

# Working Youth: Michigan's Occupational Teen Injuries



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## Introduction:

Occupational injuries among teens are of special concern throughout the United States because about 70 teens die and 70,000 get injured at work annually. This document reviews 1,940 injuries to teens, ages 14-17, who were injured at work in Michigan from 2001 to 2013, including 13 teens who died as a result of their job.

## Occupational Teen Injuries- Examples of How Teens are Injured at Work

### Fatal Injuries:

- A 14-year-old male working on his family farm was unwinding a rubber belt for a corn grinder. The belt wrapped around his arm when he activated the grinder, causing his head to strike a metal wheel on the grinder. His father, who was inside the barn at the time, heard the belt “flap” and exited the barn to investigate the noise. He found his son injured and immediately took him to the hospital where later that day he died from head injuries.
- A 16-year-old female road crew worker died from injuries sustained after she was struck by her employer’s van. The decedent and a coworker were standing outside the parked van on the shoulder of a 70 mph highway when a vehicle veered off the roadway after the driver fell asleep at the wheel. This vehicle sideswiped a guardrail and then struck the parked van. The impact caused the van to rotate, knocking the coworker clear to the grass embankment. The decedent was struck and then “caught up” in the van’s rotation. She was thrown clear prior to the van bursting into flames. There were no work zone signs posted prior to the area of the work crew.

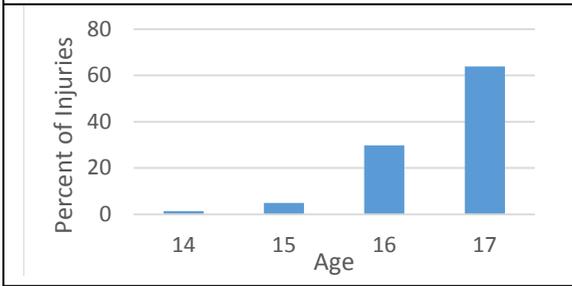


### Non-fatal Injuries:

- A 17-year-old male working as a stock boy in a drug store was splashed in the eyes by the contents of a broken fluorescent bulb, causing irritation to both of his eyes. He was not wearing eye protection.
- A 16-year-old female working in a grocery store, experienced dizziness and difficulty breathing after cleaning for several hours with a product called Clean Quick.
- A 16-year-old male working in an indoor water park developed a cough while cleaning floors. He mixed Lime-Away (containing phosphoric acid) with bleach causing chlorine gas to be produced.
- A 17-year-old female working in a restaurant cut her left thumb with a knife while preparing a sandwich. She was taken to a local emergency room, and given stitches.
- A 16-year-old female working in a fast food restaurant sustained a 2<sup>nd</sup> degree burn to her right hand from a 350 degree oil-fryer line. She was not wearing protective gloves, and none were required by her employer.

# Occupational Teen Injuries - Data Summary

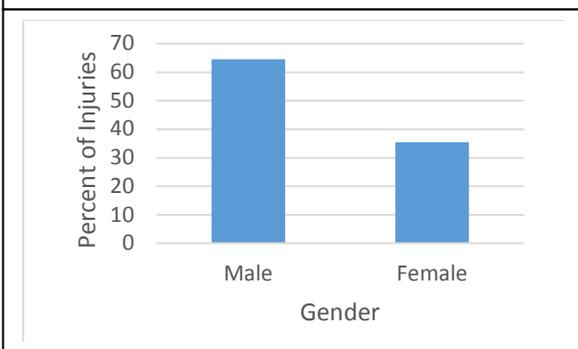
**Figure 1. Percent of Work-Related Teen Injuries by Age, Michigan**



- The highest percent of teen injuries was among 17-year-olds, representing 64% of teens identified with a work-related injury in Michigan.
- In 2012, approximately 23% of 16- and 17-year-olds were employed.
- The annual rate of occupational injuries in 2012 for 16- and 17-year-olds\* combined was 30 per 10,000 working 16- and 17-year-olds.

\*The number of working 14- and 15-year-olds was not available.

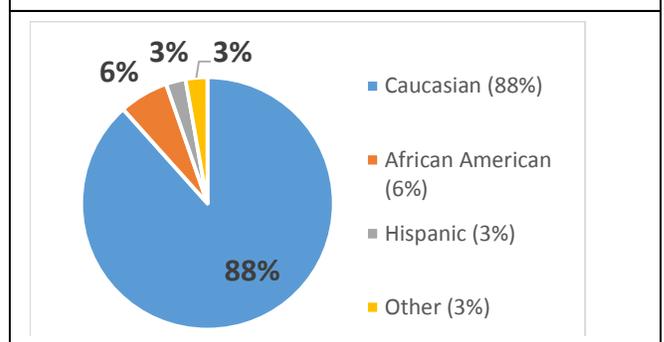
**Figure 2. Percent of Work-Related Teen Injuries by Gender, Michigan**



- There were almost twice as many males as females reported with a work-related injury, representing 66% of teens identified\* with a work-related injury in Michigan.

\*Gender-specific injury rates could not be calculated because the total number of working teens in Michigan was not available by gender.

**Figure 3. Percent of Work-Related Teen Injuries by Race/Ethnicity, Michigan**

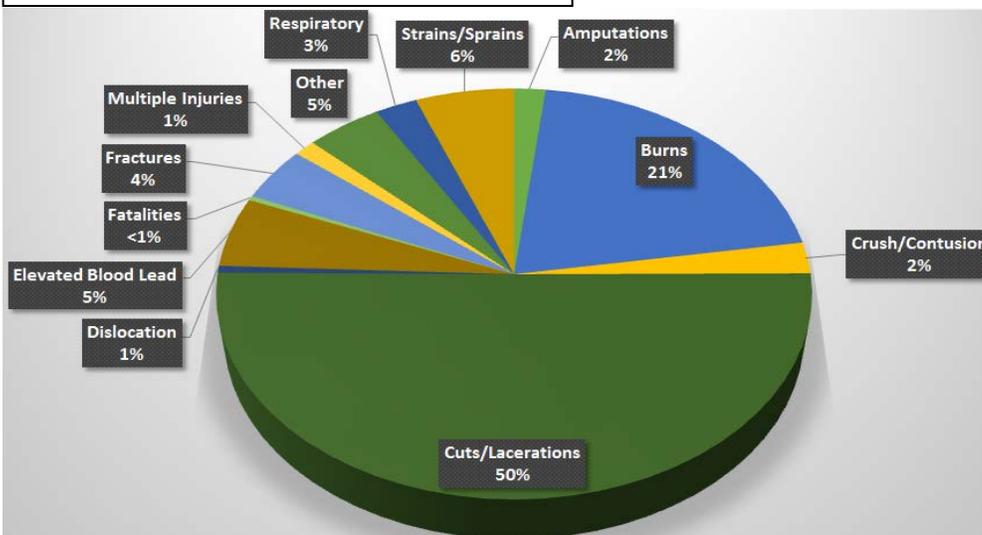


- Where race/ethnicity was reported\*, the highest percentage of teen work-related injuries was among Caucasians, representing 88% of teens identified\*\* in Michigan.

\*Race/ethnicity was not reported for 34% (653) of the teen work-related injuries in Michigan.

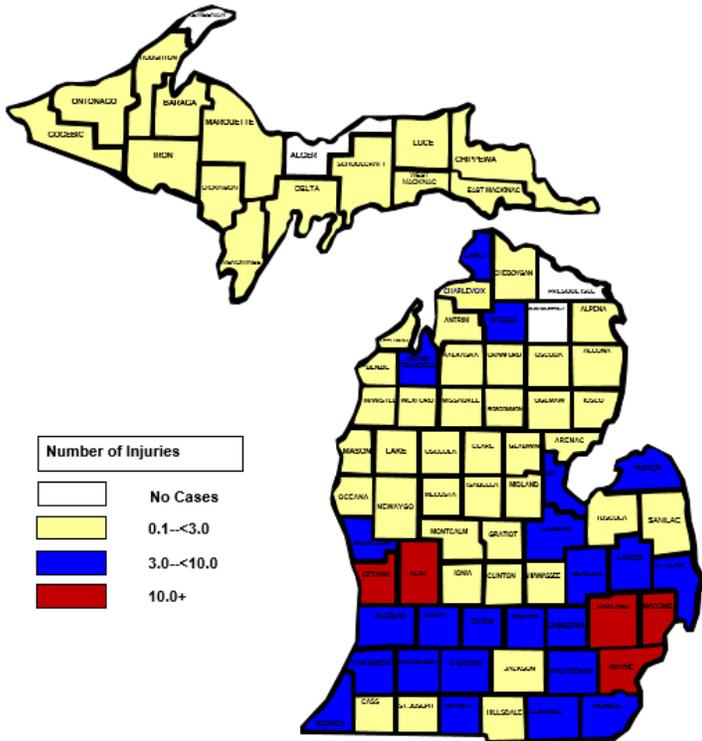
\*\*Race/ethnicity-specific injury rates could not be calculated because the total number of working teens in Michigan was not available by race/ethnicity.

**Figure 4. Percent of Work-Related Teen Injuries by Nature of Injury, Michigan**

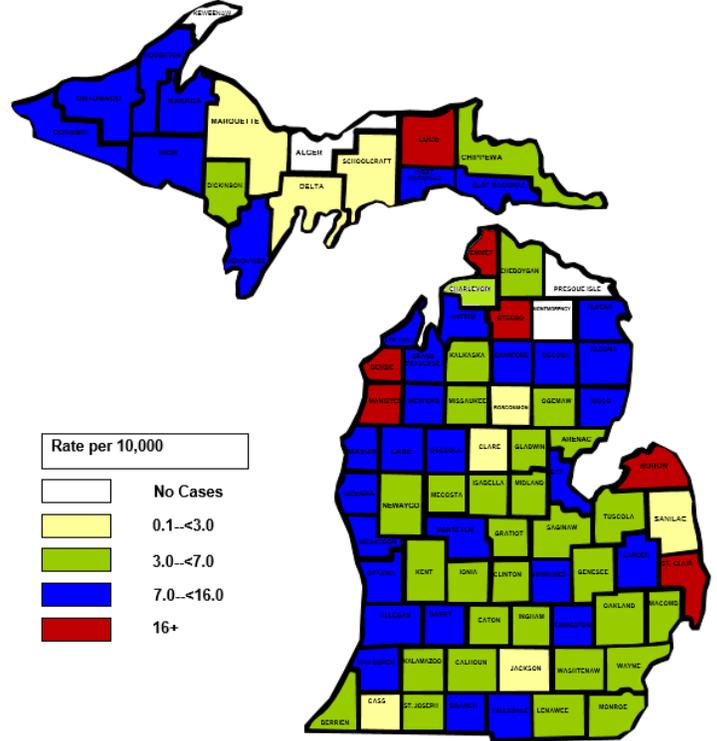


- The majority of injuries among working teens involved a cut/laceration, representing 50% of all teens identified in Michigan with a work-related injury.
- Burns represented 21% of the reported teen work-related injuries.

**Figure 5. Annual Average Number of Teen Work-Related Injuries by County of Residence, Michigan**



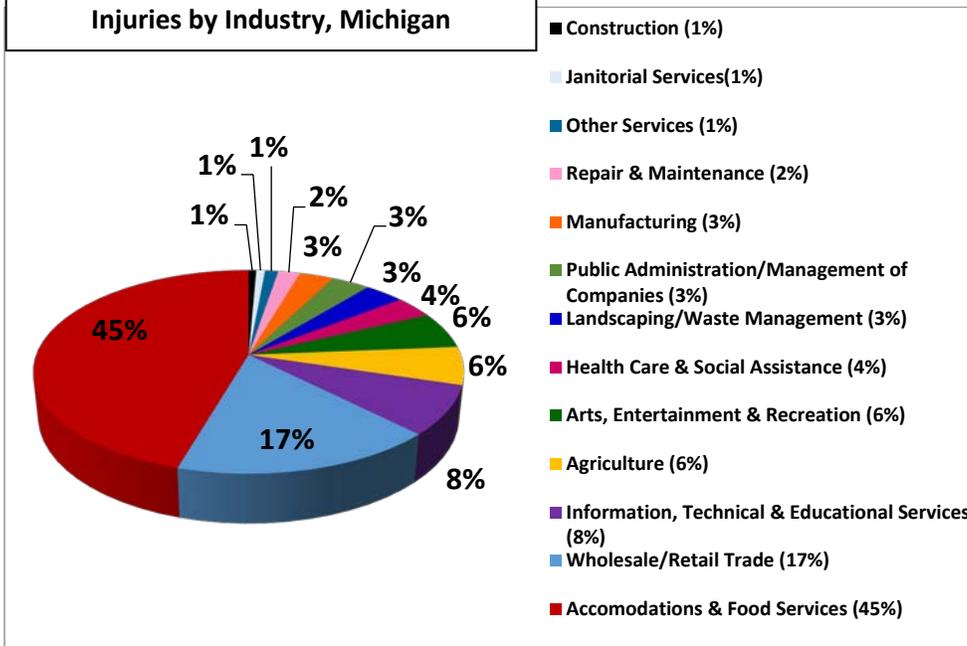
**Figure 6. Annual Average Rate of Teen Work-Related Injuries by County of Residence, Michigan**



- Counties with the highest average number of work-related teen injuries were: Wayne (36), Oakland (23), Macomb (21), Ottawa (19) and Kent (12).

- Counties with the highest teen work-related injury rates were: St. Clair (84), Otsego (25), Manistee (24), Luce (19), Huron (19), Emmet (18) and Benzie (17).
- The overall annual average rate of work-related teen injuries in Michigan is 30 per 10,000 working teens.

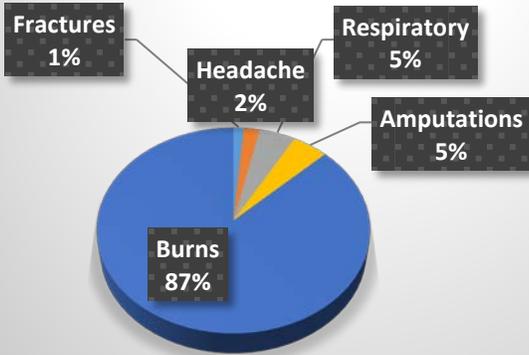
**Figure 7. Percent of Work-Related Teen Injuries by Industry, Michigan**



- The Accommodations & Food Services industry\* accounted for the highest percentage of all teens identified in Michigan with a work-related injury, representing 45% of the total number of teens reported.
- The annual rate of occupational injuries in 2012 for teens working in Food Services was 1.1 per 10,000 Food Services employees of all ages.

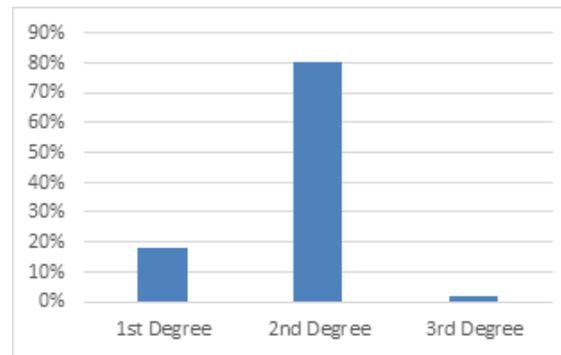
\*Industry type was unknown for 75% (1,459) of all teen injuries reported.

**Figure 8. Percent of Work-Related Teen Injuries by Nature of Injury in Accommodations & Food Services, Michigan**



- Burns were the main injury type for teens, mainly from restaurant jobs, representing 87% of all occupational teen injuries in Accommodations and Food Services.

**Figure 9. Percent of Teen Work-Related Burn Injuries by Severity, Michigan**



- Most of the burns (80%) were 2<sup>nd</sup> degree burns involving the upper body.

### BURN SEVERITY CLASSIFICATION

- 1<sup>st</sup> DEGREE BURN:** Least serious, skin usually red, swelling, pain is sometimes present.
- 2<sup>nd</sup> DEGREE BURN:** Affects the first layer and second layer of the skin. There are blisters, swelling, and severe pain.
- 3<sup>rd</sup> DEGREE BURN:** Most serious, all layers of the skin are affected, including permanent tissue damage.

## RECOMMENDATIONS FOR INJURY PREVENTION

- **Recommendations for Employers**
  - ✓ Make following safe work practices a condition of youth employment.
  - ✓ Emphasize the importance of training before performing any new task or operating any new equipment.
  - ✓ Train working youth on: the hazards of the job and safety procedures; proper and appropriate use of personal protective equipment, including non-slip footwear in jobs with potential for slippery floors; reading labels and receiving proper training for any chemicals used; reading and following warning signs posted at the work site; proper lifting techniques; and any other job-specific issues.
  - ✓ Encourage working youth to ask questions and to ask for help from supervisors when unsure of proper use of tools, equipment, or personal protective equipment.
- **Recommendations for Working Youth**
  - ✓ Learn safe work practices, including appropriate protective equipment needed, and specific hazards for the job you are assigned. *Only do the jobs for which you have been trained.*
  - ✓ Ask for help from your supervisor when you have any questions about the tools, equipment, training or any personal protective equipment you must use (safety glasses, gloves, non-slip footwear, etc.).
  - ✓ Read the safety labels on any chemicals you work with, including cleaning agents. Read and follow any warning signs posted at your workplace.
- **Recommendations for Schools**
  - ✓ Use and share resources such as PASSES (Parents for Student Safety Employment Standards) to help educate the working youth and their families on safety issues including: safe chemical handling, lifting techniques, ladder safety, and the proper use of personal protective equipment.
  - ✓ Host seminars or workshops for parents and teens on safety habits in the workplace.
  - ✓ Distribute information on safe work practices and resources for working youth through school communication mechanisms, such as the weekly Principal’s Newsletter or along with work permit applications available at the school’s main office.

### RESOURCES FOR WORK-RELATED INJURY PREVENTION

- OSHA: Youth Worker Safety in Restaurants ETool. <https://www.osha.gov/SLTC/youth/restaurant/index.html>
- Extreme Safety: Youth Worker Safety Restaurant/Fast Food Industry. [http://www.michigan.gov/documents/cis/wsh\\_youth\\_fastfood\\_197818\\_7.pdf](http://www.michigan.gov/documents/cis/wsh_youth_fastfood_197818_7.pdf)
- PASSES: Parents for Student Safety Employment Standards. <http://www.passesedge.org/Main.asp?pageno=30>
- OSHA: Young Workers You Have Rights! <https://www.osha.gov/youngworkers/index.html>