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**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TEXARKANA DIVISION**

Michelle Jones, et al.)	
)	
Plaintiff,)	
)	Civil Action No. 501CV179 DF
vs.)	
)	
Jim Randles, MD, et al.)	
)	
Defendants.)	

AFFIDAVIT OF CARRELL CHADWELL, PHD

Before me, the undersigned notary public, appeared Carrell Chadwell, Ph.D. who, having been sworn by me, deposed the following:

My name is Carrell Chadwell, and I am over the age of eighteen years, of sound mind, and fully capable of making this affidavit. The facts contained herein are true and correct and are within my personal knowledge.

Defense has filed a motion to exclude my testimony. This motion centers on the following key areas:

- I. Introduction - FRE 702, Testimony by Experts
- II. My qualifications
- III. Reliability of methodology and techniques underlying my opinions
- IV. Relevance or "fit"

Each of these points is discussed in the pages that follow.

I. Introduction – FRE 702, Testimony by Experts

Defendants discuss Rule 702 of the Federal Rules of Evidence and various court decisions to show that, for expert testimony to be admissible, the expert must be qualified. In addition, the testimony must be both relevant and reliable and must assist the trier of fact to understand or determine a fact in issue. I agree.

The requirement of FRE 702 is in keeping with my vocational economic assessment regarding Mr. Leonard. This is true both in the context of understanding earning capacity and worklife expectancy issues and in determining the present value of Mr. Leonard's lifetime loss.

As shown in the remainder of this document, defendants' arguments show that they do not have a thorough understanding of the proper nature of a lost earnings analysis or how such analyses are generally conducted. It is, of course, impossible for anyone to have absolute knowledge of the future. In the absence of a crystal ball, it is necessary

to estimate based on appropriate population statistics that are applied to the facts of Mr. Leonard's case.

The United States Supreme Court addressed this very concern in *Jones and Laughlin Steel Corporation v. Howard E. Pfeifer* 462 U.S. 523 (1983), where they noted the impossibility of producing statistics that exactly match the plaintiff's future:

By its very nature the calculation of an award for lost earnings must be a rough approximation. Because the lost stream can never be predicted with complete confidence, any lump sum represents only a "rough and ready" effort to put the plaintiff in the position he would have been in had he not been injured.

II. My qualifications

In performing an analysis of loss of earning capacity in a general personal injury case, five elements must be determined: pre-injury earning capacity, post-injury earning capacity, pre-injury worklife expectancy, post-injury worklife expectancy, and present value of the loss figure.

The first four elements are vocational issues, not purely economic ones as defendants appear to believe. The elements require a knowledge of jobs and the physical and mental attributes required to perform them; the labor market, including current pay rates; the concept of occupational disability and how it affects ability to work; and career cycles and worklife expectancies, and how they differ for workers with and without disability.

The last of the five elements, present value, is an economic issue. It requires an understanding of the relationship of wage growth and interest rates over time, and how that relationship can affect earnings.

I am qualified as a vocational economic analyst in these five areas as I will show below.

A. Formal education

My formal education on vocational issues includes the following:

Ph.D. in Psychology, 1980, North Texas State University:
Major counseling psychology
Minor vocational rehabilitation

M.A. in Psychology, 1973, Texas Tech University
Major vocational rehabilitation

My formal education in economics and statistics includes the following:

University of Nevada at Las Vegas, 1994, Department of Economics:

Principles of Economics for Occupational Professionals:

Time value of money; money, inflation, and interest rates; wage growth; net discount rate; fringe benefits; personal consumption; tax issues; structured settlements

Applied Economics for Vocational Rehabilitation Professionals:

Earning capacity and worklife expectancy; valuation of household services; measuring fringe benefits; time value of money; money, and interest rates; wage growth; net discount rate: theory and evidence

Valuation of Business by Vocational Experts:

Valuation terminology and methodology; capitalization and discount rates; valuations in marital dissolutions; valuation by industry; valuation of owner vs. the value of the company

North Texas State University, 1977-1980

Psychology Research Seminar and Practicum

Initiation, conduct and consummation of advanced research projects, as well as dialogues related to the art and practice of publishing

Advanced Psychological Statistics

Includes a review of probability theory and elementary sampling statistics, a discussion of correlational theory and the application of several correlational techniques, a study of several methods appropriate for testing hypotheses about differences among several means, factorial designs in analysis of variance and some consideration of nonparametric procedures

Advanced Research Design

Principles and techniques of analysis of variance and covariance, experimental designs with applications to randomized groups, factorial, Latin-square, trend analysis and other standard schemes. Experience in laboratory techniques, data collection, data analysis and interpretation.

Elementary Statistics

Techniques appropriate for treatment of psychological data; frequency distributions, percentiles, measures of central tendency and variability, normal curve function, simple correlational analyses, applications of sampling theory

Texas Tech University, 1970-1971

Statistical Methods I

Methods of analyzing data, statistical concepts and models, estimation, tests of significance, introduction to analysis of variance, linear regression, and correlation

B. Other training

Defendants display their lack of understanding of the principles of determining loss of earning capacity when they say that the issues of future earning capacity, worklife expectancy, and likely future employment are "hard, statistical based economic issues." These are vocational issues in which the typical economist has little or no training.

I have over twenty years of experience in the field of vocational rehabilitation. For over three years, I worked as a vocational rehabilitation counselor with the Texas State Commission for the Blind; for over seven years I functioned as the vocational psychologist at the Dallas Veterans Administration Hospital; for eight years, as Clinical Assistant Professor, I taught classes in career counseling, vocational evaluation and psychological evaluation at the Department of Rehabilitation Science at University of Texas Southwestern Medical School; and for fifteen years, in my private practice, I provided career counseling to private clients and worked with Texas Rehabilitation Commission in evaluating and counseling their disabled clients.

This practical experience provided me with expertise in the areas of career patterns, worklife expectancies, effect of disability on ability to work and find jobs, earning capacity of individuals with and without disability, the labor market, and the world of work in general. Much of this involves the "practical economics" of work and disability.

The formal education in determination of present value figures, obtained through the University of Nevada at Las Vegas, has been applied many times since 1994 in numerous cases of personal injury litigation. Thus I have eight years of experience in applying those concepts to actual cases. Over this time I have kept up with the literature in the area of loss of earning capacity, including present value determination.

I have qualified as a vocational economic expert in several courts, including:

3/26/99

Cause No. 48-159667-95

Deborah Burks & Miranda Burks (minor) vs. Lawrence Fox, M.D., et al
48th Judicial District Court, Tarrant County, Texas

9/21/98

Cause No. 96-07900-J

Mary Kay Crowder Vs. Robert D. Abrahamson
191st Judicial District Court, Dallas County, Texas

4/8/98

Cause No. 348-154235-94

Dorothy J. Littlepage vs. William Littlejohn M.D. & John Ponder M.D.
348th Judicial District Court, Tarrant County, Texas

11/10/97

Cause No. 395CV1180-T

Stephen L. Howell, et al, vs. Denny's, Inc.
U.S. District Court, Northern District of Texas, Dallas Division

5/1/97

Cause No. 94-12463-H

Janet C. Tovar v. Trammell Crow Company and C-W #11 Limited
Partnership
134th District Court, Dallas County, Texas

11/13/96

Cause No. 1-94-163

Linda Williams v. Waylon O. Ward and Ed Collier
354th Judicial District, Rockwall County, TX

4/9/96

Cause No. 3:94-CV-1917-X

Wayne McDaniel v. Southern Pacific Transportations d/b/a/ So. Pacific
Railroad
U.S. District Court, Northern District of Texas, Dallas Division

In the current case, the only issues addressed that are purely economic in nature are the growth and discount rates applied to the wages to derive the present value of the plaintiff's losses. As noted previously, I am qualified to address these issues by virtue of my education and experience. My opinions on growth and discount rates are based on government sources regarding historical rates for compensation growth (which includes growth on both wages and fringe benefits) and the historical rates for 91-Day Treasury Bills. A review of these data both on a long-term basis and in recent years, indicates that compensation growth is essentially equal to the rate of return on 91-day Treasury Bills--hence an "offset." Data on these rates can be readily obtained on the internet at the following sites:

Growth Rates: U.S. Bureau of Labor Statistics. Major Sector Productivity and Costs Index: Hourly Compensation. Series ID: PRS84006103. Washington, DC.
<<http://146.142.4.24/cgi-bin/srgate>>

Interest Rates: Federal Reserve Bank of St. Louis. 3-Month Treasury Bill (Secondary Market), Averages of 1954 to 2001 Daily Closing Bid Prices.
<<http://www.federalreserve.gov/releases/H15/data/a/tbsm3m.txt>>

My opinions regarding Mr. Leonard's annual earning capacity and worklife expectancy are not economic issues, but vocational and statistical issues. I understand both of these issues thoroughly and am well qualified to address them.

C. *Comparison with doctorate-level economist expert*

Dr. Helen Reynolds has training in the broad field of economics; her C.V. displays no training or experience in vocational issues. She is thus well qualified to testify on the sole economic issue involved in this case, which is present value. As far as can be determined from her C.V., she is not well qualified to testify on vocational issues of pre-injury earning capacity and worklife expectancies. This includes the issues of whether Mr. Leonard's worklife expectancy is more like that of an average male or an average female, and whether his actual earnings constitute a more reasonable estimate of earning capacity than a proxy would do.

Defendants misstated my testimony when they assert that I stated I am better qualified than a doctorate-level economist to determine what method of determining present value is most appropriate in this case. In fact, Mr. Stewart asked during the deposition whether I believed that Dr. Reynolds is more qualified than I to decide the appropriate method of determining present value, and I answered no. When asked, "The offset or some other present value process, she's just as qualified as you to determine that?" I answered "Yes." (p. 322, l. 21-23).

I do not hold myself out to be an economist. Economics is defined in most text books as "the study of the allocation of scarce resources." Thus, it is a field much broader than the impact of disability on a plaintiff's lifetime expected earnings. Indeed, there is no single discipline that focuses on this impact. Determination of the present value of an earnings stream could be argued to be part of many disciplines, including accounting, finance, economics, and vocational counseling. My post-doctoral training has been targeted to build on earlier education and training to focus specifically on the assessment of life-time earnings as stated in present value. In that minor application of the relevant fraction of economic theory, I do hold that I am as well qualified to testify as Dr. Reynolds. In addition, I am much more qualified, by nature of training and experience, to testify on vocational issues.

III. *Reliability of methodology and techniques underlying opinions*

A. *Reliance on computer software in forming expert opinions*

The defense motion repeatedly attacks my use of computer software to perform routine detailed computations, alleging that I indiscriminately accept the outputs of these programs as the basis of my opinions. The software employed does not develop opinions. It is used merely as a spreadsheet tool for performing detailed computations in a standard manner, thereby reducing clerical error. Use of this software is similar to use of a calculator, which

is accepted without question. As with a calculator, the user reviews the output for reasonableness and accuracy. To assure accuracy, quality control personnel within Vocational Econometrics checked the software calculations thoroughly and repeatedly.

1. Research into computer software

In this case I used software from Vocational Econometrics, Inc. to extend Mr. Leonard's expected earnings over his remaining worklife expectancy (VALE) and to analyze the value of services he would have been likely to contribute to his household. The calculations are so detailed that performing them by hand would greatly increase the probability of error. In my deposition, Defendants repeatedly pressed to know whether I have done independent research on the software I use and the theories to which I adhere, and whether I personally checked the accuracy of the data in the software. Defendants seem to believe that vocational economic analysts should perform all calculations by hand.

With regard to VALE, I supplied the key decision points upon which the computations depended: earning capacity, fringe benefits, gender, education, age, and disability status. The only data provided by the program were the corresponding probabilities of life and employment, selected based upon my inputs. These probabilities are derived from data from the US Census Bureau and Department of Labor. Employment rate data from the Current Population Survey are produced and extensively tested by the U.S. Census Bureau. The probabilities of life are drawn from the life tables from the U.S. Department of Health and Human Services, National Center for Health Statistics, which produces and extensively tests the tables. Although I have not reviewed the work performed by either agency to derive the probabilities, I am familiar with the values, and can confirm their reasonableness through my personal training and experience.

As my curriculum vitae shows (Attachment A), my background is in applied psychology: vocational rehabilitation, counseling and psychotherapy, and psychological and vocational evaluation. While practicing my profession, I have read many research and discussion articles and books on the underlying methodology addressed by the VALE software program, including determination of pre- and post-injury earning capacity, use of proxies, assessment of level of disability, theories of measuring worklife expectancy, determination of appropriate statistical cohort groups, selection of method for determining present value, etc. I am very familiar with the principles and methodologies upon which the VALE software is based. In addition, each year I review new data provided by the government on these issues, and check that against the revised data provided by Vocational Economics, Inc. (VEI) to update the software.

My trust in the reliability of the software programs I utilize is based on my understanding of the principles and methodology underlying them and on my review of supporting government data.

2. Opinion generated by another VEI employee in another state

As a standard practice with the psychological and vocational professions, the practitioner frequently administers tests of intelligence, personality, vocational aptitude, etc. that he or she then sends to an external service for scoring. The practitioner remains the expert on the interpretation of the results; he or she merely relies upon another to process the computer tabulations. As an example, I routinely follow this practice in my psychological consulting when using the Minnesota Multiphasic Personality Inventory - 2 (MMPI-2). For this case, I derived inputs specific to the plaintiff's household services and relied upon Vocational Economics, Inc. to process them in its Household Services software.

In their motion, Defendants have alleged that I have no knowledge of the software program used to derive the replacement cost for household services. As an example, they pull a small portion of my testimony and imply that I have no knowledge of the occupations used to calculate the replacement cost. This is not true. At the time of my deposition, as I explained in my testimony, I did not have with me the list of occupational categories used to calculate replacement wages for the eight categories of household services and did not remember them offhand; I explained that the list was available in my personal office and could be provided if requested.

Defendants are again misleading when they charge that the software program selects a model or benchmark occupation for determining the value of Jeffrey Leonard's household services. Through use of the software, Mr. Leonard's services are explored in eight typical functions. Each function is logically tied to the average wage paid to persons performing that work in the plaintiff's labor market. I use the occupations in my calculation because, through my experience in vocational rehabilitation and evaluation, I know that the occupations selected to represent the various household services categories have very strong face validity. The dollars are reasonable. The eight household services functions and the Census Code occupational categories used for each are listed below:

Shopping	Private household cleaners & servants (Census Code 407)
Management & record keeping	Bookkeepers, accounting & auditing clerks (Census Code 337)
Food preparation	Cooks (Census Code 436)
After meal cleanup	Misc. food preparation occupations (Census Code 444)
Housecare & maintenance	Private household cleaners & servants (Census Code 407)
Washing, ironing, and clothing care	Groundskeepers & gardeners, except farm (Census Code 486)
Yard and car care	Laundering & dry cleaning machine operators (Census Code 748)
Child and other care of the family	Average of: Private household child care workers (Census Code 406); Family child care providers (Census

Code 466)
Child care workers, not elsewhere
classified (Census Code 468)

Contrary to defendants' allegation, the inputs I used for Mr. Leonard's household services analysis were specific and unique to his household. Data included Mr. Leonard's date of birth, his wife's date of birth, the fact that they had no children, and Ms. Jones's assessment of the proportion of time Mr. Leonard spent each week on the eight categories of household services. In addition, I selected costs for the Dallas metropolitan area in which they lived. These specific and unique facts were essential for the an accurate, individualized calculation of his loss of household services.

I have studied the research on which this software program is based and am aware of studies utilizing that research for a variety of purposes. I understand the principles and methodology underlying the household services software. When I receive the processed analysis, I check the print-out to be sure that all of the information and parameters I specified were correctly input and that the replacement cost results are in keeping with my knowledge of such costs.

B. The methodology and techniques underlying Chadwell's opinions are not peer-reviewed, or relied upon by experts without a proprietary interest in VEI.

Defendants distort my actual testimony when they charge, "Chadwell admits she does not know of any vocational economists outside of those using the proprietary VALE software that use the LPE methodology." What I said was, "I don't personally know any other vocational economists (p. 120, l. 24-25)." This does not mean that they do not exist.

As discussed in the introduction, forecasting a plaintiff's lost future earnings is not an exact science. As such, no single step in the loss computation process enjoys widespread acceptance in the relevant community. This is certainly true of determining discount rates, projecting earnings growth, defining earning capacity, as well as computing worklife expectancy.

I keep up with trends in my field and am well aware of many articles and books on the basic methodology of determining loss of earning capacity. The fact that these issues of methodology (the basic approach to assessing loss of earning capacity, the LPE method, the total offset method of determining present value, etc.) are extensively discussed in professional journals affirms that these methods are accepted among the various valid methods.

The methodology for determining lost earning capacity, for instance, is discussed in books such as *Determining Economic Damages*, by Gerald D. Martin (1997), *Determining Economic Loss in Injury & Death Cases* by William Gary Baker & Michael K. Seck (1987), and *Economic Damages: A Handbook for Plaintiff and Defense Attorneys* by Michael Brookshire.

Defendants also question the Life, Participation, Employment (LPE) method of calculating worklife expectancy that is used in the VALE software I used in this case. Brookshire and Cobb developed the standards for the LPE method and published them in *For the Defense* in 1983. Brookshire, Cobb, and Gamboa (1987) further refined the method to adjust for work disability. The LPE method is one of multiple widely accepted methods to compute worklife expectancies discussed in *Life and Worklife Expectancies* (Richards & Abele, 1999). These and other articles discussing the LPE methodology are contained in Attachment B. This listing of articles demonstrates that the LPE method is generally accepted, has been reviewed in professional journals, and that the methodology has been addressed in both economic and legal publications.

The methodology and principles in the software programs that I used have been discussed in a number of articles in peer-reviewed journals, government publications, and books. A sampling of such articles includes:

The use of CPS data on earnings

Gilbert, Roy F. "Estimates of Earnings Growth Rates Based on Earnings Profiles." *Journal of Legal Economics*, 4(2), Summer 1994, 1-17.

The use of proxies

Albrecht, Gary. "Forecasting the Earnings of a Partially Disabled Individual." *Journal of Legal Economics*, July 1991, 50-57.

Dillman, Everett, G. "The Age-Earnings Cycle - Earnings by Education." *Journal of Forensic Economics*, December 1988, 105-116.

Dillman, Everett G. "Interfacing the Economic and Vocational in Personal Injury Cases." *Journal of Forensic Economics*, May 1988, 55-76.

Toppino, David and Dawn Boyd. "Wage Loss Analysis: Vocational Expert Foundation and Methodology." *Journal of Legal Economics*, July, 1993, 69-79.

Worklife expectancies

Claurette, Terrence M. "Review: The New Worklife Expectancy Tables: 1998." *Journal of Legal Economics*, Winter 1997/1998, 75-76.

Corcione, Frank P. "Response to Andrew Gluck Regarding the New Worklife Expectancy Tables." *Journal of Forensic Economics*, Fall 1996, 339-342.

Gamboa, A. M., Jr., John P. Tierney, and Gwendolyn H. Holland. "Worklife Expectancy and Disability." *Journal of Forensic Economics*, April 1989, 29-32.

Gluck, Andrew. "Regarding the New Worklife Tables." *Journal of Forensic Economics*, Fall 1996, 335-337.

Offset method of determining present value

Lawlis, Frank and Robert Male. "Methodological Issues: Interest Rate and Wage Growth Forecasting." *Journal of Legal Economics*, Winter 1994, 55-61.

Pelaez, Rolando F. "The Total Offset Method." *Journal of Forensic Economics*, April 1989, 45-60.

Schwartz, Eli. "Below-Market Interest Rates and the Total Offset Method Re-Visited." *Journal of Forensic Economics*, Winter, 1997, 91-94.

C. Research into subject matter

1. Fringe benefits estimate

Each year, I review information on new government data on earnings and fringe benefits. I do not independently examine every figure in every table provided, although I do check VEI's table of figures against the government publication.

An important part of my role as vocational economic analyst is to determine which data to use in each individual case. In the Leonard case, I used the national average figure of 22% to represent his probable fringe benefits over his lost lifetime. As young as he was at his death, his full career pattern had not yet been revealed. Therefore it was more appropriate to use the national average figure than some other statistic. Certainly it would be inappropriate to use the fringe benefits percentage he was making on his jobs in his 20's, since he could be expected to advance at least somewhat during his maturity. Likewise, it should not be assumed that the amount of fringe benefits he was making on his last job represented what he could be expected to make on future jobs throughout his lifetime.

For the same reason, the narrower category of service industry occupations was not selected as the appropriate source of fringe benefits data. It should not be assumed that Mr. Leonard would remain in the service industry. Given that he had not lived long enough to establish a clear career pattern, it is most appropriate to use the overall norms for civilian workers.

In the Motion to Strike (page 20), Defendants state that I admitted that my selection of this fringe benefit category was speculative. This is completely untrue. In fact, what Mr. Stewart asked was whether it would be speculation as to what Mr. Leonard's next job would have

been (page 129 of the deposition); I agreed; rather than speculate, the more appropriate course is to use the average for all civilian workers.

2. Assumptions about composition of household

Based on how Ms. Jones explained her current household, it was assumed that the multi-family dwelling situation was temporary. Accordingly, the analysis of loss of household services was based on a household of two (Mr. and Ms. Jones). If in fact this assumption was wrong, the household services analysis can be recalculated accordingly.

3. Indexes and investment vehicles

Defense contends that the determination of the discount rate used in my analysis was made by the VALE software. This is incorrect. I determined the input of a 0% net discount rate (pure offset) through the application of a 91-day US T-Bill and average compensation growth rates as measured by the Bureau of Labor Statistics.

Determination of the present value of a wage stream is dependent upon two key rates: the rate of expected annual increases in compensation and the rate of return at which to invest the lump-sum award. Relying only upon average growth rates for wages when projecting future earnings will underestimate compensation growth because an employee's total annual compensation consists of two components: wages and fringe benefits. Over the past 50 years, fringe benefits have grown considerably faster than wages, resulting in an average annual increase in total compensation roughly one percent larger than the growth rate in wages alone. Therefore, average growth rates in total compensation are usually more relevant for computing present value than the average growth rate for wages alone.

In addition to a growth rate to reflect future increases in compensation, an expert needs to discount the future value cash flows to reflect the interest to be earned by conservative investment of the lump-sum award. If plaintiffs invest to replace future losses in labor market compensation, then a safe, short-term government treasury, such as a 91-day Treasury Bill, is a logical investment vehicle because it provides maximum return on investment with minimal inflation and default risk. In addition, it permits regular withdrawals throughout the year to offset lost compensation without penalty or transaction cost.

My use of the 91-day T-bill and the offset method is based in part on the decision by the U.S. Supreme Court in *Jones and Laughlin Steel v. Pfeifer* (462 US 523; 1983). In this decision, the Court discusses appropriate discount rates for calculating present value for a future earnings stream:

The discount rate should be based on the rate of interest that would be earned on "the best and safest investments" . . . [T]he discount rate should not reflect the market's premium for investors who are willing to accept some risk of default.

Once an expert identifies the appropriate data regarding growth and interest rates, the main issue is the relationship between the two, or the net discount rate. Examining data

over a long period, forty or fifty years, is generally preferred as it considers a wide array of past economic conditions that could affect growth and/or interest rates in the uncertain future. Long-term interrelationships between compensation growth and interest rates show that, overall, the average long-term return on a 91-day Treasury Bill has been roughly equal to average compensation growth rates. This offset relationship also holds when looking at a short-term (5-year) horizon. The use of a pure offset method reflects this overall relationship and acknowledges the uncertainty in the future relationship between growth and interest rates. Attachment C lists articles that support use of the offset method in calculating present value.

In addition, Defendants misrepresent my testimony when they say that I admitted to doing no independent research into the continuing propriety of the 91-day T-bill to determine present value. As I stated in my testimony, I continue to watch the relationship of the 91-day T-bill to interest rates each year, and to keep up with the literature related to the total offset method of determining present value.

D. Insufficient data regarding subject

Defendants allege that I failed to obtain details of Mr. Leonard's work history, his physical capacity, his family history, his general learning ability, and his actual earnings on previous jobs. They thereby show their lack of knowledge about the process of determining earning capacity and how I performed such an analysis in this case.

One of the essential tasks of a vocational economic analyst is to determine whether to use actual earnings or some proxy to estimate earning capacity. Actual earnings are generally used only for individuals whose job pattern appears to reflect a stable, mature career path.

For other individuals, the analyst may use educational level; general learning ability; a set of specific defined aptitudes, if those are available; or a specific occupation, if that is established (e.g., a person who has achieved journeyman status in a field). Once the determination is made as to which approach to use, the other elements are irrelevant; e.g., if the analyst selects educational level as the proxy, aptitudes are ignored.

As I explained explicitly in that section of my deposition, extensive details about the specific jobs Mr. Leonard had held were irrelevant to determining earning capacity. The information I had about his work history was consistent with other young males of his socioeconomic class. Career development literature shows that young men with high school or below high school education generally have a series of relatively unrelated jobs; they take what they can find, and they often job-hop. Their early career patterns do not predict their eventual career patterns. Generally, when they reach their late 20's to early 30's, or when they begin to build families, they may settle into a more stable pattern. Therefore, using specific information about early career jobs would be inappropriate in projecting an estimate of lifetime earning capacity.

Defendants distort my testimony and repeatedly ignore my recorded explanations of the process of determining earning capacity. As I stated in my testimony (p. 195, l. 1, to p.

197, l. 19.), I did ask for information about Mr. Leonard's work history. The information I obtained was sufficient to determine that further details were unnecessary.

Defendants blatantly misstate my testimony when they say I did not endeavor to learn all I could about Mr. Leonard's physical characteristics. In fact, I did inquire about that and was told there were no limitations prior to his death on what he could do (p. 230, l. 17-18). Again, Defendants misstate my testimony when they say that I offered no further explanation or justification for excluding general learning ability as a factor in determining earning capacity. I explained my reason for doing so, as described above. I also explained that this was the same reason for not making an effort to learn his actual earnings on previous jobs in his immature career.

E. Opinions were prepared solely for purposes of litigation

Damage calculations are not called for except within the context of litigation. Damages are not calculated unless damages are sought. The model used in assessing loss of lifetime earnings due to injury is very basic. The model was not created by VEI, but is simply used by VEI in its assessments in order to fulfill the needs of the court. For death cases, key elements used by all experts are as follows:

- Lifetime earnings – this includes both how much the plaintiff could have earned and how long the plaintiff could have worked
- Present value assessment – this includes the determination of appropriate wage growth and discount factors

In addition to producing the VALE software, VEI published *The New Worklife Expectancy Tables*, a publication based on the same principles and calculations as the software I used to calculate Mr. Leonard's worklife expectancy. The tables have been used outside litigation. In a 1992 article in the *Journal of Rehabilitation Administration*, authors Misra, Bua-lam, and Majumder discussed use of the tables in improving benefit-cost analyses of rehabilitation programs (Attachment D).

Defendants grossly misstate my testimony when they say that "Chadwell shamelessly admits that decisions about the input for her 'calculations' were determined by the wishes of Plaintiff's attorney," and "that she would not have incorporated [information about Mr. Leonard's alleged diminished life expectancy] into her opinion unless requested to do so by the attorney who paid her."

As I stated in my testimony (p. 207, l. 13-23), I was unaware of any significant health factors when developing my analysis. In this case, I had been told that there were no physical limitations on his activities, and I based my analysis upon that assumption. As I stated in my deposition, if the attorney who hired me wishes me to prepare a revised analysis based upon the hypothetical of reduced life expectancy, I will be happy to do so.

Defendants take out of context and grossly distort my testimony when they say, "when asked to recalculate [household services loss] based upon a limited life expectancy, Dr.

Chadwell was unable to do so (p. 166, l. 19-21)." A few sentences before that, I had, upon request, recalculated the loss of earning capacity based upon that altered assumption (p. 165, l. 12-17.) I explained clearly that I could not perform a recalculation of Household Services loss during my deposition because the computerized analysis would have to be rerun (p. 166, l. 6-25, p. 167 l. 1-4).

IV. Relevance (fit)

A. *Employment history*

As explained above, Mr. Leonard was in his twenties when he died, and his work career was immature and undeveloped. There is insufficient evidence to predict that he would have always remained in service jobs. To use the statistics for fringe benefits in service industry jobs would therefore be inappropriate, and the broader category of civilian jobs is the better choice. If, in fact, Mr. Leonard had remained a worker in service industries throughout his career, the loss figure in my analysis would underestimate his loss, as service workers receive a national average of 23% fringe benefits, while civilian workers receive 22%.

Given the uncertainty of how Mr. Leonard's future career would have progressed, had he not died at the age of 29, it is more appropriate to choose a general fit (civilian workers) than a more specific fit (service workers) that could likely be inaccurate.

B. *Worklife expectancy*

Based on the information available, the analysis was performed on the assumption that Mr. Leonard had no health issues that put limits on his work activities; the implicit assumption was that his worklife expectancy likewise was unremarkable. No data were or are available to this analyst to say otherwise.

C. *Past earnings*

Mr. Leonard's actual earnings from the job he held at the time of his death were used to represent his earning capacity. Normally, an analyst would not use actual earnings of an individual in his twenties to estimate lifetime capacity, as this more often than not underestimates his mature earning capacity. Learning more about his early work history and earnings would likewise be unhelpful, except as they demonstrate how well he fits the typical early pattern of various cohort groups.

In this case, a comparison of Mr. Leonard's earnings at the time of death to the average (lifetime) earnings of males with a high school diploma or G.E.D. indicates that this proxy would not be a good fit; his earnings were far below his gender/education peers, even when taking into account that he was still young. The most reasonable benchmark upon which to base his earning capacity is his actual earnings on his last job, or what he had

accomplished by the age of 29. While this may underestimate his lifetime earning capacity and his resultant loss, it is the best fit possible based on the information available.

D. Claimed superior knowledge of hours spent on household services

Prior to apparently inheriting a grandmother's house, Mr. Leonard and his wife had lived together as a couple. Ms. Jones' description of the current residents in the house (including a niece and her husband and child) implied that the situation was temporary. The analysis of hours spent on household services was therefore based on the assumption that, in general and over most of the life of their marriage, Mr. Leonard and his wife would have lived together alone.

If sufficient evidence becomes available to indicate that the two families would have continued to live together for the remainder of their lives, I can amend my analysis.

V. Deposition Transcript

Defendants include multiple quotes and citations from my deposition transcript in support of their motion. However, in most instances, they are taken out of context in a manner that misrepresents my testimony and misleads the reader regarding my analysis and the proper method for conducting a vocational economic assessment. In many instances, defendants' technique blatantly misleads the reader unfamiliar with the context in which it was spoken.

Many examples of this have been noted throughout this affidavit. In order to save the court's time, we will not detail all abuses of this defense technique. Suffice it to say that I suggest reviewing these citations only within the full transcript of my deposition and proper vocational economic assessment techniques.

FURTHER, THE AFFIANT SAYETH NAUGHT.

Carrell Chadwell, PhD
Vocational Economic Analyst

Subscribed and sworn to before me, a notary public, in this ____ of October 2002.

Notary Public

My Commission Expires _____