# Measuring the Adequacy and Equity of Montana's Wage Loss Benefits

**Study Approach and Expectations**
**LMAC-September, 2010**
**Big Sky**, Montana

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**For LMAC/Employment Relations Division**

# 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
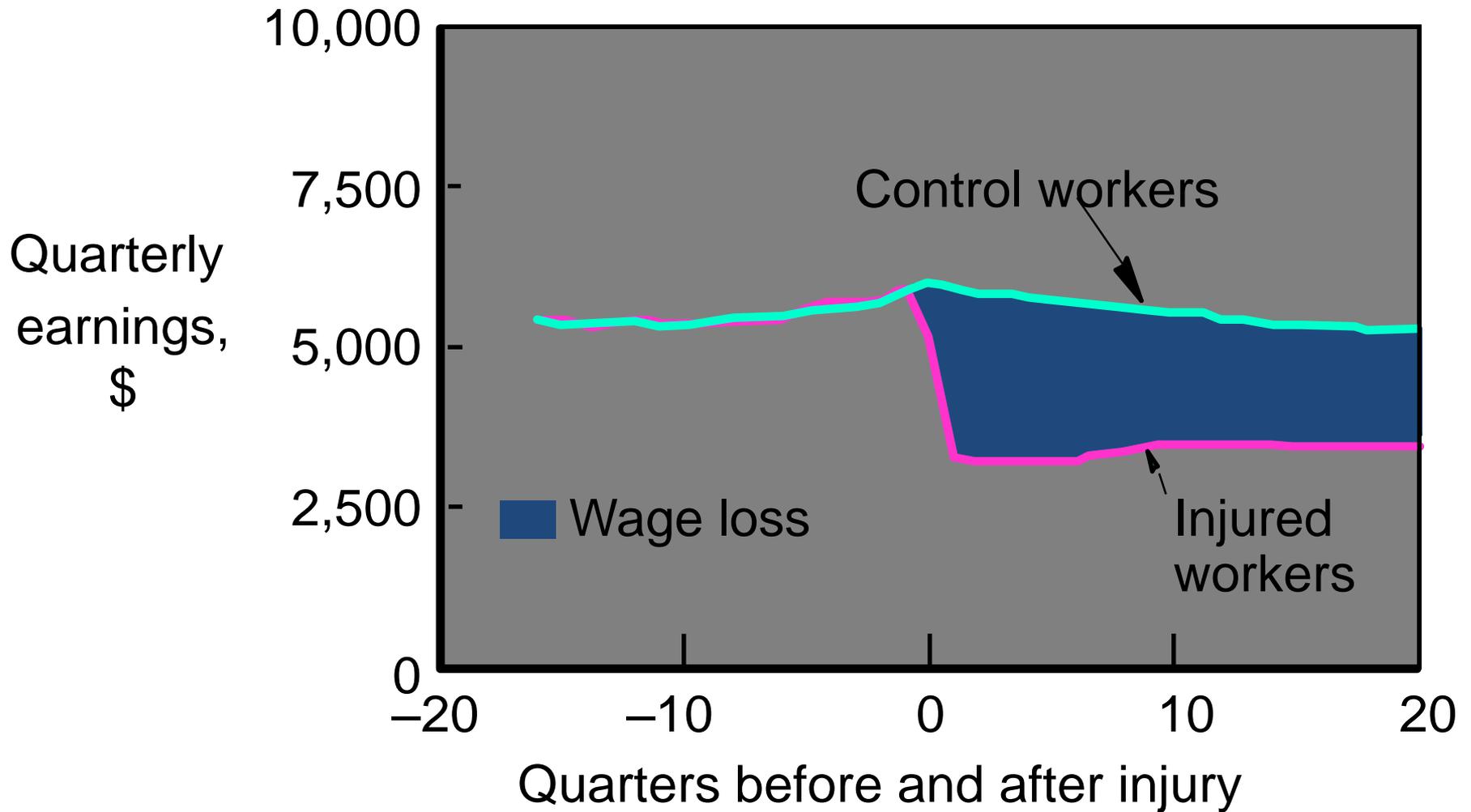  - School-family-children

# Estimating Wage Loss
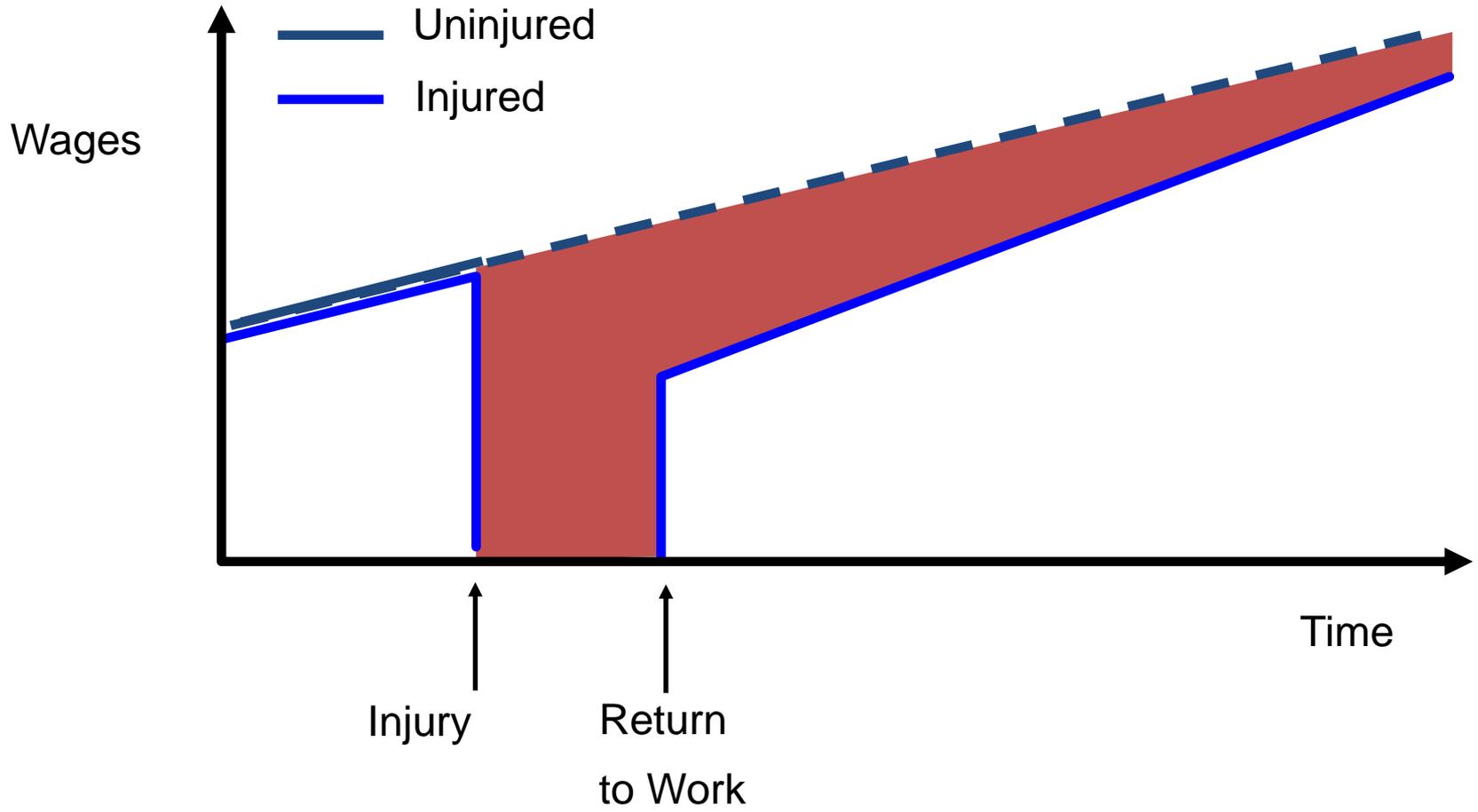
# Matching Injured Workers to "Controls"

- 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
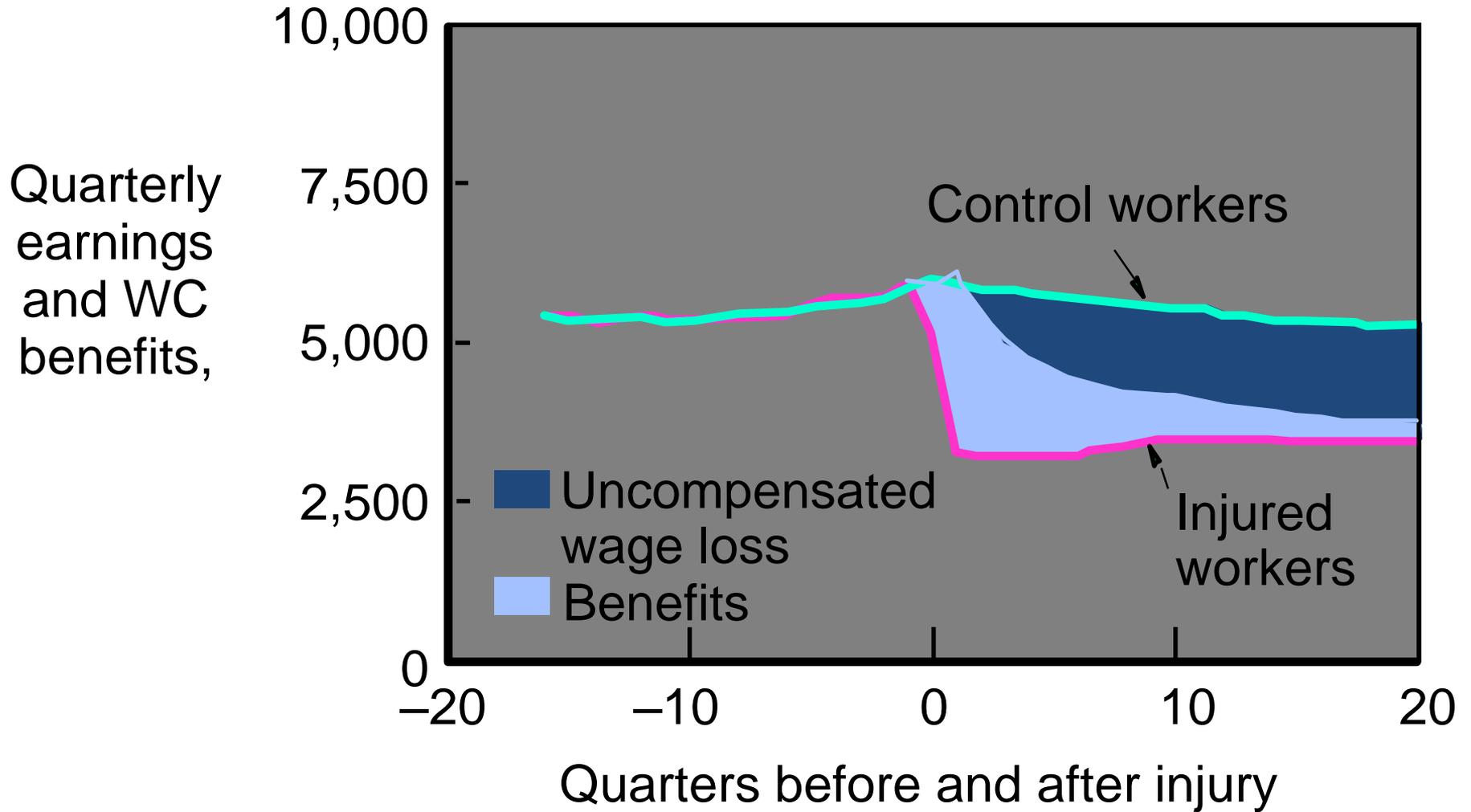
# Matching Injured Workers to "Controls"

- Matching Criteria
  - Gender
  - Age
  - Wage, 4 quarters prior to injury quarter
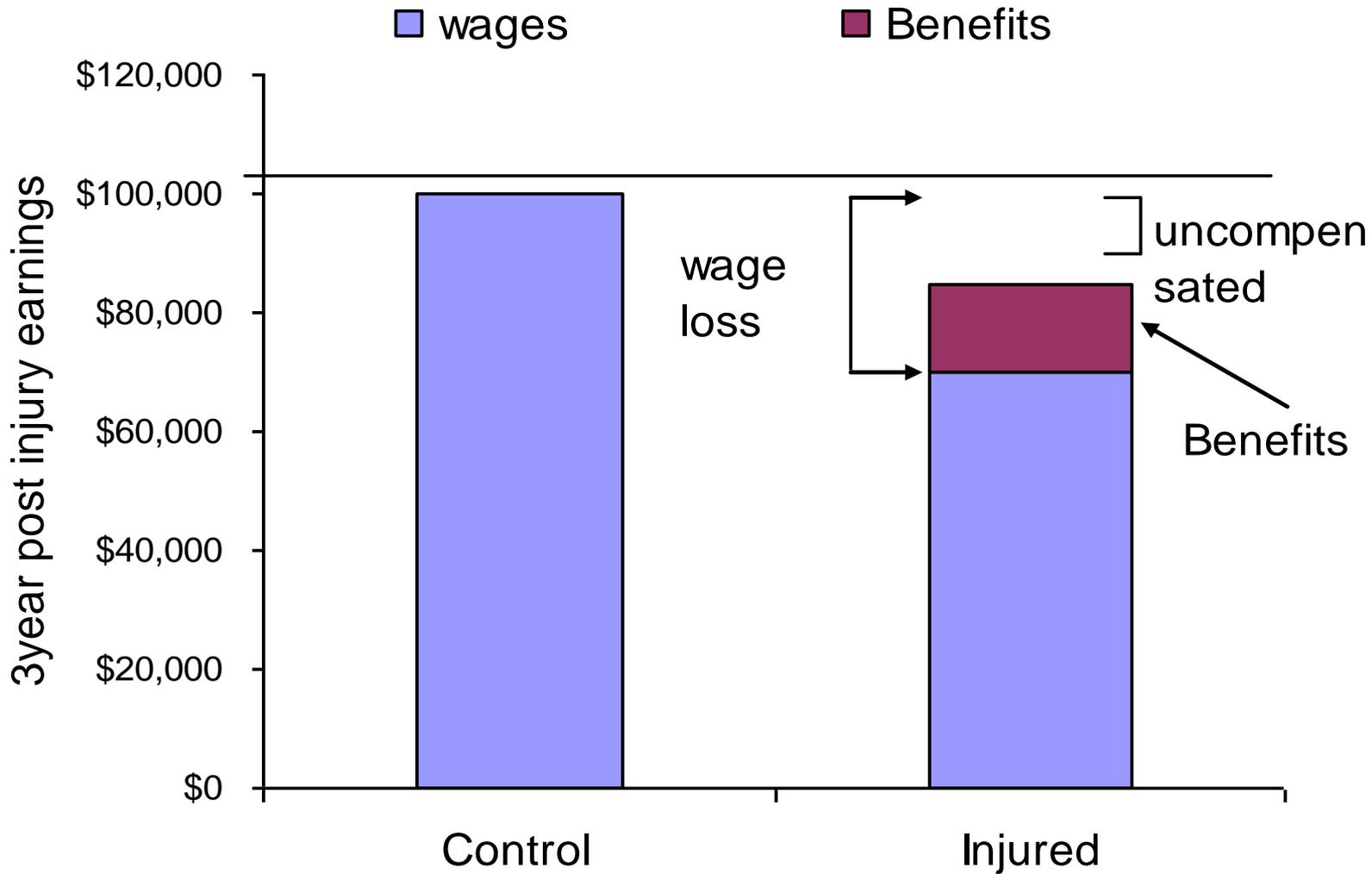  - Employer size
  - Occupation (class code)

# Hypothetical Example

# Hypothetical Example



Quarterly earnings and WC benefits,

Quarters before and after injury

10,000

7,500

5,000

2,500

0

−20   −10   0   10   20

Control workers

Injured workers

Uncompensated wage loss

Benefits

# Proportional Wage Loss, Replacement Rate

□ wages   ■ Benefits

3year post injury earnings

$120,000

$100,000

$80,000

$60,000

$40,000

$20,000

$0

wage
loss

uncompen
sated

Benefits

Control

Injured

# Measures

- Wage Loss

    Control Earnings – Injured Worker Earnings

- Proportional wage loss

    (Wage Loss)/(Control Earnings)

- Replacement Rate—after tax

    (Benefits)/(Wage Loss*(1-tax rate))

# ERD Study

- 17,000 Permanent Disability Claims

- 230,000 Medical-Only Claims

- Injury dates: 1999-2007

- UI Earnings data 1997-2009
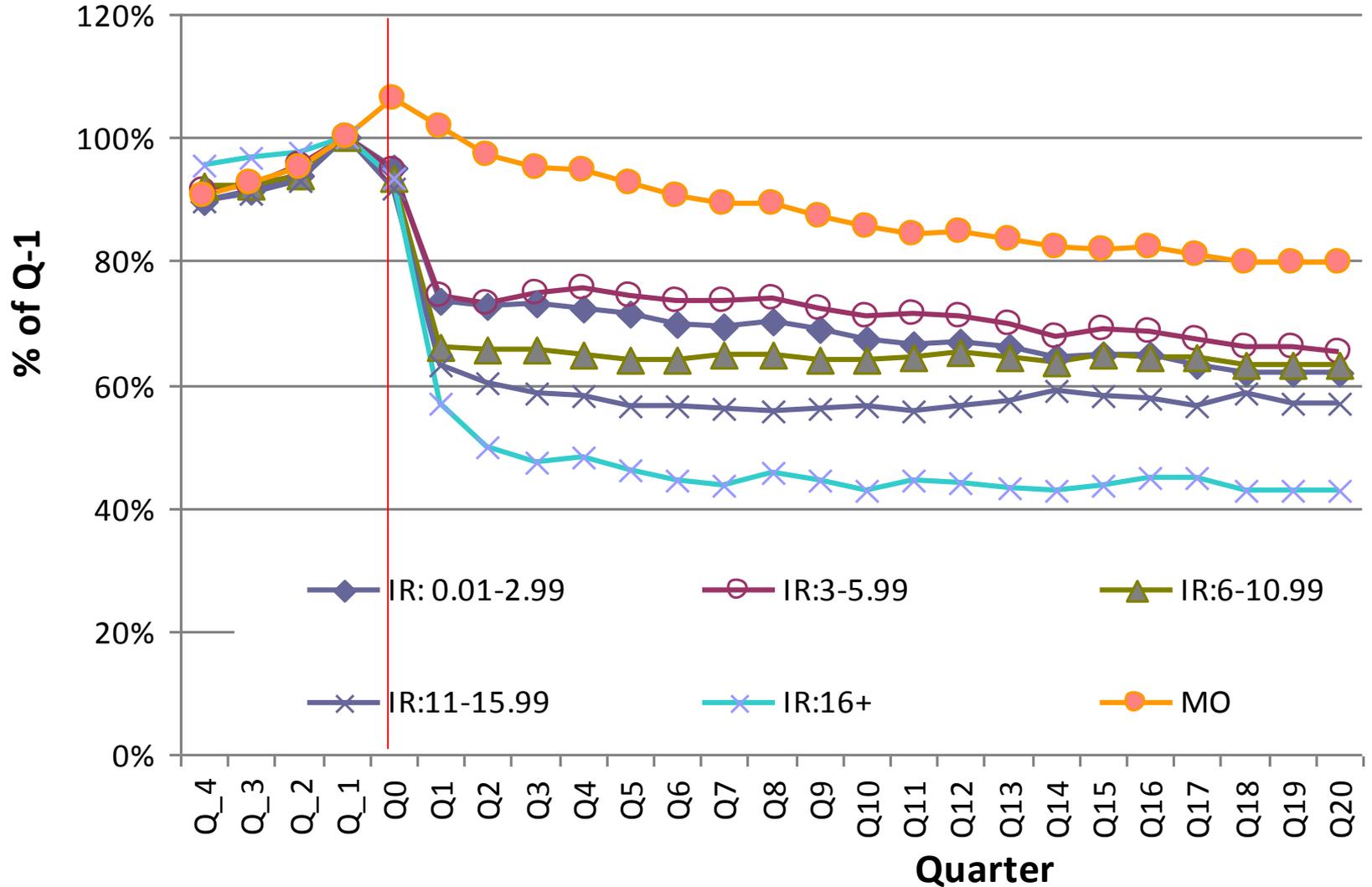
# ERD Study

- 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

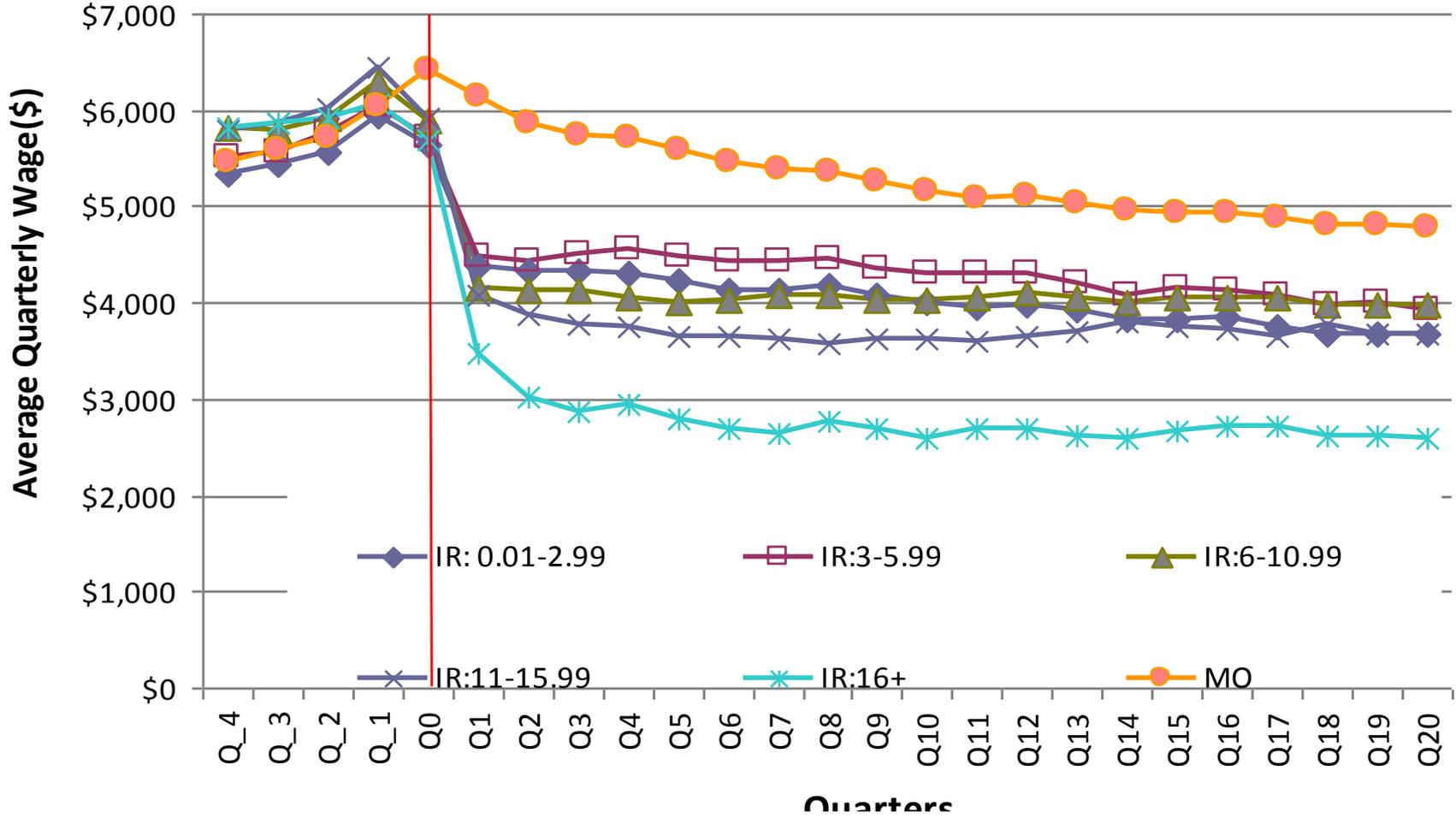**Wages of Sample Groups relative to Quarter Prior to Injury --FY1999 to FY2007**

Y-axis: % of Q-1

X-axis: Quarters

Legend: IR: 0.01-2.99, IR:3-5.99, IR:6-10.99, IR:11-15.99, IR:16+, MO
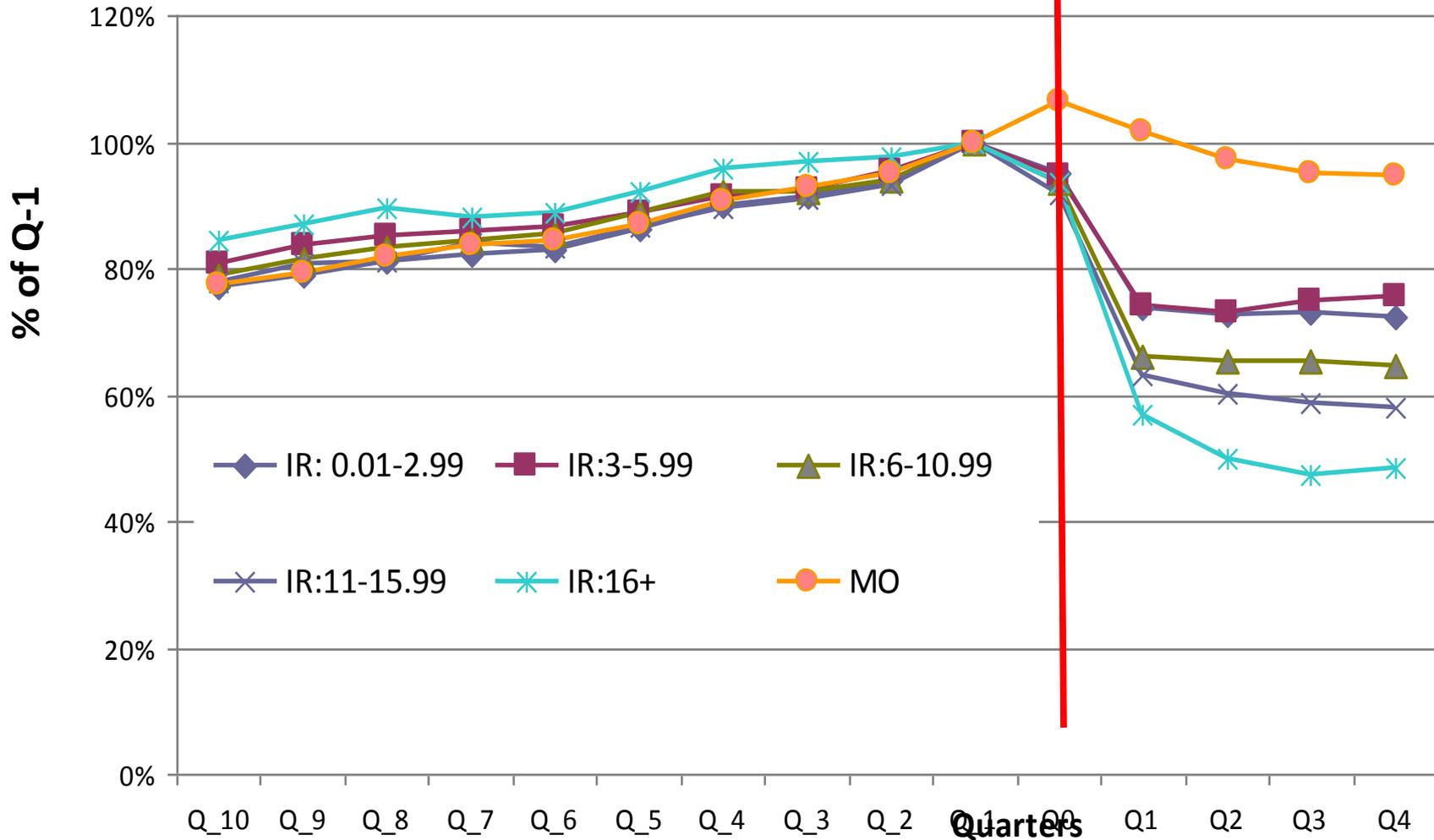
Wages of Sample Groups relative to Quarter Prior to Injury 1999-2007

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

# Four year post MMI wage loss

|  | % wage loss | % cases |
|---|---|---|
| 1% to 2% | 21.9% | 22.2% |
| 3% to 5% | 17.7% | 30.7% |
| 6% to 10% | 25.6% | 27.7% |
| 11% to 15% | 34.1% | 9.5% |
| 16%+ | 48.5% | 9.9% |
| **All** |  | **25.4%** |

# 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