

August 31, 2021

Virginia Occupational Safety and Health (VOSH)  
Virginia Safety and Health Codes Board (Board)

Heat Illness Prevention Standard Regulatory Advisory Panel (Panel)

## **14 - Summary of Virginia Workers' Compensation Heat Illness Statistics 1.1.2009 to 8.15.2021**

VOSH decided to only go back in time to 2009 because that is date that VWCC can assure has the most complete and accurate digital records.

VOSH requested heat-related injury and illness records from the Virginia Workers' Compensation Commission (VWCC) by "cause of injury" and "nature of injury" under the following VWCC codes:

### **Cause of injury:**

- 02. Hot Objects or Substances
- 03. Temperature Extremes
- 04. Fire or Flame
- 05. Steam or Hot Fluids
- 07. Welding Operation
- 90. Other Than Physical Cause of Injury

### **Nature of injury:**

- 04. Burn
- 32. Heat Prostration
- 41. Myocardial Infarction
- 53. Syncope
- 55. Vascular
- 68. Dermatitis

Data fields in the report contain some useful information:

Site Postal Code  
Date of Injury  
Nature of the Injury  
Cause of the Injury  
Part of the Body Injured  
**Injury Narrative**  
Death Result Injury  
Manual Classification Code  
Year of Birth  
Gender  
Date Death  
Industry Code

### Industry Code Description

Not all injuries and illnesses associated with the above codes would mean that the VWCC case was heat-related. In fact, the large majority of those cases are not heat-related, it was necessary to cast as wide a net as possible to get obtain the most complete picture of heat-related VWCC claims.

The Department is still reviewing the resulting report, but can provide some basic information at this point:

Total VWCC cases:	48,201
Heat Prostration cases (32. Nature of injury):	1,775
Employee Deaths not reported to VOSH:	1

### Next Steps:

The Department is going through the painstaking process of reviewing the narrative descriptions for all 48,201 narrative descriptions to be sure that it catches all the heat-related injuries and illnesses.

Once that review is completed, the data on heat-related cases will be shared with the Panel.

A test was conducted of data from calendar year 2015. The Bureau of Labor Statistics published a report on "Work injuries in the heat in 2015."<sup>1</sup>

High temperatures can be dangerous to people at work and can lead to injuries, illnesses, and even death. Exposure to environmental heat led to 37 work-related deaths and 2,830 nonfatal occupational injuries and illnesses involving days away from work in 2015. Thirty-three of the 37 fatal work injuries caused by exposure to environmental heat occurred in the summer months of June through September. Texas and California had the highest number of nonfatal injuries and illnesses with days away from work in 2015. Kansas and South Carolina had the highest rates of nonfatal injuries and illnesses from environmental heat.

The report is based on Annual Survey data collected by participating states.

The Virginia estimated total nonfatal occupational injuries and illnesses caused by exposure to environmental heat in 2015 was 100 cases, which represented a rate per 10,000 workers of 0.3.

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<sup>1</sup> <https://www.bls.gov/opub/ted/2017/work-injuries-in-the-heat-in-2015.htm>

Other rates for surrounding states included:

Kentucky	60 cases	0.4 rate
North Carolina	110 cases	0.3 rate
Maryland	60 cases	0.3 rate
Tennessee	40 cases	0.2 rate

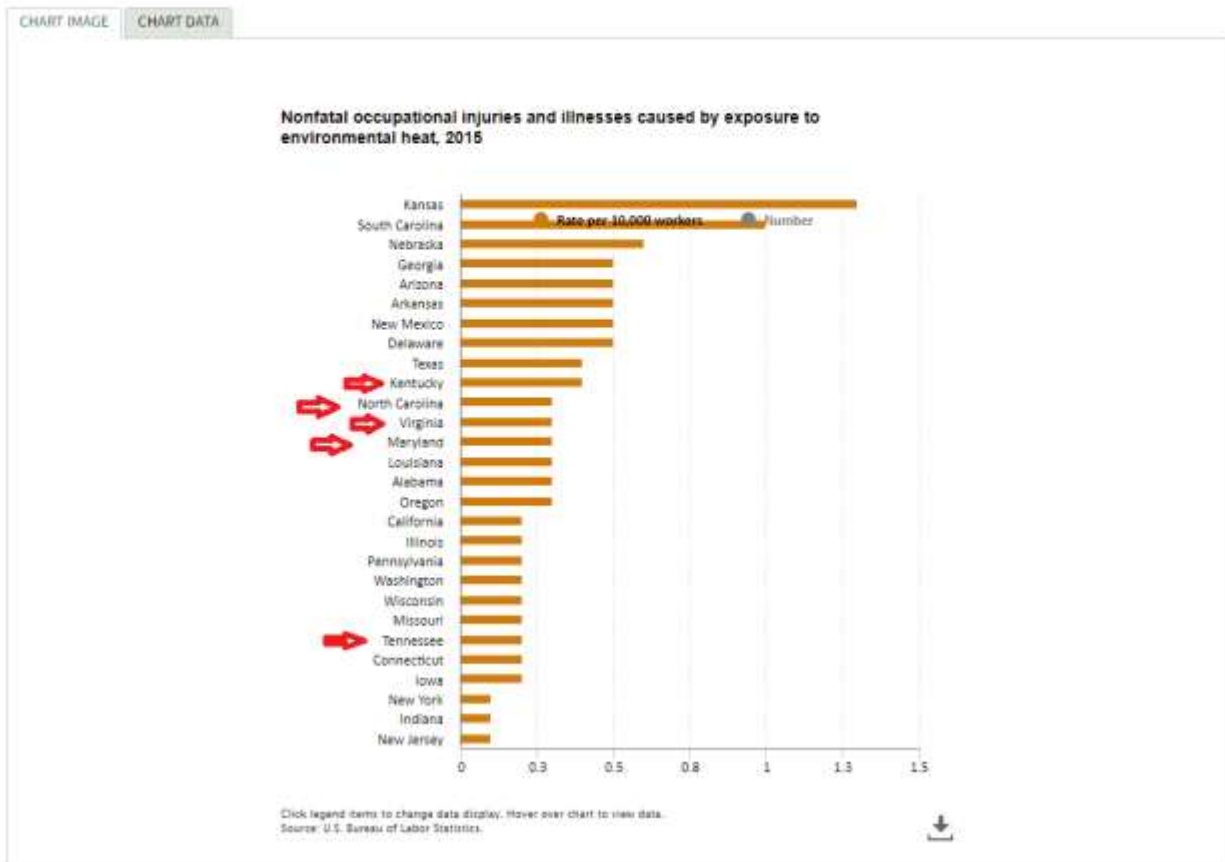
Here are some charts from the report:

### Rate per 10,000 workers

#### ***Work injuries in the heat in 2015***

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**Nonfatal occupational injuries and illnesses caused by exposure to environmental heat, 2015**

State	Number	Rate per 10,000 workers
Kansas	140	1.3
South Carolina	150	1.0
Nebraska	40	0.6
Georgia	180	0.5
Arizona	110	0.5
Arkansas	50	0.5
New Mexico	30	0.5
Delaware	20	0.5
Texas	340	0.4
Kentucky	60	0.4
North Carolina	110	0.3
Virginia	100	0.3
Maryland	60	0.3
Louisiana	50	0.3
Alabama	40	0.3
Oregon	40	0.3
California	270	0.2
Illinois	80	0.2
Pennsylvania	80	0.2
Washington	60	0.2
Wisconsin	50	0.2
Missouri	40	0.2
Tennessee	40	0.2
Connecticut	20	0.2
Iowa	20	0.2
New York	40	0.1
Indiana	30	0.1
New Jersey	20	0.1

Note: States not shown did not participate in the survey in 2015 or the data were not reported or did not meet publication criteria.

Transportation and material moving occupations accounted for 720 nonfatal cases with days away from work that resulted from exposure to environmental heat in 2015. That was one-fourth of the total cases caused by environmental heat exposure.

The Department reviewed the VWCC data for 2015 and came up with the following initial results:

- 32. Heat Prostration cases: 102
- Other coded cases: 54<sup>2</sup>
- Total: 156

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<sup>2</sup> These cases were identified by using key word searches and then reviewing the narrative "injury narrative" to determine heat-relatedness (e.g., heat stress, heat stroke, heat exhaust, overheat, heat, heat related, faint, dizzy, etc.).