

January 2009



Teens at Work

Work-Related Injuries to Teens in Massachusetts, 2001-2005

Teens at Work: Injury Surveillance and Prevention Project

Occupational Health Surveillance Program • Massachusetts Department of Public Health

Preventing Injuries to Working Teens

An estimated 80% of teens in the U.S are employed at some point during high school.¹ Although teen employment has declined from its peak in 1999, youth continue to be a vital part of the workforce in Massachusetts as well as the country as a whole. In 2007, an estimated 25% of 15- to 17-year-olds in Massachusetts were employed at any given point in time.² While today's increasing unemployment rate means fewer teens may be working, we still rely on youth in many industries and need to ensure that the jobs in which youth are employed are safe.

Employment can provide many benefits for youth. In addition to income, work offers teens the opportunity to learn job skills, to explore future careers, and in some cases to enhance their academic education. However, working teens also face health and safety risks. In the U.S. in 2006 157,000 teens less than 18 years of age were injured at work, over 52,000 teens sought care in emergency departments for work-related injuries, and 30 were killed.³ In fact, teen workers have a higher rate of non-fatal injuries per hour worked than adults.¹ This is, in part, explained by the types of jobs they do; many of the jobs in which teens are commonly employed have higher than average risks for workers of all ages. Inexperience, lack of safety training, and inadequate supervision, as well as developmental factors—physical and psychological—may also increase risks for young workers.⁴

Information about where and how young workers are injured on the job is essential to develop effective prevention strategies and to promote safe work opportunities for youth. The Massachusetts Department of Public Health's (MDPH) *Teens at Work: Injury Surveillance and Prevention Project* (TAW) collects data on work-related injuries to teens less than 18 years of age from emergency departments (ED) and workers' compensation (WC) claims. These data, along with information collected from interviews with injured teens, are used to develop educational materials for both teens and adults who work with teens, and guide prevention activities.



In This Issue

- Injury Statistics at a Glance
- What Injured Teens Have to Say
- Young Worker Health and Safety Activities in Massachusetts
- Health & Safety Resources for Young Workers

Injury Statistics at a Glance⁵

In Massachusetts:

From 2001 through 2005:

- Three teens under age 18 died in Massachusetts from work-related injuries.
 - A 17-year-old boy, working for an electrician, died of complications after tearing a muscle while doing heavy lifting.
 - A 15-year-old boy was killed when he was struck by several heavy granite slabs, which were stored in an A-frame, and fell on him while he was clearing snow at a stone carving shop.
 - A 16-year-old boy was killed while driving a forklift without a load on uneven ground when it tipped over and crushed him.
- There were 1,246 workers' compensation (WC) lost wage claims for injuries resulting in five or more lost workdays filed by teens.
- The average annual rate of lost wage claims filed by 15- to 17-year-olds was 0.9 injuries per 100 full-time workers.

From 2002 through 2005:

- There were 3,832 emergency department (ED) visits for work-related injuries to teens.
- The average annual rate of emergency department visits for work-related injuries to 15- to 17-year-olds was 3.5 per 100 full-time workers.
- Over 90% of work-related injuries among youth under age 18 identified in both data sources (ED and WC) were sustained by 16- and 17-year-olds. Injuries to 17-year-olds accounted for approximately 60% of all cases (Figure 1).
- The majority of injuries identified in both data sources were sustained by males, in all age groups, which is not simply explained by males working more hours. Males had higher injury rates per hours worked (Figure 2).
- Hispanic youth had the highest rate of work-related injuries (Figure 3). *Information about the race and ethnicity of injured teens was available in the ED data set but not the WC claims.*
- Half of all the injuries in the retail trade (50%) occurred in grocery stores, and the vast majority (95%) of injuries in the accommodation and food service sector occurred in restaurants. Nursing homes accounted for the largest number of injuries in the healthcare and social assistance sector (Figure 4). *Information about the industry in which injured teens were employed was available in the WC claims but not the ED data set.*

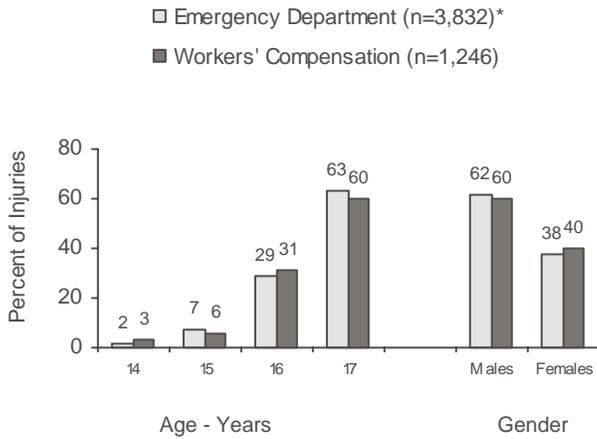
What Injured Teens Have to Say

Teens at Work Project staff have completed phone interviews with 174 young workers injured on-the-job from 2001 through 2005. While the information from these interviews is not necessarily representative of all young workers who have been injured, it nevertheless provides some important insights.

Of these interviewed teens:

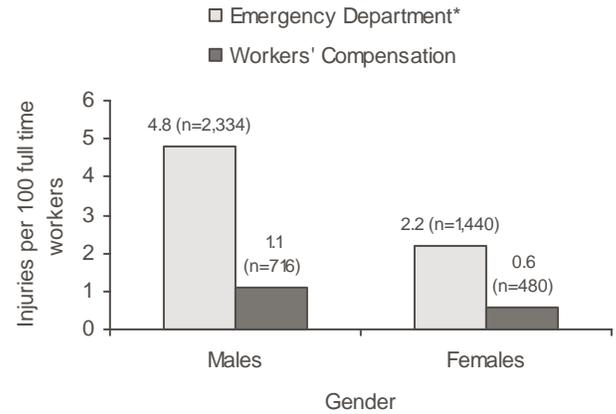
- Fifty-four percent reported they had received no on-the-job training about how to work safely and avoid injury. This finding is consistent with other studies.
- Thirty-three percent reported they had no work permits for their jobs at the time they were injured, which is slightly higher than other studies. **NOTE:** Massachusetts child labor laws require teens to have work permits which may be obtained through the school district where the teen resides or attends school.
- Fifty percent missed over five days of work as a result of their injury.
- Eighteen percent of injured teens reported one or more of the following anticipated permanent effects from their injuries: limited pain, movement or feeling.
- Sixty-eight percent believed their injuries were preventable.
- Seventeen percent reported that no supervisor or person responsible for supervising them was on the premises at the time of injury.

Figure 1. Distribution of Work-Related Injuries to Teens under Age 18, by Age, Gender, and Data Source, Massachusetts, 2001-2005



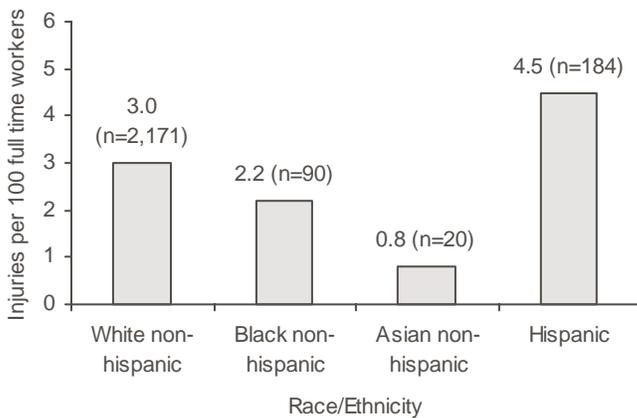
* The emergency department data are available for 2002-2005 only. Note: Fifteen cases were younger than 14-years-old, and gender was missing for 20 cases in the workers' compensation data. These cases were not included in the calculations. Source: Teens at Work Injury Surveillance System, MDPH

Figure 2. Average Annual Rates of Work-Related Injuries among 15- to 17-Year-Olds, by Gender and Data Source, Massachusetts, 2001-2005



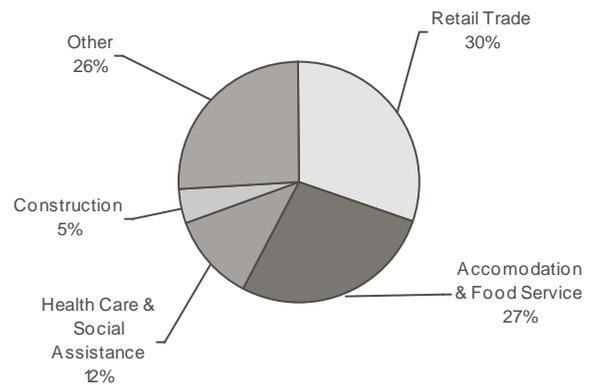
* The emergency department data are available for 2002-2005 only. Source: Teens at Work Injury Surveillance System, MDPH; Current Population Survey, Bureau of Labor Statistics

Figure 3. Average Annual Rates of Work-Related Injuries among 15- to 17-Year-Olds, by Race and Ethnicity, Massachusetts, 2003-2005



Note: Rates were not calculated for 2002 due to a change in the denominator data. Source: Teens at Work Injury Surveillance System, MDPH; Current Population Survey, Bureau of Labor Statistics

Figure 4. Distribution of Workers' Compensation Claims Filed with 5+ Days Away from Work by Teens under Age 18, by Industry Sector*, Massachusetts, 2001-2005 (n=1,246)



* NAICS 97 Source: Teens at Work Injury Surveillance System, MDPH

Detailed information about the source and causes of injuries by industry, as well as a detailed description of the TAW surveillance system, are available on the MDPH TAW website: www.mass.gov/dph/teensatwork.

I was bringing wood up a ramp with a forklift. I put the emergency break on, shut it off, and got out to pick up dropped wood. The forklift rolled down the ramp and pinned me against a truck.

~ 16-year-old employee of a HVAC contractor

The federal and Massachusetts child labor laws prohibit anyone who is under age 18 to drive a vehicle or forklift for work (with some exceptions).

The Massachusetts Youth Employment and Safety Team

No single agency in Massachusetts has sole responsibility for protecting young workers. However, the Massachusetts Youth Employment and Safety Team (YES Team), under the leadership of the Department of Public Health, brings together state and federal agencies concerned with youth employment in Massachusetts. The purpose of the YES Team is to coordinate government efforts to protect and promote the health and safety of young workers in the Commonwealth.

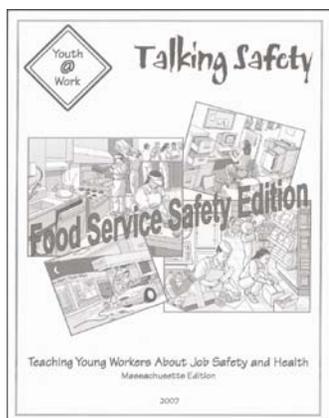
Some joint activities of the YES Team include:

- Providing presentations covering young worker health and safety, state and federal child labor laws, work permits, and wage and hour laws. Past presentations have included presenting for franchise owners, and managers and supervisors in businesses.
- Developing and distributing educational materials to schools, teens, parents, employers, and health care providers.
- Coordinating outreach on the new Massachusetts child labor laws when they went into effect in 2007.

The roles, responsibilities, and recent activities of partnering agencies are briefly described here.

Massachusetts Department of Public Health

The *Teens at Work: Injury Surveillance and Prevention Project* (TAW) tracks work-related injuries to teens less than age 18 in Massachusetts and disseminates information about young worker injuries to promote injury prevention efforts. TAW collaborates with a wide range of community and government partners in carrying out activities to protect the health and safety of working teens.



Agencies represented on the YES Team:

Massachusetts Department of Public Health
Massachusetts Office of the Attorney General
Massachusetts Department of Elementary and Secondary Education
Massachusetts Department of Industrial Accidents
Massachusetts Division of Occupational Safety
U.S. Department of Labor Wage and Hour Division
U.S. Department of Labor Occupational Safety and Health Administration (OSHA)
Commonwealth Corporation

One major activity of TAW is working to increase workplace health and safety training for youth using the national curriculum *Youth @ Work: Talking Safety*. TAW staff provide “train-the-trainer” workshops upon request to anyone responsible for teaching teens about workplace health and safety and/or anyone involved with placing teens in workplaces, such as teachers, placement coordinators, and youth serving organization staff. *Talking Safety* is an interactive, youth-oriented curriculum for teaching teens to:

- Identify safety hazards at work
- Understand how to stay safe at work and prevent injuries
- Know their rights and the child labor laws
- Speak up when there is a safety problem
- Know what to do in an emergency

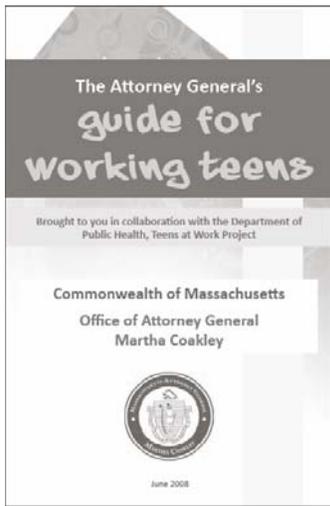
TAW staff have recently adapted this curriculum to provide industry specific information for use by vocational technical education teachers and others training youth working in food services and health care.

Additionally, the Massachusetts Youth Violence Coalition (started by DPH) has identified workplace violence as one of the many forms of violence that youth confront. As a result, activities addressing workplace violence have been included among those eligible for state funding to reduce youth violence. In 2008, the Massachusetts Coalition for Occupational Safety and Health (MassCOSH) Teens Lead @ Work Program received DPH funds to conduct a 3-day academy on workplace violence and health and safety for youth. Over 28 teens from Eastern Massachusetts attended this academy in April 2008 and returned to their communities to carry out intervention projects.

For more information about this academy for young workers (called LEAPS—Leadership Education and Action to Promote Safety), contact MassCOSH.

Massachusetts Office of the Attorney General

The Office of the Attorney General's (AGO) Fair Labor Division (FLD) enforces the Massachusetts child labor laws. Since 2007, the AGO has had the authority to civilly cite employers who violate the laws and has issued over 100 such citations to date. The citations order employers to comply with the laws and pay fines for violations. The AGO's FLD also raises public awareness of the laws by providing materials and outreach presentations to employers, teens and schools, and by issuing press releases on many of its citations. In 2007, the AGO's FLD began a significant public awareness campaign, including an updated guide for working teens and a new website, laborlowdown.com, geared towards educating teens on workplace rights, health, and safety.



Massachusetts Department of Elementary and Secondary Education (ESE)

Connecting Activities

Connecting Activities is a Department of Elementary and Secondary Education-led initiative designed to drive and sustain the statewide school-to-career system. Working in partnership with the Executive Office of Labor and Workforce Development, it establishes public-private partnerships throughout Massachusetts' sixteen local Workforce Investment Boards to connect schools and businesses, and to provide structured work-based learning experiences for students which support both academic and employability skill attainment.

In fiscal year 2008, Connecting Activities generated some of the following outcomes:

A co-worker and I were lifting a patient to help her sit up in bed. We were using proper body form, but there weren't enough people helping. I strained my back and fell. They said, "you're ok," and made me work the rest of the shift. I had been lifting the patient using a draw sheet. I pulled my lower back and strained my ligaments.

~ 17-year-old nursing home employee

- Employers invested \$37,711,412 in wages to support students in structured internships.
- 14,729 students were placed in brokered internships at 5,624 employer sites.
- 10,971 (74%) students had a Massachusetts Work-Based Learning Plan to structure their internships.
- 11,657 students participated in job shadowing experiences at 2,400 employer sites.
- 1,800 students participated in Construction Career Days.
- 235 teachers participated in teacher externships.

Connecting Activities is responsible for state oversight and implementation of the Massachusetts Work-Based Learning Plan (WBLP), a diagnostic, goal-setting and performance-based assessment tool designed to drive workplace skill acquisition for students in jobs/internships. The WBLP codifies workplace health and safety as a "Foundation Skill" that all students need to be proficient in to compete in a 21st century economy.

Career/Vocational Technical Education

The Career/Vocational Technical Education (CVTE) unit of ESE administers the state law governing vocational technical education programs in public school districts. Career and technical education prepares youth for a wide range of careers and provides a foundation of skills that enables high school graduates to find employment.

CVTE collaborates with the Massachusetts Division of Occupational Safety (DOS) to ensure that vocational technical education shops in public high schools are safe, and works closely with DOS, OSHA, and with TAW, to provide workplace health and safety training to CVTE staff and students. Additionally, the Massachusetts Vocational Technical Education Frameworks include a section on occupational safety and health.

Massachusetts Department of Industrial Accidents Office of Safety

The Department of Industrial Accidents (DIA) Office of Safety supports occupational safety and health education training for employees and employers of industries operating within Massachusetts whose staff is covered under the Massachusetts Workers' Compensation Law.

Featured websites in this newsletter:

Department of Public Health's Teens at Work Injury Surveillance and Prevention Project:
www.mass.gov/dph/teensatwork

Massachusetts Coalition for Occupational Safety and Health: www.masscosh.org

Office of the Attorney General's Labor Low Down Website: www.laborlowdown.com

Department of Elementary and Secondary Education's Work-Based Learning Plan: www.doemass.org/connect and click on Work-Based Learning, or go to www.skillslibrary.com/wbl.htm

Construction Career Days: www.engineers.org/massccd

Department of Elementary and Secondary Education Career/Vocational Technical Education Unit: www.doe.mass.edu/cte

Massachusetts Vocational Technical Education Frameworks www.doe.mass.edu/cte/frameworks

Division of Occupational Safety's Youth Employment Webpage: www.mass.gov/dos/youth

U.S. Department of Labor Wage and Hour Division's YouthRules! Initiative: www.youthrules.dol.gov

Commonwealth Corporation: www.commcorp.org

Every year, DIA awards \$800,000 in safety training grants to various organizations. As a result, thousands of persons receive workplace training through programs funded by DIA. In 2008-2009, several of the grants that were awarded focus specifically on workplace health and safety for teens.

Massachusetts Division of Occupational Safety

Work Permits

The Massachusetts Division of Occupational Safety (DOS), part of the state Department of Labor, is responsible for providing school superintendents with youth work permit applications and permit forms. DOS maintains a Youth Employment webpage, which includes the work permit application and links to other helpful resources.

On-Site Consultation Program

DOS offers a free consultation service designed to help employers recognize and control potential safety and health hazards at their worksites, improve their safety and health programs, and assist in training employees. This service is jointly funded by DOS and OSHA. The Consultation Program also provides health and safety training to vocational technical education teachers, and to staff of

YouthBuild programs that provide vocational and academic training for inner-city youths.

U.S. Department of Labor Wage and Hour Division

The U.S. Department of Labor is the federal agency responsible for monitoring child labor and enforcing the federal child labor laws. The most sweeping federal law that restricts the employment and abuse of child workers is the Fair Labor Standards Act (FLSA). Enforcement of the FLSA's child labor provisions is handled by the Wage and Hour Division of the Department's Employment Standards Administration. The Department's YouthRules! initiative seeks to promote positive and safe work experiences for young workers.

U.S. Department of Labor Occupational Safety and Health Administration (OSHA)

OSHA is the main federal agency responsible for enforcing workplace health and safety standards. The agency also provides information to help employers and workers prevent work-related injuries and illnesses, and currently has an initiative focusing specifically on youth. OSHA's "Young Worker Initiative" provides information and training resources to ensure safe and rewarding work experiences for youth. As part of this initiative, OSHA has a "Teen Summer Job Safety Campaign" to educate teenagers on the importance of workplace safety and health. The campaign's website contains useful information for teens, parents, educators, and employers. Additionally, OSHA in Massachusetts is collaborating with DOS and Career/Vocational Technical Education programs to ensure that the teens in these programs have a good foundation to identify and address workplace hazards. OSHA also works with DOS to provide the staff of YouthBuild with safety and health training.

Commonwealth Corporation

As part of its mission to build upwardly mobile career pathways for youth and adults, Commonwealth Corporation, a quasi-public agency under the Executive Office of Labor and Workforce Development, develops and implements innovative workforce development programs in

I was cleaning a spot off a dress with a cleaner called liquid blue something. I wasn't wearing my safety glasses (my boss said that they are not needed). I squeezed too hard and the liquid went into my eye. At the ER, they told me that my cornea was scratched.

~ 17-year-old employee at a dry cleaner

Massachusetts. The organization administers teen employment and work readiness programs to over 7,500 youth across the state, ages 14 to 21, as part of the Workforce Investment Act (WIA) and YouthWorks, a state funded teen employment program. Technical assistance provided by Commonwealth Corporation to the state's 16 local workforce investment boards helps public and private sector employers keep teens safe on the job. Local initiatives include youth safety training and child labor law training for young workers and employers.



The Massachusetts YES Team

At the end of the day, my boss was cutting a branch with a chainsaw, and I was holding it so it wouldn't fall and hit the house. When the branch was cut, its weight pulled my arm into the blade. I was rushed to the hospital in an ambulance, and I got 44 stitches and 18 staples.

~ 16-year-old employee of a landscaper

Massachusetts Young Worker Contacts and Resources

Child Labor Laws & Wages:

Massachusetts Attorney General's Office

Fair Labor Division

(617) 727-3465

www.mass.gov/ago

US Department of Labor

Wage and Hour Division

(617) 624-6700

www.dol.gov/esa/whd

Work Permits:

Massachusetts Department of Labor

Division of Occupational Safety

(617) 626-6952

www.mass.gov/dos

Workers' Compensation:

Massachusetts Department of Labor

Department of Industrial Accidents

(800) 323-3249 ext. 470

www.mass.gov/dia

Health & Safety:

US Department of Labor

Occupational Safety and Health Administration (OSHA)

Methuen—(617) 565-8110

Braintree—(617) 565-6924

Springfield—(413) 785-0123

www.osha.gov

Massachusetts Department of Labor

Division of Occupational Safety

Workplace Safety and Health Program

(617) 969-7177

www.mass.gov/dos

Massachusetts Department of Public Health

Teens at Work: Injury Surveillance and Prevention

Project

(617) 624-5632

www.mass.gov/dph/teensatwork

Discrimination at Work:

Massachusetts Commission Against Discrimination

(617) 727-3990

www.mass.gov/mcad

US Equal Employment Opportunity Commission

Boston Area Office

(800) 669-4000

www.eeoc.gov/boston

US Equal Employment Opportunity Commission,

Youth@Work Website

<http://youth.eeoc.gov>

Young Worker Resources

National Institute for Occupational Safety and Health (NIOSH)

Young Worker Safety and Health Website:
<http://www.cdc.gov/niosh/topics/youth/>

US Department of Labor Occupational Safety and Health Administration (OSHA)

Safety and Health Topics Page
<http://www.osha.gov/SLTC>

Teen Workers Website:

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

US Department of Labor, Wage and Hour Division

Fact Sheet Index Website:

<http://www.dol.gov/esa/fact-sheets-index.htm>

YouthRules! Website:

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

National Young Worker Safety Resource Center

Young Workers' Health and Safety Website:
<http://www.youngworkers.org/nation>

The Workers' Compensation Board of British Columbia

WorkSafeBC Website:

<http://www.worksafebc.com>

WorkSafeBC Young Workers Website:

<http://www2.worksafebc.com/Topics/YoungWorker/Home.asp>

References

- (1) National Research Council. Institute of Medicine. (1998). Protecting youth at work: Health, safety and development of working children and adolescents in the United States. Washington, DC: National Academy Press.
- (2) U.S. Bureau of Labor Statistics. Current Population Survey. Washington, DC: U.S. Bureau of Labor Statistics.
- (3) National Institute for Occupational Safety and Health website <http://www.cdc.gov/niosh/topics/youth> accessed December 29, 2008.
- (4) NIOSH [2003]. NIOSH alert: Preventing Deaths, Injuries, and Illnesses of Young Workers. Cincinnati, OH: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2003-128.
- (5) Teens at Work Injury Surveillance System.

Acknowledgements

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