Fact Sheet: Construction 2013

Non-Fatal Work-Related Injuries to Massachusetts Teens

Teens at Work: Injury Surveillance and Prevention Project
Occupational Health Surveillance Program
Massachusetts Department of Public Health

Background

While work can provide benefits to youth, it can also pose safety risks. The Massachusetts Department of Public Health's *Teens at Work: Injury Surveillance and Prevention Project* (TAW) collects data on work-related injuries to minors, and uses the information to help plan prevention activities throughout the state.

The findings presented here are based on data collected by TAW during the calendar years 2005-2010 using information from workers' compensation (WC) lost wage claims, for injuries resulting in five or more lost work days, and reports from a sample of hospital emergency departments (ED).

For a detailed description of the project, please see our "Overview Fact Sheet." All of our materials are available online: **www.mass.gov/dph/teensatwork**.

Overview

The construction industry can be dangerous for workers of all ages: in 2011, there were over 184,000 non-fatal work-related injuries to construction workers nationwide[1].

From 2005 through 2010, 66 (4%) of the 1,666 work-related injuries identified by the TAW Project happened in construction. 48% of these injuries were identified through workers' compensation lost wage claims, and 52% through hospital emergency department reports.

This fact sheet provides a closer look at these non-fatal injuries to teens working in the construction industry.

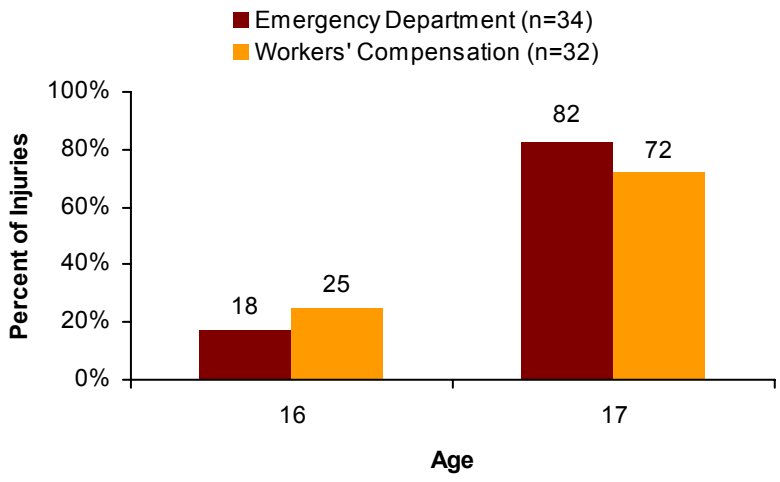
Injuries by Age

The majority of construction injuries were to 17-year-olds, followed by 16-year-olds (Figure 1). This was true in both data sources. There were no injuries to 14- and 15-year-olds.

Child labor laws prohibit teens under age 16 from working on construction sites. For 16- and 17-year-olds, certain tasks and use of certain machines are prohibited.

To see all prohibited jobs for minors, view our "Child Labor Laws in Massachusetts" poster online: www.mass.gov/dph/teensatwork Click on 'Educational Materials' then 'Working Teen Pamphlets.'

Figure 1. Work-related injuries to teens under age 18 in construction by age and data source, Massachusetts, 2005-2010



Source: Teens at Work: Injury Surveillance System, MDPH.

[1] US Bureau of Labor Statistics, *Economic News Release: Workplace Injury and Illness Summary*, available online at http://www.bls.gov/news.release/osh.t05.htm (accessed 21 Feb 2013)

Findings, 2005 - 2010

Injuries by Gender

97% of all injuries to teen construction workers were to males.

The injury breakdown by gender matches the gender distribution of all teen construction workers in Massachusetts: 97% of the teen construction workforce was male and 3% female, during this time period.

47% of injured teens interviewed reported having no work permit at the time of their construction injury.

Source: Teens at Work: Injury Surveillance System, 2000-2010, MDPH.

Injury Type

Injury Type by Data Source

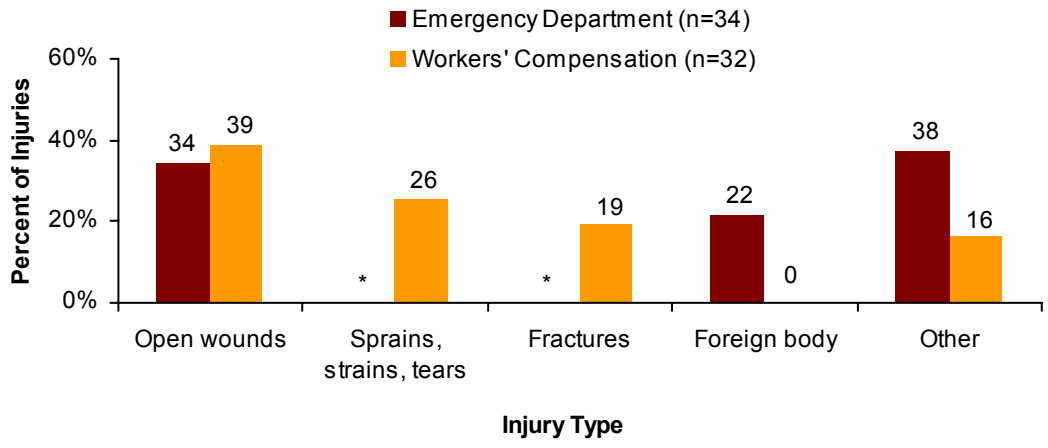
In both ED and WC data, "open wounds" (including cuts) was the most common type of injury identified among teen construction workers. This is likely due to the nature of equipment used for construction work. For example, many power-driven machines and tools* project much force (e.g. jointers, nail guns), and may require additional user control and/or protective equipment.

In the ED data, the next most common injury type was "foreign body," which includes miscellaneous objects, splinters, etc, and are often injuries to the eye.

Within WC data, "sprains, strains and tears" was the second most common type of injury (Figure 3).

**Massachusetts and federal child labor laws prohibit the use of power-driven woodworking machines and saws by teens under age 18, with limited exceptions for16- and 17-year-olds in bona-fide student learner programs.*

Figure 3. Work-related injuries to teens under age 18 in construction by injury type and data source, Massachusetts, 2005-2010



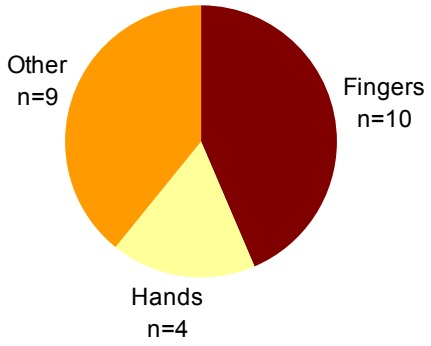
* Counts not shown for categories with less than four cases.
Note: Cases where injury type was missing were not included in the calculations.
Source: Teens at Work: Injury Surveillance System, MDPH.

Type of Injury (continued)

Open Wounds by Body Part Affected

Nearly half of the 23 "open wounds" identified, including cuts, lacerations and punctures, were to the fingers of teen construction workers. Hands were the next single body part most commonly affected (Figure 4). Of the 8 cases for which event type was known, 4 involved being struck by an object.

Figure 4. Work-related open wounds to teens under age 18 in construction by body part affected, Massachusetts, 2005-2010 (n=23)

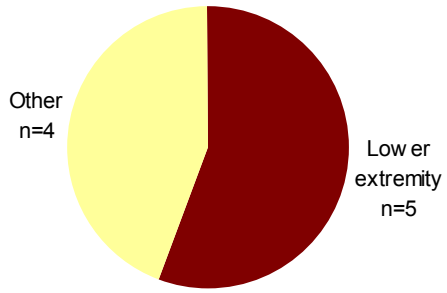


Source: Teens at Work: Injury Surveillance System, MDPH.

Sprains, Strains and Tears by Body Part Affected

The majority of the 9 "sprains, strains and tears" sustained by teens working in construction were to a lower extremity (Figure 5).

Figure 5. Work-related sprains, strains and tears to teens under age 18 in construction by body part affected, Massachusetts, 2005-2010 (n=9)



Source: Teens at Work: Injury Surveillance System, MDPH.

Fractures by Body Part Affected

There were 7 "fractures" identified among teen construction workers. The majority of cases for which event type was known were due to falls.

Foreign Body by Body Part Affected

There were 7 "foreign body" cases identified among teen construction workers; all of these were eye injuries.

No source or event data was available for these injuries.

What Injured Teens Have to Say

From 2000 through 2010, TAW staff completed interviews with 36 teen construction workers who were injured on the job. While the information from these interviews does not necessarily represent all young workers who have been injured, it provides important insights about the impact of injuries on teens, and safety gaps that need to be addressed.

Half of interviewed teens reported receiving no training on how to perform their job safely prior to their injury; a quarter expected some permanent effect from their injury; and *nearly half had no work permit for their job*, many more than compared to all industries (Figure 7).

Massachusetts child labor laws require minors to have work permits, which may be acquired through the school district in which the teen lives or goes to school.

Employers should be aware of the tasks in which 16- to 17-year-old construction workers can legally assist. View our "Employer Tips" sheet for co-op students to see prohibited tasks for both those teens participating in a bona fide student learner program and those who are not.

www.mass.gov/dph/teensatwork
Click on 'Educational Materials' then 'Safe Jobs for Youth Guide.'

Young Worker Voices:

"I had been lifting heavy logs and putting them on the log splitter.* I was in the middle of lifting a heavy one when I felt a jolt of sharp pain go through my back. My grandfather gave me a ride to the hospital two weeks after the injury. It took us so long because I didn't tell anyone because I thought it would go away. I still have pain."

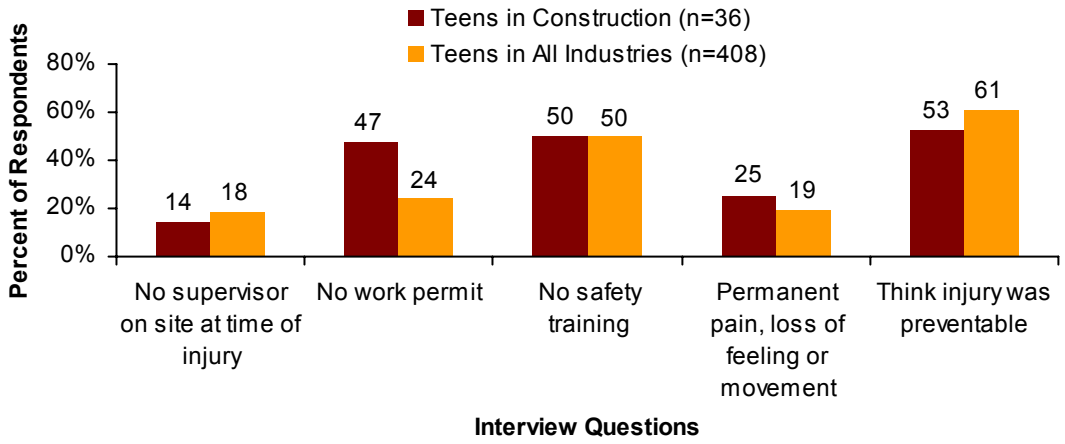
— *17-year-old helper, private construction company*

"I went to pick up a piece of scrap metal because it was supposed to be kept off the patio. I thought it was one piece but it turned out to be two. The metal slid 6 inches down my arm and cut into my wrist. It was my second day on the job. I missed about 7 days of work."

— *17-year-old laborer, house construction site*

***Child labor laws prohibit the use of power-driven woodworking machines for all teens under age 18 who are not participating in a bona-fide student learner program.**

Figure 7. Interviews with teens injured at work in construction, Massachusetts, 2000-2010



Source: Teens at Work: Injury Surveillance System, MDPH.

If you have questions about the information presented here, contact Project Coordinator Beatriz Pazos Vautin: 617-624-5632 or Beatriz.Pazos@state.ma.us.

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