



Teens at Work

Work-Related Injuries to Teens in Massachusetts, 2004-2008

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

DATA HIGHLIGHTS

From 2004 through 2008, in Massachusetts:

- Three teens under age 18 were fatally injured while working.
- 4,019 teens under age 18 visited a hospital emergency department for work-related injuries; that is nearly 3 teens injured for every 100 full-time equivalents.
- 968 workers' compensation lost wage claims were filed by teens under age 18, for injuries resulting in five or more lost work days.

Special highlight:

- In 2009, nearly one fifth (18%) of Massachusetts middle school students reported working for pay, other than babysitting or yard work.

Massachusetts Child Labor Laws prohibit most work for teens under age 14.

Preventing Injuries to Working Teens

Working is part of everyday life for many teenagers. An estimated 80% of teens in the U.S. are employed at some point during high school.¹ In 2009, 19% of 15- to 17-year-olds in Massachusetts were employed at any given point in time.² Even in today's tough economy, with fewer teens working than in past years,³ we still rely on youth in many industries. We need to do all we can to ensure jobs in which teens are employed are safe. We also need to provide teens with basic health and safety skills that will help protect them now and in the future.

Employment can provide many benefits to youth in addition to income: opportunities to take on new responsibilities, learn job skills, explore future careers and, in some cases, improve academic skills. But just like adults, teens are at risk of getting injured at work. In 2007 in the U.S., 48,600 teens under age 18 visited hospital emergency departments for work-related injuries; three times that many teen work injuries are thought to occur every year.⁴ And in 2009, 27 U.S. teenagers were fatally injured at work.⁵ In fact, young people have about twice the rate of non-fatal occupational injury per hour worked than older workers.⁶ Inexperience is a risk factor. Teens also tend to work in jobs that have higher than average injury rates for workers of all ages. In addition, we know that many working teens receive no health and safety training on the job.

Having information about where and how young workers are injured on the job is essential to prevent future injuries and to promote safer work opportunities for youth. The *Teens at Work: Injury Surveillance and Prevention Project* at the Massachusetts Department of Public Health (MDPH) 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. Informed by these data, and interviews conducted with injured teens, *Teens at Work* collaborates with other agencies and community partners on initiatives to prevent injuries to working teens in Massachusetts.



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Teen Injuries at a Glance⁷

In Massachusetts, from 2004 through 2008:

- Three teenagers under age 18 were fatally injured while working. Two of the three teens were working for family members. ▶
- There were 4,019 emergency department (ED) visits for work-related injuries to teens under age 18. The average annual rate of ED visits for 15- to 17-year-olds was 2.8 visits per 100 full-time equivalents. (Figures 1 and 2)
- There were 968 workers' compensation (WC) lost wage claims filed by teens under age 18 for injuries resulting in five or more lost work days. The average annual rate of lost wage claims for injuries to 15- to 17-year-olds was 0.68 injuries per 100 full-time equivalents. (Figures 1 and 2)
- The majority of teen work 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. Hispanic teens had higher rates of injuries than non-Hispanics. (Figures 1, 2 and 3)
- Open wounds (including cuts) were the most common injury to working teens among ED visits (49%). Sprains were the most common injuries for which WC lost time claims were filed (36%). (Figure 4)
- The largest numbers of non-fatal injuries to workers under age 18 occurred in restaurants (27%), part of the Accommodation and Food Service sector, followed by grocery stores (16%) in the Retail Trade sector, and nursing homes (6%) in the Health Services & Social Assistance sector. (Figure 5)

Fatalities to Teens

- **Teen struck, killed at auto repair shop:** The 17-year-old boy was working at his father's auto repair shop; the rear of a pickup truck that was raised fell off of the lift, striking him in the head. (2006)
- **Teen electrocuted at construction site:** The 17-year-old boy was helping his father dismantle a scaffold; the pole he was holding came in contact with an energized overhead power line. (2007)
- **Teen falls to death on construction job:** The 17-year-old boy had carried roofing shingles up an extension ladder to the top of the building being worked on; when he stepped off the ladder onto the roof, he fell 23 feet to the ground below. (2007) *

* *The federal and Massachusetts child labor laws prohibit anyone under age 18 from working in roofing.*

Figure 1. Distribution of work-related injuries to teens under age 18, by age, gender and data source, Massachusetts, 2004-2008

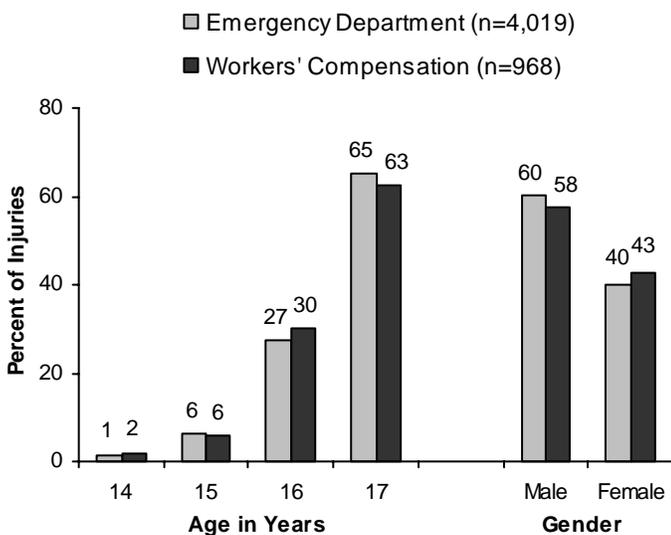
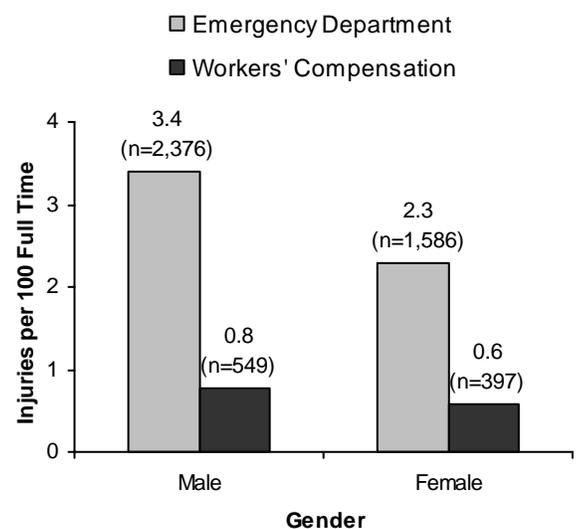


Figure 2. Average annual rates of work-related injuries among 15- to 17-year-olds, by gender and data source, Massachusetts, 2004-2008

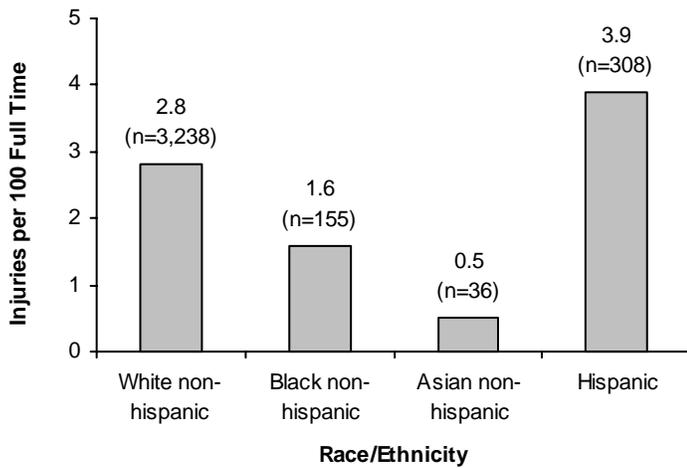


Note: Two cases were younger than 14-years-old, and gender was missing for eight cases in the workers' compensation data. These cases were not included in the calculations.

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

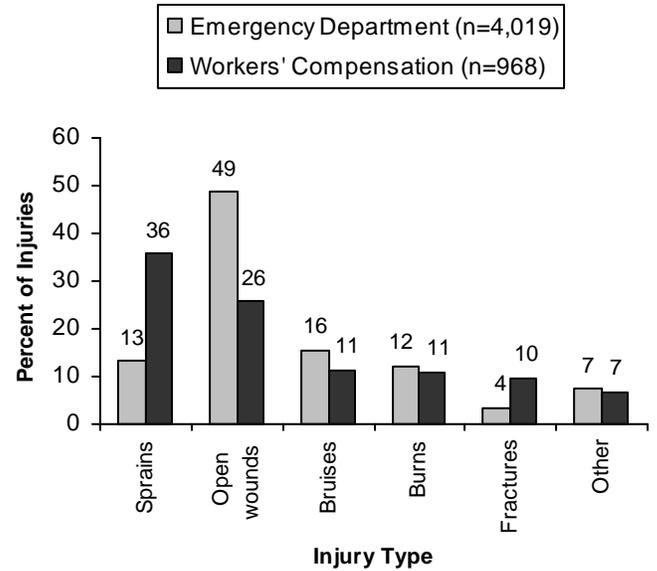
Source: Teens at Work: Injury Surveillance System, MDPH.

Figure 3. Average annual rates of emergency department visits for work-related injuries among 15- to 17-year-olds, by race and ethnicity, Massachusetts 2004-2008



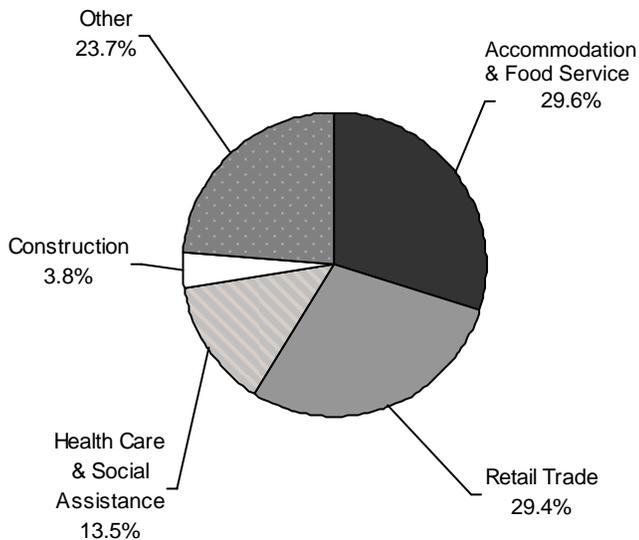
Note: In FY2007, the Division of Health Care Finance & Policy implemented new regulations for the collection and coding of race and ethnicity in hospital records. Due to issues related to these new methods, the numbers (and therefore rates) of ED visits among Hispanics in FY2007 are likely underestimated.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

Figure 4. Distribution of work-related injuries to teens under age 18, by injury type and data source, Massachusetts 2004-2008



Note: Nature of injury was missing for 10 cases in the emergency department, and 116 cases in the workers' compensation data. These cases were not included in the calculations.
Source: Teens at Work: Injury Surveillance System, MDPH.

Figure 5. Distribution of workers' compensation claims filed with 5+ days away from work by teens under age 18, by industry sector*, Massachusetts, 2004-2008



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

What happened?

“I was emptying the dishwasher and the dishes were wet so I gripped a plate firmly to pick it up. The plate was already cracked though, and my hand got cut.”

—16-year-old nursing home dietary aide

“The owner and I were lifting an 8x10 sheet of steel, when I got a pain in my shoulder. The way the large piece had to be lifted made for awkward positioning, which is why I separated my shoulder... I have been in physical therapy for 3 months and still cannot go back to work.”

—17-year-old construction laborer

“I was preparing salami slices on the company meat slicer so that I could dice them. ...after about 15 pieces the rugged edge that had been worn down slipped off of the meat, therefore leading to my right thumb sliding into the spinning sharp blade.” *

—17-year-old restaurant worker

* The federal and Massachusetts child labor laws prohibit anyone under 18 from using a power-driven meat slicer.

Detailed information about the source and causes of injuries by industry, as well as a detailed description of the *Teens at Work: Injury Surveillance System*, are available on the *Teens at Work* website: www.mass.gov/teensatwork

What Injured Teens Have to Say⁷

Teens at Work staff completed 269 interviews with young workers injured on the job from 2004 through 2008. While the information from these interviews does not necessarily represent all young workers who have been injured, it provides important information for targeting prevention efforts.

“A truck came in and we were unloading crates of dairy from the truck. I went to lift a big box, and as I lifted it I felt a crack in my back and it began to hurt...At the hospital they told me I strained my back and gave me pain medication. Also sent me to PT, which I am still doing.” —15-year-old grocery store stock handler

The Federal and Massachusetts Child Labor Laws prohibit anyone under age 16 from loading or unloading trucks.

- 50% of interviewed teens said they had received no health and safety training on how to work more safely and avoid injury while on the job.
- 26% reported they had no work permit for their job at the time they were injured. *Massachusetts child labor laws require teens to have work permits, which may be obtained through the school district in which the teen resides or attends school.*
- 19% of injured teens reported anticipating one or more permanent effects as a result of their injury, such as pain, limited feeling or limited movement.
- Teens reported they could not perform their usual activities for an average of 25 days, as a result of their injuries.
- 16% of teens reported that no supervisor or person responsible for supervising them was on the premises at the time of injury.
- 59% of teens believed their injuries could have been prevented.

Middle School Students are Working

Massachusetts child labor laws prohibit work by anyone under age 14 (with few exceptions), yet new data from the Massachusetts Youth Health Survey (MYHS)⁸ indicate that many middle school students are working, some in high risk industries.

The 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 2009, three questions about work were included in the MYHS. Data were collected from 2,859 middle school students from grades 6 through 8 in 69 schools.

While more work is being done to better understand the nature of the jobs in which students report working, these data suggest that outreach about child labor law awareness and work safety should begin *before* high school for both students and parents.

How many students are working...?

18% of middle school students responded that they had been employed for pay in the past year other than babysitting or yard work.

...and have been hurt on the job?

Of those students, five percent reported being injured at work badly enough to seek medical care.

“Which best describes the place you most recently worked at?”

- Recreation/entertainment (such as golf courses, movie theaters, amusement parks, sports places), 12%
- Landscaping companies, 10%
- Restaurant, 9%
- Construction site, 7%
- Grocery store, 4%
- Other retail store, 3%
- Health care facility, 3%
- Other, 52%

The Federal Child Labor Laws have Changed!

On July 19, 2010, updated federal child labor laws went into effect. The new Final Rule, published by the U.S. Department of Labor's Wage & Hour Division (US-DOL, WHD), contains the most ambitious and far-reaching national revisions to the child labor regulations in 30 years and marks another step forward in the ongoing effort to promote safer, positive work experiences for teens in Massachusetts and across the country. More details on the new laws are available online: www.dol.gov/whd/childlabor.htm.

As a result of the changes, *Teens at Work* has worked with the US-DOL, WHD and the Massachusetts Office of the Attorney General to update the language in our "Child Labor Laws in Massachusetts" poster, now available for free. To order copies, please e-mail us at teens.atwork@state.ma.us. Or download it online at www.mass.gov/dph/teensatwork: click on "Educational Materials" then "Working Teen Pamphlets."

Massachusetts YES Team Updates



The Massachusetts Youth Employment and Safety (YES) 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, and upcoming events and training opportunities.

'Safe Jobs for Youth' Poster Contest

The Massachusetts YES Team, with co-sponsorship from the Massachusetts Coalition of Occupational Safety & Health (MassCOSH) and the National Institute for Occupational Safety & Health (NIOSH), is excited to announce the state's first Safe Jobs for Youth Poster Contest. Modeled after contests in other states, it calls on Massachusetts teens to submit work-safe messages using their own words and images.

The winners of the top three posters will receive cash prizes of \$500, \$300 and \$100, funded by NIOSH, and the first place poster will be disseminated to schools, teen job placement agencies and other youth-serving organizations throughout the state. The winners will be announced at MassCOSH's annual LEAPS Academy in April 2011 (see "Upcoming Events"). For more details on the contest, please visit the Teens at Work website: www.mass.gov/dph/ohsp/teenpostercontest. The 1st place winning poster will be posted on our website in May, so keep checking back for updates!

SUCCESS: Health and Safety: An Employability Skill for Working Youth, Today and Tomorrow

Last May 2010, under the umbrella of the Department of Elementary & Secondary Education's annual Connecting Activities Conference, the Massachusetts YES Team hosted its first sizeable young worker safety event to promote health and safety as an employability skill for youth.

With over 200 participants, the conference successfully brought together career and employment outreach specialists, Workforce Investment Board youth directors and coordinators, in-school placement coordinators, guidance counselors, and youth serving organization staff that implement teen employment and work readiness programs for youth. The daylong event promoted health and safety through interactive trainings and workshops presented by both local and national presenters. The conference was co-sponsored by MassCOSH, one of the YES Team's most active community partners.

Upcoming Events

Leadership Education Action to Promote Safety for Young Workers (LEAPS) Academy

Sponsoring Organization: MassCOSH

Dates: April 20 – 22, 2011

More information: <http://drupal.masscosh.org/node/109>

LEAPS is a free 3-day, 2-night conference (lodging/meals provided) held in Boston for teens throughout Eastern Massachusetts with an interest in safety in the workplace. Teens are encouraged to create teams of four to six youth plus one adult adviser. At LEAPS, youth engage in workshops on workplace health and safety, workplace violence prevention, worker safety, worker rights, sexual harassment in the workplace, youth and union organizing, and community action. Teams create action plans from the topics presented to take back to their communities, and team members receive a stipend to assist with implementing their plans. Applications are due each year around February 18.

Massachusetts Construction Career Days

Sponsoring Agency: ESE

Dates: May 4 – 5, 2011

More information: <http://www.engineers.org/index.cfm?pid=10502>

This two-day career exploration, sponsored by the Department of Elementary & Secondary Education (ESE), is designed to educate Massachusetts high school students about various careers in the construction and engineering industries. Students experience hands-on demonstrations from different construction and engineering-related exhibitors. Representatives discuss typical workdays, explore different aspects of working in the construction and engineering fields, and provide information about the skills and education necessary to enter that field. The event will be held at the New England Laborers Training Academy in Hopkinton, MA.

Ongoing Training Opportunities

Small Business On-site Consultation Program

Sponsoring Agency: DOS

Dates: Ongoing/By appointment

More information: www.mass.gov/dos/consult

The Division of Occupational Safety (DOS) offers free onsite, confidential consultation services designed to help small employers recognize and control potential safety and health hazards at their worksites, improve their safety and health programs, and assist in training employees—all essential for creating safer work experiences for teens and all employees. This service is jointly funded by DOS and OSHA, and is primarily targeted for businesses in high hazard industries; such as manufacturing, healthcare, and construction, though any business may request a consultation.

OSHA 10-Hour Train-the-Trainer Courses

Sponsoring Agency: DOS

Dates: Ongoing/By appointment

More information: Jean.Manoli@state.ma.us

DOS also provides train-the-trainer courses at vocational schools throughout the Commonwealth that certify onsite staff to conduct the OSHA 10-hour courses with students at their respective schools. This is part of a joint initiative with ESE, OSHA and other state associations including the Massachusetts Association of Vocational Administrators (MAVA), the Massachusetts Federation of Teachers (MFA), and the Massachusetts Teachers Association (MTA). There are currently two trainings scheduled for the upcoming winter/spring.

Safety Grants Program

Sponsoring Agency: DIA

Dates: annual, grant applications available each Fall

More information: <http://www.mass.gov/dia/safety>

Every year the Department of Industrial Accidents (DIA), Office of Safety awards \$800,000 in workplace safety training grants. The goal of the grants program is to promote safe and healthy working conditions through training, education and other preventive programs. The program trains thousands of employers, workers and teens in various businesses and organizations throughout Massachusetts each year.

Resources

We encourage you to take advantage of the resources below; they are here to help answer a variety of questions about young worker safety.

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

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

U.S. Department of Labor Occupational Safety
and Health Administration (OSHA)
Andover—(978) 837-4460
Braintree—(617) 565-6924
Springfield—(413) 785-0123
www.osha.gov

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

Massachusetts Department of Labor
Division of Occupational Safety
Workplace Safety and Health Program
(617) 969-7177
www.mass.gov/dos

Discrimination at Work

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

U.S. Equal Employment Opportunity Commission
Boston Area Office
(800) 669-4000

National Young Worker Resources

Health & Safety

National Institute for Occupational Safety and
Health (NIOSH)
Young Worker Safety and Health Website:
www.cdc.gov/niosh/topics/youth/

U.S. Department of Labor Occupational Safety and
Health Administration (OSHA)
Safety and Health Topics Page:
www.osha.gov/SLTC

Teen Workers Website:
www.osha.gov/SLTC/teenworkers

National Young Worker Safety Resource Center
Young Workers' Health and Safety Website:
www.youngworkers.org/nation

U.S. Equal Employment Opportunity Commission,
Youth@Work Website
<http://youth.eeoc.gov>

Laws & Wages

U.S. Department of Labor, Wage and Hour Division
Fact Sheet Index Website:
www.dol.gov/whd/fact-sheets-index.htm
YouthRules! Website:
www.youthrules.dol.gov

Resources (continued)

Our international friends also have great young worker health and safety resources.

International Young Worker Health & Safety Resources

The Workers' Compensation Board of British Columbia (Canada)

WorkSafeBC Website:
www.worksafebc.com

WorkSafeBC Young Workers Website:
www2.worksafebc.com/Topics/YoungWorker/Home.asp

This website offers resources for everyone, including young workers, employers, unions, educators, parents, and youth community groups.

Ontario Ministry of Labour (Canada)

Protecting Our Future Website:
www.labour.gov.on.ca/english/atwork/youngworkers.php

This site provides health and safety information for young workers, tips for employers and parents, and links to online publications.

European Agency for Safety and Health at Work (European Union)

EU-OSHA Website:
<http://osha.europa.eu/>

Young People Webpage:
http://osha.europa.eu/en/priority_groups/young_people

This page discusses the risks young people face in the workplace, and gives tips on what everyone can do broken down by group (young workers, employers, educators, parents, and health and safety professionals). It also provides links to dozens of Agency publications on young worker safety and hazards in the workplace.

References

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- (3) Bureau of Labor Statistics. Quarterly household data: Seasonally adjusted data. "D-6. Employed person by age, sex and marital status, seasonally adjusted http://www.bls.gov/cps/tables.htm#charemp_q accessed February 22, 2011.
- (4) National Institute for Occupational Safety and Health, Young worker safety and health. <http://www.cdc.gov/niosh/topics/youth/> accessed January 18, 2011
- (5) Bureau of Labor Statistics. Census of Fatal Occupational Injuries, August 19, 2010. Preliminary data, Table 4, Fatal occupational injuries by selected worker characteristics and selected event or exposure. <http://www.bls.gov/news.release/foi.toc.htm> accessed February 17, 2011.
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- (7) Teens at Work: Injury Surveillance System. Massachusetts Department of Public Health.
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