



"Working to make Indiana businesses clean and safe, and wages fair and competitive."

MITCHELL E. DANIELS, Jr., GOVERNOR  
Lori A. Torres, Commissioner

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May 7, 2007

Dear Fellow Hoosier,

More than three million Hoosiers work in this great state. In 2006 over 100 Hoosier workers were fatally injured on the job and over 100,000 suffered from a work related injury or illness. Our goal is to ensure that by working in Indiana, you have a safe and healthy place to work and that you can return home each night to your family. You have our commitment that as an agency of the State of Indiana, we have the right bottom line in mind.

The Indiana Department of Labor has worked to capture data using various methods that will assist in the identification of occupational safety and health hazard trends. We have reviewed the collected data and have begun to establish appropriate measures to ensure Hoosiers are working in safe and healthful work environments. Attached is the latest edition of our annual publication, *IN Review*, the publication communicates our findings.

Please take time to review the following study, *IN Review*. It is our expectation that this review be a useful tool in understanding occupational safety and health hazards in your own workplaces. Please let me know what you think, how this publication can be improved, and how the Indiana Department of Labor can assist your efforts to ensure Hoosier workplace safety and health.

Sincerely,

Lori A. Torres  
Commissioner, Indiana Department of Labor

# IN Review

## Indiana Department of Labor Occupational Health and Safety 2007



*Mitchell E. Daniels, Jr.,  
Governor, State of Indiana*

“We have tens of thousands of more Hoosiers working today than just a couple of years ago and the focus on safety in the workplace remains a top priority. The Indiana Department of Labor has made great strides in this area, but there is more to do as we will always be working to provide a better and safer future for all Hoosiers.”


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In 2006, the Indiana Department of Labor (IDOL) published the first issue of *IN Review*. The goal in issuing *IN Review* is to inform people of the IDOL's data based approach to addressing safety. The 2006 issue was well received and we are continuing to disseminate this informative data. By staying ahead of trends and addressing training needs before certain injuries and illnesses become an issue, we do not have to focus our limited resources on reactive remedies. Through partnerships with business organizations, schools and labor, not only are our IOSHA enforcement efforts more effective, but our INSafe consultation services and training are being delivered to those businesses that need it most: high hazard, small businesses. *IN Review* is shared with people who have the ability to affect change at the top: state lawmakers, state agency heads, and industry. The available data has allowed IDOL to address specific problem areas and identify changes that need to be made.

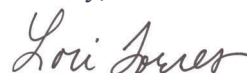


*Lori A. Torres,  
Commissioner of Labor*

The new issue of *IN Review* focuses on not only the numbers of fatalities, injuries, illnesses, but also the historical trends. This information is organized by industry and includes case examples and state efforts, where applicable, in reduction of such injuries and illnesses. *IN Review* is geared toward the consistent review of data from year to year.

It is our expectation that *IN Review* is a useful tool for interested parties in assessing the state of safety in Indiana. While we are working on addressing and correcting the safety issues found in 2006, we also seek to identify and tackle what we see as potential trends to address in 2007.

Sincerely,



## 2005 Overview of Occupational Safety and Health in Indiana

Analyzing work-related fatalities by events, industries, and occupational groups affected exposes key findings about the work-related injuries, illnesses, and fatalities in Indiana. Information used in *IN Review* was provided by the Bureau of Labor Statistics (BLS), Census of Fatal Occupational Injuries (CFOI), BLS Survey of Injuries and Illnesses (SOII) and the Indiana Occupational Safety and Health Administration (IOSHA) records.

### Key Findings: Indiana's Occupational Injuries & Illnesses

- In 2005, Indiana reported 157 workplace fatalities (**Figure 1**). Indiana's Workplace Fatality Rate is 5.1 per each 100,000 Hoosier employees

Indiana's top three industries in 2005 with workplace fatalities include:

Transportation	29
Construction	29
Agriculture	26

- The number of occupational injuries and illnesses reported in 2005 was 135,000 (**Figure 2**). This represents a decrease of 5,900 injuries and illnesses as compared to the data reported in 2004. Since 1996 there has been a 38.6% decrease in the number of occupational injuries and illnesses reported.

The top three industries reporting injuries and illnesses in 2005 in raw numbers are:

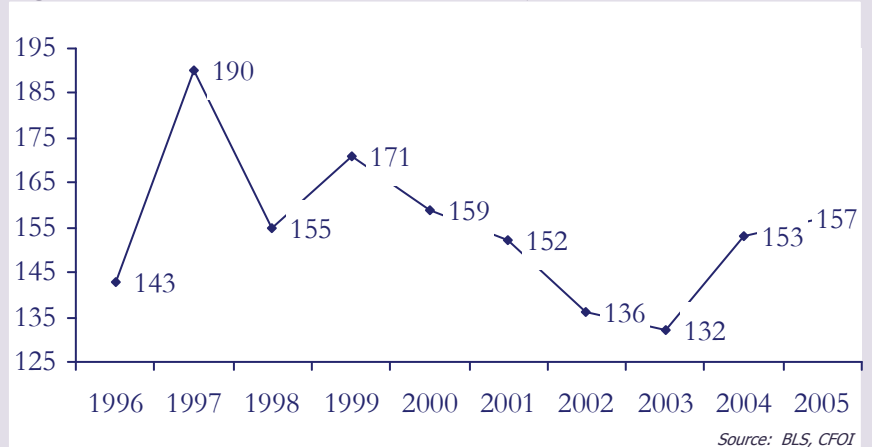
Manufacturing	48,600
State & Local Government	17,500
Healthcare	16,100

- Indiana's corresponding Non-fatal Occupational Injury and Illness Rate is 5.8 per 100 employees (**Figure 3**). Historically, 5.8 is the lowest rate for Indiana; however, Indiana is above the U.S. rate of 4.6.

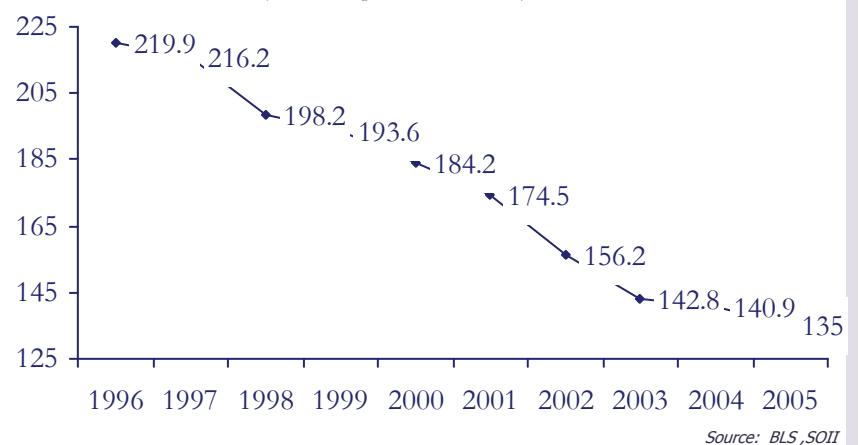
The top three industries reporting injuries and illness in 2005 by rate are:

Manufacturing	8.3
Agriculture	8.1
Healthcare	6.8

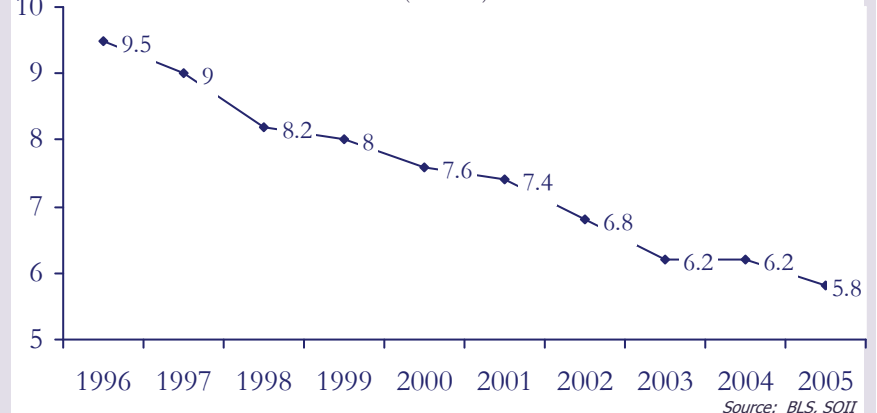
**Figure 1: Indiana's Fatal Occupational Injuries**



**Figure 2: Indiana's Non-fatal Occupational Injuries & Illnesses**  
(total cases, figures are in thousands)



**Figure 3: Indiana's Non-fatal Occupational Injury & Illness Rate**  
(total cases)



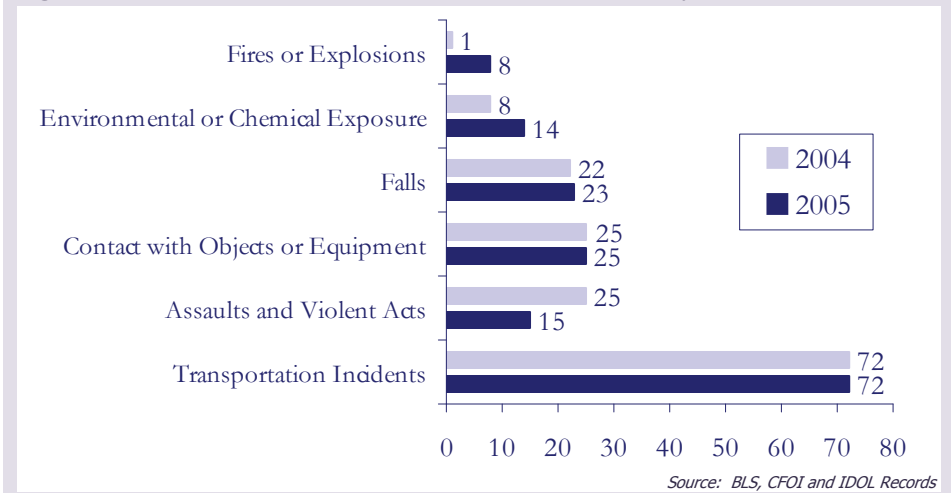
## Causes of Work-Related Deaths in 2005

Forty-six percent of the occupational deaths in the state of Indiana in 2005 are attributed to **transportation-related incidents**. This event category includes highway accidents, incidents involving trains and airplanes, and incidents with vehicles that happen in parking lots or on construction sites. Construction site hazards include the operation of equipment and machinery such as cranes and bulldozers. These fatalities as a result would be categorized as **transportation-related incidents**. The number of reported fatalities in 2005 was exactly the same as in 2004. Each year there were 72 reported fatalities. Accidents involving vehicles such as semis, delivery trucks, cabs, or emergency responders have been the leading cause of occupational fatalities in Indiana and the nation for well over a decade.

The second leading event that caused workplace fatalities in Indiana in 2005 was **contact with objects or equipment**, reporting 25 fatalities. The 2005 reported figure also remained consistent with the figure that was reported in 2004, as there were 25 fatalities recorded in 2004. This event category includes fatalities in which an individual was struck by an object, struck against an object, or was caught between equipment or objects.

Other causes of fatal occupational injuries in Indiana in 2005 include **falls** (23), **assaults and violent acts** (15), **environmental or chemical exposures** (14), and **fires or explosions** (8) (Figure 4).

**Figure 4: 2004-2005 Indiana Occupational Fatalities by Event**



## Indiana's Top Three Deadliest Industries in 2005

Nearly 18% of Indiana's recorded fatalities occurred in the **transportation and warehousing** industry; making it one of the three most deadly industries in which to work in Indiana. Consistent with the findings from the fatalities by event in Indiana, occupations in transportation and warehousing account for 29 workplace deaths.

Fatalities in transportation and warehousing have steadily climbed since 2001. Work-related hazards commonly found in the warehousing industry that could result in serious injury or death include not properly securing pallets or stacking products or materials at levels that would cause items to fall from above and strike workers. Transportation-related incidents also include the reported deaths of semi-truck and trailer drivers involved in highway crashes.

Indiana's other top ranking industry with respect to Hoosier workplace fatalities in 2005 is the

**construction** industry. Construction-related fatalities accounted for 18% of all occupational fatalities in Indiana in 2005. The leading fatal event reported by the construction industry is fatalities by falls.

**Agriculture, forestry, fishing, and hunting** ranks as the third industry consisting of Hoosier workplace deaths. In 2005, 26 Hoosiers were killed in this industry. Twenty-one (21) of the deaths recorded are attributed to crop production occupations, while the additional five are attributed to the logging occupation. Of the 21 Hoosier workplace fatalities in the crop production segment, 14 are attributed to transportation-related incidents. Transportation and daily operation of farm equipment and machinery is one of the many occupational hazards faced by Hoosier farmers each day. Other farming occupational hazards include being struck by or caught in farming equipment, or equipment that is thrown off balance and rolls over the operator.

### INReview Fact:

**One of every two workplace fatalities in Indiana in 2005 involved a vehicle.**

## Manufacturing Industry Injury and Illness Trends

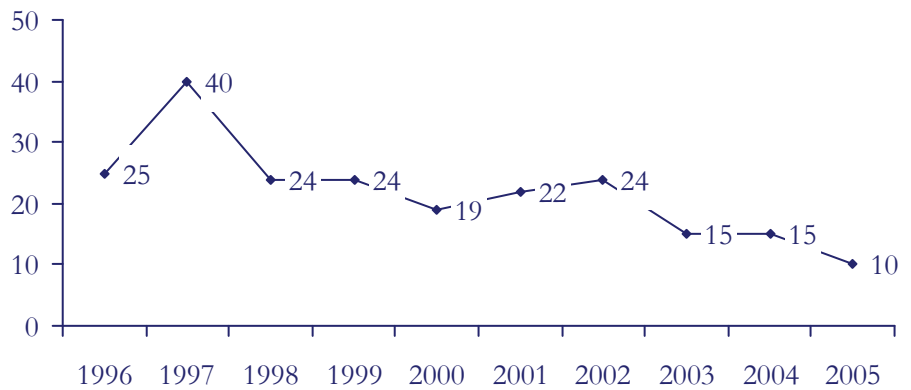
**M**anufacturing has the greatest number of injuries and illnesses and the highest illness and industry rate of all Hoosier industries. In the manufacturing segment, Indiana recorded a total of 10 (**Figure 5**) workplace fatalities. This represents five fewer deaths than reported in 2004. Nationwide, the manufacturing industry reported a total of 393 fatalities in 2005. Efforts to ensure workplace safety and health in the manufacturing industry are producing results and these numbers are going down.

More than 8,000 (**Figure 6**) injuries and illnesses resulted in days away from work in 2005. The reported cases involving days away from work have been significantly reduced from 1996. Ten years ago, in 1996, there were a reported 20,583 cases with days away from work. Indiana's average days away from work in the manufacturing industry was five in 2005—nationwide average was reported at seven. However, more than 20% of these cases in 2005 resulted in more than one month away from work.

In 2005, a total of more than 48,600 injuries and illnesses were recorded in the manufacturing industry alone. The Indiana manufacturing industry represents 41.4% of all Hoosier occupational illnesses and injuries recorded in 2005. As a nation, 21.3% of all occupational illnesses and injuries are attributed to the manufacturing industry in 2005.

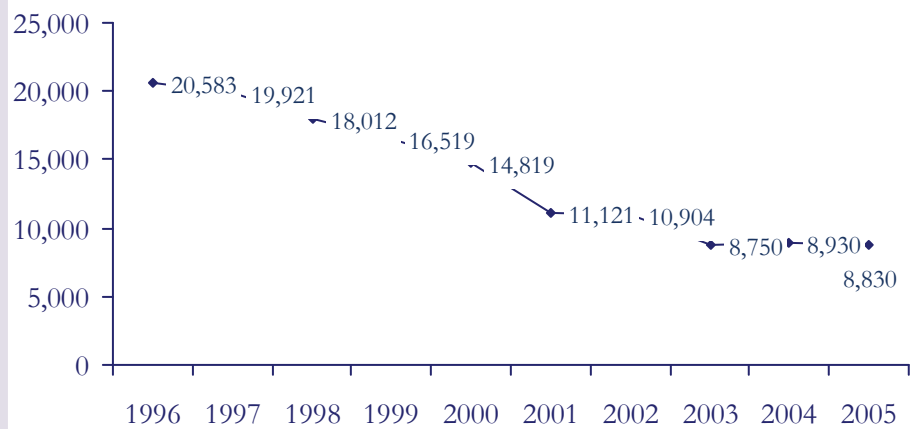
Indiana's Non-fatal Injury and Illness Rate continued on its downward trend in 2005. In 2005 the rate was calculated at 8.3 (**Figure 7**). This rate indicates that 8.3 of every 100 Hoosier employees that work in the manufacturing industry became ill or injured while at work in 2005.

**Figure 5: 1996-2005 Manufacturing Fatal Occupational Injuries**



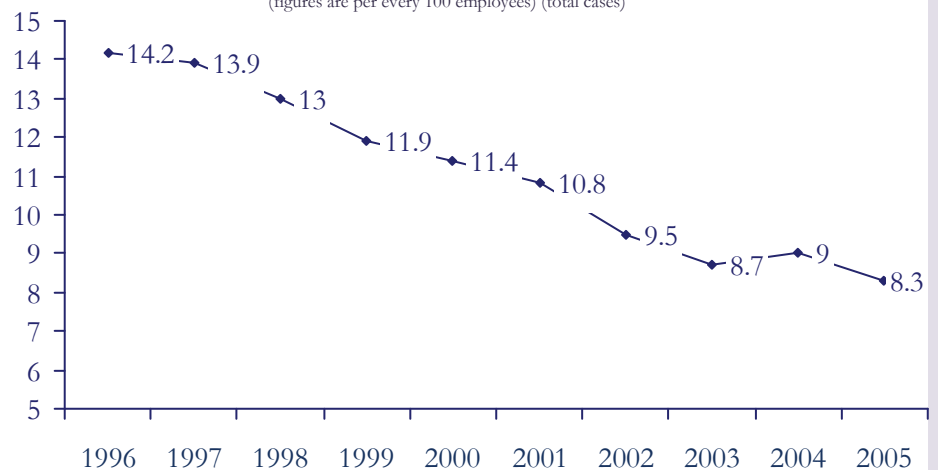
Source: BLS, CFOI

**Figure 6: 1996-2005 Manufacturing Non-fatal Occupational Injuries & Illnesses**  
(cases with days away from work)



Source: BLS, SOII

**Figure 7: 1996-2005 Manufacturing Non-Fatal Injury & Illness Rate**  
(figures are per every 100 employees) (total cases)



Source: BLS, SOII



## Manufacturing, a Noisy Work Environment

Indiana's manufacturing industry employs more than 500,000 Hoosiers, making manufacturing the number one employer of working Hoosiers. One of the industry's most trying issues is with hearing loss on the job and how it can be prevented.

Noise in the workplace is not a new hazard. Too much noise exposure has the potential to cause a temporary reduction in hearing. Short term problems such as these typically subside within a few minutes or hours of withdrawing from the noise. Repeated exposures, however, to loud noise can lead to permanent hearing loss. The National Institute for Occupational Safety and Health (NIOSH) recommends removing hazardous noise from the workplace.

Hearing conservation programs (29 CFR 1910.95) are required by federal and state occupational safety and health agencies. The Occupational Safety and Health Administration's (OSHA) Hearing Conservation Amendment became effective in 1983. Ideally, a carefully conducted audit should be performed before the start of any new hearing conservation program to be sure of the program's effectiveness. The Audits should be performed on systems as they exist.

When it is not possible to remove a harmful agent or relocate a worker to a safer area, workers must be protected. In the arena of hearing loss prevention, protection is multifaceted. It includes exposure assessment, provision of protective equipment, assessment of hearing with appropriate management and follow-up actions, employee education and training, and continuous evaluation of the program's effectiveness. A well-designed and implemented program

### 2005 Case File

## It Happened Here

**The Story:** On September 5, 2006, a 26 year-old female, (the victim) was fatally injured when she was struck by a fork-lift. The victim was having a conversation with a co-worker at a woodcutting facility where noise decibel levels were consistently between 90 and 92. Immediately following the conversation with the co-worker, the victim began to walk back to her respective work station, which was located across the work aisle. The victim stepped in front of an oncoming forklift traveling in the aisle. The forklift struck and ran over the victim.

**Cause of Death:** Blunt Force Trauma, Crushed to Death

is consistent with good health and morale, and in some cases higher business. Reductions in noise production efficiency. The exposure may result in less program should be fatigue and irritation, and monitored regularly to possibly fewer stress-related health ensure continued complaints. The company benefits effectiveness. The company benefits from reduced worker compensation payments, medical expenses, and a reduced likelihood of a citation issued by IOSHA for hearing conservation violations. Reduced Hearing Conservation Program, employers may visit the noise exposures can also be associated with improved employee federal OSHA Website.

### INReview Fact:

In 2005 there were 800 cases of hearing loss reported.

### Fast Stats: Indiana Manufacturing

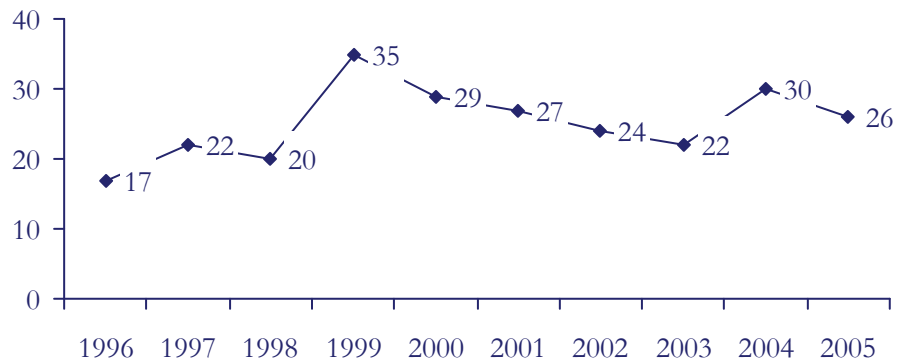
Average Employment.....	571,400
Workplace Fatalities in 2005.....	10
Occupational Injury & Illness Rate.....	8.3
Injuries & Illnesses Involving Days Away from Work.....	8,830
Median Number of Days Away from Work.....	5
Injury & Illness by Gender:	
74% Men	26% Women

## Agriculture Industry Injury and Illness Trends

Twenty-six of the 157-reported workplace fatalities in Indiana in 2005 are attributable to the agriculture industry (**Figure 8**). The agriculture industry is comprised of agriculture, forestry, fishing, and hunting. This is an industry in which the Indiana Department of Labor has limited jurisdiction. As compared to 2004, the agriculture industry reported 14% fewer deaths in 2005. Three of the fatalities in the agriculture industry are attributed to the logging occupations. The remaining 23 workplace deaths happened on traditional crop and animal farms. The injury and illness rate as apposed to occupational fatalities in 2004 was 5.1 and increased to 8.1 in 2005 (**Figure 9**). This rate does not include the occupations in the forestry, fishing, or hunting segments. This rate, not too far off from the industry high in 2000 (8.8), means that eight out of each 100 workers on Indiana farms are injured beyond first aid treatment while working. In 2005, almost half (43%) of the occupational injuries and illnesses in the agricultural industry in Indiana occurred to employees that were between the ages of 25-34.

A significant number of agricultural injuries and illnesses affect Hispanic workers in Indiana. At least 17.5% of agricultural injuries and illnesses happen to Hispanics. This percentage is likely higher, as 37.5% of the occupational injury and illness reports do not identify the race of the victim. Considering all Hoosier occupational injuries and illnesses, this is a significant percentage. Hispanic workers account for only 4.4% of these injuries and illnesses in Indiana. Twenty-four (24%) percent of workplace injury and illness reports in Indiana do not identify the race of the victim.

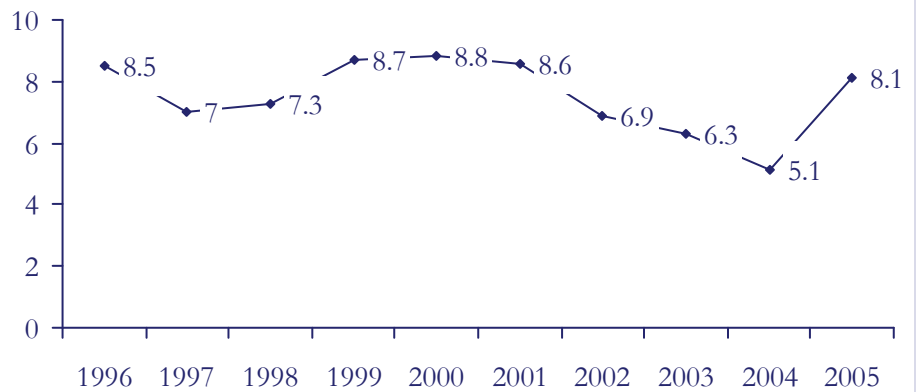
**Figure 8: 1996-2005 Agriculture's Fatal Occupational Injuries**



Source: BLS, SOII

**Figure 9: 1996-2005 Agriculture's\* Non-Fatal Injury & Illness Rate**

(figures are per every 100 employees) (total cases)



\*does not include forestry, fishing, or hunting.

Source: BLS, SOII

### 2005 Case File

### It Happened Here

**The Story:** On March 23, 2005, a 57 year-old (the victim) sustained a fatal injury while working with grain handling equipment. The victim attempted to cross over an eight-inch auger. Typically, a cover is found on the auger, usually held in place by a wire. In this particular instance, the cover was either not in place or the victim stepped onto the cover and caused it to shift. The victim's left leg became entangled in the rotating auger, causing the auger to sever the victim's limb at the pelvis. The victim was able to free himself and was conscious when he was found by a fellow employee. First Aid was administered to the victim on-site. The victim was transported to the hospital, where he was pronounced dead.

**Cause of Death:** Exsanguination (Victim Bled to Death)

# Agriculture, Cornerstone of Indiana's Economic Growth

Contributed by: Andy Miller, Director, Indiana State Department of Agriculture

**A**griculture is the cornerstone of Indiana's economy and represents a significant opportunity for growth and economic development. Food, farm, and forestry products contribute more than \$25 billion to Indiana's economy. Governor Mitch Daniels recognized this sector's importance at the beginning of his administration and proposed the state's first cabinet-level agriculture agency, the Indiana State Department of Agriculture (ISDA) which was supported unanimously by the state legislature.

ISDA's vision for Indiana is to be a global leader in food and agriculture innovation and commercialization. An increased emphasis on agriculture should also yield an increased focus on Hoosier farm safety. Farm safety is not only a concern for farming families in Indiana, but also for Hoosier citizens. In order for Indiana to maintain our advantage in economic development, Indiana must continue to place farm safety as a concern.

Due to inherent farming risks such as operating heavy machinery, working in inclement weather, and tending to livestock, Hoosier farmers are the most affected industry group by fatal occupational injuries since 1999. American agriculture as a whole, however, has become much safer due to the development of safety features such as shield guards and automatic shut-off mechanisms on farm equipment. While Hoosier can always work more safely, Hoosier farmers and ranchers are operating under much safer conditions than they did 20 or 30 years ago.

ISDA, by partnering with other organizations, is committed to reduce the number of Hoosier fatalities in the coming year by connecting Hoosier farmers to resources that will enable them to have the safest and healthiest places to live and work. Farming equipment manufacturers and their research efforts to incorporate safer practices and as well as develop additional safety precautions. Hoosiers have many resources and tools available to assist with maintaining safe on-farm practices. For example, the Boone County Indiana Farm Bureau has an educational program to remind all Hoosiers about the importance of farm safety. "Be patient, be kind-and stay behind," was created to educate *all* Hoosiers about the importance of operating motor vehicles in a safe and responsible manner on rural roads. The movement of heavy, often over-sized farming equipment on rural roadways

and highways poses an occupational safety risk to operators of this equipment.

ISDA supports the efforts of the Indiana Rural Safety and Health Council to raise public awareness of farm hazards and provide safety training and practices to Indiana farmers. Purdue University's Center for Agricultural Safety and Health offers assistance in guiding Hoosier farmers in making their homes and work places safe by providing educational resources as well as influencing public policy.

ISDA encourages all Hoosiers to familiarize themselves on the numerous farm safety programs that are offered in Indiana and nationwide.

**INReview  
Fact:**  
**Fifty-seven percent (57%) of fatalities on farms in 2005 involved a tractor.**

**Log On!**

- Indiana Rural Safety & Health  
⇒ <http://www.farmsafety.org>
- National Education Center for Agriculture Safety  
⇒ <http://www.nsc.org/necas>
- Purdue University Agriculture Safety Program  
⇒ <http://www.pasture.ecn.purdue.edu/~agsafety>

**Fast Stats: Indiana Agriculture**

Average Employment.....	8000*
Workplace Fatalities in 2005.....	26
Occupational Injury & Illness Rate.....	8.1
Injuries & Illnesses Involving Days Away from Work.....	280
Median Number of Days Away from Work.....	4
Injury & Illness by Gender:	
86% Men	14% Women

\*Includes only on-farm workers



## Transportation Industry Injury and Illness Trends

For decades, the transportation industry has been the leading industry with the greatest number of workplace fatalities in Indiana and nationwide. This is an industry in which IOSHA has limited jurisdiction. In 1999, the transportation fatalities in Indiana peaked at 34. Twenty-eight (29) (Figure 10) of Indiana's total occupational-related fatalities are attributed to the transportation industry. Twenty-four (24) of these fatalities were a direct result of a transportation incident. Transportation-related injuries, illnesses, and fatalities include air, rail, truck, transit and ground passenger transportation, and couriers and messengers. Twenty-three (23) of the 2005 transportation fatalities were in the truck transportation segment. Despite the influx of thousands of additional working Hoosiers in 2005, transportation workplace fatalities remained consistent with 2004.

Over 3,000 occupational injuries and illnesses were recorded in 2005. The industry's injuries and illnesses resulted in an average of 20 days away from work for affected Hoosier employees. Sub industries of transportation with the highest number of average days away from work include **couriers and messengers**, 41% and **rail employees**, 40%.

The 2005 illness and injury incident rate in the transportation industry is 5.6, meaning that 5.6 of every 100 Hoosier employees in this industry either becomes ill or injured while at work. In 2005, incidents involving illness or injury affected more **men**, 89% than **women**, 11%. The age range most often affected by workplace illnesses and injuries in the transportation industry in 2005 is **35-44**, 38%.

Figure 10: 1996-2005 Transportation's Fatal Occupational Injuries



### 2006 Case File

## It Happened Here

**The Story:** On March 12, 2006 a 50 year-old truck driver (the victim), sustained fatal injuries as a result of being struck by a load of axles. At approximately noon the day of the incident, the victim backed up to a load that had not been tied down and hooked up the trailer to the tractor. The axles were bundled together in groups of 16, secured with metal straps, and stacked two bundles high on the trailer. There were a total of 15 bundles. The victim climbed on top of the load of axles to tie down the axles when the axles shifted and the top bundle came loose. The victim was crushed when the axles fell from their resting spot striking him on his back and his left leg. The victim was later found on the ground unresponsive. The victim was pronounced dead at the scene.

**Cause of Death:** Blunt Force Trauma

### Fast Stats: Indiana Transportation

Average Employment.....	105,200
Workplace Fatalities in 2005.....	29
Occupational Injuries & Illness Rate.....	5.6
Injuries & Illnesses Involving Days	
Away from Work.....	3,900
Median Number of Days Away	
from Work.....	20
Injury & Illness by Gender	
89% Men	11% Women

# Transportation: Moving Indiana's Economy into the Future

Contributed by: Megan Kaderavek, Indiana Department of Transportation, Office of Communications

**A**s the *Crossroads of America*, Indiana is uniquely positioned as a hub in the nation's transportation system. In fact, 80-percent of the nation's population lives within a day's drive of Indiana. In 2006, Indiana Governor Mitch Daniels announced Major Moves, a bold plan to capitalize on this economic advantage. Under the ten-year fully funded Major Moves plan, Indiana is beginning a decade of record-breaking construction. When Major Moves construction is complete in 2015, Indiana's superior road infrastructure and ideal location will make the Hoosier state a global distribution and logistics hub. Just as Indiana is leading the way in transportation innovation with Major Moves, we must also lead the way in transportation safety. While transportation safety has increased dramatically in the past decades, it remains one of the most dangerous activities we engage in during our daily lives—both on and off the job.

Traffic accidents not only contribute to hundreds of deaths each year, they also take a devastating toll on the Hoosier economy. The cost of traffic crashes in Indiana was estimated to be \$4.3 billion in 2004 – that's \$700 for every man, woman and child in the state.

In 2005, 29 workplace fatalities were reported from the transportation industry. This was the same number as reported in 2004. Non-fatal occupational workplace injuries and illnesses resulted in an

average of 20 days away from work in Indiana's transportation industry.

To make the most out of available highway safety funding, INDOT is taking an in-depth look at the impact of accident countermeasures. There are literally hundreds of accident countermeasures experts can choose from; adding a road shoulder, installing a median barrier or clearing brush at an intersection are just a few examples. INDOT is evaluating accident countermeasures to determine which projects give the most "bang for the buck," stretching every safety dollar to provide the greatest possible benefit.

Reducing transportation incidents requires detailed knowledge of where the accidents are occurring—that's why Indiana is stepping up its efforts to improve the quality of the state's crash databases. With high-quality, easily accessible crash data, state and local transportation agencies can make better decisions about the best places to direct funding and resources. Indiana is breaking new ground in its efforts to improve transportation safety. In 2006, the Indiana Department of Transportation (INDOT) joined many safety partners to announce the state's first-ever Strategic Highway Safety Plan. The plan outlines a comprehensive approach to improving highway safety using the four E's: engineering, enforcement, education, and emergency response and sets an aggressive goal for decreasing transportation accidents in Indiana.

Indiana is committed to

staying on the cutting edge of transportation safety. INDOT is constantly advancing the science of highway safety by participating in highway research and updating our experts on the latest advances with internal communication and training. In addition, Indiana has more experts working in the area of transportation than ever before. This includes the creation of a new INDOT Work Zone Safety Division in 2006, which was created to reduce accidents and fatalities in Indiana's work zones.

Finally, INDOT is encouraging Hoosier motorists to take transportation safety into their own hands through education and outreach. Many work-related transportation incidents can be prevented if drivers remain alert and exercise caution.

Indiana's employers can assist in making Indiana's roadways safer by spreading the word about driving safety and by participation in national safe driving campaigns like Drive Safely Work Week. Together, we can reduce transportation accidents in Indiana and make living and working in the Hoosier state better than ever.

## INReview Fact:

**Thirty-eight percent (38%) of occupational fatalities occurred on a street.**

### Log On!

- Indiana Department of Transportation  
⇒ <http://www.in.gov/dot>
- Network of Employers for Traffic Safety  
⇒ <http://www.trafficsafety.org>
- American Traffic Safety Services Association  
⇒ <http://www.atssa.com>

## Construction Industry Injury and Illness Trends

In 2006, Governor Daniels announced that across the state, Indiana will invest nearly \$12 billion on hundreds of new road construction, preservation, resurfacing, and other local construction projects. With an increased amount of construction in the Hoosier state, it is necessary to place an even greater emphasis on safety in this industry.

In 2005, 29 (Figure 11) construction-related workplace fatalities were reported statewide; six more than in 2004. This increase in the number of fatalities may be explained by the increase of the Hoosier workforce. In 2005, there were nearly 32,000 more construction workers in the state of Indiana than in 2004. Non-fatal injuries and illnesses in the construction

industry resulted in an average of 11 days away from work. There were a total of 2,610 injuries and illnesses that resulted in days away from work. The age group with the most reported injuries and illnesses in this industry is 25-34, 37.2%. The most frequent event causing time away from work in this industry in 2005 was documented as **bodily reaction and overexertion** at 31%. **Contact with objects**, accounted for 28%, and being **struck by an object** accounted for 12% of all injuries in 2005 in the construction trade industry. The most frequent type of injury includes **sprains, strains, and tears**.

### INReview Fact:

Nearly 35% of Non-fatal injuries and illnesses resulted in loss of more than one month's work in the construction industry.

Figure 11: 1996-2005 Construction's Fatal Occupational Injuries



Source: BLS, SOII

### 2005 Case File

## It Happened Here

**The Story:** On August 26, 2006, five electricians were injured (one fatally) while working in the electrical room of a building under construction. The electricians were pulling cables from an electrical distribution center to the main panel when a piece of metal came in contact with the live panel. The panel was charged with 12,000 volts of electricity and shorted. The resulting electrical arc blast burned all five workers. A 35 year old victim was burned over 95% of his body and died from his injuries a month after the incident. Two victims, ages 27 and 29, were hospitalized and two victims were treated for their injuries and did not require hospitalization.

**Cause of Death:** Extreme Trauma, Severe Burns

### Fast Stats: Indiana Construction

Average Employment.....	147,800
Workplace Fatalities in 2005.....	29
Occupational Injury & Illness Rate.....	5.6
Injuries & Illnesses Involving Days Away from Work.....	2,610
Median Number of Days Away from Work.....	11
Injury & Illness by Gender:	
99% Men	1% Women

## Healthcare and Social Assistance Industry Injury and Illness Trends

Indiana's healthcare and social assistance employers face multifaceted challenges in pursuit of ensuring Hoosier occupational safety and health. Working with the public and exposures to illnesses presents employers and employees with unique challenges.

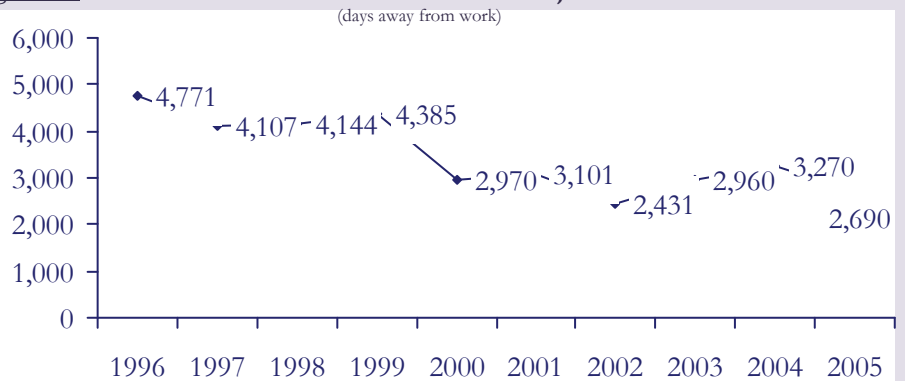
Healthcare and social service workers face significant risk of job-related violence. Workplace violence means violent acts (including physical assaults and threats of assaults) directed towards persons at work or on duty as defined by the National Institute for Occupational Safety and Health (NIOSH). Assaults from patients and/or clients represent serious safety and health hazards in this industry as nearly 48% of non-fatal assaults in the workplace are committed by a healthcare patient. Non-fatal assaults occur almost equally among women and men.

The 2005 rate at which Hoosier healthcare employees are injured on-the-job is 6.8. This means, nearly seven of every 100 employees are injured or made ill while at work. Thus, making healthcare the third highest industry with occupational injuries and illnesses. There were 2,690 (**Figure 12**) occupational-related injuries and illnesses in the healthcare industry reported that resulted in days away from work. The more severe cases resulted in four deaths for the healthcare and social assistance industry in 2005.

### INReview Fact:

**Two-thirds of nonfatal assaults by a person occurred in the healthcare and social service industry.**

**Figure 12: 1996-2005 Healthcare's Non-Fatal Injuries & Illnesses**



Source: BLS, SOII

### Healthcare Inspection Statistics

**October 31, 2005—  
September 30, 2006**

Standard Industrial Code (SIC): 80, Healthcare Facilities

Healthcare Facility Inspections.....	22
Total Number of Citations Issued.....	53
Total of Penalties Issued.....	\$17,615

#### Top Five Standards Cited:

Electrical, General Requirements.....	10
Machinery and Machine Guarding, Abrasive Wheel Machinery.....	7
Electrical Wiring Design and Protection.....	7
Machinery and Machine Guarding, Woodworking Machinery and Requirements.....	5
Machinery and Machine Guarding, Mechanical Power-Transmission Apparatus.....	4

### Fast Stats: Indiana Healthcare

Average Employment.....	308,400
Workplace Fatalities in 2005.....	4
Occupational Injuries & Illness Rate.....	6.8
Injuries & Illnesses Involving Days Away from Work.....	2,690
Median Number of Days Away from Work.....	5
Injury & Illness by Gender	
19% Men	81% Women



## State and Local Government Injury and Illness Trends

State and local government provide constituents with necessary services such as transportation, public safety, healthcare, utilities, and courts.

Professionals that work in government occupations are subjected to many occupational hazards that include: fatigue from working irregular and long shifts, or responding to emergency situations such as traffic accidents. In 2005, Indiana reported nine (9) deaths in the state and local government sector. The state and local government occupational injury and illness rate is 6. This rate reflects that 6 of each 100 employees became injured or ill while at work. State government had 1,710 injuries and illnesses resulting in an average two days away from work. Government is second only to manufacturing in the number of reported injuries and illnesses.

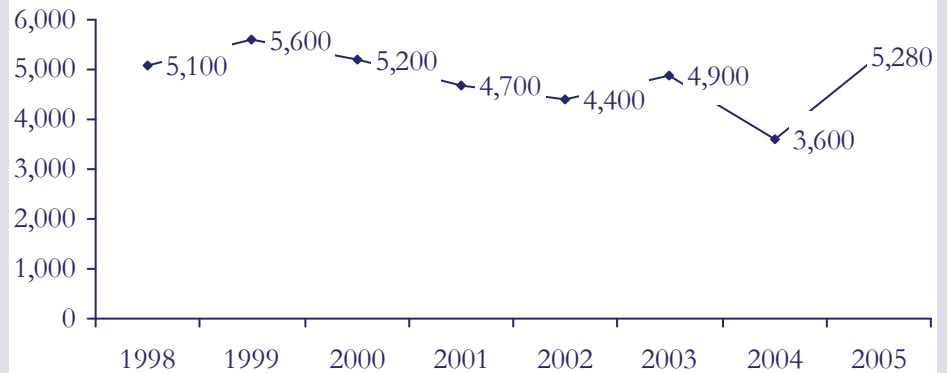
Nearly 57% of the reported injuries and illnesses were to employees in the public administration field which includes executive, legislative, and other general government support. Twenty-two percent (22%) of the reported occupational injuries and illnesses were reported by employees in the educational service sector and 19% was the reported figure in 2005 for state hospital employees.

Local government employees reported 3,580 (44%) occupational injuries and illnesses in 2005 with a median of six days away from work.

### INReview Fact:

**Three (3) police officers were fatally injured in Indiana in 2005.**

**Figure 13: Government Non-Fatal Occupational Injury & Illness**  
(days away from work)



Source: BLS, SOII

### 2006 Case File

## It Happened Here

**The Story:** On June 25, 2006, a 35-year old volunteer firefighter (the victim), sustained fatal injuries while fighting a house fire. The cause of the fire was a lightning strike, the fire originated in the basement of the home. The victim was the first firefighter to enter the structure. It was noted that heavy smoke was observed rolling from within the residence through the home's front door. The victim fell through the through the home's main floor and to the basement. It was reported that the victim was initially conscious and called for help. When located, the victim was unconscious and not wearing a protective mask or helmet. The victim was removed from the basement by fellow firefighters and treated by the emergency medical technicians. When treated by the EMT's, the victim had a faint carotid pulse. The victim was transported to the hospital, but died upon arrival.

**Cause of Death:** Carbon Monoxide Intoxication.

### Fast Stats: Indiana State & Local Government

Average Employment.....	362,200
Workplace Fatalities in 2005.....	9
Occupational Injuries & Illness Rate.....	6
Injuries & Illnesses Involving Days Away from Work.....	5,280
Median Number of Days Away from Work.....	5
Injury & Illness by Gender	
48% Men	52% Women



## Retail Trade Injury and Illness Trends

Once nearly every 28 days, a Hoosier is killed while working in the retail trade industry. In 2005 there were 13 reported deaths attributed to workplace violence in Indiana. Nation-wide, there were 787 workplace fatalities reported that were a result of occupational violence in 2005. A reported 3,320 non-fatal injuries and illnesses were recorded in this industry in Indiana in 2005. The 2005 rate for injury and illness in this industry was 5.1 per 100 employees, each case resulting in an average of five days away from work.

The risk of workplace violence is most often associated with specific workplace factors such as dealing with the public, the exchange of money, the delivery of goods or services, late or early morning shifts, or working alone or in small numbers.

Access to exits from the workplace is a key area to assess. The number of entrances and exits, the ease at which non-employees are able to gain access, and the number of areas where potential assailants can hide are issues that need to be addressed. Security devices and measures can significantly reduce the risk for assaults against workers and discourage potential criminals. Policies and procedures for employees to report threats of violence allow management to monitor and assess threats and violent acts against employees. It is recommended that employees be trained and retrained in nonviolent response and conflict resolution. However, training should not be the sole measure implemented by an employer to reduce or prevent acts of

**INReview Fact:**  
**There were five (5) robbery-related deaths in Indiana in 2005.**

**2005 Case File**

### It Happened Here

**The Story:** On October 6, 2005, a 56 year-old convenience/fuel station manager (the victim), was working her respective shift. A perpetrator entered the premises through the store's front doors in mid-afternoon. The victim was shot four times with an automatic handgun. The victim sustained four gunshots to her upper torso. The victim was transported to a hospital and died three days later.

**Cause of Death:** Gunshot Wounds

workplace violence. I O S H A does not have specific standards that address workplace violence; however, guidelines that are available primarily deal with specific industries such as late night retail and healthcare facilities. Employers or employees that encounter instances or threats of workplace violence are strongly encouraged to report such

local law enforcement authorities immediately.

**Log On!**

- Federal OSHA  
⇒ <http://www.osha.gov>
- National Institute for Occupational Safety and Health (NIOSH)  
⇒ <http://cdc.gov/niosh/homepage.html>
- Bureau of Labor Statistics  
⇒ <http://www.bls.gov>

**Fast Stats: Indiana Retail Trade**

Average Employment.....	332,100
Workplace Fatalities in 2005.....	13
Occupational Injury & Illness Rate.....	5.1
Injuries & Illnesses Involving Days Away from Work.....	3,320
Median Number of Days Away from Work.....	5
Injury & Illness by Gender:	
55% Men	45% Women

## Indiana's Worker Safety Initiative—INSafe

Protecting Hoosier lives and promoting the prosperity of workers, consumers, and industry is what INSafe works to do each day. Our goal is to help employers become self-sufficient and proactive in their approach to occupational safety and health management.

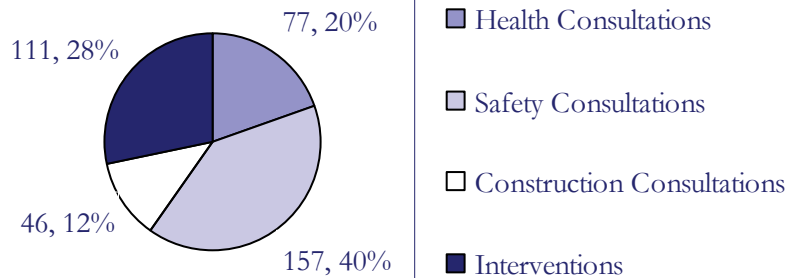
Part of being a good employer and operating a successful business is knowing all the rules. INSafe provides guidance to Hoosiers on occupational safety and health compliance.

INSafe works to provide services that include: on-site consultation and evaluation, technical guidance, materials and publications, and group training. INSafe's team of consultants are well versed in occupational safety and health standards with emphasis on general industry, industrial hygiene, and construction.

INSafe services are free, confidential, and a beneficial way for employers and employees to learn occupational hazard recognition and abatement techniques.

In 2005, INSafe safety and health consultants conducted 280

**Figure 14: 2005 Breakdown of INSafe Consultations & Services**



Source: NCR, INSafe

consultations. Additional outreach efforts in 2005 included 111 interventions (Figure 14).

Interventions are classified as training programs and seminars, speeches, presentations, and exemplary program evaluations.

To make it as accessible as possible, INSafe introduced regional occupational

safety and health training programs in early 2007. Training and educational seminars are available throughout 2007 in the state of Indiana. Participation in any of the INSafe programs is voluntary and free of charge. All relevant program materials are included in the training programs. Additional information concerning INSafe consultation and related programs may be found on our Website.

**INReview Fact:**  
INSafe consultants have a combined total of over 75 years experience in occupational safety and health.

## Working Together for Hoosier Occupational Safety and Health

Hoosier occupational safety and health is everyone's responsibility. The Indiana Department of Labor and INSafe realize that this a task far too large to tackle alone. In 2005, the Indiana Department of Labor announced the agency's first health and safety partnership.

The primary emphasis for the Indiana Department of Labor partnerships has been construction projects of large scale.

The partnerships established to date place an emphasis on the elimination of workplace safety and health hazards to achieve a high level of Hoosier worker safety. The

partnering agreement facilitates the process of identifying project health and safety performance goals, developing and implementing plans to achieve those goals, controlling hazards on the site, measuring and establishing a process to communicate the success, and fostering a positive learning environment for all involved. Partnering with firms is consistent with the Indiana Department of Labor's long-range efforts to develop a proactive approach to occupational health and safety management. It allows for more efficient use of the agency's

resources, innovation in safety and health management, and encourages more participation in the process from the construction and trade association communities.

### Contact INSafe:

Phone: (317) 232-2688  
Fax: (317) 233-1868

Log On!  
Internet:

<http://www.in.gov/labor/insafe>

## Rewarding Excellence in Occupational Safety and Health Management

Recognizing and rewarding commitment are just two of the ways that the Indiana Department of Labor emphasizes the importance of exemplary occupational safety and health management and programs.

Indiana's proactive occupational safety and health programs, Indiana Safety and Health Achievement Recognition Program (INSHARP) and the Voluntary Protection Program (VPP) are elite programs to which only a few Hoosier employers and employees belong. The exemplary programs encourage and recognize safety and health excellence.

INSHARP sites range in size from 30 to 233 employees. The four participants are very diverse in their product offerings and vary from local government employees to the production of polymer compounds that are used in the automotive industry. Upper-level management and front-line employees are committed to work together to foster and maintain a safe and healthy work environment.

Thirty-nine (39) Hoosier employers currently hold Indiana VPP status. Indiana ranks in the top five of state plan states in the number of participating VPP sites. VPP sites range in size from fewer than 20 employees to over 8,000. Participants in VPP span across several distinct industries. Indiana VPP features industries from pharmaceutical, snack foods, scrap recycling, and the production and processing of seed corn. Participation is a step ahead and a proactive approach to managing work-related injuries and illnesses.

Prior to receiving exemplary

program status, employers must agree to undergo a wall-to-wall evaluation, have less than the industry average injury and illness rates, correct any identified hazards, and ensure all identified issues are properly resolved.

Employers that are granted INSHARP or VPP status receive an exemption from IOSHA general schedule inspections for a defined length of time. However, employers and employees retain their rights and responsibilities under the OSH Act.

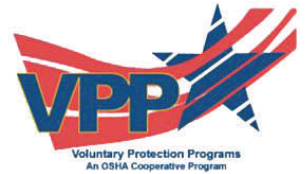
Businesses remain subject to inspections due to complaints, workplace accidents or fatalities, chemical leaks and spills, as well as other specific events.

Exemplary program managers are available to all participating sites to provide ongoing guidance and assistance.

INSHARP and VPP participants are demonstrated leaders in the safety and health arena. VPP sites have served as mentors to companies that have displayed a commitment to the continued success of their occupational safety and health management system. Management leadership and employee participation make these programs a

success.

To initiate evaluation for INSHARP or VPP, an employer must submit a written



request to the Indiana Department of Labor's program director. The director utilizes the expertise of IDOL staff to evaluate each site. Once the site has been evaluated, all findings and recommendations are provided in a detailed report provided to company management. The program director must make a recommendation for inclusion into either INSHARP or VPP.

The development and successful implementation of effective safety and health programs has been proven to lower business operational costs. Programs that are successful have seen an increase in worker productivity as well as have reduced occupational-related injuries and illnesses. A reduction in these injuries and illnesses has the potential to reduce Worker's Compensation rates.

For additional information on Indiana's exemplary programs, please contact the Indiana Department of Labor.



### INReview Fact:

**Forty-three (43) Hoosier employers hold status in the IDOL's Exemplary Programs.**

### Exemplary Program Directors

#### INSHARP

⇒ John Duncan  
Phone: (317) 232-7321  
Email: [joduncan@dol.in.gov](mailto:joduncan@dol.in.gov)

#### VPP

⇒ Mike Gaskill  
Phone: (260) 373-2860  
Email: [indiana809@earthlink.net](mailto:indiana809@earthlink.net)

## Data Used in this Review

Data analyzed for the 2007 *IN Review* was collected throughout the 2005 calendar year by the Indiana Department of Labor Quality, Metrics, and Statistics Division (QMS) staff. Specific sources include:

### *Survey of Occupational Injuries and Illnesses*

The Bureau of Labor Statistics (BLS) Annual Survey of Occupational Injuries and Illnesses (SOII) provides estimates of the number and rates of work-related injuries and illnesses. Employers are asked questions concerning work-related injuries and illnesses. Over 5,000 surveys are processed and coded by the QMS staff annually.

### *Census of Fatal Occupational Injuries*

The BLS Census of Fatal Occupational Injuries (CFOI) includes work-related fatalities resulting from unintentional and intentional injuries. CFOI uses multiple data sources to identify, document, and verify work-related injury deaths. On annual basis thousands of documents including death certificates are reviewed annually by the QMS Division staff.

### *OSHA Data Initiative*

The OSHA Data Initiative (ODI) is an OSHA survey that compiles occupational injury and illness information from establishments in high-hazard industries. Over 2,500 surveys are processed by the QMS Division staff each year. Data from the ODI is used to target the outreach of IOSHA and INSafe in their efforts to work towards a safe Indiana.

### *IOSHA Integrated Management Information System*

The Indiana Department of Labor's IOSHA Division conducts worksite inspections to determine compliance with health and safety standards. Inspection data is maintained in the Integrated Management Information System (IMIS). Data that is collected includes: type of inspection, reason for inspection, and inspection date. IMIS stores data for over 1,300 inspections performed annually by IOSHA.

*IN Review* is an annual review of Hoosier Occupational Safety and Health. This review was prepared by Elizabeth Friend, Deputy Commissioner-Quality Metrics, & Statistics with the Indiana Department of Labor.

Quindaro E. Cheatham, Deputy Commissioner-INSafe and Michelle L. Ellison, Marketing & Consultation Service Manager provided assistance editing, researching, and layout and design services.

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Fax: (317) 233-3790  
Internet: <http://www.in.gov/labor>**

## Log On!

**Survey of Occupational Injuries and Illnesses**  
<http://stats.bls.gov/iif/oshsum.html>

**Census of Fatal Occupational Injuries**  
<http://stats.bls.gov/iif/oshcfoi1.htm#203charts>

**Integrated Management Information System**  
<http://www.osha.gov/oshastats/index.html>