Work-related Traumatic Brain Injury in Oregon
Trauma Registry Data and Deaths 2009-2014

WestON – September 30, 2016
Oregon Occupational Public Health Program
Center for Health Protection
Public Health Division
What is traumatic brain injury (TBI)
In one year alone, TBIs accounted for approximately:

2.2 million emergency department visits
280,000 hospitalizations
50,000 deaths
Figure 1. Annual age-adjusted rates of TBI-related Emergency Department (ED) visits, hospitalizations, and deaths—United States, 2001-2010.
The FY 2016 President’s Budget includes an increase of $5 million for CDC to improve estimates of sports- and recreation-related concussions experienced by youth.
What about occupational TBI?

TBI = 22% * work-related injury fatalities
Research Aim
Methods and Data Sources
Methods and Data Sources
Work-related TBI by sex and age

Rates (per 100,000 workers) of work-related TBIs, by sex and age group, Oregon, 2009-2014

- Males
- Females

OHSU Health Authority
Work-related TBI by occupation

Work-related TBI incident rates by sex and occupation (BLS), Oregon, 2009-2014

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Male</th>
<th>Female</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural resources, construction, and maintenance</td>
<td>43.8</td>
<td>39.3</td>
<td>43.2</td>
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<tr>
<td>Production, transportation, and material moving</td>
<td>25</td>
<td>5.7</td>
<td>21</td>
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<tr>
<td>Management, professional, sales and office</td>
<td>2.6</td>
<td>1</td>
<td>1.7</td>
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</tbody>
</table>
Work-related TBI by ethnicity and occupation/industry

<table>
<thead>
<tr>
<th></th>
<th>Hispanic</th>
<th>Non-Hispanic</th>
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</thead>
<tbody>
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<td>Natural resources, construction, and</td>
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<td>40.2</td>
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<tr>
<td>maintenance</td>
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<tr>
<td>Production, transportation, and</td>
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<td>21</td>
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<tr>
<td>material moving</td>
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<td>Management, professional, sales and</td>
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<td>1.7</td>
</tr>
<tr>
<td>office</td>
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</tbody>
</table>
Work-related TBI by mechanism & occupation

Common causes of work-related TBIs by occupation, Oregon, 2009-2014

% of total in the group

- Natural resources, construction, and maintenance
- Production, transportation, and material moving
- Management, professional, sales and office
Work-related TBI by mechanism

Work zone intrusion – actual scene
Work-related TBI by place

Hair today, gone tomorrow...
Average annual number of work-related TBI, Oregon 2009-2014

17 Deaths
132 Trauma Registry
??? ED visit, no registry
??? Other care/no care
Summary
Conclusion
Acknowledgements

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