Racial, Ethnic and Gender Equity in California – Leading-Edge Legislation and the Impact on Bodily Injury Loss Reserves

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Do actuaries really work on just one claim at a time?

The campaign

The law

How are things done now?

How might that change under the law?

What are the implications?
For the Impact of a New Law – Who to Ask?

Ask the claims dept?

Even closer to the ground – another actuary
Whose Ear is Closest to the Ground?

P&C Actuary (FCAS)

Claims Adjuster (CASE RESERVE)

Defense Attorney

Actuarial Calculation (usually from an FSA) (or Economist) (or Accountant)
Can Actuaries Work on Just One Claim????

• **Actuarial Evidence**: a key role in civil litigation cases by assisting lawyers and the courts in the quantification of pecuniary damages.

• Expert testimony (trial, depositions),

• (More frequently) an expert report used in settlement negotiations.

• **Present value of lost past and future earnings, lost pension and other benefits, lost valuable services, and the cost of future care in disputes** arising from matters such as:

• Personal injury; Wrongful death;

• **A defense against social inflation?**

• **Forensic economics**: the application of economic theories and methodologies to issues of litigation.
Bodily Injury and Fatality Claims

- Example: commercial auto claim for $3.25 million
- A tort recovery through the civil justice system
- Plaintiff (claimant) recovers money from Defendant (policyholder)
- Either a judgment or (most likely) a settlement
- Aim is to make the claimant whole – for pecuniary loss, restore the present value of earnings and cost of care to its value but for the injury/death
- (reduce for the balance of plaintiff/defendant’s degree of fault)
- For future earnings and care costs – a projection
- **THIS IS ABOUT THAT PROJECTION**
My Background

• FCAS 1996
• Worked with lawyers for over 25 years – first as the in-house actuary at a profession-owned legal malpractice insurer
• Now a practitioner of Actuarial Evidence/Forensic Economics, in addition to P&C practice
• U.S. and Canada
• Chair of the Actuarial Evidence Committee, Canadian Institute of Actuaries, since 2015
• Eastern VP, National Association of Forensic Economics, 2014-2017
• Author: “Labor Force Transitions by Gender: Implications for Separate and Combined Worklife Expectancy” – upcoming issue of *Journal of Forensic Economics*
One Reason to Think about Actuarial Evidence/Forensic Economics?

To understand what is in that case reserve.
• Washington Post, Oct. 2016 “In one corner of the law, minorities and women are often valued less”

• Cited examples: Bachelor’s degree, age 25, unable to work
  • Black female: future lost income $1.24 million
  • White male: future lost income $2.28 million

• U.S. Senate and House of Representatives: “Fair Calculations in Civil Damages Act of 2016” introduced as a bill.

• “No court of the United States may award damages … using a calculation for the projected future earning potential … that takes into account the race, ethnicity, gender, religion, or … sexual orientation of the plaintiff.”

• Not enacted into law.

• Prohibits “the estimation, measure, or calculation of past, present, or future damages for *lost earnings or impaired earning capacity* resulting from personal injury or wrongful death *from being reduced* based on race, ethnicity, or gender.” [emphases added]

• Auto BI liability, homeowners BI liability, GL, medical malpractice
The Components of BI Compensation

1. Lost Earnings/Earning Capacity
   • For catastrophic injuries, mostly in future
   • Includes lost household services that the plaintiff can perform

2. Cost of care

3. Non-pecuniary/pain and suffering
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Calif. S.B. 41
How Are Future Lost Earnings Calculated?

Year by Year:
What the earnings would have been BUT FOR the injury
Less: What the earnings are projected to be.

• Employment/Income
  • Time horizon:
    WORKLIFE EXPECTANCY
• Household services
  • Time horizon:
    LIFE EXPECTANCY
Worklife Expectancy

- Monthly survey of 60,000 U.S. households
- Uses a Markov Model – Transitions in and out of the labor force – use to calculate mean amount of time in the labor force
  - Unlike mortality table, not a one-way street
- Cross-sectional, not longitudinal – assumes that labor force transitions in 2020 for today’s 55-year-olds are what today’s 25-year-olds will do in 2050
Worklife Expectancy Not Age 65 (or 67)

- Reasons for leaving the labor force, temporarily or permanently, at a date different than "normal" retirement
  - Death
  - Continued work past traditional retirement
  - Disability
  - Returning to school
  - Unemployment
  - Caring for family members
  - Early retirement
Variables for Worklife Expectancy (the Non-Controversial Ones)

Age – between 16 and 90

Education Levels

- Less than 10 Years
- 10 Yrs to Less than High School Diploma
- GED
- High School Diploma
- Some College
- Associate’s Degree
- Bachelor’s Degree
- Master’s Degree
- Professional Degree or Ph.D.
Variables for Worklife Expectancy (cont’d)

Men, Women

Current Status in the Labor Force

• Active
• Inactive
(unintended consequences)
Age 25, Bachelor’s Degree, Active

- Men: 38.0 years
- Women: 34.0 years
Life Expectancy

• U.S. Life Tables
• Produced annually by National Center for Health Statistics, CDC
• Most recent tables, based on deaths in 2017, published June 2019
Magnitude of Life Expectancy at Birth (U.S. Life Tables, 2017)

<table>
<thead>
<tr>
<th>Population</th>
<th>All Males</th>
<th>Non-Hispanic White Males</th>
<th>Non-Hispanic Black Males</th>
<th>Hispanic Males</th>
<th>All Females</th>
<th>Non-Hispanic White Females</th>
<th>Non-Hispanic Black Females</th>
<th>Hispanic Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>78.6</td>
<td>76.1</td>
<td>76.1</td>
<td>79.1</td>
<td>81.0</td>
<td>81.1</td>
<td>78.1</td>
<td>84.3</td>
</tr>
</tbody>
</table>
Projections of Annual Earnings

- Usually based on plaintiff’s own earnings history
- Projected nominal increases for inflation, merit increases, real increases for productivity gains
- What if no earnings history? (e.g. minors, students)
- Or history is unrepresentative of plaintiff’s human capital (Peace Corps, sabbatical, training for the marathon, etc.)
Earnings from Population Sources

- e.g. Personal Income Survey, U.S. Census Bureau
  - By Work Experience
  - Educational Attainment
  - Age

- Males, Females
- White, Black, Asian, Hispanic
Mean Earnings, from Personal Income Survey

- Total Population: $55,619
- White Males: $66,977
- Black Males: $46,402
- Asian Males: $82,771
- Hispanic Males: $44,851
- White Females: $45,531
- Black Females: $38,901
- Asian Females: $57,945
- Hispanic Females: $35,190
Kane-Spizman Educational Attainment Model for a Minor Child

Predictive variables include

- Family income
- Parents’ education
- Number of siblings
- Male, female
- Race
- Religion
Time Spent Performing Household Services

- E.g. Cooking, shopping, caring for children, yard maintenance

**American Time Use Survey (ATUS)**

Records daily hours in household activities by
- Age
- Employment Status
- Marital status
- No. and age of children in the household
- Men, women
Summary of Possibly Affected Variables

LOST EARNINGS

- Worklife Expectancy Tables – *separate tables for Men and Women*
- Personal Income Survey – *by “Age, Race, Hispanic Origin and Sex”*
- Future educational attainment for minor children – *by gender, race*

LOST HOUSEHOLD SERVICES

- Life Expectancy – *by “race, Hispanic origin and sex”*
- Time spent in household activities – *by sex*
How to Comply with the Law?

• Possibly just remove race, ethnicity and gender from consideration by calculating pooled variables, in proportion to the population

• BUT, S.B. 41 prescribes that damages not be reduced for considerations of gender, race, ethnicity, and sexual orientation.
• Which demographic group has the highest (i.e. non-”reduced”) component of loss?

• Earning capacity
  • Men have highest worklife expectancy
  • Asian men have highest mean annual earnings in 2018

• Household services
  • Women spend greatest amount of time on household activities
  • Hispanic women have longest life expectancy

• Everyone else goes up
Will This Equalize Compensation?

• Worklife expectancy – lower for non-active in the labor force – more frequently women than men
### Worklife Expectancies, Age 48, High School Diploma

<table>
<thead>
<tr>
<th></th>
<th>Men, Active</th>
<th>Men, Inactive</th>
<th>Women, Active</th>
<th>Women, Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>48-Year-Old</td>
<td>14.46</td>
<td>9.73</td>
<td>12.89</td>
<td>8.01</td>
</tr>
</tbody>
</table>

- A Little Less than for Active Men
- Much Less than for Active Men
Percentage of the Population Inactive, by Sex, Age 48 High School Diploma

- Men: 13%
- Women: 25%
Will This Equalize Compensation? (cont’d)

• Using plaintiff’s own earnings history: Perpetuate the wage gap?
  • California prohibits employers from inquiring about employee wage history
1. “Aren’t the current calculations the economic reality?”
   - Are gender, race and ethnicity proxies for other variables?
   - Worklife expectancy based on cross-sectional study, not a future projection of transitions

2. Does S.B. 41 make certain plaintiffs better off than if not injured?

3. Should defendants and insurers have a disproportionate burden in relieving the wage gap?
Questions?

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