

Annual Report- Occupational Safety and Health Surveillance (7/1/14- 6/30/15)

State: Kentucky

Principal Investigator: Terry Bunn

Program Type: Fundamental- Kentucky Occupational Safety and Health Surveillance (KOSHS) program

Major Outputs/Products.

a. Reports

1. Kentucky Injury Prevention and Research Center, 2014. KOSHS Annual Report 2014, Occupational Health in Kentucky.
2. Bunn, T, Slavova, S, Gao, W. Occupational Health in Kentucky, December 2014.

b. Publications

1. Bunn TL, Slavova S, Bernard AC. 2014. Work-related injuries in a state trauma registry: Relationship between industry and drug screening. *J Trauma Acute Care Surg* 77(2):280-5.
2. St Louis T, Ehrlich E, Bunn T, Kanotra S, Fussman C, Rosenman KD. 2014. Proportion of dermatitis attributed to work exposures in the working population, United States, 2011 behavioral risk factor surveillance system. *Am J Ind Med* 57(6):653-9.
3. Slavova, S., Bunn T.L. 2015. Work-Related Concussion Surveillance. *Am J Ind Med* 58(1):40-5.
4. Harduar Morano, L, Bunn, TL, Lackovic, M, Lavender, A, Dang, D, Chalmers, J, Li, Y, Zhang, L, Flammia, D. 2015. Occupational Heat-Related Illness Emergency Department Visits and Inpatient Hospitalizations in the Southeast Region, 2007-2011. *Amer J Ind Med* (accepted)
5. Chandler M.D., Bunn T.L., Slavova S. 2015. Narrative and quantitative analyses of workers' compensation-covered injuries in short- haul vs. long- haul trucking. Submitted to *Int J Inj Cont Safety Prom*

c. Presentations

1. Bunn T.L. Kentucky Trucking Safety Initiatives, NIOSH Town Hall press conference, March 10, 2015.
2. Bunn T.L. Narrative and Quantitative Analysis of Workers' Compensation Covered Injuries in Short-Haul vs. Long-Haul Trucking Industries, NOIRS Conference, Kingwood, WV, May 18, 2015.
3. Chandler M. Narrative and Quantitative Analysis of Workers' Compensation Covered Injuries in Short-Haul vs. Long-Haul Trucking Industries, CSTE Conference, Boston, June 15, 2015.
4. Chandler M. Developing Worker Safety Training for the Trucking Industry, SouthON Conference, Lexington, KY, April 16, 2015.
5. Slavova S. Advantages and Disadvantages to Using Workers' Compensation Data for Occupational Injury Surveillance in Healthcare. SouthON Conference, Lexington, KY, April 17, 2015.

Significant Findings.

Improved work-related concussion surveillance using multiple data sources. Studies suggest that the incidence of work-related injuries and illnesses is underestimated due to methodological issues, data timeliness, and reporting incentives. Deterministic linkage of multiple data sources (workers' compensation (WC), emergency department visit (ED), and inpatient hospitalization [IH]) was performed to identify work-related concussions. WC data identified 3 times more than the 70 concussions reported by the Bureau of Labor Statistics (BLS). Using the three data sources, 596 concussions were identified at a rate of 31.8/100,000. Results were presented at the American Public Health Association meeting in 2012, published in *Amer J Ind Med* in 2015, and used to establish a new state-specific indicator.

Identification of at-risk industries and occupations using trauma registry (TR) data. TR data analysis identified industries and occupations at highest risk for severe work-related traumatic injuries in an epidemiological study. "Other services" and construction had the highest number of work-related injury cases. Drugs were detected in 55% of all drug-screened work-related trauma cases. Findings indicated elevated drug use or abuse in natural resources and mining, transportation, and construction industry workers, and improved specific drug identification in positive injured worker drug screens was recommended. The study was published in 2014 in *J Trauma*, and a new Ky-specific occupational severe traumatic injury indicator was developed.

The Kentucky Trauma Registry work-related indicator was used to produce the Kentucky Trauma Registry report that contained sections on 1) work-relatedness; 2) drug use; 3) industry; and 4) expected payer. A total of 366 work-related trauma cases was recorded in the KTR dataset in 2013.

Trends in Pneumoconiosis Surveillance. Kentucky is among the top 3 states for pneumoconiosis mortality. An epidemiological study of 2003-2013 pneumoconiosis mortality rates, accepted in *Amer J Ind Med* in June 2015, showed significant linear decreases in pneumoconiosis mortality rates in West Virginia, Pennsylvania, Kentucky, and the U.S. from 2003-2013; Pennsylvania and Kentucky had comparable rates in 2003, but while Pennsylvania rates significantly decreased ~3.0 deaths/million annually, Kentucky rates decreased only

0.5/million annually. It was recommended that coal worker environmental exposure protection be enhanced and pneumoconiosis surveillance improved.

Translation of Findings.

Funding Leveraged for Occupational Injury Surveillance Quality Improvement. Findings from our published OHI study on work-related traumatic injuries by industry leveraged FFY 2014 National Highway Transportation Safety Administration funding for probabilistic linkage of CRASH and TR data to assess completeness and accuracy of occupation and industry variables. The analysis accounts for crash geographic location in relation to the nearest trauma center providing care for the injured as well as transport time to trauma care.

State law mandating commercial carrier safety training. KOSHS program staff and the Kentucky Trucking Association (KTA) testified before the Ky Senate Transportation Committee in support of a law passed in 2013 that mandated annual truck driver safety training for commercial carriers registering for interstate and intrastate licenses. The KTA was the primary advocate for the law and approached the KOSHS program in FY 2015 to develop driver and vehicle inspector safety training in support of the law's mandate. Although the law was repealed in April 2015, the KTA and Midwest Insurance Company recognize the continued need for available online new driver and commercial vehicle inspector safety training. Based on the intent of the repealed law, KOSHS will collaborate with KTA in the upcoming funding cycle to develop two driver safety training modules, and one commercial vehicle inspector online training module. The first driver and inspector modules will explain pre-trip and post-trip commercial vehicle inspections, with interactive user navigation and quizzes. The second driver module, a narrated PowerPoint with quizzes, relates to incident management and provides procedures for truck drivers disabled on the roadside. These DOT Compliance 101 online training modules will be developed in collaboration with KTA and Midwest Insurance and will be available for KTA members and the general public free of charge, and will be updated regularly to reflect quarterly FMCSA Regulation changes.

Pesticide Illness Surveillance. KOSHS program staff and partners educated stakeholders on the need for pesticide illness surveillance; acute pesticide-related illness was added as a notifiable disease condition to be reported within 1 business day in FY 2015. See 902 KAR 2:020.

Potential outcomes.

Safe Communities. KIPRC was designated an Affiliate Support Center for the World Health Organization's Safe Communities program and Safe Communities America in 2012. KIPRC staff members provided community injury data to local communities to support their Safe Community accreditation applications.

NIOSH Total Worker Health (TWH). The KOSHS program collaborated with partners to establish the Kentucky Total Worker Health program. This innovative integration of worker health and safety programs was described in the May 2014 TWH in Action! newsletter. The Kentucky Injury Prevention and Research Center (KIPRC) became a TWH Affiliate in September 2014. The KOSHS program produced presentations and publications on prescription drug abuse prevention in the workplace, and OHI staff members were elected to the Ky Worksites Wellness Advisory Board in April 2014, in support of the Kentucky TWH initiative.

Collaborations with Other CDC-Funded Programs. The KOSHS program regularly meets with CDC's National Center for Injury Prevention and Control-funded Kentucky Violence and Injury Prevention program and the Kentucky Prescription Drug Overdose Prevention program on mutual topics of interest such fall prevention, drug overdose prevention, and motor vehicle injury prevention topics. All three programs participate in Kentucky's Safety and Prevention Alignment Network that is the state injury prevention coalition and related quarterly meetings.

Intermediate outcomes.

SouthON. The OHI program was instrumental in establishing the Southeastern States Occupational Health Network (SouthON) that includes 1) occupational safety and health-funded and unfunded states; 2) NIOSH Education and Research Centers (ERCs); 3) Southeast Agricultural Research Center; 4) worker organizations; 5) NIOSH; and 6) OSHA. Our fourth SouthON meeting was held in April 2015. The Ky OHI program presented a work-related heat illness indicator with LA, NC, and FL SouthON states to the NIOSH indicator workgroup for adoption by NIOSH-funded states in December 2014, and a multi-state work-related heat illness peer-reviewed publication was accepted for publication in *Amer J Ind Med* in June 2015. Our SouthON conference grant was funded by NIOSH in June 2015 for the July 2015- June 2020 grant cycle.

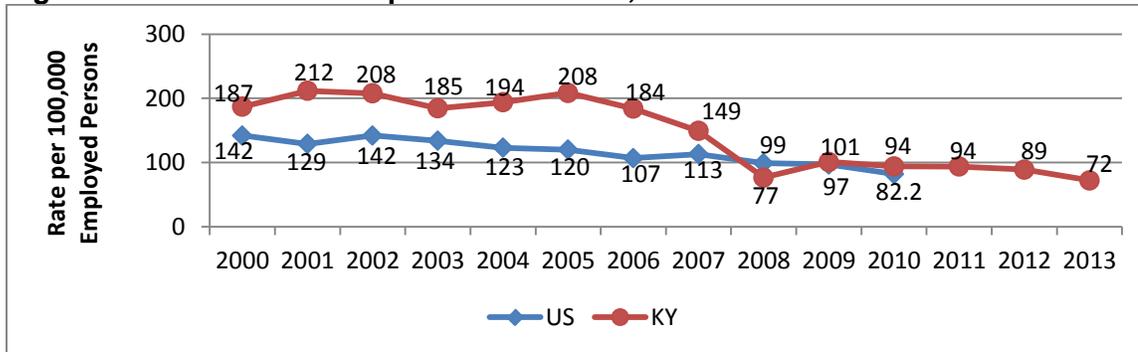
Social Media. OHI/FACE web file documents were downloaded 58,405 times in FFY 2015. A KOSHS/KY FACE Facebook page can be accessed at: <http://www.facebook.com/KOSHSKYFACE?ref=hl> and a Twitter account was created and is located at: <https://twitter.com/KYFACEProgram>

End outcomes.

The KOSHS program has tracked acute pesticide-related illness that is included in our annual report and disseminated to key statewide stakeholders since 2005. Based on our efforts and those of our partners, acute pesticide-related illness was added as a notifiable disease condition to be reported within 1 business day on April 1, 2015. See 902 KAR 2:020. Reportable disease surveillance. The new regulation is accessible at the Kentucky Legislative Commission Website: <http://www.lrc.ky.gov/kar/902/002/020.htm>

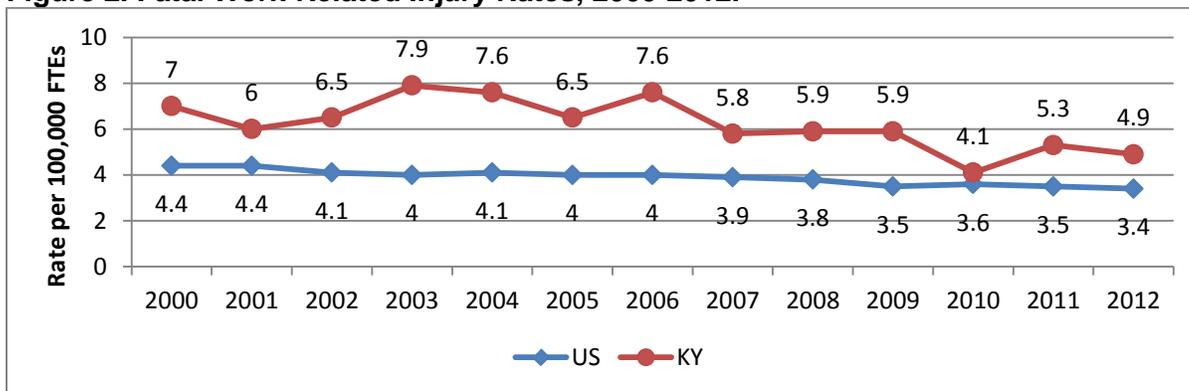
In 2013, there were 1,369 work-related hospitalizations with an annual crude rate of 72/100,000 employed persons age 16 years and older, down 61% from the year 2000 (Figure 1).

Figure 1. Work-Related Hospitalization Rates, 2000-2013.



In 2012 there were 91 fatal occupational injuries in Kentucky, a 2% decrease from the reported 93 fatal work-related injuries for 2011. The 2012 Kentucky rate was 4.9/100,000 or 44% above the preliminary 2012 national rate of 3.4/100,000 (Figure 2).

Figure 2. Fatal Work-Related Injury Rates, 2000-2012.



Annual Report- Occupational Safety and Health Surveillance (7/1/14- 6/30/15)

State: Kentucky

Principal Investigator: Terry Bunn

Program Type: Fatality Assessment and Control Evaluation (FACE) program

Significant Findings.

a. FACE Reports- 11 FACE reports were produced in FY 2014-2015:

1. **13KY046-** 'Grain Truck driver was killed at Train Crossing' was disseminated to 2,916 employers. Respondents reported that the report was clearly written, and that recommendations were reasonable and feasible within the industry. All respondents reported that they planned to, or had implemented the recommendations in the report, that the report raised their awareness of safety hazards, and that they would consider using the report in their employee training sessions. All respondents claimed that they felt workers would follow the recommendations after having reviewed the report. The report was published in the National Truckers Association newsletter in September 2014.
2. **14KY012-** 'Hispanic Laborer is crushed by Gantry Roller Press While Retrieving a Dropped Hammer' was disseminated to 2,286 employers, and 39 truss companies. The report was also uploaded to social media pages on Twitter and Facebook. One employee respondent said "I especially think that a guard should extend further out so that it will be certain no one is in the way". The report was used by the Structural Building Components Association for safety training in their tradeshow in October 2014.
3. **14KY031-** "Factory Manager Bypasses Lockout/Tag-Out and is Electrocuted" was disseminated to 2,506 subscribers via the Listserv, Facebook and Twitter pages. Responses included: 1) "I would suggest maybe also enforcing all employees to have starter and annual LO-TO training"; and 2) "These suggestions should have always been followed. They can absolutely be followed if proper time is taken."
4. **14KY061-** "Laborer Falls 50 to 75 Feet to the Ground While Spray Painting Grain Bins" was disseminated to 2,244 subscribers, including the National Grain & Feed Association and the Kentucky Small Grain Growers Association. Individual responses included: 1) "the recommendations are great, and should always be followed in this line of work. Maybe management should perform a pre-job analysis to make sure that they have all of the necessary PPE before starting"; 2) "Basic- but good. Should have planned accordingly with a Job Hazard Analysis. Also, an extendable boom forklift or AWP would have allowed this employee to paint at high elevations"; and 3) "I thought the recommendations were practical".
5. **13KY066-** "Flagger Struck by Motorist and Killed" was disseminated to 2,562 subscribers, including construction companies and nationwide construction & contractors associations. One respondent said "We are usually most worried about employees being struck by distracted drivers... We sometimes fail to also consider drivers who are not wearing the proper eye wear for vision impairment" and "Agree that traffic control should not be done after dark. However, if it must, perhaps the use of a sign that had flashing hazard lights would be beneficial. Simply using a flashlight could be ineffective because it emits light similar to what comes from a vehicle, and an oncoming driver may not realize it's a person rather than a flagger. Maybe a flashing red light or orange would be most helpful."
6. **13KY038-** "Tree Trimmer is Struck and Killed by Falling Tree Limb" was disseminated to 222 arborists and 2,242 general subscribers. Responders said 1) "More brevity, clarity, simplicity. Report is a bit hard to follow"; 2) "I thought all of the recommendations were great-- I would maybe word them a bit more neutral so that they speak to both the employer and the employee, not just the employer. Still over all they were beneficial"; and 3) "While arboricultural in nature, it would have been helpful to have had info on how the branch should have been removed (e.g. call the utility company)" and "very well done".
7. **14KY021-** "Truck Driver Falls from Tanker Truck to His Death" was disseminated to 655 trucking companies, and 2,238 general subscribers. A responder said "...keep up the great work we appreciate your concern for the worker's safety".
8. **14KY022-** "Foreman Falls into Running Auger after Stepping on Door Panel with Broken Door Interlocks" was disseminated to 260 construction companies, and 2,160 general subscribers. Responses included "I had no clue this equipment existed" and "Report pretty much covered it—it's too bad no one replaced the part after it had been ordered". **14KY022** was highlighted in the ASSE *By Design* newsletter in spring 2015 and will be featured in OHS magazine's fall 2015 edition.
9. **13KY010-** "Two Masons Electrocuted after Contact with an Overhead Power Line" was disseminated to 2160 general subscribers, and 260 construction employers. One respondent answered, "...I will say that I think the most important suggestion (which you made) is that there should be someone on the lookout in

cases like this at work. Someone should have been on the ground to keep a lookout while the bucket was being navigated.”

10. **14KY036**- “Scrap Processor Struck by Wrench and Dies after Makeshift Torque System Fails” was disseminated to 50 scrap salvaging businesses and 2,153 contacts. A safety professional in the private industry responded, “Totally agree with all of the findings and recommendations as outlined in this report. The work scope was flawed from the very onset and a closer look at the sling used with the wrench makes one wonder what kind of condition it was in- that being said it should not have been used in this manner in the first place. I would also, recommend a review of the work scope (JHA) to include the focus four topics especially struck by hazards and falls. Never place oneself in the line of fire and when the outcome wanted is not met- STOP and regroup and formulate a better hazard mitigation plan. Tragic incident.” Commodore Hall Transportation at the Institute of Scrap Recycling Industries in Washington, DC, used **14KY036** for safety training purposes and national training.
11. **13KY041**- “Heavy Equipment Mechanic Dies when an Elevated Dump Truck Tag Axle Pins Him to the Concrete Floor” was disseminated to 75 vehicle mechanic businesses and 2,153 general subscribers. An occupational health professional in the private industry said, “I use your reports for teachable moments. Thank you for what you do. Keep up the great work.”

b. Peer-reviewed Publications

1. Beggs, JA, Slavova, S, Bunn, TL. 2015. Patterns of Pneumoconiosis Mortality in Kentucky: Analysis of Death Certificate Data. *Amer J Ind Med* (accepted)
2. Bunn, T, Bush, A, Slavova, S. 2014. Fatal Drug Overdoses: What Specific Drugs Were Involved? In What Industries and Occupations Were the Decedents Employed? *J KY Med Assoc* 112(8):201-211.

c. Non-peer Reviewed Publications

1. **12KY035**- “Owner of Towing Company Dies When Struck by Box Truck” was used to develop a tow truck driver safety awareness toolkit that contains a digital FACE video on a tow truck driver fatality, a hazard alert, an electronic FACE fatality report on the tow truck driver death, recommendations for safe towing, a survey, and resources related to safe towing for company safety training purposes. The report was also published in *Tow Times* magazine in October 2014.
2. Kentucky Motor Transport Association. Truck driver dies- Tractor Leaves road and Plunges into Creek. *Kentucky Trucker*. Summer 2014, p.8.
3. **13KY039** was published in the *Kentucky Trucker Magazine*, Summer, 2014.
4. **13KY059** was featured in *National Safety Council’s Safety and Health Magazine*, April 2015.
5. **13KY059** and **14KY008** were featured in *JJ Keller’s Safety Management Today Newsletter*.
6. KIPRC Urges Construction Workers to Stand Down for Safety, UKNow, May 1, 2015.
<http://uknow.uky.edu/content/kiprc-urges-construction-workers-stand-down-safety>
7. Cellphone Distractions Remain a Danger even with Hands-Free Devices, *Kentucky.com*, April 17, 2015.
http://www.kentucky.com/2015/04/17/3805737_cell-phone-distractions-remain.html?rh=1
8. Driver Distraction: A Habit that Kills, fact sheet posted to the KIPRC website, April 2015
<http://www.mc.uky.edu/kiprc/PDF/DistractedDriving.pdf>
9. Kentucky Injury Prevention and Research Center. (2015). *Kentucky FACE Report 2014*.
10. **13KY039** and **14KY007** were published in the *National Truckers Association’s Truckers Alert* magazine in July 2014 and June 2015.

Potential outcomes.

KY TWH The Ky FACE program partnered with the Kentucky Injury Prevention and Research Center (KIPRC) as a NIOSH TWH Affiliate in September 2014. FACE program staff members produced presentations and publications on prescription drug abuse prevention in the workplace. (e.g., Bunn TL, Bush AM, Slavova, S. 2014. Fatal Drug Overdoses: What Specific Drug Types Were Involved? What Industries and Occupations Were the Decedents Employed In? *J KY Med Assoc*) to support our TWH effort.

Occupational motor vehicle collision prevention. A hazard alert entitled “Semi drivers killed due to rear-end collisions” was disseminated to 2,919 FACE subscribers, and was published in the *Guardian* magazine, 22(1), April 2015. Evaluation respondents (70%) said the hazard alert raised their awareness of occupational hazards, and 100% said they felt workers would follow the recommendations. The hazard alert was rated 3.38 for usefulness on a 1-5 scale. Respondent #17 said “I will use the information as a toolbox safety topic. Thanks for sending. It is very enlightening and helps re-enforce programs we already have in place.” Another respondent said, “this type of information, whether new or a reminder, is always good to read or be ‘seen’ by

our drivers.” A private industry employee responded, “This had a nice presentation. Nice job.” A private industry manager said, “The recommendations are standard industry recommendations that we already share with our drivers on a consistent basis. Your material will augment that education program.”

Intermediate outcomes.

Equipment redesign. Based on report **14KY001**- “Auto Technician Mistakes Handicapped Accessible Accelerator Pedal for Brake Pedal and Fatally Pins Co-worker”, Veigel North America LLC Mobility Products and Design redesigned their product, Left Foot Gas Pedal Model 3545, to retrofit a vehicle’s steering column with a key that disengages the foot pedal and eliminates the need for total removal of the handicapped accessible pedal when the vehicle is serviced. The FACE program was thanked by Viegel for this report and for providing an opportunity for product quality improvement. In addition to the handicapped pedal redesign, the employer now requires the removal of all handicapped equipment on vehicles before servicing, and desks were moved away from the service area. An article describing the redesign and release of the handicapped accelerator pedal safeguard designed in response to **14KY001** appeared in May 2015 NIOSH e news 13(1).

Construction injury prevention. The National Safety Council highlighted **14KY008** “Hispanic Laborer Killed when Struck by Falling Plywood on a Commercial Construction Site” and **13KY059** “Roofer Dies After Gust of Wind Knocks Him and a Co-Worker Off Roof” in their monthly magazine in April 2015. Based on **14KY008** report recommendations, the employer implemented the following subcontractor policies: 1) required net use to catch falling debris; 2) required use of toe boards on all jobs; and 3) no work performed while workers are laboring above. The company invited our FACE investigator to speak to their workers (n=70) at the national stand down for falls campaign in April 2015, where pamphlets, post cards and a fall protection knowledge test were discussed and also requested for future use in their stand-down pre-work meetings. In support of the National Annual Stand-down for Falls campaign, our FACE investigator also appeared on NBC television, spoke in a radio talk show, and wrote a University of Kentucky article in April 2015.

Based on **14KY002**- “Construction Flagger Struck and Killed in Two-Lane Highway Work Zone” report recommendation, the employer now requires all flaggers to wear reflective pants and vests.

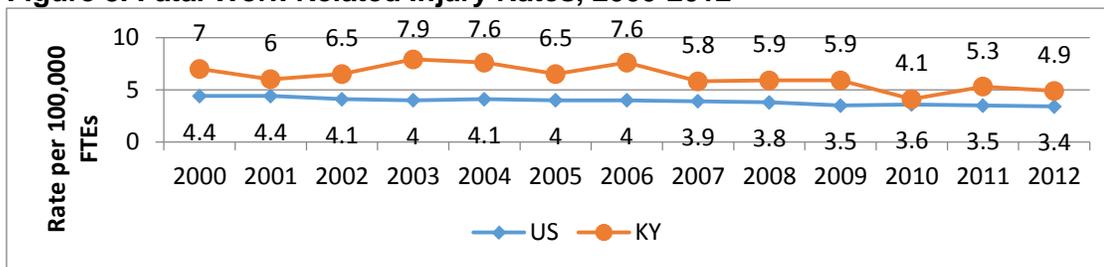
Transportation Employer Policy. Based on report **14KY007**- Tanker Truck Involved in Deadly Crash on Interstate, the employer implemented a new policy requiring all flaggers to wear high visibility pants and vests for protection. They now hold more safety talks prior to commencing work.

Website Visits. OHI/FACE web file documents were downloaded 58,405 times in FFY 2015.

End outcomes.

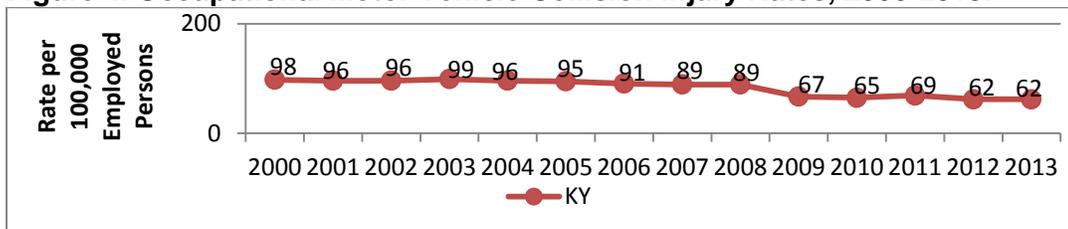
In 2012 there were 91 fatal occupational injuries in Kentucky, a 2% decrease from the 93 fatal work-related injuries in 2011. The 2012 Kentucky rate was 4.9/100,000, 44% above the national rate (Figure 3).

Figure 3. Fatal Work-Related Injury Rates, 2000-2012



Since 2005, the FACE program has focused on the reduction of occupational motor vehicle collision (MVC) injuries. The occupational MVC injury rate decreased 53% from 2005 to 2013 (Figure 4).

Figure 4. Occupational Motor Vehicle Collision Injury Rates, 2000-2013.





A story of **Impact**

NIOSH-Funded State FACE Investigation Leads to Safer Handicapped-Accessible Accelerator Pedals

In 2012, over 157,000 establishments employed 833,919 automotive technicians in the U.S.¹ Auto technicians play an important role in ensuring the safety of our cars. However, technicians encounter a number of dangers in their workplace when dealing with passenger vehicles that range in weight from about 2,200 to 3,300 lbs., depending upon the make and model.² Nationally, there were 71 fatal injuries reported in the automotive repair and maintenance industry in 2012.³ The Kentucky (KY) Fatality Assessment and Control Evaluation (KY FACE) program—funded by the National Institute for Occupational Safety and Health (NIOSH)—investigated a death of a 50-year-old certified master technician who was struck by a car while sitting at a desk in a dealership's service bay.

An auto technician working in the service bay was preparing a vehicle for an oil change when he mistook a handicapped-accessible accelerator pedal for the brake pedal. The handicapped-accessible pedal, which can be removed, had a left foot accelerator made for individuals who have lost the ability to use their right foot. Mistaking the accelerator pedal for the brake

▲ Photo of handicapped-accessible brake and accelerator pedals. Photo courtesy of Kentucky OSHA.

Relevant Information

- **Handicapped-accessible equipment** should be removed by auto service technicians before operating the vehicle.
- **Administrative duties and office space** should be performed in an area away from the path of vehicles being serviced.
- **Employee training** and written employer policies about handicapped-accessible equipment removal could prevent future fatalities.



Follow NIOSH on Facebook, Twitter, and Instagram
Sign up for eNews at cdc.gov/niosh/enews

pedal caused the vehicle to strike the victim from behind and pin him against his desk and a wall causing blunt force injuries. After calling 911, an employee with emergency medical technician experience, rushed to the scene, assessed the situation, and covered him to prevent shock until emergency responders arrived. On the way to the hospital, the victim suffered cardiac arrest and died from his injuries.

The KY FACE program investigator evaluated the incident and produced the report “Auto Technician Mistakes Handicapped Accessible Accelerator Pedal for Brake Pedal and Fatally Pins Co-Worker”⁴. The report identified two key recommendations to prevent future incidents from occurring: (1) removal of handicapped-accessible equipment prior to operation; and (2) moving office spaces away from car servicing areas.

Impact

The FACE report was emailed to 45 car dealerships in Kentucky and 11 handicapped-accessible gas pedal manufacturers. Based on the report, Veigel North America LLC Mobility Products & Design redesigned their Left Foot Accelerator, Model 3545, to retrofit a vehicle’s steering column with a key switch. When starting a vehicle with the redesigned pedal, the system defaults to a standard, factory pedal. To activate the left accelerator pedal, a driver must turn the key switch on and press the accelerator function switch to the left. This modification eliminates the need to remove the pedal for servicing and prevents unintended drivers from using the left foot accelerator.⁵ The redesigned pedal was introduced at the National Mobility Equipment Dealers Conference in February 2015 and is anticipated to be available to the public in June 2015.

Beyond Veigel’s modification to the handicapped-accessible pedal, the car dealership where the incident occurred established new employee policies based on the FACE report recommendations. The new policies require employees to remove all accessibility equipment on vehicles before any work is started and perform all administrative duties in an area away from the service area. Taken together, the redesign of the handicapped-accessible gas pedal and establishment of employee policies will aid in the safety of auto technicians.

Mention of company names or products does not imply endorsement by the National Institute for Occupational Safety and Health.

For more information about the National Institute for Occupational Safety and Health (NIOSH) FACE program, visit www.cdc.gov/niosh/face, or the KY FACE program visit www.mc.uky.edu/kiprc/projects/KOSHS/index.html.

For a complete list of references, see www.cdc.gov/niosh/docs/2015-186/.

SAFER • HEALTHIER • PEOPLE™

To receive NIOSH documents or more information about occupational safety and health topics, please contact NIOSH. Telephone: 1-800-cdc-info (1-800-232-4636) | TTY: 1-888-232-6348 | www.cdc.gov/info.

For a monthly update on news at NIOSH, subscribe to NIOSH eNews by visiting www.cdc.gov/niosh/eNews.

DHHS (NIOSH) Publication No. 2015-186.

June, 2015.

SUGGESTED CITATION

NIOSH [2015]. NIOSH-Funded State FACE Investigation Leads to Safer Handicapped-Accessible Accelerator Pedals.

OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2015-186.

Improving General Contractor and Subcontractor Worker Safety in the Construction Industry



A 24 year-old Hispanic construction laborer was loading trusses on the ground with his brother-in-law when 27 mph high winds ripped an 8x4 plywood sheet from another laborer's hands off a commercial construction site roof 60 feet above. The co-worker on the roof jumped on the sliding plywood sheet but could not stop it from falling. The wind whipped the falling plywood out 30 feet and down six stories, striking the laborer in the back of the head just below his hard hat. The victim died later that day at the hospital from blunt force injuries to the head. The co-worker's life line prevented him from falling over the edge of the roof with the sliding plywood sheet.

The Challenge

According to the U.S. Bureau of Labor Statistics, there were 1.7 nonfatal nonresidential building construction injury cases per 100 full-time workers with days away from work, job transfer, or restriction in Kentucky in the year 2013; the fatal work injury rate in the construction industry was 16.5 fatal injuries per 100,000 full-time equivalent workers, 251% above the 4.7/100,000 overall worker fatality rate in Kentucky.

The Response

The Kentucky Fatality Assessment and Control Evaluation (FACE) program conducted a fatality investigation of the construction laborer death due to high winds and a falling sheet of plywood. A FACE report (#14KY008) was produced with five injury prevention recommendations related to 1) postponement of overhead work when high winds are present; 2) use of safety nets, toeboards, etc. to protect workers below from falling equipment and materials; 3) physical separation of workers on the ground from overhead hazards; 4) availability of worker safety training for non-English speakers; and 5) regular updating of worker safety training. The final FACE report was disseminated to the employer where the fatal work incident occurred, and to 2,416 other companies.

The Impact

Based on #14KY008 report recommendations, the employer has now implemented stricter subcontractor policies including requirements for safety nets to catch falling debris, use of toe boards on all roofing jobs, and barring of work on the ground while workers are laboring above. The employer invited the FACE investigator to speak to their workers (n=70) at the National Stand Down for Falls campaign in spring 2015. The employer then requested pamphlets, post cards and a fall protection knowledge test for future use in their Stand Down pre-work meetings.

For more information, visit the Kentucky Occupational Safety and Health Surveillance website: <http://www.mc.uky.edu/kiprc/projects/KOSHS/index.html>.