



Young Workers Project: Work-Related Injuries to Teens in Massachusetts, 2014-2018

Massachusetts Department of Public Health

September 2020

Preventing Injuries to Working Teens

In 2018, 19% of 15- to 17-year-olds in Massachusetts were employed at any given point in time.¹ 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 nonfatal on-the-job injuries per hour worked than older workers.² Contributing factors include that teens tend to work in industries that are high risk for workers of all ages - such as restaurants and healthcare, as well as inexperience and lack of health and safety training.

Understanding where and how teens are injured at work is essential to preventing future injuries and promoting safer work opportunities for youth. To this end, for over 25 years, the Young Workers: Injury Surveillance and Prevention Project at the Massachusetts Department of Public Health (MDPH) has tracked work-related injuries to teens under age 18. Over the years, the *Young Workers Project* has collaborated with partners on a variety of initiatives to prevent injuries to working teens.

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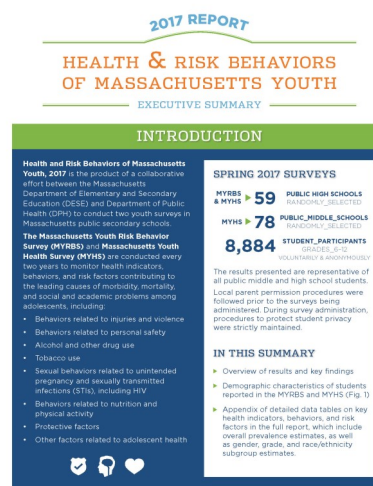
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Continued efforts are needed to ensure jobs in which teens are employed are safe. As we engage teens in the workplace—whether as employers, schools, jobs programs, or parents with family businesses—we need to provide them with basic health and safety skills that will help protect them now and in the future.

Massachusetts Youth Health Survey (MYHS)

The Massachusetts Youth Health Survey (MYHS) is conducted every other year in a random sample of middle and high schools and classrooms within those schools throughout the Commonwealth in conjunction with the Youth Risk Behavior Survey*.

Responses are weighted (i.e., adjusted for non-response and distribution of students by grade, sex and race/ethnicity) in order to be representative of all Massachusetts students. In 2017, two questions about work were included in the MYHS. Data were collected from 3,074 middle school students from grades 6 through 8 in 78 schools. High school data were collected from 2,524 students from grades 9 through 12 in 57 schools.



*For more information about the YRBS please visit <https://www.cdc.gov/healthyyouth/data/yrbs/overview.htm>

What did we learn from the Youth Health Survey data?

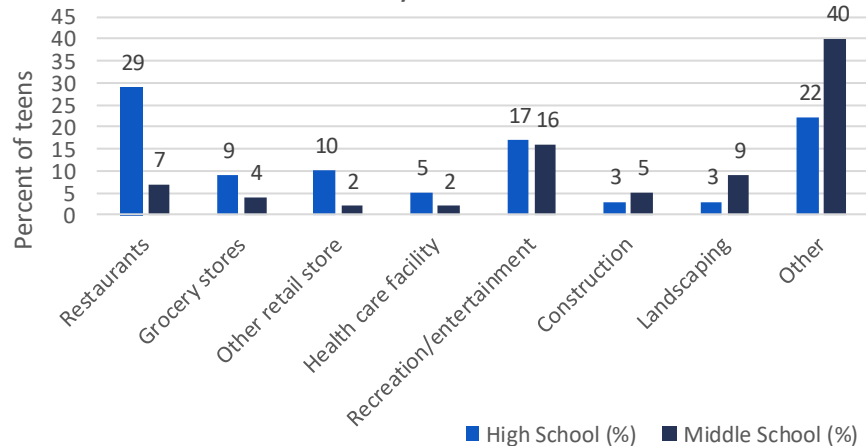
Youth begin working at early ages in Massachusetts, therefore it is important that information about child labor laws and workers' rights and responsibilities be given to youth and parents beginning in middle school. There is a section with resources for working youth, teachers, and employers, at the end of this newsletter. Additional resources can be found at www.mass.gov/youngworkers or www.mass.gov/dph/teensatwork.

50% of high school students reported working for pay in the past year in jobs other than babysitting, yard work, or chores.

Meanwhile, 9% of middle school students reported working for pay in the past year in jobs other than babysitting, yard work, or chores.

6% of middle school students under age 14 reported working despite child labor laws prohibiting anyone under 14 from working with few exceptions.
(Data not shown.)

Figure 1. Which best describes the place you recently worked at?



Source: MA Youth Health Survey, 2017, MDPH

Data shown are the weighted frequencies. Totals may not sum to 100 due to rounding as well as missing values which are not included.

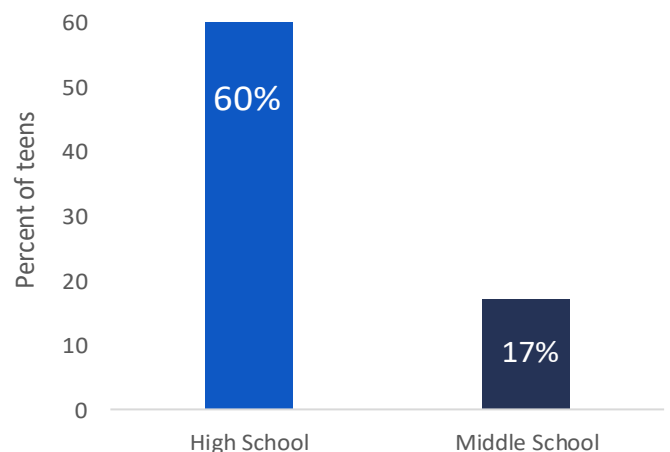
MYHS and Concussions

Among high school students, 60% of respondents who reported suffering a Traumatic Brain Injury while playing extracurricular sports also worked. Many sports-related concussions require students to refrain from playing sports or even take time off from school following the injury.

However, work is often not included in post-concussion management strategies. These data reiterate the importance of asking teens who suffer a sports-related concussion about work when developing return to school and sports plans. Youth may be eager to return to work to continue getting paid or out of fear of losing their job if they are unable to work for a sustained period of time.

Employers need to be made aware of all sports-related concussions so they may also work with the youth to prevent further injuries.

Figure 2. Teens who reported a sports-related concussion and also worked



Source: MA Youth Health Survey, 2017, MDPH

Data shown are the weighted frequencies. Totals may not sum to 100 due to rounding as well as missing values which are not included.

MYHS Demographics

- Non-Hispanic Whites, made up the majority of working youth in both of the surveys.

Hispanics had the second highest number of youth working in both surveys.

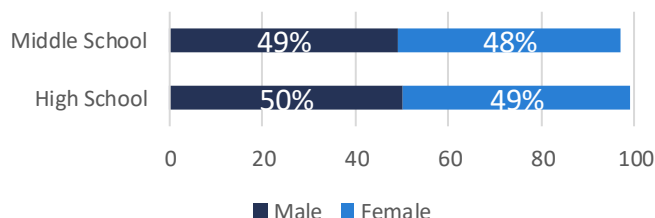
- Non-Hispanic Whites in high school and Hispanics in middle school had greater percentages of youth working than there were in the population of survey respondents.
- Non-Hispanic Asian and Non-Hispanic Black/African Americans had lower percentages of students having worked in the past 12 months.
- Slightly more males worked than females in each group.

Table 1. Percentages of working youth, by race

	High School		Middle School	
	% working	% in survey	% working	% in survey
Non-Hispanic Whites	68	64	60	62
Non-Hispanic Black	8	9	6	8
Hispanic	16	18	21	19
Non-Hispanic Asian	4	5	3	5
Other/multi	3	4	4	5

Source: MA Youth Health Survey, 2017, MDPH
Data shown are the weighted frequencies. Totals may not sum to 100 due to missing values which are not included.

Figure 3. Percent of those who worked in past 12 months, by gender



Source: MA Youth Health Survey, 2017, MDPH
Data shown are the weighted frequencies. Totals may not sum to 100 due to rounding as well as missing values which are not included.

Young Workers and Workplace Violence

“Workplace violence is the act or threat of violence, ranging from verbal abuse to physical assaults directed toward persons at work or on duty.”³ Healthcare and social assistance workers are at greatest risk of nonfatal violence. In 2017, 18,400 workers in private industry experienced nonfatal workplace violence according to the Bureau of Labor Statistics. Of these victims, 71% worked in healthcare and social assistance.⁴

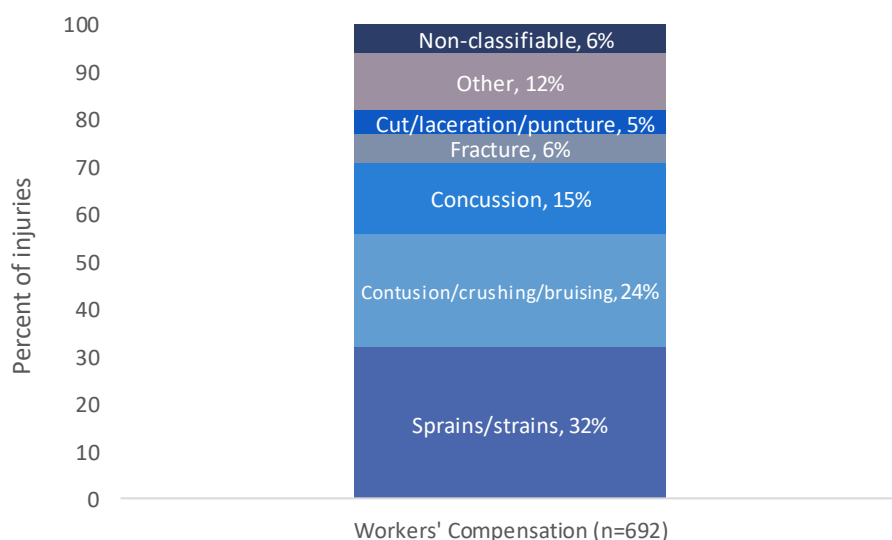
Four percent of Massachusetts teens worked in health care and social services in 2017.⁵ In addition, high school teens are also working in health care settings as part of vocational school cooperative education programs. Identifying cases of workplace violence from administrative data can be difficult, as the violence is an event rather than a type of injury, which is not always clear from the dataset. For example, an incident of workplace violence maybe reported as a bruise, even when the bruise was the result of getting punched by a patient.

To better understand how workplace violence is affecting youth, MDPH conducted an analysis using injury narratives to identify cases of workplace violence among young adults aged 18-24. Injury narratives among teens aged 14-17 were also examined, however, due to small overall numbers, the results are not presented here. The lessons learned from the young adult age group can be applied to the teens, as common risk factors for injury exist in both groups, and similar prevention strategies can be applied. The analysis described on the next page examined 3,324 workers’ compensation claims from 2017 filed by persons ages 18-24. Narrative injury descriptions were reviewed to identify cases of workplace violence; a total of 214 cases were identified and summarized.

A Closer Look at Workplace Violence

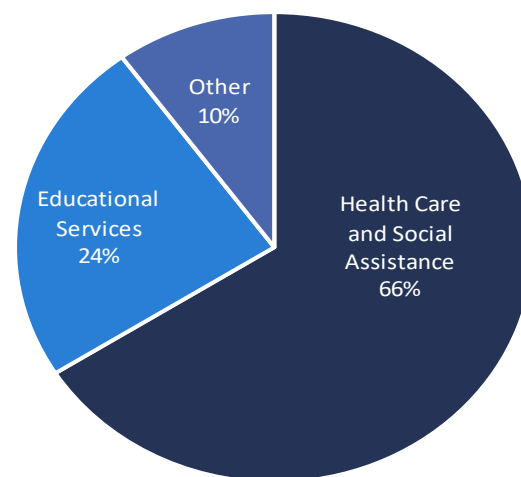
While there is a lot of research and information about workplace violence, little of it focuses on young workers. Young workers are more inexperienced and often don't ask questions for fear of looking stupid in the workplace. Resources and tools are geared toward workers in general and do not take into consideration that young workers have unique characteristics and may require additional support and training. For example, interviews with young adults conducted by MDPH indicate that young workers are not receiving adequate training on how to handle violent behaviors by patients, residents, customers, and students. Training is a critical component to keep young workers safe from workplace violence and should be tailored to the situations and experiences of young workers.

Figure 4. Injuries as a result of workplace violence



Note: Totals may not sum to 100 due to rounding as well as missing values which are not included.
Source: Young Workers Injury Surveillance System, MDPH.

Figure 5. Industries where workplace violence occurred



Note: North American Industrial Classification System (NAICS), 2012.
Note: Totals may not sum to 100 due to rounding as well as missing values which are not included.
Source: Young Workers Injury Surveillance System, MDPH.

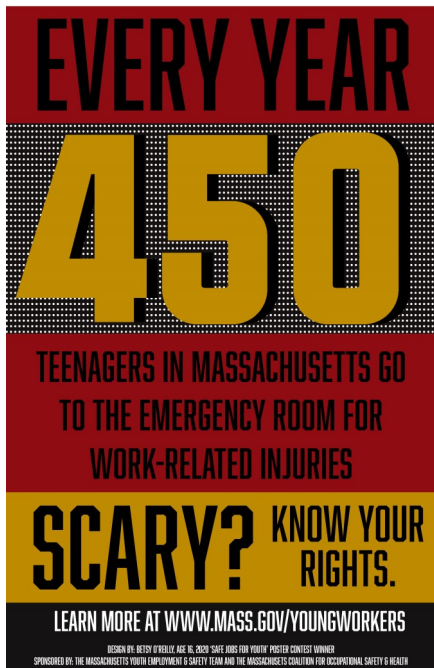
Workplace Violence: Data Highlights

- Females made up 63% of cases.
- Older youth, 22-24 years old, made up 77% of cases.
- The leading type of injuries were sprains/strains (32%), contusions, crushings, and bruises (24%), and concussions (15%).
- 44% of sprains involved the upper extremities.
- 59% of contusions, crushings, and bruises involved the head and neck region.
- 90% of the injuries occurred in two industries: health care & social assistance and educational services.

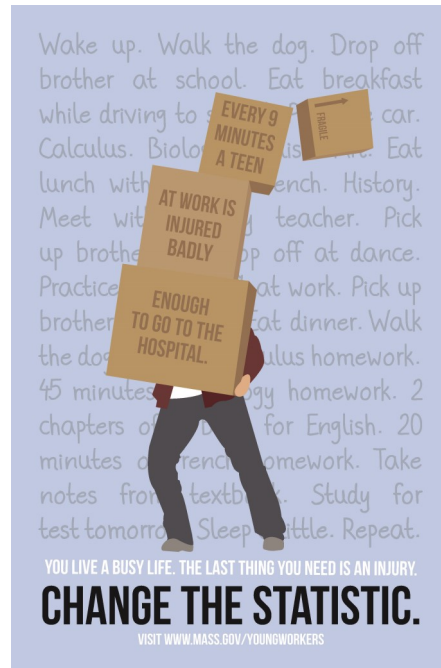
2020 Safe Jobs for Youth Poster Contest

The *Young Workers Project* continues to lead the MA Youth Employment and Safety Team (YES Team), which brings together representatives from government agencies to coordinate efforts to protect youth at work. The YES Team, in collaboration with the Massachusetts Coalition for Occupational Safety and Health (MassCOSH), sponsored the “2020 Safe Jobs for Youth” Poster Contest.

Nearly 180 submissions were received from teens throughout the Commonwealth. Ten posters were selected as finalists and were then presented to various youth groups across the state where 38 teens voted for their favorite. The top three winners received cash prizes. The three posters that received the most votes were printed and will be distributed to schools and youth organizations throughout the Commonwealth.



First place went to Betsy O'Reilly (16), of Mashpee.



Second place went to Katherine Benninger (17), of Newton.



Third place went to Abigail Johnson (18), of Templeton.

Honorable Mentions

- Jezebel Abreu (16), of Lawrence
- Noel Alvero (16), of Quincy
- Corinna Dolan (15), of Ayer
- Hailey Garvey (15), of North Chelmsford
- Katelyn Haley (18), of Templeton
- Kassidy Letton (17), of North Dartmouth
- Renea Smart (15), of Quincy

To see all of the 2020 finalists' artwork and learn more about the Safe Jobs for Youth Poster Contest, please visit:

www.mass.gov/dph/ohsp/teenpostercontest

Teen Injuries at a Glance, 2014 - 2018

The *Young Workers Project* collects data from workers' compensation (WC) lost wage claims to identify work-related injuries to youth. WC claims are for injuries resulting in five or more days of missed work.

From 2014-2018, there were **692 WC lost wage claims** filed for work-related injuries to youth under age 18. The rate of injury was 0.77 per 100 full-time employees. A more detailed account of these injuries follows.

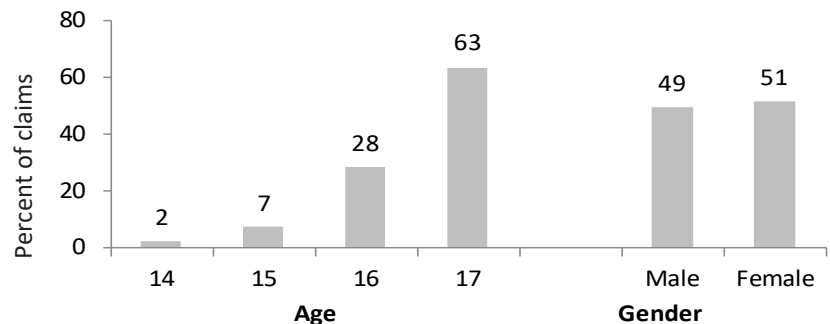
Age & Gender

- The majority of work-related injuries to teens were among 17-year-olds. (Figure 6)
- Fourteen- and 15-year-olds accounted for a small proportion of injuries. (Figure 6)

Special laws limit the types of tasks that teens of different ages may perform at work. View the "Child Labor Laws in Massachusetts" poster available at:

www.mass.gov/dph/teensatwork

Figure 6. Distribution of WC lost wage claims to youth under age 18, by age and gender, Massachusetts, 2014-2018 (n=692)



Note: Cases for which age or gender was missing were not included in the calculations. Note: Totals may not sum to 100 due to rounding as well as missing values which are not included.

Source: Young Workers Injury Surveillance System, MDPH.

Fatal Injuries to Teens

There were no reported deaths among teens under age 18 resulting from work-related injuries, from 2014-2018 in Massachusetts.

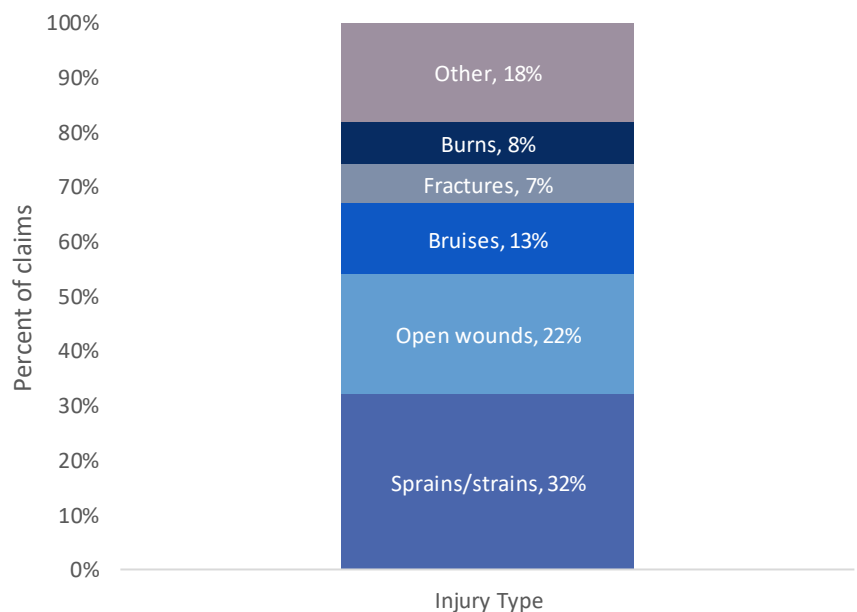
I was in the stock room on the top step of the ladder, bringing boxes down. When I lifted the top one, which was very heavy, I fell backwards off the ladder. I was never instructed on proper ladder safety at work.

-17-year-old counter worker

Nature of Injury

- **Sprains and strains** were the most common injury (32%) for which WC lost wage claims were filed. (Figure 7)

Figure 7. Distribution of WC lost wage claims to youth under age 18, by injury type, Massachusetts, 2014-2018 (n=692)



Note: Cases for which injury type was missing were not included in the calculations. Totals may not sum to 100 due to rounding as well as missing values which are not included. Source: Young Workers Injury Surveillance System, MDPH.

Industry Type

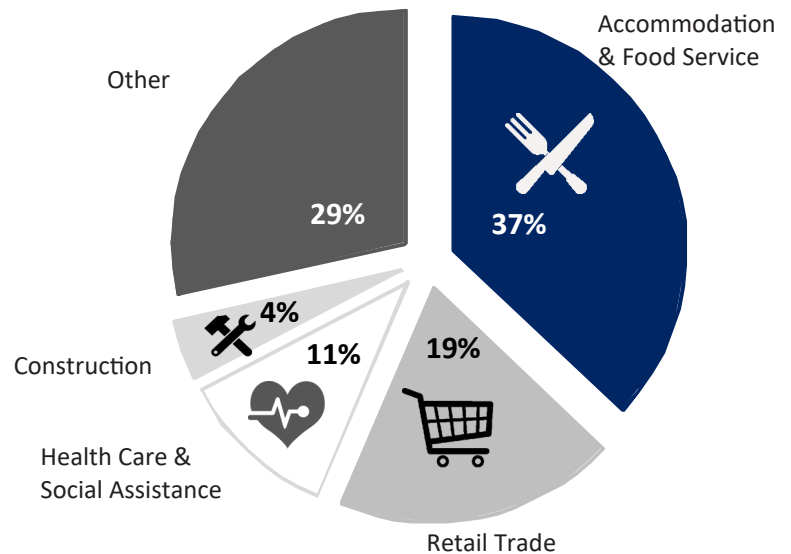
- The four industries in Figure 8 accounted for more than 70% of work-related injuries to teens.

"My boss made me clean up hot coffee and grinds that had spilled and burnt me during my shift. I never received information on how to prevent or treat burns at work."

-17-year-old clerk

- Accommodation & Food Service, including fast food and full-service restaurants, made up the largest proportion of WC claims (n=234), followed by Retail Trade (n=140), which includes grocery stores. (Figure 8)

Figure 8. Distribution of WC lost wage claims for youth under age 18, by industry sector*, Massachusetts, 2014-2018 (n=692)



*North American Industry Classification System (NAICS) 2012

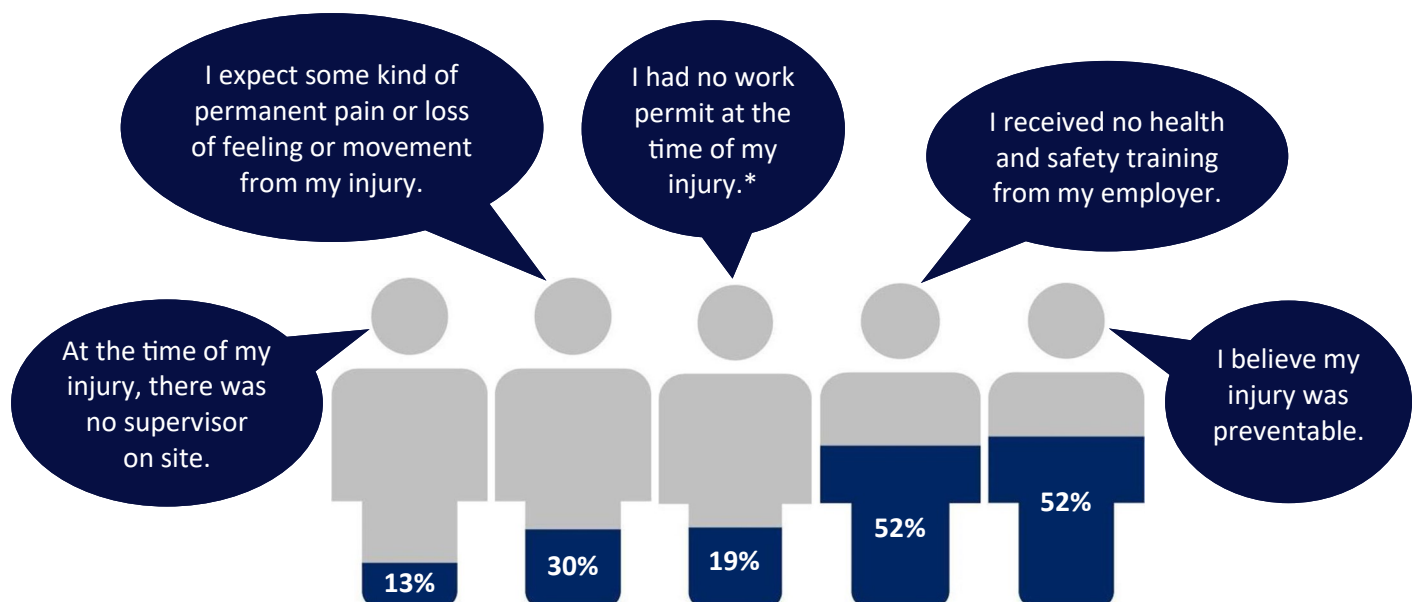
Note: Cases for which industry was missing were not included in the calculations.

Source: Young Workers Injury Surveillance System, MDPH.

What Injured Teens Have to Say

Young Workers Project staff completed 113 interviews with young workers who were injured on the job from 2014 through 2018. 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 9. Responses of select questions from interviews with teens injured at work, Massachusetts, 2014-2018 (n=113)



* MA child labor laws require teens to have work permits.

Source: Young Workers Injury Surveillance System, MDPH.

Massachusetts and National Young Worker Resources

Please take advantage of the resources below covering 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/fairlabor

www.mass.gov/ago/youthemployment

U.S. Department of Labor

Wage & Hour Division

(617) 624-6700

www.dol.gov/whd

www.youthrules.gov

Workers' Compensation

Massachusetts Department of Industrial Accidents

(800) 323-3249

www.mass.gov/dia

Discrimination at Work

Massachusetts Commission Against Discrimination

(617) 994-6000

www.mass.gov/mcad

U.S. Equal Employment Opportunity Commission

Boston Area Office—(800) 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

Young Workers: 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)

Workplace Safety & Health Topics

www.cdc.gov/niosh/topics/youth

Youth @ Work: Talking Safety (Curriculum)

www.cdc.gov/niosh/talkingsafety

Data Sources

Massachusetts Youth Health Survey, 2017, MDPH

Young Workers: Injury Surveillance System. Massachusetts Department of Public Health. www.mass.gov/dph/teensatwork

Workers' compensation claims were obtained through the Massachusetts Department of Industrial Accidents. www.mass.gov/dia

Number of full-time workers were obtained through the Current Population Survey conducted by the Bureau of Census for the Bureau of Labor Statistics. <https://data.census.gov/mdat/#/>

References

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- 2 MMWR Morbidity Mortality Weekly Report. Occupational Injuries and Deaths Among Younger Workers—United States, 1998-2007. 2010. 59(15):449-455. www.cdc.gov/mmwr/pdf/wk/mm5915.pdf. Accessed June 25, 2020.
- 3 The National Institute for Occupational Safety and Health (NIOSH). "OCCUPATIONAL VIOLENCE". October 3, 2019. www.cdc.gov/niosh/topics/violence. Accessed June 25, 2020.
- 4 U.S. Bureau of Labor Statistics 2017, Table R4. "Number of nonfatal occupational injuries and illnesses involving days away from work by industry and selected events or exposures leading to injury or illness, private industry 2017". https://www.bls.gov/iif/oshwc/osh/case/cd_r4_2017.htm. Accessed June 25, 2020.
- 5 U.S. Bureau of Labor Statistics, Current Population Survey. Washington, DC: U.S. Bureau of Labor Statistics. 2017.

Acknowledgements

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