



Teens at Work

Work-Related Injuries to Teens in Massachusetts, 2005-2009

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 previous years, we still rely on youth in many industries. In 2009, 19 % of 15- to 17-year-olds in Massachusetts were employed at any given point in time.¹ Recognizing the potential value of work in teens lives, we also have programs that place teens in jobs. During summer 2011, over 4,700 Massachusetts teens were working through summer jobs programs.²

While work can provide teens with important benefits, it can also pose health and safety risks. In fact, nationally, teen workers have about twice the risk of non-fatal on-the-job injuries per hour worked than older workers.³ This is partly explained by the fact that teens tend to work in industries that are high risk for workers of all ages, such as restaurants and healthcare.

Information about where and how teens are injured at work is essential to prevent future injuries and promote safer work opportunities for youth. Since the early 1990's the *Teens at Work: Injury Surveillance and Prevention Project* at the Massachusetts Department of Public Health has tracked work-related injuries to teens under age 18. Over the years, *Teens at Work* has collaborated with partners on a variety of initiatives to prevent injuries to working teens. And we have had some success: In this issue we report on declines in teen occupational injury rates over time (see page 5). However, as the data for 2005-2009 reveal, there is still work to be done. We must continue efforts to ensure jobs in which teens are employed are safe. And, as we engage teens in the workplace—whether employers, schools, jobs programs, or parents with family businesses—we need to provide them with basic health and safety skills that will help protect them now and in the future.

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Paige J. DaCosta, Taunton, MA
2012 1st Place Contest Winner

HIGHLIGHT: 2012 Safe Jobs for Youth Poster Contest

The 2011 contest was such a success that we did it again! The Massachusetts Youth Employment & Safety (YES) Team and the Massachusetts Coalition for Occupational Safety & Health (MassCOSH) co-sponsored this year's contest. Winners were announced at a press conference on April 19 as part of MassCOSH's annual academy to train youth to become community leaders on issues of workplace safety (www.masscosh.org/teensleadatwork/leaps). Thank you to all the teens who shared their voices and designs for making the contest a success!

To view all five winning posters, visit the contest website:
www.mass.gov/dph/ohsp/teenpostercontest.

Teen Injuries at a Glance, 2005 - 2009¹

Teens at Work 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.

Age and Gender

- There were 3,400 emergency department (ED) visits for work-related injuries to teens under age 18. There were 847 workers' compensation (WC) lost wage claims filed by teens under age 18 for injuries resulting in five or more lost work days. (Figure 1)

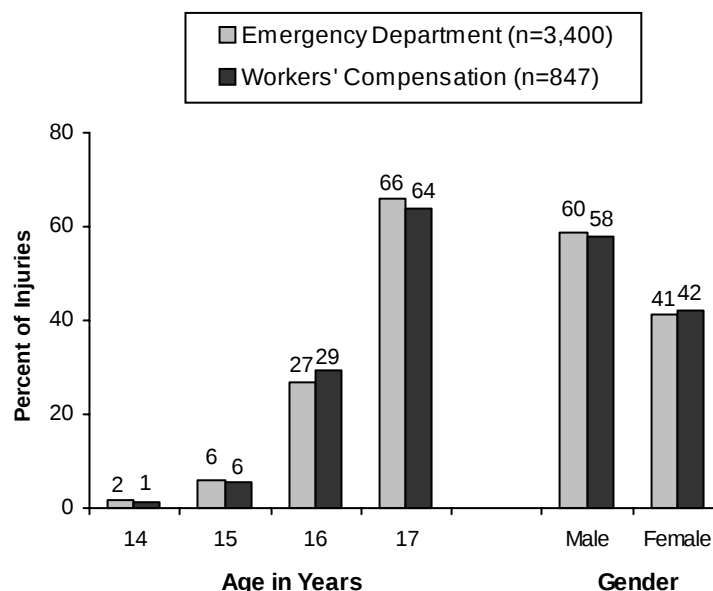
- The majority of work-related injuries were to 17-year-olds, followed by 16-year-olds. Males had higher rates of injuries than females based on both ED visits and WC claims. (Figures 1 and 2)

- The average annual rate of ED visits for 15- to 17-year-olds was 2.5 visits per 100 full-time equivalents. The average annual rate of WC lost wage claims for injuries to 15- to 17-year-olds was 0.6 injuries per 100 full-time equivalents. (Figure 2)

"I was gathering grocery carriages outside. My finger got caught in between two carriages and was dislocated. My mother picked me up; we went to the emergency room where I had X-rays and a splint put on."

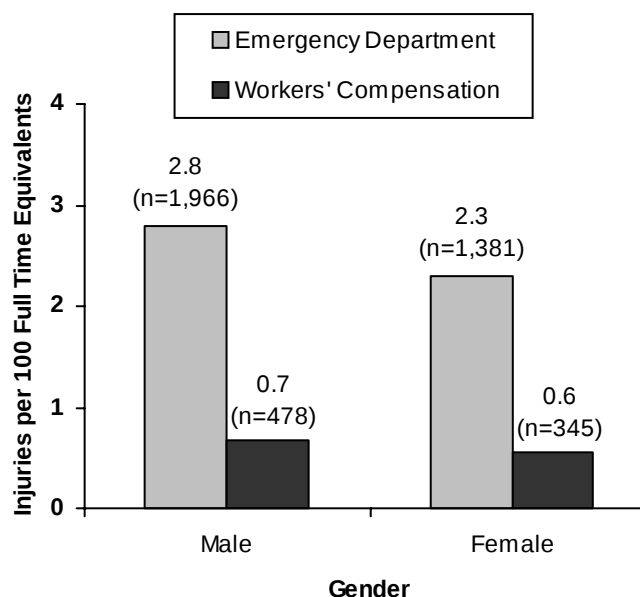
- 15-year-old grocery store bagger

Figure 1. Distribution of work-related injuries to teens under age 18, by age, gender and data source, Massachusetts, 2005-2009



Note: Nine cases were younger than 14-years-old, age was missing for one case, and gender was missing for four 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 2005-2009



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

Fatal Injuries to Teens

Three teens under age 18 were fatally injured from 2005 through 2009:

- While working in his father's auto repair shop, a 17-year-old boy was crushed beneath a pickup truck that fell off a lift.
- A 17-year-old boy helping his father dismantle a scaffold was electrocuted when a pole he was carrying came into contact with an overhead power line.
- A 17-year-old boy fell 23 feet to the ground while carrying shingles up a ladder to the roof of a building.*

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

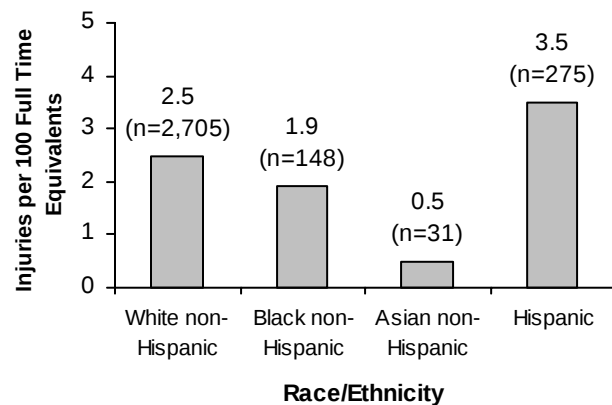
Race and Ethnicity

- Hispanic teens had a higher rate (3.5) of injuries than non-Hispanic teens (2.4).
- White non-Hispanic teens had a higher rate (2.5) of injuries than Black non-Hispanics (1.9) and Asian non-Hispanic teens (0.5). (Figure 3)

"[This injury] happens a lot with the same cutter; everyone at work has been cut at least once."

- 17-year-old coffee shop clerk,
bagel slicer injury

Figure 3. Average annual rates of ED visits for work-related injuries among 15- to 17-year-olds, by race and ethnicity, Massachusetts, 2005-2009



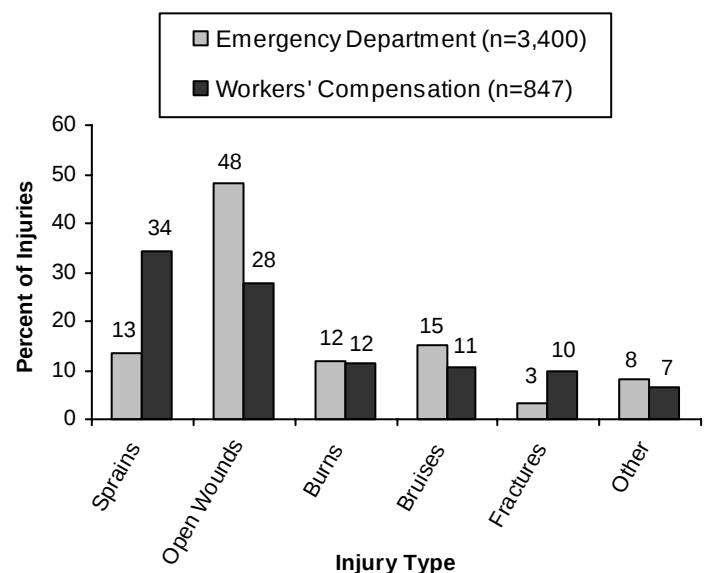
Note: In FY2007 the Division of Health Care Finance & Policy implemented new regulations for the collection and coding of race and ethnicity in hospital records. Due to issues related to these new methods, the numbers (and therefore rates) of ED visits among Hispanics in FY2007 are likely underestimated.
Source: Teens at Work: Injury Surveillance System, MDPH.

Nature of Injury

- Open wounds (including cuts) were the most common injury to working teens among ED visits (48%). Sprains were the most common injuries for which WC lost wage claims were filed (34%). (Figure 4)



Figure 4. Distribution of work-related injuries to teens under age 18, by injury type and data source, Massachusetts, 2005-2009



Note: Nature of injury was missing for 10 cases in the emergency department, and 108 cases in workers' compensation. These cases were not included in the calculations.
Source: Teens at Work: Injury Surveillance System, MDPH.

Teen Injuries at a Glance, 2005 - 2009¹ (continued)

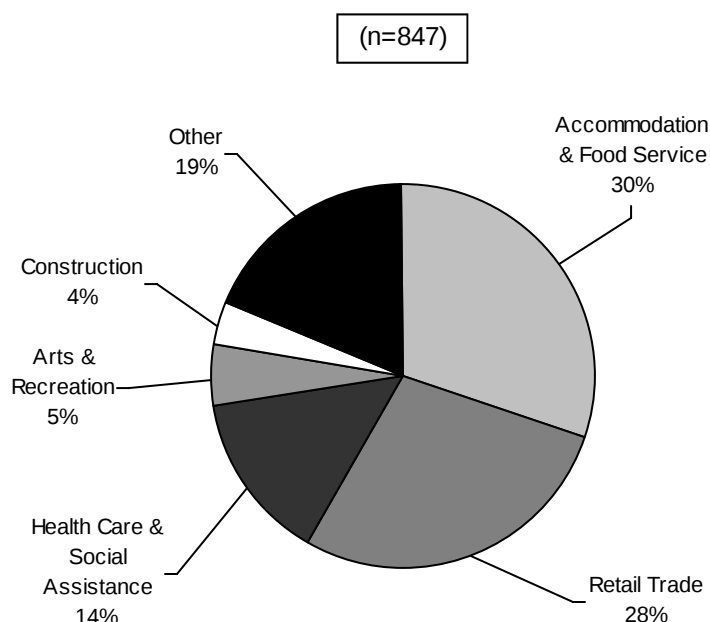
Industry Type

- The largest numbers of non-fatal injuries to workers under age 18 occurred in restaurants (28%), part of the Accommodation and Food Service sector, followed by grocery stores (16%) in the Retail Trade sector, and nursing homes (6%) in Health Services & Social Assistance. (Figure 5 and Table 1)
- Some examples of “Arts & Recreation” jobs include work at amusement parks, movie theaters and other recreational facilities. Examples of industries in the “Other” category include public administration and landscaping. (Figure 5)



- Restaurants and Grocery Stores had the highest average numbers of injuries, while Nursing Homes/Residential Care had the highest rate of injuries per 100 full-time equivalents. (Table 1)

Figure 5. Distribution of WC lost wage claims for teens under age 18, by industry sector*, Massachusetts 2005-2009



* NAICS 1997

Note: Industry sector was missing for 21 workers' compensation cases. These cases were not included in the calculations.

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

Table 1. The total numbers and annual rates of WC lost wage claims for work-related injuries among 15- to 17-year olds by industry, Massachusetts, 2005-2009*

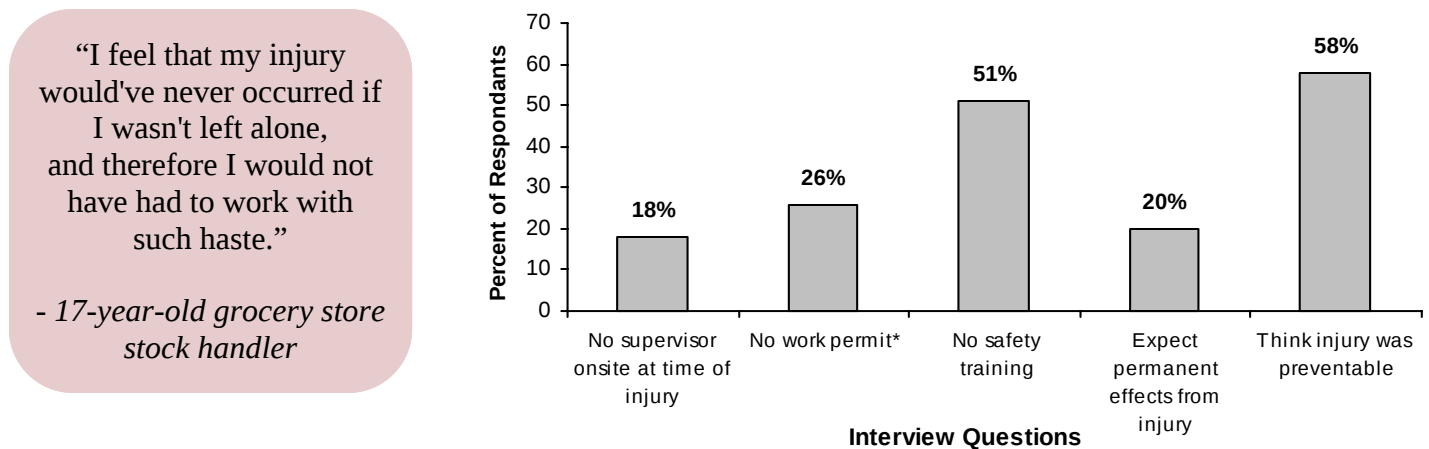
Industry	Total # of Injuries	Annual Rate per 100 Full-time Equivalents
Restaurants	241	3.0
Grocery Stores	136	3.8
Nursing Homes/Residential Care	64	11.9
Construction	29	3.1
Amusement/Recreation (except bowling)	34	2.4
Overall	827	0.6

*Rates were computed for industries with an average of five or more cases per year. Table is limited to industries with higher than average rates. Source: Teens at Work: Injury Surveillance System, MDPH.

What Injured Teens Have to Say⁴

Teens at Work staff completed 308 interviews with young workers injured on the job from 2005 through 2009. 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 6. Interviews with teens injured at work in Massachusetts, 2005-2009



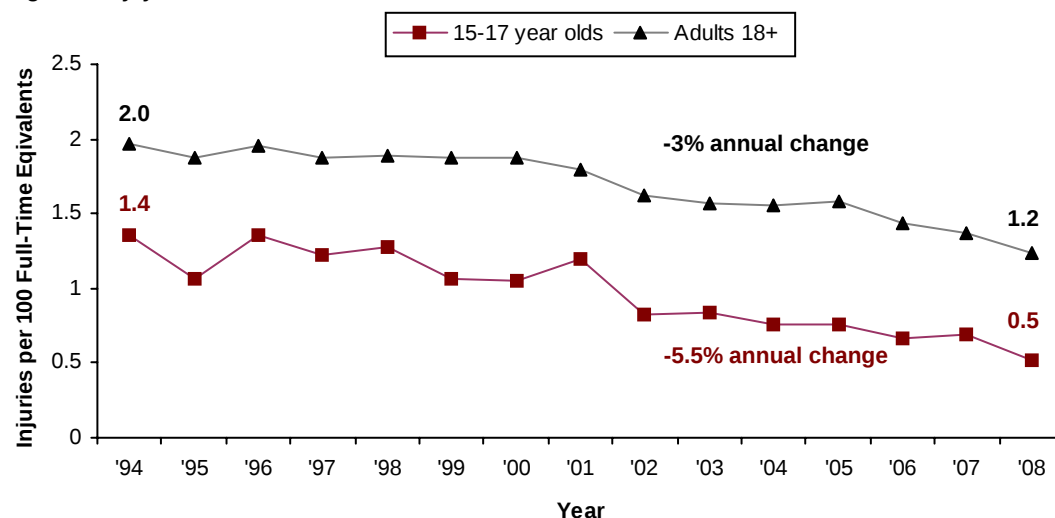
Source: Teens at Work: Injury Surveillance System, MDPH.

* MA child labor laws require teens to have work permits; these may be obtained through the school district in which the teen resides or attends school.

Snapshot Over Time: Injury Rate Decline⁴

The *Teens at Work* Project has tracked work-related injuries to Massachusetts teens since 1993. A recent look at workers' compensation (WC) data shows that from 1994 through 2008, the injury rate declined for workers of all ages. This decline likely reflects real improvements in workplace safety as well as other factors such as changes in injury reporting and the economy. The promising news for all of us working to improve younger worker safety is that the injury rate for teens declined faster than that for adults—a 61% injury rate decline for teens under age 18 compared to 37% for adults (Figure 7). Rates are calculated as injuries per 100 full-time equivalents, which takes the total hours worked into account (e.g., two half-time workers count as one full-time equivalent), thus the faster decline for teens is not simply explained by a decline in teen employment. It appears the efforts by *Teens at Work* and its partners across the Commonwealth are making a difference; we look forward to continuing success.

Figure 7. Trend rates of WC lost wage claims among teens under age 18 and adults over age 18, by year, Massachusetts, 1994-2008



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

Working with Parents to Keep Teens Safer at Work

The majority of teens will work at some point before graduating high school,⁵ and in Massachusetts nearly 20% start working for pay as early as middle school.⁶ While teens are still living at home, parents and guardians have a unique opportunity to help their children make decisions about jobs.

A recent national telephone survey⁷ found that a majority of parents reported helping their teen find job opportunities, apply for jobs, ask questions about work hours and job tasks, and handle difficult issues related to the job (other than issues about safety). Many parents even reported meeting their child's work supervisor. Despite this level of involvement, not as many parents thought of workplace safety as part of the picture. Only about half the parents surveyed reported helping their teens fill out a work permit (required in Massachusetts), and less than half reported helping their teens learn about their worker rights or youth work restrictions, or get more training for the job.

Those that communicate with parents can provide direction to help them include workplace safety in the conversations they are already having with their teens. Massachusetts has many tools available designed to raise awareness among parents about workplace hazards and to help them understand the laws and regulations in place to protect teens. Some key tips and resources are below. Please share them with parents and colleagues.

Steps Parents Can Take to Keep Teens Safer at Work

Know the child labor laws. There are laws to protect teens in the workplace. They limit the hours teens can work, and prohibit teens from performing especially dangerous tasks.

Talk with your teen about his or her job. If you become familiar with your teen's routine at work and ask about it regularly, you'll get a sense for the work environment and be better able to identify any safety issues that arise.

Set limits on how many hours your teen works. Teens who work over 20 hours a week may not do as well in school as teens who work less, and teens who work late nights may be less alert and prepared for class.

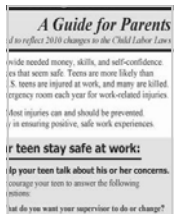
Help your teen talk about concerns. Teens, like everyone, have a right to safe workplace. But youth sometimes have a harder time speaking up, and parents can help them identify solutions to their concerns.



Employment Permit Application for 14 through 17 Year-Olds: Mandatory form in Massachusetts to be filed prior to teen beginning a job. www.mass.gov/dols/youth

Letter to Parents/Guardians from Attorney General Martha Coakley: Explains the work permit process to parents; ready to be signed by a Superintendent.

www.mass.gov/ago > Click on 'Workplace Rights' under Forms & Publications



Protecting Your Working Teen, A Guide for Parents: Tips for parents to help keep teens safe at work.

www.mass.gov/dph/teensatwork > Click on 'Educational Materials' then 'Working Teen Pamphlets'

Protecting Your Working Teen, A Guide for Parents – Students in Co-op Placements: Work safety tips specific to parents with children in vocational schools who are completing their co-op placements.

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



The Massachusetts Guide for Working Teens: Tips for teens about recognizing workplace hazards and understanding their worker rights; parents and teens can review together.

www.mass.gov/dph/teensatwork > Click on 'Educational Materials' then 'Working Teen Pamphlets'

Young Workers, Information for Parents: OSHA resources for parents on protecting their teen at work and understanding the relevant federal and state laws.

<http://www.osha.gov/SLTC/teenworkers> > Click on 'I am a parent!'

Teens Working in Family Businesses

Working for parents or relatives in a family business can be an important experience and source of pride for teens and their families alike. Teens contribute to the business while gaining experience needed to potentially manage the business one day or that will help them make choices about future work.



But working for family doesn't mean a teen is not at risk. Sadly, statistics tell us otherwise. Nationwide, from 1992 through 2000, more than 30% of all fatal injuries to young workers occurred in family businesses.⁸ While more common in agriculture, deaths in family businesses can occur in any industry. Two of the three teen deaths in Massachusetts between 2005-2009 involved teens working for their dads, one in auto repair, the other in construction (see page 3).

Parents, like all employers, need to think about what jobs are appropriate for youth and be reminded that their own children need training and supervision, too. Because so many children work on family farms, guidelines have been developed to assist parents in assigning age-appropriate tasks (www.nagcat.org); these guidelines match children's growth and development with requirements of different farm chores. Though designed for agriculture, the information may be useful.

While the federal child labor laws for non-agricultural industries do not regulate age or hours for teens employed by their parents (the hazardous occupations still apply), **the Massachusetts laws do**. Families should be reminded that there are no child labor exceptions in Massachusetts for teens working for parents or in family businesses.

Massachusetts YES Team Updates

The Massachusetts YES (Youth Employment & Safety) Team brings together state and federal agencies to coordinate efforts to protect and promote the health and safety of young workers.

The following are updates on our most recent initiatives.

Updated Outreach Materials

Over the past year, *Teens at Work*, the Office of the Attorney General, and the Department of Labor Standards have been working to update some of our most popular materials.

- The "Massachusetts Guide for Working Teens" now reflects 2010 changes to the federal child labor laws.
- The "Child Labor Laws in Massachusetts" poster is now available in additional languages: Spanish, Portuguese, Vietnamese, Haitian Creole, Chinese and Khmer.
- "Protecting Your Working Teen: A Guide for Parents" is now available in Spanish and Portuguese.
- The youth "Employment Permit Application" is now available in Spanish, Portuguese and Vietnamese.

For copies, e-mail us at teens.atwork@state.ma.us or visit us online: www.mass.gov/dph/teensatwork.

Safe Jobs for Youth: Safety & Health Resources for Co-op Coordinators



This past summer, *Teens at Work* and the Department of Elementary & Secondary Education released "Safe Jobs for Youth." The guide is meant to assist Cooperative Education Placement Coordinators assess the safety and health of potential worksites for vocational students. Content covers relevant federal/state laws and steps to take before and after placing a student; it also includes supplementary tools and resources.

The guide is available online at www.mass.gov/dph/teensatwork > Click on 'Educational Materials' then 'Safe Jobs for Youth Guide.'

Massachusetts and National Young Worker Resources

Please take advantage of the resources below; they cover a variety of topics related to young worker 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 and 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
(617) 626-6952 (Work Permits)
(508) 616-0461 (Workplace Safety & Health Program)
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

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- ³ 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> Page last updated April 23, 2010. Accessed January 11, 2012.
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- ⁶ Massachusetts Youth Health Survey. Massachusetts Department of Elementary and Secondary Education; Massachusetts Department of Public Health.
- ⁷ Runyan C.W., Vladutiu C.J., Schulman M.D., Rauscher K.J. *Journal of Adolescent Health*. 2011. 49(1):84-86.
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Acknowledgements

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