

# Kentucky Occupational Safety & Health Surveillance (KOSHS) Program Report 2009



**For more information, visit our website at:**

**<http://www.kiprc.uky.edu/KOSHS.html>**

## **KENTUCKY INJURY PREVENTION AND RESEARCH CENTER**

### **Cooperative Agreement Number 1U60/OH008483-03**

The Kentucky KOSHS Program is an occupational injury and illness surveillance project of the Kentucky Injury Prevention and Research Center (KIPRC)\*. The objectives of KOSHS are to identify worker populations and work environments with elevated risk for nonfatal and fatal worker injuries and illnesses, to identify risk factors for an occupational injury, and to develop strategies for dissemination of state occupational health data, with the ultimate goal of reducing the burden of occupational injuries in Kentucky and in the nation. For more detailed information concerning KOSHS, or to obtain additional copies of this report, contact:

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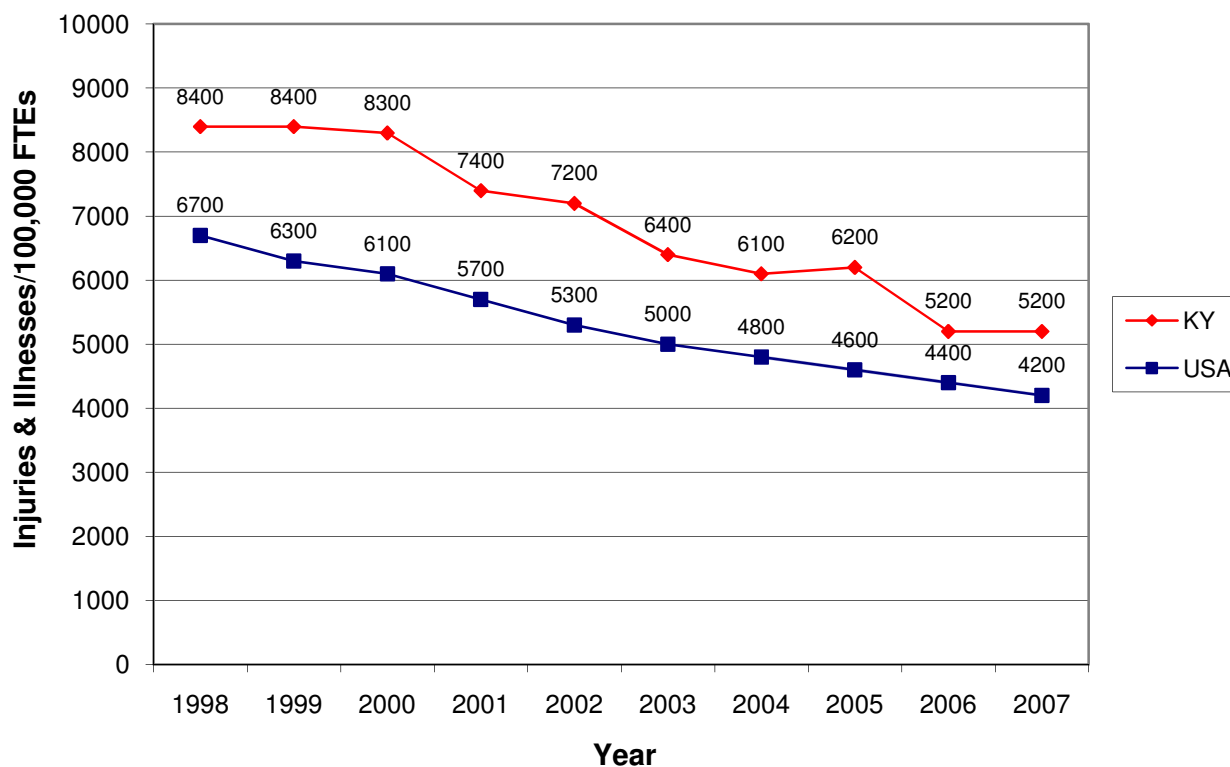
## EXECUTIVE SUMMARY

- ❑ Kentucky's *nonfatal* work-related injury and illness rate has decreased by 62% since 1997 but is still 24% above the national rate. The highest injury incidence rate was in foundries.
- ❑ Kentucky's *fatal* work-related injury rate decreased in 2007, but was 57% higher than the national occupational fatality rate. The primary cause of death was due to motor vehicle collisions.
- ❑ Kentucky's work-related amputation rate increased in the year 2007 to 11 cases/100,000 workers (Bureau of Labor Statistics). According to the Kentucky Office of Workers' Claims, the highest number of amputations was in the Manufacturing industry for the year 2006.
- ❑ From 2005 to 2006, Kentucky's MSD incidence rate decreased 23%. The highest number of cases was in the Education and Health Services industry and in the Transportation and Material Moving occupation group.
- ❑ The acute work-related pesticide-associated injury and illness rate for Kentucky increased from 2005-2007. Occupational pesticide exposures were due primarily to disinfectant industrial cleaners.
- ❑ Kentucky's malignant mesothelioma incidence rate declined in 2006, decreasing every year since 2002.
- ❑ The Kentucky occupational motor vehicle nonfatal and fatality rates decreased in the year 2007. The most common cause of injury was due to a collision or sideswipe with another vehicle. Workers' Compensation claims were most frequently filed for the Services industry.
- ❑ The Kentucky adult blood lead level (>25µg/dL) prevalence rate was lower than the average state rate in the year 2007.
- ❑ The Kentucky industries at greatest risk for occupational injury were Nursing and Residential Care facilities, and Motor Vehicle Manufacturing. The occupations at highest risk for occupational injuries and illnesses in Kentucky for 2007 were Driver/Sales Workers and Truck Drivers.
- ❑ The occupational fall injury incidence rate in 2007 was equivalent to the rate in 2006, and occurred primarily in the Services and Retail Trade industries. Laborers (except construction) and sales workers were the occupations recorded most frequently in workers' claims and first reports of injury.
- ❑ The average amount of workers' compensation benefits paid per covered worker decreased from \$411.07 in 2005 to \$408.30 in 2006.

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

In 2007, there were 64,600 nonfatal work-related injuries and illnesses in Kentucky, with an incidence rate of 5,200/ 100,000 employees, down 62% from 1998 (Figure 1). Kentucky is still 24% above the national incidence rate of 4,200 /100,000 FTEs.

**Figure 1. Estimated Annual Total Work-Related Injury And Illness Incidence Rates In Kentucky (1998-2007).**



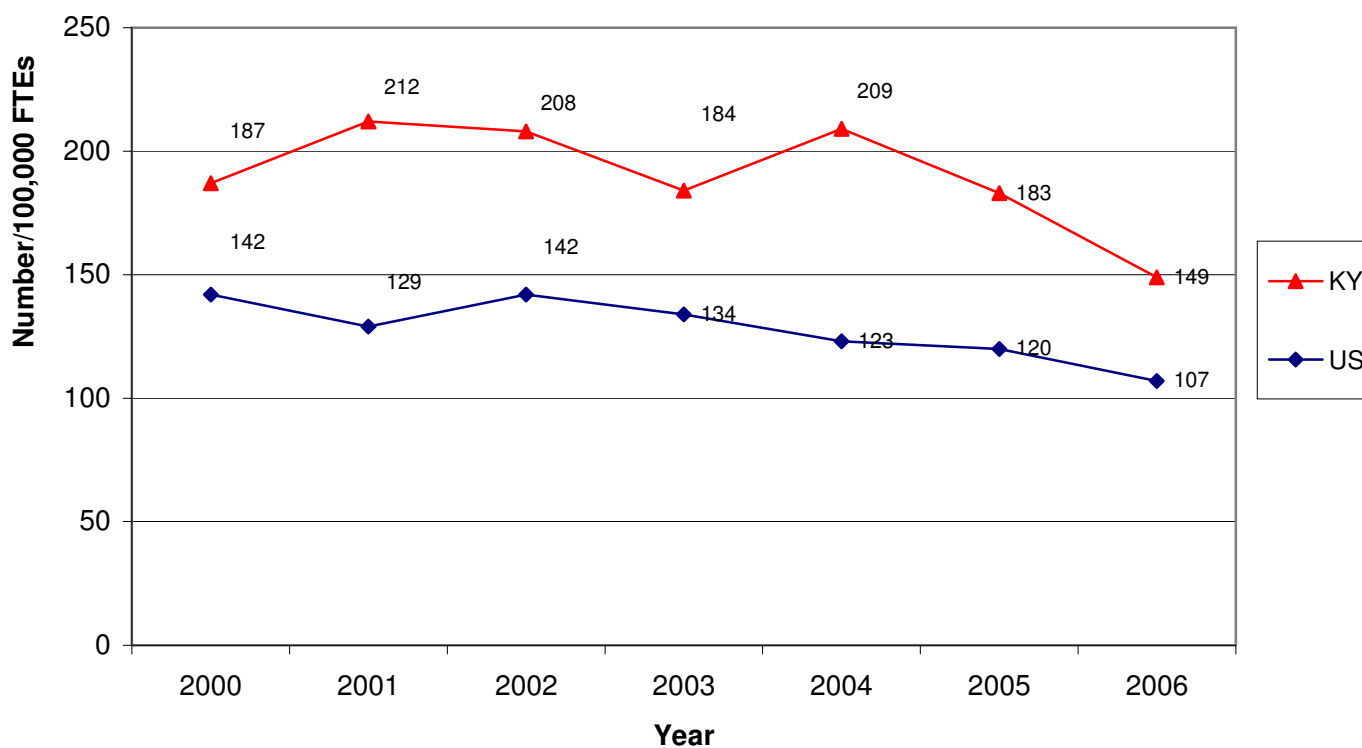
Foundries (13.4 cases/100 FTEs), motor vehicle steering and suspension component manufacturing (12.6 cases/100 FTEs), nursing and residential care facilities (12.6 cases/100 FTEs), forging and stamping (12.1 cases/100 FTEs), sawmills and wood preservation (10.9 cases/100 FTEs), spring and wire product manufacturing (10.8 cases/100 FTE), and architectural and structural metals manufacturing (10.7 cases/100 FTEs) industries had the highest nonfatal injury incidence rates in 2007.

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

## Indicator #2: Work-Related Hospitalizations

In 2006, there were 2,880 work-related hospitalizations with an annual crude rate of 149/100,000 employed persons age 16 years and older, down 26% from the year 2000 (Figure 2).

**Figure 2. Work-Related Hospitalization Rates In Kentucky Compared To U.S. Rates, 2000-2006.**

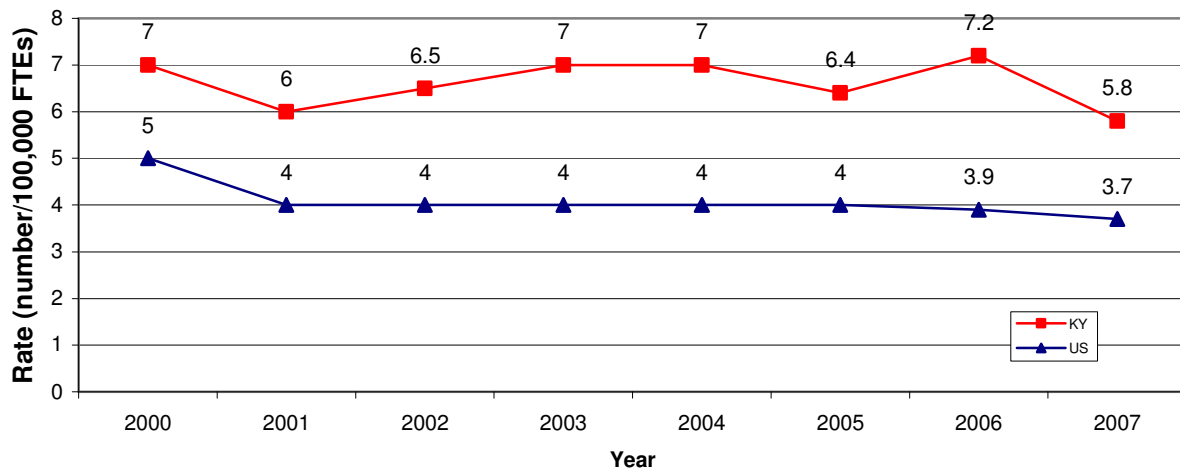


Data Source: Numerator data was obtained from the Kentucky Department for Public Health UB92 hospital discharge data set and National Hospital Discharge Survey. Denominator data was obtained from BLS Current Population Survey data. Diagnosis coding of hospitalization data was performed according to *ICD-9-CM* coding standards.

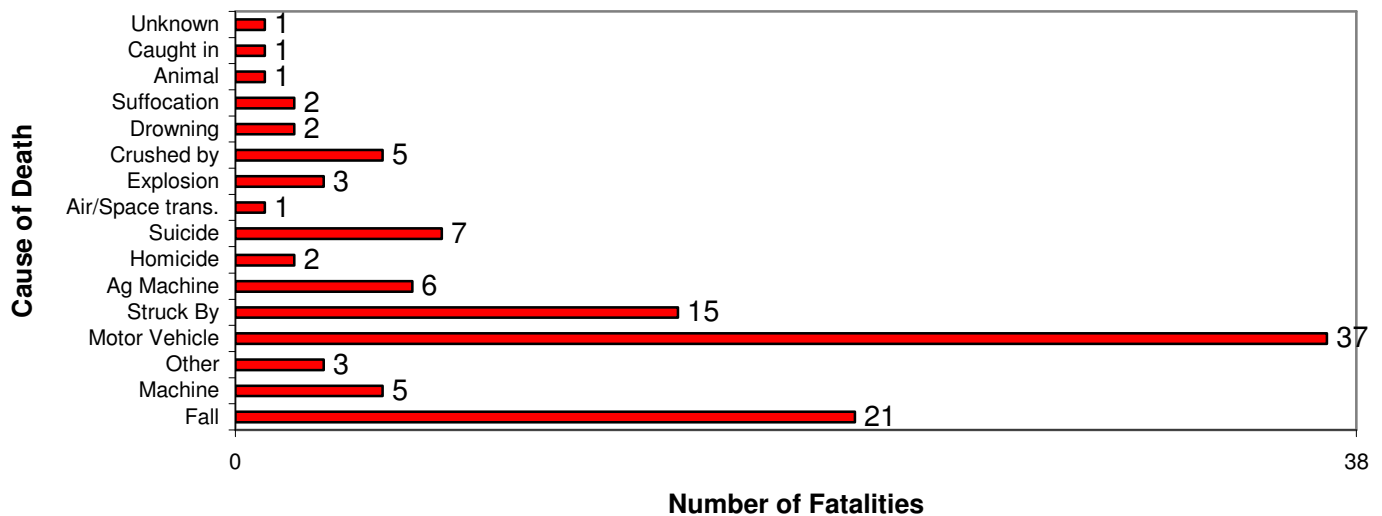
### Indicator #3: Fatal Work-Related Injuries

The fatality rate for Kentucky occupational injuries decreased from 7 deaths/100,000 employed persons in the year 2000 to 5.8/100,000 in 2007 (National Census of Fatal Occupational Injuries [CFOI] data). Figure 3 compares 2000-2007 fatality rates with the U.S. using Fatality Assessment and Control Evaluation (FACE) data. Kentucky had an occupational fatality rate 57% higher than the national occupational fatality rate in 2007. The industry with the highest number of work-related fatalities was the Transportation industry. Motor vehicle collisions were the primary external cause of death for Kentucky workers (Figure 4).

**Figure 3. Rate of Fatal Work-Related Injuries in Kentucky and U.S., 2000-2007.**



**Figure 4. Occupational Fatalities by Incident Type-2007.**

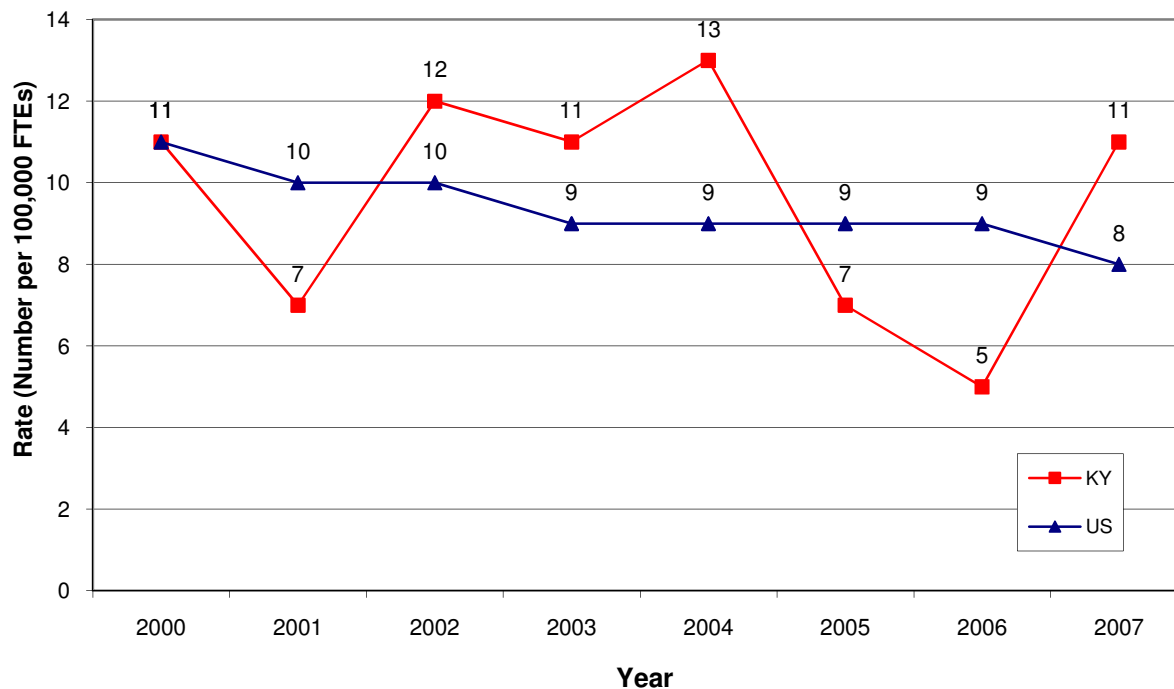


Data Source: Kentucky FACE program

### Indicator #4: Work-Related Amputations with Days Away From Work Reported By Employers

There were 140 amputation cases with days away from work in 2007, a slight increase from 137 in 2000. The annual incidence rate of 11 cases per 100,000 FTEs increased from 2006, and was higher than the national amputation incidence rate of 8/100,000 (BLS SOII) in 2007 (Figure 5).

**Figure 5. Rate of Work-Related Amputations Involving Days Away From Work Reported by Private Sector Employers for Kentucky and U.S., 2000-2006.**



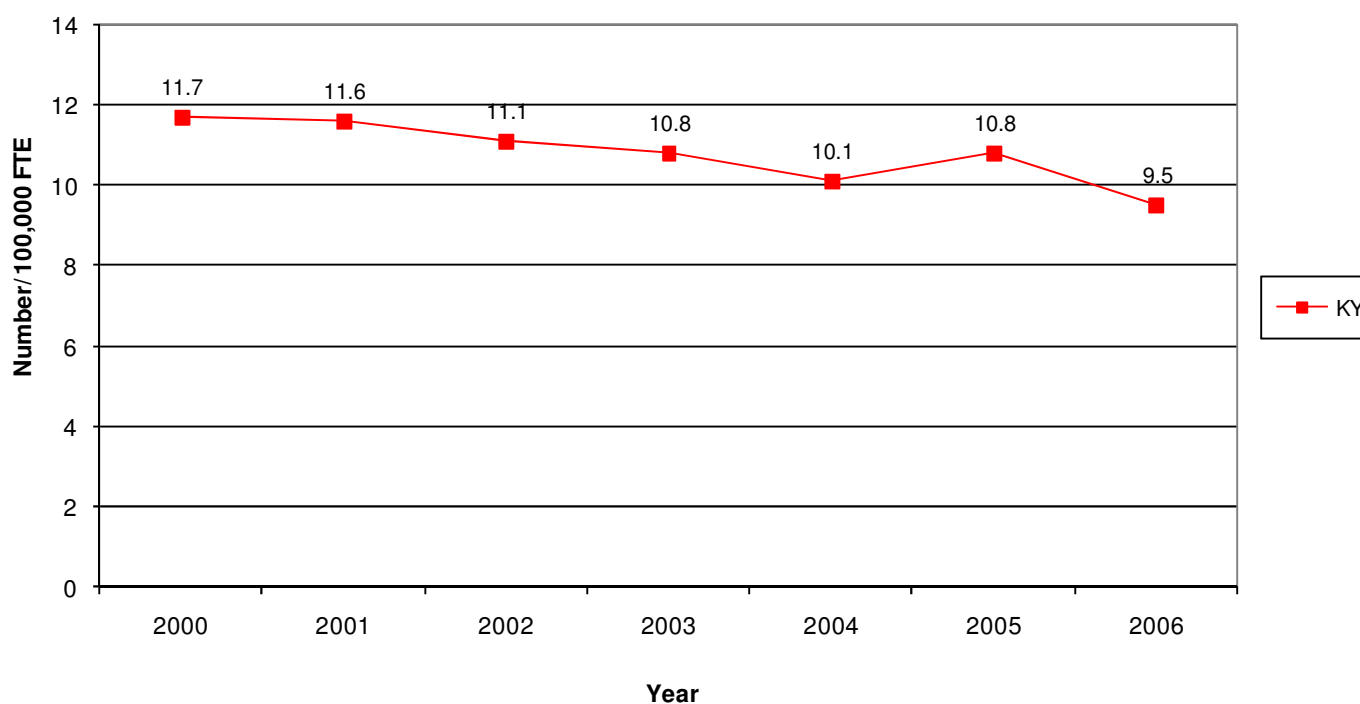
Data Source: Annual BLS Survey of Occupational Injuries and Illnesses (SOII).



### Indicator #5: Amputation Claims Filed With the State Workers' Compensation System by Injury Year

The number of amputation injury claims filed with the Kentucky Office of Workers' Claims in the year 2006 was 165 compared to 185 claims filed in 2005. The annual incidence rate for amputation claims decreased to 9.5 cases per 100,000 employees covered by workers' compensation in 2006 from 10.8 cases/100,000 workers in 2005 (Figure 6).

**Figure 6. Rate of Lost Work Time Claims for Amputations Identified in Workers' Compensation Systems for Kentucky, 2000-2006.**



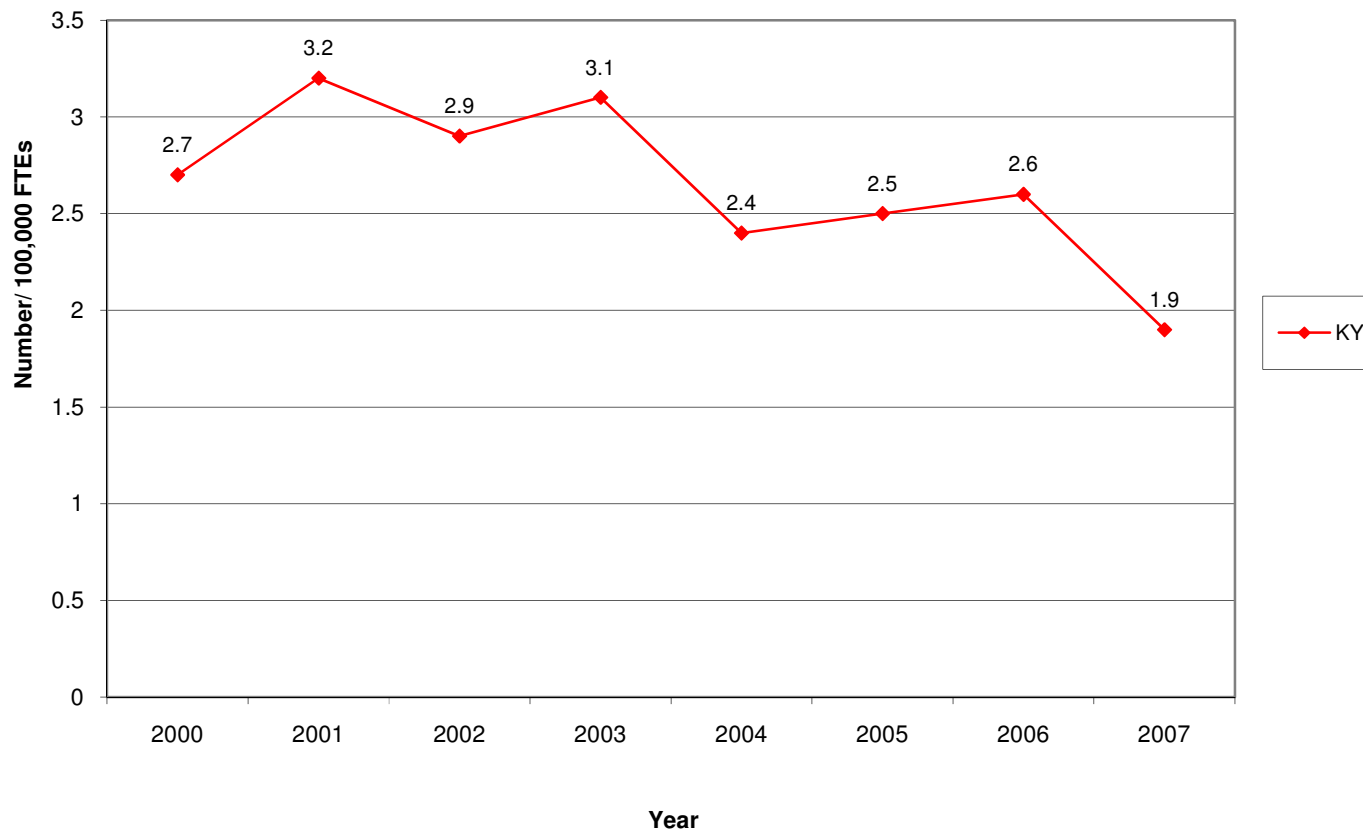
Using 2006 data, the majority of the amputations occurred among laborers except construction (laborers) (n=30), miscellaneous machine operators (n=22), assemblers (n=10), punching and stamping press machine operators (n=6), and heavy and light truck drivers (n=5).

Data Source: Work-related amputation surveillance data was provided by the Kentucky Office of Workers' Claims, Frankfort, KY.

### Indicator #6: Work-Related Burn Hospitalizations

There were 36 work-related burn hospitalization cases in 2007, down from 50 in 2006. The annual crude rate for work-related burn hospitalizations per 100,000 employed persons ages 16 and older was 1.9 in 2007. Kentucky work-related burn hospitalization rates have been decreasing and are shown in Figure 7.

**Figure 7. Rate of Hospitalizations for Work-Related Burns for Kentucky, 2000- 2007.**

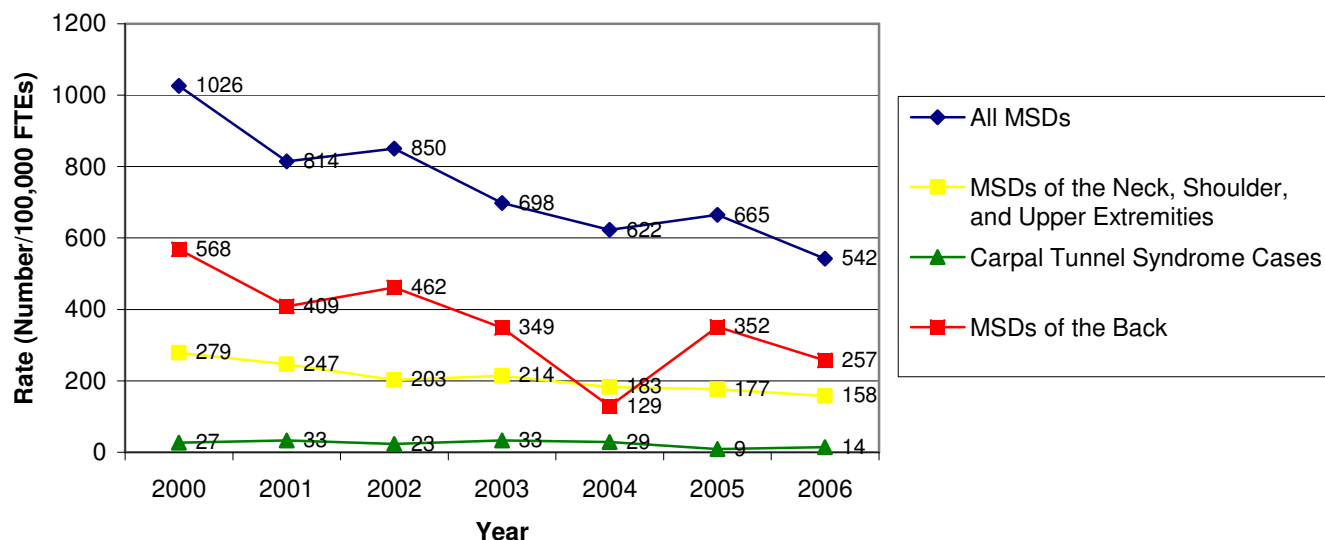


Data Source: Kentucky Department for Public Health UB92 hospital discharge data.

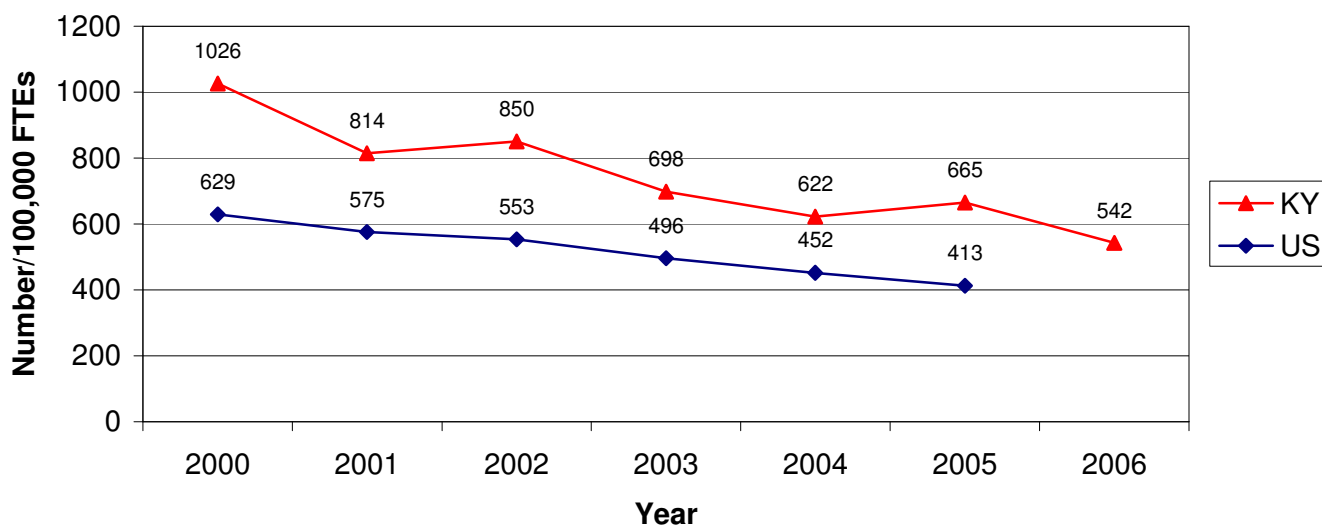
## Indicator #7: Work-Related Musculoskeletal Disorders (MSDs) with Days Away From Work Reported By Employers

Kentucky had a total annual MSD incidence rate of 542 cases/100,000 FTEs in 2006 (Figure 8) and the MSD incidence rates have decreased since the year 2000. The Kentucky MSD incidence rate was 61% above the national rate (Figure 9) in 2005.

**Figure 8. Incidence Rates for Musculoskeletal Disorders (MSDs) in Kentucky Involving Days Away From Work.**



**Figure 9. Rate of all Work-Related Musculoskeletal Disorders Involving Days Away From Work Reported by Private Sector Employers for Kentucky and U.S., 2000-2006.**



Data Source: Annual Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses (SOII).

The most frequent carpal tunnel syndrome cases were in the production industry. (Table 1).

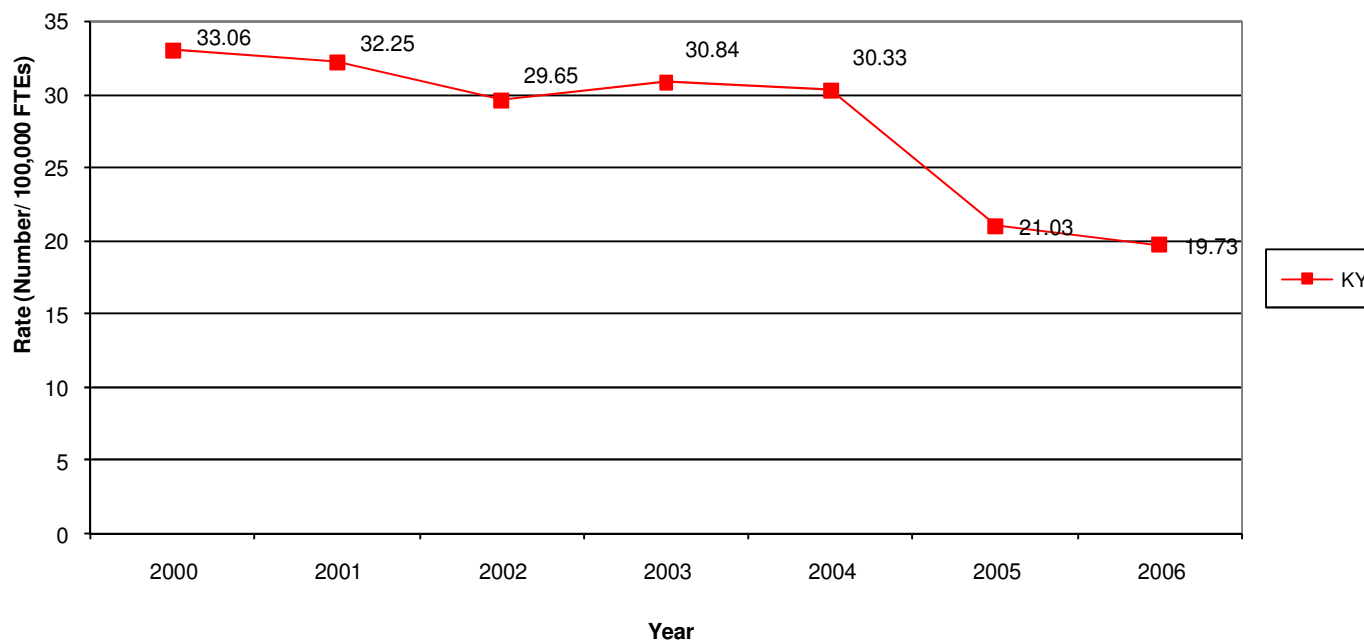
**Table 1. Number of MSD Cases by Worker and Case Characteristics, 2007.**

	<b># of MSDs (code 17xxxx)</b>	<b># of Carpal Tunnel Syndrome Cases (code 124xx)</b>	<b># of MSDs of the back (code 0972xx)</b>
<b>Gender:</b>			
Male	30	60	280
Female	50	100	200
<b>Age:</b>			
16-19	-	-	40
20-24	-	-	60
25-34	-	20	110
35-44	20	40	170
45-54	50	60	80
55-64	-	20	20
65 and older	-	-	-
<b>Occupation:</b>			
Management, Business, Financial	-	-	-
Professional and Related	-	-	20
Service	-	20	160
Sales and Related	-	-	20
Office & Admin. Support	-	20	50
Farming, Fishing, and Forestry	-	-	-
Construction and Extractive	-	-	30
Installation, Maintenance, Repair	-	-	-
Production	40	80	20
Transportation & Material Moving	-	-	170
<b>Industry:</b>			
Construction	-	-	20
Manufacturing	50	80	50
Trade, Transportation & Utilities	-	30	150
Wholesale Trade	-	-	30
Retail Trade	-	-	60
Transportation & Warehousing	-	20	60
Professional and Business Services	-	-	60
Education and Health Services	-	-	160
Healthcare and Social Assist.	-	-	150

### Indicator #8: Carpal Tunnel Syndrome Cases Filed with the State Workers' Compensation System by Injury Year

Carpal tunnel syndrome case claim rates have declined 68% since the year 2000 (Figure 10).

**Figure 10. Rate of Lost Work-Time Claims for Carpal Tunnel Syndrome Cases Identified in State Workers' Compensation Systems for Kentucky, 2000-2006.**



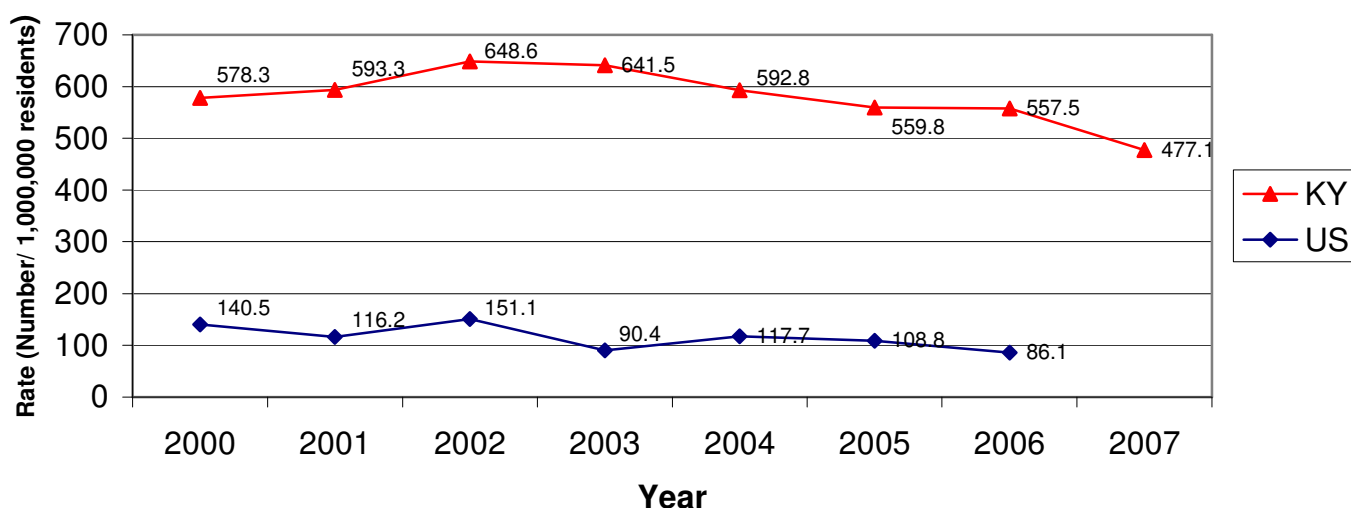
CTS claims occurred primarily among miscellaneous machine operators (n= 41), assemblers (n= 32), laborers except construction (n=30), general office clerks (n= 15), retail and personal services sales workers (n=12), textile sewing machine operators (n=11), and administrative support occupations (n=10).

Data Source: Carpal tunnel syndrome claims data was provided by the Kentucky Office of Workers' Claims, Frankfort, KY.

### Indicator #9: Hospitalization From or With Pneumoconiosis

The annual rate of pneumoconiosis hospitalizations per million residents in Kentucky decreased from an age-standardized rate of 578/million residents in 2000 to a rate of 477/million residents in 2007 (Figure 11).

**Figure 11. Age-Standardized Rates of Hospitalizations From or With Total Pneumoconiosis for Kentucky and the U.S., 2000-2007<sup>ab</sup>.**

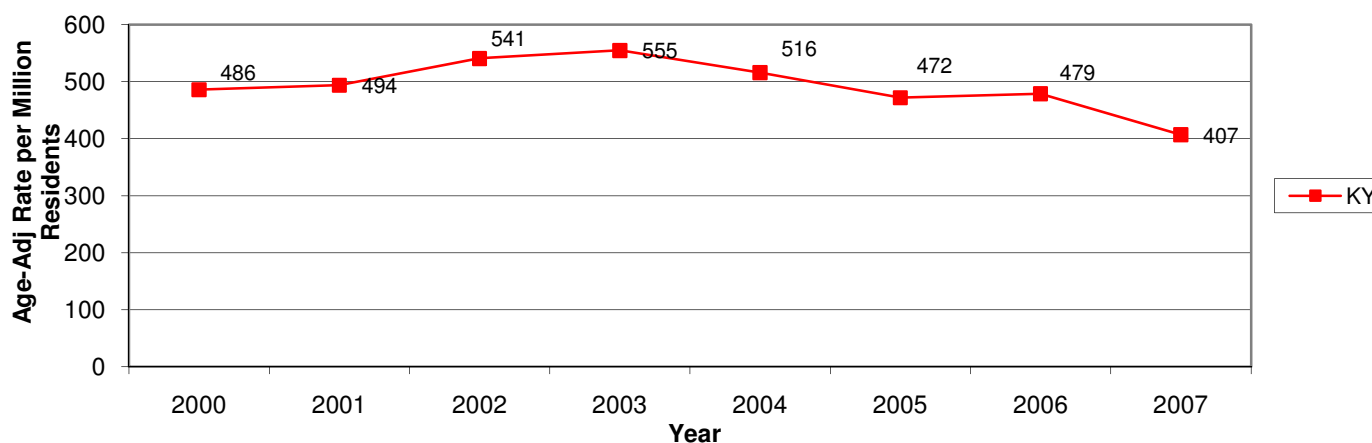


<sup>a</sup> The above rates are based on the number of hospitalizations.

<sup>b</sup> U.S. rates are not yet available for years 2007.

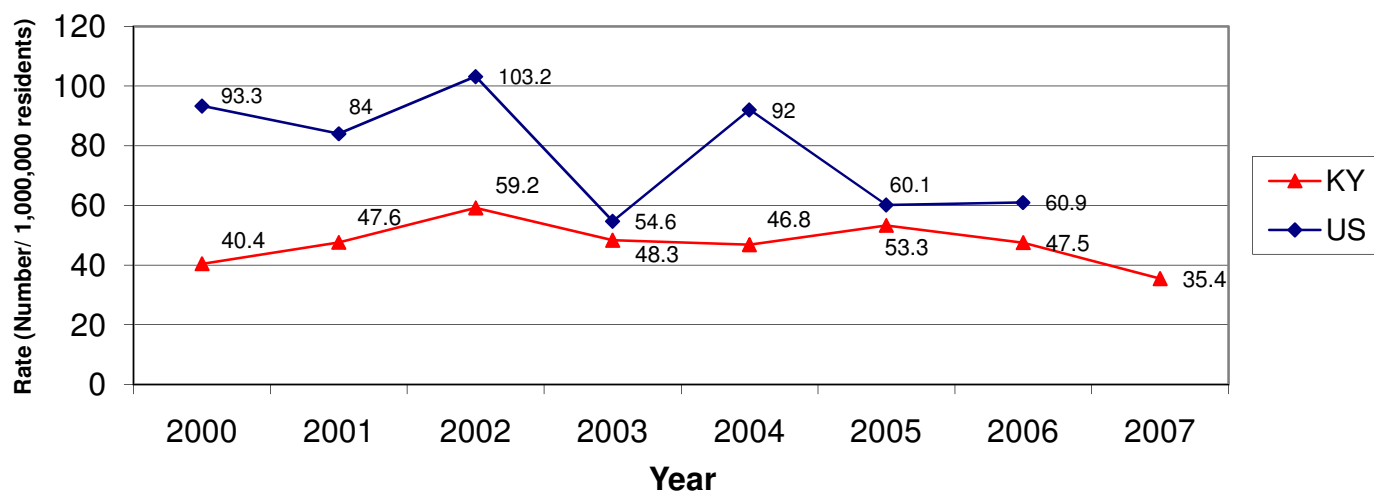
Figure 12 shows the number of hospitalizations and the annual age-adjusted coal workers' pneumoconiosis hospitalization rate per million residents in 2007. The age-adjusted rate was 407 hospitalizations/million residents.

**Figure 12. Annual Age-Adjusted Coal Workers' Pneumoconiosis Hospitalization Rates per (tab→) Million Residents in Kentucky (2000-2007).**



The age-adjusted asbestosis hospitalization rate has been decreasing and was 35.4 hospitalizations per 1,000,000 residents in 2007 (Figure 13).

**Figure 13. Age-Standardized Rate of Hospitalizations from or with Asbestosis for Kentucky and the U.S., 2000-2007<sup>a</sup>.**



<sup>a</sup>U.S. rates are not yet available for years 2007.

Kentucky's age-adjusted silicosis hospitalization rate (11/million residents) has remained steady for the last four years. Table 2 shows the age-adjusted rates for silicosis hospitalizations for years 2000- 2007.

**Table 2. Annual Age-Adjusted Silicosis Hospitalization Rates per Million Residents in Kentucky (2000-2006).**

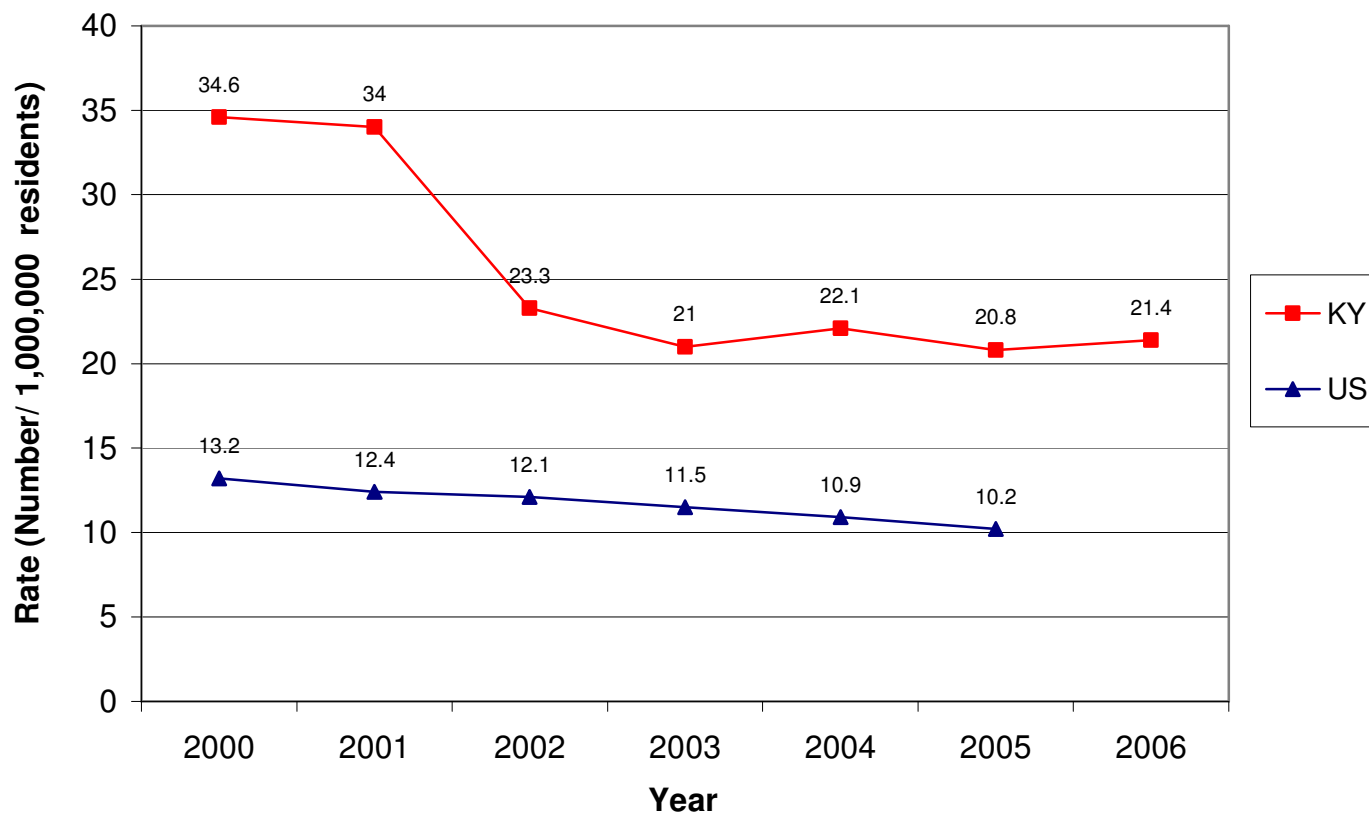
Year	Age-Adjusted Rate
2000	15
2001	12
2002	16
2003	14
2004	11
2005	11
2006	11
2007	10

Data Source: Kentucky Department for Public Health UB92 hospital discharge data.

### Indicator #10: Mortality From or With Pneumoconiosis

Deaths from pneumoconiosis numbered 73 in 2006, up from 69 in the year 2005. The age-adjusted total death rate for pneumoconiosis was 21.4 per million residents in 2006. Kentucky's total pneumoconiosis mortality rate has remained fairly constant for the last four years (Figure 14).

**Figure 14. Age-Standardized Mortality Rate From or With Total Pneumoconiosis for Kentucky and U.S., 2000-2006<sup>ab</sup>.**



<sup>a</sup>U.S. rate is not yet available for year 2006.

<sup>b</sup>KY 2006 rate is preliminary

Coal workers' pneumoconiosis mortality rates have decreased since the year 2000. In 2006, coal workers' pneumoconiosis accounted for 56 occupational deaths (age-adjusted rate of 16.4/million residents). This rate is significantly decreased from the 73 deaths reported in 2000 (age-adjusted death rate of 23.6 per million residents).

Data Source: State pneumoconiosis mortality data was obtained from the Kentucky Department for Public Health Office of Vital Statistics.

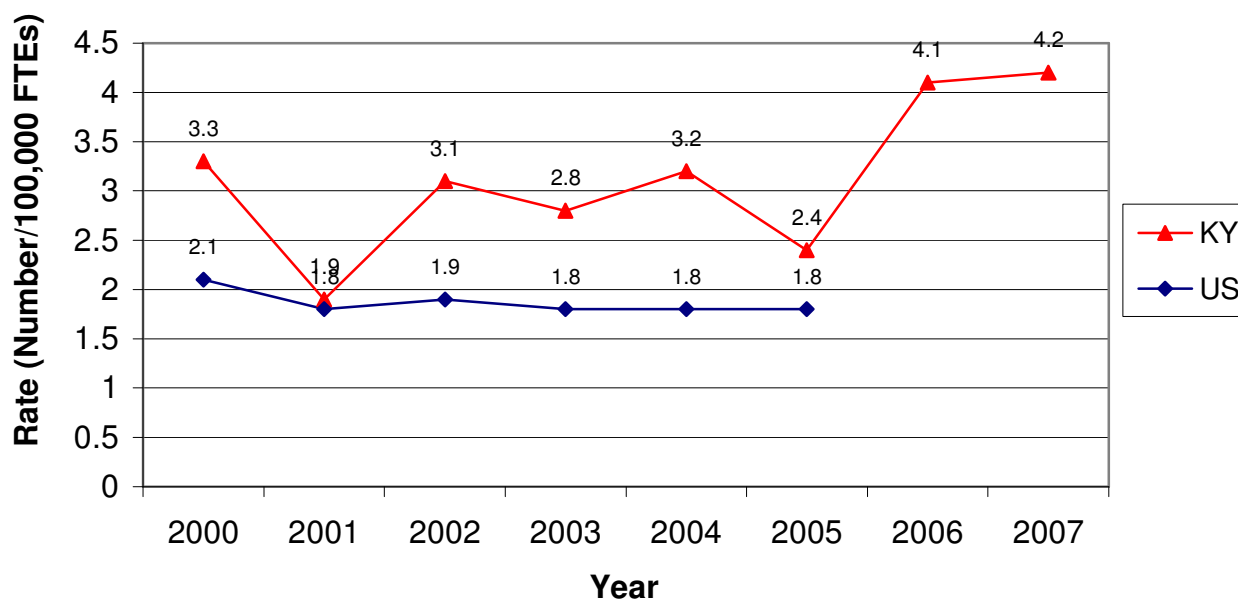


## Indicator #11: Acute Work-Related Pesticide-Associated Illness and Injury Reported to Poison Control Centers

In 2007, 82 pesticide poisoning cases were reported to the Kentucky Regional Poison Control Center compared to 79 cases in 2006. The annual incidence rate of reported work-related pesticide poisonings per 100,000 employed persons age 16 years or older in 2007 was 4.2, similar to 4.1/100,000 in the year 2006. When examining 2007 reports, the primary pesticide exposures were due to disinfectant industrial cleaners (n=15, 16%), hypochlorite disinfectants (n= 11, 12%), and pyrethroids (n=9, 10%). Forty-one percent of the acute work-related pesticide-associated illnesses and injuries were in women. Many of the pesticide-related illnesses and injuries resulted in minor effects (n=40) when medical outcomes were determined. Eight people had moderate effects. Twenty-two people were medically treated and released for pesticide-related illnesses and injuries.

Kentucky's work-related pesticide-associated poisoning rate has increased 75% since the year 2005 (Figure 15).

**Figure 15. Rate of Work-Related Pesticide-Associated Poisonings for Kentucky and U.S., 2000-2007<sup>a</sup>.**



<sup>a</sup>U.S. rate is not yet available for the year 2006 and 2007.

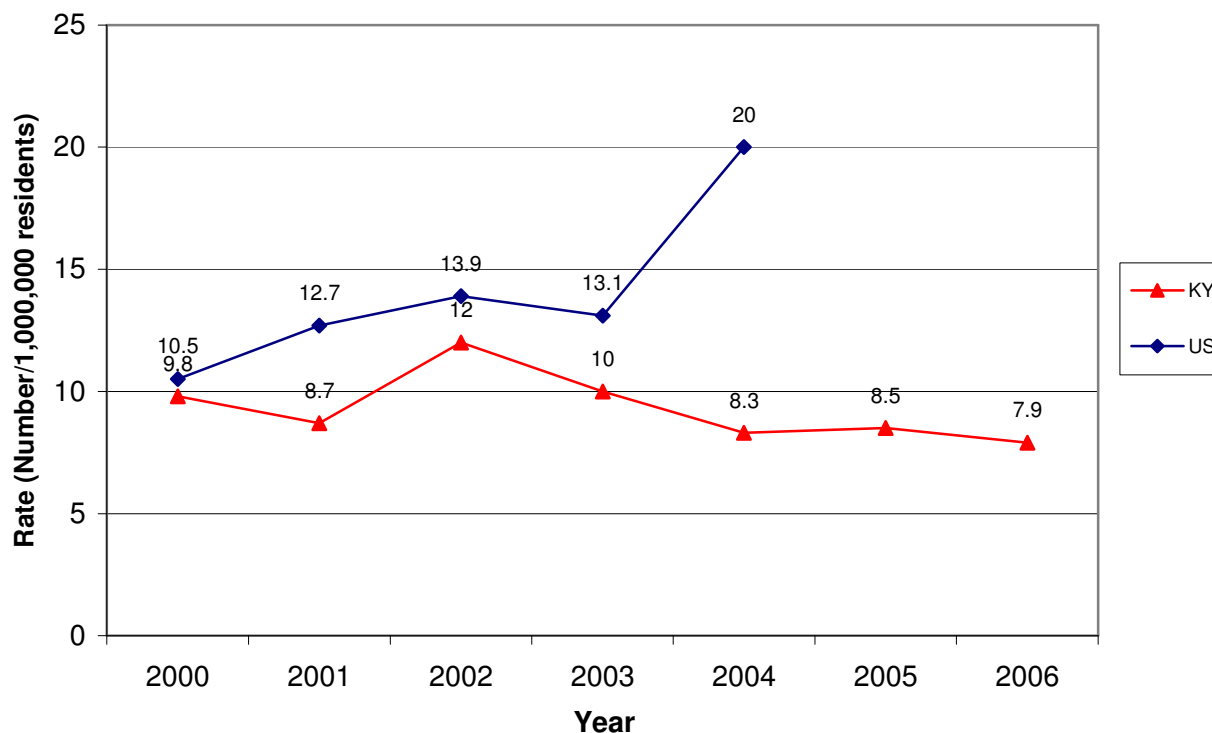
In 2007, there were a total of 935 work-related poisoning cases reported by the Kentucky Regional Poison Control Center. In 2007, the annual incidence rate of reported work-related poisonings was 48.4/100,000 employed persons age 16 years or older. Many of these cases had minor or minimal clinical effects (67.9%) and only 8 cases resulted in major medical effects. Thirty percent of these work-related poisonings were in women; 78 percent of these poisoning cases were treated and released.

Data Source: Work-related pesticide poisoning data was obtained from the Kentucky Regional Poison Control Center, Louisville, KY.

### Indicator #12: Incidence of Malignant Mesothelioma

Malignant mesothelioma annual incidence rates were determined for 2006. The age-adjusted rate was 7.9 cases per million residents (27 cases) in 2006, compared to 8.5 cases per million in 2005 (Figure 16).

**Figure 16. Age-Standardized Incidence Rate of Malignant Mesothelioma for Kentucky and the U.S., 2000-2005<sup>a</sup>.**



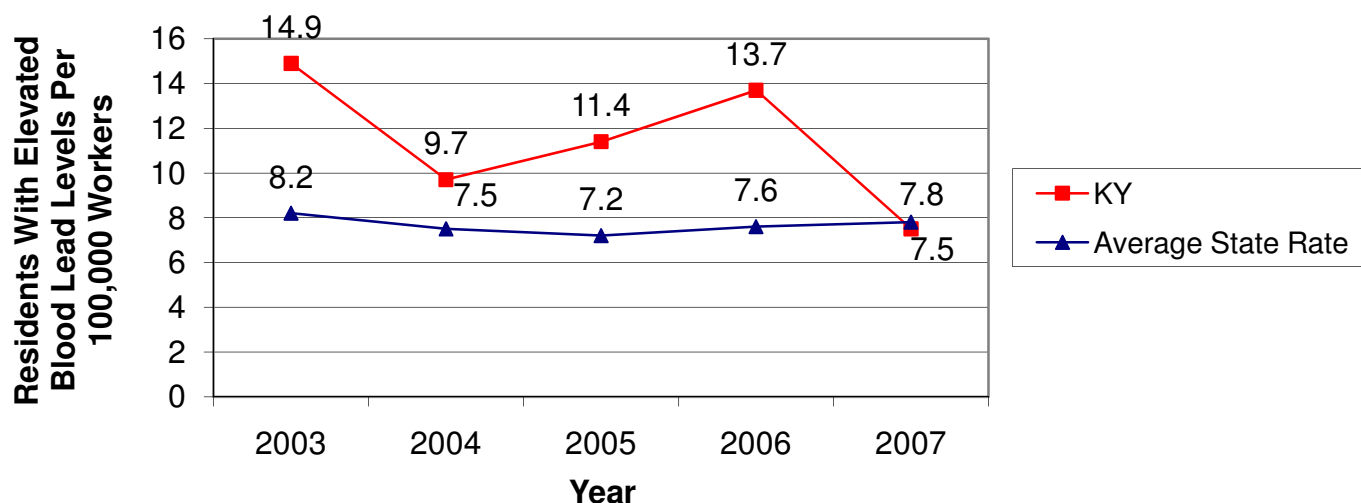
<sup>a</sup>U.S. rate is not yet available for the year 2005 and 2006.

Data Source: Malignant mesothelioma case data was provided by the Kentucky Cancer Registry.

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

Lead exposure is considered elevated in an adult when it reaches 25 µg/dL. In 2007, Kentucky's prevalence rate of persons with blood lead levels  $\geq 25\mu\text{g/dL}$  was 7.45 cases per 100,000 workers; there were 1.2 cases per 100,000 workers with 40µg/dL blood lead levels. Figure 17 shows Kentucky's blood lead level rates in relation to the average state rate.

**Figure 17. Prevalence Rate of Persons with Blood Lead Levels  $\geq 25\mu\text{g/dl}$  of Persons Age 16 Years or Older for Kentucky and the Average State Rate, 2003-2007.**



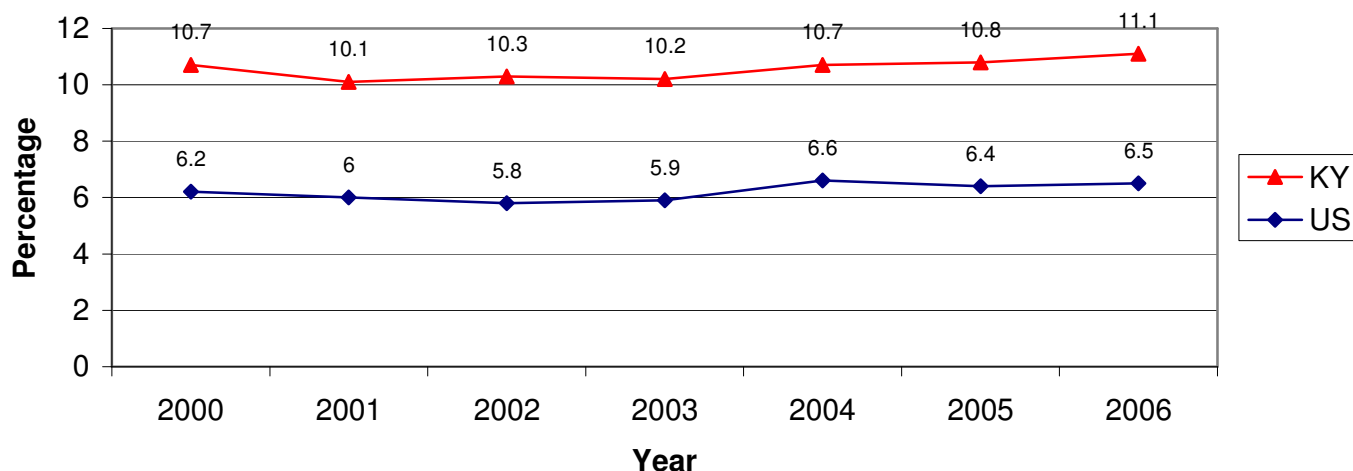
In 2007, Kentucky's prevalence rate of persons with blood lead levels  $\geq 10\mu\text{g/dL}$  was 28.78 cases per 100,000 workers 16 years of age and older.

Data Source: Adult blood lead level data was obtained from the Kentucky Adult Blood Lead Epidemiology and Surveillance (ABLES) program located in the Kentucky Lead Poisoning Prevention Program, Division of Adult and Child Health, Frankfort, KY. US rates were obtained from the NIOSH ABLES program.

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

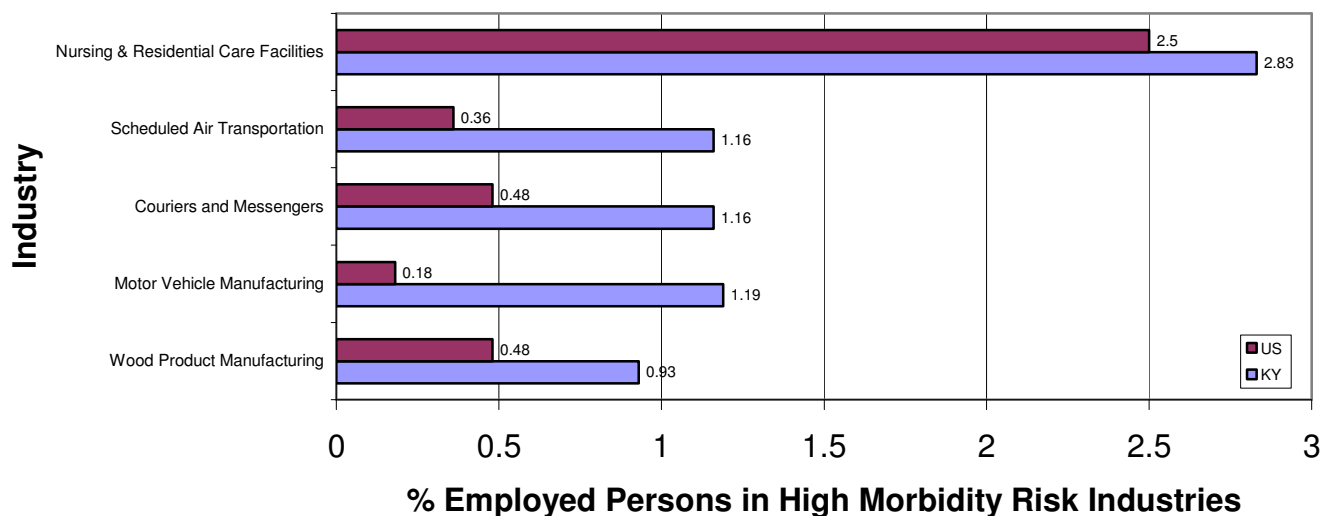
The percentage of Kentucky workers employed in high-risk industries for the years 2000-2006 was 71% higher than the percentage of US workers employed in high risk industries (Figure 18) in the year 2006.

**Figure 18. Percentage of Workers in Industries with High Risk for Occupational Morbidity for Kentucky and the US, 2000-2006.**



In 2006, the industries at greatest risk for occupational injury were Nursing Care Facilities, Scheduled Air Transportation, and Motor Vehicle Manufacturing. Figure 19 shows the percentage of workers employed in the highest morbidity risk industries in KY compared to the US.

**Figure 19. Percentage of Workers in Highest Morbidity Risk Industries in Kentucky and US, 2006.**

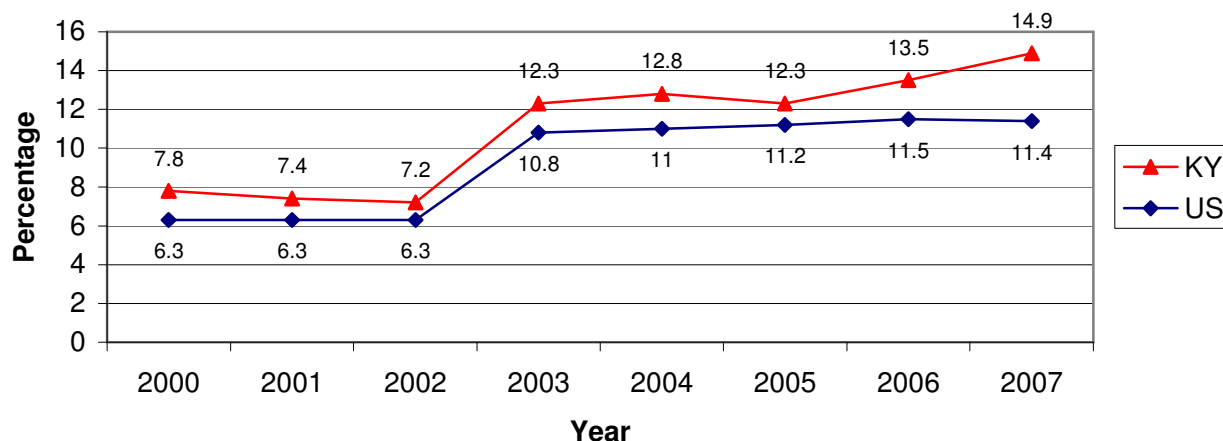


Data Source: Bureau of the Census County Business Patterns (CBP)

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

The proportion of Kentucky workers employed in occupations at increased risk for occupational injury and/or illness in 2007 was 14.9%, 31% above the national percentage in high risk occupations (Figure 20).

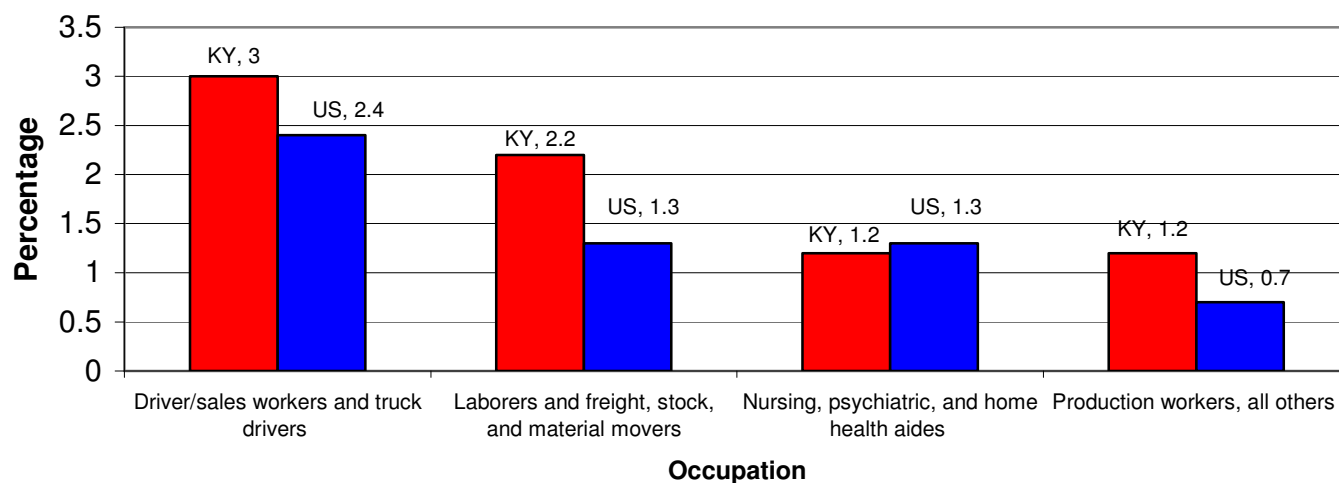
**Figure 20. Percentage of Workers in Occupations with High Risk for Occupational Morbidity by State and U.S., 2000-2006<sup>a</sup>.**



<sup>a</sup> Selected high-risk occupations changed in 2003.

The occupations at highest risk for occupational injuries and illnesses in 2007 are shown in Figure 21.

**Figure 21. Occupations at High Risk for Occupational Injuries and Illnesses in Kentucky, 2007.**

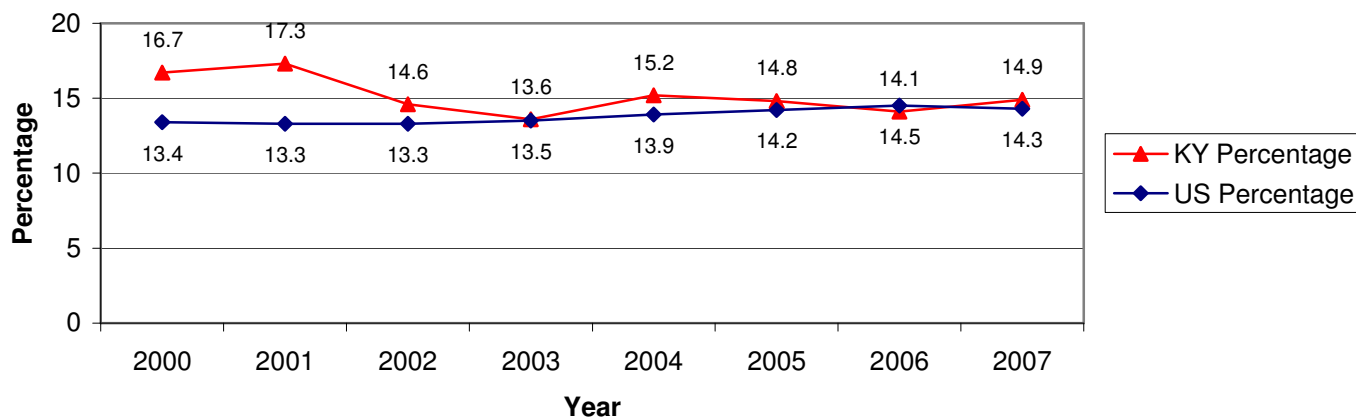


Data Source: Bureau of Labor Statistics Current Population Survey (CPS).

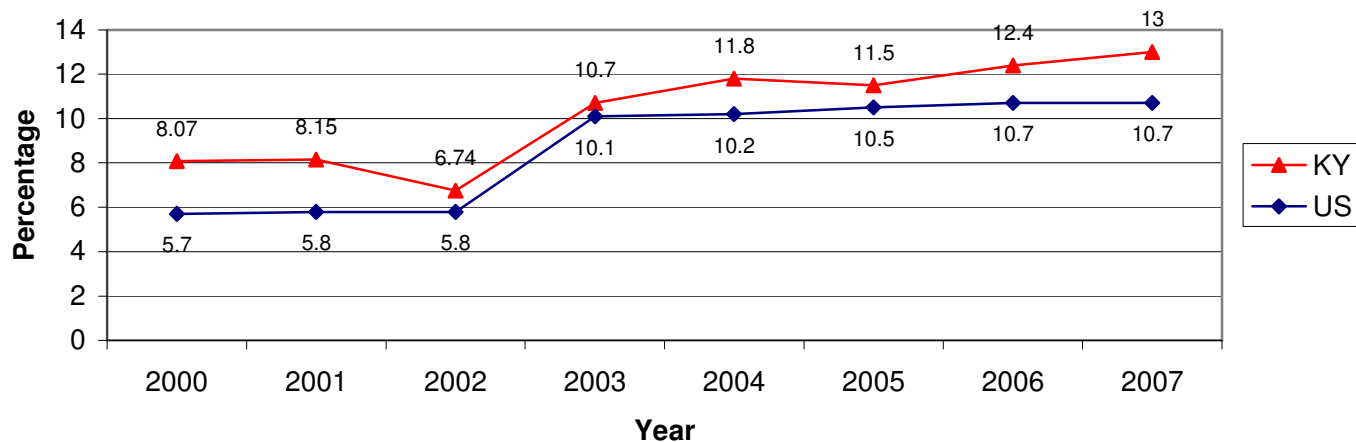
## Indicator #16: Percentage of Workers Employed in Industries and Occupations at High Risk for Occupational Mortality

The percentage of Kentucky workers employed in industries at high risk for occupational mortality was similar to the 2007 US percentage (Figure 22), although the percentage of Kentucky workers employed in occupations at high risk for occupational mortality was 21% higher than the national percentage (Figure 23). The industries at highest risk for occupational mortality in 2006 were Construction (6.8%), Truck Transportation (2.0%), Animal Production (1.6%), and Coal Mining (0.7%).

**Figure 22. Percentage of Workers Employed in Industries with High Risk for Occupational Mortality in Kentucky, 2000-2007.**



**Figure 23. Percentage of Workers Employed in Occupations with High Risk for Occupational Mortality in Kentucky, 2000-2007.**



In 2007, the occupations at highest risk for occupational mortality were driver/sales workers and truck drivers (3.0%), construction laborers (1.0%) and farmers and ranchers (0.9%).

Data Source: Bureau of Labor Statistics (BLS) Current Population Survey (CPS)

## Indicator #17: Occupational Safety and Health Professionals

The rates of occupational safety and health professionals in Kentucky are shown for the years 2003-2005 (Table 3).

**Table 3. Rates of Occupational Safety and Health Professionals in Kentucky, 2003-2005.**

KY rate of occupational safety and health professionals per 100,000 employed persons age 16 years or older	2003							
	ABPM	ACOEM	ABOHN	AAOHN	ABIH	AIHA	BCSP	ASSE
	1.0	4.3	4.8	6.1	3.3	6.4	5.0	28.7
	2004							
	ABPM	ACOEM	ABOHN	AAOHN	ABIH	AIHA	BCSP	ASSE
	1.1	4.2	4.5	6.5	3.2	6.3	4.9	30.0
	2005							
	ABPM	ACOEM	ABOHN	AAOHN	ABIH	AIHA	BCSP	ASSE
	1.1	3.6	4.5	6.6	3.1	5.6	5.6	33.9

ABPM- American Board of Preventive Medicine

ACOEM- American College of Occupational and Environmental Medicine

ABOHN- American Board of Occupational Health Nurses

AAOHN- American Association of Occupational Health Nurses

ABIH- American Board of Industrial Hygiene

AIHA- American Industrial Hygiene Association

BCSP- Board Certified Safety Health Professionals

ASSE- American Society of Safety Engineers

Data Sources: American Board of Preventive Medicine (ABPM) diplomats database, ACOEM annual roster, American Board of Occupational Health Nurses Directory, AAOHN annual roster, American Board of Industrial Hygiene, AIHA member directory, BCSP member directory, ASSE member directory, BLS Current Population Survey.

**Indicator #18: OSHA Enforcement Activities in the Private Sector**

In 2005, there were 1,745 establishments inspected by KY OSHA, a slight decrease from 1,792 in the year 2004. The percentage of establishments under OSHA jurisdiction inspected by KY OSHA in 2005 was similar to 2004 (1.66% in 2004 compared to 1.72% in 2003).

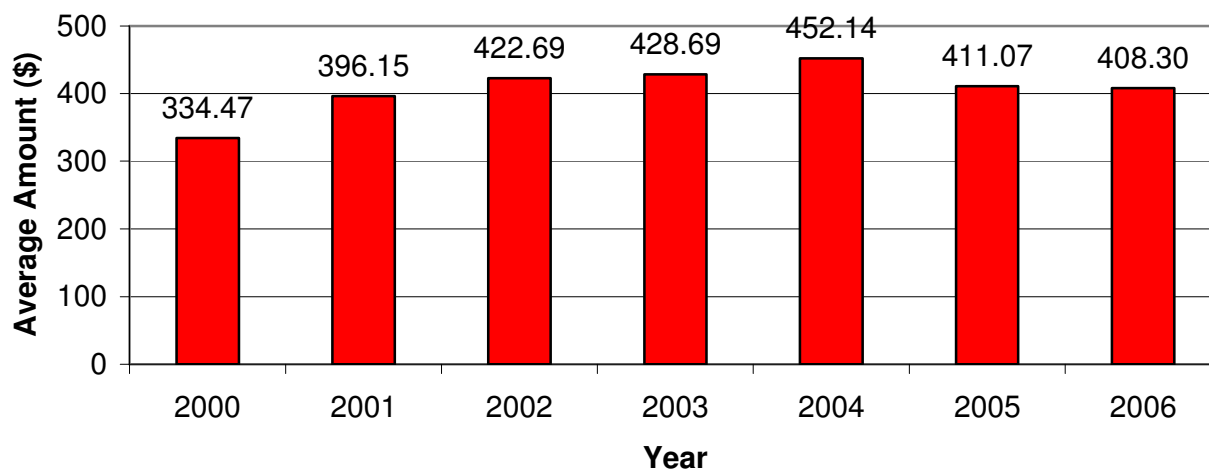
Data Sources: OSHA annual reports of total inspections conducted and the number of workers covered by these inspections, BLS statistics on Covered Employers and Wages.



### Indicator #19: Workers' Compensation Awards

The total amount of workers' compensation benefits paid in Kentucky in 2000 was \$575,292,000; in 2006, the total amount of workers' compensation benefits paid was \$709,628,000. The average amount of workers' compensation benefits paid per covered worker in KY decreased from \$411.07 in 2005 to \$408.30 in 2006 and is shown in Figure 24. When comparing US and Kentucky average amount of workers' compensation benefits paid, Kentucky's average amount was lower (\$408) than for the US (\$420) in the year 2006.

**Figure 24. Average Amount of Workers' Compensation Benefits Paid Per Worker in Kentucky, 2000-2006.**



Data Source: National Academy of Social Insurance

## Indicator #20 (Kentucky-Specific): Fatal and Non-Fatal Occupational Motor Vehicle Collision Injuries

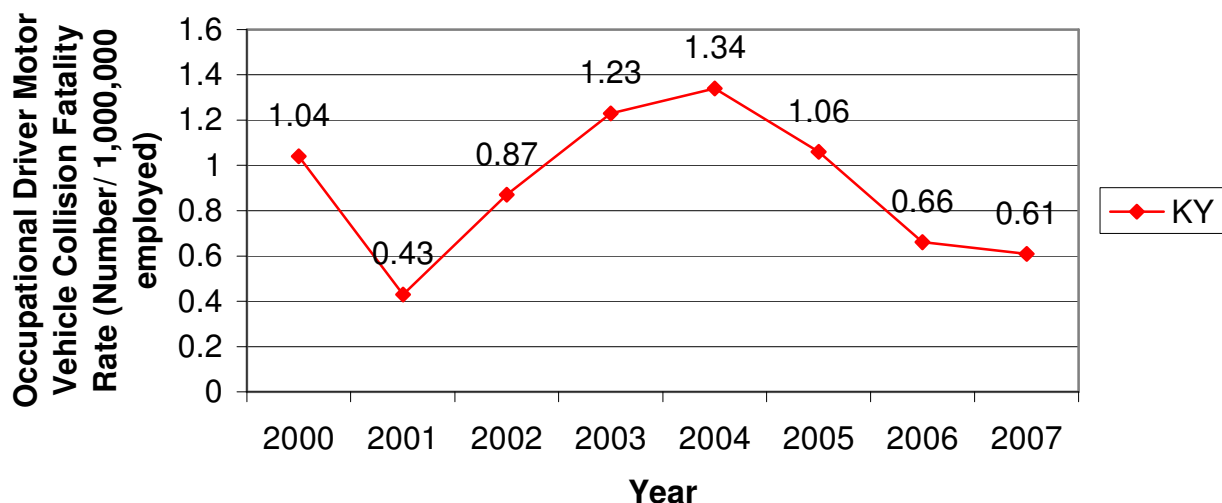
In 2007, there were 12,673 occupational motor vehicle collisions (MVCs) in Kentucky, decreased from 2006 (Table 4).

**Table 4. Unit Type Involved in Occupational Driver Motor Vehicle Collisions, 2000-2007.**

Vehicle Type	2007	2006	2005	2004	2003	2002	2001	2000
Bus	654	613	614	600	508	459	493	531
Emergency Vehicle - In response	306	339	323	366	348	316	353	322
Emergency Vehicle - Non-response	961	898	857	851	785	789	753	735
Light truck	11	10	14	20	41	23	21	66
Military Vehicle	65	71	78	67	88	90	63	56
Other Public Owned Vehicle	374	358	348	523	374	311	294	540
Passenger Car	9	4	7	5	17	19	17	30
Railroad Train	66	57	68	52	66	57	53	43
School Bus	925	926	992	1014	963	977	1011	1019
Taxicab	156	170	208	218	224	267	281	322
Truck & Trailer	1537	1671	1459	1533	1150	1026	979	1166
Truck-Single	3135	3174	3334	3328	3124	3127	3334	3401
Truck Tractor & Semi-Trailer	4210	4506	4496	4567	4268	4077	4276	4684
Truck - Other Combination	264	302	302	295	215	215	217	306
<b>Total Number of Vehicles</b>	<b>12,637</b>	<b>13,099</b>	<b>13,102</b>	<b>13,441</b>	<b>12,172</b>	<b>11,753</b>	<b>12,145</b>	<b>13,221</b>

There were 117 drivers or occupants killed and 2,835 people injured in work-related MVCs in 2007 (Table 5). The occupational driver motor vehicle fatality rate was 0.61/1,000,000 employed persons in 2007, decreasing since the year 2004 (Figure 25).

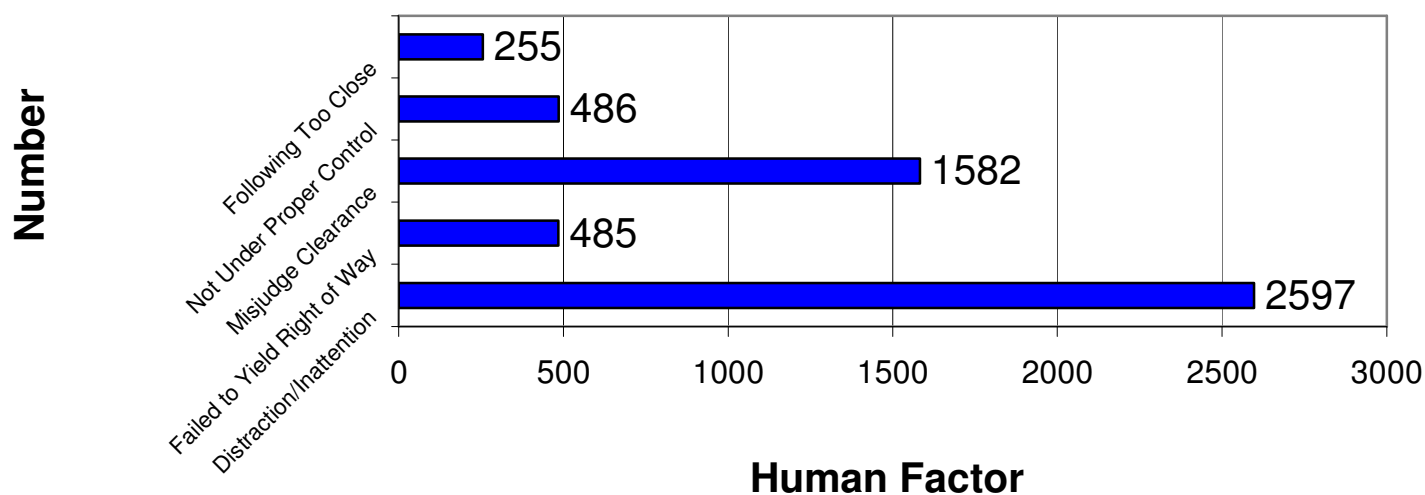
**Figure 26. Occupational Motor Vehicle Fatality Rates- 2000-2007.**



**Table 5. Number Injured in Occupational Motor Vehicle Collisions, 2004-2007.**

Number of People Injured Per MVC	# of MVCs in 2007	2007	# of MVCs in 2006	2006	# of MVCs in 2005	2005	# of MVCs in 2004	2004
		Total		Total		Total		Total
1	1324	1324	1405		1449	1449	1540	1540
2	402	804	431	862	423	846	418	836
3	100	300	113	339	121	363	115	354
4	33	132	44	176	58	232	43	172
5	17	85	18	90	18	90	14	70
6	8	48	10	60	4	24	8	48
7	2	14	4	28	3	21	5	35
8	2	16	4	24	2	16	1	8
9	1	9	3	27	1	9	2	18
10	2	20		11	1	10	0	0
11			1	13	0	0	0	0
12				10	1	12	0	0
13			1	59	1	13	0	0
17					0	0	0	0
18					0	0	1	18
19	1	19			0	0	2	38
≥20	1	64	2		1	48	2	66
<b>Total</b>		<b>2,835</b>		<b>3,114</b>		<b>3,133</b>		<b>3,194</b>

Distraction/inattention (n=2,597), misjudging clearance (n=1,582), and not maintaining proper control were the human factors cited most frequently for occupational drivers involved in MVCs (Figure 27).

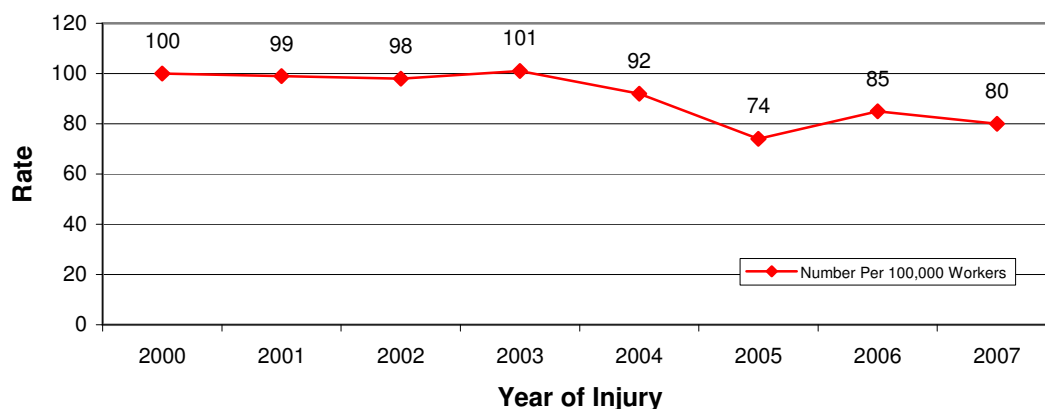
**Figure 27. Human Factors Involved in Occupational Motor Vehicle Collisions, 2007.**

Data Source: Motor vehicle collision surveillance data was obtained from the Collision Report Analysis for Safer Highways (CRASH) database established and maintained by the Kentucky State Police.

## Indicator #21 (Kentucky- Specific): Occupational Motor Vehicle Collisions- First Reports of Injury and Claims Filed With Workers' Claims by Injury Year

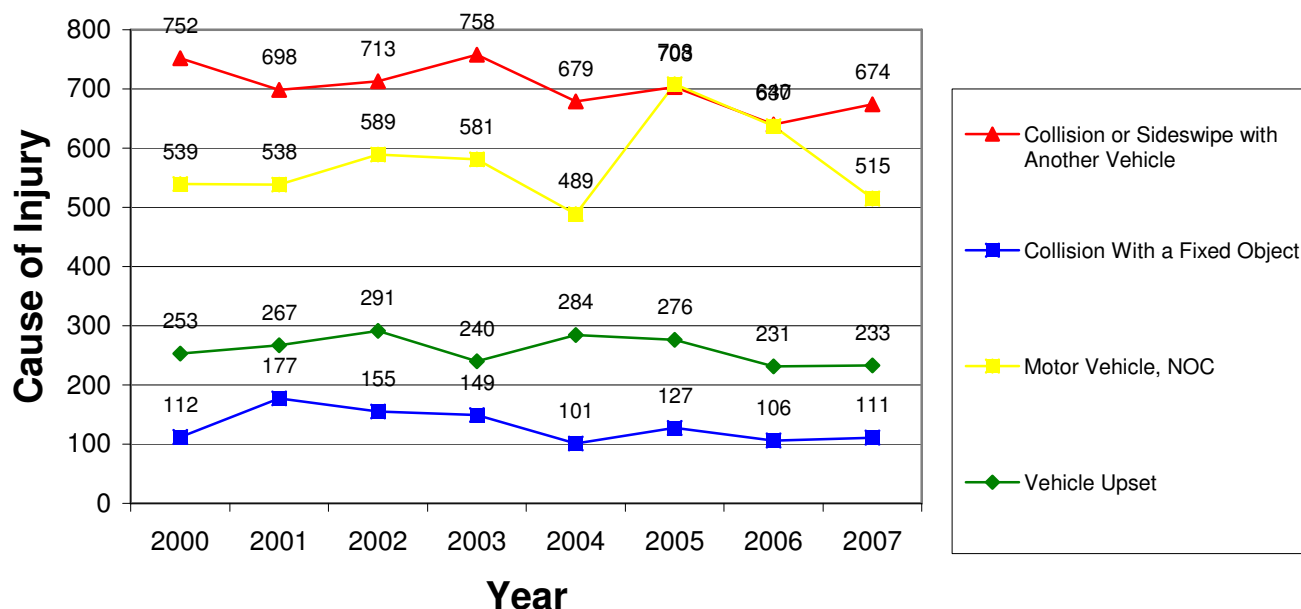
There were 1,540 occupational motor vehicle collision claims, and the occupational motor vehicle collision driver injury rate decreased in the year 2007 (Figure 27).

**Figure 27. Occupational Motor Vehicle Collision Driver Injury Rates, 2000-2007.**



The cause of injury in occupational motor vehicle collision reports and claims was primarily due to a collision or sideswipe with another vehicle (Figure 28).

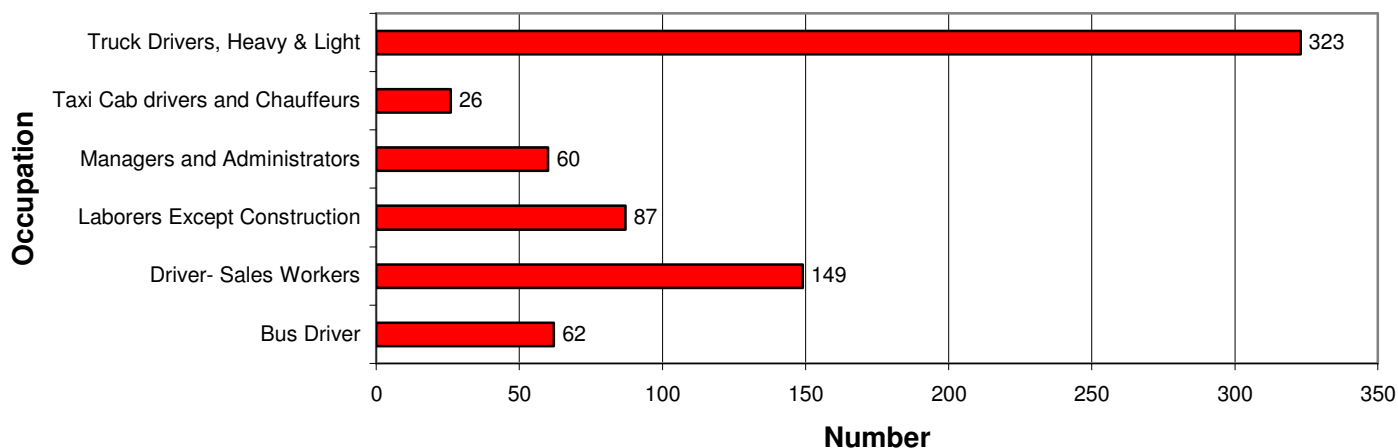
**Figure 28. Cause of Injury in Occupational Motor Vehicle Collisions, 2000-2007<sup>a</sup>.**



<sup>a</sup> "Vehicle upset" refers to a vehicle that overturns or jack-knifes

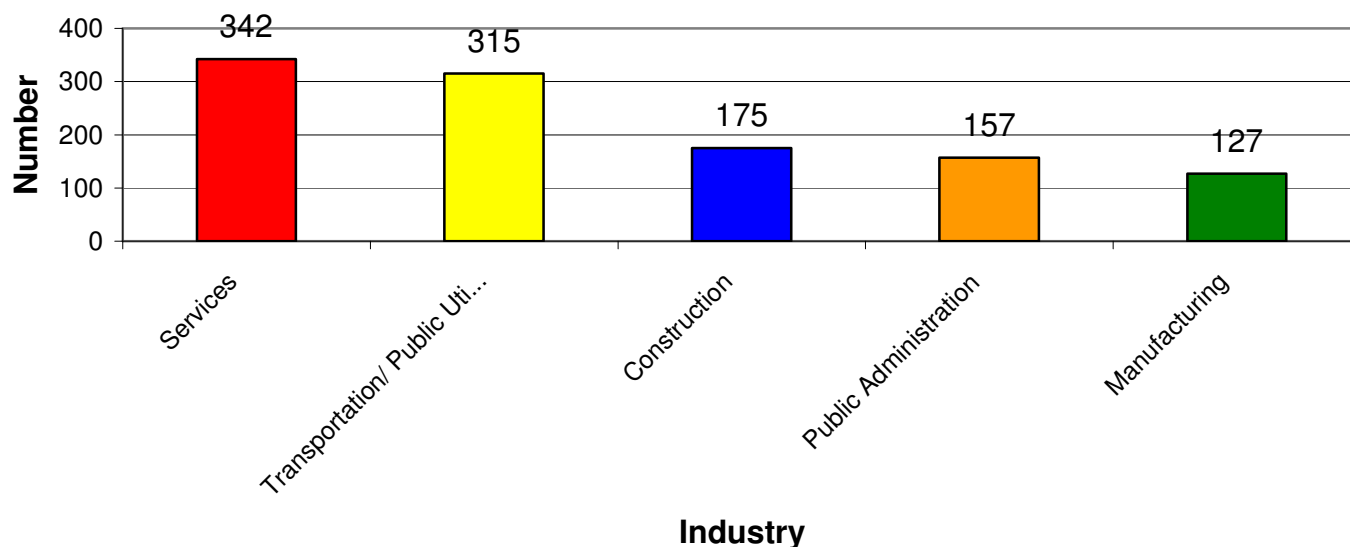
The primary occupations were truck drivers (heavy and light) (n= 323), driver- sales workers (n=149), laborers (non-construction) (n=87), and bus drivers (n=62) (Figure 29).

**Figure 29. Occupational Motor Vehicle Collision First Reports of Injury and Claims Filed With Workers' Claims by Occupation, 2007.**



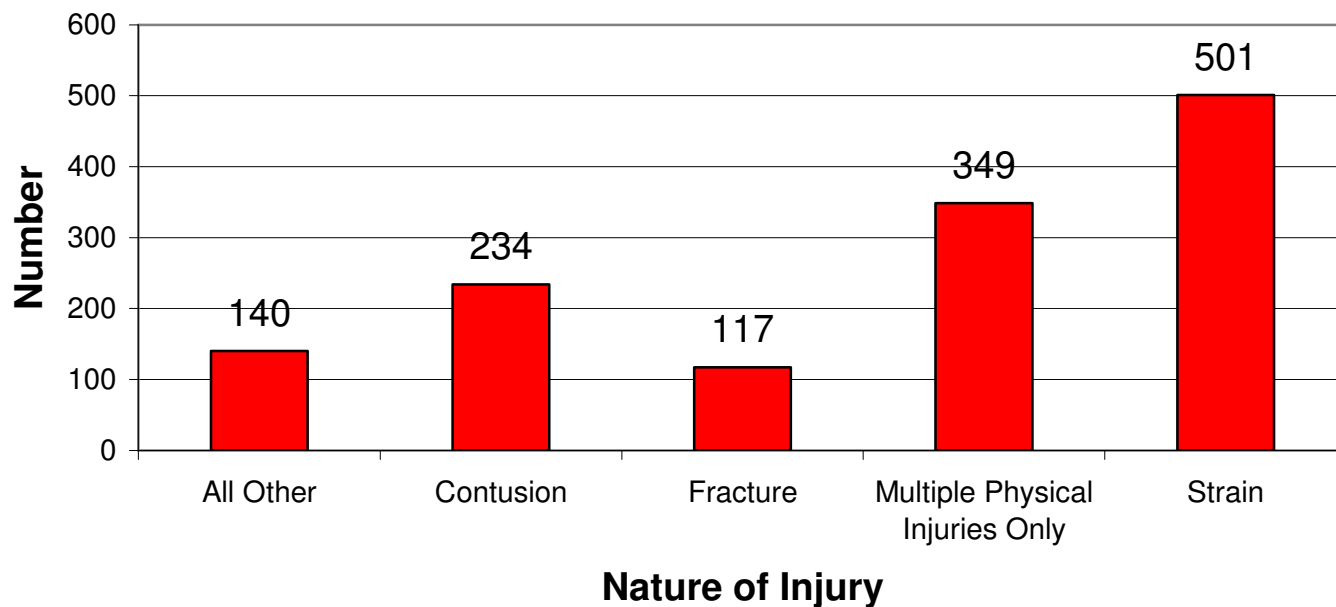
The industries where most of the occupational motor vehicle collisions occurred were Services, and Transportation/Public Utilities industries (Figure 30).

**Figure 30. Occupational Motor Vehicle Collision First Reports of Injury and Claims Filed With Workers' Claims by Industry, 2007.**



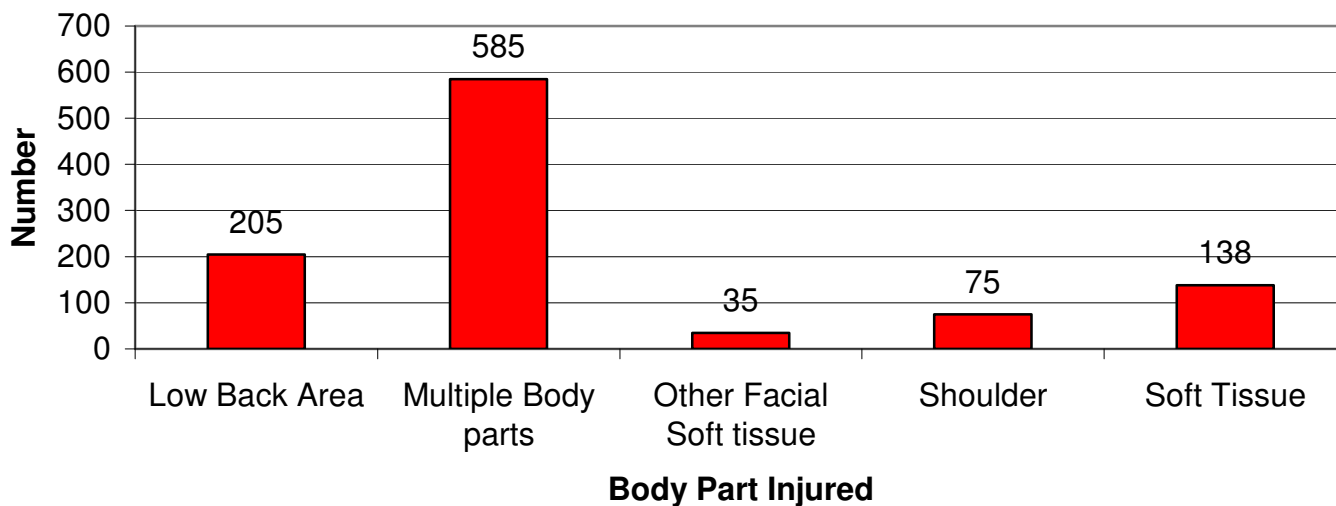
Strains and multiple physical injuries were frequently suffered by workers involved in motor vehicle collisions (Figure 31).

**Figure 31. Occupational Motor Vehicle Collision First Reports of Injury and Claims Filed With Workers Claims by Nature of Injury, 2007.**



Multiple body parts and the low back area were the most frequently reported injuries among workers involved in motor vehicle collisions (Figure 32).

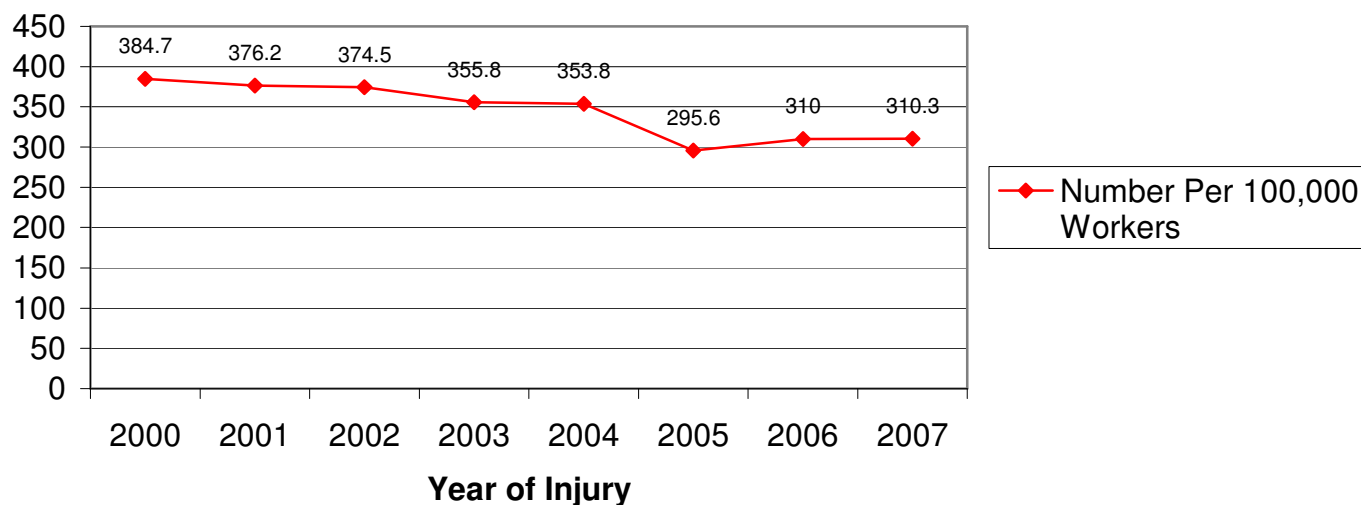
**Figure 32. Common Body Parts Injured in First Reports of Injury and Claims Filed with the Office of Workers' Claims, 2007.**



## Indicator #22 (Kentucky- Specific): Occupational Falls- First Reports of Injury and Claims Filed With Workers' Claims by Injury Year

In the year 2007, there were 5,995 distinct occupational fall claims and first reports filed. The occupational fall injury incidence rate was 310/100,000 employed workers in the year 2007, similar to the year 2006. The fall injury incidence rates are shown in Figure 33.

**Figure 33. Occupational Fall Injury Incidence Rates, 2000-2007.**



The top 10 industries for occupational falls in the year 2007 are shown in Table 6.

**Table 6. Top Ten Industries by (SIC) code Where Occupational Falls Occurred, 2007.**

Industry	Frequency (n)
Services	2057
Retail Trade	1117
Manufacturing	741
Construction	624
Transportation, Public Utilities	458
Public Administration	367
Wholesale Trade	218
Mining	160
Finance, Insurance, Real Estate	115
Agriculture, Forestry, Fishing	111

Work-related falls occurred most frequently in non-construction laborer occupations (Table 7).

**Table 7. Top Ten Occupations Where Occupational Falls Occurred, 2007.**

<b>Occupation</b>	<b>Frequency (n)</b>
Laborers, Except Construction	469
Sales Workers, Retail and Personal Services	343
Truck Drivers Heavy and Light	302
Nursing Aides or Orderlies and Attendants	293
Miscellaneous Machine Operators, NEC	198
Kitchen Workers- Food Preparation	169
Janitors and Cleaners	158
Teachers NEC	148
Miscellaneous food preparation occupations	148
Construction Laborers	133

Strains were the injuries most frequently reported when workers fell (n=1516) in 2007. Other types of injuries were contusions (n= 1152), fractures (n= 1009), sprains (n= 679), and multiple physical injuries (n= 660). The body parts most frequently affected in work-related falls were multiple parts (n= 1118), knees (n= 985), ankles (n=597), low back area (lumbar and lower sacral) (n= 533), and shoulders (n= 343).

## CONCLUSIONS

Kentucky has made significant advances in the reduction of occupational injuries and illnesses. Incidence rates were reduced for total work-related injuries and fatalities, work-related hospitalizations, work-related burns, carpal tunnel syndrome, asbestosis, total pneumoconiosis, blood lead levels, malignant mesothelioma, and fatal occupational motor vehicle collisions for the latest data years available. Prevention efforts this year will continue to focus on the prevention of occupational motor vehicle collisions, occupational poisonings, and occupational falls.