

# **Occupational Injuries and Illnesses in OSHA Region 10: Safety and Health Surveillance Indicators 2000-2005**

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### **Abstract**

The burden of work-related injury and illness is large and persistent in the United States. Unlike surveillance systems for work-related fatalities, accurate systems for monitoring work-related injury and illness have not been implemented. The Council of State and Territorial Epidemiologists (CSTE), in collaboration with NIOSH, support state-based surveillance efforts to address this need. This report describes Occupational Health Indicators data for Alaska, Idaho, Oregon, and Washington. Indicators data are presented as defined by CSTE / NIOSH in *Occupational Health Indicators: A Guide for Tracking Occupational Health Conditions and Their Determinants*. When data as defined by CSTE were unavailable, alternative information sources are used for some indicators. Nine indicators could not be completed for Idaho, and two for Alaska, following the CSTE guidelines. Eight indicators showed a decline in trends from 2000 to 2005, while 11 indicators did not indicate a clear change.

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## Background

The burden of workplace injury and illness is substantial, resulting in work disability for 10% of the U.S. population at any time <sup>1</sup>. Additionally, 2.7 million disabling work-related injuries qualified for workers' compensation indemnity benefits in 1992 <sup>2</sup>. A first step in addressing occupational injury and illness through the public health model is problem identification and prioritization through surveillance <sup>3,4</sup>. A comprehensive occupational injury and illness surveillance program is essential to develop and evaluate prevention interventions, to guide policy, to set research agendas, to provide accurate statistics for public education, and to estimate demand for health and safety professionals and training. Due to the lack of adequate work-related injury and illness data at the national level, a state-based system is encouraged to build infrastructure. The National Institute for Occupational Safety and Health (NIOSH) has developed a strategic plan for surveillance, which aims to strengthen state surveillance efforts <sup>4,5</sup>.

Accurate estimates of occupational injuries and illnesses are needed to stimulate prevention efforts and to further the Occupational Safety and Health Administration's (OSHA) mandate to ensure a safe and healthy working environment. Tracking occupational injury and illness rates has been a goal of NIOSH since its inception in 1970 and is a current National Occupational Research Agenda (NORA) priority <sup>6</sup>. However, occupational injury and illness surveillance systems remain inadequate, even though 36 years have passed since NIOSH's inception. It is generally accepted that many workplace injuries and illnesses are not reported or are outside the scope of Bureau of Labor Statistics (BLS) Survey of Occupational Injury and Illness (SOII) <sup>7,8</sup>.

NIOSH and the Council of State and Territorial Epidemiologists (CSTE) have developed 19 Occupational Health Indicators (OHI) and a guide to access consistent data for each indicator <sup>9</sup>. The OHIs were developed to provide easier access to state-wide data, to promote the importance to public health, and to provide guidelines for workplace interventions to improve worker safety and health. However, some states do not have an established infrastructure for tracking this information, or they use different methods or coding systems in data collection. Thus, results are not consistent across states. Despite these difficulties, occupational health indicators can provide data for trends analysis and comparison of occupational health and risk status. They can also help

build state surveillance capacity and raise awareness of the burden of occupational injuries and illnesses. Estimates of other similar indicators are also useful for purposes of assessing the needs for training safety and health professionals and estimating future staffing demands..

As a needs assessment and planning document, this project provides the Northwest Center for Occupational Health and Safety an estimation of occupational disease and injury patterns and available professional services in Region 10 (Alaska, Idaho, Oregon, and Washington). Additionally, the project builds on methods outlined by NIOSH and CSTE for state level surveillance efforts. Through NIOSH funded projects, these 19 occupational health indicators have been reported for Oregon, Washington and several other states. We collected data for Washington and Oregon from CSTE for 2000-2003 and from OHI researchers for 2004-2005. We collected information directly from state contacts in Alaska and Idaho, with additional data obtained from national datasets and from NIOSH for 2000-2005. This information was compiled into a single dataset to present trends and summary statistics.

### **Limitations of Key Data Sources**

CSTE has described many of the important limitations of these data sources in previous reports<sup>9</sup>, and in *Putting Data to Work: Occupational Health Indicators from Thirteen Pilot States for 2000*<sup>10</sup> (available at [http://www.cste.org/pdf/newpdf/CSTE\\_OHI.pdf](http://www.cste.org/pdf/newpdf/CSTE_OHI.pdf)).

### **BLS SOII**

It is generally accepted that the Annual Survey of Occupational Injury and Illness (SOII) significantly underestimates the actual burden of illness and injury<sup>8</sup>. In addition to under-reporting within its defined scope, the SOII excludes the self-employed, federal employees, public sector workers, workers on farms with fewer than 11 employees, and others. As a result, more than 20% of the US workforce is excluded from the SOII<sup>7</sup>. Idaho does not participate in the SOII while the other three states do. However, the Idaho Industrial Commission (IIC) tracks workers' compensation claims and we have provided IIC data for indicators using SOII data. The IIC maintains files on workers' compensation claims from first report of work-related injury or illness to claim resolution for cases that involve medical attention or lost work time.

## **Workers' Compensation**

There are several factors that make direct comparison of state workers' compensation data inappropriate. These include differences in statute of limitations for claim filing, employer-assigned or worker-selected initial physician seen, exclusion of industry or occupation (e.g., fisherman in Alaska), exclusion of self-insured employers, exclusion by employer size, specific injury or illness covered by state system, different injury, and illness coding systems (e.g., ANSIz-16, OIICS, IAIABC, NCCIs Detailed Claim Information). For example, the length of time a worker is unable to work before an indemnity claim may be filed varies across states. Alaska, Oregon, and Washington require three lost work days before a claim for lost wages can be filed. In comparison, Idaho requires five days. In Idaho, employers designate the initial physician and referral chain while in the other three states the worker does. There is no exclusion for minimum employer size for workers' compensation coverage in Idaho. However, several types of workers are exempt from coverage in Idaho, including domestic service, casual employment, employer's family members, owners, real estate salesmen, and others. Alaska, Oregon, and Washington have state OSHA programs while Idaho relies on the federal program to inspect workplaces. The Idaho Industrial Commission tracks all workers' compensation claims that include accident details, lost work days, diagnosis, and costs.

## **Methods**

For demographic descriptors, counts and rates have been derived from the 19 indicators, following methods outlined by CSTE where data was available. These data were compiled on a Microsoft Excel spreadsheet. When specific data sources outlined by CSTE were not available, methods for using existing data to derive estimates or alternative indicators were developed and described. For example, information provided by employers in the annual BLS Survey of Occupational Injury and Illness (SOII) data was not collected for Idaho. Alternative indicators are presented for indicators (I 1) injury and illnesses with days away from work, (I 4) work-related amputations with days away from work, and (I 7) work-related musculoskeletal disorders (MSDs). Details of the data sources and limitations are described with the specific indicator.

We present the data from Washington and Oregon for 2000-2005. Additionally, we use existing federal and state data resources to determine the 19 Occupational Health Indicators and demographic profiles of the Idaho and Alaska workforce for 2000-2005 where data are available.

Oregon and Washington data for 2000-2003 are from CSTE with clarification from state representatives. Oregon data for 2004 and 2005 was provided by the Oregon Worker Illness and Injury Prevention Program, Oregon Public Health Division, Department of Human Services. Washington data for 2004 and 2005 was provided by the Safety and Health Assessment and Research for Prevention Program (SHARP) at the Washington State Department of Labor and Industries.

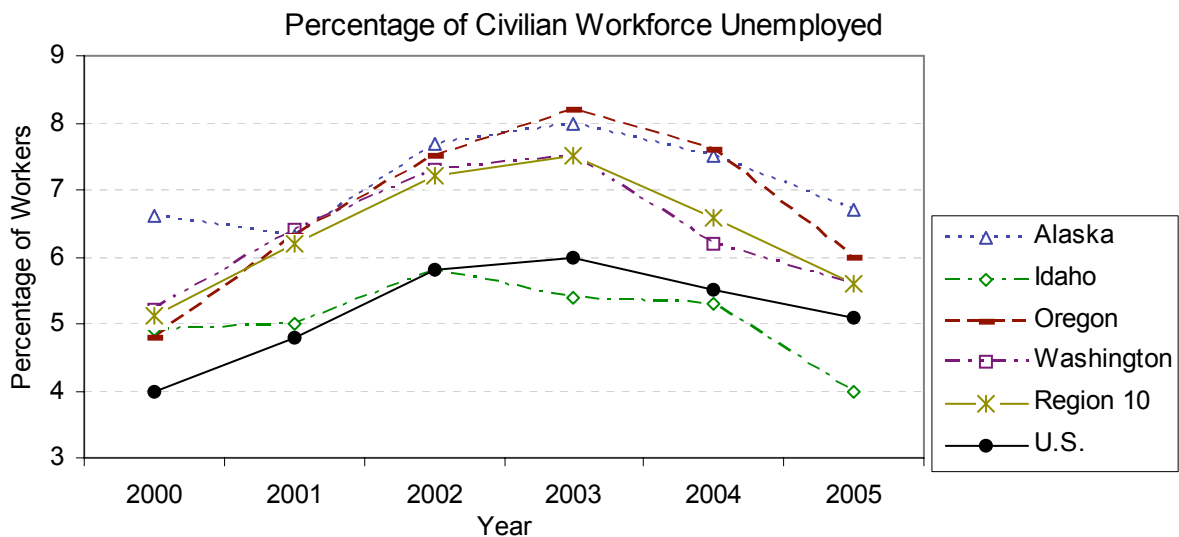
Data from states, Region 10, and the U.S. are graphed together for efficient display. However, comparison across states and regions is not supported due to differences in reporting systems and other factors. Comparison between states, or between regions, should only be done with caution and with consideration of the many differences in the methods that influence the definition, diagnosis, and reporting of the indicators.

‘Data Resources’ sections for each indicator are included to describe the methods used, as presented by the CSTE <sup>9</sup>.

## Employment Demographics Profiles

Some variation in injury and illness rates across states can be explained by workforce characteristics, including age, gender, ethnicity, employment rate as well as other data. Also, the size of the state population provides information concerning the relative importance of state trends. Therefore, we first provide some state demographics following the CSTE guidelines.

### P1. Percentage of Civilian Workforce Unemployed



Trends were similar for state, regional, and national estimates of unemployment rates. Region 10 states had a higher unemployment rate than the national rate. Following the peak rate in 2003 differences narrowed, with the exception of Idaho. In 2005, the number of employed civilians over 15 years of age was 320,000 in Alaska, 713,000 in Idaho, 1,732,000 in Oregon, and 3,111,000 in Washington. While all states grew, the number of employed workers increased the most in Washington. By 2005, Washington added 223,000 to the 2,888,000 workers employed in 2000, while the slowest growing state Oregon added 17 workers during the same time period. Listed in order of lowest to greatest growth in the employed population from 2000 to 2005 are: 6.3% in Alaska, 7.7% in Washington, and 13.9% in Idaho. Data in Table 1.

Data Resources: BLS Geographic Profiles of Employment and Unemployment (numerator number employed over 15 years old and denominator civilian non-institutional population over 15 years old).



## P2. Percentage of Civilian Employment Self-Employed



The OSHA 10 region had a higher rate of self-employment than the nation, with Idaho having the highest rate. Between 2000 and 2005, Washington's rate of self-employment increased the most, from 7.8% to 8.6%. By 2005, Washington had 43,000 more self-employed workers in the state.

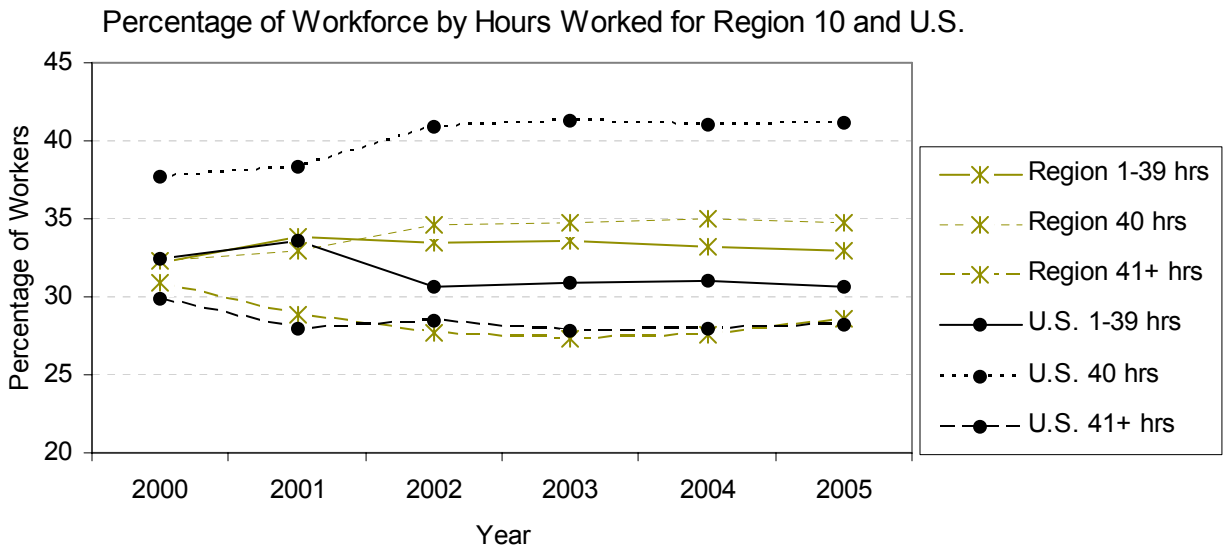
Data Resources: BLS Geographic Profiles of Employment and Unemployment (number self-employed, numerator) civilian non-institutional population over 15 years old number employed, denominator. Data in Table 1.

## P3. Percentage of Civilian Employment Employed Part-Time

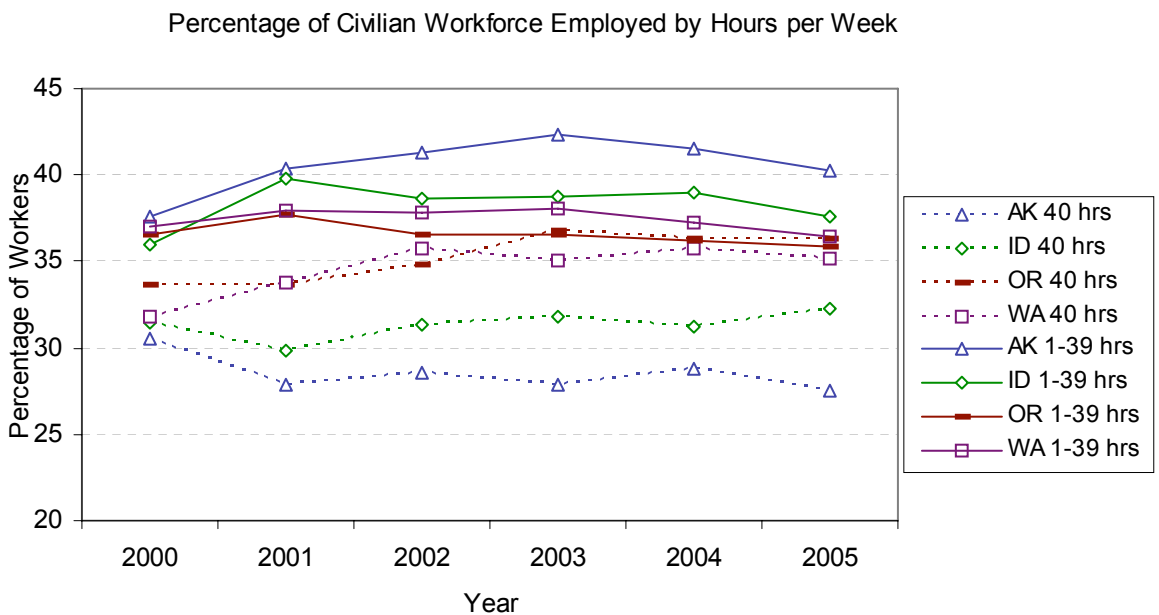
The percentage of part-time employment increased slowly over this time period between 2000 and 2005. Graph not shown. Alaska increased from 16.6% in 2000 to 19.1% in 2005, which was closely aligned with the national level of part-time employment, which increased from 16.9% to 17.4% in the same period. From 2000 to 2005 Alaska added 11,000 workers to those employed part-time. For the other states the lowest percentage of part-time employment was 19.7 and the highest was 22.3% for this time period, Idaho increased 1.2%, Oregon declined -0.7%, and Washington added 0.4%. Region 10 added 90,000 part-time workers in this period. Data in Table 1.

Data Resources: BLS Geographic Profiles of Employment and Unemployment (numerator and denominator).

### P4. Percentage of Civilian Employment by Number of Hours Worked



Categories of number of hours worked are less than 40, 40, 41 and over.



The percentage of those working over 41 hours per week in Region 10 was similar to the nation; however, the region had a larger proportion (6%) of workers in the 1-39 hour category. From 2000 to 2005, the region added 157,000 workers to those working 1-39 hours per week. The proportion of those working 40 hours per week increased in Oregon by 2.7%, Washington by 3.3%, and Idaho by 0.8% but declined in Alaska by -3.1%. Data in Table 1.

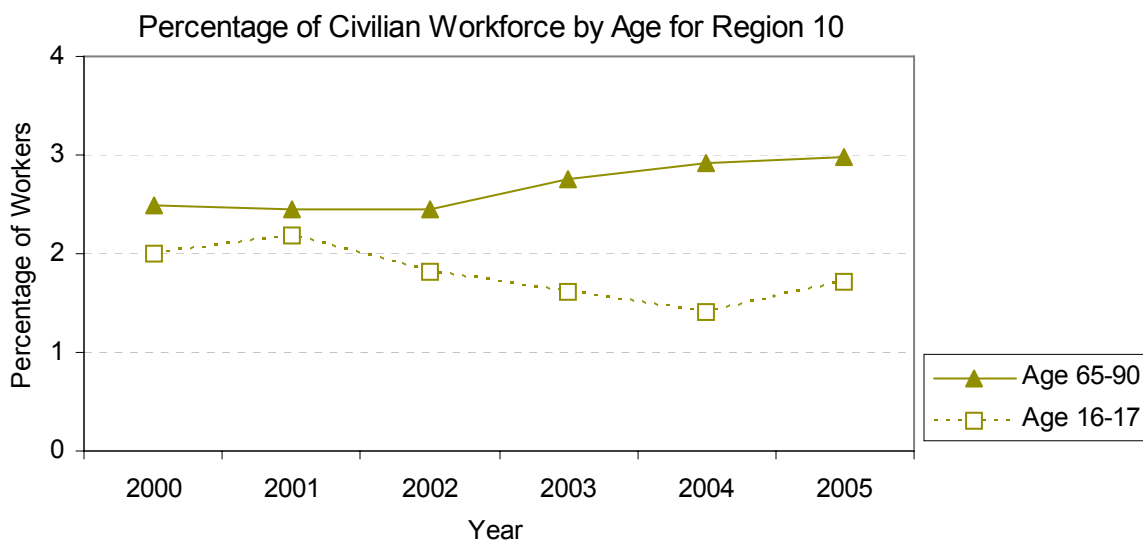
Data Resources: BLS Geographic Profiles of Employment and Unemployment (numerator and denominator).

### **P5. Percentage of Civilian Employment by Sex**

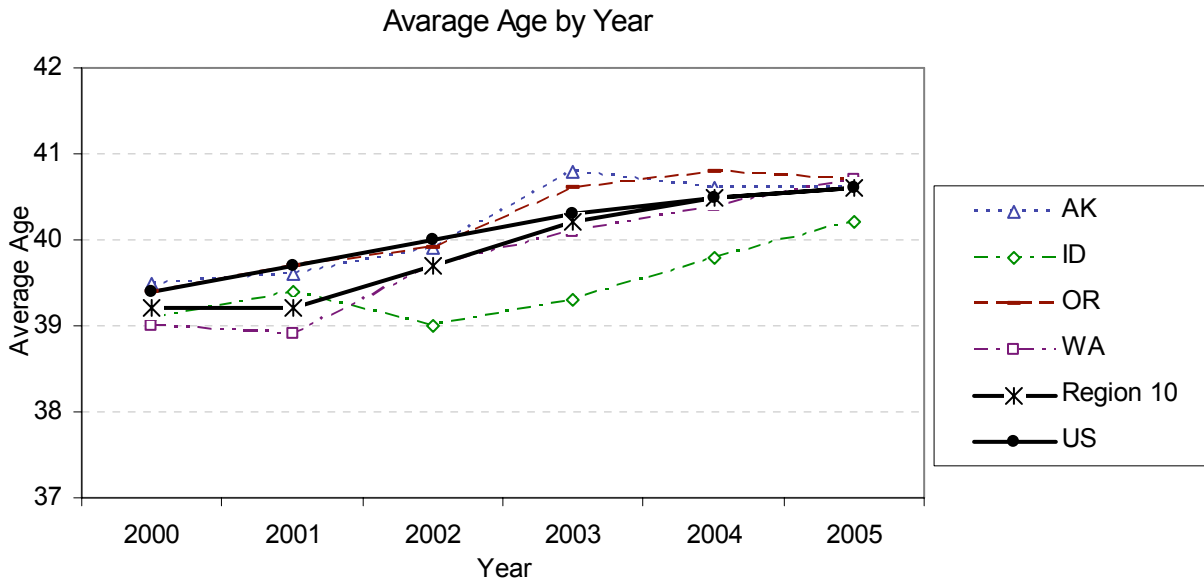
Percent of employment by sex remained relatively steady over this time. Graph not shown. For Region 10, men comprised 53% of the civilian non-institutional working population in 2002 and 54% in 2005. There was also little variation of employment by sex across states with the low in 2003 for men in Alaska (52.5%) and a high in 2000 for men in Idaho (54.5%). Data in Table 1.

Data Resources: BLS Geographic Profiles of Employment and Unemployment (numerator and denominator).

### **P6. Percentage of Civilian Employment by Age Group**



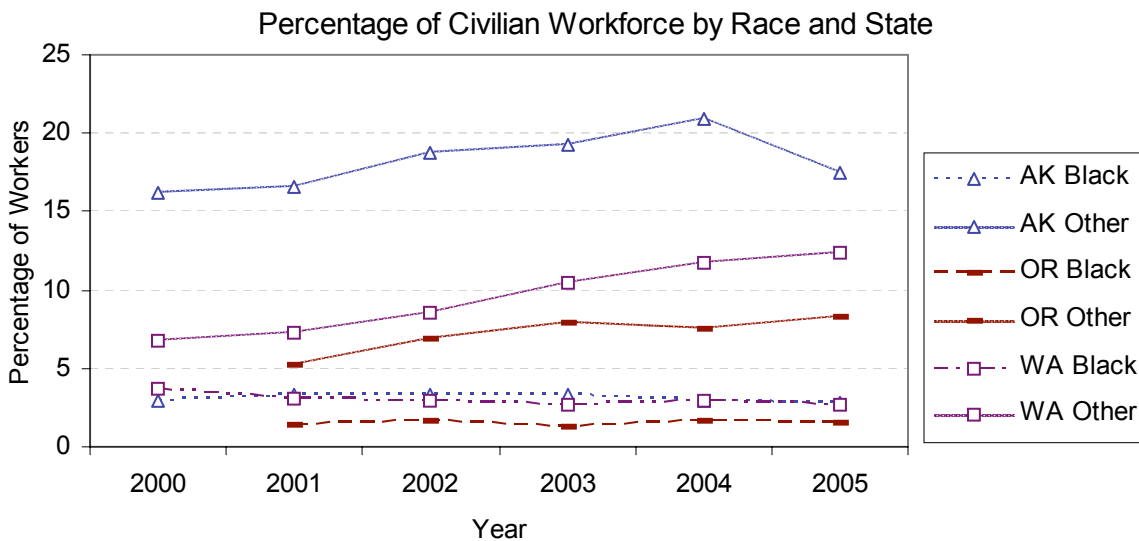
The proportion of the workforce aged 16-17 in Region 10 declined 0.3%, while the nation declined over 1% from 2000 to 2005. The increase in workers aged 65-90 increased at the same rate for both the region and the nation. Region 10 data are computed as the sum of numerators across states, divided by the sum of denominators across states, and not by the average of state percentages. Data in Table 2.



In the follow-up period, the employed civilian population has increased in average age from 39.4 years old in 2000 to 40.6 years old in 2005 for the U.S. Similar trends were seen for all states as well as for the region. The largest age change was in Washington, from 39.0 years of age in 2000 to 40.7 years old in 2005. Data in Table 2.

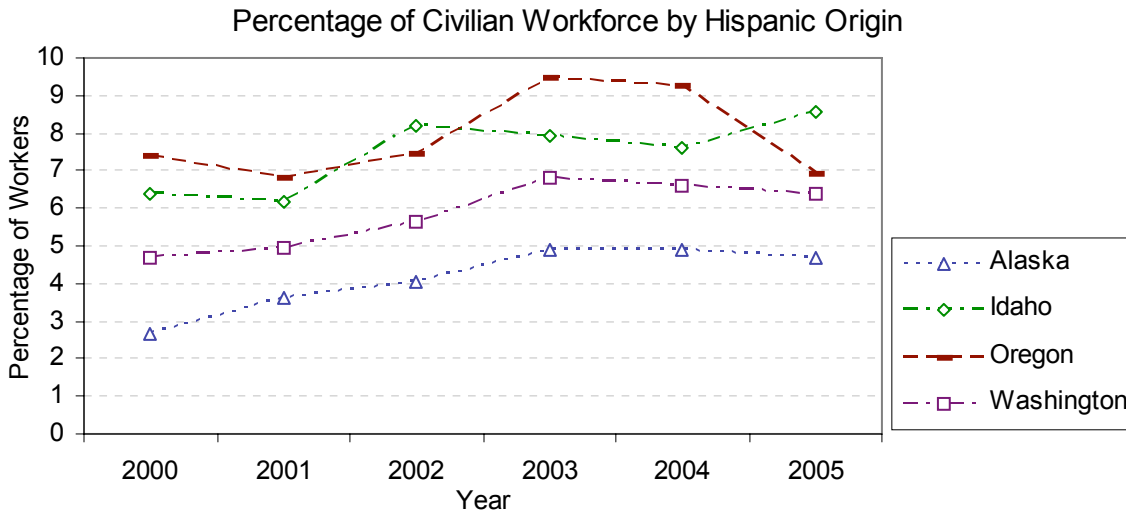
Data Resources: BLS Current Population Survey (numerator and denominator).

### P7. Percentage of Civilian Employment by Race



Only data on the following races were available: White, Black, and Other. For this graph, White is the remainder of the percentages. Race data for Idaho was not available. Race data for Oregon for 2000 was not reported by BLS due to small sampling numbers and sampling statistical adjustment methods used by BLS. From 2000 to 2005, the number of Blacks employed in Washington declined by 22,000, while the number of Others (excluding White and Black) increased by 190,000 in this period. Data in Table 2.

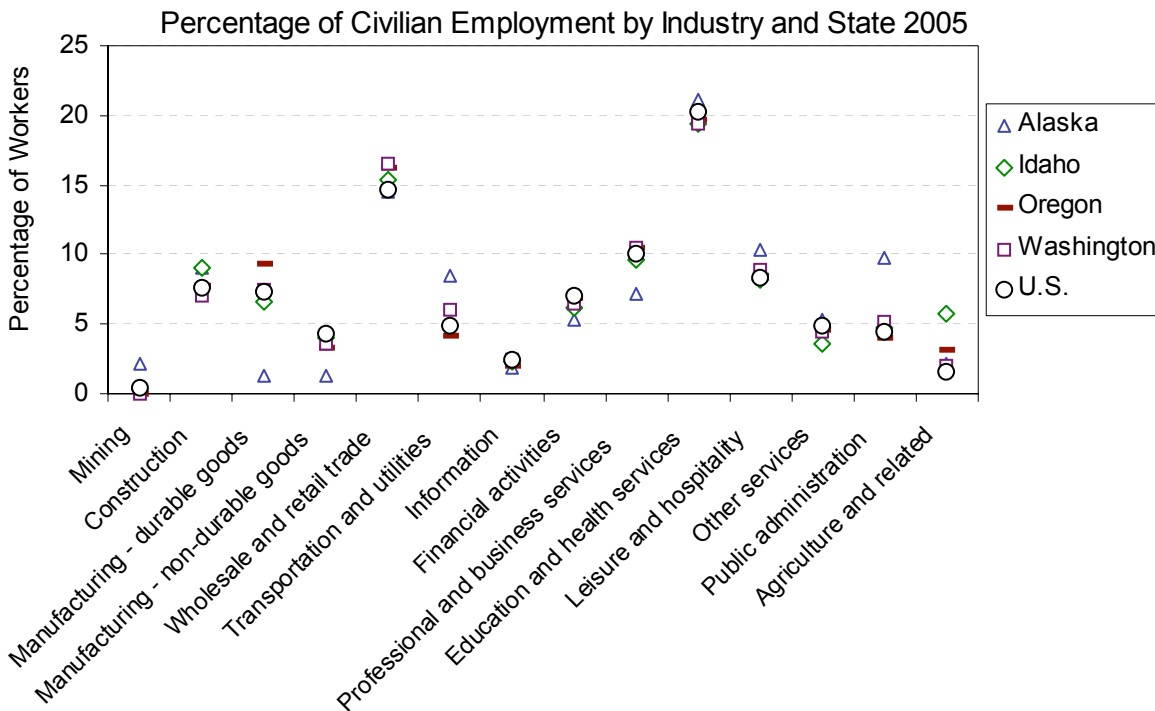
**P8. Percentage of Civilian Employment by Hispanic Origin**



The Hispanic workforce increased 1.1% (an increase of 87,000 workers) in Region 10 while nationally, the workforce increased by 2.4% from 2000 to 2005. Data in Table 2.

Data Resources: BLS Geographic Profiles of Employment and Unemployment (numerator and denominator).

### P9. Percentage of Civilian Employment by Industry

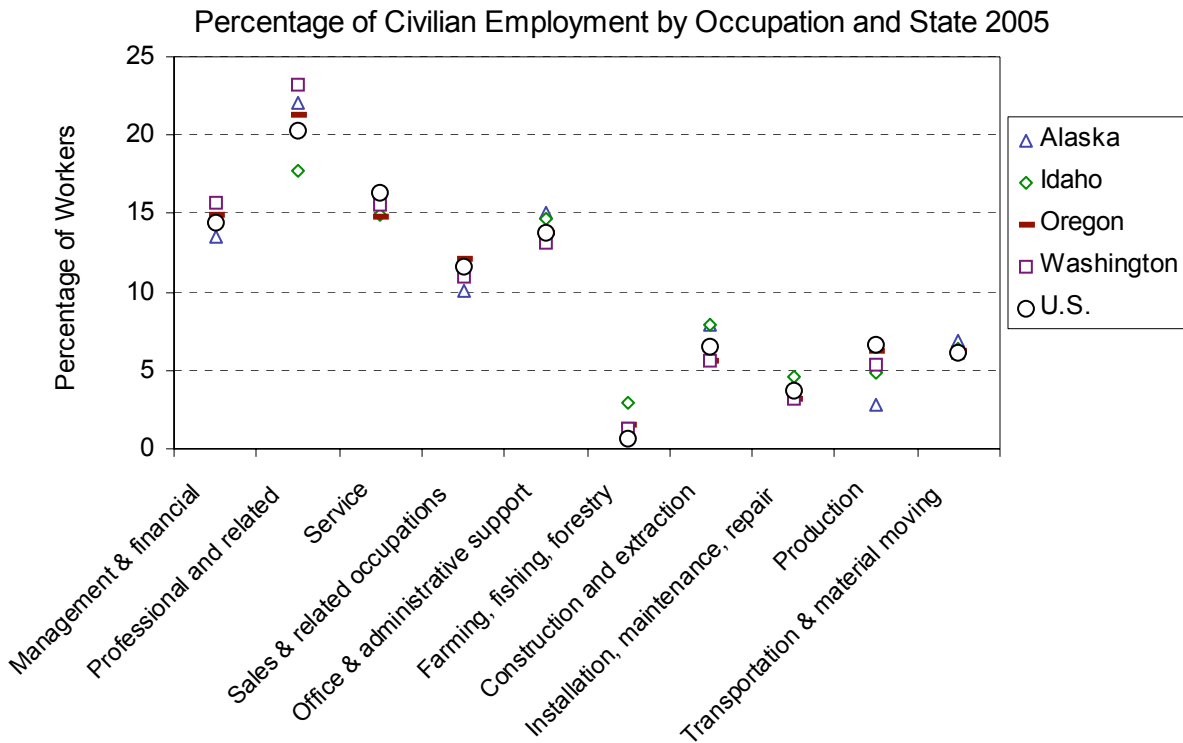


Occupation and industry coding systems changed in 2002. CSTE used a different set of codes between 2000 through 2002 than from 2003 through 2005. The percentage of employment by industry and occupation is fairly stable over time, thus we only plotted the last year's data.

There are few trends; however, manufacturing of durable goods declined at both the regional and national levels. In fact, manufacturing of durable goods declined in all years; for 2000-2002, Region 10 dropped from 8.6% to 8.3% and for 2003-2005 manufacturing of durable goods continued to drop from 8.4% to 7.6%. Construction in Region 10 declined during 2000-2002, from 6.2% to 5.4%, but construction increased in 2003-2005 from 7.1% to 7.6%. Data in Table 3.

Data Resources: BLS Current Population Survey and Geographic Profiles of Employment and Unemployment (numerator and denominator)

### P10. Percentage of Civilian Employment by Occupation

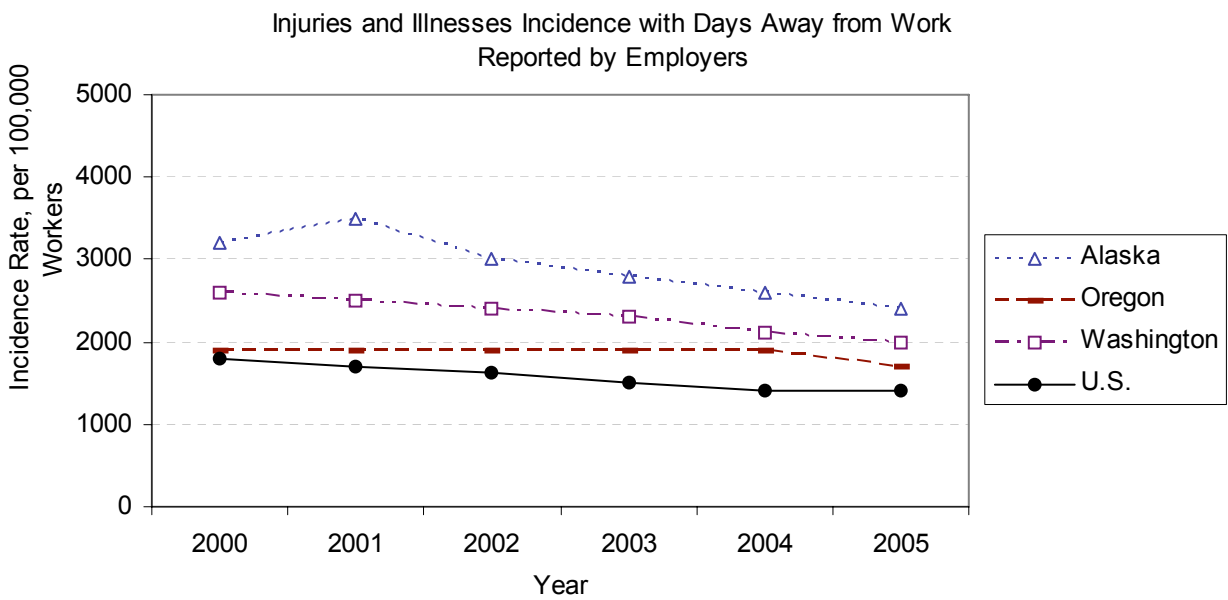
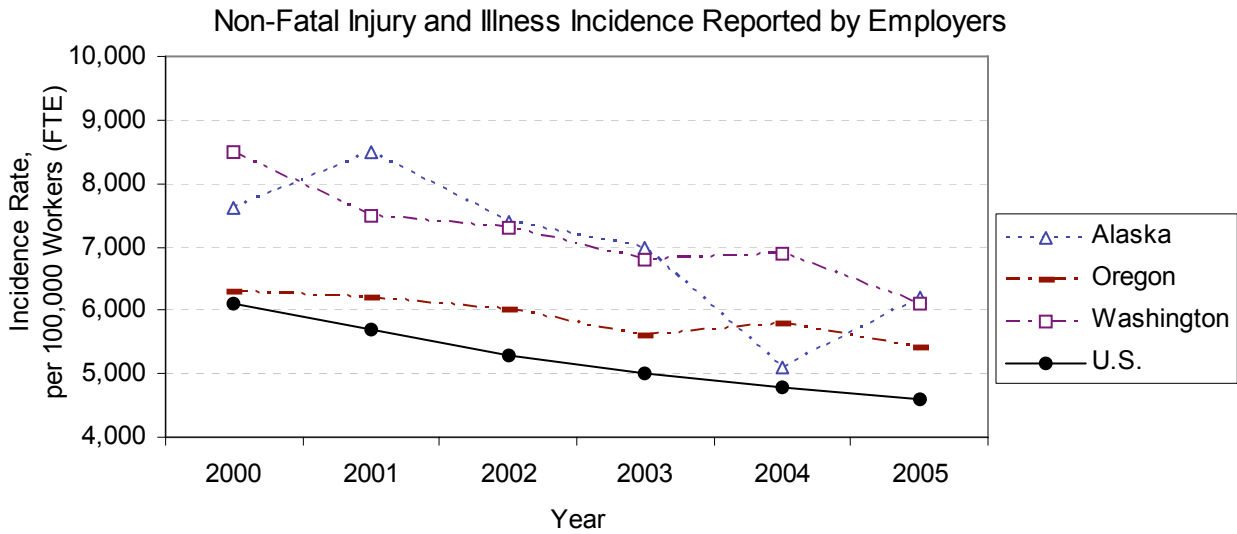


From 2000 to 2002, the largest decline for Region 10 was in sales & related occupations, which declined -0.6%. This occupation continued to decline for 2003-2005 by an additional -0.1% drop. The largest increase from 2000 to 2002 was in service occupations, which increased by 0.7%; however, services dropped -1% from 2003 to 2005. The largest increase for 2003-2005 was in professional and related occupations, which increased by 1.5%. This occupations had no change for 2000-2002. The largest decline for 2003-2005 was in production, which declined by -0.6%. Production had an increase of 0.1% for 2000-2002. Data in Table 4.

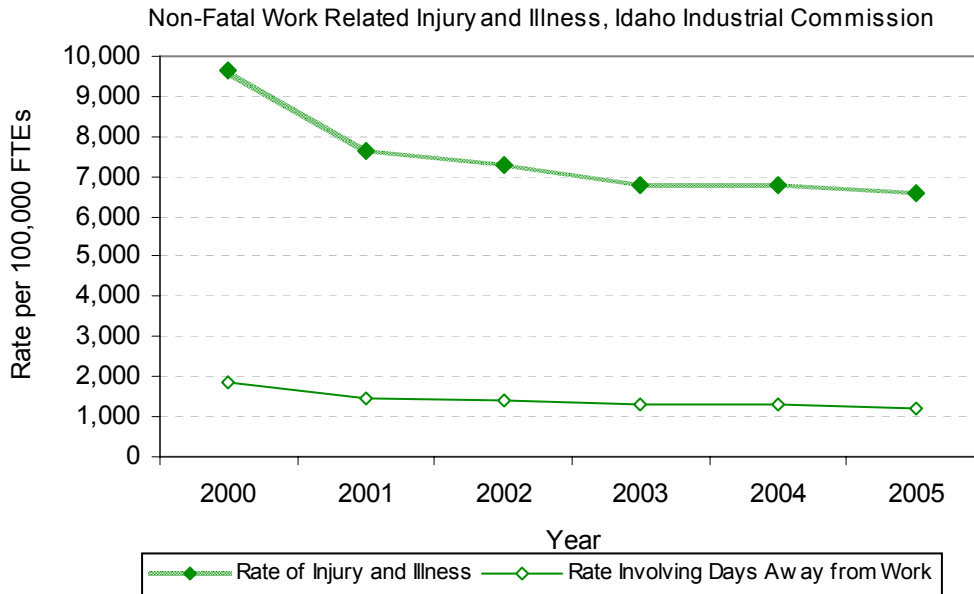
Data Resources: BLS Current Population Survey and Geographic Profiles of Employment and Unemployment (numerator and denominator).

# Occupational Health and Safety Indicators

## 1. Non-fatal Work-Related Injuries and Illnesses Reported by Employers





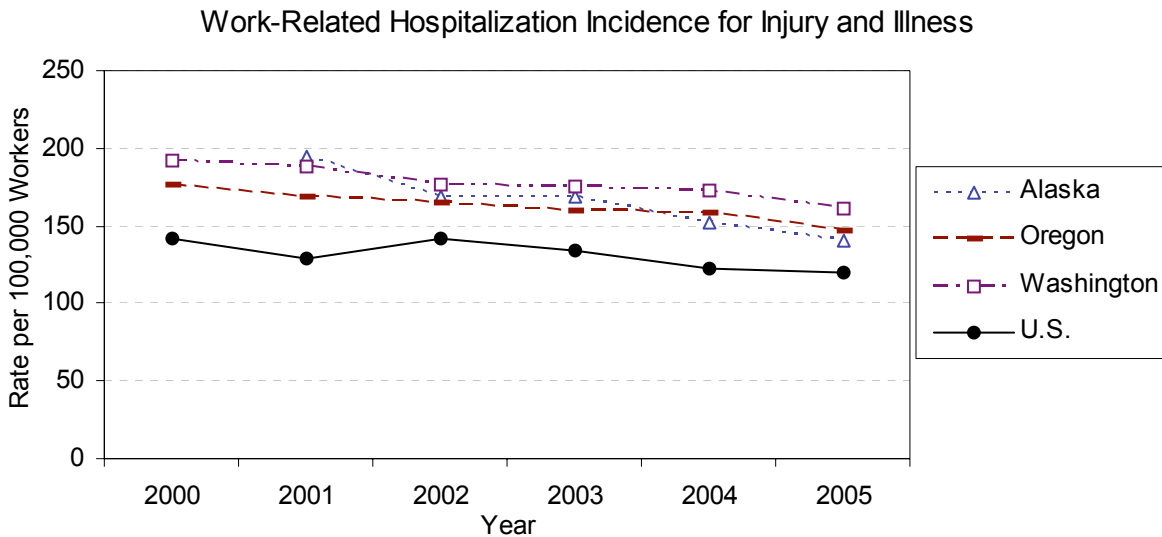


There is a downward trend in rates and counts of work-related injuries and illnesses for all states in Region 10 and the nation during this follow-up period. Idaho did not participate in the BLS SOII; however, the Idaho Industrial Commission reported the injury and illness cases for workers' compensation claims for 2000-2005. The number of injury and illness cases in Idaho dropped during this time, with a low of 39,135 cases in 2003 and a high of 44,770 cases in 2000. There were 40,371 cases in 2005. The increase in claims since 2003 provides some indication that rates may not continue to drop. Nationally, the injury and illness rate declined 25% from 2000 to 2005, and injury and illness rate with days away from work declined by 22%. Nationally, injury and illness rates have declined less in recent years. Data in Table 5.

Measures: Rate of injury and illness total and cases with days away from work.

Data Resources: BLS Annual Survey of Occupational Injuries and Illnesses (SOII), Idaho data are from the Idaho Industrial Commission.

## 2. Work-Related Hospitalization



The Washington and Oregon hospitalization rate declined by just over 16% while the Alaskan rate declined by 28% for the years data was available. The Alaska hospital discharge data system was started in 2001.

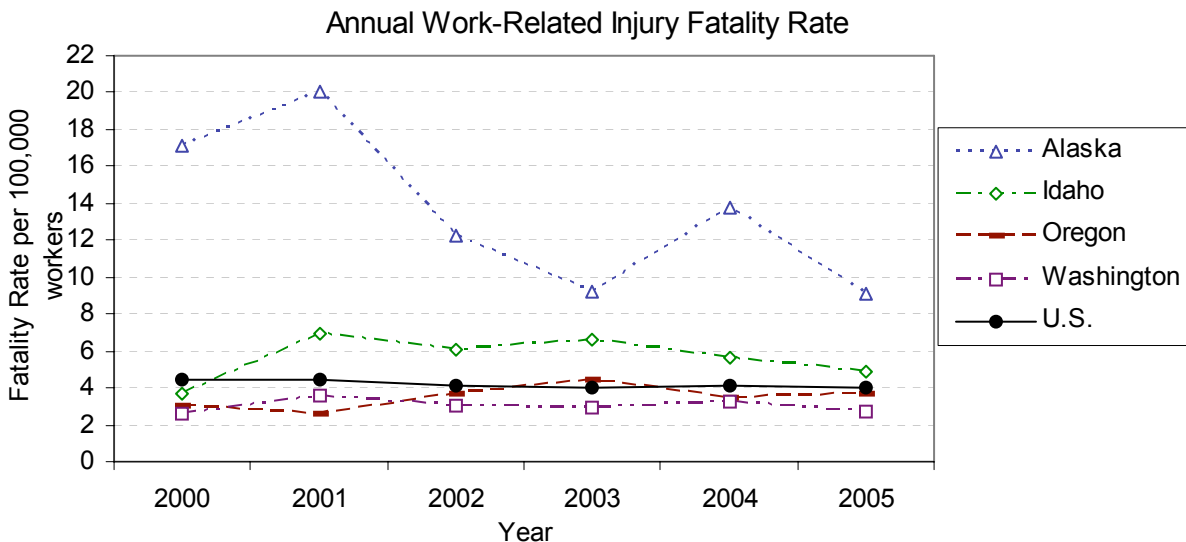
The criteria for cases selected include persons aged 16 or older, Workers' Compensation as primary payer, and in-state residence. Duplication of cases for readmission are not removed.

Idaho does not systematically collect hospital discharge data that is representative of the entire state.

Measures: Annual crude rate of hospitalization per 100,000 employed persons aged 16 or older.

Data Resources: Hospital discharge data (numerator) and BLS Current Population Survey Data (denominator). Alaska data are from the Alaska Department of Health & Social Services, Hospital Discharge Data Program, Health Planning and Systems Development 9-16-08. U.S. data is from the National Hospital Discharge Survey. CSTE supplied summary for 2000-2003 and direct data analysis for 2004-2005. Data in Table 5.

### 3. Fatal Work-Related Injuries

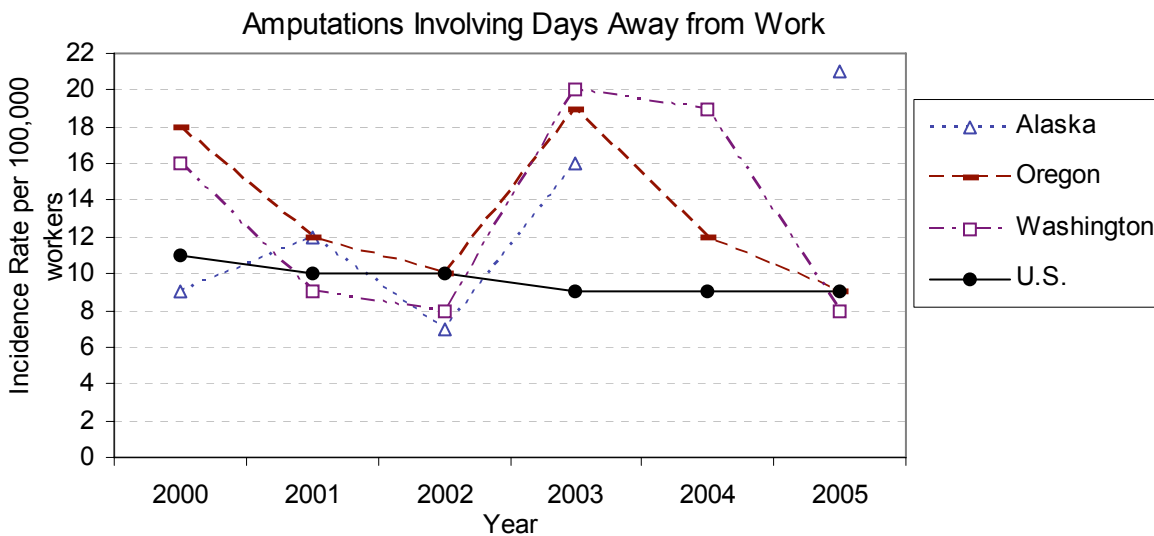


Alaska experienced consistently higher fatality rates compared to the other states' rate and to the national rate. Unlike non-fatal work-related illness and injury rates, work-related fatalities have declined little during this time. The peak fatality rate in 2001 of 20 per 100,000 employees is partly explained by the high number of deaths related to fishing and transportation. A single boat sinking accounted for 15 of the 25 fisherman fatalities and within the total of 65 deaths in 2001. In the same year, 22 fatalities occurred in the transportation-related occupations. That number included 6 pilots<sup>11</sup>. From a peak of 5,920 in 2000 there were 218 fewer fatalities in 2005. Data in Table 5.

Measures: Annual crude fatality rate per 100,000 employed persons aged 16 or older.

Data Resources: Census of Fatal Occupational Injuries (numerator), BLS Current Population Survey Data (Denominator).

#### 4. Work-Related Amputations with Days Away From Work Reported by Employers



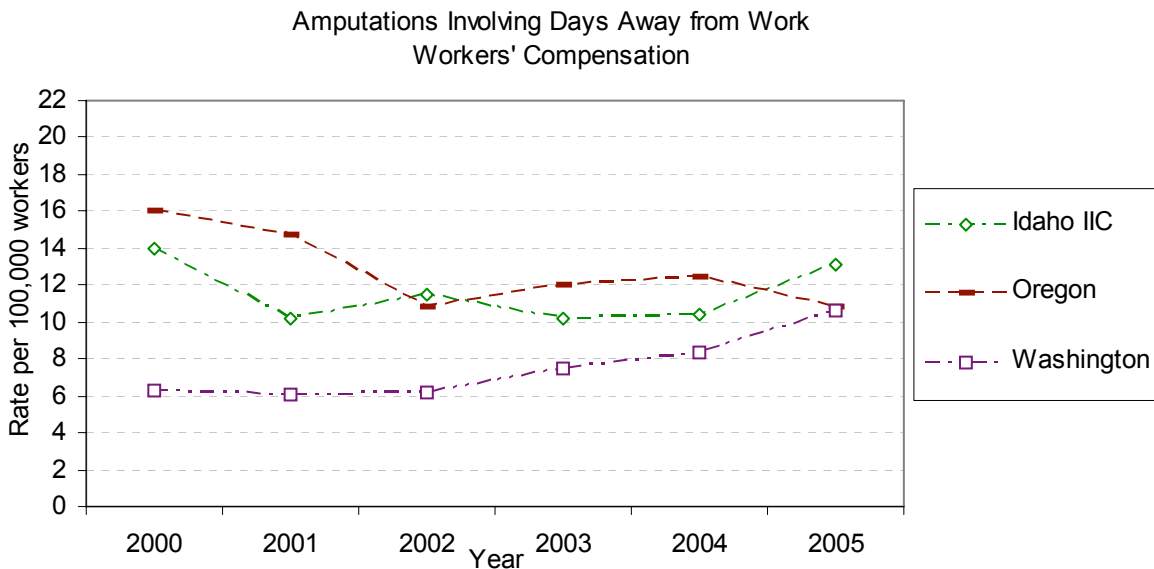
Alaska 2004 data do not meet BLS criteria for publication so the trend line is discontinued after 2003 but is again plotted for 2005.

There is significant instability in state level estimates from the SOII due to record keeping changes by the BLS, sampling, and weighting methods while national level data are more stable. For example, in 2002 there were an estimated 136 amputations reported by employers in Washington, while in 2003 there were 200 amputations, resulting in a change in the incidence rate per 100,000 workers from 8 to 20 in a single year. Rates for Alaska, Oregon, and Washington all double from 2002 to 2003. This increase is not seen in indicator 5 for workers' compensation amputation rates in Oregon and Washington, states which have data for both indicators 4 and 5. Data in Table 6.

Measures: Annual incidence rate per 100,000 FTE

Data Resources: BLS SOII

## 5. State Workers' Compensation Claims for Amputations with Lost Work-Time

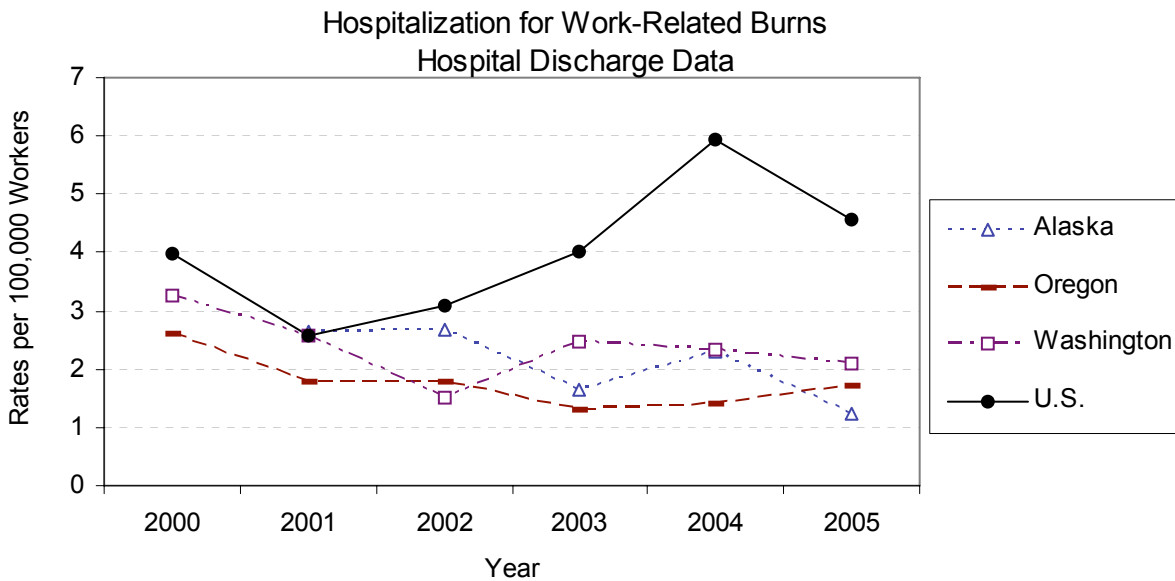


Idaho included only accepted claims for amputations with 5 or more lost work days. Alaska did not collect this level of detailed information on all claims (Alaska Department of Labor September 8, 2008,, personal communication), but did participate in the SOII annual survey that provided data for indicator 4 above. Data in Table 6.

Measures: Annual incidence rate of amputations filed with state workers' compensation per 100,000 workers covered by each respective state workers' compensation system.

Data Resources: State workers' compensation system (numerator), National Academy of Social Insurance (NASI), estimate of workers covered by workers' compensation (denominator).

## 6. Hospitalization for Work-Related Burns



Hospital burn claims were much higher than other injuries claimed, with 132 lost work days for Washington State Fund claims between 1994 and 1998<sup>12</sup>. Workers' Compensation as primary payer as an inclusion criterion makes this indicator difficult to compare across states or with national data because state systems have different coverage and reporting requirements. National rates increase sharply from 2001 to 2004, but data are unstable. The National Hospital Discharge Survey (NHDS) data for burns may have large associated errors (NHDS, personal communication), and less reliability, given the NHDS data is based on fewer than 60 sampled records. Diagnoses with less than 9,000 weighted cases are considered to have questionable reliability. There were 8,251 cases nationally in 2004. Data in Table 6.

Idaho does not have a statewide hospital discharge data system so estimates are not available.

Measures: Annual rate of work-related burn hospitalizations per 100,000 employed persons aged 16 or older. Because it is not possible to delete repeat visits for the same injury from this data source, the data includes hospitalizations for work-related burns and not burn injuries. Primary diagnosis is burns (ICD-9-CM 940-949); primary payer is Worker's Compensation.

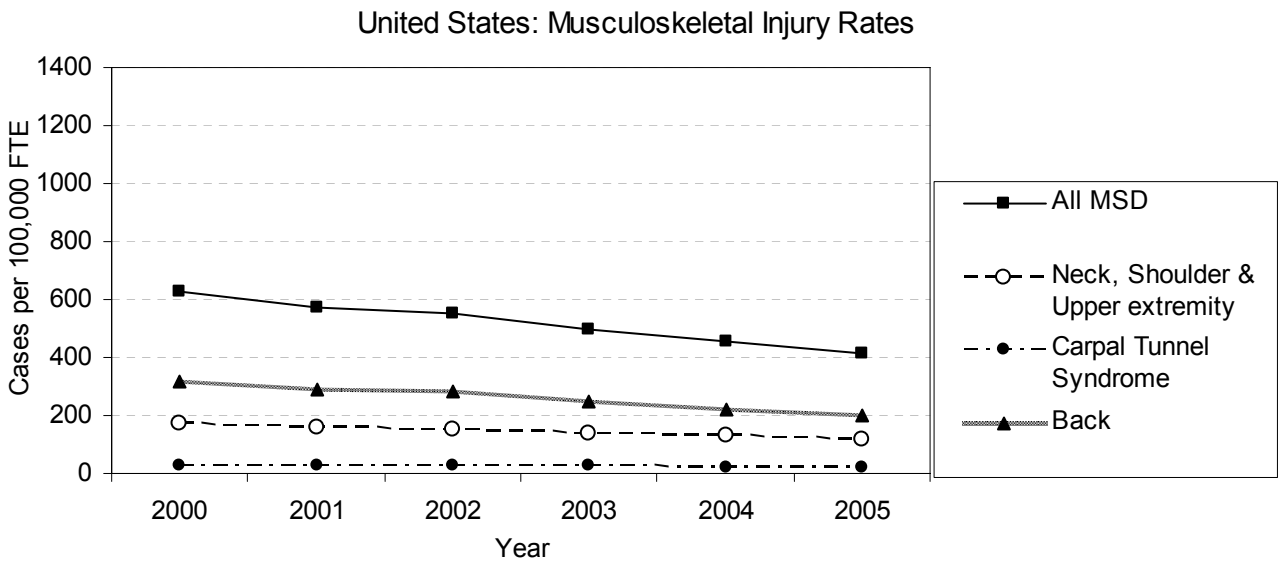
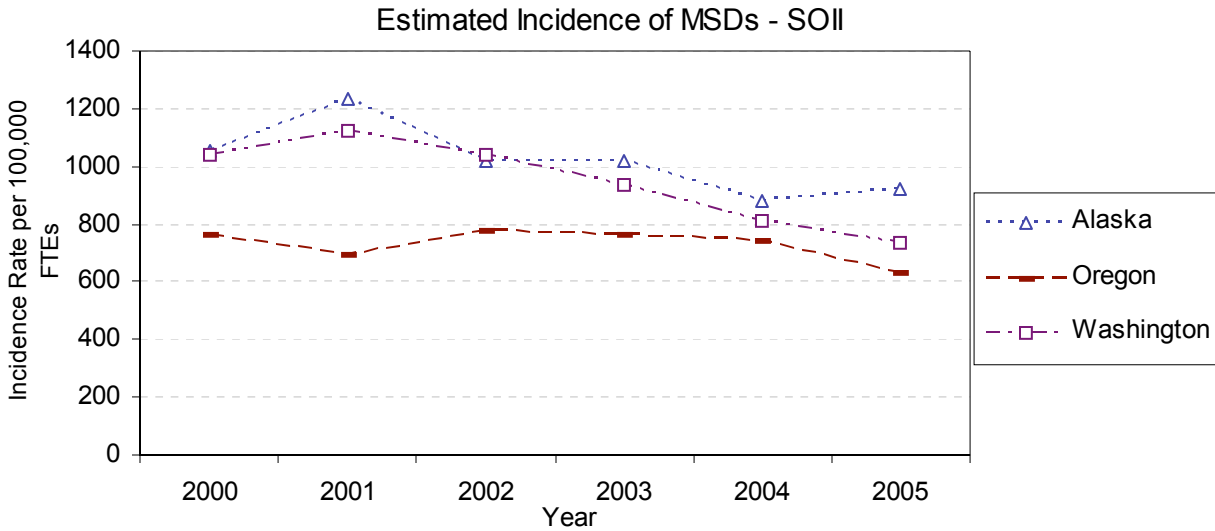
Data Resources: State hospital discharge data (numerator), Bureau of Labor Statistics (BLS) Current Population Survey Data (denominator).

Alaska data are from the Alaska Department of Health & Social Services, Hospital Discharge Data Program, Health Planning and Systems Development 9-16-08.

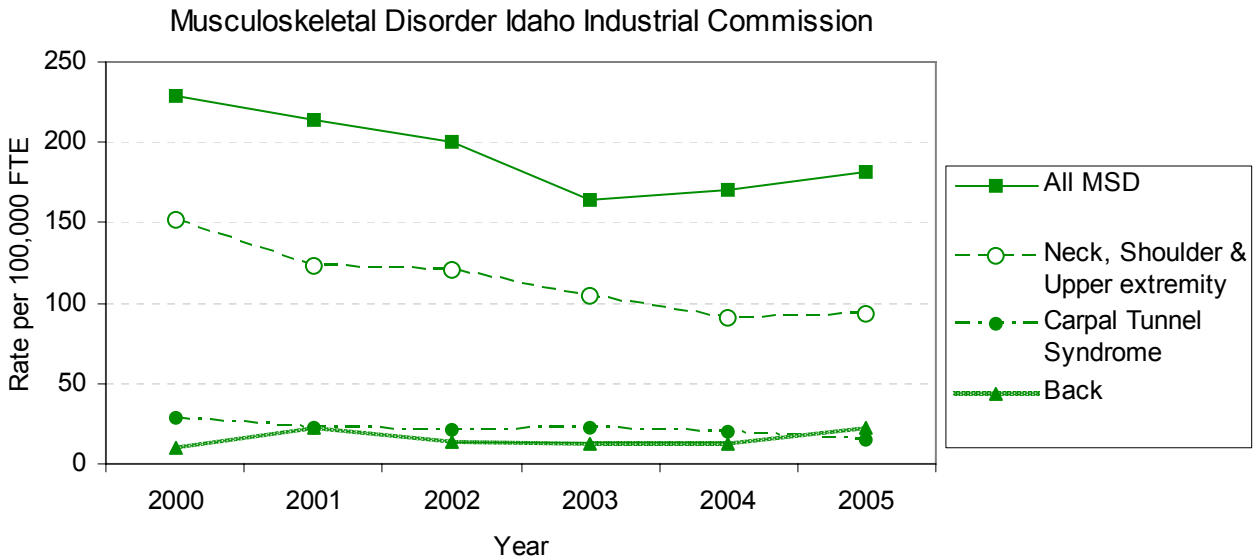
U.S. data is from the National Hospital Discharge Survey. CSTE supplied summary for 2000-2003, and direct data analysis for 2004-2005.

<http://www.cdc.gov/nchs/about/major/hdasd/nhds.htm>

### 7. Work-Related Musculoskeletal Disorders with Days Away from Work Reported by Employers



Measures: Estimated annual incidence rate per 100,000 full-time-equivalents  
 Data Resources: BLS SOII



For 2005, Alaska, Washington, and Oregon had MSD rates above 600 cases per 100,000 workers. These rates were well above the U.S. average of 400 cases per 100,000 workers. Declines in this SOII based indicator were observed each year with an average decline of 43 cases per 100,000 workers per year. Nationally MSD rates declined 34% from 2000 to 2005.

Idaho had a considerably lower rate, 182 cases per 100,000 workers in 2005. However, Idaho uses a state-based system that employs a different coding system, and the denominator number of workers is not computed on an FTE basis. Incidence of U.S. MSD claims declined each year, from 629 cases per 100,000 FTE in 2000 to 413 cases per 100,000 FTE in 2005. Idaho MSD rates from the Idaho Industrial Commission are presented because Idaho does not participate in the BLS SOII annual survey. Idaho includes only accepted claims for musculoskeletal disorders with 5 or more lost work days. Idaho provides population-based data, and not a sample of claims as the SOII uses as a basis for its estimates. Idaho MSD rate is based on the National Council on Compensation Insurance (NCCI) coding system's Detailed Claim Information. The Cause, Nature, and Body Part codes used to extract cases for all MSDs are: listed below. Data in Table 7.

#### Cause of injury:

53 through 61 twisting, jumping, carrying, lifting, pushing or pulling, reaching, using machinery, welding, repetitive motion, not otherwise classified (NOC);  
 67 sanding, scraping, cleaning operation;  
 94 repetitive motion (abraded by);  
 97 repetitive motion (strain by);  
 98 cumulative NOC.

#### Nature of injury:

34 hernia;  
 37 inflammation;  
 49 sprain;  
 52 strain;



76 video display terminal-related diseases;  
78 carpal tunnel syndrome (CTS);  
80 all other cumulative injuries NOC.

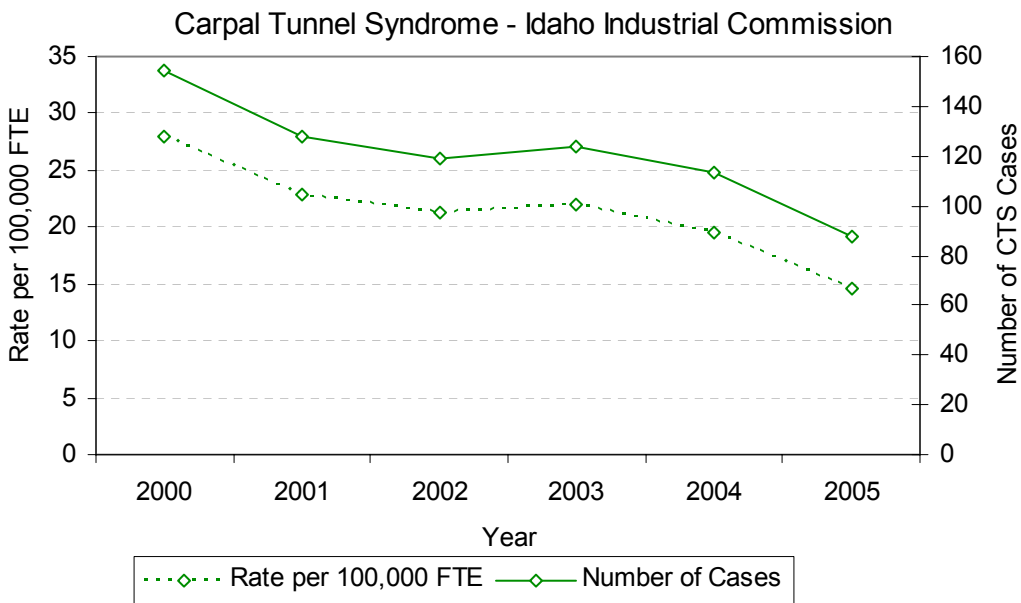
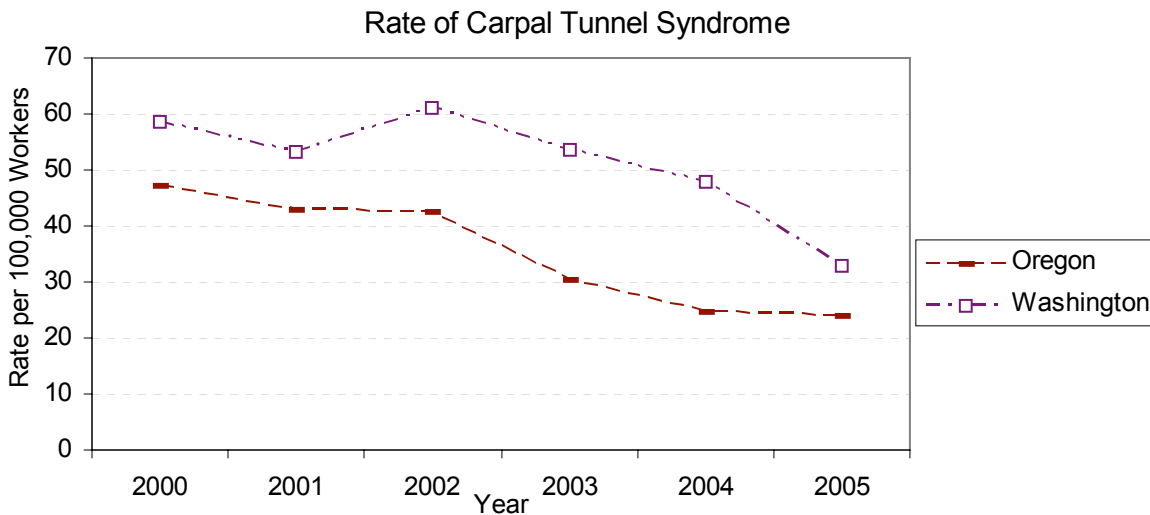
Part of body:

25 soft tissue (neck);  
30 through 39 upper extremities;  
40 through 42 upper and lower back;  
50 through 56 lower extremities.

For extracting claims for neck, shoulder, and upper extremity, cause and nature codes above were used along with the part of body affected, which is 25 soft tissue (neck); and 30 through 39 upper extremities.

For extracting claims for Back, cause and nature codes above were used along with the part of body: 40 through 42 upper and lower back.

### 8. Carpal Tunnel Syndrome Cases Filed with the State Workers' Compensation Systems Involving Days Away from Work



The two states that had both SOII and state workers' compensation data had similar rates for Carpal Tunnel Syndrome (CTS) cases with days away from work in 2005. In Oregon, the SOII rate was 24 cases per 100,000 workers, while the Workers' Compensation rate was 23.9 cases per 100,000 workers. In Washington, the SOII rate was 34 cases per 100,000 workers while the workers' compensation rate was 32.9 cases per 100,000 workers. During the follow-up period, rates diverged between the two states by as much as 24.1 cases per 100,000 workers, with the Workers' Compensation systems generally at a higher rate of CTS cases with days away from work.

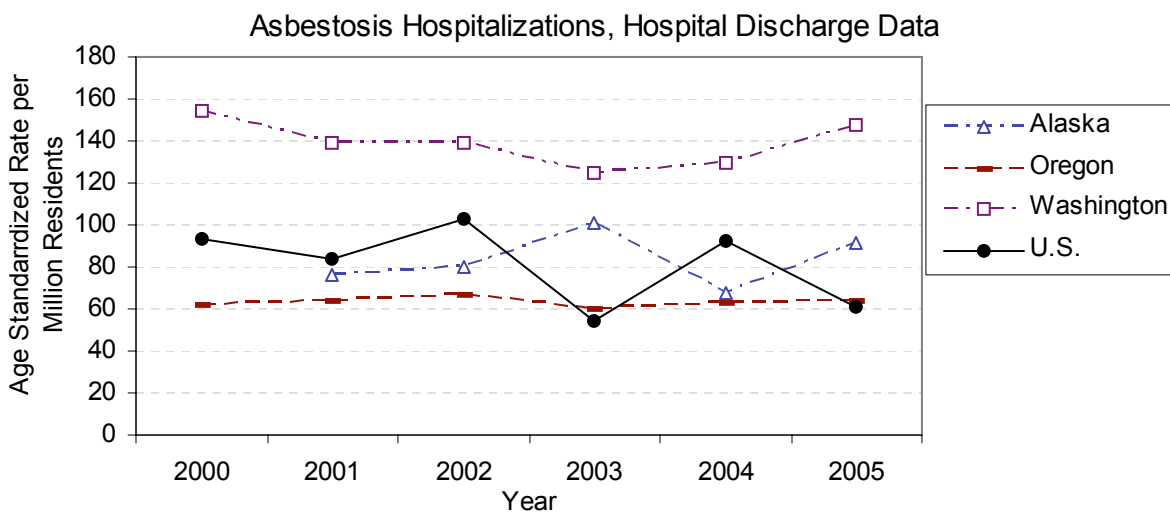
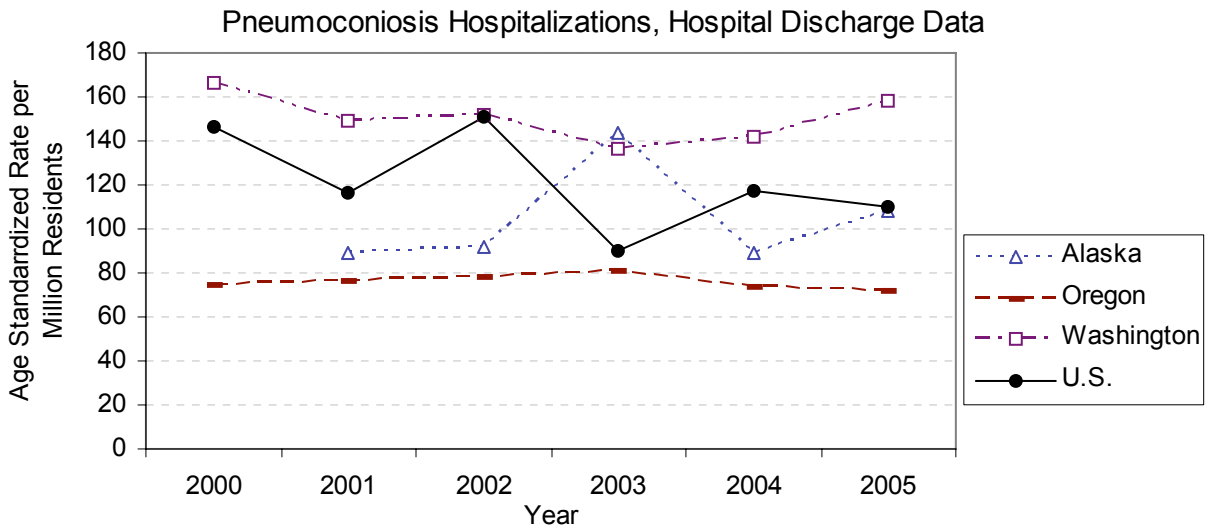
Alaska Workers' Compensation data were not tracked with sufficient detail to report this indicator, so we provide rates for MSDs categories as estimated by SOII. Idaho is not an OSHA "State Plan" state, but the Idaho Industrial Commission provided rates for this indicator.

In Idaho, the number of cases was reported by IIC (numerator). CTS cases were identified using Detailed Claim Information code of 78 carpal tunnel syndrome from the National Council on Compensation Insurance (NCCI). The count includes only accepted time-loss claims. All ages and out-of-state residents are included. Data in Table 7.

Measures: Annual incidence rate and number of cases of carpal tunnel syndrome filed with state workers' compensation per 100,000 workers covered by state workers' compensation system.

Data Resources: state Workers' compensation system (numerator)  
National Academy of Social Insurance (NASI) estimate of workers covered by workers' compensation (denominator).

## 9. Hospitalization from or with Pneumoconiosis

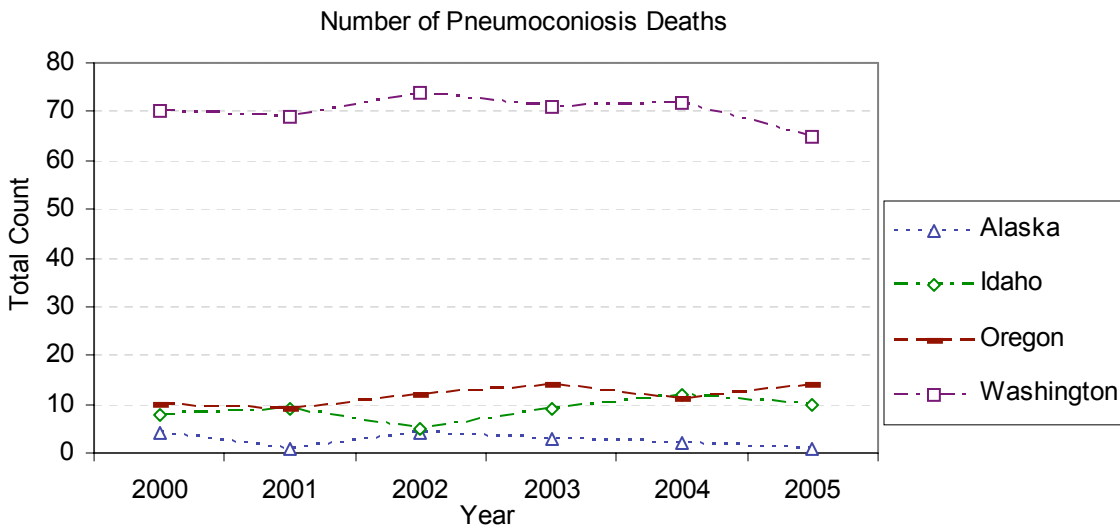
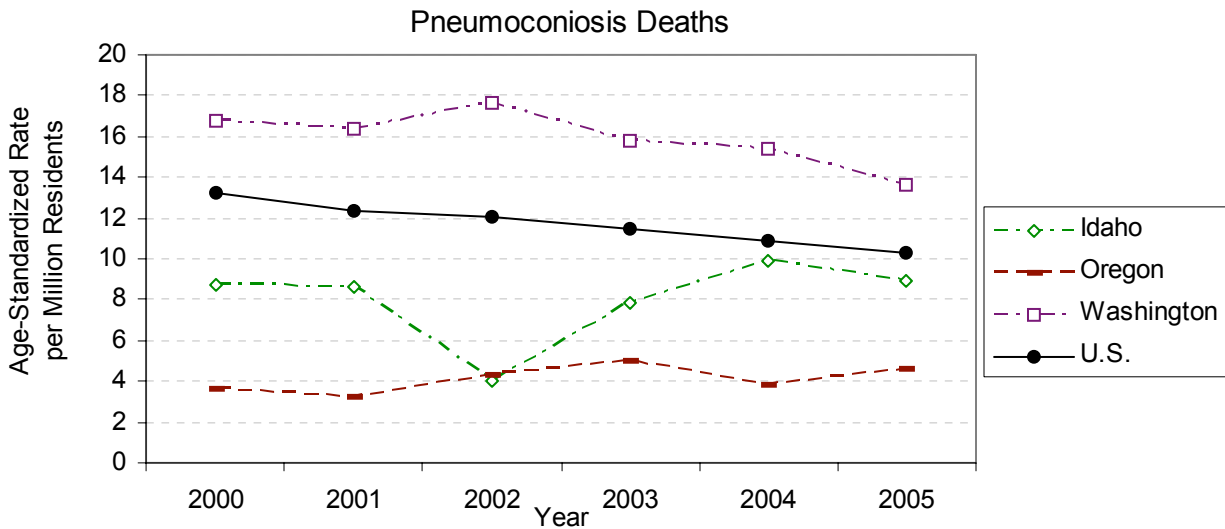


Alaska data were not available for 2000, and hospital discharge data were not systematically collected statewide in Idaho. The U.S. data were based on the National Hospital Discharge Survey for the numerator and U.S. Census Bureau Population Statistics for rate calculation<sup>10</sup>. Pneumoconiosis includes diagnosis of ICD-99-CM of 500 through 505 (including asbestosis); asbestosis is diagnosis 501 only. Data in Table 8.

Measures: Annual number of cases, aged 15 and older, age-standardized to U.S. 2000 Standard population, rate of hospitalization per million residents.

Data Resources: Hospital discharge data, no exclusions were made for readmissions or deaths (numerator). State population estimates from the U.S. Bureau of the Census (denominator), Year 2000 U.S. Standard population (for age-standardization). Alaska data are from the Alaska Department of Health & Social Services, Hospital Discharge Data Program, Health Planning and Systems Development, September 16, 2008.

### 10. Mortality from or with Pneumoconiosis



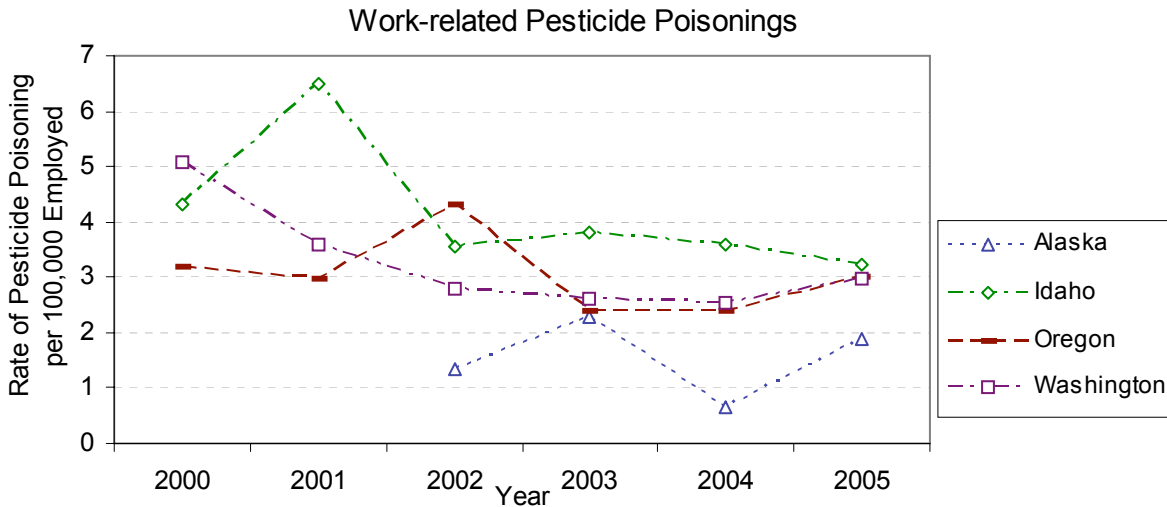
Counts of pneumoconiosis are small and do not allow for reliable computation of rates in Alaska; however, the counts are available and are presented.

Measures: Annual age-standardized death rate per million residents.

Data Resources: Death certificate records from vital statistics agency (numerator), state population estimates from the U.S. Bureau of the Census (denominator).

Alaska data are from the Alaska Bureau of Vital Statistics, April 7, 2008. Data for Idaho was provided by Bureau of Vital Records and Health Statistics April 10, 2008. U.S. numerator data is from National Center for Health Statistics multiple causes of death file. Data in Table 8.

### 11. Acute Work-Related Pesticide-Associated Illness and Injury Reported To Poison Control Centers

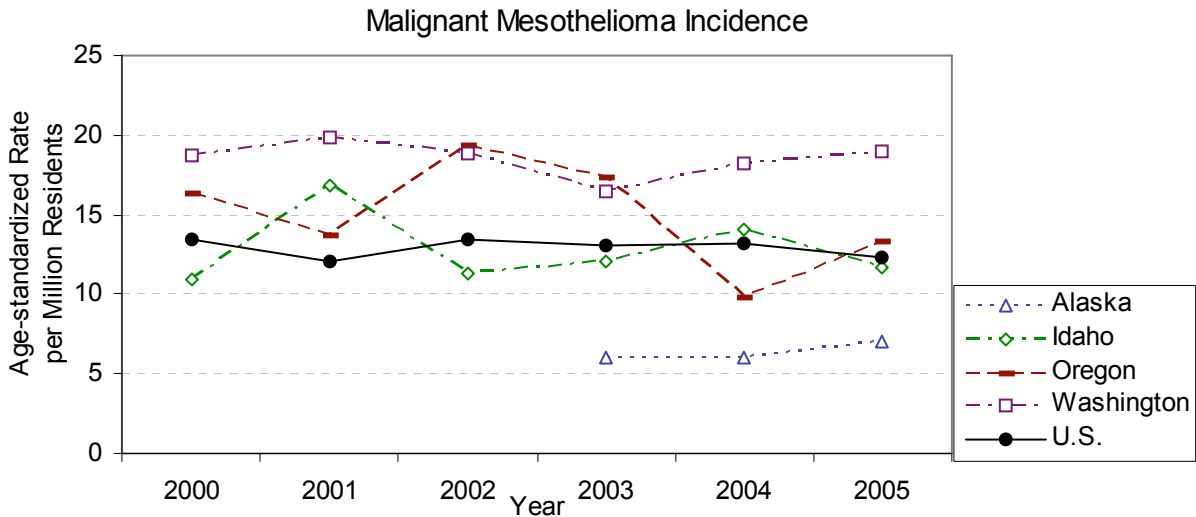


Alaska counts for 2000-2001 are below criteria level for reliable rates and are not available. Data in Table 9.

Measures: Annual incidence rate of reported cases of work-related pesticide poisoning per 100,000 employed persons, aged 16 or older

Data Resources: These data are from the American Association of Poison Control Centers with data collected in the Toxic Exposure Surveillance System. This summary data was provided to us through NIOSH (numerator), BLS Current Population Survey Data (denominator).

## 12. Incidence of Malignant Mesothelioma

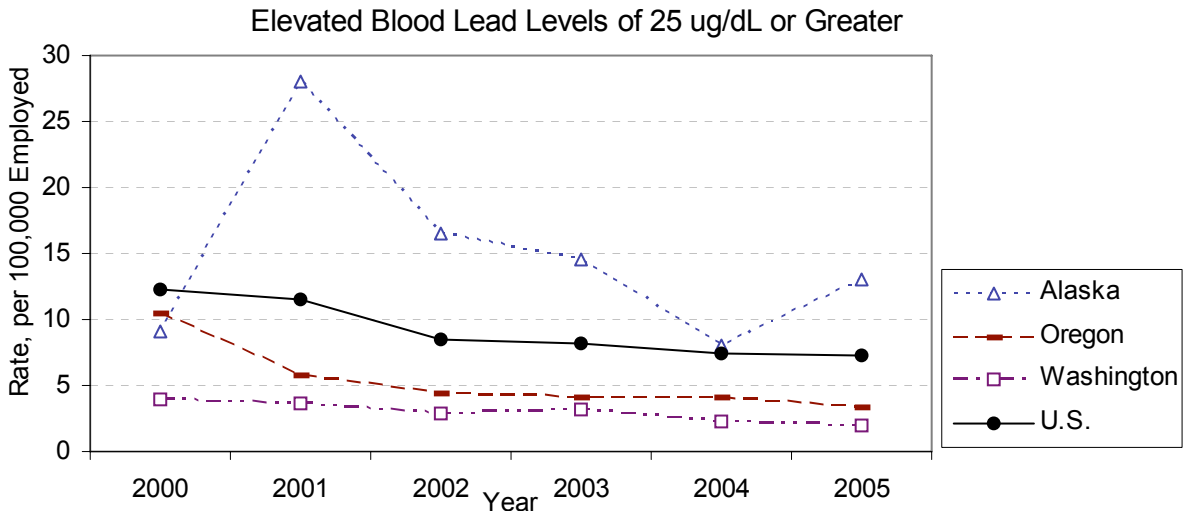


Alaska counts were too low to meet criteria for computing rates for 2000-2002. There is not a clear trend in mesothelioma rates. Data in Table 9.

Measures: Annual, age-standardized, mesothelioma incidence rate per million residents.

Data Resources: State Cancer Registry (numerator), state population estimates from the U.S. Bureau of the Census (denominator). Alaska data are from the Alaska Department of Health & Social Services, Department of Public Health, Cancer Prevention and Control on July 23, 2007. Idaho data are from the Cancer Data Registry of Idaho April 15, 2008. U.S. data are from SEER 13 Regs Limited-Use, Nov 2007 Sub (1992-2005) - Linked To County Attributes - Total U.S., 1969-2005 Counties.

### 13. Elevated Blood Lead Levels Among Adults



Alaska data were reported in the state of Alaska Epidemiology Bulletin January 23, 2008

<sup>13</sup>. Idaho does not operate a systematic program to provide adult blood lead levels (BLLs).

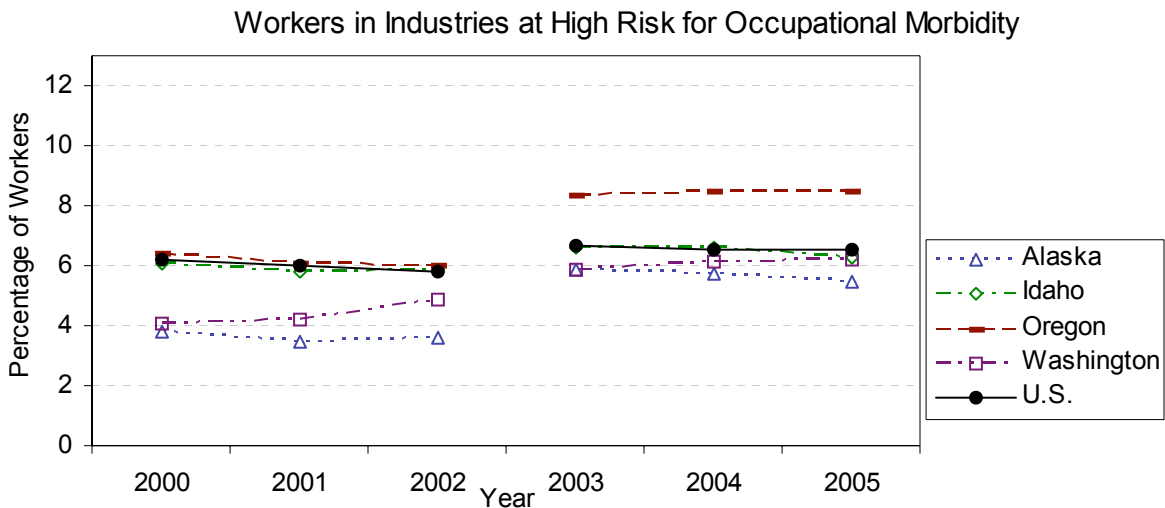
Both 25 and 40 ug/dl<sup>2</sup> blood lead levels are included in the CSTE definition of this indicator. The number of workers with 40 ug/dl<sup>2</sup> of blood lead is generally too small to compute rates; however, these counts are included in the appendix of data tables. Data in Table 9.

Measures: Annual number of residents with elevated blood lead levels (numerator) and annual incidence rate per 100,000 employees aged 16 or older.

Data Resources: Reports of elevated BLLs from laboratories (numerator). BLS Current Population Survey Data (denominator).



## 14. Percentage of Workers Employed In Industries at High Risk for Occupational Morbidity



Coding system change between 2002 and 2003 made trend data discontinuous.

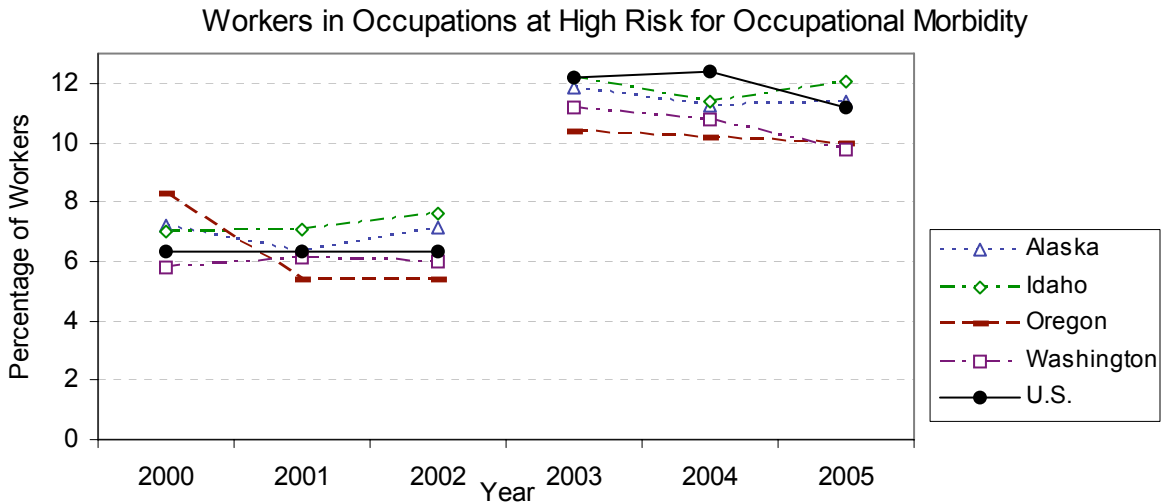
High morbidity industries were defined as those with more than double the national average rate of 6.2 in the Standard Industrial Classification system in 1999 (n=25 industries) based on data reported from the SOII. The selection of high morbidity risk industries was changed by CSTE in 2003 when the BLS changed to the North American Industry Classification System (NAICS). These 37 high morbidity risk industries were those with double the national rate of reportable cases.

The percent of workers in high risk industries varies by state and explains some of the occupational morbidity differences between states. However, risk is based on national data, and the risk in an industry varies by state. Data in Table 10.

Measures: Percentage of employed persons in the private sector in high morbidity risk NAICS industries, 16 years of age and older.

Data Resources: Bureau of the Census County Business Patterns.

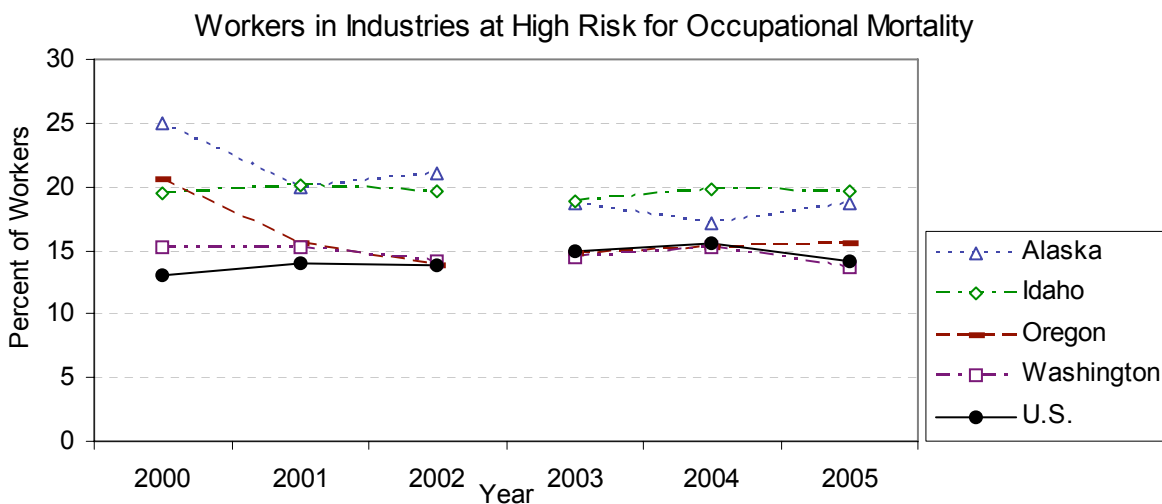
### 15. Percentage of Workers Employed in Occupations at High Risk for Occupational Morbidity



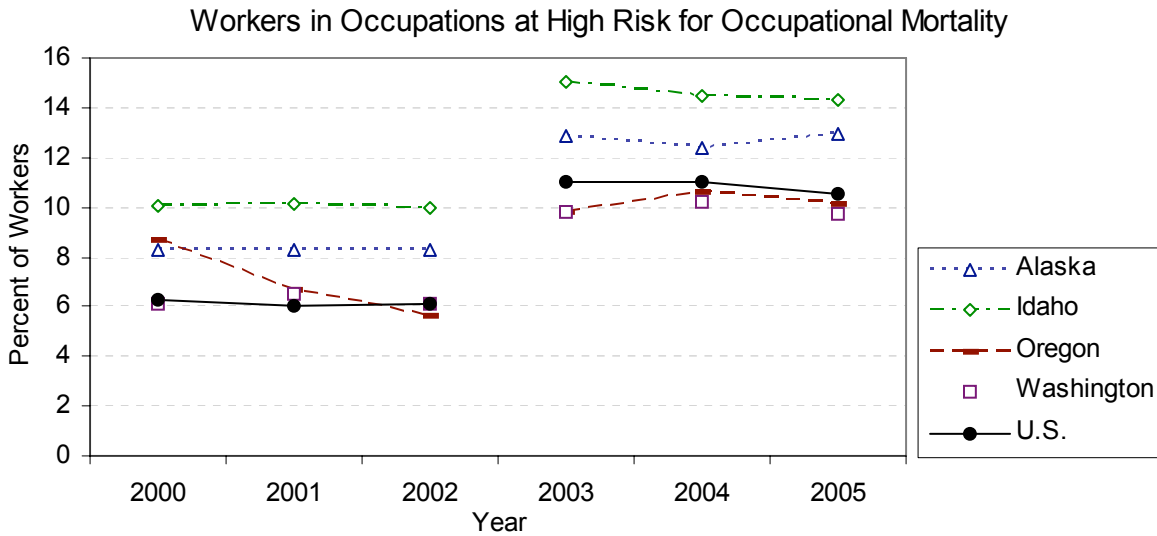
Measures: Percentage of employed persons in high morbidity risk from the 2000 Bureau of the Census Occupations. Data in Table 10.

Data Resources: Bureau of Labor Statistics Current Population Survey.

### 16. Percentage of Workers in Industries and Occupations at High Risk for Occupational Mortality



Data for this indicator is extracted from the Bureau of Labor Statistics Census of Fatal Occupational Injuries (CFOI) and their estimates of private sector employees.



Rates for 2000-2002 were based on the 1990 Census Industry Codes and were high mortality risk industries in 2000. A list of 27 industries with more than 10 deaths per 100,000 workers was included, which is based on 1998 CFOI data. From 2003 through 2005 a different set of 30 industries with rates of 9.5 deaths per 100,000 workers were used, based on 2003 CFOI data<sup>9,10</sup>.

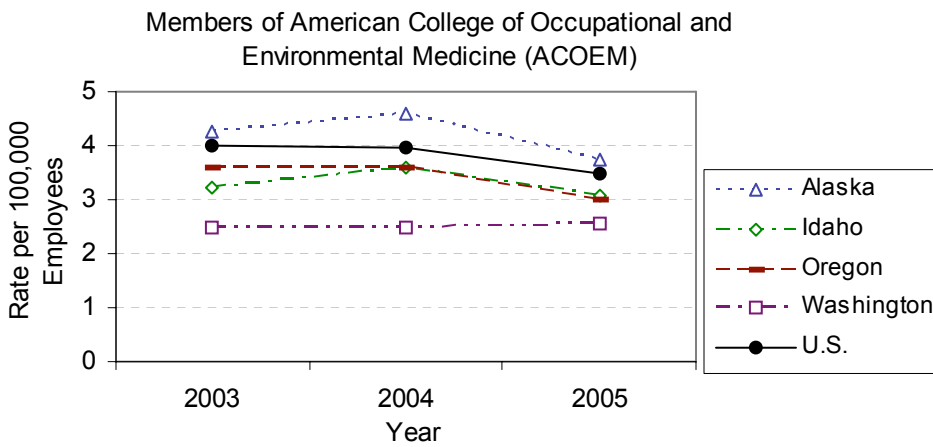
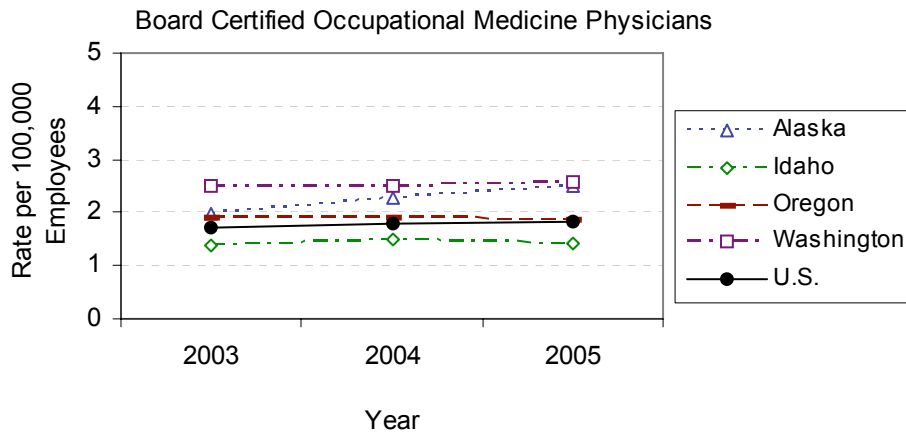
Based on 1998 CFOI data using Bureau of Census 1990 Standard Occupational Codes, from 2000 through 2002, a list of 24 occupations with more than 20 deaths per 100,000 workers was used for this indicator. From 2003 through 2005, a different set of 57 occupations with rates of 9.5 deaths per 100,000 workers was used, based on 2003 CFOI data using the Bureau of Census 1990 Standard Occupational Codes were used<sup>9,10</sup>. Data in Table 10.

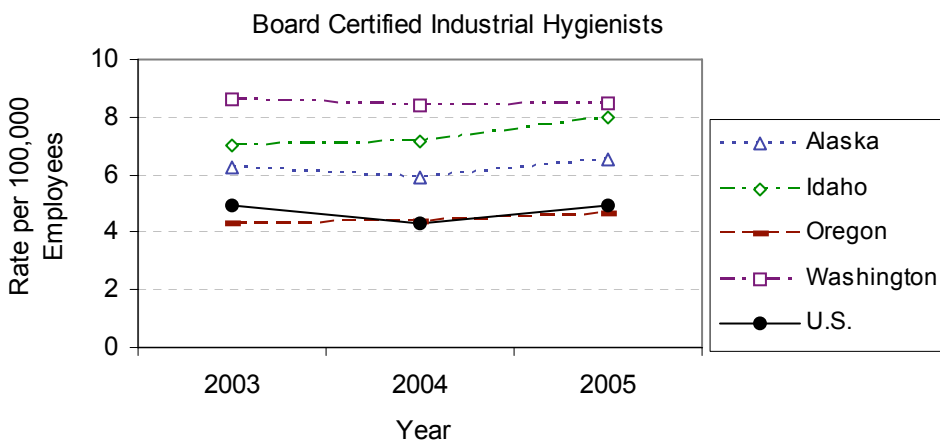
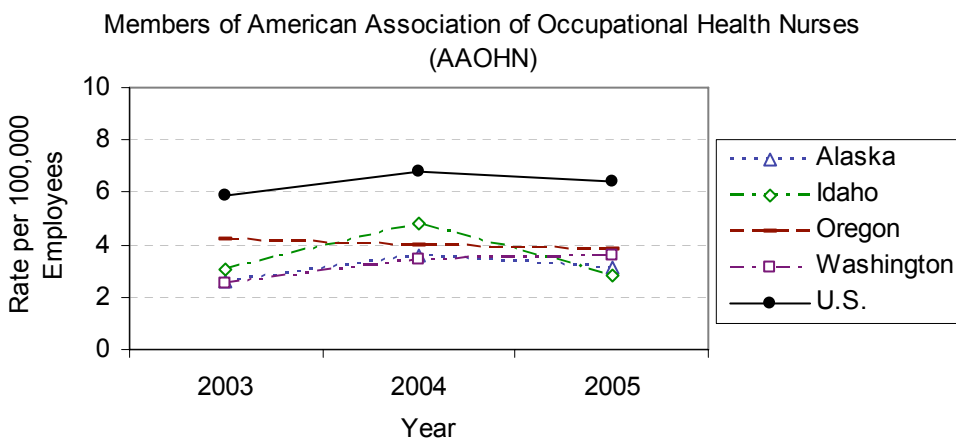
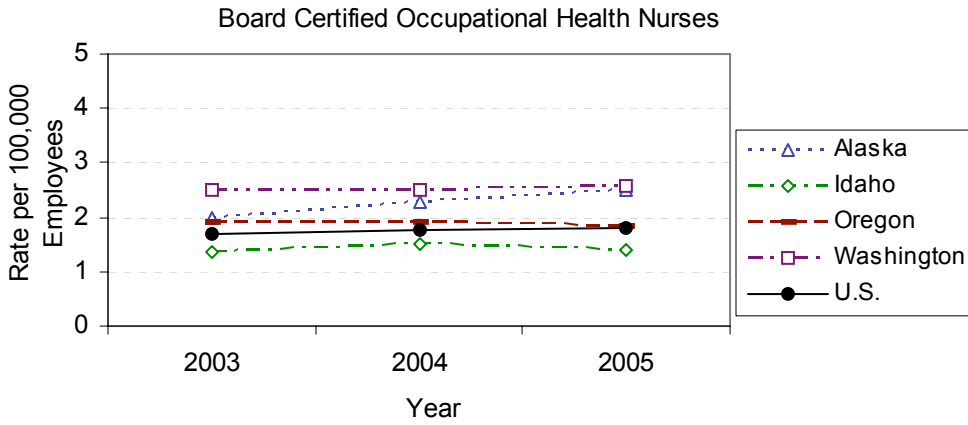
Measures: Percentage of employed persons in high mortality risk industries and occupations from the CFOI. CFOI includes self-employed workers but was limited to private sector workers. Deaths associated with occupational illness were excluded; however, deaths due to motor vehicle accidents were included.

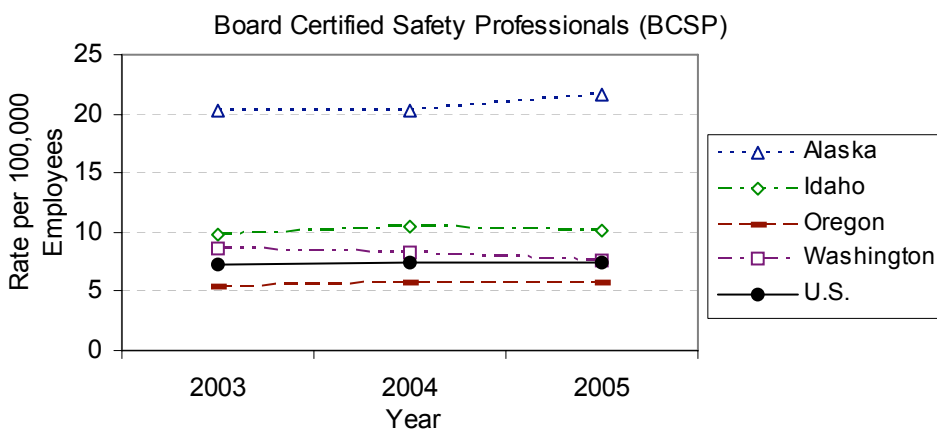
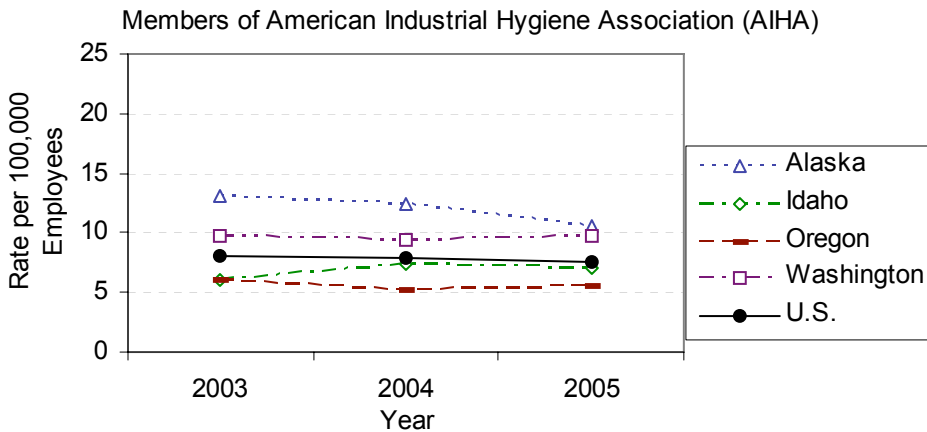
Data Resources: BLS Current Population Survey.

### 17. Occupational Safety and Health Professionals

Counts of members in these organizations were generally not available prior to 2003<sup>10</sup>. The information below is for the years that both membership counts, numerator, and Current Population Survey, denominator, data were available.







Counts of Occupational Health and Safety Professionals for Region 10.

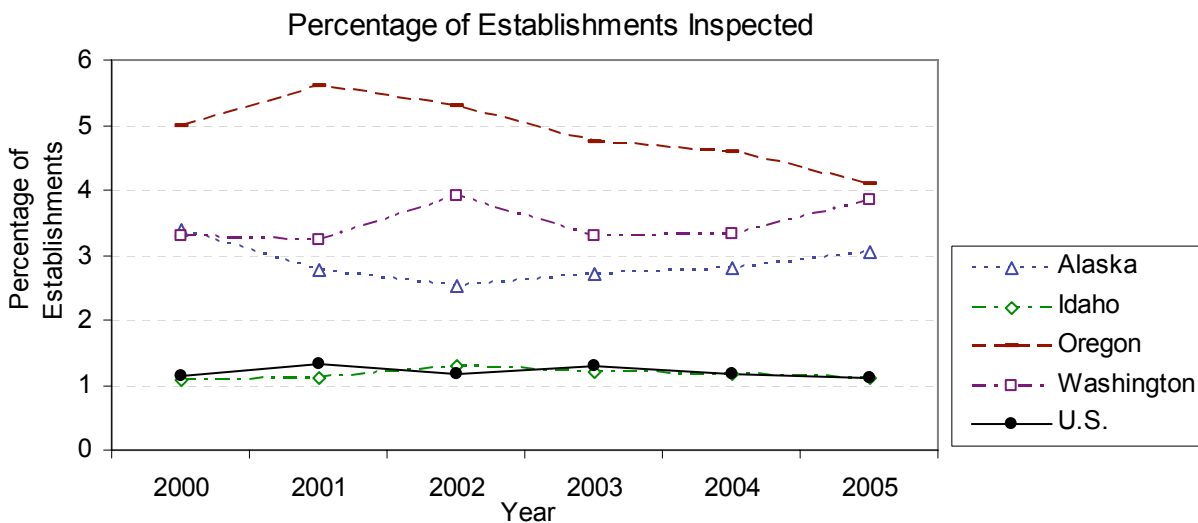
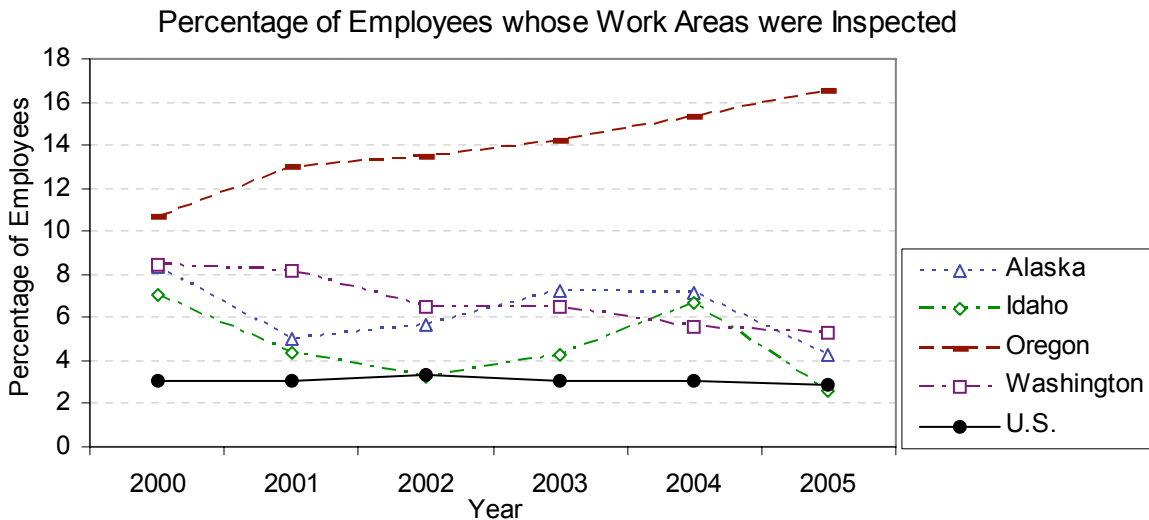
Professional organizations	2003	2004	2005
1. Board-certified occupational medicine physicians	121	125	130
2. American College of Occupational and Environmental Medicine (ACOEM)	243	253	218
3. Board-certified occupational health nurses	180	196	188
4. American Association of Occupational Health Nurses (AAOHN)	173	216	207
5. Board-certified industrial hygienists	390	354	423
6. American Industrial Hygiene Association (AIHA)	465	469	486
7. Board-certified safety health professionals (BCSP)	467	477	479
8. American Society of Safety Engineers (ASSE)	1,566	1,691	1,902

Because membership counts are not consistently recorded from earlier years, counts and rates for 2003 through 2005 are presented here. Data in Table 11.

Measures: Rate of membership per 100,000 employees in selected professional organizations:

Data Resources: Numerator from counts from membership organizations listed above. Bureau of Labor Statistics Current Population Survey Data. (Denominator)

### 18. OSHA Enforcement Activities

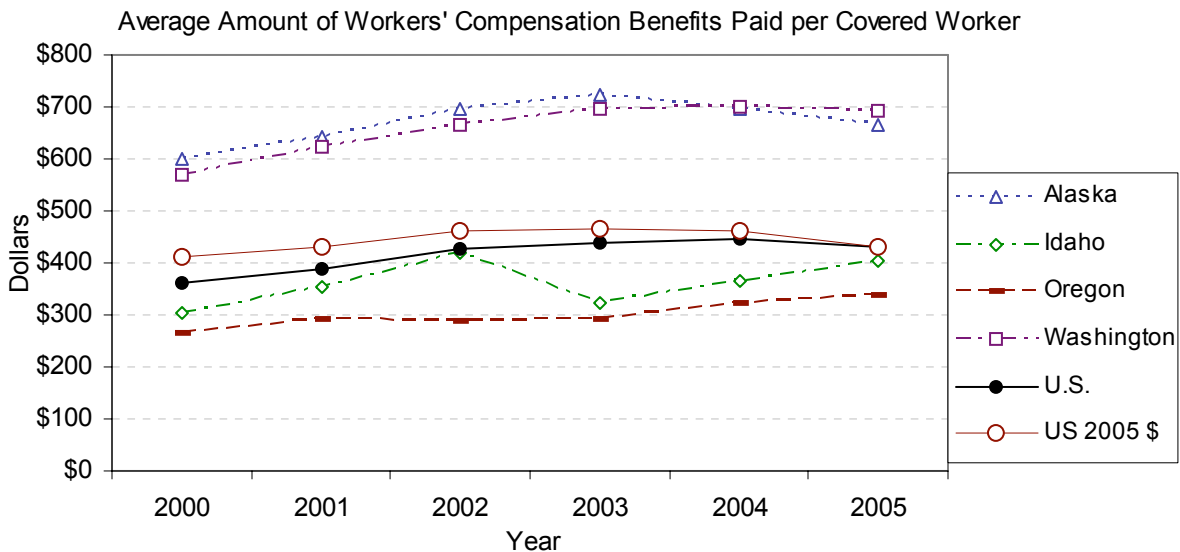


Idaho is a “Federal” OSHA program while the other three states operate “State” OSHA plans that conduct their own inspections according to their contract with OSHA. Data show that state-plan states conduct more inspections than OSHA states. Regular workplace inspections may be an important factor in controlling injury and illness rates, given that research has shown that enforcement activities are associated with a decline in claims<sup>14</sup>. Data in Table 12.

Measures: Percentage of establishments under OSHA jurisdiction inspected by OSHA, percent of employees whose work areas were inspected by OSHA, percentage of all employees under OSHA jurisdiction whose work areas were inspected.

Data Resources: OSHA annual reports of total inspections conducted and the number of workers covered by these inspections (numerators). Workers employed and establishments in the public and private sectors listed in Bureau of Labor Statistics on Covered Employers and Wages (<http://www.bls.gov/cew/home.htm>) (denominators).

## 19. Workers' Compensation Awards



The average amount awarded to covered workers for workers' compensation claims in 2005 adjusted dollars rose from \$412 in 2000 to \$465 in 2003, then declined to \$432 in 2005. Dollar conversion is based on the consumer price index. While the number of claims has declined from 2000 to 2005, the direct cost, in 2005 adjusted dollars, has increased from \$52.1 billion in 2000 to \$55.3 billion in 2005. These direct costs include medical, wage replacement, and benefits to surviving dependents. This occupational health indicator is useful for tracking change over time. However, the actual burden is much higher; some workers are not covered (farmers, domestic help, railroad workers, federal employees, etc.), and claims are often not filed by eligible workers. Furthermore, indirect costs to workers, employers, and society are not included in this indicator. Consequently workers' compensation awards account for 27% of the costs of workplace injury and illness <sup>2</sup>.

Measures: Total amount of workers' compensation benefits paid  
Average amount of workers' compensation benefits paid per covered worker

Data Resources: National Academy of Social Insurance; numerator, total workers' compensation paid, and denominator, number of employed civilian workers aged 16 and older with workers' compensation coverage.



## Discussion

### Available Indicators

For OSHA Region 10, state based occupational injury and illness surveillance programs exist in only Washington and Oregon. This project, in part, assessed the feasibility of conducting the CSTE occupational health indicators in Idaho and Alaska. Data for some indicators were not available in Idaho and Alaska. Following the CSTE guidelines, there were nine indicators that could not be completed for Idaho, and two for Alaska. Surrogates were used to estimate data for four of these missing indicators in Idaho. Because Idaho does not participate in the annual SOII employer-reported data, the following indicators were not available: (I 1) non-fatal work-related injuries and illness, (I 4) amputations with days away from work, and (I 7) musculoskeletal disorders with days away from work. Indicators (I 5) and (I 8) required workers' compensation system data, indicators (I 2), (I 6), and (I 9) required hospital discharge data. Idaho does not operate a statewide hospital discharge data system, and estimates from other sources were not available for indicators (I 2) work-related hospitalizations, (I 6) work-related burns, and (I 9) hospitalization from or with pneumoconiosis. Workers' compensation data for indicators (I 5) amputations with lost work time and (I 8) carpal tunnel syndrome with lost work time were not available for Alaska or Idaho. Similar data were available through the Idaho Industrial Commission, which tracks statewide work-related illness and injury claims. These indicators could not be completed for Alaska following the guidelines due to lack of detailed injury or illness claims data in the workers' compensation system. Indicator (I 13) adult blood lead levels requires ABLES data, but Idaho does not participate in the ABLES program. It may be possible to collect adult blood lead data from local health districts. However, this alternative data is not currently available.

### Comparison Across States

Comparison of data across states needs to be done with caution as many factors influence the counts and rates of occupational injury and illness. Differences in state workers' compensation programs, number of days of lost work before a claim is eligible, eligible conditions, state or federal OSHA plan, participation in ABLES, SOII, and other systematic differences limit comparison across states. Limitations of the source data for the 19 indicators are described in more detail by CSTE <sup>9</sup>.

## **Workforce**

There were considerable differences in the size of the workforces across states. Alaska had one tenth the number of workers compared to Washington, which had 3.1 million workers in 2005, the largest workforce in the region. Idaho's workforce was one quarter the size of the Washington workforce and Oregon's was two-thirds as large.

The employed civilian population over 15 years old in Region 10 increased 6% in the follow-up period, from 5,530,000 to 5,876,000 workers. The employed civilian population over 15 years old increased by 1.4 years in age from 2000 to 2005 (see P 6: Percentage of Civilian Employment by Age Group). From 2000 to 2005, the number of workers in part-time jobs increased by 8% regionally, which represents an additional 90,000 workers to the 1.1 million part-time workers in 2000 (see P 3: Percentage of Civilian Employment Employed Part-Time).

Education and health services industries represented 20% of the workforce for Region 10 states, which was the industry with the highest proportion of workers, followed by wholesale and retail trade, which represented 15% of the total workforce. For all years between 2000 and 2005, manufacturing of durable goods declined slightly at both the national and regional levels, in states where consistent coding systems were used. Among occupations, professional and related occupations dominated the workforce, making up over 20% of all workers in the region. That industry was followed by service occupations, which made up 15% of the total workforce (see P9: Percentage of Civilian Employment by Industry and P10: Percentage of Civilian Employment by Occupation ).

## **Injury and Illness**

Washington and Alaska non-fatal rates reported by the SOII have fallen faster than the national rate, which dropped 25% during the follow-up period. Oregon's non-fatal rates were only slightly less than the national trend (see I 1). The national rate of work-related hospitalizations dropped 11.6% from 2000 to 2005. Similar trends for hospitalizations were observed for Alaska, Oregon, and Washington (see I 2).

Nationally, work-related fatalities declined 9% during this time. This percentage represents 218 fewer fatalities in 2000 compared to those in 2005. Average fatality rates for Oregon and Washington were below the national rates, Alaska rates were twice as high, and Idaho rates declined to match the national rates by 2005 (see I 3).

Nationally, rates of carpal tunnel syndrome decreased 40%, from a peak of 30 cases per 100,000 workers during the follow-up period. SOII CTS rates diverged by as much as 24.1% from the rates recorded in state-based workers' compensation systems; state rates of carpal tunnel syndrome cases were generally higher (see I 7 and I 8).

### **Trends**

Many of these indicators did not have a clear trend or change during the follow-up period. These indicators include: (I 5) workers' compensation system amputations, (I 6) hospitalizations for burns, (I 9) hospitalization for pneumoconiosis, (I 11) acute pesticide illness, (I 12) mesothelioma incidence, (I 14-I 16) proportion of workforce in occupations and industries at high risk for morbidity and mortality, (I 17) safety professionals, (I 18) inspections, (I 19) workers' compensation awards. A trend indicating a decline in injury and illness rates include all SOII indicators: (I 1) non-fatal injuries and illnesses, (I 4) amputations with days away from work, and (I 7) MSDs with days away from work. Other indicators with declining trends were: (I 2) work-related hospitalizations, (I 3) work-related fatalities, (I 8) workers' compensation MSDs, (I 10) age adjusted pneumoconiosis, and (I 13) elevated blood lead.

### **Inspections**

Less than half as many workplaces were inspected in Idaho (a federal OSHA state) compared to the other 'State Plan' states in this study (see I 18).

### **National Surveillance, SOII**

Nationally injury and illness rates have declined every year of this study; however, rates have declined less in 2005, according to SOII counts. There are some limitations of the SOII annual survey. For example, the SOII excludes many workers, relies on inaccurate employer reporting, and extrapolates estimates from a sample. There are also many barriers to work-related claims

being filed. The current SOII survey results in a significant undercount of non-fatal work-related conditions. For example, approximately half of the cases that involve the most common and disabling injuries, such as musculoskeletal disorders, are not reported<sup>15, 16</sup>. The OSHA log sampling method used for the survey also results in unstable estimates of infrequent conditions (e.g., 14 amputations). The decline in rates of claims during this follow-up period may have been influenced more by regulation than improvement in workplace safety. Researchers have found that most (83%) of the decline in occupational injury and illness rates in the decade following the 1995 implementation of the OMB Paperwork Reduction Act can be attributed to OSHA regulatory changes in recordkeeping<sup>17</sup>. Many of the indicators derived in this study do not parallel the declines observed in the SOII rates. Furthermore, other data sources, including the National Electronic Injury Surveillance System occupational supplement, show rates of non-fatal injuries treated in hospital emergency departments has not declined in recent years<sup>18</sup>.

An accurate national surveillance system of occupational injury and illness is needed to overcome these problems. The current employer-based reporting system excludes many injury and illness occurrences and would be more complete if supplemental data sources were included. A public health model which includes accurate data for understanding occupational injury and illness is needed to direct policy, to appropriately distribute resources, and to develop and evaluate critical interventions.

## **Abbreviations:**

ABLES – Adult Blood Lead Epidemiology Surveillance

ACOEM - American College of Occupational and Environmental Medicine

ANSI Z-16.2 – American National Standards Institute injury codes

BLS - Bureau of Labor Statistics

CSTE – Council of State and Territorial Epidemiologists

CTS – Carpal Tunnel Syndrome

FTE – full time equivalent

IAIABC – International Association of Industrial Accident Boards and Commissions

ICD-9-CM – International Classification of Diseases, Ninth Revision, Clinical Modification

IIC – Idaho Industrial Commission

CFOI – BLS Census of Fatal Occupational Injuries

SOII - BLS Annual Survey of Occupational Illnesses and Injuries

MSD – Musculoskeletal Disorder

NASI – National Academy of Social Insurance

NCCI – National Council on Compensation Insurance

OIICS – Occupational Injury and Illness Classification System

WC – Workers' Compensation

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- <sup>10</sup> CSTE and NIOSH, Putting Data to Work: Occupational Health Indicators from Thirteen Pilot States for 2000. 2005.
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## Appendix Data Tables

### Table 1 Employment Demographic Profile, Unemployment, Part Time Employment, Sex, Age

	Alaska						Idaho						Oregon						Washington						
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	
<b>P1. Percentage of civilian workforce unemployed.</b>	6.6	6.3	7.7	8.0	7.5	6.7	4.9	5.0	5.8	5.4	5.3	4.0	4.8	6.3	7.5	8.2	7.6	6.0	5.2	6.4	7.3	7.5	6.2	5.6	
<b>P2. Percentage of civilian employment self-employed.</b>	9.6	8.6	9.4	10.2	10.5	9.4	10.4	10.6	9.9	10.7	11.4	10.7	11.2	9.5	9.0	9.0	10.4	9.4	7.8	8.1	7.7	8.4	8.5	8.6	
Number of self-employed workers. (thousands)	29	26	28	31	32	30	65	69	64	70	76	76	192	159	153	154	177	181	224	227	222	243	257	267	
Number of employed civilians 16 and over. (thousands)	301	302	298	305	306	320	626	648	645	655	669	713	1,715	1,680	1,695	1,707	1,710	1,732	2,888	2,804	2,871	2,903	3,037	3,111	
<b>P3. Percentage of civilian employment in part-time jobs.</b>	16.6	17.9	17.8	18.0	18.3	19.1	20.0	21.8	20.9	22.1	22.3	21.2	21.0	20.8	19.8	20.3	20.5	20.3	20.4	20.7	19.7	21.0	20.6	20.8	
Number of workers in part-time jobs. (thousands)	50	54	53	55	56	61	125	141	135	145	149	151	361	349	335	347	351	354	588	581	618	610	627	648	
<b>P4. Percentage of civilian employment by number of hours worked.</b>																									
Total at work (thousands)	281	281	276	283	286	298	601	617	618	630	642	694	1,641	1,615	1,628	1,642	1,647	1,680	2,755	2,684	2,750	2,775	2,909	2,986	
Percent at work 1-39 hours	37.5	40.4	41.3	42.3	41.5	40.3	35.9	39.8	38.6	38.8	39.0	37.6	36.5	37.7	36.6	36.6	36.3	35.8	37.0	38.0	37.9	38.1	37.2	36.4	
Percent at work 40 hours	30.6	27.8	28.5	27.9	28.8	27.5	31.5	29.8	31.3	31.8	31.2	32.3	33.6	33.7	34.8	36.8	36.3	36.3	31.8	33.8	35.8	35.0	35.8	35.1	
Percent at work 41+ hours	31.9	31.5	30.2	29.8	29.7	32.2	32.3	30.4	30.4	29.5	29.6	30.3	29.9	28.6	28.6	26.7	27.4	27.2	31.2	28.2	26.4	26.9	27.0	28.5	
<b>P5. Percentage civilian employment by sex.</b>																									
Number Men (thousands)	160	163	160	160	165	170	341	347	345	356	361	388	921	900	912	916	930	924	1,520	1,493	1,538	1,545	1,637	1,672	
Percent Men	53.2	54.0	53.7	52.5	53.9	53.1	54.5	53.5	53.5	54.4	54.0	54.4	53.7	53.6	53.8	53.7	54.4	53.0	52.6	53.5	53.6	53.2	53.9	53.7	
Number Women (thousands)	141	139	138	145	141	151	285	301	299	299	307	325	794	780	783	790	780	808	1,368	1,311	1,333	1,358	1,400	1,439	
Percent Women	46.8	46.0	46.3	47.5	46.1	47.2	45.5	46.5	46.4	45.6	45.9	45.6	46.3	46.4	46.2	46.3	45.6	46.3	47.4	46.8	46.4	46.8	46.1	46.3	

**Table 2 Employment Demographic Profile, Age, Race, Ethnicity**

	Alaska						Idaho						Oregon						Washington					
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
<b>P6. Percentage of civilian employment by age group.</b>																								
Percent 16 to 17 years	2.2	2.8	2.7	2.4	2.0	2.3	2.7	3.5	2.8	2.7	2.4	2.6	1.8	2.2	1.5	1.1	1.3	1.6	2.0	1.8	1.7	1.6	1.2	1.5
Percent 18 to 64 years	96.0	95.5	95.5	95.3	95.1	94.9	93.8	93.2	94.5	93.5	93.9	94.2	95.7	95.5	96.0	96.2	95.5	94.6	95.7	95.8	95.9	95.9	96.5	96.0
Percent 65 to 90 years	1.8	1.7	1.9	2.3	3.0	2.8	3.5	3.3	2.8	3.8	3.7	3.1	2.5	2.3	2.5	2.7	3.2	3.8	2.3	2.4	2.4	2.6	2.3	2.5
<b>P7. Percentage civilian employee by race</b>																								
Number White	243	242	232	236	233	255	607	632	627	621	640	682	1,611	1,568	1,550	1,550	1,554	1,561	2,589	2,514	2,540	2,527	2,589	2,644
Percent White	80.7	80.1	77.9	77.4	76.1	79.7	97.0	97.5	97.2	94.8	95.7	95.7	93.9	93.3	91.4	90.8	90.9	89.5	89.6	89.7	88.5	87.0	85.2	85.0
Number Black (thousands)	9	10	10	10	9	9								24	29	22	28	27	105	87	85	76	90	83
Percent Black	3.0	3.3	3.4	3.3	2.9	2.8								1.4	1.7	1.3	1.6	1.5	3.6	3.1	3.0	2.6	3.0	2.7
Number Other (thousands)	48.9	49.9	55.9	58.9	63.9	55.9							87.9	115.9	134.9	127.9	143.9	193.9	202.9	245.9	299.9	357.9	383.9	
Percent Other	16.3	16.5	18.8	19.3	20.9	17.5							5.2	6.8	7.9	7.5	8.3	6.8	7.2	8.6	10.4	11.8	12.3	
<b>P8. Percentage civilian employees by Hispanic origin.</b>																								
Percent Hispanic	8	11	12	15	15	15	40	40	53	52	51	61	126	114	126	162	158	121	135	138	162	197	201	199
Percent Hispanic	2.7	3.6	4.0	4.9	4.9	4.7	6.4	6.2	8.2	7.9	7.6	8.6	7.4	6.8	7.4	9.5	9.2	6.9	4.7	4.9	5.6	6.8	6.6	6.4

Race data are not available for Idaho. Race data are not available for Oregon for 2000.



**Table 3 Employment Demographic Profile, Industry**

	Alaska					Idaho					Oregon					Washington									
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	
<b>P9. Percentage of civilian employment by industry.</b>																									
Construction	5.6	5.8	7.0				6.7	6.8	7.3				5.0	5.2	4.9				6.8	5.5	5.1				
Manufacturing - durable goods	1.0	0.8	1.0				8.8	7.5	6.8				10.8	10.2	9.9				8.0	8.4	8.5				
Manufacturing - non-durable goods	2.3	2.1	2.0				4.6	4.3	4.9				4.0	4.2	4.6				3.2	3.0	3.1				
Transportation, communications, utilities	8.6	8.8	7.6				5.1	4.5	5.1				5.7	5.3	5.2				5.2	5.8	6.3				
Trade	16.3	17.0	17.3				21.2	20.9	21.5				19.7	19.0	19.9				20.5	21.4	20.9				
Finance, insurance, real estate	3.3	2.9	3.4				4.6	4.3	3.5				4.6	4.7	5.8				5.9	5.6	5.3				
Services	23.9	23.4	21.9				18.2	19.5	21.2				24.0	24.4	24.1				24.8	24.8	24.8				
Government	25.6	26.2	27.3				15.0	16.1	14.8				12.1	13.8	13.1				15.1	14.8	15.6				
Agriculture	0.3	0.8	0.3				6.2	6.5	5.9				3.9	4.2	3.6				2.7	2.8	2.8				
(Series is discontinuous. Change in industry coding system.)																									
Mining				2.0	1.6	2.2				0.5	0.4	0.3				0.1	NA	NA				0.4	0.1	0.0	
Construction				8.5	8.5	9.1				8.4	9.3	9.0				6.7	7.7	7.7				6.8	7.2	7.0	
Manufacturing - durable goods				1.0	0.7	1.3				5.3	5.7	6.7				9.4	9.2	9.3				9.2	9.0	7.5	
Manufacturing - non-durable goods				2.0	2.0	1.3				4.6	3.9	4.0				3.7	4.1	3.3				3.0	2.9	3.5	
Wholesale and retail trade				14.1	14.7	14.5				15.9	15.8	15.4				16.5	16.1	16.2				15.5	15.3	16.6	
Transportation and utilities				8.2	8.2	8.5				4.4	4.5	4.9				4.6	4.5	4.1				5.2	5.2	6.1	
Information				2.6	2.3	1.9				1.8	1.8	2.4				1.7	1.8	2.0				3.1	2.7	2.4	
Financial activities				3.9	4.6	5.3				4.9	5.7	6.2				7.3	6.7	6.9				6.2	6.2	6.4	
Professional and business services				8.2	7.8	7.2				9.3	8.8	9.6				9.6	9.8	10.5				10.4	9.8	10.5	
Education and health services				20.7	21.6	21.1				20.2	19.6	19.4				18.9	19.5	19.7				19.5	19.5	19.4	
Leisure and hospitality				9.5	9.2	10.4				9.3	9.0	8.2				9.0	8.7	8.5				8.2	8.8	8.9	
Other services				5.2	5.9	5.3				5.6	4.5	3.6				5.3	4.7	4.6				4.4	4.7	4.4	
Public administration				11.1	10.1	9.7				4.1	5.1	4.7				4.3	4.0	4.0				5.6	5.4	5.2	
Agriculture and related				3.0	2.9	2.2				5.5	6.0	5.7				2.9	3.4	3.1				2.5	3.1	2.1	

**Table 4 Employment Demographic Profile, Occupation**

	Alaska					Idaho					Oregon					Washington									
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	
<b>P10. Percentage of civilian employment by occupation.</b>																									
Executive, administrative	15.9	15.9	16.2				11.7	11.9	11.9				15.9	16.1	15.5				15.2	15.1	15.6				
Professional	16.6	17.5	16.1				12.8	13.3	14.5				16.0	16.1	15.8				16.8	17.1	16.6				
Technicians	3.3	3.4	3.5				3.8	3.3	3.4				2.4	3.0	3.0				3.1	4.1	3.6				
Sales	9.3	9.1	9.1				12.6	11.9	10.7				11.4	11.5	11.5				12.4	12.5	11.7				
Administrative support	15.6	14.8	14.1				12.8	14.0	13.4				13.3	12.7	13.3				13.4	12.6	13.2				
Services	14.3	14.1	15.4				13.4	14.3	15.5				13.0	13.7	13.9				13.8	13.2	14.0				
Precision production, craft, repair	12.0	12.7	11.7				12.0	12.0	11.6				10.5	10.5	10.7				10.6	10.1	10.8				
Machine operators, assemblers, inspectors	1.7	1.8	1.9				5.3	4.4	4.2				4.9	4.5	4.6				3.7	4.0	3.4				
Transportation, material moving	4.0	4.2	4.0				5.3	4.6	4.9				4.0	3.8	4.0				3.5	4.2	4.3				
Handlers, equipment cleaners, laborers	4.3	4.1	5.6				4.2	3.9	4.1				4.4	3.7	3.8				3.8	3.8	3.6				
Farming, forestry, fishing	3.3	2.3	2.4				6.2	6.4	5.8				1.7	4.5	3.8				3.6	3.2	3.3				
(Series is discontinuous. Change in occupational coding system.)																									
Management business & financial			13.1	12.7	13.5					12.1	14.3	14.4				13.9	15.6	15.0				15.4	15.5	15.6	
Professional and related			21.0	20.9	22.0					18.3	17.3	17.8				18.6	19.5	21.3				21.7	21.5	23.2	
Service			16.7	16.3	16.0					18.0	17.3	15.0				16.8	15.6	14.8				15.6	17.0	15.6	
Sales and related occupations			8.9	9.8	10.1					11.6	11.1	11.5				12.5	11.6	12.1				11.1	10.6	11.0	
Office and administrative support			14.8	15.4	15.1					13.9	14.5	14.7				14.3	13.8	13.8				13.8	12.8	13.1	
Farming, fishing, forestry			2.0	2.0	1.3					2.9	3.0	2.9				2.1	1.8	1.5				1.4	1.5	1.2	
Construction and extraction			7.5	7.2	7.9					6.7	7.2	7.9				4.9	5.3	5.7				5.8	5.6	5.6	
Installation, maintenance, repair			4.6	4.6	4.1					4.4	3.9	4.6				3.3	3.5	3.2				3.8	3.8	3.2	
Production			3.9	3.6	2.8					6.0	4.9	4.9				7.0	6.7	6.3				5.7	5.6	5.3	
Transportation and material moving			7.5	7.2	6.9					6.3	6.6	6.4				6.6	6.5	6.2				5.7	6.0	6.1	

**Table 5 Injuries and Illnesses**

<b>Indicator</b>	<b>Alaska</b>					<b>Idaho</b>					<b>Oregon</b>					<b>Washington</b>									
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
<b>11. Non-fatal work related injuries and illnesses reported by employers.</b>																									
Number work-related injuries and illnesses. (thousands)	13	16	13	13	10	12	45	44	42	39	40	40	72	69	63	58	63	59	146	135	124	115	122	110	
Injury and illness incidence rate per 100,000 FTE.	7600	8500	7400	7000	5100	6200	9672	7654	7282	6796	6763	6569	6300	6200	6000	5600	5800	5400	8500	7500	7300	6800	6900	6100	
Number of cases involving days away from work. (thousands)	5.5	6.4	5.2	5.2	4.8	4.6	8.6	8.4	8.1	7.5	7.6	7.5	22.3	21.2	20.4	19.7	20.5	19.1	44.4	44.1	41.3	38.3	37.7	36.4	
Incident involving days away from work rate per 100,000 FTE.	3200	3500	3000	2800	2600	2400	1853	1464	1410	1310	1287	1220	1900	1900	1900	1900	1900	1700	2600	2500	2400	2300	2100	2000	
Number of cases with 10 days away from work (thousands)	1.7	2.2	1.9	1.9	1.6	1.8	2.8	3.1	3.5	3.3	3.5	3.6	7.7	7.2	7.4	8.1	8	7.3	14.6	14.7	16.2	15.2	15.8	14.1	
<b>12. Work-related hospitalizations.</b>																									
Number of work related hospitalizations		587	502	516	465	448							3020	2842	2794	2722	2719	2556	5532	5286	5052	5104	5239	5012	
Crude rates of hospitalization		194	169	169	152	140							176	169	165	160	159	147	192	189	176	176	173	161	
<b>13. Fatal work-related injuries.</b>																									
Number of work related traumatic fatalities, employed population over 16	54	64	39	28	42	29	23	45	39	43	38	35	52	44	63	75	60	65	75	102	86	83	98	85	
Crude fatality rate per 100,000 employed	17.1	20.1	12.3	9.2	13.7	9.1	3.7	6.9	6.0	6.6	5.7	4.9	3.0	2.6	3.7	4.4	3.5	3.7	2.6	3.6	3.0	2.9	3.2	2.7	

Data for I 2 for Alaska for 2000 is not available because the program began collecting this data in 2001.

Idaho does not participate in BLS SOII so I 1 data are from Idaho Industrial Commission.

Idaho does not have a statewide hospital discharge data system.

**Table 6 Amputations, Burns**

<b>Indicator</b>	<b>Alaska</b>						<b>Idaho</b>					<b>Oregon</b>					<b>Washington</b>							
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
<b>I 4. Amputations with days away from work reported by employers.</b>																								
Work-related amputations with days away from work	16	21	12	30	NA	40							201	134	108	200	130	100	282	163	136	330	330	150
Incidence rate of amputations involving days away from work	9.0	12.0	7.0	16.0	NA	21.0							18.0	12.0	10.0	19.0	12.0	9.0	16.0	9.0	8.0	20.0	19.0	8.0
<b>I 5. Amputations identified in state workers' compensation systems.</b>																								
Number of amputations filed with state workers compensation							77	57	64	57	60	79	243	231	168	187	195	175	167	159	159	194	220	286
Incidence rate of amputations							14.0	10.2	11.5	10.1	10.4	13.1	16.0	14.7	10.9	12.0	12.5	10.8	6.3	6.1	6.2	7.5	8.4	10.6
<b>I 6. Hospitalizations for work-related burns. (employed persons 16 and over)</b>																								
Primary payer is workers' compensation. Number	NA	8	8	5	7	4							45	31	30	22	24	29	94	72	43	72	71	66
Rate per 100,000 workers	NA	2.6	2.7	1.6	2.3	1.3							2.6	1.8	1.8	1.3	1.4	1.7	3.3	2.6	1.5	2.5	2.3	2.1

Data for I 4 for Alaska 2004 was not released by BLS because it did not meet publication standards.

Data for I 6 for Alaska for 2000 is not available because the program began collecting this data in 2001.

Idaho does not participate in the SOII for I 4 data, I 5 data is from Idaho Industrial Commission, not workers compensation.

Idaho does not have a hospital discharge data system for I 6

**Table 7 Musculoskeletal Disorders, Carpal Tunnel Syndrome**

Indicator	Alaska					Idaho					Oregon					Washington								
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
<b>I 7. Musculoskeletal disorders reported by employers.</b>																								
Work related musculoskeletal disorders with days away from work reported by employers, SOII. (thousands)	1.8	2.3	1.8	1.9	1.7	1.8	1.3	1.2	1.1	0.9	1	1.1	8.7	7.7	8.2	8	8	7	18	19.6	17.7	15.8	15.3	13.2
Estimated annual incidence rate of all musculoskeletal disorders, per 100,000 FTE	1055	1235	1020	1020	879	920	229	213	200	165	170	182	762	695	777	763	743	631	1043	1121	1043	939	808	737
Number of MSDs of the neck shoulder and upper extremities	496	558	505	520	540	520	832	687	675	586	525	560	2387	2244	2203	2470	2040	1990	4877	5302	5115	5080	4400	3770
Upper extremity MSD rate	286	306	286	278	288	269	151	123	121	104	91	93	208	201	209	237	189	179	284	303	301	301	250	210
Number of CTS cases with days away from work	62	104	80	140	40	70	154	128	119	124	113	88	330	279	309	310	380	260	1,033	774	635	820	680	620
CTS rate	36	57	45	75	24	35	28.0	22.9	21.3	22.1	19.6	14.6	29	25	29	30	36	24	60	44	37	49	38	34
Number of overexertion and repetitive motion of the back injuries involving days away from work	957	1200	924	890	800	870	54	122	78	70	69	136	4276	4037	4025	3760	3930	3830	8530	9532	8426	7820	7660	6320
Back MSD rate	552	656	522	475	427	448	9.8	21.9	14.0	12.5	11.9	22.6	374	364	380	361	364	346	495	546	496	465	436	353
<b>I 8. Carpal tunnel syndrome cases identified in state workers' compensation systems.</b>																								
CTS filed with the state worker's compensation system													730	669	658	468	385	388	1544	1397	1573	1383	1254	886
Incidence rate of CTS for state workers' compensation, per 100,000 covered workers													47.0	42.7	42.6	30.5	24.6	23.9	58.6	53.3	61.1	53.5	47.8	32.9
Number of workers covered by Workers' Comp, NASI denominator (thousands)	259	266	270	275	279	285	550	558	558	562	578	601	1577	1567	1543	1533	1565	1623	2637	2622	2575	2583	2625	2697

Idaho does not participate in the BLS SOII, data are from Idaho Industrial Commission.

**Table 8 Pneumoconiosis**

Indicator	Alaska					Idaho					Oregon					Washington								
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
<b>I 9. Pneumoconiosis hospitalizations.</b>																								
Number of Hospitalization from or with pneumoconiosis		20	21	36	21	32							207	213	218	225	206	225	698	628	665	614	643	668
Rate per million of total pneumoconiosis hospitalizations													76	78	80	83	76	77	151	147		125	129	133
Age standardized rate per million of total pneumoconiosis hospitalizations		89	92	144	89	108							75	77	78	81	74	72	166	149	152	137	142	159
Number of coal workers Pneumoconiosis hospital discharges		4	2	9	2	5							18	21	23	17	8.0	16	25	24	33	26	32	29
Rate of coal workers Pneumoconiosis													6.6	7.7	8.5	6.3	2.9	5.4	5.4	5.2		5.3	6.4	5.8
Age standardized rate of coal workers Pneumoconiosis				33.6		15.3							6.6	7.7	8.4	6.2	2.8	5.1	5.7	5.6	7.1	5.6	6.7	6.7
Number of asbestosis hospital discharges 501		16	17	24	15	26							171	177	186	168	175	199	648	584	612	561	587	621
Rate of asbestos is hospital discharges													63	65	68	62	64	68	140	126		115	118	123
Age standardized rate of asbestosis		76	80	101	68	91							62	64	67	60	63	64	155	139	140	125	130	148
Number of silicosis hospital discharges		0	1	2	3	0							18	10	8	12	4	10	19	10	18	13	15	13
Rate of silicosis													6.6	3.7	2.9	4.4	NA	3.4	4.1	2.2		2.7	3.0	2.6
Age standardized rate of silicosis													6.5	3.6	2.9	4.3	NA	3.2	4.5	2.4	4.0	3.1	3.4	3.0
Number of unspecified pneumoconiosis hospital discharges													<5	5	<5	<5	<5	<5	6	10	7	14	9	5
Rate of unspecified pneumoconiosis													NA	1.8	NA	NA	NA	NA	1.3	2.2		2.9	1.8	1.0
Age standardized rate of unspecified pneumoconiosis													NA	1.8	NA	NA	NA	NA	1.4	2.3	1.6	3.0	2.0	1.1
<b>I 10. Mortality from or with Pneumoconiosis.</b>																								
Number of Pneumoconiosis, Coal pneumoconiosis, Asbestosis, Silicosis	4	1	4	3	2	1	8	9	5	9	12	10	10	9	12	14	11	14	70	69	74.0	71	72	65
Annual rate of total pneumoconiosis deaths per million residents							8.0	8.9	4.8	8.6	11.2	9.1	3.7	3.3	4.4	5.1	3.8	4.8	15.1	14.9	16.0	14.5	14.5	12.8
Age standardized rate of total pneumoconiosis deaths							8.7	8.6	4.0	7.8	9.9	8.9	3.6	3.2	4.3	5.0	3.8	4.6	16.8	16.4	17.6	15.8	15.4	13.6
Number of asbestosis							8	6	4	7	10	8	9	6	11	13	9	12	68	67	69	70	71	62
Annual rate of asbestosis							8.0	5.9	NA	6.7	9.3	7.3	3.3	2.2	4.0	4.8	3.1	4.1	14.7	14.4	14.9	14.3	14.3	12.2
Age standardized rate of asbestosis							8.7	5.4	NA	2.9	6.0	8.0	3.2	2.2	3.9	4.6	3.1	3.9	16.3	15.8	16.0	15.6	15.2	13.0

Data for I 9 for Alaska for 2000 is not available because the program began collecting this data in 2001.

**Table 9 Pesticide Poisonings, Malignant Mesothelioma, Blood Lead Levels**

Indicator	Alaska						Idaho						Oregon					Washington						
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
<b>I 11. Acute work-related pesticide-associated illness and injury reported to poison control centers.</b>	NA	NA	4	7	2	6	27	42	23	25	24	23	54	50	73	41	41	52	147	101	80	74	77	92
Annual incidence rate of pesticide poisoning cases per 100,000 employed persons age 16 or older.	NA	NA	1.3	2.3	0.7	1.9	4.3	6.5	3.6	3.8	3.6	3.2	3.2	3.0	4.3	2.4	2.4	3.0	5.1	3.6	2.8	2.6	2.5	3.0
<b>I 12. Incidence of malignant mesothelioma.</b>																								
Annual number of incident mesothelioma cases among resident population age 15 and older	NA	NA	NA	6	6	7	10	16	11	12	15	12	45	37	54	48	29	39	79	84	82	76	84	94
Annual incidence rate of mesothelioma per million residents				12.1	11.9	13.6	10.0	15.7	10.6	11.4	13.9	10.8	16.5	13.6	19.8	17.6	10.0	13.3	17.0	18.1	17.0	15.6	17.0	14.9
Age-standardized mesothelioma incidence rate per million residents	NA	NA	NA	NA	NA	22.4	10.9	16.8	11.3	12.1	14.1	11.7	16.3	13.7	19.4	17.3	9.8	13.3	18.7	19.8	18.9	16.5	18.2	19.0
<b>I 13. Elevated blood lead levels among adults.</b>																								
Levels of 25 ug/dL or above Number of employed persons age 16+.	28	85	51	45	24	40							180	97	74	70	70	58	112	104	84	94	66	61
Prevalent cases																								
Prevalence Rate per 100,000 employed	9.1	28.0	16.5	14.5	8.0	13.0							10.5	5.8	4.4	4.1	4.1	3.3	3.9	3.7	2.9	3.2	2.2	2.0
Number of incident cases													97	20	36	43	47	38	75	76	67	79	50	40
Annual incidence per 100,000 employed persons													5.7	1.2	2.1	2.5	2.7	2.2	2.6	2.7	2.3	2.7	1.6	1.3
Number of residents with blood lead levels >= 40 ug/dL and above.	<5	9	<5	5	0	6							38	<5	12	5	11	10	26	14	10	23	7	14
Prevalent cases																								
Prevalence Rate per 100,000 employed age 16 and older													2.2	0.2	0.7	0.3	0.6	0.6	0.9	0.5	0.4	0.8	0.2	0.5
Number of incident cases													20	<5	10	<5	10	10	19	11	8	21	5	12
Incidents per 100,000 employed persons													1.2	0.1	0.6	NA	0.6	0.6	0.7	0.4	0.3	0.7	0.2	0.4

**Table 10 High Risk Industries and Occupations**

Indicator	Alaska					Idaho					Oregon					Washington								
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
<b>I 14. Workers employed in industries at high risk for occupational morbidity.</b>																								
Number of employed persons at risk (thousands)	7.7	7.5	7.7	12.7	12.8	12.6	27.4	27.3	26.7	30.9	32.1	32.4	87.3	82.6	80.2	111.8	114.9	119.6	119.4	116.8	107.2	134.8	138.5	143.3
Percent of employed persons at risk	3.8	3.5	3.6	5.9	5.7	5.4	6.1	5.8	5.9	6.6	6.6	6.2	6.4	6.1	6.0	8.4	8.5	8.5	4.1	4.2	4.9	5.9	6.1	6.2
<b>I 15. Workers employed in occupations at high risk for occupational morbidity.</b>																								
Number (thousands)	21.2	19.4	21.3	35.6	34.2	36.7	44.9	46.2	49.2	78.9	75.8	85.9	104.0	90.9	90.3	176.0	174.1	172.9	167.1	173.9	171.5	321.6	326.6	304.6
Percent	7.2	6.4	7.2	11.9	11.2	11.4	2.9	7.1	7.6	12.2	11.4	12.1	8.3	5.4	5.4	10.4	10.2	10.0	5.8	6.2	6.0	11.2	10.8	9.8
<b>I 16. Percentage of workers employed in industries and occupations at high risk for occupational mortality.</b>																								
Number employed in high mortality industries (thousands)	65.2	60.6	61.5	56.5	52.3	60.1	124.4	131.4	127.4	121.3	132.0	140.1	278.6	263.1	231.3	247.7	259.6	269.7	441.7	428.3	403.1	416.1	459.2	424.1
Percent employed in high mortality industries	25.0	20.0	21.0	18.7	17.2	18.7	8.0	20.1	19.7	18.8	19.8	19.7	20.6	15.6	13.8	14.7	15.2	15.5	15.3	15.2	14.2	14.5	15.2	13.6
Number employed in high mortality occupations (thousands)	20.4	17.8	17.4	38.9	37.6	41.7	64.5	66.5	64.5	97.1	96.3	101.6	108.3	112.4	94.0	165.0	181.3	175.3	176.9	183.1	174.7	283.3	308.0	303.4
Percent employed in high mortality occupations	8.3	8.3	8.3	12.9	12.4	13.0	4.2	10.2	10.0	15.0	14.4	14.3	8.7	6.7	5.6	9.8	10.6	10.1	6.1	6.5	6.1	9.8	10.2	9.8



**Table 11 Occupational Safety and Health Professionals**

<u>Indicator</u>	Alaska			Idaho			Oregon			Washington		
	2003	2004	2005	2003	2004	2005	2003	2004	2005	2003	2004	2005
<b>I 17. Occupational safety and health professionals.</b>												
rate per 100,000 employees												
Board-certified occupational medicine physicians. Number	6	7	8	9	10	10	33	32	32	73	76	80
Board-certified occupational medicine physicians. Rate	2.0	2.3	2.5	1.4	1.5	1.4	1.9	1.9	1.8	2.5	2.5	2.6
Members in ACOEM. Number	13	14	12	21	24	22	62	62	52	147	153	132
Members in ACOEM. Rate	4.3	4.6	3.8	3.2	3.6	3.1	3.6	3.6	3.0	5.1	5.0	4.2
Board-certified occupational health nurses. Number	9	10	10	14	20	18	60	65	64	97	101	96
Board-certified occupational health nurses. Rate	3.0	3.3	3.1	2.1	3.0	2.5	3.5	3.8	3.7	3.3	3.3	3.1
Members of American Association of Occupational Health Nurses. Number	8	11	10	20	32	20	71	69	66	74	104	111
Members of American Association of Occupational Health Nurses. Rate	2.6	3.6	3.1	3.1	4.8	2.8	4.2	4.0	3.8	2.5	3.4	3.6
Board certified industrial hygienists. Number	19	18	21	46	48	57	74	64	81	251	224	264
Board certified industrial hygienists. Rate	6.2	5.9	6.6	7.0	7.2	8.0	4.3	4.4	4.7	8.6	8.4	8.5
Members of American Industrial Hygiene Association. Number	40	38	34	40	49	50	103	98	97	282	284	305
Members of American Industrial Hygiene Association. Rate	13.1	12.4	10.6	6.1	7.3	7.0	6.0	5.2	5.6	9.7	9.4	9.8
Board certified safety professionals (BCSP). Number	62	62	69	64	70	72	92	97	99	249	248	239
Board certified safety professionals (BCSP). Rate	20.3	20.3	21.6	9.8	10.5	10.1	5.4	5.7	5.7	8.6	8.2	7.7
Members of American Society of Safety Engineers. Number	215	248	274	139	151	179	563	555	625	649	737	824
Members of American Society of Safety Engineers. Rate	70.5	81.0	85.6	21.2	22.6	25.1	33.0	32.5	36.1	23.9	24.3	26.5

**Table 12 OSHA Enforcement, Workers' Compensation Awards**

<b>Indicator</b>	<b>Alaska</b>					<b>Idaho</b>					<b>Oregon</b>					<b>Washington</b>								
	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
<b>I 18. OSHA enforcement activities.</b>																								
Annual number of establishments inspected	598	534	482	529	560	623	469	492	581	549	554	557	5332	6143	5887	5426	5249	4982	7021	7142	8550	7509	7005	7771
Total number of establishments under OSHA jurisdiction in the state (thousands)	17.6	19.3	19	19.5	20.1	20.5	43.3	44.3	44.5	46.2	47.1	49.8	107.3	109.2	111.1	114.4	116.6	121.4	229.1	221.5	218.7	227.9	211.4	202.5
Percentage of establishments inspected	3.4	2.8	2.5	2.7	2.8	3.0	1.1	1.1	1.3	1.2	1.2	1.1	5.0	5.6	5.3	4.7	4.6	4.1	3.3	3.2	3.9	3.3	3.3	3.8
Total number of employees (thousands)	276	283	287	292	296	302	476	480	479	482	496	518	1608	1597	1573	1564	1595	1653	2706	2690	2644	2653	2695	2703
Number of employees whose work areas were inspected (thousands)	23	14	16	21	21	13	34	21	15	21	33	13	169	204	209	217	240	273	229	219	172	172	150	142
Percent of employees whose work areas were inspected	8.4	5.0	5.7	7.3	7.1	4.3	7.1	4.3	3.2	4.3	6.7	2.6	10.7	13.0	13.5	14.2	15.3	16.5	8.5	8.2	6.5	6.5	5.6	5.3
<b>I 19. Workers' compensation awards.</b>																								
Number of workers covered by workers comp (thousands)	259	266	270	275	279	285	550	558	558	562	578	601	1560	1567	1543	1533	1565	1623	2637	2622	2575	2583	2625	2697
Amount of workers compensation paid (million)	156	171	188	199	194	189	168	197	233	181	210	243	413	456	448	447	507	551	1449	1638	1714	1800	1836	1864
Average amount paid per covered worker	601	644	695	725	696	664	305	353	418	322	364	405	265	291	290	292	324	339	568	625	666	697	699	691
Percentage of civilian workers covered by workers comp	86.0	88.1	90.6	90.2	91.2	89.1	87.9	86.1	86.5	85.8	86.4	84.3	91.0	93.3	91.0	89.8	91.5	93.7	91.3	93.5	89.7	89.0	86.4	86.7