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# Nebraska Occupational Health Indicators Report, 2012

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Office of Epidemiology, Division of Public Health  
Occupational Safety and Health Surveillance Program

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## Executive Summary

In 2009, 43,289 claims of occupational injuries and illnesses were reported to the Nebraska Workers' Compensation Court.<sup>1</sup> Workplace safety and health hazards faced by Nebraskans pose a serious public health threat. There are significant financial costs of work-related injuries and illnesses: more than \$304 million was paid in workers' compensation benefits in Nebraska in 2009 alone.

Since 2010, the Nebraska Occupational Safety and Health Program (NOSHP) has calculated 20 occupational health indicators (OHIs) to understand the nature of the health and risk status of Nebraska's workforce. The OHIs were established by the National Institute for Occupational Safety and Health (NIOSH) and the Council of State and Territorial Epidemiologists (CSTE). Each year, OHIs are calculated on a 3-year lag and are based on several national and state-based data sources.

Data in this report provide a snapshot of Nebraska occupational health data in 2009. Detailed description of data sources, methods of calculation and data limitations are not included in this report, nor does this report compare OHI data from other states or the U.S. NOSHP plans to publish detailed surveillance reports examining multi-year trends, as well as annual OHI summary reports.

Several indicators of occupational health in Nebraska decreased from 2008 to 2009. Fewer estimated work-related injuries and illnesses occurred in 2009 (25,700) than in 2008 (28,700). The annual crude rate of work-related hospitalizations also decreased from 69.2 in 2008 to 62.2. Compared to the 2008, Nebraska witnessed a decline in the estimated annual rates of amputations with lost work time, work-related burn hospitalizations, total musculoskeletal disorders, carpal tunnel syndrome cases, pneumoconiosis hospital discharges, and work-related low back disorder hospitalizations.

Data also show some OHIs increased from 2008 to 2009. The annual number of work-related fatal injuries increased from 53 in 2008 to 57 in 2009. The number of incident mesothelioma cases in 2008 was 10, and this number tripled to 30 in 2009. Nebraska also saw an increase in the number of reported work-related pesticide poisoning cases, from 37 in 2008 to 46 in 2009. While the total number of residents with elevated blood levels at or above 10 mcg/dL decreased from 2008, the number of new cases at or above 25 mcg/dL increased from 14 to 20 in 2009.

The rate for the some OHIs changed only slightly between 2008 and 2009, and the rates for the other OHIs varied due to changes in case definitions. Continued calculation and analysis of the OHIs will allow NOSHP to continue work on occupational health surveillance efforts, such as focusing on hazards that put Nebraskans at greater risk of a work-related fatality and work-related pesticide poisoning. Ultimately, NOSHP's goal is to use occupational health data to guide prevention and intervention efforts in order to improve worker health and safety in Nebraska.

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## Glossary

**Adult Blood Lead Epidemiology and Surveillance (ABLES):** A state-based surveillance program of laboratory-reported adult blood lead levels funded by NIOSH. The ABLES case definition of an elevated blood level is a blood lead concentration  $\geq 10 \mu\text{g/dL}$ .

**American Association of Poison Control Centers (AAPCC):** A non-profit organization that represents the poison control centers of the U.S. and the interests of poison prevention and treatment of poisoning.

**Bureau of Labor Statistics (BLS):** The BLS is located within the U.S. Department of Labor and is the principal Federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy.

**Census of Fatal Occupational Injuries (CFOI):** A comprehensive count of work-related fatal injuries and descriptive data on their circumstances; the effort is conducted by the BLS.

**Council of State and Territorial Epidemiologists (CSTE):** An organization of public health epidemiologists that works to establish relationships between health agencies and provides technical advice and assistance to members and public health agencies such as the CDC.

**Current Population Survey (CPS):** A monthly sample survey conducted by the U.S. Census Bureau to determine information on labor force activities, such as the extent of employment, unemployment, and personal characteristics/demographic information.

**Full-time Equivalent Workers (FTEs):** A unit to measure employed persons that enable comparisons despite working different number of hours per week.

**Musculoskeletal disorders (MSDs):** MSDs are disorders that affect the body's muscles, joints, tendons, ligaments, and nerves. Most work-related MSDs develop over time and can be caused by either work itself or by the employee's working environment. Repetitive motion is often a factor.

**National Academy of Social Insurance (NASI):** A nonprofit organization that conducts research and issues findings on the scope of social insurance, including Social Security, Medicare, workers' compensation, unemployment insurance, public assistance, and private employee benefits.

**National Institute for Occupational Safety and Health (NIOSH):** An institute housed under the Centers for Disease Control and Prevention (CDC) that conducts scientific research, develops guidance and authoritative recommendations, disseminates information, and responds to requests for workplace health hazard evaluations.

**Nebraska Occupational Safety and Health Program (NOSHP):** NOSHP was funded by NIOSH in July 2010 and is charged with calculating the occupational health indicators (OHIs) and using the findings to help prevent occupational injuries and illnesses.

**Nebraska Workers' Compensation Court:** The court administers and enforces all provisions of the Nebraska Workers' Compensation Act, including the computer programs and databases of the court and claims filed.

**Occupational Health Indicators (OHIs):** OHIs were developed by the NIOSH-States Occupational Health Surveillance Work Group to identify occupational injuries, illnesses, and hazards.

**Occupational Safety and Health Administration (OSHA):** OSHA is a federal agency and its purpose is to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and providing training, outreach, education, and assistance.

**Survey of Occupational Injuries and Illnesses (SOII):** A survey conducted by the BLS that estimates the number and incidence of workplace injuries and illnesses, based on definitions set forth by OSHA. The survey is based on employers reporting injuries and illnesses via the OSHA Form 300 and OSHA Form 301.

**County Business Patterns (CBP):** A database that provides information on geographic, industry, and other information on U.S. business establishments. CBP data are collected from the U.S. Census Bureau Business Register, which is a multi-relational database that contains a record for each known establishment that is located in the United States with information such as employee, geographic and industry-specific data.

**Professional groups referenced:**

American Association of Occupational Health Nurses (AAOHN)

American College of Occupational and Environmental Medicine (ACOEM)

American Industrial Hygiene Association (AIHA)

American Society of Safety Engineers (ASSE)

Board-certified industrial hygienists

Board-certified occupational health nurses

Board-certified occupational medicine physicians

Board-certified safety professionals

## Introduction

In 2010, the Nebraska Occupational Safety and Health Program (NOSHP) was established with funding from the National Institute for Occupational Safety and Health (NIOSH). The program is housed within the Office of Epidemiology in the Nebraska Department of Health and Human Services (NDHHS). A primary goal of NOSHP is to calculate the occupational health indicators (OHIs) and use the findings to help prevent occupational injuries and illnesses, which follows the mission of NDHHS: "Helping people live better lives."

NOSHP currently collects data on 20 OHIs that were developed to identify occupational injuries, illnesses, and hazards. They are the result of the NIOSH-States Occupational Health Surveillance Work Group, formed by the Council of State and Territorial Epidemiologists (CSTE) and NIOSH in 1998.<sup>2</sup> CSTE's 2011 document titled "Occupational Health Indicators: A Guide for Tracking Occupational Health Conditions and their Determinants" provides information on how OHIs are calculated and their importance to worker safety and health.<sup>3</sup> The OHI guidance document also includes detailed descriptions of data sources, methods of calculation, and limitations of the data and indicators.

This document reports the OHIs for 2009, the most recent year the data for indicator calculation is available. Noteworthy changes from 2008 to 2009 are described in the text, and rates from 2007 to 2009 are shown to highlight 3-year trends in OHI data. Various sources of data are used for calculation of OHIs. At the national level, the Bureau of Labor Statistics (BLS) Geographic Profile of Employment, Survey of Occupational Injuries and Illnesses (SOII), and Census of Fatal Occupational Injuries (CFOI) were used. State-based resources include the Nebraska hospital discharge data, cancer registry, and death certificate data.

Performing occupational health surveillance remains an important issue in Nebraska: more than 930,000 Nebraskans go to work on a given day and each year thousands of those workers are injured or become ill due to an exposure to a health hazard in the workplace. Occupational injuries and illnesses have economic impacts on the families of the workers, employers, and the State of Nebraska.

Continuing to collect, calculate, and analyze the OHIs allows NOSHP to compare the yearly health and risk status of Nebraska's workforce with workers and reveal trends in occupational safety and health issues in Nebraska. By performing surveillance and calculating the OHIs, the NOSHP can guide prevention and intervention efforts in order to reduce the number of occupational injuries and illnesses and make workplaces across Nebraska safer.

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## Employment Demographics

Table 1. Nebraska Employment Demographics, 2007–2009

Year	2007	2008	2009
<b>Total Employment</b>	954,000	967,000	937,000
<b>Percentage of civilian workforce unemployed</b>	3.0	3.3	4.6
<b>Percentage of civilian employment self-employed</b>	9.4	9.4	8.6
<b>Percentage of civilian employment in part-time jobs</b>	19.0	18.9	19.5
<b>Percentage of civilian employment by number of hours worked</b>			
<40 hours	34.6	34.6	40.3
40 hours	31.9	29.8	28.0
41+ hours	33.4	35.5	31.8
<b>Percentage of civilian employment by sex</b>			
Males	53.1	52.7	51.9
Females	46.9	47.2	48.1
<b>Percentage of civilian employment by age group</b>			
16 to 17	2.7	2.5	2.4
18 to 64	92.5	92.2	92.5
65+	4.8	5.2	5.1
<b>Percentage of civilian employment by race</b>			
White	92.6	93.4	92.7
Black	3.4	3.3	4.1
Other	4.0	3.3	3.2
<b>Percentage of civilian employment by Hispanic Origin</b>	6.2	5.9	7.4
<b>Percentage of civilian employment by industry</b>			
Mining	0.1	0.1	0.1
Construction	6.2	6.4	5.5
Manufacturing - Durable goods	5.8	5.8	5.8
Manufacturing - Non-durable goods	6.2	5.5	6.1
Wholesale and Retail Trade	16.5	16.3	16.5
Transportation and Utilities	5.8	5.5	5.4
Information	2.2	2.3	2.3
Financial Activities	8.4	7.7	6.9
Professional and Business Services	8.3	8.6	8.6
Education and Health Services	20.6	21.2	23.5
Leisure and Hospitality	7.5	8.1	7.4
Other Services	3.6	3.8	3.6
Public Administration	4.2	4.0	4.2
Agriculture and Related	4.7	4.7	4.2
<b>Percentage of civilian employment by occupation</b>			
Management, Business, and Financial Operations	16.9	16.7	15.4
Professional and Related Occupations	19.8	20.2	21.5
Service	14.3	15.6	15.6
Sales and Related Occupations	11.9	11.1	10.9
Office and Administrative Support	14.3	12.6	13.2
Farming, Fishing, and Forestry	1.3	1.1	1.1
Construction and Extraction	5.0	5.7	4.7
Installation, Maintenance, and Repair	3.0	3.0	3.4
Production	7.3	7.6	8.0
Transportation and Material Moving	6.2	6.2	6.1

## Indicator 1: Non-Fatal Work-Related Injuries and Illnesses

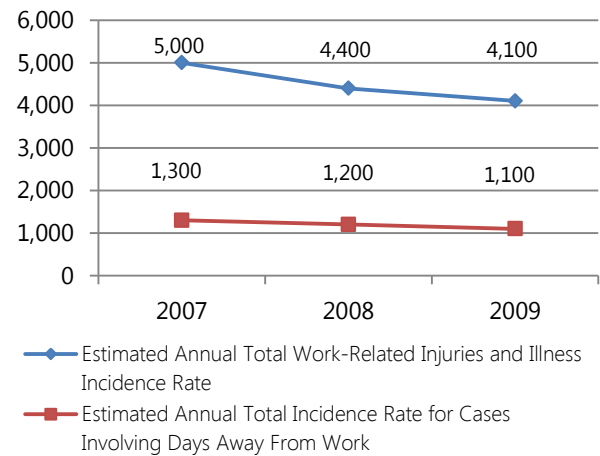
Indicator 1 uses data from the Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses (SOII). The survey results are used to determine estimates on the number of work-related injuries and illnesses by state. In 2009, there were an estimated 25,700 work-related injuries and illnesses in Nebraska (Table 2). The estimated rate of work-related injuries and illnesses per 100,000 full-time equivalent workers (FTEs) was 4,100, and the rate of cases involving days away from work was 1,100 (Figure 1). Both of these rates decreased from 2008.

Table 2. Non-Fatal Work-Related Injuries and Illnesses, Nebraska, 2009

Estimated Number of Work-Related Injuries and Illnesses	25,700
Estimated Number of Cases Involving Days Away From Work	7,100
Estimated Number of Cases Involving More Than 10 Days Away From Work	2,790

Source: BLS Survey of Occupational Injuries and Illnesses (SOII)

Figure 1. Work-Related Injuries and Illnesses Rate per 100,000 FTEs, Nebraska, 2007–2009



## Indicator 2: Work-Related Hospitalizations

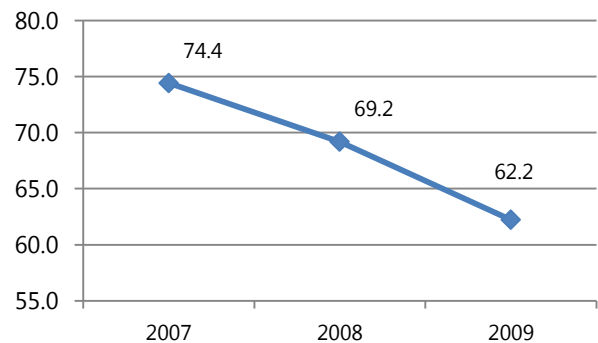
Hospital discharge data was used in combination with the employment data from the BLS Current Population Survey to calculate the number and rate of work-related hospitalizations. There were 583 work-related hospitalizations in Nebraska in 2009 (Table 3), a decline from 2008 (669 hospitalizations). The rate of work-related hospitalizations per 100,000 employed persons aged 16 years or older also fell from 69.2 in 2008 to 62.2 (Figure 2).

Table 3. Work-Related Hospitalizations, Nebraska, 2009

Work-Related Hospitalizations	583
Rate of Hospitalization per 100,000 employed persons	62.2

Source: Inpatient hospital discharge data  
BLS Current Population Survey

Figure 2. Work-Related Hospitalizations Rate per 100,000 Employed Persons, Nebraska, 2007–2009





### Indicator 3: Fatal Work-Related Injuries

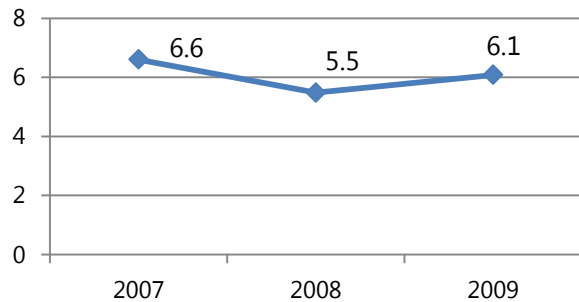
The data source for Indicator 3 is the Census of Fatal Occupational Injuries (CFOI), conducted by the BLS in collaboration with state governments. The number of fatal work-related injuries and the fatality rate per 100,000 employed persons aged 16 years or older are reported below. In 2009 there were 57 work-related fatal injuries (Table 4), which was an increase from 53 fatalities in 2008. The rate of fatal work-related injuries per 100,000 employed persons also increased from 5.5 in 2008 to 6.1 in 2009 (Figure 3).

Table 4. Fatal Work-Related Injuries, Nebraska, 2009

Number of Work-Related Traumatic Fatalities	57
Fatality Rate per 100,000 FTEs	6.1

Source: Census of Fatal Occupational Injuries  
BLS Current Population Survey Data

Figure 3. Work-Related Fatal Injuries Rate per 100,000 FTEs, Nebraska, 2007–2009



### Indicator 4: Work-Related Amputations with Days Away from Work

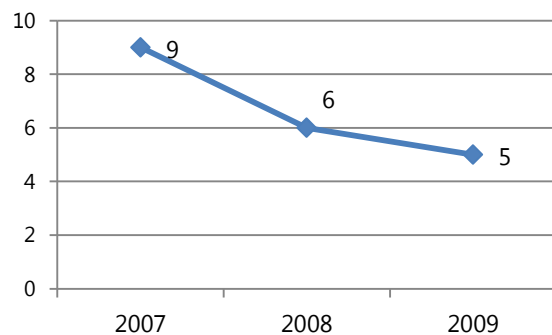
Indicator 4 is based on the SOII, which was described above for Indicator 1. The SOII estimates the number and rate of estimated work-related amputations reported by employers. In 2009, there were an estimated 30 amputations involving days away from work, which is a rate of five amputations per 100,000 FTEs (Table 5). This was a decline from 2008, in which there were 40 amputations involving days away from work and a rate of six amputations per 100,000 FTEs (Figure 4).

Table 5. Work-Related Amputations with Days Away from Work, Nebraska, 2009

Estimated Number of Amputations Involving Days Away from Work	30
Estimated Rate of Amputations Involving Days Away from Work per 100,000 FTEs	5

Source: BLS Survey of Occupational Injuries and Illnesses (SOII)

Figure 4. Rate of Amputations Involving Days Away from Work per 100,000 FTEs, Nebraska, 2007–2009



## Indicator 5: Workers' Compensation Claims for Amputations with Lost Work-Time

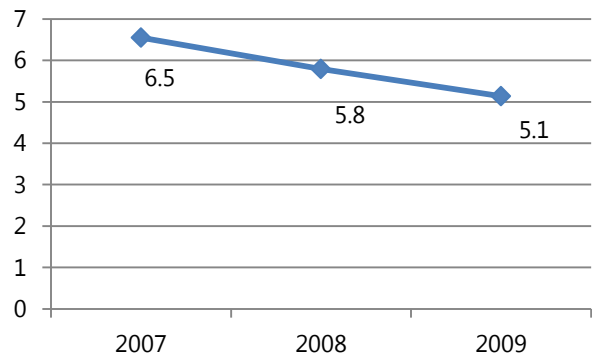
Unlike Indicator 4, which is based on employers reporting amputations via their OSHA logs, Indicator 5 reports on amputations with lost work-time according to the state workers' compensation organization. In 2008, the Nebraska Workers' Compensation Court reported 45 amputations (Table 6). The number of amputations decreased from 2008 to 2009, as there were 52 amputations reported in 2008. The rate of amputations was 5.1 per 100,000 covered workers in Nebraska (Figure 5).

Table 6. Amputations Filed with Workers' Compensation, Nebraska, 2009

Number of Amputations filed with State Workers' Compensation System	45
Rate of Amputations filed with State Workers' Compensation System per 100,000 covered workers	5.1

Source: Nebraska Workers' Compensation Court  
National Academy of Social Insurance

Figure 5. Rate of Amputations Reported to Workers' Compensation per 100,000 Covered Workers, Nebraska, 2007–2009



## Indicator 6: Hospitalizations for Work-Related Burns

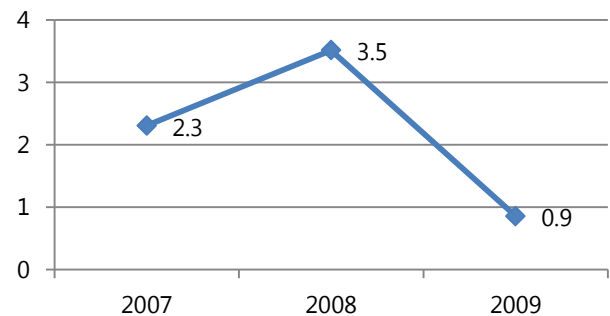
The number of work-related burns was obtained from Nebraska hospital discharge data and was defined by the following case definition: 1) having an ICD-9-CM diagnosis code of 940 through 949 in the principle diagnosis field; 2) admitted for an inpatient hospitalization; 3) 16 years of age or older; 4) a resident of Nebraska; and 5) have workers' compensation as the primary payer. There were 8 work-related burn hospitalizations in Nebraska during 2009 (Table 7), far fewer than in 2008 (34 hospitalizations). The rate of burn hospitalizations also decreased in 2009 to 0.9 per 100,000 employed persons aged 16 years or older (Figure 6).

Table 7. Hospitalizations for Work-Related Burns, Nebraska, 2009

Number of work-related burn hospitalizations	8
Rate of work-related burn hospitalizations per 100,000 employed persons	0.9

Source: Inpatient hospital discharge data  
BLS Current Population Survey

Figure 6. Rate of Work-Related Burn Hospitalizations per 100,000 Employed Persons, Nebraska, 2007–2009



## Indicator 7: Work-Related Musculoskeletal Disorders with Days Away from Work

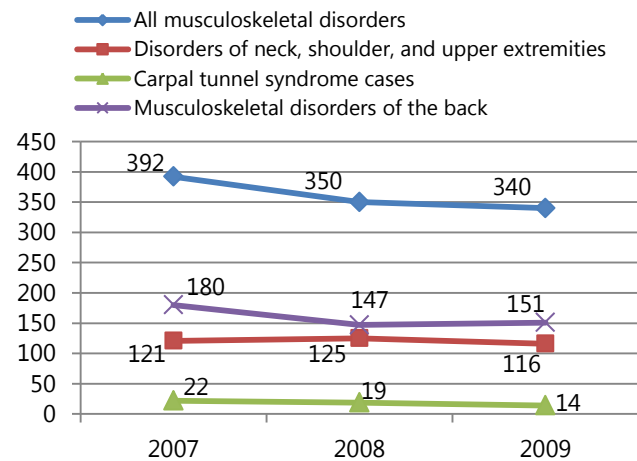
Indicator 7 data are derived from the SOII, as described in Indicator 1, and are based on the estimated number and rate of musculoskeletal disorders (MSDs) with days away from work. In 2009, there were an estimated 2,140 cases of MSDs in Nebraska. An estimated 730 of these cases were MSDs of the neck, shoulder and upper extremities, 90 were carpal tunnel syndrome cases, and an estimated 950 cases were MSDs of the back (Table 8). The rates of MSDs per 100,000 FTEs decreased slightly from 2008, except for a small increase in the MSDs of the back.

Table 8. Estimated Number of Musculoskeletal Disorders, Nebraska, 2009

All MSDs	2,140
MSDs of the neck, shoulder & upper extremities	730
Carpal tunnel syndrome cases	90
MSDs of the back	950

Source: BLS Survey of Occupational Injuries and Illnesses (SOII)

Figure 7. Rate of Musculoskeletal Disorders per 100,000 FTEs, Nebraska, 2007–2009



## Indicator 8: Workers' Compensation Claims for Carpal Tunnel Syndrome with Lost Work-Time

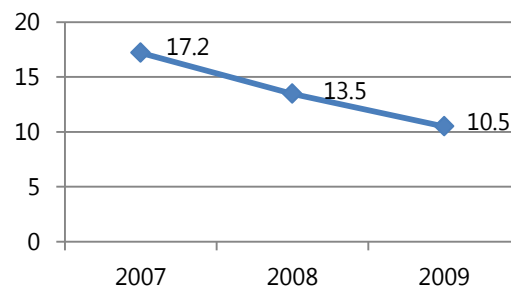
Workers' compensation data was used to examine the number and rate of claims for carpal tunnel syndrome. According to Nebraska Workers' Compensation Court data, 92 cases of carpal tunnel syndrome with lost work time occurred in 2009. The rate of workers' compensation claims for amputations with lost work time was 10.5 per 100,000 covered workers (Table 9). By comparison there were 121 claims for amputations with lost work-time in 2008 and the rate of amputations was 13.5 (Figure 8).

Table 9. Carpal Tunnel Cases Filed with Workers' Compensation, Nebraska, 2009

Number of carpal tunnel syndrome cases filed with State WC	92
Rate of carpal tunnel syndrome cases filed with State WC per 100,000 covered workers	10.5

Source: Nebraska Workers' Compensation Court National Academy of Social Insurance

Figure 8. Rate of Carpal Tunnel Cases Reported to Workers' Compensation per 100,000 Covered Workers, Nebraska, 2007 –2009



## Indicator 9: Hospitalizations from or with Pneumoconiosis

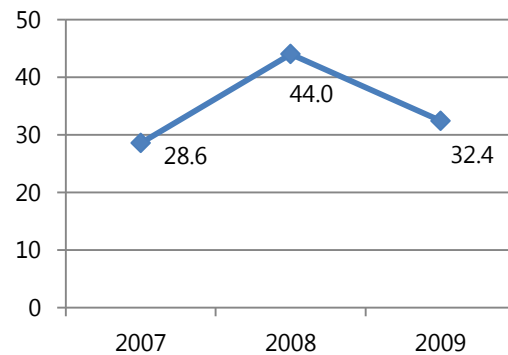
Indicator 9 examines the number and rate of pneumoconiosis hospitalizations, based on hospital discharge data. Data from 2009 indicated that there were 46 inpatient hospitalizations from or with pneumoconiosis (Table 10). Of the total number of pneumoconiosis hospitalizations, the subcategory with the most hospitalizations was asbestosis with 40 hospitalizations, followed by coal workers' pneumoconiosis (n=5), and silicosis (n=1). There were no hospitalizations for other and unspecified pneumoconiosis. The hospitalization rate per million residents was 32.4, a decrease from 44.0 in 2008 (Figure 9).

Table 10. Number of Pneumoconiosis Hospitalizations, Nebraska, 2009

Total pneumoconiosis hospitalizations	46
Coal workers' pneumoconiosis hospitalizations	5
Asbestosis hospitalizations	40
Silicosis hospitalizations	1
Other and unspecified pneumoconiosis hospitalizations	0

Source: Inpatient hospital discharge data

Figure 9. Annual, Age-Standardized Rate of Total Pneumoconiosis Hospitalizations per Million Residents, Nebraska, 2007–2009



## Indicator 10: Mortality from or with Pneumoconiosis

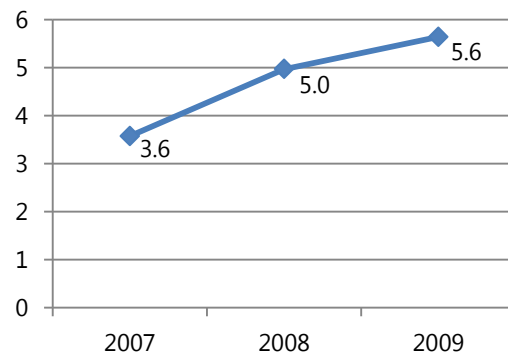
Indicator 10 also focuses on pneumoconiosis, but examines deaths in Nebraska for which pneumoconiosis was an underlying or contributing cause. In 2009 there were eight deaths in Nebraska for which pneumoconiosis was the underlying or contributing cause (Table 11). The majority of those deaths (n=5) were asbestosis deaths and there were two were silicosis deaths. There was one coal workers' pneumoconiosis death and no other and unspecified pneumoconiosis deaths. The rate of pneumoconiosis deaths per million residents increased from 5.0 in 2008 to 5.6 in 2009.

Table 11. Number of Pneumoconiosis Deaths, Nebraska, 2009

Total pneumoconiosis deaths	8
Coal workers' pneumoconiosis deaths	1
Asbestosis deaths	5
Silicosis deaths	2
Other and unspecified pneumoconiosis deaths	0

Source: Nebraska Department of Health and Human Services, Office of Vital Records

Figure 10. Annual, Age-Standardized Rate of Total Pneumoconiosis Deaths per Million Residents, Nebraska 2007–2009



## Indicator 11: Acute Work-Related Pesticide-Associated Illness and Injury

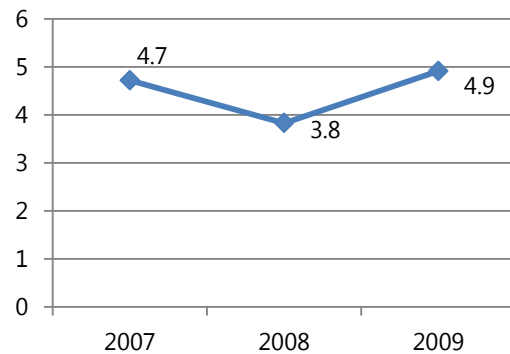
Data on work-related pesticide-associated illness and injury (pesticide poisoning) is obtained from the American Association of Poison Control Centers (AAPCC). In 2009, there were 46 pesticide poisonings called into the Nebraska Regional Poison Center (Table 12). The rate of pesticide poisonings per 100,000 employed Nebraskans 16 years of age or older was 4.9. Compared to the previous year, both the number and rate of pesticide poisonings increased. In 2008, there were 37 cases and the rate was 3.8 (Figure 11).

Table 12. Work-Related Pesticide Poisoning, Nebraska, 2009

Number of work-related pesticide poisonings	46
Rate of work-related pesticide poisonings per 100,000 employed persons	4.9

Source: American Association of Poison Control Centers  
American Association of Poison Control Centers

Figure 11. Rate of Work-Related Pesticide Poisoning per 100,000 Employed Persons, Nebraska 2007–2009



## Indicator 12: Incidence of Malignant Mesothelioma

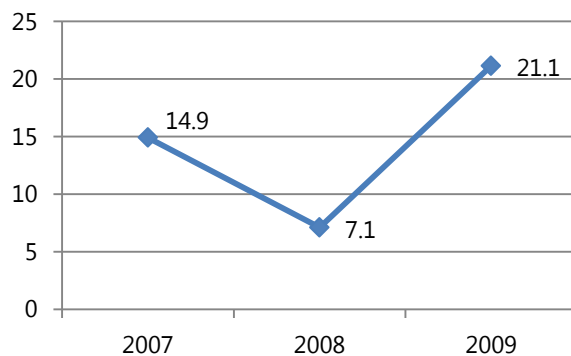
Asbestos exposure is one of the only known causes of malignant mesothelioma, which is a rare lung cancer typically resulting from occupational exposure to asbestos. To determine the magnitude of this problem in Nebraska, the Nebraska Cancer Registry was used to calculate the incident number of mesothelioma cases. There were 30 cases of malignant mesothelioma in 2009 (Table 13). After age standardizing the data, the rate of incident cases per million Nebraska residents was 21.1 (Figure 12). Compared to 2008, both the number and rate of malignant mesothelioma cases increased in 2009. The number of cases rose to 30 from 10 and the rate climbed to 21.1 from 7.1 in 2008.

Table 13. Malignant Mesothelioma, Nebraska, 2009

Number of incident mesothelioma cases	30
Age standardized mesothelioma incidence rate per million residents	21.1

Source: Nebraska Cancer Registry  
U.S. Bureau of the Census  
Year 2000 US Standard population

Figure 12. Age Standardized Incidence Rate of Malignant Mesothelioma per Million Residents, Nebraska, 2007–2009



### Indicator 13: Elevated Blood Lead Levels Among Adults

Data collected by Nebraska’s ABLES program indicated that there were 148 residents 16 years of age or older with a blood level greater than or equal to 10 µg/dL in 2009 (Figure 13). The incidence rate for adults with blood lead levels of at least 10 µg/dL was 6.5 per 100,000 employed persons (Table 14). This was a decline from the previous year, as in 2008 there were 204 residents that had a blood lead level greater than or equal to 10 µg/dL, and in 2008 the incidence rate per 100,000 employed persons was 10.1.

Figure 13. Cases with Elevated Blood Lead Levels, Nebraska, 2007–2009

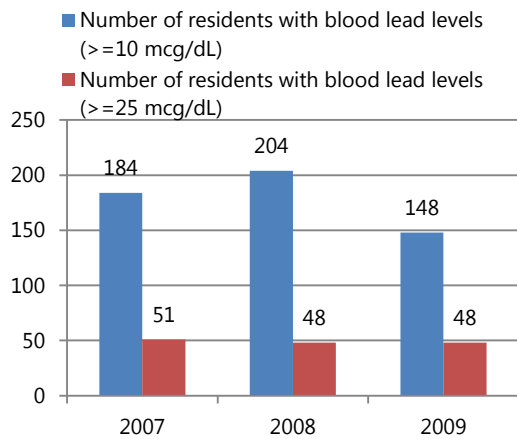


Table 14. Prevalence and Incidence Rates of Elevated Blood Lead Levels per 100,000 Employed Persons, Nebraska, 2007–2009

	2007	2008	2009
Prevalence rate (≥10 µg/dL)	19.3	21.1	15.8
Prevalence rate (≥25 µg/dL)	5.3	5.0	5.1
Prevalence rate (≥40 µg/dL)	0.7	1.2	1.0
Incidence rate (≥10 µg/dL)	N/A	10.1	6.5
Incidence rate (≥25 µg/dL)	N/A	1.4	2.1
Incidence rate (≥40 µg/dL)	N/A	0.4	0.7

Source: Nebraska ALBES Program  
BLS Current Population Survey Data

### Indicator 14: Workers Employed in Industries at High Risk for Occupational Morbidity

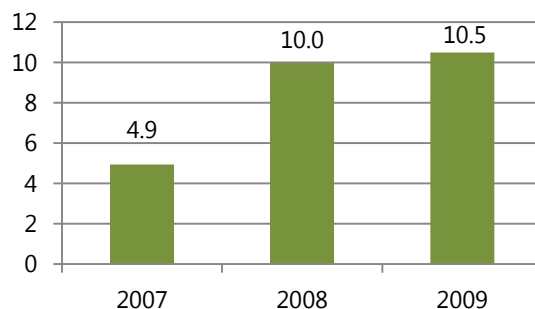
The number of workers employed in industries which are at high risk for occupational morbidity are important barometers for the population of Nebraskans at elevated risk for an occupational injury or illness. The U.S. Census Bureau County Business Patterns (CBP) is used to determine the number of workers employed in high risk industries as defined by NIOSH. There were 81,767 Nebraskans employed in an industry that was at high risk for occupational morbidity in 2009, an increase from 80,225 in 2008 (Table 15). Additionally, 10.5 percent of the working population was employed in a high risk industry in 2009, a small increase from 2008 when 10.0 percent was employed in a high risk industry (Figure 14).

Table 15. Workers in Industries at High Risk for Occupational Morbidity, Nebraska, 2009

Number of workers in high risk industries for occupational morbidity	81,767
Percent of workers in high risk industries for occupational morbidity	10.5

Source: U.S. Census Bureau County Business Patterns

Figure 14. Percent of Workers in High Risk Industries for Occupational Morbidity, Nebraska, 2007–2009



## Indicator 15: Workers Employed in Occupations at High Risk for Occupational Morbidity

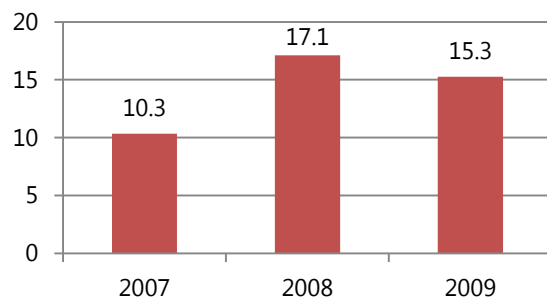
The number of workers employed in high risk occupations for occupational morbidity was identified based on the NIOSH definition of high risk as applied to the employment data from the Current Population Survey (CPS). According to the CPS there were 102,494 Nebraskans employed in high risk morbidity risk occupations in 2009 (Table 16), a decline from 117,880 in 2008. The percent of Nebraska’s workforce working in a high risk occupations was 15.3 percent in 2009, which also declined from 17.1 in 2008 (Figure 15).

Table 16. Workers in Occupations at High Risk for Occupational Morbidity, 2009

Number of workers in high risk occupations for occupational morbidity	102,494
Percent of workers in high risk occupations for occupational morbidity	15.3

Source: BLS Current Population Survey (CPS)

Figure 15. Percent of Workers in High Risk Occupations for Occupational Morbidity, Nebraska, 2007–2009



## Indicator 16: Workers Employed in Industries and Occupations at High Risk for Occupational Mortality

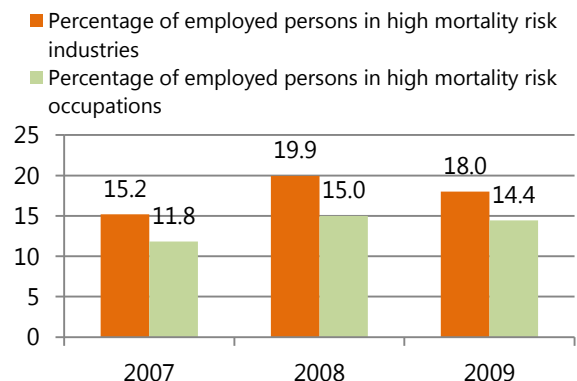
Indicator 16 looks at both industries and occupations in which workers are at high risk for occupational mortality. The case definition for high risk changes every five years, similar to Indicator 14 and Indicator 15, per NIOSH guidance. Based on the CPS data, in 2009 there were 141,610 workers in Nebraska employed in high risk industries for occupational mortality. There were 113,730 workers employed in high risk occupations for occupational mortality (Table 17). The percent of working Nebraskans employed in high risk industries and occupations for occupational mortality both declined from 2008 to 18.0 percent and 14.4, respectively (Figure 16).

Table 17. Number of Workers in High Mortality Risk Industries and Occupations, Nebraska, 2009

	2009
Workers in high risk industries for occupational mortality	141,610
Workers in high risk occupations for occupational mortality	113,730

Source: BLS Current Population Survey

Figure 16. Percent of Workers in High Mortality Risk Industries and Occupations, Nebraska, 2007–2009



## Indicator 17: Occupational Safety and Health Professionals

The number of registered members in Nebraska of the following professional organizations was provided by several organizations. Table 18 shows both the number of occupational safety and health professionals and the rate of occupational safety and health professionals per 100,000 employed persons in Nebraska for 2008 and 2009. The rate of occupational safety and health professionals has remained fairly consistent although it decreased slightly for ACOEM, AAOHN and ASSE members.

Table 18. Number and Rate per 100,000 employed persons of Occupational Safety and Health Professionals, Nebraska, 2008 – 2009

	2008		2009	
	Number	Rate	Number	Rate
Board certified occupational physicians	8	0.8	9	1.0
ACOEM members	14	1.4	11	1.2
Board certified occupational health nurses	49	5.1	50	5.3
AAOHN members	87	9.0	79	8.4
Board certified industrial hygienists	20	2.1	22	2.3
AIHA members	28	2.9	29	3.1
Board certified safety professionals	47	4.9	49	5.2
ASSE members	156	16.1	148	15.8

Source: American Board of Preventive Medicine, American College of Occupational and Environmental Medicine, American Board of Occupational Health Nurses, American Association of Occupational Health Nurses, American Board of Industrial Hygiene, American Industrial Hygiene Association, Board of Certified Safety Professionals, American Society of Safety Engineers, BLS Current Population Survey

## Indicator 18: OSHA Enforcement Activities

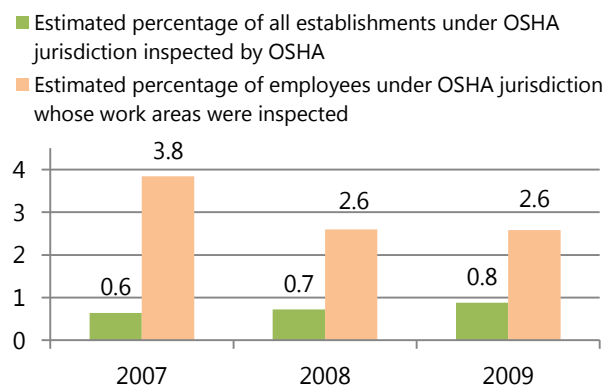
Indicator 18 examines OSHA enforcement activities. The number of inspections and the number of workers at a facility where an OSHA inspection occurred are obtained from OSHA. In 2009, 486 establishments in Nebraska were inspected by OSHA (Table 19). A total of 19,323 working Nebraskans had their workplaces inspected by OSHA in 2009. The percent of OSHA-covered establishments and employees who experienced an inspection did not significantly change from 2008 to 2009 (Figure 17).

Table 19. OSHA Enforcement Activities, Nebraska, 2009

Number of establishments inspected by OSHA	486
Number of OSHA-covered establishments	55,408
Number of employees whose work areas were inspected by OSHA	19,323
Number of OSHA-covered employees	748,901

Source: OSHA annual reports of inspections  
OSHA annual reports of total inspections

Figure 17. Percent of Establishments and Employees Working at an Establishment Where an OSHA Inspection Occurred, Nebraska, 2007–2009





## Indicator 19: Workers' Compensation Awards

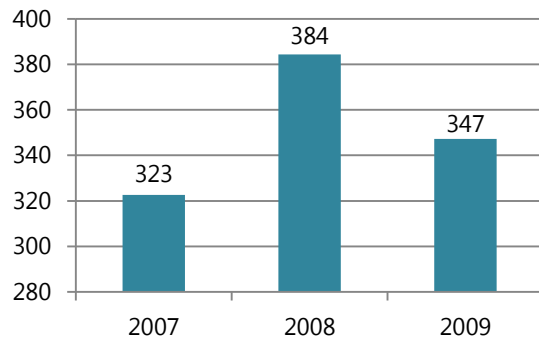
The amount of workers' compensation benefits paid in Nebraska was determined using data from the National Academy of Social Insurance (NASI), which obtains information from workers' compensation agencies across the country. According to the NASI annual report, the workers' compensation claims filed in Nebraska fell from \$345 million in 2008 to \$304 million in 2009. This equated to \$347 in workers' compensation benefits paid per covered worker (Table 20). The average amount of benefits paid per covered worker decreased from \$384 in 2008 (Figure 18).

Table 20. Workers' Compensation Awards, Nebraska, 2009

Total amount of workers' compensation benefits paid (in millions)	\$304
Number of covered workers	876,000
Average amount of workers' compensation benefits paid per covered worker	\$347

Source: National Academy of Social Insurance

Figure 18. Workers' Compensation Benefits Paid Per Covered Worker, Nebraska, 2007–2009



## Indicator 20: Work-Related Low Back Disorder Hospitalizations

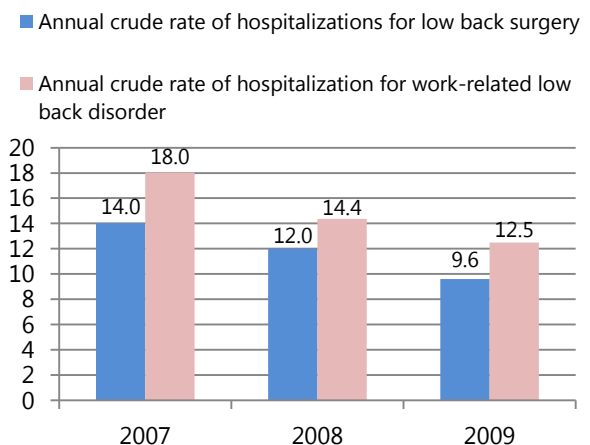
Hospital discharge data was used to determine the number of cases of work-related low back hospitalizations. In 2009, there were 90 surgical low back disorder hospitalizations and 117 low back disorder hospitalizations in Nebraska (Table 21). The rate of hospitalizations for low back surgery per 100,000 employed persons declined from 12.0 in 2008 to 9.6 in 2009. The rate of all low back disorder hospitalizations also decreased from 14.4 in 2008 to 12.5 in 2009 (Figure 19).

Table 21. Number of Work-Related Low Back Hospitalizations, Nebraska, 2009

	Number
Work-related surgical low back disorder hospitalizations	90
Work-related low back disorder hospitalizations	117

Source: Hospital discharge data  
BLS Current Population Survey Data

Figure 19. Rate of Low Back Surgeries and Work-Related Low Back Hospitalizations per 100,000 employed persons, Nebraska, 2007–2009



## Conclusion

A primary goal of NOSHP is to calculate the occupational health indicators (OHIs) and use the findings to prevent occupational injuries and illnesses. Data in this annual report provide a brief summary of Nebraska occupational health data in 2009, as well as a comparison to recent changes from 2007 and 2008 data. The majority of the 20 work-related occupational health indicators decreased from 2008 to 2009. However, there were a few indicators that showed an increase in the number and/or rate of injury and illness.

For example, from 2008 to 2009 the annual number of work-related traumatic fatalities and the number of reported work-related pesticide poisoning cases increased. The incident rate of adults with blood lead levels above 25 mcg/dL rose from 2008. NOSHP will continue to monitor occupational health indicators and develop strategies aimed at reducing the number and rate of work-related fatalities, and hazards that put Nebraskans at greater risk of work-related pesticide and lead poisoning. Additionally, NOSHP staff will continue to study the OHIs to help guide occupational health prevention efforts to ensure that working Nebraskans are protected in the workplace

## References

<sup>1</sup> Nebraska Workers' Compensation Court. Statistical report for injury years 2002-2011. Available at [http://www.wcc.ne.gov/publications/statisticalreport\\_02-11.pdf](http://www.wcc.ne.gov/publications/statisticalreport_02-11.pdf)

<sup>2</sup> Council of State and Territorial Epidemiologists. The role of the states in a nationwide, comprehensive surveillance system for work-related diseases, injuries and hazards: a report from NIOSH--States Surveillance Planning Work Group. Available at <http://www.cste.org/pdffiles/FINREP.pdf>

<sup>3</sup> Council of State and Territorial Epidemiologists. Occupational Health Indicators: A Guide for Tracking Occupational Health Conditions and their Determinants (Updated August 2012). Available at: [http://www.cste.org/dnn/Publications/tabid/430/Agg1692\\_SelectTab/7/Default.aspx](http://www.cste.org/dnn/Publications/tabid/430/Agg1692_SelectTab/7/Default.aspx)



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