Compensating vs. Making One Whole: How Economists’ Use of Race-Specific and Gender-Specific Data In Estimating Loss May Perpetuate Inequality

Charles L. Betsey, Ph.D.
Professor Emeritus
Howard University

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Abstract

This paper examines whether current forensic economic methodology replicates past and present discrimination in the award of economic damages. In *Jones & Laughlin Steel Corp. v. Pfeifer*, the U.S. Supreme Court indicated that an important goal of economic damages calculations is “to put the plaintiff in the position he would have been in if not injured.” Standard practice in forensic economics in assessing damages for personal injury and wrongful death is to measure lost earning capacity in terms of evidence of actual earnings in the past and likely future earnings of the individual or others with similar characteristics. To the extent that past and future earnings reflect discriminatory treatment on the basis of race, gender, or other factors, an award for economic damages based on such measures, while appropriate on accepted methodological grounds, will replicate past discriminatory patterns. We explore the implications of this phenomenon and alternative considerations that might be employed in calculating economic damages.

I. Legal basis for “Making One Whole”

According to a frequently used manual for computing economic loss, “compensatory damages is an amount of money needed to compensate the injured party for losses...The general goal is to “make the injured party whole.”¹ This follows the decision in the case of *Jones & Laughlin Steel Corp. v. Pfeifer*, where the U.S. Supreme Court indicated that an important goal of economic damages calculations is “to put the plaintiff in the position he would have been in if not injured.”²

It has been pointed out that this may not be practicable in cases involving wrongful death (especially in the loss of a child), or serious bodily injury (e.g., the loss of one or more limbs), where the loss is so severe that monetary compensation will typically be inadequate to make the survivors or injured party indifferent between the loss and monetary compensation.³

Nevertheless, courts endeavor in these and other cases to bring to bear information that will fairly and reasonably compensate plaintiffs.  

A recent report by the Lawyers Committee for Civil Rights Under Law (hereafter LCCRUL) concludes that the use of “race/ethnicity- and/or gender-based data in calculating lost earnings”, results in discriminatory impact by depriving women and people of color (and by extension, their families and communities) of fair compensation for injuries they have incurred. The LCCRUL has challenged the forensic economics community to address this issue and has encouraged the National Association of Forensic Economics (NAFE) to have its members refrain from using data that embody race/ethnicity/gender-based tables in calculating lost future earnings in personal injury and death/survival cases.

The plan of this paper is to first summarize the concerns raised by the LCCRUL. Second, to discuss the methodology that forensic economists use in practice in terms of assumptions and data commonly used subject to state and provincial rules. Third, to identify the nature of current state rules, with particular focus on the recent California legislation. Fourth, a discussion of the guidelines used by the 9/11 Victims Compensation Fund.

II. Critique of Forensic Practice and Challenges

The LCCRUL report draws on research by Chamallas and Wriggins and others, as well as judicial opinions in federal and state courts which conclude that standard tables that use gender, race, or ethnicity, to determine life expectancy, worklife expectancy, average earnings, and the like embody, at least in part, discrimination against protected groups. Therefore, they argue, their use is unconstitutional on due process and equal protection grounds. The recent adoption of legislation by the State of California affirming this view brings the issue into clear focus, both for California and the nation.
III. Forensic Practice

Forensic economists frequently encounter circumstances where they must rely upon statistical reports, rather than individual-specific information to estimate economic losses. This usually occurs when the injured party has little or no past earnings history, either because they are early in their careers or may have been out of the labor force for extended periods of time. One of the most obvious instances occurs in connection with estimating the loss associated with the death or injury of a child. In such an instance, or others where there is no earnings history upon which to base a loss estimate, the forensic economist is faced with estimating losses based on assumptions about the likely course of the person’s life: life expectancy, education, worklife expectancy, earnings and earnings growth, consumption or personal maintenance expenses (in wrongful death cases), even potentially marital status, and other factors.

Life expectancy is a baseline datum that it estimated in virtually every case to ascertain the time period over which damages might accrue, either for the injured party or their survivors. Similarly, worklife, the amount of time one is expected to spend working or in the labor force, is a standard part of estimating damages for personal injury or wrongful death and survival actions.

The task of creating a statistical person, so to speak, therefore often relies on the use of statistical information compiled by government agencies such as the Bureau of Labor Statistics, Census Bureau, and others. Which data series is chosen will potentially have a large impact of the bottom-line loss calculation. The contention of the LCCRUL and others, is that in the case of racial and ethnic minorities and women, an economist attempting to tailor the analysis to fit the demographics of the injured party may underestimate the amount of loss because statistical information used to fill-in gaps embodies past discrimination and discrepancies which if used as the basis for calculations about the future may deprive the individual of equal protection under the law.

A Washington Post story cites responses to the 2009 NAFE survey of membership, to the following hypothetical question:

estimating the loss of a two-year old African American male who will be unable to work at any time in the future. Both parents are high school graduates. Assume that reliable historical data are available related to earning as a function of age, race, gender, and level of education. As an example, there are earnings data for African-American males, age

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25-29, given that their highest level of education is a B.A. degree. What data would you use to make your estimate of economic loss?

Forty-four percent of respondents indicated they would use race-specific data and 92 percent indicated they would use gender-specific data.

In fact, 2009 was the second and last time such a question was posed to the NAFE membership. Respondents were somewhat more likely to indicate they would use race- and/or gender-specific data to estimate the loss in the hypothetical case in the 2009 survey than was found in the 2006 survey.13

Notwithstanding the overall results, several respondents provided comments indicating their misgivings about using race-specific or gender-specific data, while others indicated that not doing so would be trying to be “politically correct” but not sound forensic economic practice.\textsuperscript{14}

There are various areas where using tables produced by the Bureau of Labor Statistics, the Census Bureau, and other statistical agencies to estimate lost future earnings or earning capacity may lead to biased results since the tables capture the impact of past and present discrimination.

Among the areas are:

- **Life expectancy**-- differences in life expectancy favor women over men, whites over African-Americans, and Hispanics over their white and African-American counterparts. The most recent data indicate that life expectancy at birth varies from 76.6 for white men, 81.3 for white women, 72.2 for black men, 78.5 for black women, 79.3 for Hispanic men, and 84.3 for Hispanic women.\textsuperscript{15} Therefore, the race, ethnicity, and gender assumed in calculating lost future earnings or earning capacity may have a substantial impact on estimated loss. In fact, it can be argued that using male tables for life expectancy undercompensates women, given their longer life expectancy, while using blended tables overcompensates men.\textsuperscript{16}

- **Worklife**-- differences in worklife favor men over women, better educated over less educated members of the population, and those initially active in the labor force over those initially inactive. The frequently-used worklife tables by Skoog, Ciecka, and Krueger, disaggregate worklife along these dimensions.\textsuperscript{17} Earlier, worklife tables compiled by the Bureau of Labor Statistics using a less sophisticated methodology provided data by gender and educational attainment or by gender and race. The BLS tables showed large variations in worklife by race and were in common use by forensic

\begin{table}
\centering
\begin{tabular}{|l|c|c|}
\hline
 & 2006 Survey & 2009 Survey \\
\hline
a) I would use only gender-specific data & 42.4\% & 48.1\% \\
b) I would use only race-specific data & 0.6\% & 0.5\% \\
c) I would use both race and gender-specific data & 44.8\% & 43.6\% \\
d) I would not use such data & 12.2\% & 7.7\% \\
\hline
\end{tabular}
\end{table}

\textsuperscript{14} M.L. Brookshire et al., op cit. "Selected Written Comments from Survey Respondents on Question 9".
economists for a number of years. These tables are considered acceptable or may even be preferred in some jurisdictions for estimating remaining worklife.\textsuperscript{18}

- Educational Attainment—differences in educational attainment favor whites over African Americans and Hispanics, and women over men.

- Average Earnings—differences in average earnings favor men over women, and whites over African Americans and Hispanics.

- Earnings growth—typically earnings growth is estimated economy-wide. To the extent that earnings growth is estimated separately by industry or occupation, industries and occupations dominated by men will often experience higher rates of earnings growth than those dominated by women.

- Consumption—In cases involving wrongful death or survival actions, amounts that the decedent would have expended on his or herself are often required to be deducted from projected earnings.\textsuperscript{19} Consumption expenditure data compiled by the Bureau of Labor Statistics from the Consumer Expenditure Survey, indicate that men have lower consumption expenditures than women at almost every family income level and household size. At the midlevel ($30-39,000) the difference varies from about 2.8% for two- and three-person families, to over 4% for families of four or more persons.\textsuperscript{20}

Differences of this magnitude compounded over several decades would result in substantial differences in the amount that would need to be deducted from projected earnings depending on the gender of the injured party.

III. Variation in State Rules

Forensic economic practice regarding damages for personal injury and wrongful death is governed by the statutes, court decisions, rules, and guidelines established in the jurisdictions in which cases are brought. The relevant rules vary widely with regard to the nature of cases that can be brought, the considerations that apply, and the nature of the information and methodologies that may be or must be presented.

Brookshire and Smith summarized the relevant federal and state statutes and court decisions regarding damage calculations in cases of personal injury, wrongful death, survival actions, and

\textsuperscript{18} BLS Bulletins 2135, 2157, and 2254, provided the foundation for statistical estimation of worklife. They were based on data from the Current Population Survey and used the increment-decrement methodology, which has been superseded by Markov estimation techniques. See Table 1 for a list of jurisdictions that cite the BLS tables as acceptable or preferred.

\textsuperscript{19} See for example, S. Stephenson and D. Macpherson, Determining Economic Damages, James Publishing.

hedonic damages, in their 1987 book, *Economic/Hedonic Damages: The Practice Book for Plaintiff and Defense Attorneys*. The book has been through several printings and is now available online.\(^{21}\) For each jurisdiction, Brookshire and Smith included the measure of damages in wrongful death and survival actions (loss to the estate, loss to survivors, or other), the methodology to be used for wage growth and discounting, (discretionary, total offset, or other), whether the collateral source rule applied (accepted, rejected, or other), whether income tax effects were to be considered (considered, jury instructed on tax free awards, income tax effects considered, jury not instructed on income tax effects, or other), whether a consumption deduction is to be made in death cases (no deduction, likely consumption, maintenance consumption, or other), whether recovery for lost household services is allowed, and whether or how hedonic damages are allowed in personal injury and wrongful death cases (recovery not allowed, allowed as part of pain and suffering, allowed as a separate element of damages, or other).

More recently, in January 2003, NAFE announced plans to publish in the *Journal of Forensic Economics* articles “describing how economic damages are assessed for PI and WD cases in the courts of the various states, the District of Columbia and Puerto Rico.”\(^{22}\) The first articles covering, Florida, Oregon, and Pennsylvania were published in 2004.\(^{23}\) To date, articles have been published assessing the issues that arise in economic damage calculations in 29 states and Puerto Rico.\(^{24}\)

Table 1 contains information on the states where the various authors have referred to statutes or court rules that explicitly mention allowing or prohibiting data that show gender, racial, or ethnic differences in the estimation of economic damages for personal injury or wrongful death.\(^{25}\) The most common prohibition or limitation mentioned is the use of tables to estimate life expectancy or worklife expectancy.\(^{26}\)

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\(^{21}\)https://www.smitheconomics.com/resources/textbook/economic-hedonic-damages/


\(^{23}\) *Journal of Forensic Economics* 15(3), 2002

\(^{24}\) Author’s count.

\(^{25}\) California’s recent adoption of SB-41, of course, supersedes the information in Ben-Zion.

\(^{26}\) Where authors do not mention statutes or court decisions that relate to these considerations, we assume that state law and practice is silent on them and that it is therefore permissible to use such data in calculating economic loss.
Table 1. States Where Consideration of Race, Gender, and Ethnicity is Discussed

<table>
<thead>
<tr>
<th>State</th>
<th>Issue Addressed</th>
<th>Source, Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>U.S. life tables (or other mortality data by gender) admissible. No mention of race.</td>
<td>Ben-Zion, <em>JFE</em>, 17(3)</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Cites DOL worklife tables that use education, gender, and race</td>
<td>Shapiro, <em>JFE</em>, 19(1)</td>
</tr>
<tr>
<td>Georgia</td>
<td>Mortality tables authorized by statute do not use race and sometimes omit gender</td>
<td>Eisemann, <em>JFE</em>, 17(1)</td>
</tr>
<tr>
<td>Mississippi</td>
<td>Use of race is irrelevant, prejudicial, and inflammatory</td>
<td>Brooking, et al., <em>JFE</em> 26 (2)</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Mandates unisex, unified race tables for life expectancy</td>
<td>Tinari and Kucsma, <em>JFE</em>, 21 (2)</td>
</tr>
<tr>
<td>New York</td>
<td>Allows DOL worklife tables</td>
<td>Spizman and Tinari, <em>JFE</em>, 22(1)</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Mandates unisex, unified race tables for life expectancy in wrongful death cases</td>
<td>Schieren and Albrecht, <em>JFE</em>, 19(1)</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Cites DOL worklife tables that use education, gender, and race</td>
<td>Schap, et al., <em>JFE</em>, 26(2)</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Tables based on CPS allowable when work history not established</td>
<td>Cashdollar et al., <em>JFE</em>, 19(3)</td>
</tr>
<tr>
<td>Virginia</td>
<td>Mandates US Life Tables for life expectancy, allows DOL and other worklife tables</td>
<td>Zugelder, et al., <em>JFE</em>, 22(2)</td>
</tr>
<tr>
<td>West Virginia</td>
<td>Adjustments to age-earnings profiles allowed for education, gender, race, and age of minor children</td>
<td>Barrett and Brookshire, <em>JFE</em>, 16 (3)</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>Cites DOL worklife tables that use education, gender, and race</td>
<td>Martinez-Cuevas, <em>JFE</em>, 16(3)</td>
</tr>
</tbody>
</table>

No references to the use of race, gender, or ethnicity were found in *Journal of Forensic Economics* articles assessing damages in the following states: Alabama, Colorado, Florida, Idaho, Illinois, Iowa, Kansas, Louisiana, Michigan, Missouri, Nebraska, New Mexico, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wyoming.
As mentioned earlier, the issues are stark in the case of the injury or loss of a child. An accepted approach for estimating economic loss in the case of a child is to base the child’s future earnings on his or her educational attainment, and to base that largely on the social background and educational attainment of the parents.27 Kane and Spizman, and others have developed a methodology for doing so that also incorporates variables such as race, ethnicity, gender, urban/rural location, religious affiliation, and income, that arguably affect the educational attainment of a child.28

Using their model, one predicts the probabilities of a minor child attaining various educational levels. The predicted educational levels are then used in conjunction with data on average earnings by age to estimate the lifetime earnings of the individual absent injury.29 This also entails estimating life expectancy, worklife expectancy, and earnings growth. Given significant racial, ethnic, and gender differences in earnings along these dimensions, estimates of lost future earnings for a child of a given age will vary considerably based on demographic characteristics of the child and his or her parents.

Using the example from the 2009 NAFE questionnaire:

estimating the loss of a two-year old African American male who will be unable to work at any time in the future. Both parents are high school graduates. Assume that reliable historical data are available related to earning as a function of age, race, gender, and level of education.

The estimates of lost earnings would vary substantially depending on whether race-specific or gender-specific tables were used.  [EXAMPLES FORTHCOMING]

IV. California Senate Bill No. 41

As seen in Table 1, several jurisdictions have rules intended to limit the use of data in estimating tort losses that may be biased with regard to race, ethnicity, and gender. To date, California’s adoption of Senate Bill 41 (SB-41) represents the most straightforward, and possibly far-reaching attempt to address this issue. 30 The provision is not without ambiguity, however, and how it will be implemented remains to be seen.

SB-41 was approved by the Governor on July 30, 2019. Section 1, lays out the purpose of the legislation in terms of findings and declarations: a) that principles of equal protection and due process are fundamental to democracy and the concept of civil liberty; b) that California has been a pioneer in civil rights; c) that in tort actions in California and elsewhere, race, ethnicity, and gender are routinely used in calculating damage awards meant to provide restitution to

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27 The predominant technique (implicitly or explicitly) for estimating future earnings has been the human capital model. Although the model has had its critics since its introduction in the 1950s, it remains the standard technique largely because of its statistical reliability.
28 Spizman and Kane; Kane, Spizman, and Donelson, Educational Attainment Model of Minor Child
29 Spizman and Kane; Kane, Spizman, and Donelson, Educational Attainment Model of Minor Child
30 https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200SB41
Draft, not for quotation without permission of the author.

victims; d) that “nearly one-half of economists surveyed by the National Association of Forensic Economists said they consider race, and 92 percent consider gender, when projecting earning potential of an injured person, including children”; e) court experts typically rely on BLS’ Current Population Survey. “The results are a reflection of gender pay gaps and workforce discrimination, and they fail to account for possible progress or individual achievement”; f) the consequence of this bias is to perpetuate systemic inequalities; g) using race and gender-based tables can undervalue women and minorities by hundreds of thousands of dollars; h) any generalized reduction of civil damages based on statistical tables alone, based on a plaintiff’s membership in a protected class is counter to public policy; i) the act does not apply to protected classifications not identified in the CPS, unless otherwise permitted by existing law.

Section 2 adds a new section to the civil code. Section 3316 reads:

> Estimations, measures, or calculations of past, present, or future damages for lost earnings or impaired earning capacity resulting from personal injury or wrongful death shall not be reduced based on race, ethnicity, or gender.

What is the meaning of reduced? Are women protected from the use of unisex tables for estimating life expectancy since the use of male tables would reduce their estimated life expectancy? Are whites protected from the use of race-blended tables for average earnings that would reduce their projected earnings when compared to tables for white earnings?

V. Victims Compensation Fund Example

The 9/11 victims’ compensation fund provides an example of a public policy that addressed the race and gender aspects of calculating compensation for victims of a mass tort event in a consistent fashion. As LCCRUL have shown, the initial 9/11 commission guidelines for computing loss allowed for use of BLS data based on race and gender. After complaints by congressional leaders and various civil rights groups, the final guidelines provided for race- and gender-neutral data to be used. Specifically, the Fund mandated the use of race-neutral male tables for calculating earnings growth on an age-specific basis, and gender-neutral tables for consumption expenditures. No explicit mention is made in the Fund guidelines of how life expectancy is to be calculated, but Tinari et al., indicate that it would be used in calculations of lost household services, what the Fund guidelines refer to as replacement of services.

Worklife calculations were based on the study by Krueger et al., using data from the 1998-2004 Current Population Survey. Although the study estimated worklife by age, education, gender, and initial full- or part-time status, the Special Master used the data for all males with beginning full-time work status to compute worklife for men and women,

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31 LCCRUL, p.8.
“Because published estimated work-life expectancies by gender are lower for women than men, this specification increases the duration of estimated foregone earnings, and thus presumed economic losses, for female victims and was implemented by the Special Master to accommodate for potential increases in labor force participation rates of women.”  

In using data for all males, the Special Master ignores differences in expected worklife duration based on gender, which benefits women, but also ignores differences based on educational attainment. It is well known that worklife increases with educational attainment for a variety of reasons. By ignoring this association, the Special Master boosts the estimated worklife for those with lower levels of education. This outcome might be viewed as broadly equitable, given the societal forces that lead to lower educational attainment among some groups in the population.

Conclusion

A number of scholars and practitioners have questioned the use of race-specific and gender-specific data, such as that produced by the Bureau of Labor Statistics, in the estimation of damages for personal injury and wrongful death. They point out that such data, by their very nature, are backward-looking and therefore embody the effects of past and present discrimination based on race, ethnicity, and gender. To use such data to project future circumstances such as labor force participation, employment, earnings, and worklife disadvantages those who have been discriminated in the past. The recent passage of legislation in the state of California proscribes the use of data that would lower the estimated damages for someone in a protected class. This brings the issue into sharper focus and requires forensic economists to carefully examine the methodologies and data they utilize to estimate economic losses.

35 Based on the study by Krueger et al., male worklife varies at age 25 from 34.19 additional years for all males, to 29.51 years for less than high school, 32.87 years for high school graduates, 34.48 years for those with some college, and 37.59 years for those with at least four years of college. Tinari, et al., do not discuss this aspect of the VCF’s worklife guidelines.
36 Applicants to the Victims Compensation Fund are afforded the opportunity to present specific information to the Special Master that may override the general provisions outlined above.
REFERENCES


Martha Chamallas and Jennifer B. Wriggins, *The Measure of Injury: Race, Gender, and Tort Law*, New York University, 2010