Measuring the Adequacy and Equity of Montana’s Wage Loss Benefits

Study Approach and Expectations
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Policy Objectives

• Adequacy -- Level of benefits
  – How much of workers’ lost wages are replaced by benefits?

• Equity – Distribution of benefits across workers
  – Horizontal equity—similarly disabled workers get similar benefits
  – Vertical equity– more seriously disabled workers get higher benefits

• Cost—employers and workers are concerned with impact of the cost of workers’ compensation on profits, jobs, and wage levels.
Policy Objectives

- Adequacy and equity are usually treated in a vacuum
  - Level of benefits is known
  but
  - Level of losses is unknown
  - Distribution of losses across workers is unknown
  So,
  - Adequacy of wage loss replacement is unknown
  - Equity across differently affected workers is unknown

ERD study will fill in the missing pieces and allow LMAC, EAIC, and ultimately the Legislature to make informed decisions.
Estimating Wage Loss

• Main challenge—we do not observe the injured workers wages if they had not been injured—need to estimate future wages

• Wages at-injury are a poor proxy for future wage path
  – Age
  – Unemployment
  – School-family-children
Estimating Wage Loss

Wages vs. Time

- Uninjured
- Injured

Injury
Return to Work
Matching Injured Workers to “Controls”

• Identify two groups of workers
  – Disabling injuries including permanent impairments
  – Medical-only claims—generally minor injuries with little expected long-term impact on earnings

• Medical-only claimants are pool of potential matched controls. We use their wages as a proxy for injured worker wages, in the absence of an injury
Matching Injured Workers to “Controls”

• Matching Criteria
  – Gender
  – Age
  – Wage, 4 quarters prior to injury quarter
  – Employer size
  – Occupation (class code)
Hypothetical Example

Quarterly earnings, $

Quarters before and after injury

Control workers

Wage loss

Injured workers
Quarterly earnings and WC benefits,–10
0
10
20

Quarters before and after injury

Control workers

Uncompensated wage loss

Benefits

Injured workers

Hypothetical Example
Measures

• Wage Loss
  Control Earnings – Injured Worker Earnings

• Proportional wage loss
  \( \frac{\text{Wage Loss}}{\text{Control Earnings}} \)

• Replacement Rate—after tax
  \( \frac{\text{Benefits}}{\text{Wage Loss} \times (1-\text{tax rate})} \)
ERD Study

• 17,000 Permanent Disability Claims
• 230,000 Medical-Only Claims
• Injury dates: 1999-2007
• UI Earnings data 1997-2009
ERD Study

• For each PD claim
  – Define impairment rating percent
  – Split claims into 5 groups based on impairment
    • 1% - 2%
    • 3% - 5%
    • 6% - 10%
    • 11% - 15%
    • 16%+
  – Estimate wage loss for each group
Wages of Sample Groups relative to Quarter Prior to Injury
--FY1999 to FY2007

% of Q-1

Quarters
Wages of Sample Groups relative to Quarter Prior to Injury 1999-2007

% of Q-1 by Quarter:

- IR: 0.01-2.99
- IR: 3-5.99
- IR: 6-10.99
- IR: 11-15.99
- IR: 16+
- MO

Quarter:

0%
20%
40%
60%
80%
100%
120%
Wages of Sample Groups relative to Quarter
Prior to Injury 1999-2007

Average Quarterly Wage ($)

Quarters

IR: 0.01-2.99
IR: 3-5.99
IR: 6-10.99
IR: 11-15.99
IR: 16+
MO
Four year post MMI wage loss

<table>
<thead>
<tr>
<th>% wage loss</th>
<th>% cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% to 2%</td>
<td>21.9%</td>
</tr>
<tr>
<td>3% to 5%</td>
<td>17.7%</td>
</tr>
<tr>
<td>6% to 10%</td>
<td>25.6%</td>
</tr>
<tr>
<td>11% to 15%</td>
<td>34.1%</td>
</tr>
<tr>
<td>16%+</td>
<td>48.5%</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td><strong>25.4%</strong></td>
</tr>
</tbody>
</table>
Benefit Adequacy Study--Timetable

Over next several weeks

• Refine Impairment vs. PPD grouping
• Determine wage loss for each group
• Determine benefits for each group
• Determine “Replacement Rates” for each group

Next month, further define matching to measure impact of age, gender, employer size, occupational risk