cannot be observed. Just as it may be impossible to predict the outcome of a single trial of a random process, we cannot predict future actual earnings of an individual with certainty. Some courts have held that loss of actual earnings is the standard that applies to past losses, while earning capacity is the standard that applies to future earnings. However, even where loss of actual earnings is the standard applied to past earnings, the court will hear arguments as to whether the injured person *could* have earned more since the injury, and merely chose not to do so, perhaps to enhance the value of the lawsuit. In other words, the injured person had post-injury capacity that was not exercised. Such attempts to divide actual past losses into the part caused by choice and the part caused by the injury suggests that the true standard was loss of earning capacity, even in the past.

B. Expected Earnings

In the case of a simple random process, we may be able to define precisely, and to measure with relative certainty, the expectation, or expected value of the outcome. Although the process that produces actual earnings is not simple, this idea provides the definition of expected earnings. *Expected earnings is the series of earnings figures, which are the expected values of actual earnings in the corresponding time periods.* Since expected earnings has such a natural mathematical definition, it might appear that expected earnings is the most easily defined and measured standard of loss. However, even in the past, an observation of the actual earnings for a given period is not the same as the expected value of the process that produced the outcome. Thus, expected earnings are not directly observable, even in the past. Furthermore, the probability distributions that govern actual earnings are generally not known, so the expected values cannot be calculated as one might do for a simple random process.

What is done most often in practice is to rely on observations of past actual earnings, sometimes even averaging their constant dollar equivalents, and calling this expected earnings.[2] This intuitive process relies upon the mathematical principle that the sample average is, under certain conditions, an unbiased estimator of the mean of the underlying distribution. The most impor-

[2]It may be pointed out that such averages are often used as evidence of *both* expected earnings and earning capacity. This will be discussed more completely in Section II of this paper.

tant condition in this context is that the stochastic process must be stationary. However, we know that the distribution of outcomes is not likely to be stationary. The three factors that govern this distribution, the person's abilities, the opportunities available for those abilities, and the person's exercise of his or her preferences over that set of opportunities, will each change over time, sometimes abruptly. Perhaps most difficult to measure and predict among these three are the person's preferences.

A person's preferences are constantly subject to change, and, thus, observations of past actual earnings, based on past preferences, may be a highly inaccurate indication of future actual earnings or expected future earnings. This is particularly true in situations where a person had made a non-binding choice to pursue a low earnings path, such as that of a full-time homemaker, or a physician entering the Peace Corps. Although such a choice can have a dramatic effect of expected future earnings, it is always subject to change. For example, a divorce may result in a homemaker choosing, or even being forced, to reenter the labor force. Knowing or estimating the probabilities of such changes of preference would be necessary to forecasting future expected earnings. Certainly, this is not easy. By removing the uncertainty introduced by the exercise of individual preferences, earning capacity may actually be easier to measure than expected earnings.[3]

C. Earning Capacity

Earning capacity is the expected earnings of a worker who chooses to maximize the expectation of actual earnings. We note that earning capacity has much in common with expected earnings. For example, the probability of various earnings outcomes is still central to the measurement of earning capacity, just as it is for expected earnings. The major difference is that earning capacity is not usually affected by voluntary, non-binding, choices made by the worker. The ability remains, at least in the short run, whether the individual chooses to use that ability or not. Thus, to analyze the earning capacity of an attorney who has chosen to stay home with pre-school children rather than enter or remain in the labor market, we need not investigate the process by which such a decision is made, nor attempt to estimate the year-by-year probability of returning to the market. A focus upon expected earnings would lead directly to such questions.

Less precise definitions of earning capacity have led to widespread misunderstanding and occasional abuse. For example, most forensic economists have seen at least a few extreme cases where some nebulous concept of capacity has been used to rationalize highly implausible earnings assumptions. Generally, the judicial process will reject such valuations. This has led some forensic economic observers to the conclusion that the courts *say* that we should be evaluating earning capacity, but, when it's time to make the decision, the courts will usually endorse expected earnings as the standard.

This conclusion is based on two misconceptions. The first misconception is that earning capacity is defined as maximum possible earnings. Such a definition, which invites speculation, would have little or no empirical content or

[3]Another attribute of using earning capacity as the standard of loss is the avoidance of certain inequitable results. For example, if the full-time homemaker were to be divorced or her husband were to be incapacitated at a later date, her preferences would have changed dramatically, but it will be too late to go back to the court to ask that her compensation be based on what her expected earnings would be under these conditions, now that she needs this income.

practical relevance outside the courtroom. The second misconception is that when the court chooses a *measure* of loss that appears to be equal to expected earnings, then expected earnings is the standard of loss. We believe that such court decisions do not reflect an endorsement of expected earnings as the standard, but instead reflect the requirement that estimates of earning capacity be based on reliable evidence. Often, the most reliable evidence will be past earnings, which is also the most common basis for estimating expected earnings. In other words, the legal standard of loss in personal injury cases is usually earning capacity, but the evidentiary requirements of the legal process often lead to a estimation of earning capacity that is identical to an estimation of expected earnings.

II. The Legal Environment

A. The Standard of Loss

The role of legal precedent has been to prescribe and define the standard of loss of earnings and to place limits on the evidence that may be presented in support of damage arguments. As stated in the introduction, the most commonly accepted and prescribed standard of loss in personal injury cases is that of the loss of earning capacity. A significant volume of scholarship, entitled *Damages in Tort Actions* (hereafter labeled DTA), covers the case law that pertains to earning capacity. (Minzer, et al., 1991)[4] Considerable amplification of the following discussion will be found in Chapter 10, entitled "Loss of Time and Earning Capacity."

B. Definition

The law generally defines Earning Capacity to be "the ability to earn money" and "Impairment of earning capacity means the diminution or loss of the ability to earn money." (Minzer, et al., 1991, p. 31) As expressed by the Louisiana Court of Appeals,

> The loss of the ability to work is in itself a compensable element of damages. Earning capacity is not measured by actual loss; even an unemployed, or sporadically employed, plaintiff is entitled to recover for the deprivation of what he could have earned (*Landry v. Melancon*, 558 So. 2d 1143 La. Ct. App. 1989).[5]

C. Evidence for Impairment of Earning Capacity

The law must contend with the conflicting need for general rules that reduce uncertainty and the goal of achieving fairness in each case. On the one hand, the law attempts to develop general guidelines in order to reduce uncertainty and to insure that its decisions are not arbitrary. On the other hand, the law wants to "do justice" in each case. The tension between a need for general principles and the goal of justice in specific cases has resulted in a broader standard of potential loss, but a more restrictive requirement for the proof of such losses. Earning capacity may seem to be a somewhat flexible concept that

[4]Each chapter is numbered separately. All references in this paper will be to Chapter 10.
[5]This citation is one among many from DTA, pp. 31-39, where the breadth of jurisdictions confirms the general acceptance of earning capacity as the standard of loss.

could encompass almost anything that a person could conceivably do. In fact, the law may allow the trier of fact to consider some claims that may seem, *prima facie*, excessive; but only if such possibilities can be demonstrated with reasonable certainty.

> Damages for permanent impairment of future earning capacity may not be based on speculation, probabilities, or uncertainty, but must be shown by competent evidence that such damages are reasonably certain as the proximate result of the pleaded injury. (*Fitzpatrick v. United States*, 1991, p. 1038)

> Impairment of earning capacity or loss of earnings is recoverable only when reasonably certain to occur in the future. (*Courtney v. Allied Filter Engineering, Inc.*, 1989, p. 959)

The evidentiary requirement prevents the earning capacity standard from decaying into outright speculation. Thus, many of the cases examined by the authors explored questions of whether a given hypothetical vocational capacity was relevant in determining earning capacity. In other words, does this type of information constitute "evidence" of earning capacity or is it merely irrelevant or speculative?

For example, the law may permit a jury to consider whether an injured college student might have become a physician, but for the injury. However, it may be necessary that the student have shown outstanding grades in relevant subject areas, and perhaps an excellent score on the Medical School Admission Test. The law is less likely to allow a jury to consider data on the income of physicians if the injured student were only in high school. Such information is likely to be considered irrelevant speculation.

D. Evidence of the Amount of Impairment

The plaintiff must first prove that a loss exists for which the defendant is liable, and second this loss must be measured. The latter relates to proof of the amount of damages. However, as will be evident in our discussion, these two questions often overlap. While the courts have required the plaintiff to show the existence of impairment of earning capacity with reasonable certainty, courts have generally recognized the impossibility of removing all uncertainty from estimates of the *amount* of future damages, and absolute precision in damage estimates has not generally been required:

> Because lost earning capacity cannot be calculated with mathematical certainty, the trier of fact is afforded much discretion in the determination of such damages. However, the trier of fact must have a reasonable basis for such an award. (*Walker v. Bankston*, 1990, p. 697)

Thus, despite the relatively relaxed standard for proof of the *amount* of damage, reliable evidence is necessary. There is some latitude in what that evidence may be. Even though not a governing factor, some courts have held that past earnings must be introduced if such a history exists. They have held that failure to present evidence of past earnings renders an award of damages too speculative.[6] Other courts do not agree. As stated in *DTA*, "numerous courts have held that the plaintiff need not produce evidence as to his earnings

[6]See Practice Commentary in *DTA*, p. 49 and *DTA*, p. 68

prior to injury." The reason is that to rely too heavily upon history is to focus upon actual earnings rather than capacity. However, some courts have held that the plaintiff must "introduce evidence of either his actual earnings or his earning capacity prior to his injury."[7]

For the average injured worker, past history remains the most important source of factual information for pre-injury earning capacity. Although past earnings do not necessarily dictate earning capacity, and there may not be a legal requirement to do so, such information is likely to be presented to the trier of fact by one party or the other. This earnings data is likely to have an impact on the eventual compensation award. This is true because past behavior is, after all, strong evidence of what a person was capable of doing in the past, and absent identifiable changes, strong evidence of what they would be capable of doing in the future. Actual earnings data is often the starting point for measuring capacity. If there is no information to the contrary, it is usually assumed that actual earnings demonstrate earning capacity. The individual who has never worked may not be a lover of leisure with a high reservation wage, but someone who is simply incapable of holding a job.

Although the most common method of showing earning capacity impairment is to compare actual pre-injury earnings with post-injury earnings, the courts have recognized the determining role that choice plays in actual earnings, yet may have relatively little impact on earning capacity. As the Louisiana Supreme Court stated, "damages may be assessed for the deprivation of what the injured plaintiff could have earned despite the fact that he may never have seen fit to take advantage of that capacity." (*Hobgood v. Aucoin*, 1991) Thus, choosing a pre-injury path of low expected earnings may not reduce the plaintiff's potential recovery after the injury.[8]

In situations where past history appears not to be a clear indicator of capacity, vocational experts and forensic economists must look beyond the raw numbers of past earnings. Issues of mere choice and actual vocational capacity must be separated. Education, training, employer records, pre-existing health and psychological condition and age are all supply side factors that may need to be taken into account in performing an assessment. The demand side issues of the economic state of the industry and potential employers may also be important. For example, it will be advisable to consider if an industry is subject to periods of reduced demand for labor. In some cases, this could be seasonal, such as occurs in the construction industry in some parts of the country.[9]

Although a person's personal preferences are often not considered part of earning capacity, this may not always be the case. For example, interest in a higher level job at the time of the injury may or may not be considered relevant. According to *DTA*, some courts have held that such evidence is relevant and the trier of fact may consider such information, particularly where there is corroborating evidence of job offers or a career track leading to the higher level position. Other courts have held such information to be speculative and not admissible.[10]

Clearly, the more remote the evidence and the lower the probability that the vocational or earning capacity could be achieved, the more likely it is that expert opinions based on such job possibilities will be excluded by the judge.

[7]See DTA, p. 68, and footnote 29: *Crown Plumbing, Inc. v. Petrozak*, 751 S.W.2d 936 (Tex. Ct. App. 1988).
[8]Rehearing denied.
[9]*DTA*, p. 90.
[10]DTA, pp. 97-100.

For example, we know that insufficient training or experience is a barrier to obtaining both vocational and earning capacity. The court and trier of fact must decide if a given barrier renders a potential vocational capacity irrelevant or speculative. While one week of on-the-job training is clearly a minor barrier, how much of a barrier is another year of college? Assume a person is claiming overtime work as part of earning capacity. Under what circumstances is adequate proof available? One can start with the obvious and then gradually change the assumptions. If a person had worked overtime for many years, had expressed interest in such work, the company had indicated overtime would be available for the indefinite future, and the union guaranteed that the person could work overtime if so desired, then additional hours would certainly be part of earning capacity. On the other hand, if the person had never worked overtime in the past, how relevant is that overtime opportunity? If the individual had been capable of and would have been offered overtime work prior to the injury, then one could argue that overtime work was an *option* that was available prior to the injury. But, given that overtime may require both mental and physical stamina, it may be argued that a documented offer of overtime only proves the demand side of the equation, not the supply.

The courts, in fact, are divided on the issue of overtime. On one hand, some have recognized that this option has been denied and have therefore allowed such calculations. However, others have indicated that this would be too speculative. Further, the fact that a person had never previously engaged in such activity may imply that the person does not wish to work overtime, but could mean that the person is not *capable* of such work. That is, past behavior is strong evidence of future earning capacity. *In Trailways, Inc. v. Mendoza*, a Texas jury was reversed because there was no evidence that the plaintiff *would* have worked overtime, only that he *could* have done so.[11]

A related issue is that of worklife. Standard worklife tables are usually applied in estimating the plaintiff's pre-injury earning capacity. Most courts have held that unless there is sufficient evidence proving otherwise, it is acceptable to use general worklife tables when estimating pre-injury earning capacity. However, if a person has significant health problems, for example, this fact might also be considered. On the other hand, standard worklife tables might understate the earning capacity of a person who had worked full-time for 25 years prior to an injury. In *Marcel v. Placid Oil* (1994), the 5th Circuit demonstrated that deviations from general worklife tables might need strong support in order to be allowed in court.

III. The Process of Evaluating Earning Capacity

Vocational experts often play a crucial role in the evaluation of earning capacity impairment, particularly in situations where the injured person may still be employable. Generally, it is the job of the forensic vocational expert to determine what jobs are feasible for the injured person to perform, and what earnings might accrue to such jobs. The vocational expert, who may be a rehabilitation counselor, gathers and evaluates information of several types. Usually, the vocational expert will begin with the supply side, that is, determining what the person is able and willing to do and gathering information on the person's functional capacity.

[11] DTA, p. 133-134, note 1. *Trailways, Inc. v. Mendoza*, 745 S.W.2d 63 (Tex. Ct. App. 1988).

A. The Supply Side: Functional Capacity

In order to perform a particular job, a person must possess various degrees of certain functional abilities. These include the person's physical abilities, such as lifting, standing, walking, fine motor skills, stooping and climbing; cognitive abilities, such as intelligence and reasoning; and psychological factors, such as motivation, interest, and temperament. We will refer to this as the person's functional capacity.

Much of a person's functional capacity is normally assessed through medical evaluations that may include impairment ratings.[12] Included within such evaluations would be testing performed by physical or occupational therapists, or perhaps, by vocational experts. The questions to be answered are similar to "Can the person climb a ladder, stand for hours at a time, and occasionally carry up to 50 pounds?" Such testing and evaluation is common after an injury, as part of the normal medical evaluation, treatment and rehabilitation process. It is less common for such evaluations to be available prior to an injury. Since earning capacity, as a lifetime stream of earnings, is a long-term concept, an evaluation should take into account variation in functional capacity over time. For example, it is common for some physical capacities to decline over time. Physicians may predict that an injured person will find their disability to improve with time, but may predict that a given injury will interact with normal aging in ways that exacerbate long term disability.

B. The Supply Side: Vocational Capacity

Having the physical and mental capacity to perform a particular job is necessary but not sufficient to consider that job part of one's earning capacity. Skills, knowledge and experience are also a necessary element in determining what jobs a person can actually perform. Of special importance to the vocational expert is the person's education and training, as this information not only tells the expert what knowledge and skills the client is likely to have, but also the client's ability to absorb additional training in the future. Given the long-run nature of the earning capacity concept, one would expect to include in one's vocational capacity any job that could be learned in a day or two, or perhaps in a few weeks. Similar situations would exist when the injured person was near the end of a training program, such as a medical student with only a few months to go before graduation. However, at some point, this can become a more difficult question. Having a high intelligence quotient may not be enough to prove that a high school student has the ability to become a physician. Such issues will only be resolved by judgment, whether it is that of the expert or the court.

In addition to looking at the person's education and training, the vocational expert will also review the client's job history in order to determine what skills the person has demonstrated in the past. Some of these skills, applied in a previous occupation, may be transferable to a post-injury occupation. Again, such evaluations are common post-injury, but rarely available for a person who has not had an injury. The questions to be answered are similar to "Can this

[12] The layman sometimes incorrectly thinks that a percentage whole-body impairment rating determined by a physician can be used to estimate a percentage loss of earning capacity. However, it is clear that the same physical injury can have drastically different earnings implications for different workers, depending upon the demands of their particular vocation What is totally disabling to one may be a minor annoyance to another.

person competently perform the tasks of a professional bricklayer?" From the analysis of post-injury transferable skills, a list of feasible post-injury jobs is developed. If a list of pre-injury jobs has also been developed, the vocational expert may compare these two lists. If the two lists are comprehensive, this comparison may be called a "labor market access" study.

C. The Supply Side: Worker Preferences

Up to this point, the vocational analysis we have described applies unambiguously to all of the standards of loss: actual earnings, expected earnings and earning capacity. But vocational evaluation often goes further. Vocational rehabilitation counselors often measure personality and job interest through interviews and testing. In administering personality or job interest tests to their clients, the vocational counselor is attempting to find congruence between the client's interests and the job descriptions that fall within the person's abilities. These tests may rule out certain job categories as being impractical for the client, but other categories may merely be undesirable or less preferred than alternatives. Although there is no sharp distinction here, to the extent that the vocational analysis starts to take preferences into account, that evaluation may become less relevant to earning capacity, but more relevant to expected earnings, because the individual's preferences are the essence of the difference between expected earnings and earning capacity.

Each person has vocational capacities that he or she chooses not to use, based on his or her own preferences. One example of a simple preference system or map is that of an "earnings maximizer;" in other words, "higher wages are better." No matter what the other job attributes may be, the worker would always pick the higher paying job. A multitalented surgeon may choose to practice surgery rather than sculpture, based on the higher earnings. This is not surprising because we almost always assume that "higher wages are better." For such a person, according to our definition, there would be no difference between expected earnings and earning capacity. However, for some individuals this would not be correct. Although it is more surprising when the qualified surgeon chooses to be an artist, similar choices are made every day. A person's actual earnings and, indeed, their expected earnings, are altered as a result of the person making certain choices from the opportunities afforded them.[13] Workers usually have more than one alternative from which to choose. Such choices may increase or decrease a person's actual earnings, but not earning capacity.[14] Since actual past earnings will often be the basis for estimating earning capacity, it is important for us to understand worker choice.

An important concept in the economist's tool kit for understanding worker choice is opportunity cost. Everett Dillman[15] cites several examples to demonstrate this concept. Assume that a college graduate decides to become a carpenter and earn $24,000 per year rather than $35,000 per year. Actual earnings, and perhaps expected earnings, is $24,000 while earning capacity is

[13]The demand side of the market, including potential employers, determines what opportunities are available to persons with given vocational capacities, and will be discussed later.

[14]Although such choices will affect actual earnings and expected earnings, they may not have a direct effect on what a person is able to do, and, thus, may not have an immediate effect on earning capacity. However, a person's choices, by affecting their experience and training may eventually have an enormous effect upon earning capacity.

[15]Dillman, Everett, "Economic Insights," September 1990. (A newsletter produced by International Business Planners in El Paso, Texas). We have increased the magnitudes to reflect more current earnings levels.

$35,000. The carpenter has voluntarily sacrificed an additional $11,000 per year, indicating that the non-monetary benefits of being a carpenter are at least that amount. (This assumes that the lower earnings level is not the result of some unreported disability that rules out the apparent $35,000 capacity.) Estimating loss at $35,000 rather than $24,000 not only is closer to the concept of earning capacity, but also recognizes that a higher salary is a possible option that could have been exercised at some time in the future. Although the individual had the ability to earn a higher income and presumably some firms would have been willing to hire him for such positions, the person's preferences at that time led to the choice of a lower paying job. If a spouse should become injured or unemployed, the worker might very well choose to revert to the higher-paying vocation, now that the opportunity cost of pursuing carpentry, in terms of quality of life ("utility"), has increased.[16] Clearly, even an option that is currently not chosen may be highly valuable. Dillman's article points out that it is often difficult to determine which alternative job should be chosen in order to calculate opportunity cost, and that providing too much leeway in this regard could give rise to abuse.

However, it is difficult to know when actual earnings are inconsistent with apparent capacity as a result of choice, and when such observations are the result of unobserved functional or vocational capacity problems. When a person who apparently has all of the attributes necessary for a given wage rate nevertheless earns much less, it is difficult to choose from two likely explanations arising from supply side considerations. The first explanation is that perhaps not all of the important supply variables have been observed. In other words, there may be unobserved factors, such as health or psychological issues that limit the person's ability to earn at the higher level. For example, a person may have a personality that produces conflict with superiors or co-workers. The second explanation is that the person may not have *chosen* to take the highest paying job. A person may choose to stay home with young children rather than pursue a career. The critical factor is whether the inconsistency of actual earnings with apparent earning capacity is the result of voluntary or involuntary factors. If the reduced earnings are voluntary, then the difference reflects preferences rather than capacity. If the difference stems from involuntary problems, then the person's capacity must reflect these factors. In some circumstances, social, family, peer or other pressure may make it difficult to distinguish between voluntary and involuntary causes. Experts may not be able to resolve the issue in such situations.

Sometimes, the twin issues of choice and earning capacity are hidden in statistical tables. Consider the question of worklife. Frasca and Winger (1989) proposed estimating worklife utilizing the average age of labor force separation[17] rather than the worklife expectancy tables published by the Bureau of Labor Statistics (February, 1986). According to these authors, worklife expectancy table values, based on observations of labor force participation rates are reduced by voluntary separations from the work force, and such voluntary separations do not reduce earning capacity.

[16]This assumes that the option not previously chosen would not be lost through lack of use. It will be difficult to reenter some occupations if a long time has elapsed since the person exercised that option. If a law school graduate did not practice law for 10 years after graduation, acquiring employment as a lawyer may be very difficult.

[17]Both the median age of final separation and worklife estimates have been re-estimated by Hunt, Pickersgill and Rutemiller (1997). See *Journal of Forensic Economics,* 10(2), pp. 197-205.

> These separations would include, for example, workers returning to the educational system, workers returning to non-market household production, and workers taking a temporary sabbatical. During each of these voluntary periods of inactivity, earning capacity is not diminished, but both market earnings and worklife activity are. (Frasca and Winger, 1989, p. 103.)

Of course, some periods of nonparticipation in the labor force, prior to final withdrawal will be involuntary, due to illness or other incapacity.

Corcione and Thornton (1991) developed a similar idea with specific reference to women. Their thesis was that periods of voluntary withdrawal from the labor force are not evidence of reduced earning capacity. They recommend that tables of potential labor force participation be substituted for worklife tables, and that for women this would significantly increase the estimated years of potential earnings. This approach was an improvement over that proposed by Frasca and Winger since the authors specifically made a distinction between those withdrawals that were voluntary and those that were involuntary. Ireland and Winkler (1994) suggest that statistical data for women who are childless and were never married might correct for some of the downward bias caused by voluntary labor force separations in the general female population.

Unfortunately, it will often be difficult to distinguish between capacity factors and mere choice. For example, personal preference is certainly important when determining those jobs where employment is likely. Thus, the person's actual preferences would be important factors in the determination of expected earnings. A lack of interest in a particular job should not obviate the fact that certain options have been eliminated for an individual due to the tort. However, from the demand side, we should note that interest and enthusiasm are attributes that some employers value highly, and may even be necessary for success in some occupations. A lack of interest may preclude a position that a person wants for strictly financial reasons. If there is a demand for a particular worker attribute, then whether the worker has that attribute is a factor in determining that worker's vocational capacity.[18] In general, whether a particular choice is voluntarily chosen or rejected, and hence part of earning capacity, or is unattainable and thus not a part of earning capacity, is often difficult to determine.

Thus, the vocational expert will often not know when a job should be totally removed from a person's vocational capacity due to a total lack of interest or temperament, as opposed to when the job is merely not among the top choices. Similarly, it should be noted that temperaments and preferences change. A person who despised indoor sedentary work prior to an injury may adjust quite well if that is the only type of job that is feasible post-injury.

D. The Demand Side

The mere listing of feasible jobs gives little indication of the probability that the particular injured person can acquire each job, if that job is desired. When a vocational expert creates lists of jobs that can be performed by the injured person, but ignores the feasibility of the person actually finding such employment, the expert is analyzing only the supply side vocational capacity and not earning capacity. The demand side focuses upon how many jobs employers would offer for a given level of vocational capacity at various wage levels. Or, in a given case, the demand side considers the likelihood of a particular person,

[18]Thus, there is a possible interaction between supply and demand considerations.

with a particular vocational capacity, actually obtaining a job at a specified wage rate. Thus, the questions are typically of the form: "How much work is this person likely to get as a professional bricklayer at $15.50 per hour?"

The demand for labor is derived from the demand for the firm's products. Economic theory tells us that the employer will offer employment as long as the marginal revenue product of the worker exceeds the wage rate. Thus, higher personal productivity generally implies a higher wage rate or a higher probability of being employed at any given rate. Higher product prices as a result of increased demand generally imply the same. As a derived demand, the demand for labor may fluctuate with the business cycle in general or the vagaries of a particular industry. This means that changes in demand for the industry's product can change the wage rate for the worker, or perhaps even eliminate the position altogether. In such a case, a longer-term view would be appropriate, taking account of both good times and bad.[19]

The demand side is sometimes neglected in the forensic process. This may be due to the implicit use of definitions of earning capacity that address only the *ability* of the person to *perform* a given job. This ignores the possibility that the person actually can get such a job, and, thus, it is the *vocational* capacity rather than the *earning* capacity that has been examined. This kind of analysis has resulted in the listing of extremely unlikely pre-injury or post-injury vocations, implying that these are part of the person's pre-injury or post-injury earning capacity.[20] The approach to earning capacity proposed in this paper would give little or no weight to such positions.

For example, in a situation where an individual's actual earnings seem to be below his capacity, we may be overlooking the demand side of capacity. If a person is not employed in what would seem to be highest paying occupation for which he or she has the vocational capacity, perhaps there is just too little demand for the given occupation.

Fortunately, it is common for vocational experts to do a labor market survey to determine what wage rates and jobs are available to similar workers in a particular area. Sometimes, the evaluation will include information on the availability of such jobs to the given person. For example, the vocational counseling process may include contacting prospective employers to determine if they would be willing to hire a person with the given abilities and disabilities. This part of the process is focused upon the demand side of the individual's labor market. This is most often done as a post-injury evaluation, but occasionally a pre-injury assessment is done as well.

E. The Synthesis of Supply and Demand

The vocational expert may go on to distill the list of feasible and available jobs with corresponding wage rates to a single estimate of annual earning capacity or a range of such figures. Since the economist is normally expected to take such figures as the starting point for the determination of the present values of pre-injury and post-injury earning capacity, it is critical that this distillation process be done in a way that is reliable. Tim Field (1993) suggests

[19]Courts have endorsed an examination of the ability of the person to actually find work for which he is qualified. For example, depressed economic conditions can reduce earning capacity. See *Damages in Tort Actions*, Volume 10, p. 90.

[20]Depending on whether this type of error is performed on pre-injury or post-injury analysis, the result will be biased for either the plaintiff or defense. For every plaintiff-oriented way of biasing the pre-injury or post-injury analysis, there is a defense-oriented way of biasing the analysis.

eight methods of translating a list of jobs into a wage base. These include: utilizing a minimum wage, the wage at the time of injury, the average weekly wage in all occupations in the state, five "representative" jobs from the job list that corresponds to the individual's relevant factors (interests, temperament, physical stamina, education, etc.), a close examination of the person's actual job history, the average of all the jobs from the person's job list, the average of the top 20 jobs from the job list, and the wage of five actual jobs that were (or are) available in the immediate labor market.

Clearly, there are situations where some are more feasible or reliable than others, and these situations are discussed in the vocational literature. But in many cases it would be possible to use several of these approaches. For example, a person with an established wage history might have an earning capacity equal to his actual wages, the average of all potential jobs on the relevant jobs list (a list perhaps in the thousands), the top 20 jobs, or a representative list of five jobs. Care must be taken, however, that an abbreviated list of jobs fairly summarizes the entire list, particularly if some sort of average is to be calculated. The difference in estimated loss could be enormous depending upon which approach is used. The question is, which should be used in a particular case? Unfortunately, the vocational literature provides little guidance. Field does offer some help. One guideline is what he simply calls "common sense." You clearly do not use the minimum wage for someone who has been a welder for 17 years. But most cases are not so obvious. Another guideline is what he terms "comfortableness." The professional must develop techniques in which he or she feels comfortable in both explaining and defending. Again, this does not provide any specific help. Finally, he suggests that one could be "eclectic." By this he means that the expert should provide a variety of approaches and hence offer the trier of fact a range of possible outcomes. That certainly is more honest than presenting one number and pretending that the calculation is based upon greater precision than is actually the case. But it should be noted that if the range is extremely wide, this technique could simply be passing the burden of estimation onto other individuals who have even less insight in this particular area.[21] One of the purposes of this paper is to reopen this discussion with the benefit of the somewhat different perspective of economics. In the next section, we suggest guidelines for the evaluation of earning capacity.

IV. Guidelines For Estimating Earning Capacity

A. Overview

Although the court system clearly intends to compensate losses of earning capacity, rather than actual earnings, the courts have not always given us clear guidance. As an example, interest and temperament may not be very important in the determination of capacity, other than some professional positions. Future training may or may not be relevant. Past earnings are often taken as indicative of earning capacity, but the courts have been clear in telling us that past earning history is not the final word. What seems clear is that for an expert to predict a marked deviation from actual past earnings history requires reliable evidence. In some ways, our guidelines are merely a more organized way of looking at available evidence.

[21]In *Joy v. Bell Helicopter Textron*, 999 F.2d 549 (D.C. Cir. 1993), the appeals court found that the trial court erred in admitting the economist's testimony because some of the alternative scenarios were deemed speculative, even though one of the alternatives was clearly not speculative.

Our intention is not to end discussion of the hard issues in measuring earning capacity, but rather to begin it. We expect there to be substantial changes as these suggestions are used and developed. One source of such changes is legal. Although economics is a science, forensic economics must follow the law. Case law is not a science, but is rather an inductive process in which general principles are drawn from decisions in particular circumstances. Those general principles will eventually be reformulated or amended if justice is no longer being served.[22] Thus, the proper application of economic science to legal issues must also be an inductive process. No guidelines can provide mathematical precision to this difficult task. As the courts prescribe or proscribe the considerations that are part of an assessment of earning capacity, our guidelines must change as well.

The guidelines must address the two basic steps in the evaluation of earning capacity, prior to its reduction to present value:

1. *Identification of the set of jobs (and associated earnings streams), for which the person has, or had, the vocational capacity to perform.* For post-injury evaluations, a functional assessment will usually be necessary. There will often be thousands of jobs within a person's pre-injury vocational capacity, and perhaps a very large number after an injury.
2. *Evaluating that set of jobs.* Somehow, the large amount of information must be condensed to something that is usable. Unfortunately, much information is lost in the process. For example, when an entire distribution of possible outcomes is condensed into one statistic, such as the average or the median, the numerous possibilities and their relative likelihood of occurrence are lost.

B. The Guidelines

1. Definition

Earning capacity is the expected earnings of a worker who chooses to maximize the expectation of actual earnings. The focus is the entire stream of potential earnings over the person's worklife. The likelihood of the person achieving each job or occupational possibility is an integral part of that person's earning capacity. Note that the value of earning capacity may be, but will not necessarily be, the value of one particular option within that capacity. Although this definition suggests mathematical precision, that precision can seldom be achieved because the exact probability of achieving a given job usually cannot be known. If these probabilities were known, there might be no need for most of the other guidelines. Thus, many of the later guidelines are suggested ways that evidence of such probabilities might be evaluated. Since the expert will not be able to give an evaluation of earning capacity with absolute certainty, it is common for several alternatives to be presented to the trier of fact. Some of the guidelines suggest ways that such alternatives might be viewed.

2. Consistency

The same guidelines that apply to the evaluation of pre-injury earning capacity should also apply to the evaluation of post-injury earning capacity. This means that there is no intrinsic difference in the measuring techniques. Of course, there is normally more historical earnings information available on

[22]See Cardozo (1921). The entire book is insightful, but this idea is expressed in the Introduction. See especially pages 22 and 23.

pre-injury capacity than post-injury. This asymmetry in the data will often cause the estimation techniques to differ. The essential point is that if the information differences did not exist, neither would the measurement techniques. It is common for each party in litigation to subtly change the definition of loss to suit their interests. For example, a plaintiff will often want to analyze pre-injury capacity and compare this to post-injury actual earnings. The defendant will often want to reverse this approach. Thus, post-injury earning capacity should factor in what the person could potentially accomplish even with the injury, recognizing that additional training may be more difficult and the individual may face job barriers due to the disability.

3. Functional Capacity

A job for which a person does not have the functional capacity should not be considered when measuring the person's earning capacity. In other words, the existence of jobs for which the person does not have the mental or physical capacity cannot increase or decrease the person's capacity.

4. Vocational Capacity

A job for which a person does not have the vocational capacity has no effect on that person's earning capacity, unless the person can easily acquire that vocational capacity. Jobs for which vocational capacity can be easily acquired may affect earning capacity. Obviously, the adverb "easily" must be interpreted by courts. The courts have not yet done so, but this is clearly within their responsibilities. The "ease" may include considerations of time as well as rigor. For example, a vocational capacity that requires only two weeks of training would be more relevant than one that requires 4 years. Choice and interest may have more importance in this area. Vocational experts often test for job interest and similar characteristics when attempting to design a retraining program. Successful retraining depends upon such issues.

5. History

The person's past pre-injury actual earnings is assumed to be a strong indicator of earning capacity. Unless the person is a minor, student, trainee, noncareer military person, housewife, or other person in circumstances where it is clear that the earnings history is not indicative of capacity, one *begins* with historical earnings.[23] Since actual earnings are, to some extent, a matter of choice, then such choices as working fewer hours than a normal work week or earning wages far below one's potential should theoretically not affect earning capacity. Nevertheless, an apparent choice of reduced wages may actually be disguising a disability that has not been identified. Furthermore, a choice that removes a person from an occupation may eventually result in a reduced capacity, as knowledge or skills grow stale. Although this guideline might be extended to post-injury actual earnings, the comparatively short time period, as well as post-injury physical recuperation and rehabilitation, may render such evidence less useful.

[23]This may seem to imply that workers maximize their compensation. Labor theory indicates that this is not correct, as there may be unmeasured compensating differentials that lead a worker to choose a position that does not have the highest total compensation. Furthermore, each worker will have his own preferences that guide the labor versus leisure trade-off. Since Guideline 5 is merely the starting point, its use need not contradict sound economic theory.

6. Higher earnings are preferred

Higher-paying jobs within the person's vocational capacity should be the first consideration in the valuation of earning capacity. In other words, the existence of low-paying jobs would be irrelevant to earning capacity unless the probability of obtaining higher-paying jobs is too low.

7. Probability

Each job within the person's vocational capacities has some probability of realization, given the choice to pursue that option. (This is the demand side of the earning capacity equation.) Jobs, taken with a given earnings level, for which the probability of realization for the given individual is low, should have little impact on the value of the earning capacity of the individual. This guideline would eliminate evaluations based on choosing only a few of the highest paying jobs, with no regard to their probability, as well as, when combined with guideline 6, eliminating the practice of focusing only upon lower paying jobs.

In the past, it was likely that the operational definition of "low probability" would have been left to the trier of fact, perhaps with the help of expert opinion. However, recent opinions have increased the responsibility of judges to act as "gatekeepers" in preventing the presentation of expert opinion that is not based on reliable foundation. One way to ensure reliability is to require that the set of jobs to be considered in one's earning capacity evaluation must be "more likely than not." In other words, the set of jobs considered relevant must have an aggregate probability of acquisition, given the choice to do so, of more than 50%. This would mean that one could consider only the highest paying set of jobs whose aggregate probability was more than 50%. Note that the probability of any particular job may be low, although the job may belong to a group of jobs whose aggregate probability may be substantial. Therefore, the categorization process is important. See Appendix for an illustration of how this Guideline might be applied.

8. Minimum capacity

Every unimpaired person is capable of earning at least minimum wage, 40 hours per week, 52 weeks per year. Guideline 5 notwithstanding, unless significant impairments can be identified, then a full-time minimum wage job should provide a floor to the estimation of earning capacity. Significant impairments may be legal, physical, psychological or behavioral, but in order for one or more of such impairments to have an effect on estimated earning capacity, there should be evidence that they exist in such a degree that they would reduce earnings. Thus, this guideline might be considered a "null hypothesis" to be rejected only by consideration of evidence.

9. Age-Earnings Cycle

Each person would presumably follow an age-earnings cycle similar to those of like individuals. In other words, it is a refutable presumption that a person's earnings will rise or fall in concert with persons of similar characteristics, such as age, education, and gender. There will be cases where a person has not followed such a pattern, and that may be evidence that the person will continue to deviate from the norm for the remainder of his worklife. Note that an injured person may no longer be similar to the average person, and thus may have a considerably different age-earnings cycle. This guideline again

presents a "null hypothesis," only to be rejected when there is evidentiary support for such a rejection.

10. Worklife

A person presumably would have a normal worklife expectancy. This worklife expectancy should reflect capacity, and thus be relatively insulated from the effects of voluntary unemployment or underemployment.[24] This guideline is, again, a "null hypothesis." Thus, we would normally assume that, in the absence of contrary information, the person would work as long, and as much, as similar individuals. Note that an injured person may no longer be similar to the average person, and thus may have a considerably different worklife expectancy.

III. Summary

Earning capacity is the most common standard for loss in personal injury cases, but the concept has not previously been clearly distinguished from the related concepts of actual earnings and expected earnings. We have seen that earning capacity is distinguished from actual earnings, and thus expected earnings, by the fact that some people have preference functions that differ from "higher wages are better." Therefore, their past actual earnings and expected future earnings may not equal their earning capacity. The judicial process, however, requires that an impairment of earning capacity be supported by reliable evidence. Often, there will be no reliable evidence that the person possessed an earning capacity in excess of their actual earnings, and that, if they were "earnings maximizers," their actual earnings would be higher. The court must base its decisions on evidence, and thus it is common for there to be no difference between the earnings capacity that can be proven and expected earnings.

While the concept of earning capacity is central to the evaluation of losses in personal injury and wrongful death cases, and it has been the subject of much discussion in both the vocational and legal literature, it has not been examined fully by economists. This may be because earning capacity has not been clearly separated from the concept of vocational capacity. Normally, the vocational expert would determine the vocational capacity (perhaps we should say "capacities") by identifying specific jobs or classes of jobs that the person would be able to perform. As we have discussed, the determination of that list of jobs requires consideration of many complex questions involving medical and psychological issues. The list of jobs describing a person's vocational capacity characterizes the supply options available to the person. The list itself may contain thousands of jobs, with different likelihoods and patterns of earnings. The economist may not have very much to say about the production of that list, but the reduction of that list to a number, or a range of numbers, is in the

[24]The existing worklife tables, including mean future working years and median years to final separation, are based on labor force participation status. This underlying data does not distinguish between voluntary and involuntary nonparticipation. Thus, these tables are not an ideal instrument for measuring earning capacity. Note also that the presence of unemployed participants has no effect on worklife as measured by these tables, although their lack of employment is often considered to be involuntary and might be an indication of reduced capacity. Note that the LPE approaches are based on labor force participation data, and, therefore have some of the same problems. The unemployment factor in such models does move them more toward earning capacity, if we believe that most unemployment is involuntary, and therefore is a indication of reduced capacity.

purview of economics. It is here that the economist and the courts will continue to add significantly to the discussion.

The purpose of evaluating earning capacity rather than actual earnings is to reduce both the problems of choice and some of the uncertainty of predicting actual outcomes. You may choose to earn less than your capacity. It may be easier to predict what you will be able to do than predict what you actually will do. However, the reliance upon earning capacity does not eliminate all of the uncertainty. The probabilistic nature of earning capacity is clear to the courts. Even when earning capacity and not actual earnings is discussed, the courts have been reluctant to accept "speculative" values that arise from jobs that the person is highly unlikely to hold because of market conditions rather than choice. Thus, the courts recognize that ability to perform the duties of a job is not the same as the ability to get paid to do the job. The demand side of the market is also important.

The evaluation of a list of jobs, each with its associated probability and earnings level, is equivalent to the evaluation of a random variable. Whether the evaluation is by taking some weighted average, the maximum, the minimum, or the median, most of the information from the distribution is removed. Thus, it is critical that care is taken to avoid misleading the ultimate consumer of the summarized data, that is, the trier of fact. What is not said can be more important than what is said. The best way to avoid misleading the consumer of statistical data is to disclose fully the process by which the data were produced.

We have begun the process of articulating guidelines that would reduce the possibility of producing misleading evaluations of earning capacity, consistent with the legal constraints. Some of the guidelines are obvious. That is good, because we need to start from a common basis. We know that others are controversial, particularly as they are stated in this early form. Some of the guidelines will require the clarification of issues by the courts, particularly where fuzzy concepts such as "reasonable probability" or "easily" are involved. We know that there is much left to do.

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Appendix

Example of a Conceptual Application of Guideline 7: Probability

In order to explain more clearly how Guideline 7 could be used to specify a list of jobs that would be "proper," let us consider one possible formulation. This "conceptual" application is an illustration of what we mean by Guideline 7, when used in conjunction with Guideline 6, "Higher Wages Are Better." We do not intend to imply that the data necessary to the example would actually exist.

Assume that an individual is capable of obtaining certain jobs J_i, that pay annual income Y_i, with a probability of attainment P_i. The probability of attainment is the likelihood that the person would obtain the job at the given rate of pay if they made a good faith attempt to apply. This corresponds to the "probability of realization" described in Guideline 7. It does not imply that the person actually desires or is likely to seek this particular job. The value of P_i is a function of both supply factors, such as whether the person has the skills to perform the required job duties, and demand factors, such as whether there are job openings available and the wage at which they would be offered. It is assumed that the probability P_i of being offered a particular job at the given wage is not dependent on whether the person actually obtains an offer for any other job.

As an example, assume that Mr. Smith is capable of performing 15 jobs that range in income from $46,000 to $60,000 as indicated in the first and third columns of Table 1 on page 32. The probability of attainment for each job is given in the second column. In the example, lower paying jobs are more likely and the likelihood of obtaining the highest paying jobs is very low.

There are alternative ways of restricting the pool of jobs that can be considered when estimating earning capacity. One way would require that the pool be the set of highest paying jobs (Guideline 6) such that the probability of getting at least one job (column 4) from the set is greater than 50%. The probability of getting at least one job is one minus the probability of getting no job (column 5), or

$$1 - (1-P_1)(1-P_2)....(1-P_n).$$

In the above list, the minimum number of jobs that satisfies this condition is 14, as only after including the highest 14 does the cumulative probability in column 4 rise above 50%. In column 6, each job is assigned a weight equal to its relative probability, which is the job's Probability of Attainment from column two, divided by the total of the first 14, 0.7090. Multiplying each job's weight by its income level, and adding, we arrive

at weighted average earnings of $50,250. Note that the high-paying, low probability jobs contribute relatively little to the total weighted average earnings.

Attempts to "improve" upon the suggested technique can quickly lead to problems. For example, if one were to insist that the probability of getting some job from the list be increased to 100%, then, unless there were at least one job with 100% probability of attainment, adding millions of jobs would not meet such a criterion.

Table 1

Job	Probability of Attainment	Income	Cumulative Probability of Obtaining at Least One Job	Cumulative Probability of Obtaining No Job	Weight for Job	Calculation of Weighted Average Income
1	0.0010	$60,000	0 00100	0.99900	0.00141	$85
2	0.0030	59,000	0.00400	0.99600	0.00423	250
3	0.0050	58,000	0.00898	0.99102	0.00705	409
4	0.0100	57,000	0.01889	0.98111	0.01410	804
5	0.0200	56,000	0.03851	0.96149	0 02821	1,580
6	0.0300	55,000	0.06735	0.93265	0.04231	2,327
7	0.0400	54,000	0.10466	0.89534	0.05642	3,047
8	0.0500	53,000	0.14943	0.85057	0.07052	3,738
9	0.0600	52,000	0.20046	0.79954	0.08463	4,401
10	0.0700	51,000	0.25643	0.74357	0.09873	5,035
11	0.0800	50,000	0.31591	0.68409	0.11283	5,642
12	0.0900	49,000	0.37748	0.62252	0.12694	6,220
13	0.1000	48,000	0.43973	0.56027	0.14104	6,770
14	0.1500	47,000	0.52377	0.47623	0.21157	9,944
15	0.2000	46,000	0.61902	0.38098		
Total of First 14	0.7090				1.0000	$50,250