On the Road Again, with Ogilvie

By: Colleen S. Casey

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CAUTION

THIS SIGN HAS

SHARP EDGES

DO NOT TOUCH THE EDGES OF THIS SIGN

ALSO, THE BRIDGE IS OUT AHEAD

boredpanda.com
Roadmaps for Rating

I. Roadmap for Determining PD - Blackledge

II. Roadmap for Rebuttal – Focus on WPI component – Costa & Almaraz/Guzman

III. Roadmap for Rebuttal – Focus on DFEC – Ogilvie’s 3 methods

IV. Does the new Ogilvie # replace the DFEC component? Or does it replace the entire rating string?

V. VR Expert Checklist for Substantial Evidence (“Impermissible Factors”)

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I. Roadmap for Determining PD


WCAB set forth a roadmap for calculating an injured worker’s permanent disability rating and provided specific definitions for the roles of physician, WCJ, the parties and the DEU rater.
I. Roadmap for Determining PD

75 CCC 613 (WCAB en banc)

“An injured employee’s permanent disability rating and each component element of that rating are questions of fact to be resolved by the WCAB.” (at p. 10:13-14)

*Gallo Glass v. WCAB (Hernandez)*, (5th DCA writ denied) 2011 CWC LEXIS 159. *Blackledge* applies to current and pre-AMA Guides cases.

II. Roadmap for Rebuttal


II. Roadmap for Rebuttal

Costa v. Hardy Diagnostic, (2006) 71 CCC 1797 (WCAB en banc)

WCAB states at page 7, “Pursuant to LC §§5701 and 5906… the Appeals Board has both the authority and the duty to further develop the record when necessary to accomplish substantial justice by obtaining additional evidence, including medical evidence, at any time during the proceedings.”

II. Roadmap for Rebuttal

2.3.09 Almaraz v. Environmental Recovery / Guzman v. Milpitas Unified (Almaraz/Guzman I), (2009) 74 CCC 201; WCAB en banc – rebuttal of rating string and all its component parts


8.19.10 Milpitas Unified v. WCAB (Guzman III), (2010) 75 CCC 837; 6th DCA affirmed the decision of the WCAB w/opinion. (S.Ct. denied writ.)

6.16.11 SCIF v. WCAB (Almaraz III), (2011) 76 CCC 687 (5th DCA writ denied) (S.Ct. denied writ on 8.24.11)
II. Roadmap for Rebuttal

*Almaraz v. Environmental Recovery Services; SCIF* (2009) 74 CCC 1084 (WCAB en banc) (2011) 76 CCC 687 (5th DCA writ denied) at page 9 states:

This language from LC §4660(c) “means that the Schedule and its component elements, including its AMA Guides portion, are rebuttable.” (p. 9:16-18)

*Chavez v. Int'l Paper,* (NPD) 2011 CWC PD LEXIS 264 - WCJ found IW did NOT meet burden of proof regarding rebuttal of strict rating.

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II. Roadmap for Rebuttal

LC §4660. (a) In determining the percentages of permanent disability, account shall be taken of

1. the *nature of the physical injury* or disfigurement,
2. the *occupation* of the injured employee, and
3. his or her *age* at the time of the injury,
4. consideration being given to an employee's *DFEC.*
II. Roadmap for Rebuttal


EXAMPLE: 40 year old flight attendant - rating for head pain


- 13.01.00.99 = Impairment #
- 3 = WPI
- [6] = DFEC Rank
- 4 = Adjustment for DFEC Rank
- 322 = occupational group
- G = occupational variant
- 4 = adjustment for occupation
- 4% = PD after adjustment for age

II. Roadmap for Rebuttal

Parties may rebut the WPI component of the rating string, and also any other component, such as the impairment #.


Thus, we [the 1st DCA in Ogilvie] conclude that an employee may challenge the presumptive scheduled % of PD prescribed to an injury by showing:

- a factual error in the calculation of a factor in the rating formula or application of the formula,
- by demonstrating that due to industrial injury the employee is not amenable to rehabilitation and therefore has suffered a greater loss of future earning capacity than reflected in the scheduled rating, or
- omission of medical complications aggravating the employee's disability in preparation of the rating schedule.” (Emphasis added.)
III. Roadmap for Rebuttal - DFEC

Ogilvie’s Three Methods of Rebuttal:

1. Factual Error
2. “LeBoeuf Lives”
3. “Medical Complication”

Plus ça change, plus c’est la même chose

Ogilvie v. WCAB, (2011) 76 CCC 624, also finds the pre SB899 case law helpful for rebuttal purposes.

“Looking back at over 41 years of case law interpreting section 4660 there appear to be at least two rebuttal methods that are unchanged by passage of Senate Bill No. 899.” Ogilvie, surpa at page 9.
III. Roadmap for Rebuttal - DFEC

**Method #1 – Factual Error:**

“First of all, the cases have always recognized the schedule to be rebutted when a party can show a factual error in the application of a formula or the preparation of the schedule.”

*Fidelity & Cas. Co v WCAB*, (1967) 252 Cal. App.2d 327, 335
*Young v. IAC*, (1940) 38 Cal.App.2d 250, 255

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**Method #2 – “LeBoeuf Lives”:**

“Another way the cases have long recognized that a scheduled rating has been effectively rebutted is when the injury to the employee impairs his or her rehabilitation, and for that reason, the employee's diminished future earning capacity is greater than reflected in the employee's scheduled rating… This is the rule expressed in *LeBoeuf*:”
III. Roadmap for Rebuttal - DFEC

Plus ça change, plus c'est la même chose

Relying on pre-SB899 case law for post-SB899 ratings is not new.

“Although determining WPI under the AMA Guides is new to the California workers’ compensation system, the procedure for rating permanent disability has not changed and pre-SB 899 case law on rating procedure remains relevant.”

Almaraz v. Environmental Recovery (Almaraz II), (2009) 74 CCC 1084; (5th DCA writ denied) at page 18 states,

“There are various ways that a PD % rating … might be rebutted. This is illustrated by cases under the prior schedules…”
III. Roadmap for Rebuttal - DFEC

*Ogilvie* - 1st DCA concludes: "Indeed the terms "diminished future earning capacity" and "ability to compete in an open labor market" suggest to us *no meaningful difference.*"

“Cases reported prior to SB 899 use the phrases interchangeably.” *Ogilvie*, p. 8

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III. Roadmap for Rebuttal - DFEC

There are various ways to say the same thing...
Method #3 – Medical Complications:

1st DCA in *Ogilvie* said, “In certain rare cases… ‘a scheduled rating may be rebutted when a claimant can demonstrate that the nature or severity of the claimant's injury is not captured within the sampling of disabled workers that was used to compute the [DFEC] adjustment factor…” (per the RAND study.)

**Example:** A foot fracture with nerve damage

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**Ogilvie,** “In such cases, the scheduled rating should be recalculated taking into account the extent to which the claimant's disability has been aggravated by complications not considered within the sampling used to compute the [DFEC] adjustment factor.”

“We leave it to the WCAB … to prescribe the exact method for such a recalculation that factors the employee's anticipated [DFEC] into the data used by the RAND Institute.”
IV. Replace DFEC or Entire String?

In *Almaraz*, we were rebutting WPI and the individual components of the rating string.

**What are we rebutting in *Ogilvie*?**

- The application of the 2005 PDRS?
- The scheduled rating?
- The entire rating string for a particular IW?
- The DFEC component of that string?
- The DFEC & the WPI, but not the remaining 2 components?

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IV. Replace DFEC or Entire String?

"Thus, we [the 1st DCA in Ogilvie] conclude that an employee may challenge the presumptive scheduled % of PD prescribed to an injury by showing:

- a **factual error** in the calculation of a factor in the rating formula or application of the formula,
- the omission of **medical complications** aggravating the employee's disability in preparation of the rating schedule, or
- by demonstrating that due to industrial injury the employee is **not amenable to rehabilitation** and therefore has suffered a greater loss of future earning capacity than reflected in the scheduled rating." (Emphasis added.)
IV. Replace DFEC or Entire String?

Note use of term “scheduled % of PD” and “scheduled rating,” versus DFEC component, in each of the above described methods of rebuttal.

WCAB’s *Ogilvie* en banc allowed for replacement of initial DFEC component, when the DFEC from the 2005 PDRS was adequately rebutted. *Ogilvie* court stated, “When [WCAB] devised this new methodology, the WCAB acted in excess of its authority.”

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IV. Replace DFEC or Entire String?

In general, the VR experts’ paradigm first calculates the injured worker’s loss of earning capacity. Then the VR expert translates that loss into a specific number.

Does that specific number replace ALL components of the rating string or just the DFEC component?

Or does the # plug into the rating string for BOTH the DFEC and the WPI components? Then that # must be adjusted for age and occupation?
IV. Replace DFEC or Entire String?

**LC §4660. (a):** “In determining the percentages of permanent disability, account shall be taken of the nature of the physical injury or disfigurement, the occupation of the injured employee, and his or her age at the time of the injury, consideration being given to an employee's diminished future earning capacity.” (Emphasis added.)

***Ogilvie*** 1st DCA stated:

“In considering the Legislature's intent to “promote consistency, uniformity, and objectivity” in permanent disability awards, we see nothing ambiguous or unclear in section 4660’s directive that the earning capacity adjustment factor “shall be” the numeric formula based upon the RAND Institute's report. **It must be initially applied.**” (Emphasis added.)
IV. Replace DFEC or Entire String?

What does the “it” represent in the *Ogilvie* statement, “It must be initially applied?”

- The numeric formula based on the Rand report (found on page 1-6, item 4 of the 2005 PDRS)?
- LC §4660?
- The 2005 PDRS?
- The strict AMA Guides Rating?
- The DFEC adjustment?

V. VR Expert Checklist (Ogilvie)

1. Is there discussion of selection of *Ogilvie* method?
2. Is there an adequate analysis of method used?
3. Does each method have a separate analysis?
4. Does expert rebut of entire rating string or just the DFEC component? Or maybe the DFEC & WPI?
5. Does report comply with LC §4660(a)?
6. Did expert avoid “impermissible” non-industrial factors?
7. Does report constitute substantial evidence?
V. VR Expert Checklist (Ogilvie)

- **Selection of Ogilvie Method:**
  Which of the Ogilvie methods was used to calculate the VR expert’s conclusion?

- **Adequate Analysis:**
  Did the VR expert provide an adequate explanation as to the process used to arrive at his or her conclusion?

- **Separate Analysis for Each Method Selected:**
  If more than one of the Ogilvie methods were used, was each method identified and separately analyzed?

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V. VR Expert Checklist (Ogilvie)

- **Rebuttal of Entire Rating String or just DFEC component:**
  Does VR expert’s final number selected represent the WPI, the PD percentage, or the adjustment for DFEC?

  Or a combination of WPI & DFEC?

  Does VR expert intend that the final number to replace the entire rating string?
V. VR Expert Checklist (Ogilvie)

• **Compliance with LC §4660(a):**

If the number offered represents the PD percentage, did the VR expert's analysis explain the process used to consider all four elements of % of PD set forth in LC §4660(a)?

Did the VR expert discuss “nature of the injury, age of injured worker, occupation and employee’s diminished future earning capacity?”

V. VR Expert Checklist (Ogilvie)

• **Non-industrial “impermissible factors:”**

Did VR expert avoid factoring into the equation non-industrial “impermissible” factors?

At least with regard to the “LeBoeuf Lives” method, (and probably all rebuttal methods,) the *Ogilvie* Court sought to limit application of these methods “to cases where the employee's [DFEC is] directly attributable to the employee's work-related injury, and not due to nonindustrial [impermissible] factors...”
V. VR Expert Checklist (Ogilvie)

• **Non-industrial “impermissible factors”:**

The *Ogilvie* Court defined impermissible factors as:

• general economic conditions,
• illiteracy,
• proficiency in speaking English, or
• an employee's lack of education.”

V. VR Expert Checklist (Ogilvie)

• **VR expert’s report as substantial evidence:**

Did the VR expert’s analysis (including deposition and reports) constitute “substantial evidence”? In the medical world, we require physicians to use the phrase “reasonable medical probability.”

(See *Escobedo v. Marshall*, (2005) 70 CCC 604 (en banc) & *E.L. Yeager Constr’n v. WCAB (Gattan)*, (2006), 71 CCC 1687.)

Is there a similar standard for VR experts? Perhaps “reasonable scientific probability”?
Ogilvie: Is Algebra Out and LeBoeuf In?

The Ogilvie Decision – How it Affects You

By: Robert G. Rassp, Esq.

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4660. (a) In determining the percentages of permanent disability, account shall be taken of the nature of the physical injury or disfigurement, the occupation of the injured employee, and his or her age at the time of the injury, consideration being given to an employee's diminished future earning capacity.

(b)(1) For purposes of this section, the "nature of the physical injury or disfigurement" shall incorporate the descriptions and measurements of physical impairments and the corresponding percentages of impairments published in the American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment (5th Edition).

(b)(2) For purposes of this section, an employee's diminished future earning capacity shall be a numeric formula based on empirical data and findings that aggregate the average percentage of long-term loss of income resulting from each type of injury for similarly situated employees. The administrative director shall formulate the adjusted rating schedule based on empirical data and findings from the Evaluation of California's Permanent Disability Rating Schedule, Interim Report (December 2003), prepared by the RAND Institute for Civil Justice, and upon data from additional empirical studies.
Ogilvie: Is Algebra Out and LeBoeuf In?

• Remember, our system is driven by facts

• Ms. Ogilvie was a Muni bus driver for 17 years who injured her lumbar spine and right knee AOE/COE.

• She had to retire on service connected disability retirement due to her industrial injuries.

Ogilvie: Is Algebra Out and LeBoeuf In?

• Both parties stipulated to 28% strict PD rating under the 2005 PDRS, after apportionment.

• Both parties presented expert vocational rehabilitation witnesses who had 2 different ways to rebut the rating, attacking the scheduled DFEC adjustment.

• The WCJ (Judge David Hettick) came up with a third way to rebut the rating
Ogilvie: Is Algebra Out and LeBoeuf In?

• The WCAB in its en banc decision adopted the “Ogilvie formula” which compares the ratio of an injured worker’s WPI rating to his or her post injury wage loss divided by a control group’s earnings over the same period.

• The “Ogilvie formula” is based on the same formula the DEU used to determine the PD rating to proportional wage loss 8 scheduled DFEC adjustment factors.

Ogilvie: Is Algebra Out and LeBoeuf In?

The Ogilvie Decision – How it Affects You

• Three ways to rebut a standard PD rating
• The WCAB determines logistics on how to apply the case
• What is the RAND “Working Paper” and how can I use it?
Ogilvie: Is Algebra Out and LeBoeuf In?

• The Court reversed the WCAB en banc decisions of Ogilvie I and Ogilvie II and said you cannot rebut a scheduled DFEC adjustment factor by using the “Ogilvie formula.”

• The Court offers three ways “a rating” can be rebutted, focusing on the DFEC adjustment for two out of three methods of rebuttal.

Ogilvie: Is Algebra Out and LeBoeuf In?

• The Court concludes that “loss of ability to compete in the open labor market” is the same thing as “diminished future earning capacity” even though the latter replaced the former language in Labor Code section 4660.

• “[We] see nothing ambiguous or unclear in section 4660’s directive that the earning capacity adjustment factor ‘shall be’ the numeric formula based on the RAND Institute’s report. It must be initially applied.”
Ogilvie: Is Algebra Out and LeBoeuf In?

• You can now rebut a scheduled DFEC adjustment one of three ways:
  1. A factual error in the calculation of a factor in the rating formula or application of the formula.
  2. The omission of medical complications aggravating the employee’s disability in preparation of the rating schedule.
  3. Due to the industrial injury the employee is not amenable to rehabilitation and therefore has suffered a greater loss of future earning capacity than reflected in the scheduled rating.

Ogilvie: Is Algebra Out and LeBoeuf In?

• Do you need expert testimony to rebut a rating using the three “Ogilvie rebuttal” methods?
  • Yes, a DEU rater or other rating expert for Methods 1 and 2. Please don’t ask us!
  • Yes, a vocational expert for Method 3
Ogilvie: Is Algebra Out and LeBoeuf In?

Rebuttal Method 1 =

There are factual errors in the calculation of or errors in applying the scheduled DFEC adjustment in a specific case

- You must refer to the 2004 RAND working paper that formed the basis of the 8 DFEC adjustment ranks in the 2005 PDRS.

- Proportional wage loss data is based on:
  - Three year earnings loss
  - Three year pre-injury earnings
  (Based on EDD data)
Ogilvie: Is Algebra Out and LeBoeuf In?  

Rebuttal Method 1 =  

• $50,000.00 = 67% wage loss ratio  
  $150,000.00  

• RAND study used “average body part” PD divided by wage loss to get average PD ratings to proportional wage loss ratio for 22 body parts (the spine included all three regions).

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Ogilvie: Is Algebra Out and LeBoeuf In?  

Rebuttal Method 1 =  

• Proportional PD to wage loss data is based on:  

  PD* divided by:  
  Three year earnings loss  
  Three year pre-injury earnings  
  (Based on EDD data)  

* “PD” for the RAND data is “average PD” for each body part studied.
Item 4 of the PDRS states: “The formula for calculating the maximum and minimum adjustment factors is 
\((1.81/a \times 0.1) + 1\) where a equals the minimum or maximum 
rating/loss ratio from Table B.”

"AMA WPI ratings for injury categories that correspond to a 
greater relative loss of earning capacity will receive a higher FEC 
adjustment."
Ogilvie: Is Algebra Out and LeBoeuf In?

Rebuttal Method 1 =

• RAND Institute for Civil Justice Data for Adjusting Disability Ratings to Reflect Diminished Future Earnings and Capacity in Compliance with SB899. See www.rand.org. Click on upper link to Rand Departments and click on Rand Institute for Civil Justice.

Table 5
Disability Ratings and Earnings Losses for Broad Injury Categories in the RAND Data

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Standard Rating</th>
<th>5-Year Proportional Earnings Loss</th>
<th>Ratios of Barnings-over-Losses</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spine</td>
<td>16.0</td>
<td>15.0</td>
<td>1.00</td>
<td>36,188</td>
</tr>
<tr>
<td>Lumbar</td>
<td>16.0</td>
<td>15.0</td>
<td>1.00</td>
<td>36,188</td>
</tr>
<tr>
<td>Cervical</td>
<td>16.0</td>
<td>15.0</td>
<td>1.00</td>
<td>36,188</td>
</tr>
<tr>
<td>Thoracic</td>
<td>16.0</td>
<td>15.0</td>
<td>1.00</td>
<td>36,188</td>
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<tr>
<td>Knee</td>
<td>16.0</td>
<td>9.5</td>
<td>1.72</td>
<td>12,946</td>
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<tr>
<td>Loss of grasping power</td>
<td>11.21</td>
<td>8.73</td>
<td>1.29</td>
<td>11,279</td>
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<tr>
<td>General upper extremity</td>
<td>17.00</td>
<td>17.06</td>
<td>1.00</td>
<td>8,776</td>
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<tr>
<td>Shoulder</td>
<td>9.27</td>
<td>15.0</td>
<td>1.64</td>
<td>7,358</td>
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<tr>
<td>Hand / Wrist</td>
<td>8.66</td>
<td>6.89</td>
<td>1.28</td>
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<tr>
<td>Wrist</td>
<td>13.15</td>
<td>10.84</td>
<td>1.22</td>
<td>5,068</td>
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<tr>
<td>Ankle</td>
<td>14.32</td>
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<td>1.52</td>
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<tr>
<td>Hip</td>
<td>9.64</td>
<td>6.35</td>
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<td>2,996</td>
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<tr>
<td>Pelvis</td>
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<td>6.35</td>
<td>1.52</td>
<td>2,996</td>
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<tr>
<td>General lower extremity</td>
<td>19.00</td>
<td>17.21</td>
<td>1.09</td>
<td>3,705</td>
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<tr>
<td>Foot/Thigh</td>
<td>25.15</td>
<td>20.09</td>
<td>1.23</td>
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<td>Toe</td>
<td>10.31</td>
<td>9.29</td>
<td>1.11</td>
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<td>Hip</td>
<td>25.48</td>
<td>21.40</td>
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<td>General abdominal pain</td>
<td>18.75</td>
<td>19.24</td>
<td>0.97</td>
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<tr>
<td>Heart disease</td>
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<td>30.62</td>
<td>0.97</td>
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<tr>
<td>Vision</td>
<td>18.75</td>
<td>19.24</td>
<td>0.97</td>
<td>353</td>
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<tr>
<td>Lung disease</td>
<td>29.79</td>
<td>30.62</td>
<td>0.97</td>
<td>353</td>
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<tr>
<td>Headache</td>
<td>7.75</td>
<td>12.35</td>
<td>1.63</td>
<td>181</td>
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<tr>
<td>Post-traumatic head injury</td>
<td>21.05</td>
<td>20.57</td>
<td>1.03</td>
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<tr>
<td>Other</td>
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<td>9.08</td>
<td>1.53</td>
<td>107</td>
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<td>Total</td>
<td>13.93</td>
<td>9.08</td>
<td>1.53</td>
<td>136,772</td>
</tr>
</tbody>
</table>

* The specific ranges of the injury are estimated by combining the original CRU data with data from a survey of all medical reports involving the same that were reviewed by the DRU, so that the average ratings vary by different regions of the back, allowing us to estimate the average ratings for each injury. On the other hand, the injury range of proportional earnings losses on disability ratings, proportional quarterly earnings, and variables indicating whether or not a dismissal was filed, our chosen and employed estimator. The proportional earnings losses are calculated according to the average rating multiplied by the coefficient on (mean term), added to the product of the squared average rating and the coefficient on the square term. The average losses in the DRU book are those that are related to the original DRU data, so we scale the ratings shown to match the DRU.
Ogilvie: Is Algebra Out and LeBoeuf In?

| Disability Ratings and Earnings Losses for Broad Injury Categories in the RAND Data |
|----------------------------------|------------------|------------------|------------------|------------------|
|                                  | Standard Rating  | 3-Year Proportional Earnings Loss | Ratio of Ratings over Losses | Number of Observations |
| Spine*                          | 19.70            | 18.45            | 1.09             | 39,196           |
| Lumbar                          | 20.02            | 19.14            | 1.06             | 36,939           |
| Cervical                        | 16.05            | 15.04            | 1.07             | 31,590           |
| Thoracic                        | 14.86            | 13.69            | 1.07             | 12,946           |
| Knee                            | 14.65            | 9.21             | 1.57             | 12,946           |
| Loss of grasping power          | 11.21            | 6.73             | 1.73             | 11,279           |
| General upper extremity         | 17.69            | 17.58            | 1.00             | 8,776            |
| Shoulder                        | 9.73             | 13.08            | 0.74             | 7,338            |
| Hand / Fingers                  | 8.06             | 4.89             | 1.64             | 6,695            |
| Wrist                           | 13.15            | 10.84            | 1.21             | 9,568            |
| Ankle                           | 14.12            | 9.28             | 1.52             | 4,151            |
| Elbow                           | 9.44             | 6.23             | 1.51             | 3,896            |
| Hearing                         | 18.71            | 17.99            | 1.05             | 2,066            |
| General lower extremity         | 19.00            | 17.21            | 1.09             | 1,789            |
| Psychiatric                     | 22.13            | 49.03            | 0.45             | 1,653            |
| Tetral                          | 18.10            | 9.09             | 1.99             | 523              |
| Hip                             | 21.08            | 21.10            | 1.03             | 475              |
| General abdominal               | 18.26            | 19.24            | 0.95             | 448              |
| Heart disease                   | 29.28            | 30.82            | 0.95             | 333              |
| Vision                          | 10.71            | 5.68             | 1.81             | 306              |
| Lung disease                    | 28.08            | 25.46            | 0.77             | 264              |
| Headaches                       | 7.75             | 12.35            | 1.63             | 181              |
| Post-traumatic head syndrome    | 23.65            | 25.57            | 0.95             | 96               |
| Other single                    | 13.83            | 9.04             | 1.53             | 597              |
| Total                           | 15.38            | 14.25            | 1.09             | 128,773          |

* The specific regions of the spine are estimated by combining the original six regions.

the thoracic spine. While using the DEU back survey allows us to compute separate estimates of ratings and earnings losses for the three different regions of the spine, it is important to acknowledge the limitations of our analysis. First, we have to assume that the distribution of ratings across regions of the spine is the same in summary ratings and consult ratings. Specifically, we must assume both that the proportional difference between summary ratings and consult ratings is the same across regions of the spine and that the relative frequency with which the different types of injuries occur is the same in summary and consult ratings. If this assumption fails to hold, then our estimated ratings for the average rating and percent of cases in the summary data could be biased.

The second assumption we are forced to make is that the relationship between proportional earnings losses and disability ratings is the same across the different
regions of the back. While Reville, Seabury and Neuhauser (2003) and Reville et al. (2004) show that proportional earnings losses match disability ratings fairly closely on average, they also document that the relationship between the two often differs for various parts of the body. If there are similar differences between the different regions of the spine, then this could cause biases in the estimated proportional earnings losses.

From a practical standpoint, the estimated earnings losses for the different regions might be useful for examining absolute differences in severity, but not differences in severity relative to the disability rating. Because we are simply predicting

losses based on differences in the disability rating between the regions, the proportionality between ratings and estimated losses for the different regions is approximately the same. Therefore, any set of earnings loss adjustments that incorporate the California disability rating as a measure of severity will most likely result in approximately the same adjustment factor for the different regions of the spine with or without the estimates derived here. This would not (necessarily) be the case if the adjustments used some other variable to control for severity, such as the average AMA Guide ratings for the different regions.
Ogilvie: Is Algebra Out and LeBoeuf In?

Table 3

<table>
<thead>
<tr>
<th></th>
<th>Lumbar</th>
<th>Cervical</th>
<th>Thoracic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Observed Rating</td>
<td>28.98</td>
<td>22.23</td>
<td>23.27</td>
</tr>
<tr>
<td>Average Corrected Rating(^1)</td>
<td>20.92</td>
<td>16.05</td>
<td>16.80</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>183</td>
<td>53</td>
<td>11</td>
</tr>
<tr>
<td>Percent of cases</td>
<td>74.09</td>
<td>21.46</td>
<td>4.45</td>
</tr>
</tbody>
</table>

\(^1\)The ratings are corrected by multiplying all ratings by the ratio of the average rating in the RAND data for the summary cases divided by the average rating of cases in the DEU back survey (approximately 0.72199882).

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* The specific regions of the spine are estimated by combining the original DEU data with data from a survey of all medical reports involving the spine that were evaluated by the DEU on June 28, 29, and July 1, 2004. The DEU survey allows us to computeaverage ratings for the different regions of the back, allowing us to impute the average losses with a OLS regression of proportional earnings losses on disability ratings, pre-injury quarterly earnings, a variable indicating whether or not it is a disputed claim, year dummies and employer dummies. The disability ratings in the regression enter as a quadratic term, and the predicted earnings losses are calculated accordingly (with the average rating multiplied by the coefficient on linear term, added to the product of the squared average rating and the coefficient on the square term). The average ratings in the DEU back survey are higher than in the original DEU data, so we scale the ratings down so that the mean is the same.

The purpose of adjusting disability ratings to reflect diminished future earnings capacity is to reduce the disparities between losses for different types of impairments.
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RESULTS

Table 5 presents the standard ratings, proportional earnings losses, the ratio of the two, and the number of observations for each of the injury categories that can be considered separately in the RAND data. The table breaks the data down into 22 specific injury categories (20 if we consider spinal injuries together) and an “other” category. The smallest specific category is post-traumatic head syndrome (PTHS), with 96 observations. Almost all the various types of impairments in the other category have less than 96 observations.5

The highest rated type of impairment on average is heart disease, with a 29.78 percent rating on average, while the lowest are headaches with just 7.75 percent. The highest proportional losses, however, are for psychiatric impairments, with 49.01 percent. This suggests that individuals with psychiatric impairments lose nearly one-half of their earnings three years after an injury. The lowest proportional earnings losses, on average, accrue to impairments to the hand or fingers just 4.89 percent.

1 The proportionality would be exactly the same if we used a linear specification for the regression. With the quadratic specification, however, the proportionality is slightly different for the humber region (which has the highest ratings).

2 The exception to this is facial and cosmetic disfigurations, which have 185 observations. These impairments were placed in the other category because they had negative proportional earnings losses on average. Conceptually, it is difficult to believe that the causal effect of such disfigurations is actually to increase earnings (though it could possibly have an effect of zero), so we simply placed these with the other injuries that had groups too small to reliably estimate proportional losses.

The purpose of adjusting disability ratings to reflect diminished future earnings capacity is to reduce the disparities between losses for different types of impairments conditional on a rating. Reville, Seabury and Neuhouser (2003) suggest the ratio of disability ratings over earnings losses as a straightforward measure of the average disparities. From Table 5, we see that the impairments to the hand or fingers and impairments of vision are tied for the highest ratings relative to earnings losses, at 181 percent. Psychiatric impairments have the lowest ratings relative to proportional earnings losses, at just 45 percent. As discussed in Reville, Seabury and Neuhouser (2003) and Reville et al. (2004), a set of adjustments that equalized the relative values of losses and earnings, called the relativities, would result in a constant ratio of ratings over losses. All relativities must be set equal to some baseline impairment, so this suggests that adjustment factors could be computed based on the ratio of ratings over losses for the baseline and for each individual category. Whether or not that precise method is used, the data in Table 5 at least provide the framework with which a set of adjustments could be calculated.
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CONCLUSIONS

This document summarizes the data on disability ratings and earnings losses that have been collected by RAND for a number of specific injury categories. This should provide the necessary information to calculate adjustments for the diminished future earnings capacity suffered by disabled workers as required by SB 899. Note that the data presented here are really the minimal amount of information that could be used for these adjustments. Although the data here all pertain to the California system, ideally the ratings would be calculated combining information on earnings losses with actual AMA Guide ratings. Moreover, it is only possible to generate linear adjustments—i.e., adjustments that are constant for all values of the rating—with the information presented here. Again, ideally we might incorporate additional information to allow the adjustments to vary over more or less severe ratings (since the relationship between ratings and earnings losses is not necessarily constant over injury severity, according to

Reville et al., 2004). However, without any additional data that would allow a closer comparison between the earnings losses in the RAND data with AMA Guides ratings, the data here provide the best means with which to adjust disability ratings to reflect the long-term loss of earnings capacity by injured workers.
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The RAND report conclusions have flaws, Method #1:

- The 2005 PDRS was based on data from 1988 PD ratings and not WPI ratings from the AMA Guides.

- The EDD data for average percentage of long-term loss of income resulting from each type of injury for similarly situated employees does not count earnings from small businesses.

- The RAND data mixed up summary ratings (adjusted for age and occupation) with consultative ratings (which were standards in disputed cases).
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• The RAND report conclusions have flaws, Method #1:

  • PD ratings were averaged for the three regions of the spine – cervical, thoracic and lumbar.

  • Data showed three year wage loss was greater for lumbar spine injuries than cervical or thoracic.

  • See Table 3 RAND working paper.

---

Table 3

| Average Disability Ratings for Different Regions of the Spine |
|--------------------|-------|-------|-------|
|                    | Lumbar| Cervical| Thoracic |
| Average Observed Rating | 28.98 | 22.23  | 23.27  |
| Average Corrected Rating ³ | 20.92 | 16.05  | 16.80  |
| Number of Observations     | 183   | 53     | 11     |
| Percent of cases            | 74.09 | 21.46  | 4.45   |

³The ratings are corrected by multiplying all ratings by the ratio of the average rating in the RAND data for the summary cases divided by the average rating of cases in the DEU back survey (approximately 0.7219982).
The RAND report conclusions have flaws, Method #1:

- The data is based on “average” permanent disability ratings and does not account for severe injuries or medical complications from typical injuries.
- Failed lumbar syndrome, multiple spinal surgeries to the same sub-region of the spine, multiple spinal surgeries to different sub-regions of the spine, etc.
- Total knee replacements vs. meniscus vs. ACL injuries
- Four wrist surgeries on the same wrist vs. the average CTS surgery.
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• Method #1:

• Ms. Ogilvie’s 28% PD was based on scheduled DFEC adjustment factor of [5] which increased the WPI rating by 27.1429% (Based on Table B, scheduled DFEC Rank 5).

• Under the proposed but not adopted “2009 PDRS,” Ms. Ogilvie’s DFEC adjustment would be a Rank 8 and her WPI rating would increase by 50% (Based on “2009 scheduled DFEC Rank 8”). Why?

• Because 2007 WPI to proportional wage loss data shows a much higher WPI to wage loss ratio when compared to PD based on work restrictions.
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• The RAND report conclusions have flaws, Method #1:

Average PD ratings per body part 1988 data:

See Table 5 RAND working paper

<table>
<thead>
<tr>
<th>Disability Rating</th>
<th>Standard Rating</th>
<th>5-Year Proportional Ratings Loss</th>
<th>Ratio of Ratings over Losses</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spine*</td>
<td>19.70</td>
<td>18.45</td>
<td>1.07</td>
<td>30,188</td>
</tr>
<tr>
<td>Lumbar</td>
<td>20.93</td>
<td>19.14</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>Cervical</td>
<td>16.05</td>
<td>15.04</td>
<td>1.07</td>
<td>4,290</td>
</tr>
<tr>
<td>Thoracic</td>
<td>16.98</td>
<td>15.69</td>
<td>1.07</td>
<td>5,000</td>
</tr>
<tr>
<td>Knee</td>
<td>14.45</td>
<td>9.31</td>
<td>1.57</td>
<td>2,964</td>
</tr>
<tr>
<td>Loss of grasping power</td>
<td>11.21</td>
<td>8.73</td>
<td>1.28</td>
<td>11,776</td>
</tr>
<tr>
<td>General upper extremity</td>
<td>17.89</td>
<td>17.08</td>
<td>1.08</td>
<td>2,866</td>
</tr>
<tr>
<td>Shoulder</td>
<td>9.73</td>
<td>13.08</td>
<td>0.74</td>
<td>7,358</td>
</tr>
<tr>
<td>Hand / Fingers</td>
<td>8.06</td>
<td>4.89</td>
<td>1.61</td>
<td>6,095</td>
</tr>
<tr>
<td>Wrist</td>
<td>13.15</td>
<td>10.84</td>
<td>1.21</td>
<td>5,968</td>
</tr>
<tr>
<td>Ankle</td>
<td>14.12</td>
<td>9.28</td>
<td>1.52</td>
<td>4,351</td>
</tr>
<tr>
<td>Elbow</td>
<td>9.44</td>
<td>6.23</td>
<td>1.51</td>
<td>2,866</td>
</tr>
<tr>
<td>Humerus</td>
<td>10.71</td>
<td>7.49</td>
<td>1.43</td>
<td>2,046</td>
</tr>
<tr>
<td>General lower extremity</td>
<td>19.00</td>
<td>17.21</td>
<td>1.10</td>
<td>1,764</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>22.13</td>
<td>49.01</td>
<td>0.46</td>
<td>1,433</td>
</tr>
<tr>
<td>Trauma</td>
<td>16.10</td>
<td>9.10</td>
<td>1.11</td>
<td>523</td>
</tr>
<tr>
<td>Hip</td>
<td>21.68</td>
<td>21.10</td>
<td>1.03</td>
<td>477</td>
</tr>
<tr>
<td>General abdominal</td>
<td>18.26</td>
<td>19.24</td>
<td>0.95</td>
<td>448</td>
</tr>
<tr>
<td>Heart disease</td>
<td>29.78</td>
<td>20.82</td>
<td>0.97</td>
<td>353</td>
</tr>
<tr>
<td>Vision</td>
<td>19.31</td>
<td>5.68</td>
<td>3.39</td>
<td>306</td>
</tr>
<tr>
<td>Lung disease</td>
<td>20.06</td>
<td>25.44</td>
<td>0.79</td>
<td>264</td>
</tr>
<tr>
<td>Headaches</td>
<td>7.75</td>
<td>12.35</td>
<td>0.63</td>
<td>181</td>
</tr>
<tr>
<td>Post-traumatic head syndrome</td>
<td>23.85</td>
<td>25.57</td>
<td>0.95</td>
<td>96</td>
</tr>
<tr>
<td>Other single</td>
<td>13.81</td>
<td>9.04</td>
<td>1.53</td>
<td>597</td>
</tr>
<tr>
<td>Total</td>
<td>15.58</td>
<td>14.25</td>
<td>1.08</td>
<td>39,137</td>
</tr>
</tbody>
</table>

* The specific regions of spine are estimated by combining the original DRE
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• Questions for a rater
  • Establish rater’s qualifications as an expert
  • Is there more recent WPI to wage loss data for this type of injury (e.g. knee, spine, etc.)?
  • What is the source of the recent WPI to wage loss data?
  • Are you familiar with the proposed 2009 PDRS?
  • How were the DFEC adjustment factors determined for that proposed schedule?
  • Didn’t some parts of body get “re-stacked” from the 2005 PDRS, such as the spine? Why?

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• Questions for a rater
  • Is there more recent WPI to wage loss data than the 2007 data on which the proposed 2009 PDRS was based?

  • If so, what does the current data show for injuries to the (part of body in question)?

  • What DFEC adjustment factor is the most accurate in this case and why?
### 2009 Proposed PDRS Table A

#### Table A

<table>
<thead>
<tr>
<th>Range of Ratios</th>
<th>Low</th>
<th>High</th>
<th>FEC Rank</th>
<th>Adjustment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.217</td>
<td>2.462</td>
<td>One</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>1.971</td>
<td>2.216</td>
<td>Two</td>
<td>1.24286</td>
</tr>
<tr>
<td></td>
<td>1.726</td>
<td>1.970</td>
<td>Three</td>
<td>1.28571</td>
</tr>
<tr>
<td></td>
<td>1.481</td>
<td>1.725</td>
<td>Four</td>
<td>1.32857</td>
</tr>
<tr>
<td></td>
<td>1.235</td>
<td>1.480</td>
<td>Five</td>
<td>1.37143</td>
</tr>
<tr>
<td></td>
<td>0.989</td>
<td>1.234</td>
<td>Six</td>
<td>1.41429</td>
</tr>
<tr>
<td></td>
<td>0.744</td>
<td>0.988</td>
<td>Seven</td>
<td>1.45714</td>
</tr>
<tr>
<td></td>
<td>0.498</td>
<td>0.743</td>
<td>Eight</td>
<td>1.5</td>
</tr>
</tbody>
</table>

### 2009 Proposed PDRS Table B

#### Table B

<table>
<thead>
<tr>
<th>Part of the Body</th>
<th>Ratio of Rating over Losses</th>
<th>FEC Adjustment Factor</th>
<th>FEC Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knee</td>
<td>2.462</td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>Loss of grasping power</td>
<td>1.735</td>
<td>1.28571</td>
<td>3</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>1.670</td>
<td>1.32857</td>
<td>4</td>
</tr>
<tr>
<td>Elbow</td>
<td>1.623</td>
<td>1.32857</td>
<td>4</td>
</tr>
<tr>
<td>Hand/Fingers</td>
<td>0.944</td>
<td>1.45714</td>
<td>7</td>
</tr>
<tr>
<td>Shoulder</td>
<td>0.897</td>
<td>1.45714</td>
<td>7</td>
</tr>
<tr>
<td>Wrist</td>
<td>0.692</td>
<td>1.5</td>
<td>8</td>
</tr>
<tr>
<td>Spine</td>
<td>0.686</td>
<td>1.5</td>
<td>8</td>
</tr>
<tr>
<td>Other Arm</td>
<td>0.621</td>
<td>1.5</td>
<td>8</td>
</tr>
<tr>
<td>Other Leg</td>
<td>0.586</td>
<td>1.5</td>
<td>8</td>
</tr>
<tr>
<td>Ankle</td>
<td>0.498</td>
<td>1.5</td>
<td>8</td>
</tr>
<tr>
<td>Eyes</td>
<td></td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>1.24286</td>
<td>2</td>
</tr>
<tr>
<td>Toe(s)</td>
<td></td>
<td>1.37143</td>
<td>5</td>
</tr>
<tr>
<td>Hip</td>
<td></td>
<td>1.37143</td>
<td>5</td>
</tr>
<tr>
<td>Heart</td>
<td></td>
<td>1.37143</td>
<td>5</td>
</tr>
<tr>
<td>Soft Tissue</td>
<td></td>
<td>1.41429</td>
<td>6</td>
</tr>
<tr>
<td>General Abdominal</td>
<td></td>
<td>1.41429</td>
<td>6</td>
</tr>
<tr>
<td>PT Head syndrome</td>
<td></td>
<td>1.41429</td>
<td>6</td>
</tr>
<tr>
<td>Respiratory/Lung</td>
<td></td>
<td>1.45714</td>
<td>7</td>
</tr>
<tr>
<td>Hearing</td>
<td></td>
<td>1.5</td>
<td>8</td>
</tr>
</tbody>
</table>
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• The proposed 2009 PDRS has flaws too:
  • There is not enough proportional wage loss data for certain parts of body injured.
  • “Various injury categories in Table B do not list a ratio of average standard ratings to proportional wage loss. These injury categories which together account for less than 3% of all ratings, include eyes, toes, hearing, respiratory/lungs, heart, hip, soft tissue, and post-traumatic head syndrome. Empirical data does not exist to establish a valid statistical sample of standard ratings under the January 2005 PDRS for these injury categories. They remain in the same DFEC rank as they were initially assigned under the 2005 PDRS.”
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• The 2009 proposed PDRS has flaws too:
  
  • There is not enough proportional wage loss data for certain parts of body injured.

  • WPI to proportional wage loss data has to be statistically significant for general application to a population of injured workers.

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• Unanswered questions:

  • The WCAB has to determine whether a more accurate DFEC adjustment can come from current WPI to wage loss data, that from the 2007 data or limited to the 8 scheduled DFEC adjustments already in the 2005 PDRS.

  • Does the Applicant have to prove post injury wage loss for a Method 1 rebuttal? Probably not, because of the flaws in the 2005 PDRS.
Rebuttal Method 2 =

Due to the industrial injury the employee is not amenable to rehabilitation and therefore has suffered a greater loss of future earning capacity than reflected in the scheduled rating.

• This sounds like a rebuttal of not just the scheduled DFEC adjustment factor but of the whole rating string.

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Rebuttal Method 2 =

• This signals a DCA opinion that reaffirms LeBoeuf but in the post AMA Guides era.

• You need vocational rehabilitation experts.

• You need the right case.

• Do the Montana factors still apply? Probably so.
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Rebuttal Method 2 =

• The Court limits the WCAB to apply *LeBoeuf* “to cases where the employee’s diminished future earnings are directly attributable to the employee’s work related injury, and not due to nonindustrial factors such as general economic conditions, illiteracy, proficiency to speak English, or an employee’s lack of education.”

• “An employee effectively rebuts the scheduled rating when the employee will have a greater loss of future earnings than reflected in a rating because, due to an industrial injury, the employee is not amenable to rehabilitation.”

• In a spinal injury case that rates 28% WPI, does that justify a new “LeBoeuf” rebuttal?
Rebuttal Method 2 =

• In a spinal injury case that rates 28% WPI, does that justify a new “LeBoeuf” rebuttal?

• When a PD rating approaches just less than 70% or 100%.

• When attorneys add body parts to try and boost a rating in the first place.

Rebuttal Method 3 =

The omission of medical complications aggravating the employee’s disability in preparation of the rating schedule.

• We don’t know whether or not the ratings in the 2005 PDRS considered injuries with “complications.” What is a medical “complication” in this context?

• Shouldn’t there be separate DFEC adjustments for injuries that have complications and are not “average?”
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Rebuttal Method 3 =

• WCAB uses foot fracture with nerve damage as example but does not say how to rebut a scheduled DFEC with that information “in rare cases.”
  • Foot fracture rates a maximum of 4% WPI Table 17-33
  • Nerve damage to foot would maybe add 3-4% WPI unless there is evidence of chronic pain, then see Table 13-15, and pages 336 and 343 of the AMA Guides.
  • Is the Court telling us to use AG-II?
  • No! A scheduled DFEC adjustment is based on average PD and an “average PD with complications” may justify a higher scheduled DFEC adjustment.

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Rebuttal Method 3 =

• There may be wage loss data that a rater could use for “average” cases where there are medical complications.

• A diabetic carpenter who steps on a rusty nail and loses his leg below the knee has a 28% WPI rating. Does a case like this fall under Method 2 if the IW has a significant post injury wage loss?
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Rebuttal Method 3 =

• It appears the Court may allow the WCAB to use post-injury wage loss to justify rebuttal to a scheduled DFEC adjustment factor in a case like this but the rater would be limited to an alternative DFEC adjustment factor that is higher and already scheduled or is based on new data as in Method 1.

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Rebuttal Method 3 =

1. Method 3 probably requires a physician to indicate that there were medical “complications” in a case for this method to apply.

2. An expert would have to indicate that the medical complications caused greater than expected wage loss as a result.
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Rebuttal Method 3 =

3. An expert would have to also indicate that the scheduled DFEC adjustment factor only accounts for “average” ratings to proportional wage loss and not cases like this with medical complications that increase the proportional wage loss.

• Again, do you use a higher DFEC adjustment within the 2005 PDRS or do you use one from the 2007 or later data?

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Rebuttal Method 3 =

• $50,000.00 = 67% wage loss ratio
  $150,000.00

• Possible rebuttal in “medical complications” case: “DFEC” = [time x proportional wage loss]

• WPI - [time] x [percentage of proportional wage loss] – Occupation - Age
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Rebuttal Method 3 =

• Possible rebuttal in “medical complications” case: “DFEC” = [time x proportional wage loss]

• “TIME” = 3 years from MMI date?, When TTD ends?, 3 years from date of injury?

E.G. 28 – [3yrs x 67% = 2.01] – Occ – Age = PD
[28] x [DFEC=2.01] = 56 – Occ – Age = PD

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Rebuttal Method 3 =

• If IW has no earnings for 3 years post injury, post MMI or post end of TTD:

E.G. 28 – [3yrs x 100% = 3.00] – Occ – Age = PD
[28] x [DFEC=3.00] = 84 – Occ – Age = PD

• Anything beyond 3 years may be speculative. Beginning of 3 years is a moving target on case by case basis.
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Rebuttal Methods 1 through 3 =

• Remember, the burden of proof to rebut a rating falls on the party who disputes the standard use of the 2005 PDRS.

• Each component of the rating string may be rebutted:


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Rebuttal Methods 1 through 3 =

• “To rebut the application of the rating schedule on the basis that the scheduled earning capacity adjustment is incorrect, the employee must demonstrate an error in the earning capacity formula, the data or the result derived from the data in formulating the earning capacity adjustment. Alternatively, an employee may rebut a scheduled rating by showing that the rating was incorrectly applied or the disability reflected in the rating schedule is inadequate in light of the effect of the employee’s industrial injury.”
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Thank you for your attention!
Data for Adjusting Disability Ratings to Reflect Diminished Future Earnings and Capacity in Compliance with SB 899

SETH A. SEABURY, ROBERT T. REVILLE, FRANK W. NEUHAUSER

WR-2144CJ
December 2004
ABSTRACT

The passage of SB 899 introduced sweeping reforms to the California workers’ compensation system. One of these reforms was the requirement that the system for evaluating the severity of permanent disabilities incorporate empirical data on the long-term loss of income experienced by workers with injuries to different parts of the body. However, no previous work has provided enough information on the predicted loss of earnings capacity for different types of injuries to generate a complete set of adjustments to the rating schedule. This document summarizes the average disability ratings and 3-year cumulative proportional earnings losses for 23 different categories of disability. This includes a discussion justifying the use of standard ratings (ratings before age and occupation adjustments), proportional earnings losses calculated at the individual level, and estimates of ratings and losses for three separate regions of the spine.
PREFACE

The 2004 California workers' compensation reform legislation, SB 899, included the requirement that the Administrative Director develop a permanent disability rating schedule that incorporates empirical data on the loss of future earnings capacity experienced by workers with injuries to different parts of the body. The legislation cited previous research from the RAND Institute for Civil Justice for guidance on the method of estimating the loss of future earnings capacity. However, the previous research did not include estimates for many of the injury categories potentially affected by the reforms. This technical working paper provides information on the predicted loss of future earnings capacity for 23 different types of disabilities to inform the implementation of the reforms.

This research was funded by the California Division of Workers' Compensation (DWC). The methods for the estimation of the loss of future earnings capacity were developed in several recent reports funded by the California Commission on Health, Safety and Workers' Compensation (CHSWC). An excellent technical review of the document was provided by Jeff Biddle, from Michigan State University. We acknowledge the support and assistance of Andrea Hoch, the Administrative Director of the DWC; Blair Megowan at the California Disability Evaluation Unit; Christine Baker, Executive Officer of CHSWC; Carole Gresenz, the Research Director of the RAND Institute for Civil Justice (ICJ); and Laura Zakaras, the Communications Director of the ICJ.
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BACKGROUND

The recently passed Senate Bill 899 requires the Administrative Director of the California Department of Industrial Relations to adopt the descriptions and measurements of physical impairments provided by the American Medical Association (AMA) *Guides to the Evaluation of Permanent Impairment*, 5th Edition (Section 32.b.1). In addition, the statute requires that the Administrative Director create a ratings schedule that incorporates information about "the average percentage of long-term loss of income resulting from each type of injury for similarly situated employees" (Section 32.b.2). Adjusting ratings to reflect earnings losses should increase equity in the system by ensuring that systematically higher lost earnings capacity for certain impairment types are reflected by higher Permanent Partial Disability (PPD) and Permanent Total Disability (PTD) benefits. The earnings loss estimates used for the adjustments are to come from the data used in Reville, Seabury and Neuhauser (2003).¹

There are a number of methods for incorporating data on loss of earnings capacity into the ratings process, but the general approach is to reorder disability ratings so that injuries with the highest earnings losses receive the highest ratings. While Reville, Seabury and Neuhauser (2003) showed that this was true on average in the California system, there were some types of injuries that displayed systematically larger or smaller earnings losses than others for the same rating. Adjusting ratings to correct these disparities requires data on proportional earnings losses and average disability ratings for each of the different types of injuries that are to be adjusted.

In principle, the data used in Reville, Seabury and Neuhauser (2003) and the follow up work in Reville et al. (2004) are appropriate for the task of adjusting earnings losses. However, in neither of these documents are there sufficient data reported to

¹ Specifically, the statute requires that "[t]he administrative director shall formulate the adjusted rating schedule based on empirical data and findings from the Evaluation of California’s Permanent Disability Rating Schedule, Interim Report (December 2003), prepared by the RAND Institute for Civil Justice, and upon data from additional empirical studies" (Section 32.b.2).
implement a full set of earnings loss adjustments. First, these reports tend to focus on final ratings, which are the ratings that have been adjusted for age and occupation. However, given that the age and occupation adjustments are still going to be used in the new schedule, it seemed that the initial standard rating, is a more appropriate tool with which to calculate the diminished future earnings capacity adjustments. In addition, the aforementioned reports do not provide the necessary information for a comprehensive list of injury categories. The purpose of this document is to provide summary data that can be used to compute the diminished future earnings capacity adjustments in compliance with SB 899.

Data Description and Methods

The data we use here are the same as used previously by Reville et al. (2002) and Reville, Seabury and Neuhauser (2003). This database consists of matched administrative data on disability ratings and on earnings for PPD claimants in California. The data on disability ratings come from the State of California’s Disability Evaluation Unit (DEU). The DEU performs between 60,000 and 80,000 ratings of permanent disabilities each year. Our dataset was drawn from evaluations done on injuries occurring between 1991 and 1997. The DEU data contain specific information about the type of impairment, severity of the impairment, and important demographic data (gender, age at injury, average weekly wage at injury, address, and occupation).

The earnings data are from the Base Wage file maintained by the California Employment Development Department (EDD). Every quarter, employers covered by Unemployment Insurance (UI) in California are required to report the quarterly earnings of every employee to the EDD. These reports are stored in the Base Wage file.

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2 The precise manner in which the diminished future earnings capacity adjustment is incorporated into the rating process is a matter for the Administrative Director to decide. The scenario that seems most consistent with the current system is to start with the rating from the AMA Guides as the standard rating, and then apply the future earnings capacity adjustment (as a multiplier or as an add-on) along with the age and occupation adjustments.
The industries covered by UI are virtually identical to the industries covered by workers’ compensation; therefore, a worker injured at a firm for which he or she can make a workers’ compensation claim should also have a record for that quarter in the Base Wage file. With roughly 95 percent of employees in California covered by the UI system, the matched DEU-EDD data provide a substantially complete and accurate California quarterly earnings history for permanent disability claimants. We have data for every matched worker from the first quarter of 1991 through the first quarter of 1999.

The key feature of the RAND data for the purposes of adjusting disability ratings is that it includes the estimated earnings losses that injured workers suffer as a result of their disabling injuries. Earnings losses cannot be measured directly, because they are a function of what individuals would have earned had they not been injured. One way to estimate earnings losses is to use pre-injury earnings as the proxy, but this is problematic because it ignores the wage growth (or decline) that individuals experience over time. In numerous studies, beginning with Peterson et al. (1998), RAND has estimated earnings losses for disabled workers in California by comparing their post-injury earnings to those of uninjured “control” workers. Control workers are selected on the basis of pre-injury earnings; thus, earnings losses are estimated as the difference between the earnings of the injured workers and the earnings of the uninjured workers who appeared observably similar to the injured workers prior to the injury. This methodology has been described in numerous previous works, so we do not expand on it in detail here.3 As in Reville, Seabury and Neuhauser and Reville et al. (2004), we focus on 3-year proportional earnings losses because these data provide the best balance between representing long-term outcomes and a sufficient number of observations with which to conduct our analysis.

There is one minor difference between the methods used here and those in previous studies, and that is the difference in how we calculate and report proportional

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3 In addition to the Peterson et al. (1998) study, see Reville (2001) and Reville and Schoeni (2001).
earnings losses, which are the percent of earnings that are lost because of an injury. Proportional earnings losses can be problematic to calculate at the individual level, because they are subject to extreme values (called “outliers”). Specifically, the highest value that proportional earnings losses can achieve is 100 percent, because injured workers cannot have less than zero earnings and control workers’ earnings are positive or zero. However, earnings “losses” can be negative, in the sense that an injured worker’s post-injury earnings can exceed that of the control workers.

Negative earnings losses occur because of the random nature of the sampling variance. For example, a given injured worker may have high post-injury earnings while the matched control(s) can have very low or even zero earnings. Hence, when injured workers’ earnings exceed the controls, earnings losses are negative, and that negative number can approach infinity. Consequently, proportional earnings losses are bound at the top by one but not by zero (or negative one) at the bottom. This suggests that a few cases with substantially negative proportional earnings losses can drive the overall average losses below reasonable levels.

The impact of these few observations with large proportional losses can be seen in Table 1. Table 1 illustrates the distribution of proportional earnings losses in our sample, by displaying the value of a number of percentiles (the Nth percentile is the value that N percent of the observations lie below). We see from the first column that approximately 1 percent of observations have proportional losses of approximately –308 percent or more, while 99 percent of observations have proportional losses under 96.9 percent. This leads to a skewed average value of –11.7 percent, while the median (the 50th percentile) proportional earnings loss is 9.9 percent. To see just how misleading this negative average proportional loss is, consider that the average dollar value of cumulative 3-year earnings losses in our sample is $14,625 in 1997 dollars.

To overcome this problem and present sensible average proportional losses for different injury categories, we trim the top and bottom 1 percent of the distribution of
Table 1
Illustration of the Effect of Extreme Observations on Average Proportional Earnings Losses

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Untrimmed</th>
<th>Trimmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-3.080</td>
<td>-1.611</td>
</tr>
<tr>
<td>5</td>
<td>-0.721</td>
<td>-0.628</td>
</tr>
<tr>
<td>10</td>
<td>-0.393</td>
<td>-0.364</td>
</tr>
<tr>
<td>25</td>
<td>-0.109</td>
<td>-0.104</td>
</tr>
<tr>
<td></td>
<td>0.099</td>
<td>0.099</td>
</tr>
<tr>
<td>75</td>
<td>0.520</td>
<td>0.509</td>
</tr>
<tr>
<td>90</td>
<td>0.834</td>
<td>0.819</td>
</tr>
<tr>
<td>95</td>
<td>0.909</td>
<td>0.897</td>
</tr>
<tr>
<td>99</td>
<td>0.969</td>
<td>0.951</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.117</td>
<td>0.143</td>
</tr>
<tr>
<td>N</td>
<td>110,583</td>
<td>108,873</td>
</tr>
</tbody>
</table>

Notes: The Nth percentile represents the value of which N percent of the observations fall below. The trimmed data drop all observations that fall above the 95th percentile or below the 1st percentile.

Proportional earnings losses. In other words, we drop all observations with proportional losses of less than -308 percent or greater than 96.9 percent (2,210 observations). This trimming procedure maintains the overall shape of the distribution of proportional earnings losses, while eliminating the undue effect of the extreme cases.

From the final column of Table 1, we see that trimming leads to an average proportional earnings loss estimate of approximately 14.3 percent.

This trimming procedure is slightly different than what has been done in past RAND work. The past studies mentioned here have typically not focused on proportional losses at the individual level. Rather, proportional earnings losses were estimated by taking the ratio of average cumulative losses over the average cumulative earnings of control workers. While this approach produced sensible estimates of proportional earnings losses, it has limited use for our purposes because here it is necessary to estimate proportional losses at the individual level, for reasons that will become clear in the next section.
A common concern with trimming is that there is no theoretical basis for choosing the trimming "rule," the percentile above and below which observations are dropped. If the choice of a trimming rule has a large impact on the average proportional losses, then this raises concern that results using these numbers will not be robust. We address this concern in Figure 1, which displays the impact of different trimming rules on the average proportional earnings losses. The first bar represents the average losses with no trimming, approximately -12 percent. We see right away that the biggest impact occurs from going to no trimming to trimming above and below the 0.25th percentile, which leads to average earnings losses of about 10 percent. The remaining bars represent successive trimming rules at one-half percentile intervals until the 5th percentile. Average losses are increasing in the trimming percentile, though they appear to stabilize close to 17 percent.

Since average losses still appear to be increasing at the 1 percent level, this does raise the question as to whether or not it appears to be the appropriate choice. One
reason to use a more conservative trimming rule is that it preserves observations, an
effect that becomes important when attempting to estimate the losses for relatively
infrequent injury types. Additionally, given that observations with negative
proportional earnings losses are theoretically valid, we might worry that higher
trimming rules lead us to exclude valuable information (i.e., we have no way of
knowing if the converged value of 17 percent is really “better” than the 14 percent
obtained when trimming at the first percentile). The figure shows that the average
earnings losses resulting from the 1 percent trimming are close to the midpoint between
the lowest and highest trimming rules, making it a conservative approach.

As a final justification for the 1 percent trimming level, consider that if we
multiply the 14.3 percent average proportional losses by the average cumulative 3-year
earnings for our sample ($102,441), we obtain predicted earnings losses equal to
approximately $14,649. This differs from the observed earnings losses by just $24, or
less than one percentage point.

Estimating Ratings and Losses for Different Separate Regions of the Spine

One of the key challenges in computing diminished future earnings capacity
adjustments that comply with SB 899 is that Reville, et al. (2003) report earnings loss
estimates for injury descriptions used by the California Permanent Disability Rating
System (CPDRS) and the legislation requires the injury descriptions to be based on the
AMA Guides. The disability descriptions in the CPDRS and the AMA Guides are quite
different in practice. There currently exists no direct link between the descriptions of
injuries in the California Disability Evaluation Unit (DEU) data used by RAND and the
injury descriptions in the AMA Guides.

Given a lack of data on earnings losses for injuries evaluated under the AMA
Guides, the adjustments must be calculated using data on earnings losses for
impairment categories that are broad enough to be comparable in both systems.
However, this is problematic for impairments to the neck, spine or pelvis (which we term simply “back injuries”), the single largest category in the DEU data. The AMA Guides make separate distinctions between the Lumbar, Cervical and Thoracic regions of the spine, and rates them separately, while the DEU data uses a single classification for all three areas. In order to compute separate adjustments for all three regions of the spine we must estimate their average ratings and earnings losses.

The specific regions of the spine are estimated by combining the original DEU data with data from a survey of all medical reports involving the spine that were evaluated by the DEU on June 28th, 29th and July 1, 2004. This resulted in 247 single-injury cases that included an injury to either the lumbar, cervical or thoracic regions of the spine. Table 2 compares the mean and median ratings for the single-injury back

<table>
<thead>
<tr>
<th>Comparison of Average Back Ratings in DEU Back Survey to the RAND Data</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEU Back Survey</td>
<td>27.44</td>
<td>25</td>
</tr>
<tr>
<td>Summary Ratings in the RAND Data</td>
<td>19.70</td>
<td>15</td>
</tr>
<tr>
<td>Consults in the RAND Data</td>
<td>26.11</td>
<td>25</td>
</tr>
<tr>
<td>“Corrected” Consults in the RAND Data(^1)</td>
<td>18.85</td>
<td>18.05</td>
</tr>
</tbody>
</table>

\(^1\) The consult ratings are corrected by multiplying all ratings by the ratio of the average rating in the RAND data for the summary cases divided by the average rating of cases in the DEU back survey (approximately 1.3929).

claims in the DEU survey to the single-injury summary ratings in the RAND data. We can see that the ratings in the DEU survey are much higher at both the mean and the median than the RAND data. This is likely because the DEU explained that most of the ratings in the survey were consult ratings—that is, ratings requested by either the applicant or defense and are therefore more likely to involve a disputed claim. Past work has focused primarily on summary ratings, which contain a mix of disputed and undisputed claims. Disputed claims tend to be “higher-stakes” on average, and we can see that the consult ratings in the RAND data do tend to be quite similar to the ratings in the DEU back survey.
As we said, the focus for the adjustment factors is the sample of summary ratings, which are a more representative sample of claims. As such, we "correct" the data in the DEU back survey, by multiplying the ratings by the ratio of the average summary rating for back claims in the RAND data over the average rating in the DEU back survey. Table 2 displays the results of this correction when it is applied to the consults in the RAND data. We can see that this results in a sample of ratings that appears much closer to the summary ratings.

By applying this same correction to the data in the DEU back survey, we obtain our estimated average ratings for the lumbar, thoracic, and cervical regions of the spine. These results are displayed in Table 3. From the table we see that the lumbar region of

Table 3

<table>
<thead>
<tr>
<th></th>
<th>Lumbar</th>
<th>Cervical</th>
<th>Thoracic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Observed Rating</td>
<td>28.98</td>
<td>22.23</td>
<td>23.27</td>
</tr>
<tr>
<td>Average Corrected Rating</td>
<td>20.92</td>
<td>16.05</td>
<td>16.80</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>183</td>
<td>53</td>
<td>11</td>
</tr>
<tr>
<td>Percent of cases</td>
<td>74.09</td>
<td>21.46</td>
<td>4.45</td>
</tr>
</tbody>
</table>

*The ratings are corrected by multiplying all ratings by the ratio of the average rating in the RAND data for the summary cases divided by the average rating of cases in the DEU back survey (approximately 0.72199882).*

do the spine tends to have the highest ratings on average (approximately 20.92 after the correction). The cervical and thoracic ratings are quite similar on average (with corrected ratings of 16.05 and 16.80, respectively). PPD claims for impairments to the lumbar region also appear to occur much more frequently, accounting for about 74 percent of observations compared to 21 percent for the cervical spine and about 4 percent for the thoracic spine.

While the DEU survey allows us to compute average ratings for the different regions of the back, it tells us nothing about the average proportional losses. The best we can do is to impute the average losses for the different regions of the spine based on
the proportional earnings losses. Reville et al. (2004) shows that the disability ratings for back injuries are closely correlated with their proportional earnings losses. We predict losses for single-injury, summary-rated back injuries in the RAND data using a multivariate regression of proportional earnings losses on disability ratings, pre-injury quarterly earnings, a variable indicating whether it is a disputed claim (measured by whether there is also a defense or applicant rating for the same claim), year dummies and employer dummies. The disability ratings in the regression enter as a quadratic term, though very similar results obtain with a linear specification.

The regression results are reported in Table 4. All coefficients have their predicted signs: pre-injury earnings are negatively associated with earnings loss, disputed claims have higher losses, and the disability rating is highly correlated with the proportional losses. Using this regression we can estimate the proportional losses for the different injury types by multiplying the estimated coefficients for the linear and square terms to the disability rating and its square, respectively, and then adding the two together. If we carry out this calculation, we estimate proportional losses of 19.14 percent for the lumbar spine, 15.04 percent for the cervical spine, and 15.69 percent for the thoracic spine. While using the DEU back survey allows us to compute separate estimates of ratings and earnings losses for the three different regions of the spine, it is important to acknowledge the limitations of our analysis. First, we have to assume that the distribution of ratings across regions of the spine is the same in summary ratings and consult ratings. Specifically, we must assume both that the proportional difference between summary ratings and consult ratings is the same across regions of the spine and that the relative frequency with which the different types of injuries occur is the same in summary and consult ratings. If this assumption fails to hold, then our estimated ratings for the average rating and percent of cases in the summary data could be biased.

The second assumption we are forced to make is that the relationship between proportional earnings losses and disability ratings is the same across the different
Table 4

Regression of Proportional Earnings Loss on Disability Ratings for Single Injury, Summary Rated Back Cases in the RAND Data

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarterly Pre-injury Earnings</td>
<td>-0.001</td>
<td>(6.667e-05)**</td>
</tr>
<tr>
<td>Year = 1992</td>
<td>-2.578</td>
<td>(0.881)**</td>
</tr>
<tr>
<td>Year = 1993</td>
<td>-4.075</td>
<td>(0.944)**</td>
</tr>
<tr>
<td>Year = 1994</td>
<td>-2.841</td>
<td>(1.025)**</td>
</tr>
<tr>
<td>Year = 1995</td>
<td>-3.142</td>
<td>(1.028)**</td>
</tr>
<tr>
<td>Year = 1996</td>
<td>20.368</td>
<td>(12.779)</td>
</tr>
<tr>
<td>Disputed claim</td>
<td>5.882</td>
<td>(1.615)**</td>
</tr>
<tr>
<td>Standard rating</td>
<td>1.011</td>
<td>(0.056)**</td>
</tr>
<tr>
<td>Standard rating squared</td>
<td>-0.005</td>
<td>(0.001)**</td>
</tr>
<tr>
<td>Constant</td>
<td>12.825</td>
<td>(1.102)**</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Observations</td>
<td>39198</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Notes: The table presents the estimated coefficients from a regression of 3-year proportional earnings losses on Robust standard errors in parentheses + significant at 10%; * significant at 5%; ** significant at 1%

regions of the back. While Reville, Seabury and Neuhauser (2003) and Reville et al. (2004) show that proportional earnings losses match disability ratings fairly closely on average, they also document that the relationship between the two often differs for various parts of the body. If there are similar differences between the different regions of the spine, then this could cause biases in the estimated proportional earnings losses.

From a practical standpoint, the estimated earnings losses for the different regions might be useful for examining absolute differences in severity, but not differences in severity relative to the disability rating. Because we are simply predicting
losses based on differences in the disability rating between the regions, the
proportionality between ratings and estimated losses for the different regions is
approximately the same.\textsuperscript{4} Therefore, any set of earnings loss adjustments that
incorporate the California disability rating as a measure of severity will most likely
result in approximately the same adjustment factor for the different regions of the spine
with or without the estimates derived here. This would not (necessarily) be the case if
the adjustments used some other variable to control for severity, such as the average
AMA Guide ratings for the different regions.

RESULTS

Table 5 presents the standard ratings, proportional earnings losses, the ratio of
the two, and the number of observations for each of the injury categories that can be
considered separately in the RAND data. The table breaks the data down into 22
specific injury categories (20 if we consider spinal injuries together) and an “other”
category. The smallest specific category is post-traumatic head syndrome (PTHs), with
96 observations. Almost all the various types of impairments in the other category have
less than 96 observations.\textsuperscript{5}

The highest rated type of impairment on average is heart disease, with a 29.78
percent rating on average, while the lowest are headaches with just 7.75 percent. The
highest proportional losses, however, are for psychiatric impairments, with 49.01
percent. This suggests that individuals with psychiatric impairments lose nearly one-
half of their earnings three years after an injury. The lowest proportional earnings
losses, on average, accrue to impairments to the hand or fingers; just 4.89 percent.

\textsuperscript{4} The proportionality would be exactly the same if we used a linear specification for the
regression. With the quadratic specification, however, the proportionality is slightly different for
the lumbbar region (which has the highest ratings).

\textsuperscript{5} The exception to this is facial and cosmetic disfigurements, which have 185 observations. These
impairments were placed in the other category because they had negative proportional earnings
losses on average. Conceptually, it is difficult to believe that the causal effect of such
disfigurements is actually to increase earnings (though it could possibly have an effect of zero), so
we simply placed these with the other injuries that had groups too small to reliably estimate
proportional losses.
Table 5
Disability Ratings and Earnings Losses for Broad Injury Categories in the RAND Data

<table>
<thead>
<tr>
<th></th>
<th>Standard Rating</th>
<th>3-Year Proportional Earnings Loss</th>
<th>Ratio of Ratings over Losses</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spine*</td>
<td>19.70</td>
<td>18.45</td>
<td>1.07</td>
<td>39,198</td>
</tr>
<tr>
<td>Lumbar</td>
<td>20.93</td>
<td>19.14</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>Cervical</td>
<td>16.05</td>
<td>15.04</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>Thoracic</td>
<td>16.80</td>
<td>15.69</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>Knee</td>
<td>14.65</td>
<td>9.31</td>
<td>1.57</td>
<td>12,846</td>
</tr>
<tr>
<td>Loss of grasping power</td>
<td>11.21</td>
<td>8.73</td>
<td>1.28</td>
<td>11,776</td>
</tr>
<tr>
<td>General upper extremity</td>
<td>17.89</td>
<td>17.98</td>
<td>1.00</td>
<td>8,776</td>
</tr>
<tr>
<td>Shoulder</td>
<td>9.73</td>
<td>13.08</td>
<td>0.74</td>
<td>7,358</td>
</tr>
<tr>
<td>Hand / Fingers</td>
<td>8.86</td>
<td>4.89</td>
<td>1.81</td>
<td>6,895</td>
</tr>
<tr>
<td>Wrist</td>
<td>13.15</td>
<td>10.84</td>
<td>1.21</td>
<td>5,968</td>
</tr>
<tr>
<td>Ankle</td>
<td>14.12</td>
<td>9.28</td>
<td>1.52</td>
<td>4,151</td>
</tr>
<tr>
<td>Elbow</td>
<td>9.44</td>
<td>6.23</td>
<td>1.51</td>
<td>2,896</td>
</tr>
<tr>
<td>Hearing</td>
<td>10.71</td>
<td>17.69</td>
<td>0.61</td>
<td>2,068</td>
</tr>
<tr>
<td>General lower extremity</td>
<td>19.00</td>
<td>17.21</td>
<td>1.10</td>
<td>1,765</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>22.13</td>
<td>49.01</td>
<td>0.45</td>
<td>1,433</td>
</tr>
<tr>
<td>Toe(s)</td>
<td>10.10</td>
<td>9.09</td>
<td>1.11</td>
<td>523</td>
</tr>
<tr>
<td>Hip</td>
<td>21.68</td>
<td>21.10</td>
<td>1.03</td>
<td>475</td>
</tr>
<tr>
<td>General abdominal</td>
<td>18.26</td>
<td>19.24</td>
<td>0.95</td>
<td>448</td>
</tr>
<tr>
<td>Heart disease</td>
<td>29.78</td>
<td>30.82</td>
<td>0.97</td>
<td>353</td>
</tr>
<tr>
<td>Vision</td>
<td>10.31</td>
<td>5.68</td>
<td>1.81</td>
<td>306</td>
</tr>
<tr>
<td>Lung disease</td>
<td>20.06</td>
<td>25.44</td>
<td>0.79</td>
<td>264</td>
</tr>
<tr>
<td>Headaches</td>
<td>7.75</td>
<td>12.35</td>
<td>0.63</td>
<td>181</td>
</tr>
<tr>
<td>Post-traumatic head syndrome</td>
<td>23.85</td>
<td>25.57</td>
<td>0.93</td>
<td>96</td>
</tr>
<tr>
<td>Other single</td>
<td>13.81</td>
<td>9.04</td>
<td>1.53</td>
<td>597</td>
</tr>
<tr>
<td>Total</td>
<td>15.58</td>
<td>14.25</td>
<td>1.09</td>
<td>108,373</td>
</tr>
</tbody>
</table>

* The specific regions of the spine are estimated by combining the original DEU data with data from a survey of all medical reports involving the spine that were evaluated by the DEU on June 28th, 29th and July 1, 2004. The DEU survey allows us to compute average ratings for the different regions of the back, allowing us to impute the average losses with an OLS regression of proportional earnings losses on disability ratings, pre-injury quarterly earnings, a variable indicating whether or not it is a disputed claim, year dummies and employer dummies. The disability ratings in the regression enter as a quadratic term, and the predicted earnings losses are calculated accordingly (with the average rating multiplied by the coefficient on linear term, added to the product of the squared average rating and the coefficient on the square term). The average ratings in the DEU back survey are higher than in the original DEU data, so we scale the ratings down so that the mean is the same.

The purpose of adjusting disability ratings to reflect diminished future earnings capacity is to reduce the disparities between losses for different types of impairments.
conditional on a rating. Reville, Seabury and Neuhauser (2003) suggest the ratio of
disability ratings over earnings losses as a straightforward measure of the average
disparities. From Table 5, we see that the impairments to the hand or fingers and
impairments of vision are tied for the highest ratings relative to earnings losses, at 181
percent. Psychiatric impairments have the lowest ratings relative to proportional
earnings losses, at just 45 percent. As discussed in Reville, Seabury and Neuhauser
(2003) and Reville et al. (2004), a set of adjustments that equalized the relative values of
losses and earnings, called the *relativities*, would result in a constant ratio of ratings over
losses. All relativities must be set equal to some baseline impairment, so this suggests
that adjustment factors could be computed based on the ratio of ratings over losses for
the baseline and for each individual category. Whether or not that precise method is
used, the data in Table 5 at least provide the framework with which a set of adjustments
could be calculated.

CONCLUSIONS

This document summarizes the data on disability ratings and earnings losses that
have been collected by RAND for a number of specific injury categories. This should
provide the necessary information to calculate adjustments for the diminished future
earnings capacity suffered by disabled workers as required by SB 899. Note that the data
presented here are really the minimal amount of information that could be used for these
adjustments. Although the data here all pertain to the California system, ideally the
ratings would be calculated combining information on earnings losses with actual AMA
Guide ratings. Moreover, it is only possible to generate linear adjustments—i.e.,
adjustments that are constant for all values of the rating—with the information presented
here. Again, ideally we might incorporate additional information to allow the
adjustments to vary over more or less severe ratings (since the relationship between
ratings and earnings losses is not necessarily constant over injury severity, according to
Reville et al., 2004). However, without any additional data that would allow a closer comparison between the earnings losses in the RAND data with AMA Guides ratings, the data here provide the best means with which to adjust disability ratings to reflect the long-term loss of earnings capacity by injured workers.
REFERENCES


California: The Ogilvie DCA Decision: Is Algebra Out and LeBoeuf In?

By Robert G. Rassp, Esq.

On July 29, 2011, the First District Court of Appeal issued its long awaited decision on Wanda Ogilvie vs. WCAB. The decision reverses the WCAB en banc decision and remands the matter back to the WCAB to determine whether Ogilvie effectively rebutted the application of the 2005 PDRS. In its decision, the Court reversed use of an individualized diminished future earning capacity adjustment factor as a means to rebut a scheduled DFEC adjustment that came directly from the 2005 PDRS.

In this article, we will discuss the specific findings of the Court. So what does the Court say and how do we apply its findings and conclusions in our cases? Is algebra out and you no longer need to calculate WPI to wage loss ratios using EDD data and a control group? The answer to both is "yes." Is LeBoeuf back into play? "Yes", LeBoeuf has been resurrected by the Court of Appeal. Does "diminished future earning capacity" mean the same thing as "loss of ability to compete in the open labor market?" Apparently, according to the Court, the answer is "yes."

For the purpose of this article and our analysis, assume that Ogilvie injured her back and right knee as a Muni bus driver for 17 years and had to retire on a disability retirement due to her injuries. Believe it or not, the facts will prove to be good in terms of how this case may turn out for Ms. Ogilvie when her attorneys try again to rebut the DFEC adjustment.

HERE IS WHAT THE COURT SAID

In summary, the Court reversed the WCAB and concluded as follows:

“Thus we conclude that an employee may challenge the presumptive scheduled percentage of permanent disability prescribed to an injury by showing a factual error in the calculation of a factor in the rating formula, or application of the formula, the omission of medical complications aggravating the employee’s disability in preparation of the rating schedule, or by demonstrating that due to industrial injury the employee is not amenable to rehabilitation and therefore has suffered a greater loss of future earning capacity than reflected in the scheduled rating.”

First, the Court explained how the WCAB rejected the three proposed methods of rebutting the diminished future earning capacity adjustment tables (Tables A and B in the 2005 PDRS,
located in Section 3, pages 1-5 through 1-8). The WCAB adopted use of the RAND formula that formed the basis of the eight DFEC adjustment categories and allowed rebuttal of a schedule DFEC adjustment by using evidence of an injured worker’s actual post-injury wage loss, the wage data of a control group over the same period and the WPI to wage loss ratio compared to the scheduled one.

The Court cites the language in *Brodie vs. WCAB* (2007) 40 Cal.4th 1313, 72 Cal. Comp. Cases 565 and asserts that: “A permanent disability is the irreversible residual of a work-related injury that causes impairment in earning capacity, impairment in the normal use of a member or a handicap in the open labor market.” The Court then again cites *Brodie* and states: “Payments for permanent disability are designed to compensate an injured employee both for physical loss and reduction in earning capacity.” Then the Court talks about how the law originally was meant to compensate an injured worker for loss of ability to compete in the open labor market.

The changes in the law from SB 899 altered Labor Code section 4660 to eliminate the language referring to loss of ability to compete in the open labor market to new language in 4660(a) that now requires a permanent disability award give consideration to an injured employee’s “diminished future earning capacity.” The Court then astonishingly concludes that this is a distinction without a difference – that “loss of ability to compete in the open labor market” is the same thing as “diminished future earning capacity” and that they are “interchangeable.”

The Court goes to pains to indicate that the terms have been used interchangeably in case law prior to the enactment of SB 899. Then the Court concludes: “Indeed the terms “diminished future earning capacity” and “ability to compete in an open labor market” suggest to us no meaningful difference, and nothing in SB 899 suggests that the Legislature intended to alter the purpose of an award of permanent disability through this change of phrase. Nor does its use suggest that a party seeking to rebut a permanent disability rating must make any particular showing.”

The Court then points out that Labor Code section 4660(b)(2) mandates that an employee’s diminished future earning capacity “shall be a numeric formula based on empirical data and findings” as developed by the RAND Institute. The Court then states:

“The language of section 4660 provides no alternative means to take into account the diminished earning capacity of an employee as a factor in rating a permanent disability. While the rating schedule is to be “prima facie evidence of the percentage of permanent disability to be attributed to each injury covered by the schedule” (section 4660 subd. (c)), there is no indication some other measure may be substituted for the earning
capacity component in order to arrive at an overall rating most suitable for a particular employee. In considering the Legislature’s intent to “promote consistency, uniformity and objectivity” in permanent disability awards, we see nothing ambiguous or unclear in section 4660’s directive that the earning capacity adjustment factor “shall be” the numeric formula based on the RAND Institute’s report. It must be initially applied.”

This paragraph, quoted from the Court, will become the keystone for rebutting the DFEC adjustment factor. The Court then points out that there is case law over the past 41 years that allows a party two ways to rebut a scheduled rating “unchanged by passage of SB 899.”

The first way is “when a party can show a factual error in the application of a formula or the preparation of the schedule.” The Court then cited cases where either the disability was not “scheduled” or where the employee’s duties did not match a scheduled occupational group. We know, for example, that disabilities to upper extremities were not scheduled under the 1988 and 1997 PDRS. The DEU came up with consensus ratings for upper extremity injuries that were not successfully challenged in court. The Court then states:

“A challenge to an employee’s presumptive disability rating thus appears to remain permissible on the basis that the schedule, or one of its component factors, was incorrectly calculated or applied.”

So any party can still challenge and rebut a scheduled rating.

Then the Court gets interesting by applying these principles of old case law to a potential rebuttal of a scheduled DFEC adjustment factor by saying:

“The possibility an employee can demonstrate such an error in the earning capacity adjustment factor is more than theoretical, particularly in cases like this one involving a back injury.”

The Court then specifically cites the RAND Institute for Civil Justice 2004 working paper that shows the relationship between permanent disability ratings to wage loss data. The document can be accessed publicly at the RAND Institute for Civil Justice web site and you search for “Data for Adjusting Disability Ratings to Reflect Diminished Future Earnings and Capacity In Compliance With SB 899.” In the working paper, as it is called, the researchers pointed out certain flaws in their data that would affect how the DFEC adjustments were actually calculated and what data they were based on. Remember, the DEU used this data to develop the 2005 PDRS. As to Ms. Ogilvie’s back injury the Court specifically states:
“The [RAND] working paper also makes certain assumptions that are critical when the diminished earning capacity ratings are applied to back injuries (citing pages 10-12 of the working paper). If any of the assumptions are incorrect, the estimated ratings could be biased.”

The Court then says:

“A challenge to the ratings schedule on the basis that there was a factual error in the calculation of one of its component factors, or it was incorrectly applied in a particular case does not undermine the schedule’s “consistency, uniformity, and objectivity.”

The Court cites “Guzman III” [Milpitas Unified School District vs. WCAB (Guzman) 187 Cal.App.4th 808, 75 Cal. Comp. Cases 837] and reaffirms that any aspect of a permanent disability rating can be rebutted and the DFEC adjustment is not subject to a conclusive presumption.

Next, the Court addresses the second way prior case law allows rebuttal of a scheduled permanent disability rating and that is if the claim is that the injured worker cannot be rehabilitated. The Court specifically affirms that the principles of LeBoeuf [LeBoeuf vs. WCAB (1983) 34 Cal.3d 234, 48 Cal. Comp. Cases 587] apply and live under the 2005 PDRS and despite the use of the AMA Guides:

“Another way the cases have long recognized that a scheduled rating has been effectively rebutted is when the injury to the employee impairs his or her rehabilitation, and for that reason, the employee’s diminished future earning capacity is greater than reflected in the employee’s scheduled rating.”

Didn’t someone who briefed the Court tell the justices that no one receives vocational rehabilitation any longer? Nevertheless, the Court limits application of the principles of LeBoeuf to the most widely accepted view of the Supreme Court’s holding in that case:

“… and that which appears to be most frequently applied by the WCAB, is to limit its application to cases where the employee’s diminished future earnings are directly attributable to the employee’s work related injury, and not due to nonindustrial factors such as general economic conditions, illiteracy, proficiency to speak English, or an employee’s lack of education.”

The Court then cites a list of writ denied cases and in footnote 7 justifies its use of writ denied cases! It concludes that LeBoeuf lives and states:
“An employee effectively rebuts the scheduled rating when the employee will have a greater loss of future earnings than reflected in a rating because, due to the industrial injury, the employee is not amenable to rehabilitation.”

The Court then recognizes a third way to rebut a scheduled permanent disability rating:

“In certain rare cases, it appears the amalgamation of data used to arrive at a diminished future earning capacity adjustment may not capture the severity or all of the medical complications of an employee’s work injury. A scheduled rating may be rebutted when a claimant can demonstrate that the nature or severity of the claimant’s injury is not captured within the sampling of disabled workers that was used to compute the adjustment factor.”

The Court cites as an example of a case where an injured worker has a foot fracture that also involves nerve damage and the scheduled DFEC adjustment did not include foot injuries with nerve damage and this particular individual has a greater diminished future earnings loss than what types of foot injuries were used as a basis for determination of the DFEC adjustment factor for foot injuries in the 2005 PDRS. The Court uses the following language for this type of rebuttal to a scheduled DFEC:

“In such cases, the scheduled rating should be recalculated taking into account the extent to which the claimant’s disability has been aggravated by complications not considered within the sampling used to compute the adjustment factor.”

Here’s the funny part of this decision, where the Court defers (punts?) to the WCAB to determine how all of this will play out under the WCAB:

“We leave it to the WCAB in the first instance to prescribe the exact method for such a recalculation that factors the employee’s anticipated diminished earning capacity into the data used by the RAND Institute.”

HOW DOES THIS DECISION AFFECT YOU? THERE’S MORE TO OGILVIE THAN YOU THINK...

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