Misconceptions Surrounding Probability in the Calculation of Economic Damages

(in PI, WD & WT Cases)

David G. Tucek
Value Economics, LLC
david.tucek@valueeconomics.com
314 434 8633

Objective is to convey understanding, not to convince.

Game Plan

- **Read the meter on group experience**
- **Cover five topics:**
  - **Ignoring Probability Altogether (Example from a Real Case & Calculating Lost Income through a Date Certain)**
  - **Expectancy Approach => Life is Lived as a Series of Fractional Years**
  - **Probabilities Used in Calculations Must Be Greater than 0.5**
  - **Calculating Losses through Life Expectancy *(time permitting)***
  - **The Problem of the Special Case**
- **Summarize my views (*Road trips to Arkansas*)**

Let's Read the Meter

(Show of Hands)

- **Calculate present value of economic losses?**
- **Use a risk-free rate?**
  - Justify it with "best and safest" language from Jones & Laughlin Steel Corp. v. Pfeifer?
- **Calculate lost income through a date certain (like SS retirement age)?**
- **Calculate a lost pension through life expectancy?**
- **Utilize estimates of life expectancy or survival probability in your work?**
- **Use Spizman-Kane educational attainment model for a minor child?**
- **Use the Dictionary of Occupational Titles (DOT) in transferable skills analysis?**

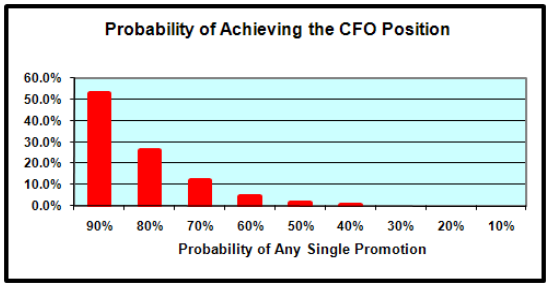
Ignoring Probability Altogether

Ignoring Probability Altogether
Example from A Real Case

- **Death case: plaintiff economist based loss on the assumption that decedent would have been promoted to CFO in 20 years.**
- **This assumption increased loss by $5 million in earnings and stock options.**
- **Ascension to CFO position required 6 promotions.**

Ignoring Probability Altogether
Example from A Real Case – My Response

- **Showed probability that decedent would be promoted to CFO given the probability of any single promotion:** ***(assumes independence)***



Ignoring Probability Altogether ➔
Calculating Lost Income through a Date Certain

- Most often concerned with the probability, or risk, of dying, getting sick, being injured, being unemployed or retiring. **(Both voluntary and involuntary reasons to leave the labor force.)**
- Usually ignored by assuming earnings would have occurred with certainty until, say, full Social Security retirement age.

My response:

- Recall that Jones & Laughlin Steel Corp. v. Pfeifer addressed the determination of both the proper discount rate and the lost stream of income.

Calculating Lost Income through a Date Certain (like SS retirement age)

- Recall that Jones & Laughlin Steel Corp. v. Pfeifer addressed the determination of both the proper discount rate and the lost stream of income.

"In calculating damages, it is assumed that if the injured party had not been disabled, he would have continued to work, and to receive wages at periodic intervals until retirement, disability, or death. An award for impaired earning capacity is intended to compensate the worker for the diminution in that stream of income. . . .

The lost stream's length cannot be known with certainty; the worker could have been disabled or even killed in a different, non-work-related accident at any time. The probability that he would still be working at a given date is constantly diminishing."

Calculating Lost Income through a Date Certain (like SS retirement age)

- **If you rely on Jones & Laughlin Steel Corp. v. Pfeifer for guidance on use of a risk-free discount rate, how can you ignore the guidance on estimating lost earnings?**

  "The lost stream's length cannot be known with certainty; the worker could have been disabled or even killed in a different, non-work-related accident at any time. The probability that he would still be working at a given date is constantly diminishing."

Calculating Lost Income through a Date Certain (like SS retirement age)

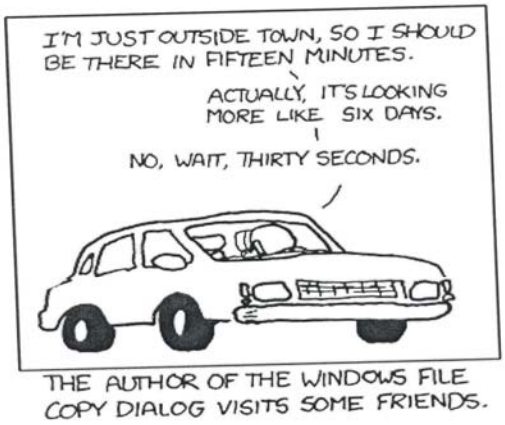
- **See also**

  HARRINGTON v. THE UNITED STATES OF AMERICA
  (2005 U.S. Dist. LEXIS 16185, S.D. Ia 2002)

  "The Plaintiff's economist... argued in his testimony against using a probability of life table, stating that 'I don't know anyone who is 80 percent alive and 20 percent dead.'

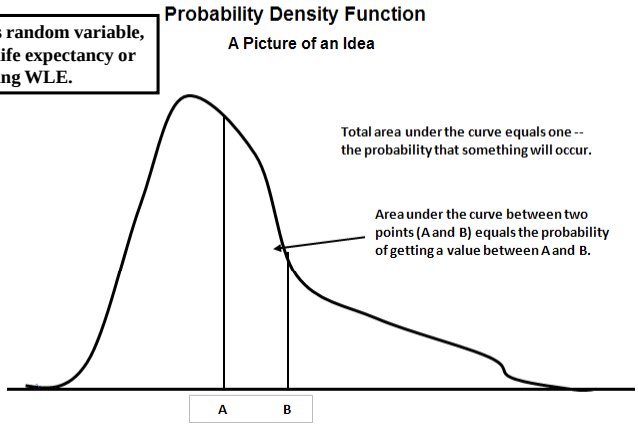
  The Court finds that the application of a probability of life table is appropriate. Every day economic decisions in the free market are made which discount amounts for the probability that an event will or will not occur. . . . . If the Court were to simply assume an age that Mr. Thayer was going to pass away, regardless of that age, the Court would still be making a probability determination about Mr. Thayer's probability of living in each future year, just a cruder one. The Court would assume that there is a 100% chance of Mr. Thayer living until the chosen age, and then a 0% chance of Mr. Thayer living after that."

Something for Everyone #1

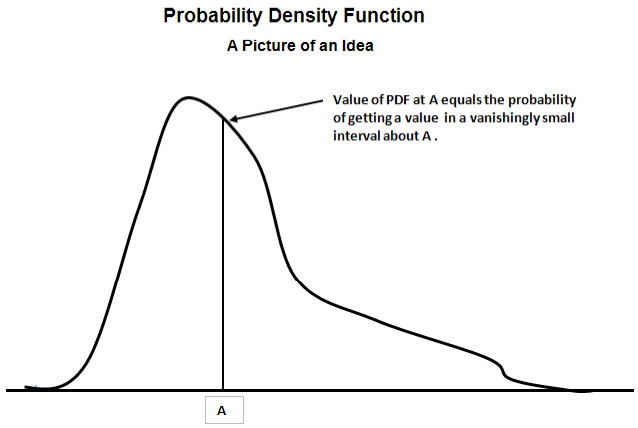


Calculating Lost Income through a Date Certain Sidetrip: Probability Density Function

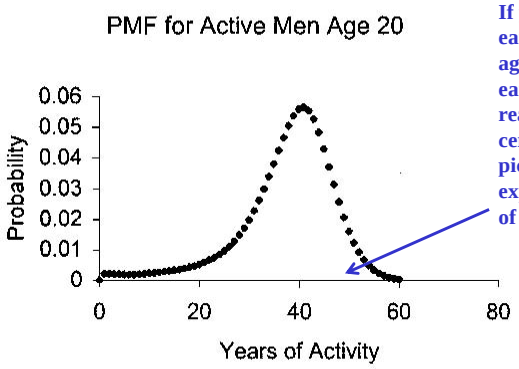
For a continuous random variable, like remaining life expectancy or remaining WLE.



Calculating Lost Income through a Date Certain
Sidetrip: Probability Density Function



Calculating Lost Income through a Date Certain



If you calculate the earnings loss out to age 67 as if the earnings would be realized with certainty, you are picking a work life expectancy in the tail of the distribution.

Source: *Probability mass functions for additional years of labor market activity induced by the Markov (increment–decrement) model*; Skoog & Ciecka; Economics Letters 77 (2002) 425–431

Calculating Lost Income through a Date Certain

- If you calculate the earnings loss (for a 20-year old) out to age 67 as if the earnings would be realized with certainty, you are picking a work life expectancy in the tail of the distribution.
- Is picking a date certain better than picking a value from the center of the distribution?
  - Why? **(You tell me.)**
  - Why not? **(You tell me.)**

Something for Everyone #2

"You're nothing to look at, but you are solvent."

Expectancy Approach => Life is Lived as a Series of Fractional Years

Expectancy Approach => Life is Lived as a Series of Fractional Years

An example illustrating the position:

- John, a 30-year old male, wins a lottery on his birthday that will pay him $50,000 per year for 10 years, provided he is alive. The first payment is to start in one year.
- He is killed in a MVA the next day and his wife sues for the value lost lottery payments.
- By statute, the discount rate is set to zero. ***(This is just to make our calculations easier – the conclusion is unchanged if discounting occurs.)***
- The calculations are shown on the next slide.

Expectancy Approach => Life is Lived as a Series of Fractional Years

A	B	C	D	E
Age	ℓ(x)	Survival Probability	Payment	Expected Payment
30	97,148	1.000000	$ -	$ -
31	97,017	0.998648	$ 50,000	$ 49,932
32	96,884	0.997279	$ 50,000	$ 49,864
33	96,747	0.995875	$ 50,000	$ 49,794
34	96,605	0.994412	$ 50,000	$ 49,721
35	96,455	0.992868	$ 50,000	$ 49,643
36	96,296	0.991228	$ 50,000	$ 49,561
37	96,125	0.989473	$ 50,000	$ 49,474
38	95,942	0.987582	$ 50,000	$ 49,379
39	95,742	0.985533	$ 50,000	$ 49,277
40	95,527	0.983312	$ 50,000	$ 49,166
			Total of Expected Payments:	$ 495,811

Column E = C x D

ℓ(x) is taken from *United States Life Tables, 2004*, published in National Vital Statistics Report, Volume 56, Number 9, published December 28, 2007 by the National Center for Health Statistics.

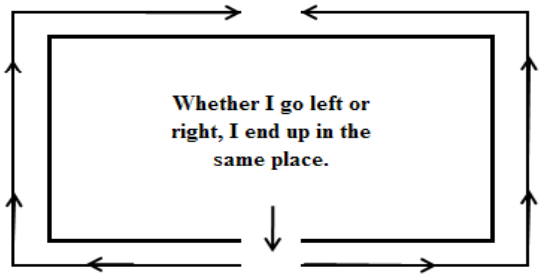
ℓ(x) is the the number of persons surviving to each age from the initial synthetic cohort of 100,000.

Column C = Column B ÷ 97,148

Expectancy Approach => Life is Lived as a Series of Fractional Years

- In other words, each expected payment equals the probability of surviving to the corresponding age times the $50,000 payment.
- The total of the expected payments equals the sum of these products – the sum of column C times column D.
- Because the survival probabilities are less than one, it is claimed that an expectancy approach assumes a life consisting of a series of fractional years.
- Since people live a series of whole years with at most, one fractional year, proponents of this view claim that the expectancy approach is invalid. ← **Bogus conclusion**

Why is this conclusion bogus?



Get the same result with a series of whole years and, at most, one fractional year.

Expectancy Approach => Life is Lived as a Series of Fractional Years

- If John lives one year and dies, he only collects $50,000. The probability of this event equals
  - Probability of living one year and dying between the ages of 31 and 32
- If John lives two years and dies, he only collects $100,000. The probability of this event equals
  - Probability of living two years and dying between the ages of 32 and 33

:

:

- If John lives nine years and then dies, he only collects $450,000. The probability of this event equals
  - Probability of living nine years and dying between the ages of 39 and 40

Expectancy Approach => Life is Lived as a Series of Fractional Years

- If John lives nine years and then dies, he only collects $450,000. The probability of this event equals (Repeated)
  - Probability of living nine years and dying between the ages of 39 and 40
- If John lives ten years, he collects $500,000. The probability of this event doesn't depend on when he subsequently dies; it equals
  - Probability of living ten years through age 40 = $\ell(40)/\ell(30)$
- These probabilities can be determined from, or found in, a standard mortality table.

Expectancy Approach => Life is Lived as a Series of Fractional Years

A	B	C	D	E	F
Age	$\ell(x)$	Survival Probability	q(x)	Total of Payments for Life Ending at Age + 1	Expected Value Calculation
30	97,148	1.000000	0.001352	$ -	$ -
31	97,017	0.998648	0.001371	$ 50,000	$ 68
32	96,884	0.997279	0.001408	$ 100,000	$ 140
33	96,747	0.995875	0.001469	$ 150,000	$ 219
34	96,605	0.994412	0.001553	$ 200,000	$ 309
35	96,455	0.992868	0.001653	$ 250,000	$ 410
36	96,296	0.991228	0.001770	$ 300,000	$ 526
37	96,125	0.989473	0.001911	$ 350,000	$ 662
38	95,942	0.987582	0.002075	$ 400,000	$ 820
39	95,742	0.985533	0.002254	$ 450,000	$ 1,000
40	95,527	0.983312	---	$ 500,000	$ 491,656
				Total Expected Value:	$ 495,811

Column F = C x D x E

Same Result

For 10 consecutive years of life, probabilty of dying in 11th year is not relevant.

$\ell(x)$ is the the number of persons surviving to each age from the initial synthetic cohort of 100,000. q(x) is the probability of death between "Age" and "Age + 1".

United States Life Tables, 2004, published in National Vital Statistics Report, Volume 56, Number 9, published December 28, 2007 by the National Center for Health Statistics.

Column C = Column B ÷ 97,148

Expectancy Approach => Life is Lived as a Series of Fractional Years

- Conclusion that expectancy approach assumes life is lived as a series of fractional years arises from a gross misunderstanding of the underlying calculations.
- It is possible to get the same result by modeling a life as a series of whole years followed by, at most, a single fractional year.
- The formulas for both approaches have been known for more than 300 years.
- "Series of fractional years" conclusion is **bogus**: objection is overcome by modeling a series of lives consisting of whole years with at most one fractional year, with same result.

Expectancy Approach => Life is Lived as a Series of Fractional Years

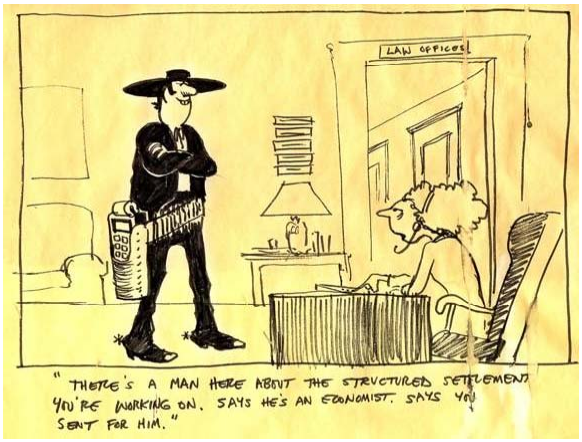
- "Series of fractional years" conclusion is **bogus**: objection is overcome by modeling a series of lives consisting of whole years with at most one fractional year, with same result.
- If not persuaded by logic and math, recall Harrington v. The United States of America:

  "The Plaintiff's economist... argued in his testimony against using a probability of life table, stating that '**I don't know anyone who is 80 percent alive and 20 percent dead.**'

  The Court finds that the application of a probability of life table is appropriate."

"Series of fractional years" argument.

Something for Everyone #3



Probabilities Used in Calculations Must Be Greater Than 0.5

Probabilities Used in Calculations Must Be Greater Than 0.5

Rationale

Burden of proof is
"more likely than not"
which translates into
"probability must be greater than 0.5"

(I agree with translation,
but disagree that all probabilities
used in calculations must be greater than 0.5.)

Probabilities Used in Calculations Must Be Greater Than 0.5

- Disprove with counterexamples ***(Are all odd numbers prime?)***
- Consider the consequences
- Conclusion is based on the wrong standard

Disprove with Counterexamples

- Consider any case in which testimony based on life expectancy, work life expectancy or the LPE method was allowed. ***(There must be thousands.)***
- Also consider
  - DOLL v. BROWN (75 F.3d 1200, 1206-07, 7th Cir.1996)
  - MILAM v. DOMINICK'S FINER FOODS (2009 U.S. App. LEXIS 26595)

DOLL v. BROWN

"It is an extension of the routine practice in tort cases involving disabling injuries of discounting lost future earnings by the probability that the plaintiff would have been alive and working in each of the years for which damages are sought. It recognizes the inescapably probabilistic character of many injuries. It is essential in order to avoid undercompensation . . . . to avoid . . . . overcompensation . . . . it must be applied across the board, that is, to high-probability as well as to low-probability cases. If the patient in our example was entitled to 25 percent of his full damages because he had only a 25 percent chance of survival, he should be entitled to 75 percent of his damages if he had a 75 percent chance of survival--not 100 percent of his damages on the theory that by establishing a 75 percent chance he proved injury by a preponderance of the evidence."

See red underlined language, particularly the double underlined section.

MILAM v. DOMINICK'S FINER FOODS

"But it requires evidence of the loss of what economists call an 'expected benefit.' Suppose you're playing roulette on a 37-number wheel (18 red, 18 black, and 1 green) at the Casino de Monte-Carlo, and after you have placed your $ 1,000 bet on red, which will pay you $ 2,000 if the ball lands on red, the casino collapses through the negligence of a building contractor, destroying not only the roulette wheel but also your chips, and you cannot get the money you paid for them back because all the casino's records were destroyed when it collapsed. You've suffered a loss equal to a 48.6 percent chance of winning $ 2,000. So $ 972.73 would be your damages."

Doll & Milam clearly support the position that probabilities used in damage calculations do not have to be greater than 50 percent.

Consider the Consequences

- Standard life tables could not be used – they are derived from the probability of dying between age x and x+1, all of which are less than 0.5.

or

- Life expectancy would have to be recalculated using truncated probabilities of survival from age x to each subsequent age.
- Same for work life expectancies.
- Result would be defendant biased – LE's and WLE's would be artificially lowered. (Same bias for LPE method.)

plus

- Could not use Spizman-Kane educational attainment model if probabilities were all less than 50 percent.

Proof by Counterexample / Consider the Consequences
Objections

- I want specific cases – not allusions to thousands.
- The consequences are not relevant. The law often leads to consequences that are illogical by some standard – *e.g.*, collateral source.

Proof by Counterexample / Consider the Consequences
Reply to Objections

- I want specific cases – not allusions to thousands. ***This is just a denial of what is widely known to be common practice in civil litigation. Plus, Doll v. Brown and Milam v. Dominick's provide explicit statements that probabilities less than 0.5 may be used.***
- The consequences are not relevant. The law often leads to consequences that are illogical by some standard . . . . ***True enough – but "illogical consequences" are also often the reason a position is rejected. If consideration of the consequences isn't convincing, consider the fact that the "more likely than not" rationale is misapplied to the admissibility of evidence: the conclusion is based on the wrong standard.***

Conclusion is Based on Wrong Standard

- Standard of "more likely than not" relates to the burden of proof.
- Whether or not all probabilities used in damages calculations must be greater than 0.5 relates to the admissibility of evidence.
- Conclusion is based on false premise that the burden of proof standard and admissibility of evidence standard are somehow related – they are not.
- Similar to concluding that one must have at least a "B" in all courses just because a "B" average is required for graduation.

Is Testimony Based on Probabilities Less than 0.5 Admissible?

- Yes. See *Doll* and *Milam* cases.
- Look at Federal Rule 703: Bases of Opinion Testimony by Experts

  The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. ***If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted.*** *Facts or data that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.*

Is Testimony Based on Probabilities Less than 0.5 Admissable?

- The results and the probabilities we are interested in (WLE, LE, probability of survival, labor force participation and employment) are all of "***a type reasonably relied upon by experts in the particular field***".
- Most states (42) have rules of evidence with language similar to Federal Rule 703. Four states have less restrictive language. One (Michigan) requires the facts and data to (eventually) be admitted into evidence. Rely on case law in the remaining three. ***(IL, NY and RI)***
- **CONCLUSION**: The testimony is not inadmissible **just because** it relies on probabilities less than 50 percent.

Something for Everyone #4

"I got out of tulips after the market collapsed, but I'm slowly getting back in. Especially pink ones."

Check the Clock

Enough time to cover

"Calculating Losses through Life Expectancy"?

(Need 15 minutes for this, plus 20 minutes for remainder = 35 minutes in all.)

Read the Meter

- How many have ever done a t-test for the significance of an estimated regression coefficient, the difference between two means, etc.?

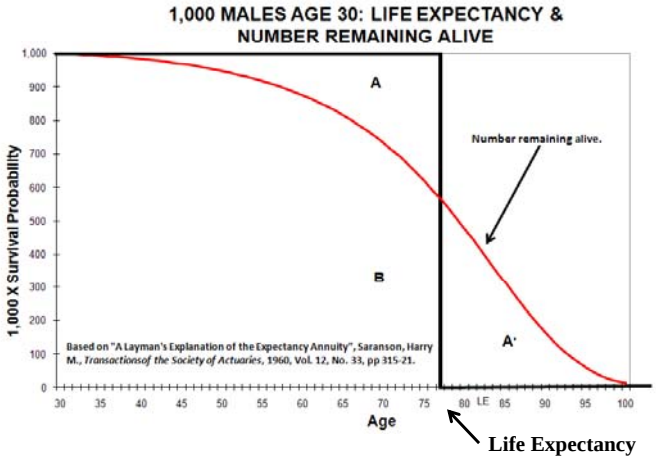
(We will come back to this.)

Calculating Losses through Life Expectancy

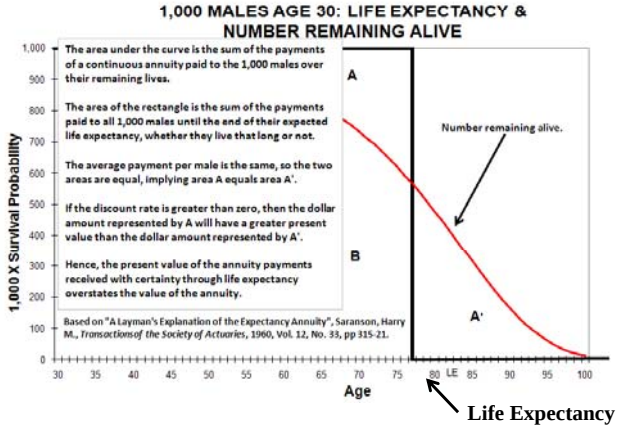
Calculating Losses through Life Expectancy (Say, Loss of a Pension)

- Would you agree that the market cost of an annuity that exactly matches the lost pension would be a viable approach to measuring the loss, assuming the issuing company was properly rated, the annuity was insured against default, etc.?
- If not, why not?

Calculating Losses through Life Expectancy (Say, Loss of a Pension)



Calculating Losses through Life Expectancy (Say, Loss of a Pension)



Calculating Losses through Life Expectancy (Say, Loss of a Pension)

The area under the curve is the sum of the payments of a continuous annuity paid to the 1,000 males over their remaining lives.

The area of the rectangle is the sum of the payments paid to all 1,000 males until the end of their expected life expectancy, whether they live that long or not.

The average payment per male is the same, so the two areas are equal, implying area A equals area A'.

If the discount rate is greater than zero, then the dollar amount represented by A will have a greater present value than the dollar amount represented by A'.

Hence, the present value of the annuity payments received with certainty through life expectancy overstates the value of the annuity.

Result predates Saranson by more just a wee bit:

Noted by Nicholaus Bernoulli in "The Use of the Art of Conjectoring in Law, Doctoral Dissertation", 1709

Proof published by George King in "Institute of actuaries text book . . . Part II, . . .", 1887

Calculating Losses through Life Expectancy (Say, Loss of a Pension)

- Suppose we calculate the present value of the 1,000 annuities based on a payment stream made with certainty that ends at the common life expectancy.
- When the first annuitant dies, we will not be obligated to make the remaining annuity payments to the deceased, but we will need those avoided payments to make payments to someone who lives beyond the common life expectancy.
- We will never need the interest earned on the avoided payments after the life expectancy is reached.
- This is why calculating losses based on certain payments made through life expectancy overstates the present value of the loss.

Calculating Losses through Life Expectancy (Say, Loss of a Pension)

Objection

We are calculating the loss of a single pension and not pricing an annuity: Saronson's argument does not apply.

Calculating Losses through Life Expectancy (Say, Loss of a Pension)

Response

- Suppose we had a 1,000 identical cases – clearly discounting the 1,000 pensions through life expectancy overstates the total value of the 1,000 pensions.
- Doing what is wrong for 1,000 cases cannot be correct for one.
- The fact that we have only one pension to value is not relevant. A t-test is based on the view of what would happen with repeated samples even though only one sample exists in the real world.

Calculating Losses through Life Expectancy (Say, Loss of a Pension)

See "A Layman's Explanation of the Expectancy Annuity", Saranson, Harry M., *Transactions of the Society of Actuaries*, 1960, Vol. 12, No. 33, pp. 313-321.

See also

HARRISON v. SUTTER STREET RAILWAY COMPANY (116 Cal. 156; 47 P. 1019; 1897 Cal. LEXIS 526)

"The jury would seem to have proceeded upon the theory that the deceased's expectancy of life would be fully realized, ...
Such a result does not accord with ordinary human experience. The deceased's expectancy of life was not a certainty, but a mere probability."

Calculating Losses through Life Expectancy (Say, Loss of a Pension)

Conclusion:
Losses should not be calculated through life expectancy, but through age 100 (or wherever the mortality table ends).

Something for Everyone #5

Working from home is great, but the office parties stink.

The Problem of the Special Case

The Problem of The Special Case

- Table values (of LE or WLE) do not take into account special circumstances associated with specific plaintiff/decedent.

Close cousins:

- There are too many other variables that are not considered when LE, WLE or LPE probabilities are used.
- Probabilities (underlying LE, WLE or LPE method) do not reflect what is going to happen 20, 30 or 40 years from now. In particular, the transition probabilities underlying WLE tables do not reflect the labor market decisions that will be made 20, 30 or 40 years from now,

The Problem of The Special Case: Read the Meter

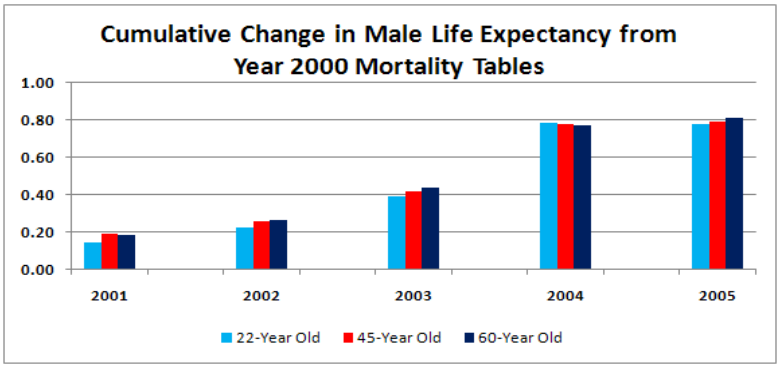
- **Who believes the following can reduce WLE?**
  - ***reduced functional endurance***
  - ***increased likelihood of early onset degenerative conditions***
  - ***increased likelihood of early onset cognitive and emotional limitations***
  - ***the long-term effect of chronic pain on the central nervous system***
  - ***the long-term side effects of medication***
  - ***the likelihood, frequency and duration of future hospitalizations, rehabilitation, and/or other interventional therapies***

The Problem of The Special Case: Read the Meter

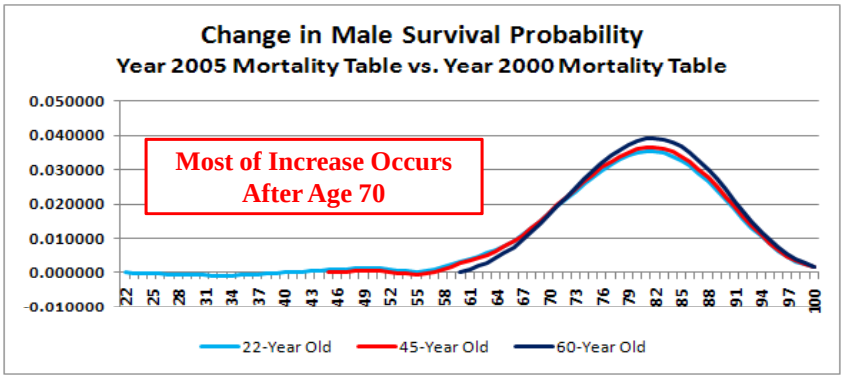
- **Who believes the following can reduce WLE?**
  - ***reduced functional endurance***
  - ***increased likelihood of early onset degenerative conditions***
  - ***increased likelihood of early onset cognitive and emotional limitations***
  - ***the long-term effect of chronic pain on the central nervous system***
  - ***the long-term side effects of medication***
  - ***the likelihood, frequency and duration of future hospitalizations, rehabilitation, and/or other interventional therapies***

Who believes they can quantify the effect beyond stating the direction?

Who Believes the Chart Below Suggests WLE Should Increase in the Future?



Who is Not so Sure?



The Problem of The Special Case: Reply

- I can't quantify the effects of factors like "***reduced functional endurance***", nor can I untangle them from the risks of death, injury, sickness from unrelated causes. ***(Maybe you can.)***
- Factors which, on the surface, appear to indicate a change in average WLE may have little, or the opposite, effect.
- Multiplicity of factors affecting voluntary and involuntary exits from the labor force means the decisions are best modeled as random events, after controlling for age, sex, level of educational attainment and initial labor force status.

The Problem of The Special Case: Reply

- It is not possible to account for every possible variable or factor that might affect a plaintiff's or decedent's "but for" outcome: Any estimate will be subject to the criticism that it is insufficiently precise.
- Criticism that WLE/LE tables don't account for individual circumstances ignores acknowledgement that

  "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." [Jones & Laughlin v. Pfeiffer]

The Problem of The Special Case: Reply

- Informing the jury of the risk of death or of not being able to participate in the LF for the average person like the plaintiff or decedent is better than not doing so.
- Only calculating losses out to a specific age (e.g., age 67) or for a range of ages and letting the jury decide is a cop out.
  - Substitutes one probability distribution [P(Loss) = 1 for age $\leq$ 67 and 0 otherwise] for another [WLE or LPE].
  - Ignores Pfeifer's acknowledgement that the probability a plaintiff or decedent would still be "working at a given date is constantly diminishing" as well as the "inescapably probabilistic character of many injuries"
- At a minimum, the risk of death through the specific age should be accounted for.

The Problem of The Special Case: Dave's Approach

- Almost always give a range for losses rather than a point estimate.
- Note that the future is inherently unknowable.
- Make it clear that estimates are an <u>average</u> based on individuals like the plaintiff or decedent.
- If upper or lower bound is more or less likely to occur, explain why.
- Provide ability to determine losses out to an age certain.

The Problem of The Special Case: Dave's Approach

Net Discount Rate: 2.00% | Date of Birth: 4/15/1984 | Date of Injury: 12/31/2008 | Trial Date: 8/1/2010

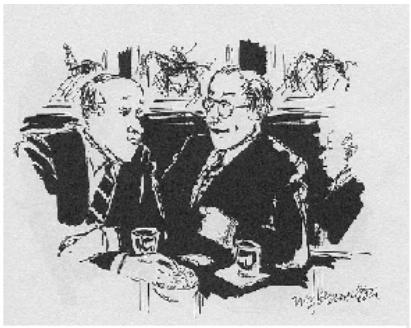
	A Year	B Age	C Lost Earnings*	D Present Value Factor	E Present Value of Total Lost Earnings	F Cumulative Present Value	G Survival Probability	H Labor Force Participation	I Employment Probability	J Risk-Adjusted Present Value of Total Lost Earnings	K Cumulative Risk-Adjusted Present Value
Past	2009	25	$39,485	1.00000	$ 39,485	$ 39,485	1.00000	0.88455	0.95229	$ 33,260	$ 33,260
"	2010	26	$24,022	1.00000	$ 24,022	$ 63,507	1.00000	0.89757	0.95687	$ 20,631	$ 53,892
					$ 63,507					$ 53,892	
Future	2010	26	$17,158	1.00413	$ 17,087	$ 80,594	0.99943	0.89757	0.95687	$ 14,667	$ 68,559
"	2011	27	$42,875	1.01413	$ 42,278	$ 122,872	0.99807	0.91058	0.96145	$ 36,942	$ 105,501
"	2012	28	$44,979	1.03441	$ 43,483	$ 166,355	0.99673	0.92359	0.96603	$ 38,669	$ 144,170
"	2013	29	$47,492	1.05510	$ 45,012	$ 211,367	0.99540	0.93660	0.97060	$ 40,731	$ 184,901
"	2014	30	$50,005	1.07620	$ 46,464	$ 257,831	0.99407	0.94962	0.97518	$ 42,773	$ 227,674
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
"	2048	64	$65,827	2.11008	$ 31,197	$ 1,805,546	0.81526	0.56111	0.96940	$ 13,834	$ 1,519,490
"	2049	65	$64,450	2.15228	$ 29,945	$ 1,835,491	0.80101	0.50846	0.96932	$ 11,822	$ 1,531,312
"	2050	66	$63,073	2.19532	$ 28,731	$ 1,864,221	0.78588	0.45581	0.96924	$ 9,975	$ 1,541,287
"	2051	67	$61,696	2.23923	$ 27,552	$ 1,891,774	0.76979	0.40316	0.96916	$ 8,287	$ 1,549,575
"	2052	68	$60,308	2.28401	$ 26,404	$ 1,918,178	0.75259	0.35051	0.96908	$ 6,750	$ 1,556,324
"	2053	69	$58,909	2.32969	$ 25,286	$ 1,943,464	0.73428	0.29786	0.96900	$ 5,359	$ 1,561,684
"	2054	70	$57,511	2.37629	$ 24,202	$ 1,967,666	0.71487	0.24521	0.96892	$ 4,111	$ 1,565,794
"	2055	71	$56,113	2.42381	$ 23,151	$ 1,990,817	0.69441	0.19256	0.96884	$ 2,999	$ 1,568,793
"	2056	72	$54,714	2.47229	$ 22,131	$ 2,012,948	0.67267	0.13992	0.96876	$ 2,018	$ 1,570,811
"	2057	73	$53,316	2.52174	$ 21,143	$ 2,034,090	0.64962	0.08727	0.96868	$ 1,161	$ 1,571,972
"	2058	74	$51,917	2.57217	$ 20,184	$ 2,054,274	0.62514	0.03462	0.96860	$ 423	$ 1,572,395
"	2059	75	$50,519	2.62361	$ 19,255	$ 2,073,530	0.59936	0.00000	0.96852	$ -	$ 1,572,395
				Total FutureEarnings:	$ 2,010,023				Total FutureEarnings:	$ 1,518,504	
				Total Past Earnings:	$ 63,507				Total Past Earnings:	$ 53,892	
				Total Lost Earnings:	$ 2,073,530				Total Lost Earnings:	$ 1,572,395	

Total through End of Remaining WLE:	$ 1,689,711
Total through Age 67:	$ 1,872,257
times	
WLE Adjustment Factor:	0.862876
Total, Adjusted for WLE:	$ 1,615,526

Years of Remaining WLE:	36.49
Age at End of Remaining WLE:	61 years and 2 months

*Past lost earnings for 2010 correspond to seven months.

Something for Everyone #6



I'll tell you why we're on this planet. We were put on this planet to outperform the market!

Summary of My Views

(But first, "Road trips to Arkansas".)

Summary of My Views

- Straddle the center line – be neither plaintiff nor defendant friendly.
- Give an estimated range of losses (in most cases).
- Do not ignore the risk of death, illness, disability or other (voluntary or involuntary) reasons why someone might leave the labor force or be unemployed.
- In particular, do not assume earnings with certainty out to a specific date, but provide the detail to allow a jury to pick a specific date or to allow an attorney to argue for a specific date.

Something for Everyone #7