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Work-Related Motor Vehicle Crashes: *Preventing Injuries to Young Drivers*

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What Employers Should Know

Teens and young adults have higher crash rates than any other group. Motor vehicle crashes are the leading cause of work-related fatalities among young people in the United States ages 16 to 24.

From 2003 to 2010, 843 workers ages 16 to 24 died in motor vehicle crashes at work. These incidents accounted for 22% of all workplace fatalities in this age group. In 67% of these incidents, the young worker was driving the vehicle involved in the crash. Risk for young workers is highest in the waste management, mining, and agriculture industries (graph). In many of the industries shown on the graph, younger workers are at higher risk of dying in a motor vehicle crash at work than adult workers ages 25 or older.¹

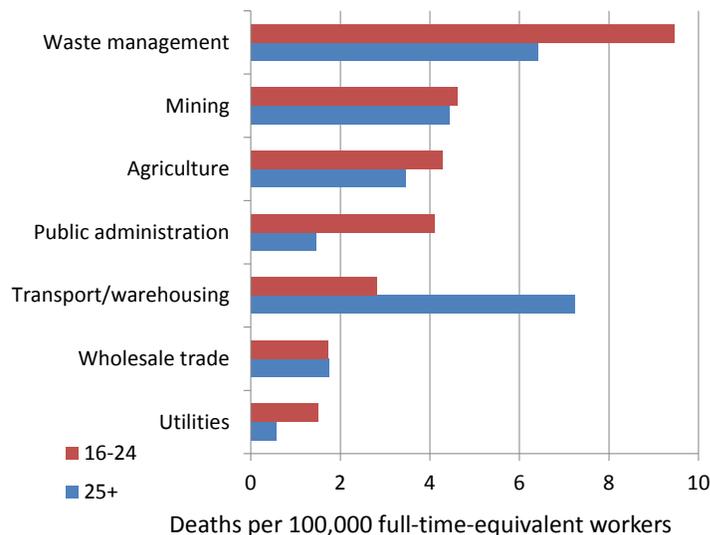
Federal child labor laws severely limit workplace driving by youth under 18 years of age. Although most young adults are allowed by law to drive on the job starting at age 18, they lack the maturity and driving experience of their older co-workers. Young drivers might also be more likely to engage in driving behaviors that increase their risk of injury or death, such as not wearing seat belts and driving while distracted.

This fact sheet will help employers be more aware of the risk of motor vehicle crashes among younger workers. It gives information about Federal and state laws that cover workplace driving and offers recommendations to employers for preventing motor vehicle crashes among younger workers. Finally, it provides links to useful resources on the Internet.

What risk factors can lead to crashes among young drivers?

- Driving inexperience
- Difficulty in recognizing and responding to traffic hazards
- Immaturity: poor impulse control, judgment, and decision-making skills
- Tendency to overestimate driving skills
- Desire to meet employer time expectations
- Inconsistent seat belt use
- Distracted driving: talking on cell phones, text messaging, adjusting controls, eating and drinking, or interacting with other passengers
- Fatigue

Work-related motor vehicle fatalities by selected industries and age group, U.S., 2003-2010^{2,3}



²Industries with highest risk for workers aged 16 to 24 years

³Fatal injury totals were generated by the NIOSH Division of Safety Research with restricted access to Bureau of Labor Statistics (BLS), Census of Fatal Occupational Injuries microdata.

¹This research was conducted with restricted access to Bureau of Labor Statistics (BLS) data. The views expressed here do not necessarily reflect the views of the BLS.

What laws protect youth who drive for work?

- The Fair Labor Standards Act (FLSA) is the Federal law that includes standards to protect young workers. This law applies to businesses engaged in interstate commerce with gross revenues of at least \$500,000 per year.
- Under FLSA, non-agricultural workers younger than age 17 are prohibited from driving a motor vehicle on a public road or working as an “outside helper” (that is, riding or hanging on to a motor vehicle outside the cab while helping to transport or deliver goods).
- Under FLSA, agricultural workers younger than age 16 are not permitted to drive a bus, truck, or automobile to transport passengers, or to ride on a tractor as a passenger or helper. At age 16, the FLSA no longer applies to young agricultural workers. However, young agricultural workers driving on public roads are not exempt from state graduated driver licensing (GDL) laws and state traffic laws.

FLSA Limitations for Teens Who Drive for Work*

17-year-olds may drive on the job if all the following requirements are met:

- The driving is limited to daylight hours;
- The youth has a state license valid for the type of driving involved in the job performed;
- The youth has successfully completed a state-approved driver education course and has no record of any moving violation at the time of hire;
- The automobile or truck is equipped with a seat belt for the driver and any passengers and the employer has instructed the youth that the seat belts must be used when driving the vehicle;
- The automobile or truck does not exceed 6,000 pounds gross vehicle weight; and
- The driving is only occasional and incidental to the youth’s employment. This means that the youth may spend no more than 1/3 of their work time in any workday and no more than 20% of their work time in any workweek driving.

On-the-job driving for 17-year-olds may not involve:

- Towing vehicles;
- Route deliveries or route sales;
- Transportation for hire of property, goods, or passengers;
- Making urgent, time-sensitive deliveries (such as pizza deliveries);
- Transporting more than 3 passengers, including employees of the employer;
- Driving beyond a 30 mile radius of the teen’s place of employment;
- Making more than 2 trips away from the primary place of employment in any single day to deliver the employer’s goods to a customer; or
- Making more than 2 trips away from the primary place of employment in any single day to transport passengers other than employees of the employer.

* Adapted from: US Department of Labor Wage and Hour Division Teen Driving on the Job Fact Sheet (<http://www.dol.gov/whd/childlabor.htm>).

In addition, individual states may have stricter limits on workplace driving by youth. State GDL laws and state traffic laws contain basic road safety rules that cover and help protect drivers of all ages. GDL laws apply to novice drivers, generally younger than 18 years. All GDL laws require a three stage process—learner’s permit (supervised driving), intermediate (independent driving with restrictions), and unrestricted driving. As drivers move through these stages, they are given extra driving privileges. Depending on the state, these may include driving at night or with teen passengers.

Fatal motor vehicle crashes at work among young workers: case reports.

Case 1: Pizza Delivery Driver



A 17-year-old pizza delivery driver was killed in a motor vehicle crash while on a delivery run. The youth was working his first night as a pizza delivery person at a small independent pizzeria in a suburban area. He was in the process of applying for his employment certificate (working papers) as required by state law and had reportedly obtained his driver's license a few months before. The youth arrived at work at 4:30 p.m. One of the experienced deliverers explained the job to him. When taking orders it was company policy to tell customers that it would take

longer to deliver the order than was actually necessary so that drivers did not have to rush. The young worker was scheduled to work until 7:30 or 8:30 p.m., depending on the workload. He was using his father's car, a 4-door sedan.

On his first delivery run, he delivered three pizzas to three different addresses. At 6:20 p.m., the staff took a delivery order that the youth went out to deliver to a home located less than a mile away. It was a straightforward route down a well-traveled secondary road with a posted speed limit of 40 miles per hour (mph), then onto a local road leading into a suburban neighborhood. It was still daylight as the youth drove down the secondary road, coming to an "S" turn with a curve advisory sign of 30 mph. A severe rainstorm with heavy winds was in progress at that time. Turning left to complete the second turn, the youth lost control of the car and spun off the road, hitting a large tree broadside with the driver's side of his car. He was found conscious and reportedly left the vehicle to check on the damage. The first police officer arrived about 5 minutes after the crash was reported. The youth was disoriented and showed signs of possible internal injuries. Emergency medical services arrived a few minutes later and transported the youth to a Level II trauma center where he died from his injuries at 11:30 p.m.

Police investigation reports indicate that the youth was not wearing a seat belt at the time of the crash. The police impounded and inspected the car, finding that the front tires were worn and in poor condition. Different air pressures (20-30 pounds per square inch) were noted in each tire. There was no indication of alcohol or drug involvement.

Learning points for employers:

- **Limit driving a motor vehicle for work to workers 18 years of age and older:** In the case described above, the youth who died was employed in violation of Federal labor laws. These laws prohibit minors in non-agricultural jobs from operating a motor vehicle as a regular part of their employment. This requirement is specified as Hazardous Order 2 (HO 2) among the 17 Hazardous Occupation Orders for workers less than 18 years of age. HO 2 specifically prohibits a youth under 18 years of age from working as a delivery driver. Employers are required by law to follow these standards to prevent youth injuries and fatalities. In addition, employers are responsible for following state child labor laws, which may be more restrictive than Federal laws.
- **Employers are legally responsible for the safety of vehicles operated on their behalf:** Even if workers provide their own vehicles, employers share responsibility for safe operation of those vehicles. If the youth killed in the crash described above had also struck a pedestrian, it is very likely that legal action would have been taken against the employer.

Learning points for employers: (continued)

- **Require all drivers and passengers to use seat belts:** State traffic laws in all but one state (New Hampshire) require all drivers to use seat belts. Employer policies requiring use of seat belts reinforce state laws by making belt use a condition for employment. In this case, it is possible that the youth who died might have survived had he been wearing a seat belt. If the youth had been informed by the employer that he was required to use his seat belt and asked to sign a form to acknowledge that he would comply with the policy, he might have chosen to use his belt.
- **Become familiar with available resources on safe work practices:** It is extremely important that employers obtain accurate information on safe practices for operating motor vehicles. Some resources available to employers for guidance on safe motor vehicle operations are:
 - American National Standards Institute, ANSI/ASSE Z15.1 – This voluntary national standard covers minimum requirements for the safe operation of motor vehicles owned or operated by companies and organizations. It can be used by companies of all sizes, and covers all types of vehicles.
 - National Safety Council, Our Driving Concern: Employer Safety Traffic Program – The objective of this program is to educate employers on the impact crashes will have on their businesses, and to help them prevent crashes.
 - Industry-level safety recommendations – Some industries and trade associations have developed their own recommendations to help companies recognize and control motor vehicle-related hazards. The oil and gas industry is a good example.
 - Insurance carriers – Many auto insurance companies offer helpful information on motor vehicle safety to their clients.
- **Provide driver training:** Employees of all ages who are expected to drive for work should receive driver training when they are hired, and periodic “refresher” training thereafter. It is likely that young drivers benefit from the greater awareness and experience that classroom and/or behind-the-wheel training gives them. The companies with the best road safety performance generally provide “refresher” training every 2 to 3 years.
- **Implement adverse weather policies:** Employers can implement policies to encourage young drivers to take additional precautions in the event of bad weather or not to drive under such conditions.
- **Schedule work so that drivers can safely make time-sensitive deliveries:** Truck drivers and package delivery drivers are not the only workers who are under pressure to make deliveries. In this case, the employer put in place a positive safety measure to reduce time pressure on drivers. By over-estimating the amount of time it would take to deliver a pizza, the owner of the pizza shop decreased the likelihood that drivers would feel pressured to drive above the speed limit or too fast for conditions. It is unlikely that time pressure was a factor in the crash described above.
- **Ensure that vehicles are in proper operating condition:** The police reported that the front tires on the victim’s personal vehicle were in poor condition, which may have been a factor in losing control on the wet road. It is strongly recommended that employers who provide vehicles for employees to drive for work or other purposes maintain those vehicles in good operating condition. If personal vehicles are used by employees for work, employers can advise employees to make sure they are in proper working condition.

Case 2: Volunteer Fire Fighter



Photo by ©Thinkstock

A 22-year-old volunteer fire fighter died when the service truck he was driving crashed while responding to a medical emergency. The truck was a large pickup with a gross vehicle weight rating of 10,500 pounds. It was hauling a “slip-on unit” consisting of a water storage tank, pump, hose reel, and control panel. The fire fighter had worked at a rural volunteer fire department for over three years. Standard operating procedures (SOPs) covering motor vehicles were not in place at the fire department. In addition to firefighting-related training, he had completed driver-operator and emergency vehicle operation training. The fire fighter was traveling alone on a narrow rural road with no posted speed limit, perimeter markings, center dividing lines, guard rails, or curve warning signs. The road had a bend to the right at the bottom of a slight grade.

At the time of the crash it was raining, with a 10 mile per hour (mph) sustained northerly wind gusting up to 23 mph. About ½ inch of rain had already fallen. Visibility was poor and the road surface was wet. At 3:15 p.m. the service truck was dispatched to respond to a medical emergency. Other fire fighters had already responded, and an ambulance was en route. By 3:21 p.m., the service truck had crashed. Police reports estimated the speed of the truck at 50 mph as it approached the bend in the road – too fast to safely negotiate the bend. Skid and tire marks on the pavement and the roadside indicated that the driver applied the brakes as the truck was about to enter the bend. The truck left the roadway and came to a final stop when the cab crashed into a tree. The slip-on unit detached and landed in the underbrush toward the front of the cab. The driver was extricated from the wreckage and transported to a local hospital where he died later that day.

Learning points for employers:

- **Develop, implement and ensure compliance with written standard operating procedures (SOPs) for vehicle operations:** SOPs generally include minimum requirements for safe vehicle operation, inspection and maintenance, emergency and non-emergency operations, and employer and employee responsibilities should be included in SOPs. Each employee receives a written copy of the SOPs and is held accountable for following them. In the case described above, the volunteer fire department had no written SOPs for the operation and dispatch of vehicles and driver training. Further, if SOPs had been in place, a service truck may have not been dispatched to respond to a medical emergency, and guidelines for driving during inclement weather may have been established and discussed with the driver.
- **Establish protocols for journey planning:** Employees need information to help them travel safely on work-related journeys. Employer SOPs can specify situations where travel is appropriate. Journey planning also involves giving workers information about travel conditions such as road construction, road closures, and bad road conditions. In this case, the employer could have discussed the potential dangers of the rural road with the young fire fighter. Additionally, fire fighters were already at the scene of the emergency and an ambulance was on its way when the crash happened; therefore, dispatching another vehicle may have not been necessary.
- **Require the use of seat belts by drivers and all passengers:** Develop and implement policies to specify that seat belts are worn by drivers and all passengers at all times. In this case it was not clear if the employee was wearing his seat belt at the time of the crash.

Learning points for employers: (continued)



- **Ensure that all vehicles are operated safely:** Even in emergency response conditions, safety should always be a priority. For safe vehicle operations, employees should follow traffic laws and take additional precautions during inclement weather. Unsafe operation of any vehicle creates an unacceptable risk for the employer, the worker, and others on the road. In this case, the estimated speed of 50 mph as the truck approached the bend was probably too fast for normal travel conditions, and certainly for the road conditions at the time of the crash. The crash may have been averted if the driver had been traveling at a slower speed and/or taken a different route.

- **Ensure compliance with inspection, maintenance, testing, and retirement of vehicles:** Regular inspection and maintenance are critical for keeping vehicles in safe operating condition at all times. Keeping detailed maintenance records is also important. In this case, police reports indicated that the tread on two tires was only 2/32 inches deep and in violation of National Fire Protection Association standards. Maintenance logs did not document that the truck's tires had been checked.

How can employers help prevent motor vehicle crashes among young workers?

As an employer, you can carefully monitor the selection and performance of young and inexperienced drivers as part of your overall driver safety program. Motor vehicle crashes are a significant source of liability and Federal child labor laws restrict workplace driving by youth under 18 years of age. Although most young adults are allowed by law to drive on the job at age 18, they lack the maturity and driving experience of their older co-workers.

Ensure you have a motor vehicle safety program that includes the following elements, which apply to all workers who drive as part of their job:

- **Written policy statement:** In your policy statement emphasize management commitment and support for vehicle safety. The statement can cover responsibilities of the employer and drivers, driver selection and review processes, driver training, occupant restraints, and impaired and distracted driving. Additional elements include vehicle inspection and maintenance policies, crash reporting, analysis and corrective actions after a crash occurs, and disciplinary actions resulting from failure to comply with company policies.
- **Program administration roles and responsibilities:** Your company can designate a person responsible for implementation and follow-up, including checking employees' motor vehicle records, verifying compliance with Federal and state laws and regulations, overseeing driver training, maintaining operation and maintenance files for all vehicles, and collecting and reviewing data needed to monitor the company's road safety performance.
- **Driver selection, authorization, and review:** To ensure safety and protect against liability, you can review motor vehicle records for all job applicants prior to hiring, and apply predetermined standards for acceptance. Establish periodic evaluations of driver qualifications, including annual review of motor vehicle records and observation of driving performance. Establish that drivers are responsible for adhering to all policies and procedures associated with the operation of a motor vehicle. A driver pledge can be used to verify that your drivers know and understand these policies.

Before hiring a young driver:

- Know and comply with Federal and state child labor laws that limit workplace driving for workers under 18 years of age.
- Ensure that every worker assigned to drive on the job has a valid state driver's license.
- Ensure that workers under age 18 have completed a state-approved driver education course as required by FLSA (see "FLSA Limitations for Teens Who Drive for Work").
- Check the young driver's motor vehicle record before making an offer of employment.
- Make sure that a young driver's work assignments do not cause him or her to violate state graduated driver licensing (GDL) laws. In particular, be aware of restrictions on night driving and the number of teen passengers.
- Ensure that any young driver hired to drive a commercial motor vehicle is properly qualified and licensed. Commercial driver's licenses for operation of large trucks or buses are issued only to persons 21 years of age and older.



After you hire a young driver:

- Provide driver training at the time of hire. This can include some behind-the-wheel evaluation of driving skills and behaviors.
- Ensure that the supervisor conducts scheduled drive evaluations of the young driver. A driving evaluation helps young drivers learn to recognize traffic hazards and maintain concentration on driving. Have the young driver describe what he or she sees, consider what is likely to happen, and describe what action he or she intends to take. Provide feedback and training for observed deficiencies.
- Provide periodic "refresher" driver training. Companies with the best road safety performance generally provide it every 2 to 3 years.
- Provide training for any specialized vehicle the young worker is expected to operate.
- Require seat belts to be used by all drivers and passengers.
- Implement policies to prohibit all use of hand-held devices while driving. Consider prohibiting hands-free devices as well. Phone conversations take the driver's attention away from the primary task of driving.
- Ensure that the young driver does not exceed the maximum number of driving hours allowed by law. For drivers aged 17, keep a driving log to make sure that driving time does not exceed $\frac{1}{3}$ of their workday and 20% of work time in a workweek.
- For drivers 21 years and older who operate commercial motor vehicles and are covered by Federal Motor Carrier Safety Regulations, follow applicable hours-of-service regulations and other safety requirements.
- Establish consequences for non-compliance with road safety policies. Many companies assign points to drivers if they do not observe safety policies. After a certain number of points are accumulated, driving privileges may be suspended, and termination may eventually result.

After you hire a young driver: (continued)

- Remember that following road safety policies is a shared responsibility for the young driver and his or her supervisor.
- If your company uses in-vehicle telematics to track workers' driving performance, ensure that all drivers are given timely feedback to help them correct unsafe driving behaviors.
- Work cooperatively with employees, unions, or safety committees to involve workers in shaping road safety programs.

For more information:

Federal child labor laws and safe work for youth:

<http://www.youthrules.dol.gov>

http://www.dol.gov/whd/regs/compliance/Teen_Driving.pdf

<http://www.osha.gov/SLTC/teenworkers/index.html>

<http://www.youthrules.gov/support/toolkit/index.htm>

Driver safety tips for teens and parents:

http://www.cdc.gov/Motorvehiclesafety/Teen_Drivers/index.html

http://www.nsc.org/safety_road/teendriving/pages/teen_driving.aspx/

<http://www.nhtsa.gov/Teen-Drivers>

<http://trafficsafety.org/>

<http://trafficsafety.org/promo/the-novice-drivers-road-map> (fee applies)

<http://www.underyourinfluence.com/>

<http://www.nhtsa.gov/Bicycles>

Motor vehicle crashes:

<http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/USA%20WEB%20REPORT.HTM>

Graduated licensing laws and state traffic laws:

<http://www.iihs.org/laws/GraduatedLicenseIntro.aspx>

<http://www.iihs.org/laws/default.aspx>

Hours-of-service (HOS) regulations:

<http://www.fmcsa.dot.gov/rules-regulations/topics/hos/index.htm>

NIOSH motor vehicle safety Web page:

<http://www.cdc.gov/niosh/topics/motorvehicle>

Guidelines for Employers to Reduce Motor Vehicle Crashes:

http://www.osha.gov/Publications/motor_vehicle_guide.html