

Spring 2013



Teens at Work

Work-Related Injuries to Teens in Massachusetts, 2006-2010

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

Preventing Injuries to Working Teens

Even in today's tough economy with fewer teens working than in the past, on average, over 20% of Massachusetts 15- to 17-year-olds are employed at any given point in time.¹

While work can provide benefits to teens, it can also pose health and safety risks: nationally, young workers have about twice the rate of nonfatal work-related injuries per hour worked than older workers.² This is partly explained by the fact that teens tend to be hired into industries that pose high risk for workers of all ages, such as restaurants and health care settings. Inexperience and lack of health and safety training are also factors.

More information about where and how teens are injured at work is essential to promote safer work opportunities for youth. Since 1993, the *Teens at Work: Injury Surveillance and Prevention Project* (TAW) at the Massachusetts Department of Public Health has tracked work-related injuries to teens under age 18 and collaborated with partners on a variety of initiatives to reduce workplace hazards and prevent injuries to working teens.

Efforts by TAW appear to be making a difference. Since the start of TAW, Massachusetts has seen a decline in the rate of work-related injuries among teens—faster than the decline in the injury rate for adult workers (2011 TAW Update, page 5). As we approach **20 years of the *Teens at Work Project***, it is a time to both reflect on our successes and remind ourselves of the work still to be done in ensuring that teen jobs are safe and that teens have the basic health and safety skills to protect them now and in the future.

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The *Teens at Work Project*: 20 Years and Counting

A Brief History: From Data to Action

In the 1980s, the Massachusetts Department of Public Health (MDPH) Childhood Injury Control Program undertook a project to document the nature and extent of all injuries to youth under age 18. Using data from emergency departments (ED), they found a surprising number of teen injuries occurred in the workplace. In response, the MDPH Occupational Health Surveillance Program (OHSP) conducted a more thorough analysis of these data and found that 13% of the injuries (with known location of injury) among 14- to 17-year-olds occurred at work.

Knowing that only about 30% of work-related injuries are treated in EDs, OHSP turned to workers' compensation (WC) data for more information and found that, each year, more than 700 claims for injuries resulting in five or more lost workdays were filed by teens under age 18. This was only the tip of the iceberg, as these claims did not capture the less serious injuries and not all teen workers apply for WC benefits when injured.

The Teens at Work Project: 20 Years and Counting (cont.)

Comparing the WC and ED data sets proved that neither system revealed the full extent of teen worker injuries, and that the injury picture varied depending upon which data source was used. According to WC data, strains and sprains were the most common injuries to teen workers, whereas lacerations were most frequent in EDs.

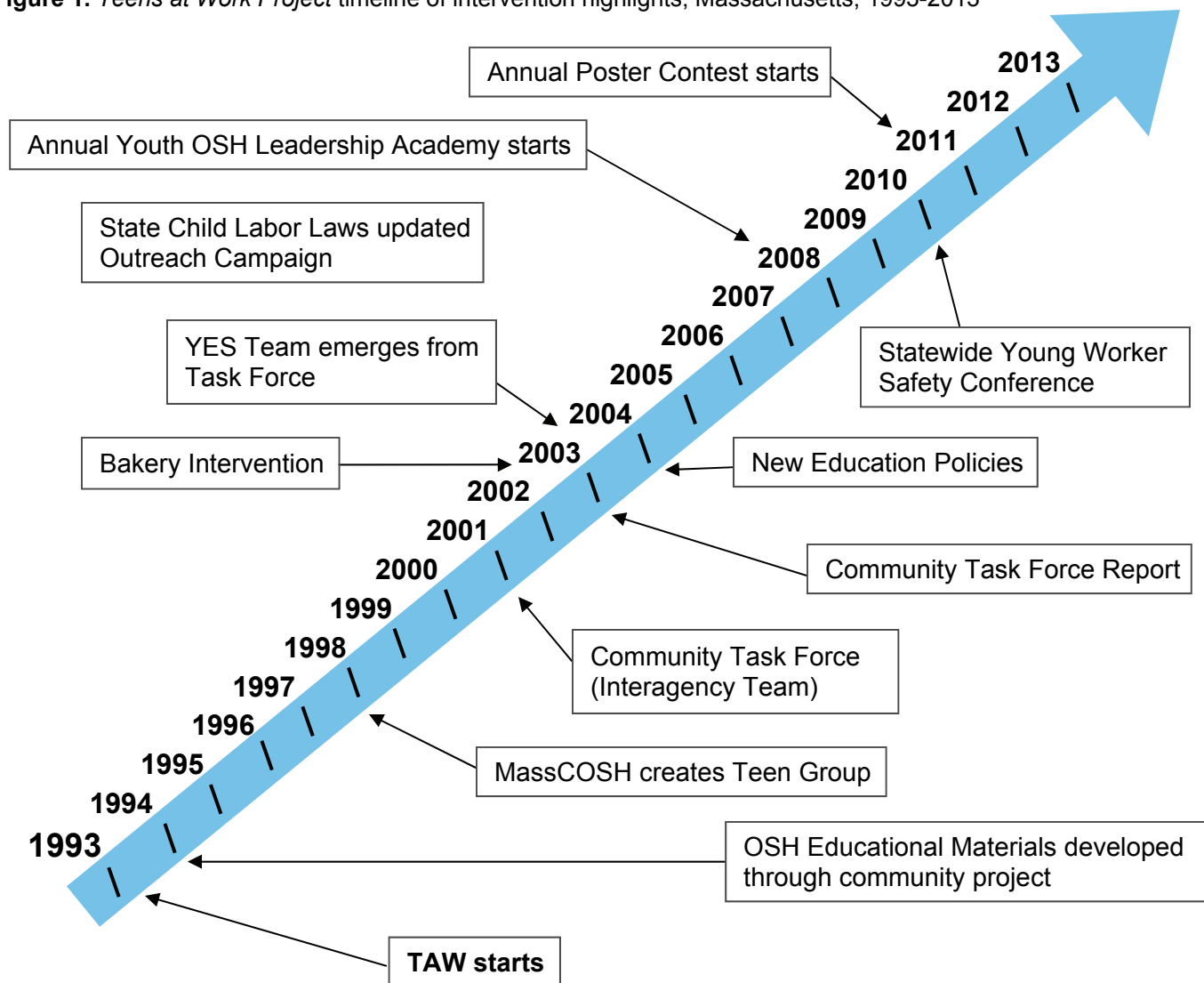
Recognizing that each data set provided a discrete piece of the teen worker-injury puzzle, in 1992, OHSP set out to develop a comprehensive surveillance system that would use multiple data sources to identify work-related injuries to teens. That year, OHSP was successful in adding work-related injuries to persons under age 18 to the list of health conditions that health care providers and hospitals are required to report to MDPH.

In 1993, OHSP received federal funding from the Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health (CDC-NIOSH) to develop a surveillance system for work-related injuries to youth under the age of 18 and use data to target interventions.

This system became *Teens at Work (TAW)*.

TAW uses multiple data sources, including WC claims and hospital records, to identify cases of teen work injuries, and collects additional data through follow-up interviews with injured teens. Since TAW began, surveillance activities have been used for action (Figure 1): findings have guided a range of educational, policy, and technological interventions to reduce injuries to working teens in Massachusetts.

Figure 1. *Teens at Work Project* timeline of intervention highlights, Massachusetts, 1993-2013



Educating the community

One of the first intervention activities was a community-based project in Brockton, MA, working with schools, employers, health care providers, teens, and parents to promote teen worker safety. As a first step, TAW developed **educational materials** on workplace health and safety for each of the different audiences. Updated versions of these materials continue to be disseminated today (in the thousands). TAW also developed a 3-hour interactive curriculum to introduce workplace health and safety to high school students. This set the groundwork for NIOSH’s development of a national curriculum, *Talking Safety*, used throughout the country today.

Developing an action plan

In 2001, TAW helped facilitate the Massachusetts Young Worker Initiative (MYWI), a community initiated **task force** that included representatives from youth, community and health care organizations, employers, parents, schools, and unions, with input from government agencies. In 2003, MYWI released a **blueprint for action** to reduce injuries to working teens and to help ensure positive and safe work experiences for youth.

Collaboration across agencies

Since the release of the MYWI report, representatives from state and federal agencies in Massachusetts, now called the Youth Employment & Safety Team (**YES Team**), continue to meet quarterly to collaborate on outreach activities. A major YES Team success was the organization of its **2010 statewide conference**, “Health and Safety: An Employability Skill for Young Workers, Today and Tomorrow.” The conference brought together over 200 educators in comprehensive and vocational high schools as well as youth serving agencies, to share information and provide participants with tools for promoting workplace health and safety as a lifetime employability skill for youth.



Over the past 20 years TAW has influenced **changes in the educational frameworks** used by MA vocational schools to include health and safety requirements. In addition, the Work-Based Learning Plan used by high schools for work-based

learning experiences includes understanding the health and safety of the workplace as a core competency students should learn during the placement.

Changing policy and practice

The Massachusetts Coalition for Occupational Safety and Health (MassCOSH) **Teens Lead @ Work (TL@W)** Peer Leaders used TAW surveillance data to advocate for **updated child labor laws** in the state that went into effect in 2007. Beginning in 2008 TL@W has hosted an annual 3-day youth health and safety **leadership academy** with partial funding from MDPH.

Data collected by TAW have led to **coffee equipment redesign** in one national bakery franchise after repeated injuries due to the equipment were identified.

Engaging teens throughout the state

Since 2011 through the ***Safe Jobs for Youth Poster Contest***, a joint effort of the MA YES Team and MassCOSH, TAW has helped to broaden awareness about young worker health and safety among teens, their families, schools and communities.

This year’s first place poster, designed and chosen by



Poster Design by Shari Coté, Age 16

teens, linked data to action in its message: “Don’t Be a Statistic—Learn more about teen safety in the workplace.” The timing couldn’t be more perfect given TAW’s history of using data to make a difference.

Special thanks to CDC-NIOSH for ongoing support of the *Teens at Work Project*.

Teen Injuries at a Glance, 2006 - 2010³

The *Teens at Work Project* collects data from hospital emergency departments (ED) and workers' compensation (WC) lost wage claims to identify work-related injuries to teens. WC claims are for injuries resulting in five or more days of missed work, while ED injuries can range in severity.

From 2006-2010, there were 2,900 ED visits and 719 WC lost wage claims filed for work-related injuries to teens under age 18.

Age and Gender

- 17-year-olds accounted for the majority of work-related injuries to teens under age 18 in both the ED and WC data sources. (Figure 2)
- There were very few injuries to 14- and 15-year-olds, likely explained by the limited types of work in which young teens may legally be employed. (Figure 2)

To view our “Child Labor Laws in Massachusetts” poster, visit our website: www.mass.gov/dph/teensatwork > Educational Materials > Working Teen Pamphlets.

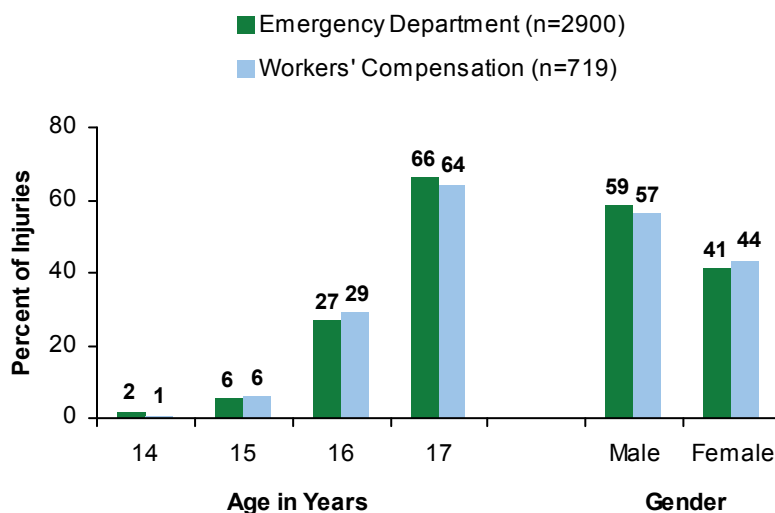
“I cut my finger while slicing tomatoes [with a meat slicer].* My finger slipped and it got cut in 4 places.”

— 17-year-old pizzeria clerk

* Massachusetts and federal child labor laws prohibit anyone under age 18 from using meat slicers at work.

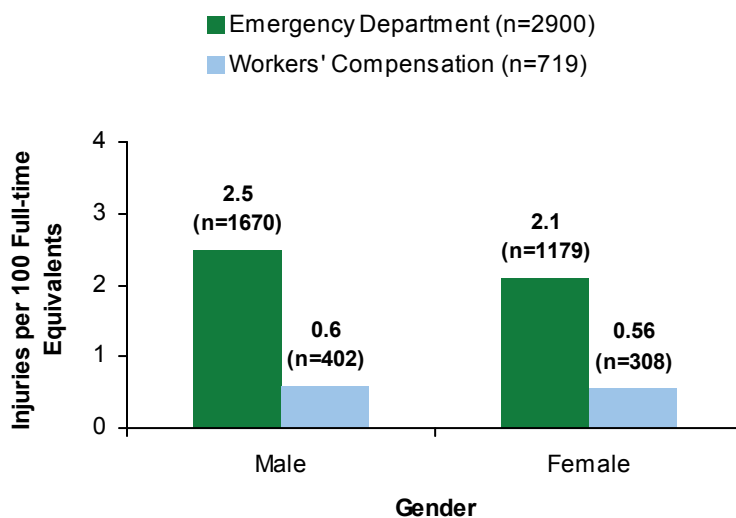
- Males sustained more work-related injuries and had higher rates of injury than females. (Figures 2 & 3)
- The average annual rate of work-related ED visits for all 15- to 17-year-olds (both male and female) was 2.3 visits per every 100 full-time equivalents; the average annual rate of WC lost wage claims for injuries among this age group was 0.6 injuries per 100 full-time equivalents. (Figure 3)

Figure 2. Distribution of work-related injuries to teens under age 18, by age, gender and data source, Massachusetts, 2006-2010



Note: Cases for which age or gender was missing were not included in the calculations.
Source: Teens at Work: Injury Surveillance System, MDPH

Figure 3. Average annual rates of work-related injuries among 15- to 17-year-olds, by gender and data source, Massachusetts, 2006-2010

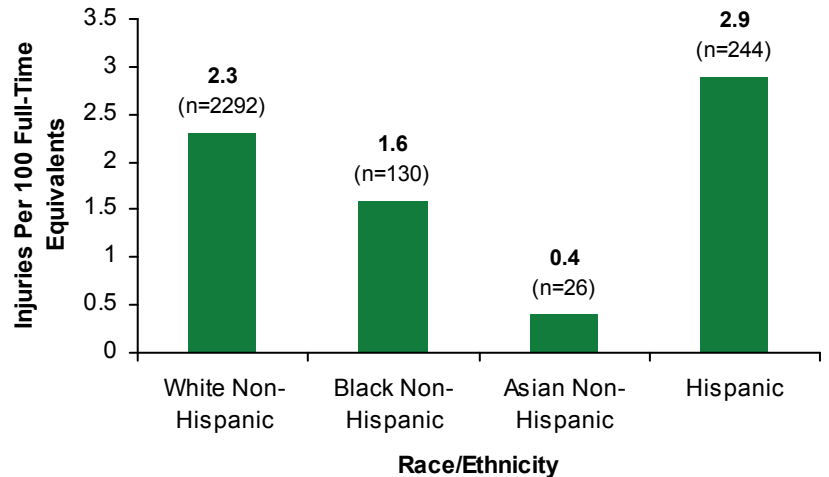


Source: Teens at Work: Injury Surveillance System, MDPH

Race and Ethnicity

- Hispanic teens had a higher rate of work-related injury than non-Hispanic teens, with 2.9 injuries per 100 full-time equivalents for Hispanic teens versus 2.2 for all non-Hispanic teens groups combined. (Figure 4; grouped non-Hispanic rate not shown).
- White non-Hispanic teens had a higher rate of injury than each Black non-Hispanic and Asian non-Hispanic teens. (Figure 4)

Figure 4. Average annual rates of ED visits for work-related injuries among 15- to 17-year-olds, by race and ethnicity, Massachusetts, 2006-2010 (n=2900)



Note: In FY2007 the MA Center for Health Information and Analysis implemented new regulations for collecting and coding race/ethnicity in hospital records. Due to the new methods, numbers/rates of ED visits among Hispanics in FY2007 are likely underestimated. Source: Teens at Work: Injury Surveillance System, MDPH

Fatal Injuries

Three teens under age 18 were fatally injured at work from 2006 through 2010 in Massachusetts:

- A 17-year-old was crushed beneath a vehicle that fell off a lift; he was working in his father's auto repair shop.
- A 17-year-old was electrocuted when a metal pole he was carrying hit an overhead power line; he was helping his father to dismantle a scaffold.
- A 17-year-old fell to his death, while stepping off of a ladder onto the roof of a building.*

* Massachusetts and federal child labor laws prohibit anyone under age 18 from performing roofing work.

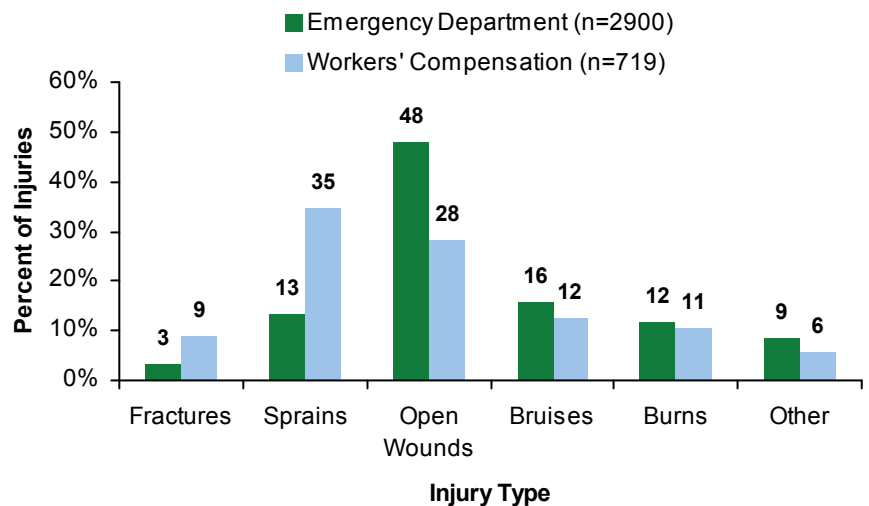
Nature of Injury

- Open wounds, including cuts, were the most common teen worker injury seen in ED data, while sprains were the most common injury for which WC lost wage claims were filed. (Figure 5)

See page 2 of 'TAW: 20 Years and Counting' for more on the full teen worker-injury puzzle.

- In addition to sprains, open wound injuries to teens also accounted for a sizable portion of WC lost wage claims. (Figure 5)

Figure 5. Distribution of work-related injuries to teens under age 18, by type and data source, Massachusetts, 2006-2010



Note: Cases for which injury type was missing were not included in the calculations. Source: Teens at Work: Injury Surveillance System, MDPH

Teen Injuries at a Glance, 2006 - 2010³ (continued)

Industry Type

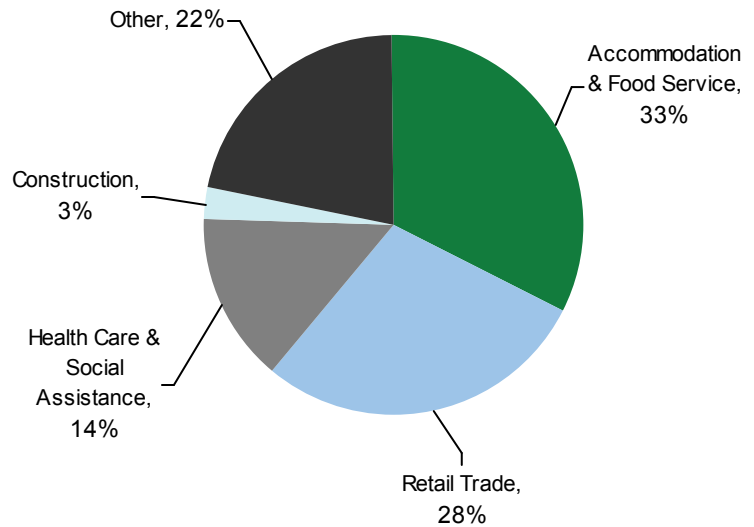
- The Accommodation and Food Services sector, which includes restaurants, accounted for the greatest number of non-fatal injuries to teen workers. This was closely followed by the Retail Trade sector, which includes grocery stores. (Figure 6)

More detailed fact sheets for each of the following industries are available online:

- Food Service (including restaurants)
- Retail Trade (not including grocery stores)
- Grocery Stores
- Health Care Service
- Construction

www.mass.gov/dph/teensatwork >
Educational Materials > Working Teen Pamphlets.

Figure 6. Distribution of WC lost wage claims for teens under age 18, by industry sector*, Massachusetts, 2006-2010 (n=719)

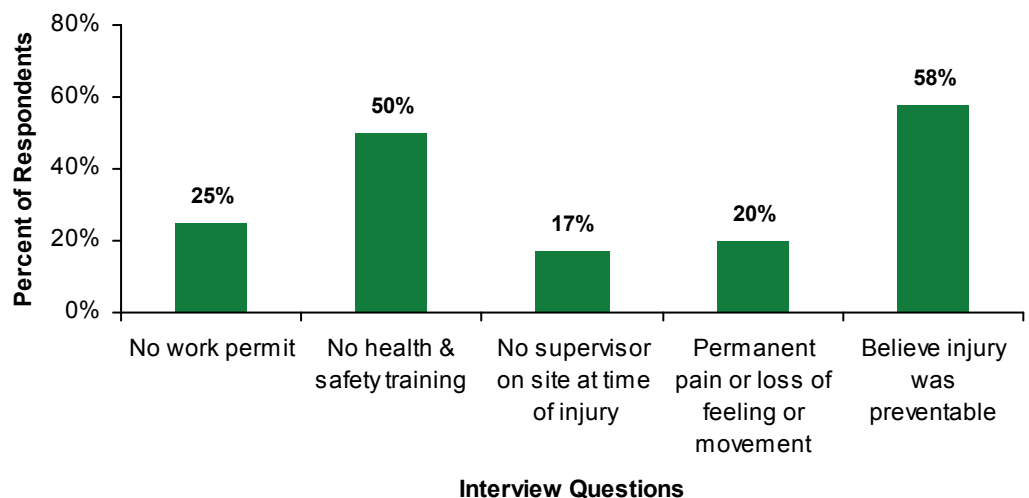


* NAICS 97
Source: Teens at Work: Injury Surveillance System, MDPH

What Injured Teens Have to Say³

Teens at Work Project staff completed 331 interviews with young workers injured on the job from 2006 through 2010. While the information from these interviews does not necessarily represent the experience of all young injured workers, it provides important information for targeting prevention efforts. (Figure 7)

Figure 7. Interviews with teens injured at work in Massachusetts, 2006-2010 (n=331)



Source: Teens at Work: Injury Surveillance System, MDPH

“I was outside cleaning up and lifting semi-frozen bags of ice and throwing them into the dumpster.

I lifted one bag over my shoulder and hurt my back. I was not trained on proper lifting.”

—17-year-old delivery service laborer

Talking Safety: Sexual Harassment Supplementary Lesson

In recent years, there has been increased national awareness and news coverage about sexual harassment experienced by teen workers. Because of the hazards posed by sexual harassment, the *Teens at Work Project* (TAW) has informally monitored the issue here in Massachusetts, and has more and more frequently heard sexual harassment voiced as a workplace health and safety concern by both teens and young adults.

Teenagers are particularly vulnerable to becoming targets of sexual harassment as they enter the workforce: they are at a power and age disadvantage in comparison to their older supervisors and co-workers, and often unfamiliar with sexual harassment laws and their legal rights.

The topic of sexual harassment is often included in employee orientation programs at many workplaces, but many young workers may not receive this training because they are only working part-time or as part of an internship or work-based learning experience. Other teens may not receive training because they find jobs with employers that do not have formal sexual harassment policies or training programs in place.



Lesson Learning Objectives

By the end of this lesson students will be able to:

- Define workplace sexual harassment.
- Identify sexual harassment in the workplace and differentiate between the two types: “quid pro quo” and “hostile work environment.”
- List at least one law that protects against workplace sexual harassment.
- Understand steps that employees can take to stop sexual harassment in the workplace.
- Know what to do to get help.

In our 2010 TAW Update, we highlighted the growing number of schools and community organizations using the national curriculum *Youth @ Work: Talking Safety* (2010 Update, page 5), a free, interactive curriculum to help teens build a foundation of workplace health and safety skills (www.cdc.gov/niosh/talkingsafety). We also promoted two Massachusetts-focused Safety Editions—one each in food services and health services—tailored from the original curriculum by TAW to better meet the needs of those who train youth for employment in these specific industries.

TAW has now completed a *Talking Safety Sexual Harassment Supplementary Lesson*. It can be used with the original curriculum or one of our safety editions. The lesson was developed for teacher-to-student training and serves as a guide for educators who wish to cover the topic within their classroom or place of training.

TAW’s *Talking Safety* Sexual Harassment Supplementary Lesson, as well as the Food Services and Health Services Safety Editions, are available online: www.mass.gov/dph/teensatwork > Educational Materials > Youth @ Work: Talking Safety.

Our community partners, The Boston Area Rape Crisis Center (BARCC) and The Massachusetts Coalition for Occupational Safety & Health (MassCOSH), each also have a curriculum and provide workshops on workplace sexual harassment for teens. Please visit their websites for more information:

BARCC: www.barcc.org/information/educators/high | MassCOSH: www.masscosh.org/node/29

Massachusetts and National Young Worker Resources

Please take advantage of the resources below, which cover a range of topics on young worker health and safety.

Child Labor Laws & Wages

Massachusetts Office of the Attorney General
Fair Labor Division
(617) 727-3465
www.mass.gov/ago

U.S. Department of Labor
Wage & Hour Division
(617) 624-6700
www.dol.gov/whd
www.youthrules.dol.gov

Workers' Compensation

Massachusetts Department of Industrial Accidents
(800) 323-3249 ext. 470
www.mass.gov/dia

Discrimination at Work

Massachusetts Commission Against Discrimination
(617) 727-3990
www.mass.gov/mcad

U.S. Equal Employment Opportunity Commission
Boston Area Office—(617) 669-4000
www.eeoc.gov/youth

Health & Safety and Work Permits

Massachusetts Department of Labor Standards
Work Permits—(617) 626-6952
Workplace Safety & Health Program—(508) 616-0461
www.mass.gov/dols/youth

Massachusetts Department of Public Health
Teens at Work: Injury Surveillance & Prevention Project
(617) 624-5632
www.mass.gov/dph/teensatwork

U.S. Department of Labor
Occupational Safety & Health Administration (OSHA)
North Boston Area Office—(978) 837-4460
South Boston Area Office—(617) 565-6924
Springfield Area Office—(413) 785-0123
www.osha.gov/SLTC/teenworkers

National Institute for Occupational Safety & Health (NIOSH)
www.cdc.gov/niosh/topics/youth

References

¹ US Bureau of Labor Statistics, Current Population Survey. Washington, DC: US Bureau of Labor Statistics. 2008, 2009, 2010.

² MMWR Morbidity Mortality Weekly Report. Occupational Injuries and Deaths Among Younger Workers—United States, 1998-2007. 2010. 59(15):449-455. <http://cdc.gov/mmwr/preview/mmwrhtml/mm5915a2.htm>. Accessed April 22, 2013.

³ Teens at Work: Injury Surveillance System, Massachusetts Department of Public Health.

Acknowledgements

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