

OCCUPATIONAL HEALTH IN KENTUCKY, 2013

An Annual Report by the Kentucky Injury Prevention and Research Center

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EXECUTIVE SUMMARY

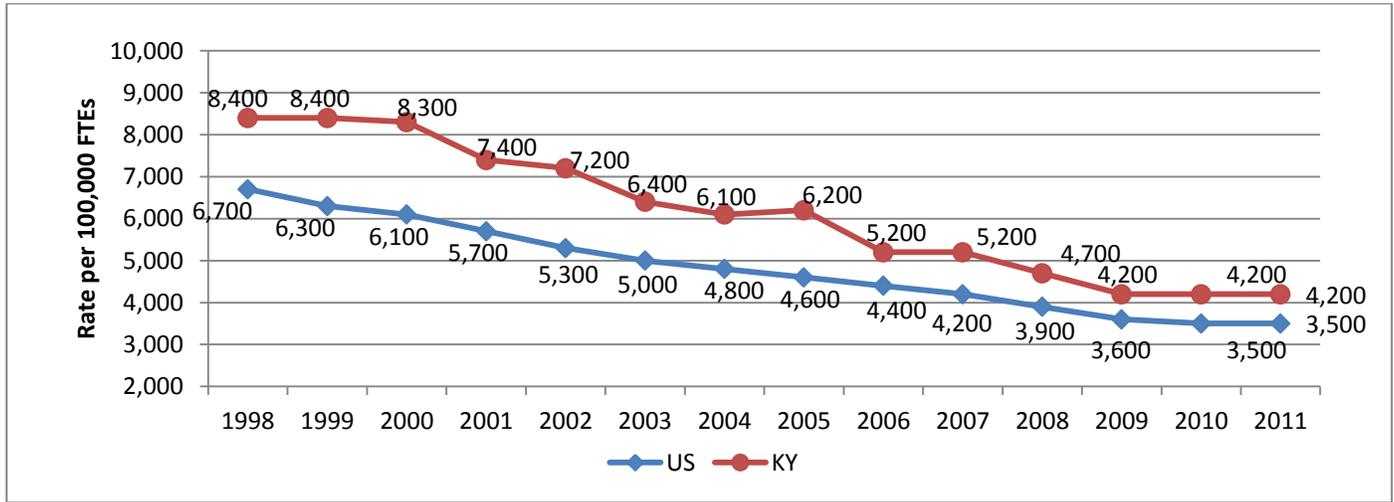
Key findings:

- ❑ Kentucky's 2011 *nonfatal* work-related injury and illness rate was still 20% above the national rate.
- ❑ The 2011 work-related *fatality* rate was 5.3 deaths/100,000 workers, 35% above the US rate of 3.6/100,000.
- ❑ Kentucky's amputation work-related rate was 12 claims/100,000 workers in 2011, double the U.S. rate.
- ❑ The 2010 age-adjusted pneumoconiosis mortality rate was 23 deaths/million residents, 188% above the U.S. rate.
- ❑ The acute work-related pesticide-associated injury and illness rate of 3.7/100,000 FTEs was 76% above the U.S. rate in 2010.
- ❑ Kentucky had the 5th highest percentage of workers in the U.S. who were employed in occupational fatality risk industries in 2010.
- ❑ The Kentucky occupational motor vehicle injury rate decreased 10% from 2011 to 2012.
- ❑ The occupation at highest risk for work-related injuries and illnesses in Kentucky was the drivers/sales workers and truck drivers' occupation in 2010.
- ❑ The occupational fall injury incidence rate decreased 8% from 2011 to 2012.
- ❑ The average amount of workers' compensation benefits per covered worker in Kentucky decreased to \$391 in 2010 compared to \$442 in 2009.
- ❑ There were 68 school bus collisions in 2012.
- ❑ The number of buses involved in motor vehicle collisions increased from 135 in 2011 to 142 in the year 2012.

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

In 2011, there were 49,200 non-fatal work-related injuries and illnesses in Kentucky, with an incidence rate of 4,200/100,000 employees, down 50% from 1998 (Figure 1). Kentucky is still 20% above the national incidence rate of 3,500 /100,000 FTEs.

Figure 1. Non-Fatal Work-Related Injury and Illness Incidence Rates, 1998-2011

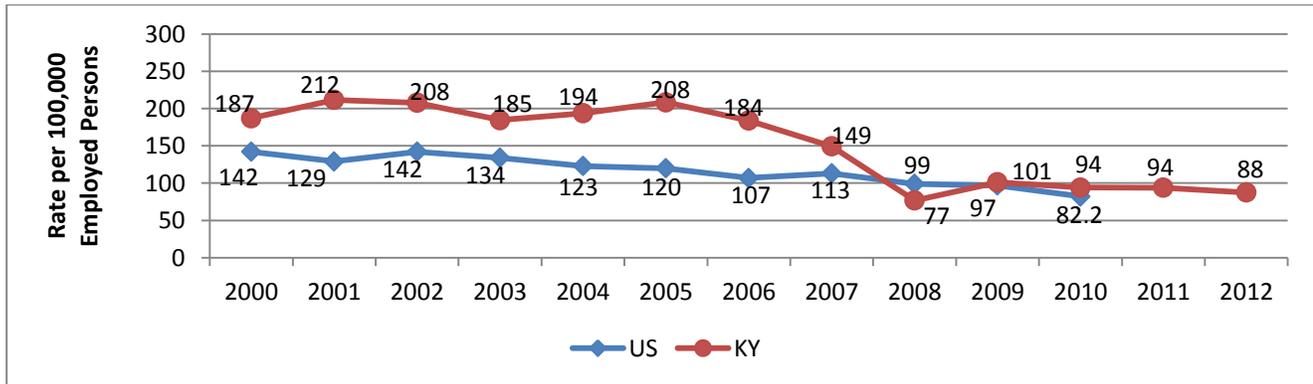


Data Source: Annual Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses (SOII)

Indicator #2: Work-Related Hospitalizations

In 2012, there were 1,664 work-related hospitalizations with an annual crude rate of 88/100,000 employed persons age 16 years and older, down 53% from the year 2000 (Figure 2).

Figure 2. Work-Related Hospitalization Rates, 2000-2012

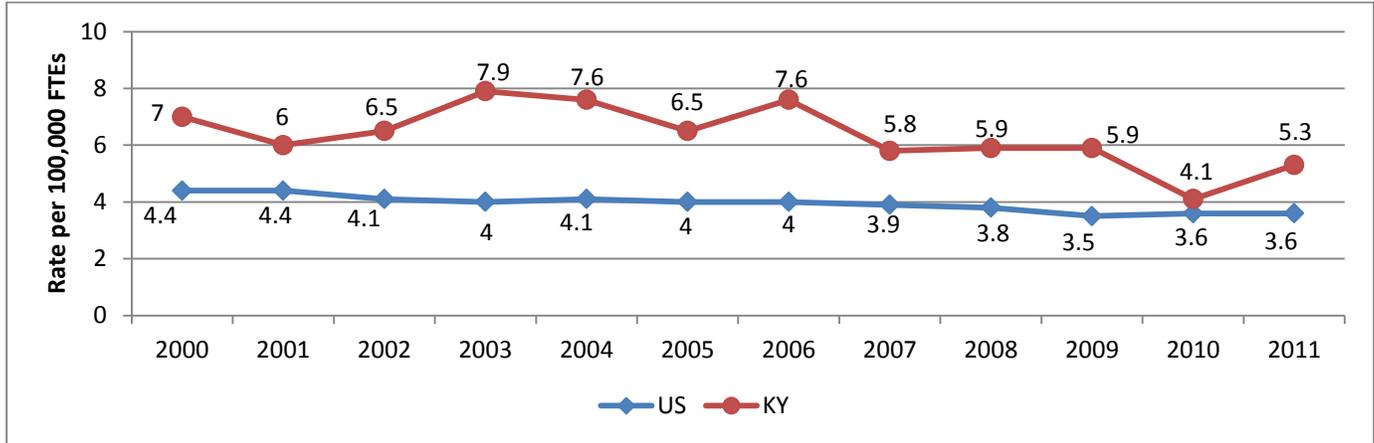


Data Source: Numerator KY data: KY Dept. for Public Health, Office of Health Policy. Numerator US data: National Hospital Discharge Survey. Denominator data: BLS Current Population Survey data. Rates may differ from rates reported in previous reports as the KY hospital discharge files for the last 4 years were updated. The 2012 hospitalization data may not be complete by expected payer source.

Indicator #3: Fatal Work-Related Injuries

In 2011 there were 93 fatal occupational injuries in Kentucky, a 35% increase from the reported 69 fatal work-related injuries for 2010. The Kentucky rate was 5.3/100,000, or 35% above the national rate.

Figure 3. Fatal Work-Related Injury Rates, 2000-2011

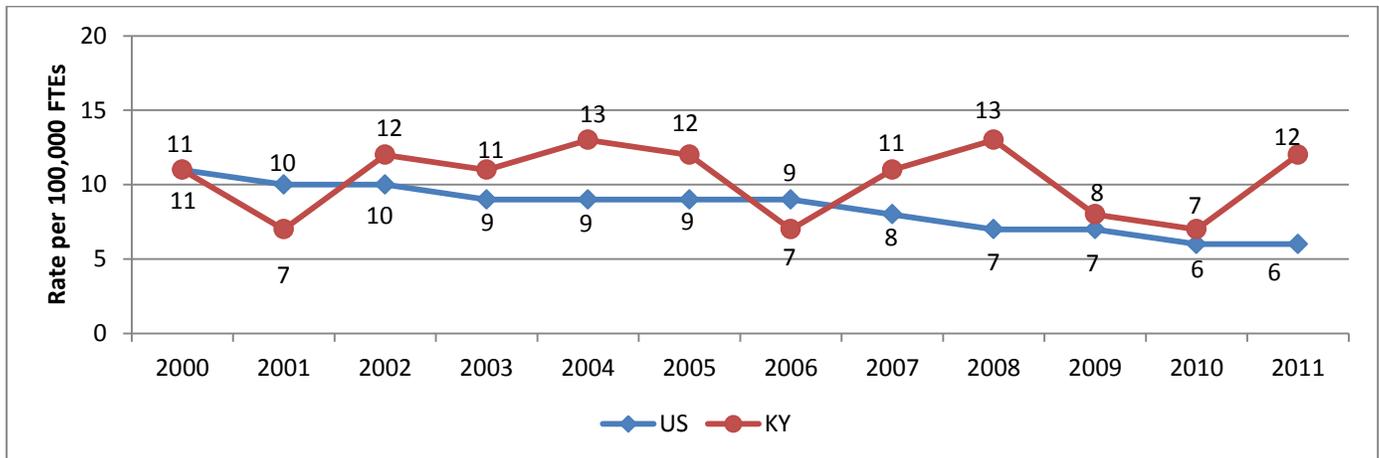


Data Source: Census of Fatal Occupational Injuries (CFOI)

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

There were 140 amputation cases with days away from work in 2011, up 50 cases from the year 2010. The annual incidence rate of 12 cases per 100,000 FTEs was 100% higher than the national amputation incidence rate of 6/100,000 (BLS SOII) in 2011 (Figure 4).

Figure 4. Work-Related Amputation Rates, 2000-2011

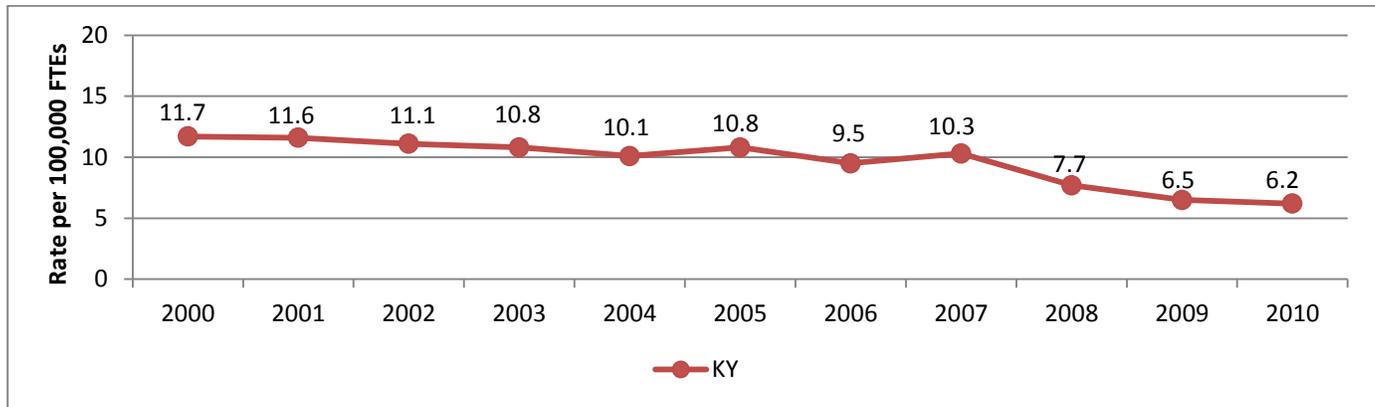


Data Source: Annual BLS Survey of Occupational Injuries and Illnesses (SOII)

Indicator #5: Amputations Filed with the State Workers' Compensation System by Injury Year

The number of amputations filed with the Kentucky Department of Workers' Compensation in the year 2010 was 104, not a big change from 108 filed in 2009. The annual incidence rate for amputations was 6.2 cases per 100,000 employees (Figure 5). Most of the amputations occurred in the manufacturing industry (n=55).

Figure 5. Amputation Work-related Rates, 2000-2010

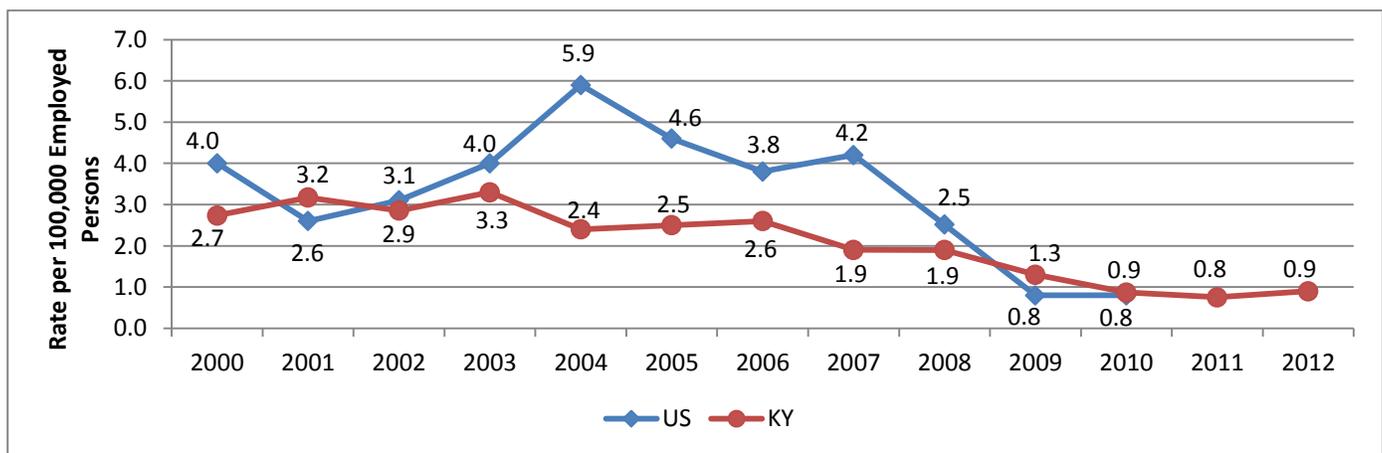


Data Source: Kentucky Department of Workers' Claims

Indicator #6: Work-Related Burn Hospitalizations

There were 17 work-related burn hospitalizations in 2012 with an annual crude rate for work-related burn hospitalizations of 0.9/100,000 employed persons age 16 years or older. Kentucky work-related burn hospitalization rates have been stable in recent years (Figure 6).

Figure 6. Burn Hospitalizations, 2000-2012

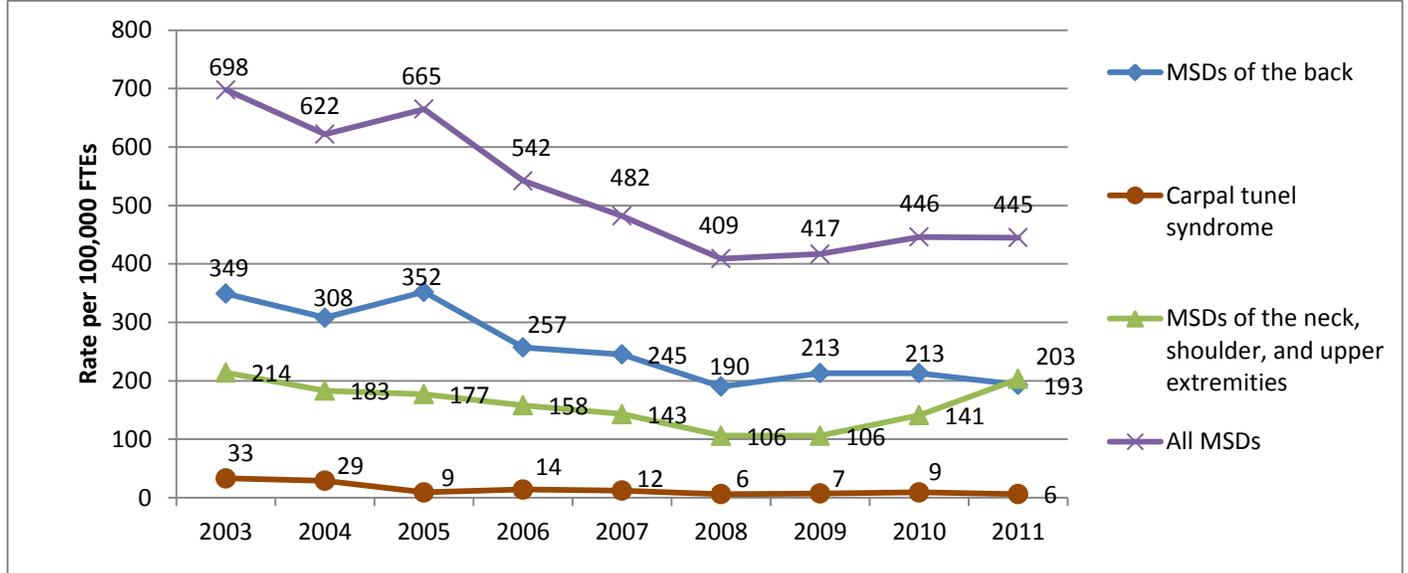


Data Source: Kentucky Department for Public Health, Office of Health Policy

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

Kentucky had a total annual MSD incidence rate of 445 cases/100,000 FTEs in 2011 (Figure 7), due primarily to the MSD of the neck, shoulder, and upper extremities (203/100,000).

Figure 7. Musculoskeletal Disorders Incidence Rates Involving Days Away from Work, 2003-2011

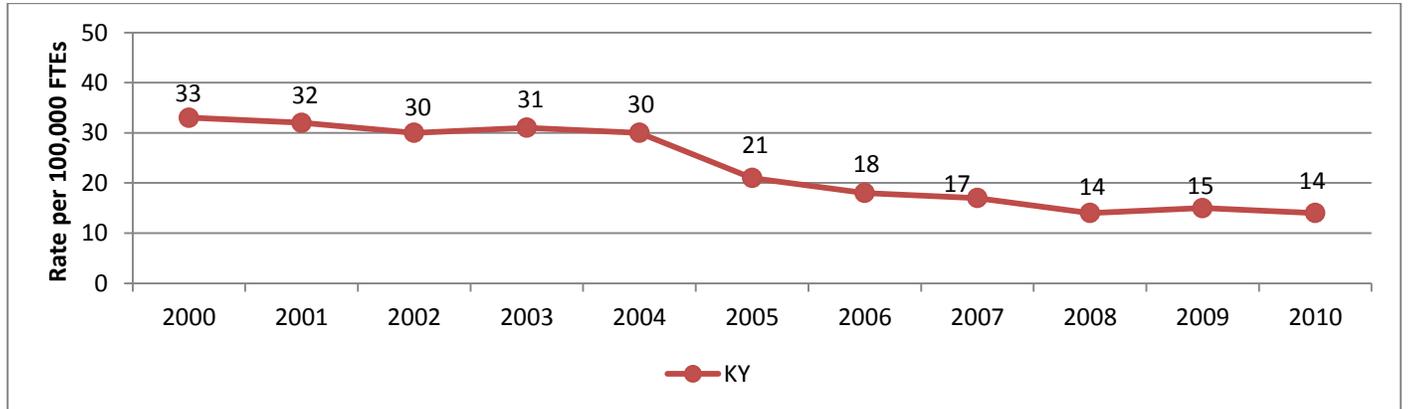


Data Source: Annual Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses (SOII)

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

Carpal tunnel syndrome (CTS) case claim rates have declined 58% since the year 2000 (Figure 8). CTS injuries occurred primarily in the manufacturing (n=85), and services (n= 53) industries.

Figure 8. Lost Work-Time Claim Rates for Carpal Tunnel Syndrome Cases Identified in State Workers' Compensation Systems, 2000-2010

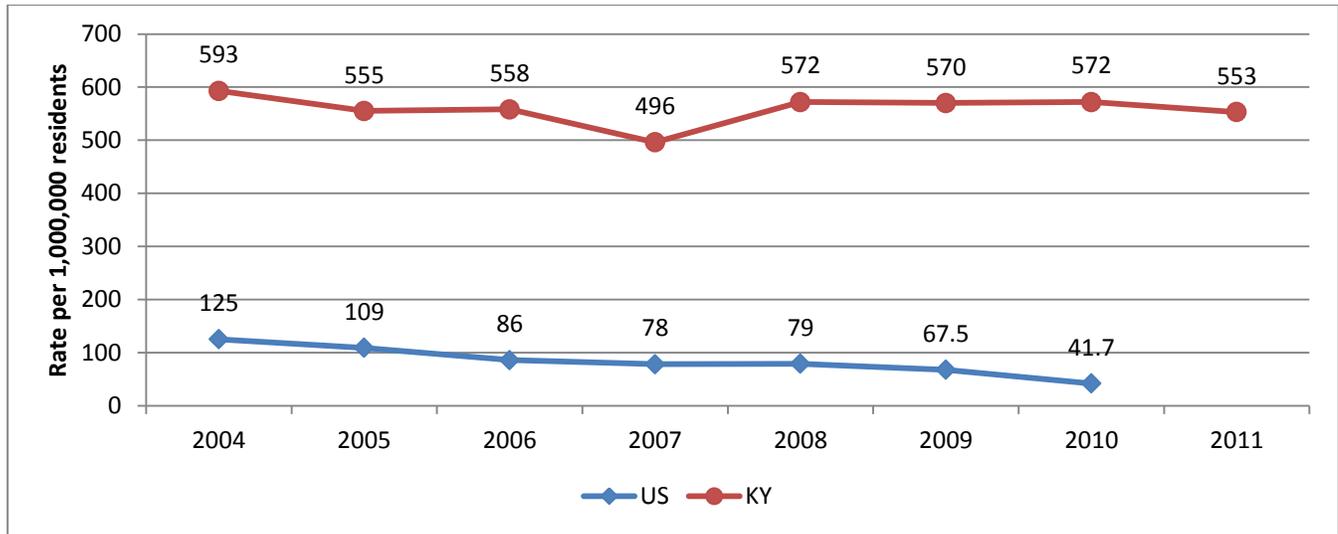


Data Source: Kentucky Department of Workers' Claims

Indicator #9: Hospitalization from or with Pneumoconiosis

The annual age-standardized rate of pneumoconiosis hospitalizations per million residents in Kentucky decreased 3% from 2010 to 2011, but is 93% above the 2010 U.S. rate (Figure 9).

Figure 9. Age-Standardized Hospitalization Rates from or with Total Pneumoconiosis, 2004-2011



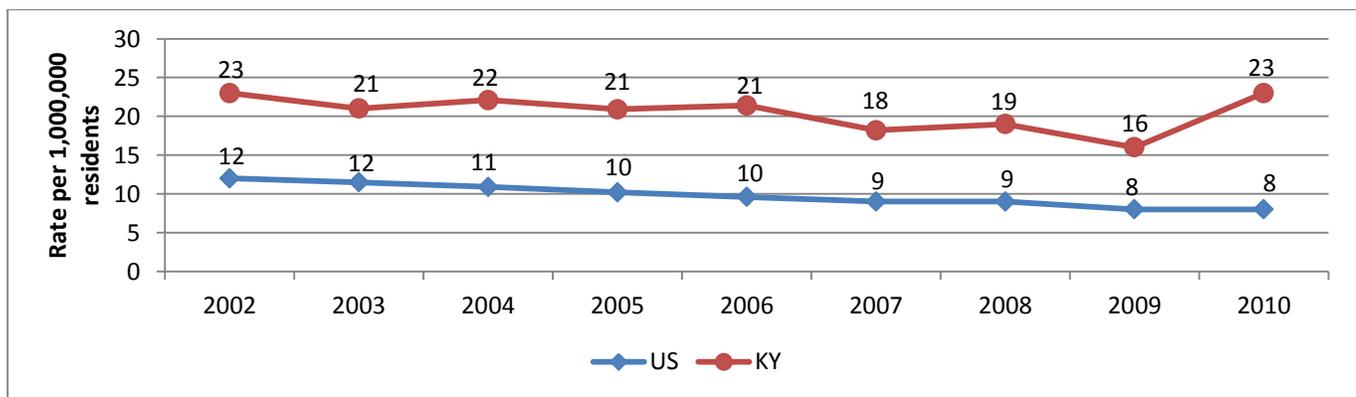
Note: U.S. rates are not yet available for year 2011.

Data Source: Kentucky Department for Public Health, Office of Health Policy

Indicator #10: Mortality from or with Pneumoconiosis

The age-adjusted total death rate for pneumoconiosis was 23 per million residents in 2010, 65% above the U.S. rate (Figure 10).

Figure 10. Age-Standardized Mortality Rate from or with Pneumoconiosis, 2002-2010

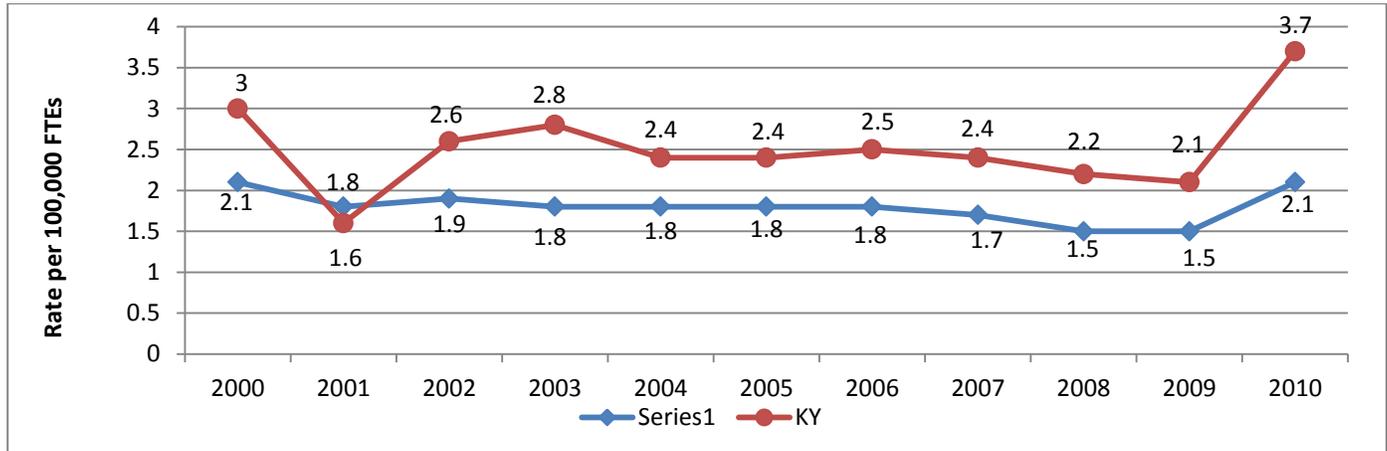


Data Source: Kentucky Department for Public Health, Office of Vital Statistics

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

The annual incidence rate of reported work-related pesticide poisonings in Kentucky remains well above the national rate in recent years. The 2010 rate was 3.7/100,000 FTEs, 43% above the U.S. rate (Figure 11).

Figure 11. Work-Related Pesticide-Associated Poisonings Rates, 2000-2010

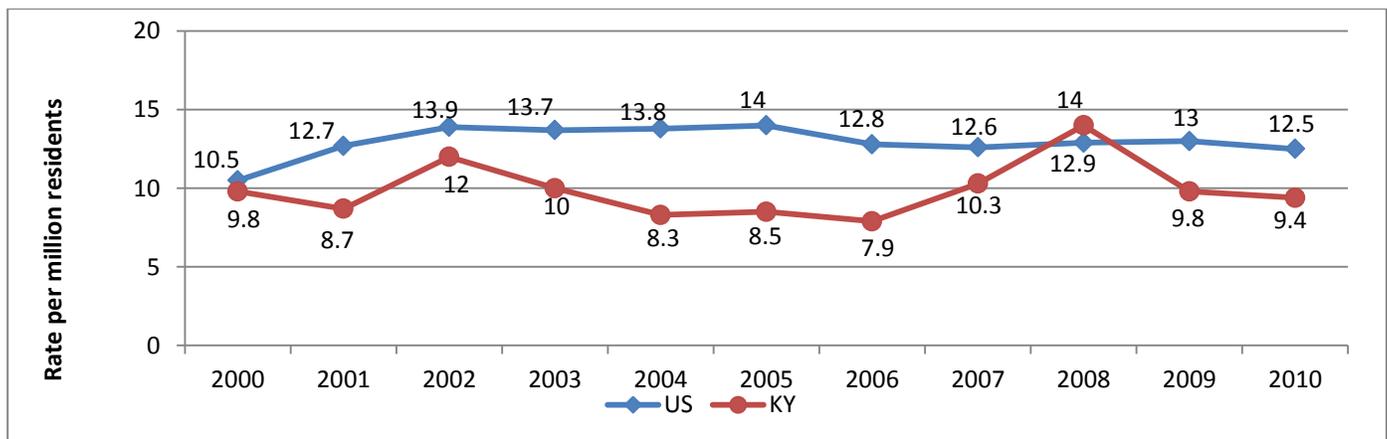


Data Source: American Association of Poison Control Centers

Indicator #12: Incidence of Malignant Mesothelioma

The age-adjusted rate of malignant mesothelioma was 9.4 cases per million residents (35 cases) in 2010, 25% below the U.S. rate (Figure 12).

Figure 12. Age-Standardized Incidence Rate of Malignant Mesothelioma, 2000-2010

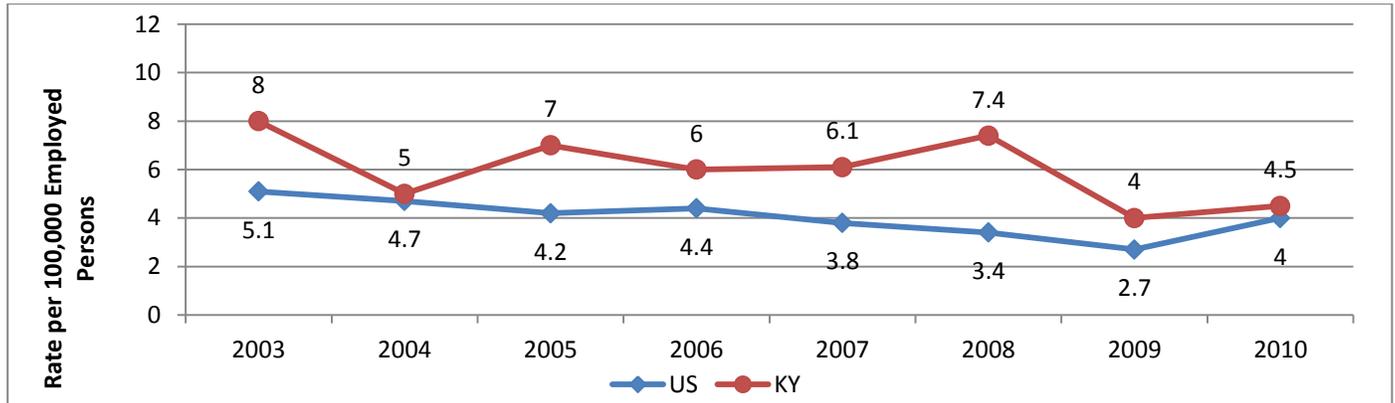


Data Source: Kentucky Cancer Registry

Indicator #13: Elevated Blood Lead Levels (BLL) among Adults

Lead exposure is considered elevated in an adult when it reaches 25 µg/dL. The Kentucky prevalence rate of persons with blood lead levels ≥ 25µg/dL in 2010 is 8/100,000.

Figure 13. Annual Incidence Rates of Elevated BLL ≥25 mg/dL Among Persons Age 16 Years and Older

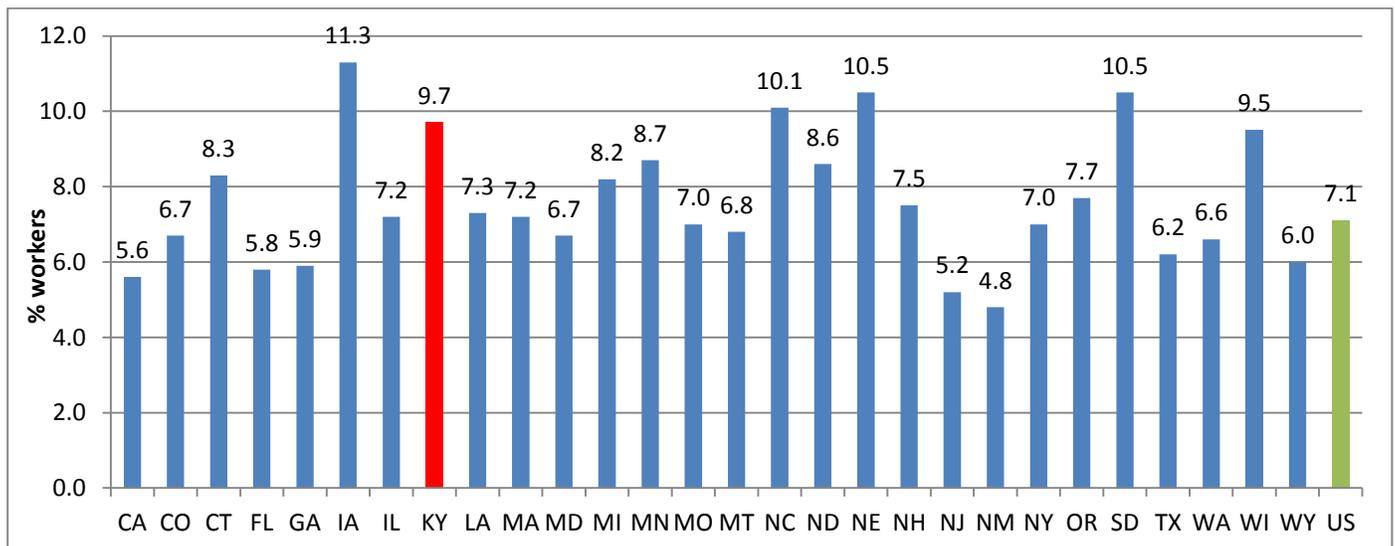


Data Source: Kentucky Lead Poisoning Prevention Program, Division of Adult and Child Health. US rates were obtained from the NIOSH ABLES program.

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

The percentage of Kentucky workers employed in high-risk morbidity industries in year 2010 was 10%, a slight increase from 9.7% in 2009 when KY had the 5th highest percentage in the U.S. (Figure 14). The percentage of workers employed in industries with high risk for occupational morbidity nationwide in 2010 was 7.2%

Figure 14. Percentage of Workers in High Risk Industries for Occupational Morbidity, 2009

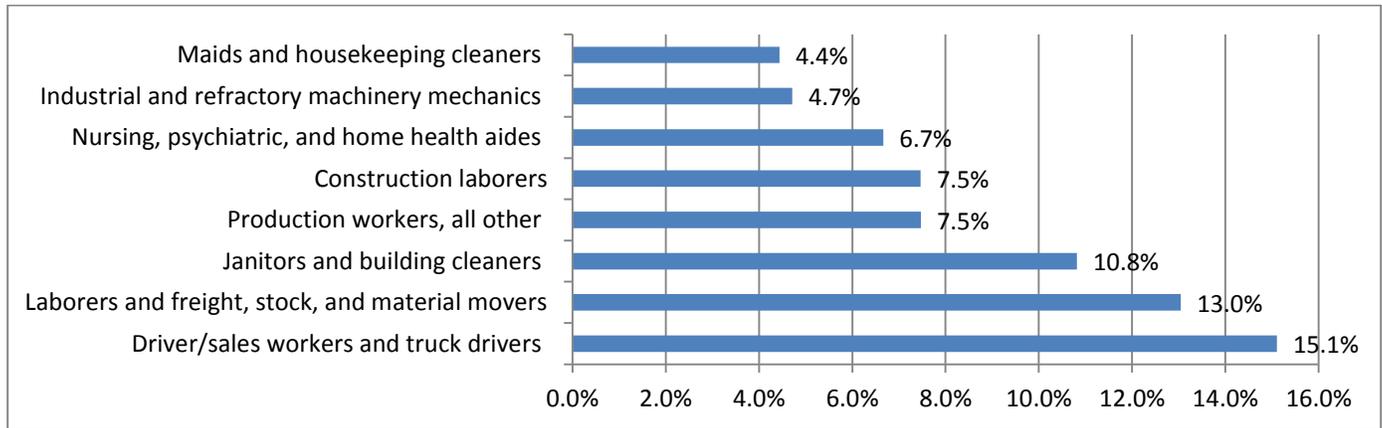


Data Source: Census Bureau County Business Patterns

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

The largest groups of occupations at highest risk for occupational injuries and illnesses in 2010 in Kentucky are presented in Figure 15 as the percentage of employed population. In 2010, the overall percentage in Kentucky was 18.5%, slightly greater than the percentage in 2009 (17.8%). The percentage of U.S. workers employed in occupations at high risk for occupational morbidity in 2010 was 15.4%.

Figure 15. Percentage of Kentucky Workers in Occupations with High Risk for Occupational Morbidity, 2010

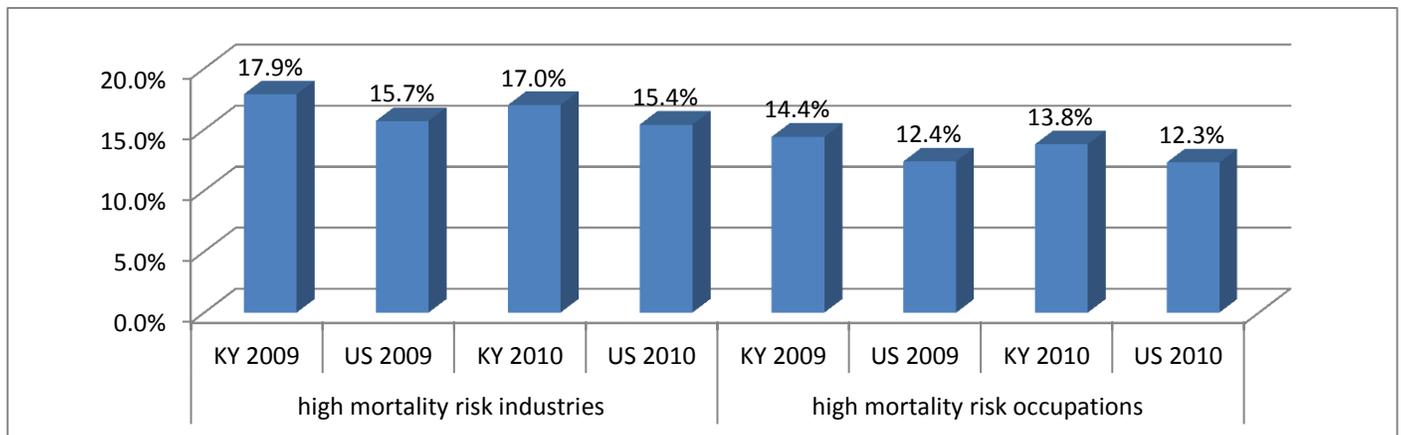


Data Source: Bureau of Labor Statistics (BLS) Current Population Survey (CPS)

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 17% in 2010, 1.6% above the U.S. percentage. The percentage of Kentucky workers employed in occupations at high risk for occupational mortality was 13.8% in 2010, above the U.S. percentage of 12.3%.

Figure 16. Percentage of Workers Employed in High Mortality Risk Industries/Occupations, 2009-2010



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

Indicator #17: Occupational Safety and Health Professionals

In 2010, the rate of occupational safety and health professionals in Kentucky was 52.9 professionals per 100,000 workers (Table 1), down from 57.4 in 2009.

Table 1. Rates of Occupational Safety and Health Professionals in Kentucky, 2010

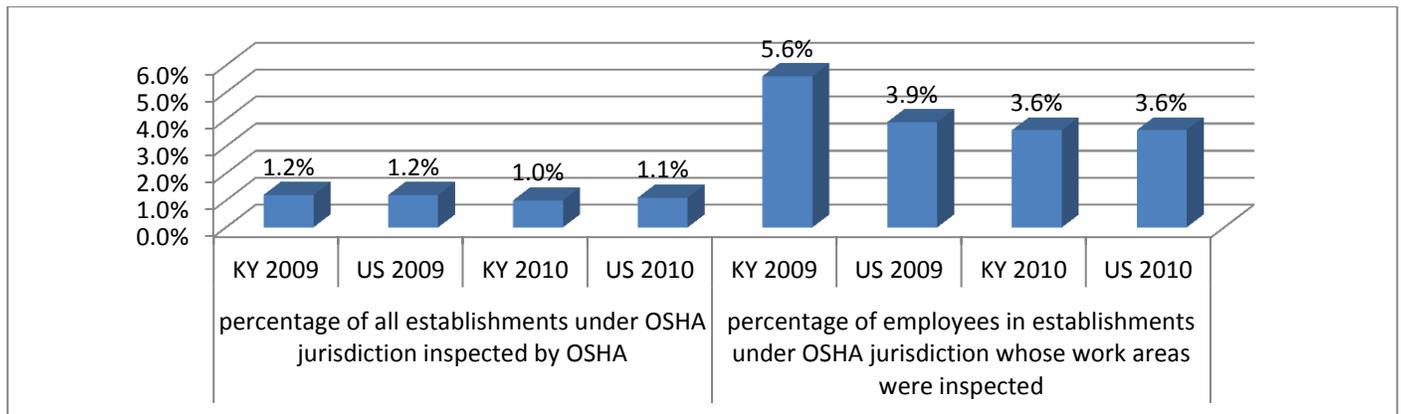
Rate per 100,000 employees	KY 2010	US 2010	KY 2009	US 2009
Rate of board-certified occupational physicians	1.5	2.1	1.2	2.2
Rate of American College of Occupational and Environmental Medicine members	3.3	2.9	3.8	3.0
Rate of board-certified occupational health registered nurses	4.0	3.9	4.6	4.1
Rate of members of the American Association of Occupational Health Nurses	NA	NA	4.2	4.6
Rate of board-certified industrial hygienists	3.6	5.2	3.5	5.1
Rate of American Industrial Hygiene Association	4.4	5.6	4.9	5.9
Rate of board certified safety health professionals	8.6	8.8	8.1	8.6
Rate of American Society of Safety Engineers membership	27.5	22.5	27.1	21.5

Data Sources: American Board of Preventive Medicine, ACOEM, American Board of Occupational Health Nurses Directory, AAOHN, American Board of Industrial Hygiene, AIHA, BCSP, ASSE, BLS Current Population Survey

Indicator #18: OSHA Enforcement Activities

In 2010, there were 1,139 establishments inspected by KY OSHA, a decrease from 1,314 in 2009. The percentage of establishments under OSHA jurisdiction inspected by KY OSHA in 2010 was 1.0% (Figure 17). The percentage of OSHA-covered employees whose work areas were inspected by OSHA in 2010 was 3.6%, a 36% decrease compared with year 2009.

Figure 17. OSHA Enforcement Activities, 2009-2010

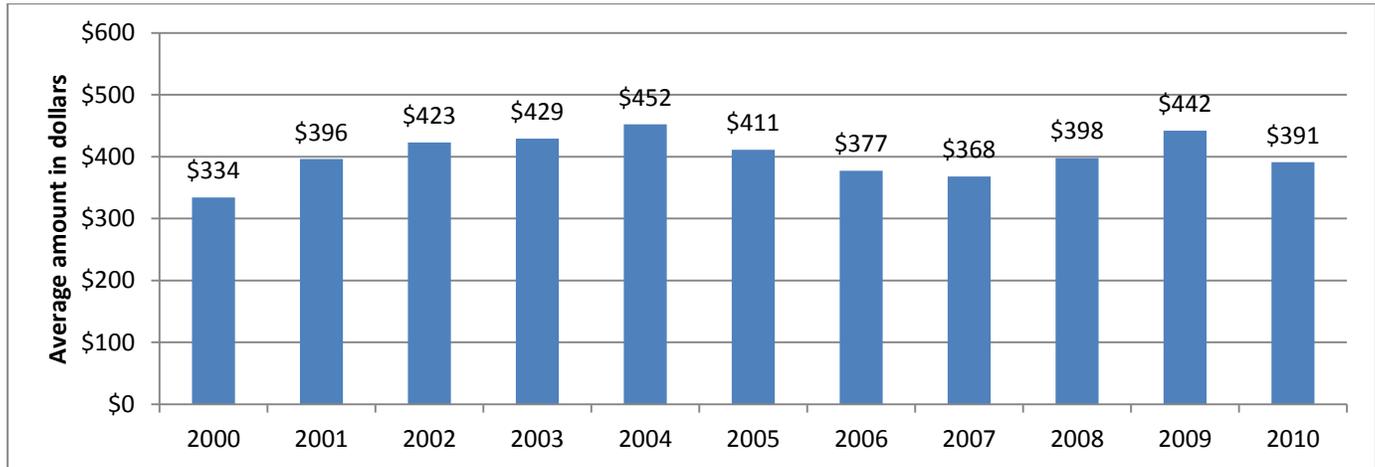


Data Sources: OSHA annual reports, BLS statistics on Covered Employers and Wages

Indicator #19: Workers' Compensation Awards

The total amount of workers' compensation benefits paid in Kentucky in 2010 was \$650,701,000. The average amount of workers' compensation benefits paid per covered worker in KY decreased 12% to \$391 from 2009 to 2010 (Figure 18).

Figure 18. Average Amount of Workers' Compensation Benefits Paid Per Worker in Kentucky, 2000-2010

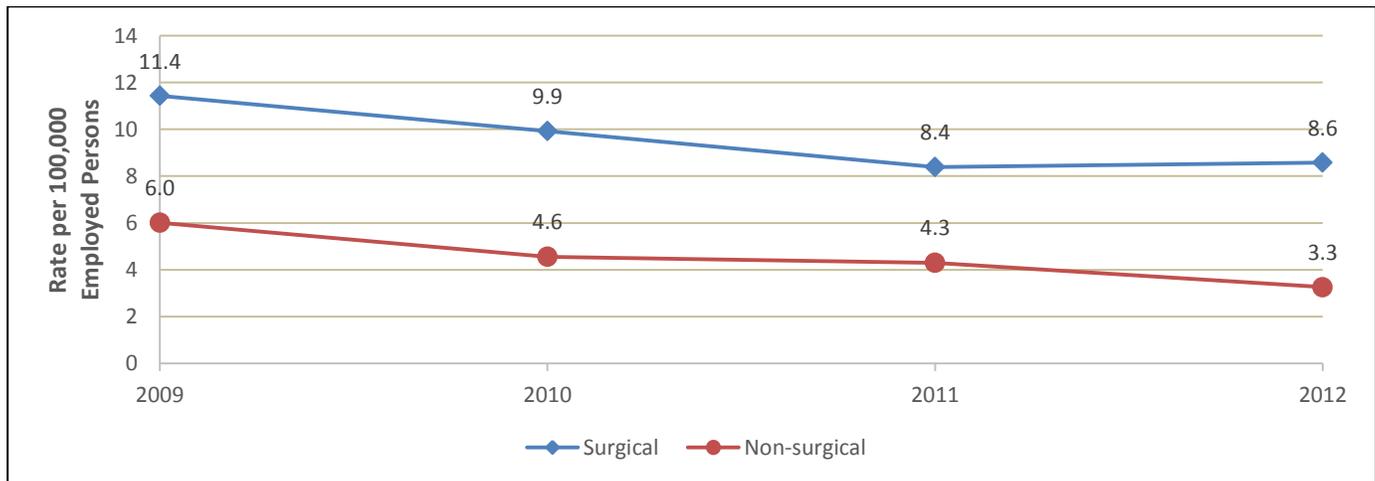


Data Source: National Academy of Social Insurance

Indicator #20: Low Back Disorders

In 2012, the number of work-related surgical low back disorder hospitalizations for persons 16 years or older in Kentucky was 163 with an annual rate of 8.6/100,000 employees (Figure 19). The annual number of work-related low back disorder hospitalizations for persons 16 years old and above was 225 with an annual rate of 11.9 hospitalizations/100,000 employees.

Figure 19. Kentucky Work-Related Surgical or Nonsurgical Low Back Disorder Hospitalization Rates Among Persons 16 Years and Older, 2009-2012



Data Source: Kentucky Department for Public Health, Office of Health Policy

Indicator #21 (Kentucky-Specific): Fatal and Non-Fatal Occupational Motor Vehicle Collision Injuries

In 2012, there were 10,809 occupational motor vehicle collisions (MVCs) in Kentucky, a 7% decrease from 11,665 in 2011; 100 drivers or occupants in the vehicles involved in these collisions were killed and 2,558 people were injured. Table 2 compares some characteristics of the commercial vehicles involved in collisions in Kentucky 2008-2012. In about two thirds of the cases, the commercial vehicle driver was reported as at fault according to the police officer. There were 31 commercial vehicle fires in 2012 compared to 19 reported in 2011. The number of buses involved in motor vehicle collisions increased from 135 in 2011 to 142 in the year 2012.

Table 2. Kentucky Commercial Vehicle Collisions, 2008-2012

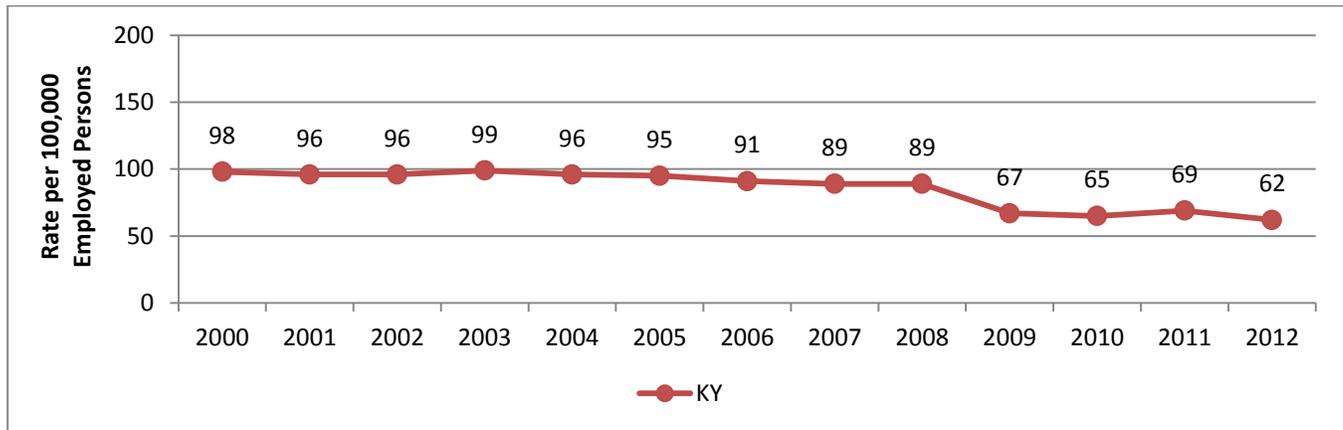
	Year				
	2008	2009	2010	2011	2012
	N	N	N	N	N
Total number of commercial vehicles involved in collisions in Kentucky	7,159	5,683	5,984	6,347	6,052
Unit number 01 (unit at fault according to the police)	4662	3674	3840	4133	3903
Driver's injury					
Fatal	20	19	9	13	10
Incapacitating	48	38	31	48	38
Non-incapacitating	152	138	145	115	108
Possible injury	186	138	139	141	147
Vehicle fire	34	25	33	19	31
KY license	3980	3252	3466	3054	2818
Total number of fatalities in collisions involving a commercial vehicle	115	107	99	83	79
Total number of injuries in collisions involving a commercial vehicle	1691	1392	1438	1423	1381
Single vehicle collision	1,601	1,319	1,316	1,458	1,384
Unit type					
Bus	110	116	148	135	142
School bus	54	55	59	73	68
Truck and trailer	1290	1013	1,018	1120	1,072
Truck – single unit	1739	1473	1498	1375	1403
Truck tractor & semi-trailer	3789	2894	3111	3465	3238
Truck – other combination	133	94	122	137	109
Other	43	34	28	41	20
Hazard cargo present	141	156	171	150	132

Data Source: Kentucky State Police Collision Report Analysis for Safer Highways (CRASH) database

Indicator #22 (Kentucky- Specific): Occupational Motor Vehicle Collisions- First Reports of Injury and Claims Filed with Workers’ Claims by Injury Year

There were 1,181 occupational motor vehicle collision claims or first reports of injury filed with Kentucky workers’ compensation in 2012, with 62 injuries /100,000 workers (Figure 20).

Figure 20. Occupational Motor Vehicle Collision Injury Rates, 2000-2012

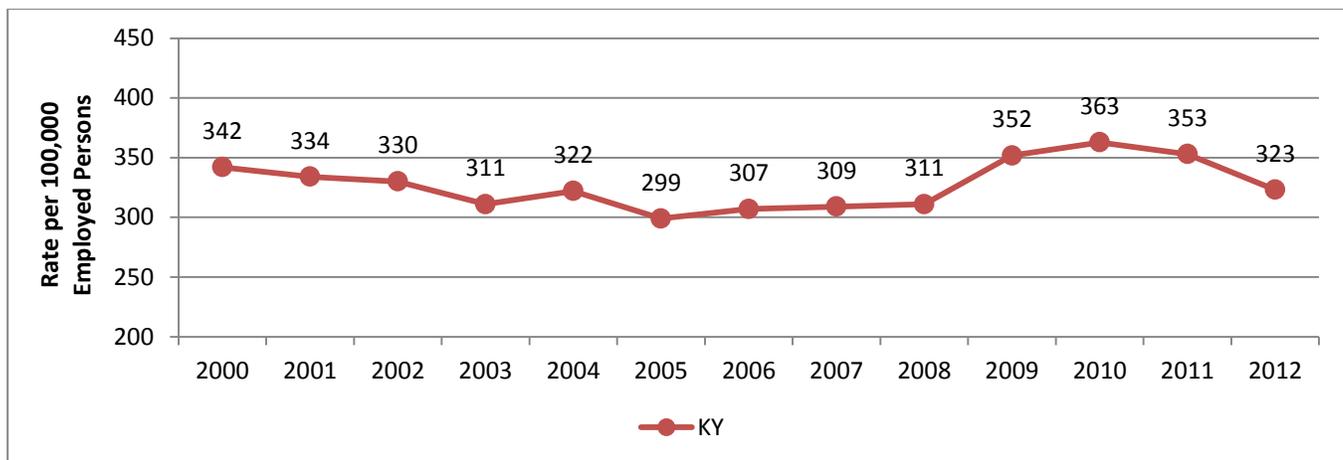


Data Source: Kentucky Department of Workers’ Claims

Indicator #23 (Kentucky- Specific): Occupational Falls- First Reports of Injury and Claims Filed with Workers’ Claims by Injury Year

In 2012, there were 6,139 occupational fall claims and first reports filed with an associated occupational fall injury incidence rate of 323/100,000 employed workers, an 8% decrease from 2011 (Figure 21). Most occupational falls occurred in the services (n=1,849; 30%) and manufacturing (n=809; 13%) industries.

Figure 21. Occupational Fall Injury Incidence Rates, 2000-2012



Data Source: Kentucky Department of Workers’ Claims.



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The Kentucky Injury Prevention and Research Center (KIPRC) is a partnership between the Kentucky Department for Public Health and the University of Kentucky's College of Public Health that combines academic investigation with practical public health initiatives.

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