

IN THE HOT SEAT? PROTECTING WORKERS FROM HEAT STRESS

THE HIGH PRICE OF HEAT STRESS AND WORKER PROTECTION ADVOCACY IN THE UNITED STATES

JULEY FULCHER
WORKER HEALTH AND SAFETY ADVOCATE

PUBLIC CITIZEN **50**
YEARS



2,000

Heat exposure worker fatalities in the U.S. each year

170,000

Workers injured in heat stress related accidents annually

<https://www.citizen.org/article/hot-take/>

The Cost of Inaction

The failure of employers to implement heat protections for workers costs money and lives



- Cost to workers
- Cost to employers
- Cost to the economy

<https://www.citizen.org/article/report-cost-of-inaction-heat-stress-safety/>

Financial Cost to Employers of Failing to Mitigate Heat Stress



Worker productivity declines approximately 2.6% per degree Celsius above a Wet Bulb Globe Temperature (WBGT) of 24°C (75.2°F)

104° w/ 80% humidity

No Break

Producing 15 minutes worth

15 minute break

Producing 45 minutes worth

Worker Capacity Drops Sharply with Increased Temperature and Relative Humidity



a worker is able to work at 95% of full capacity when it's 77° with 30% RH

-equivalent to 57 minutes per hour-



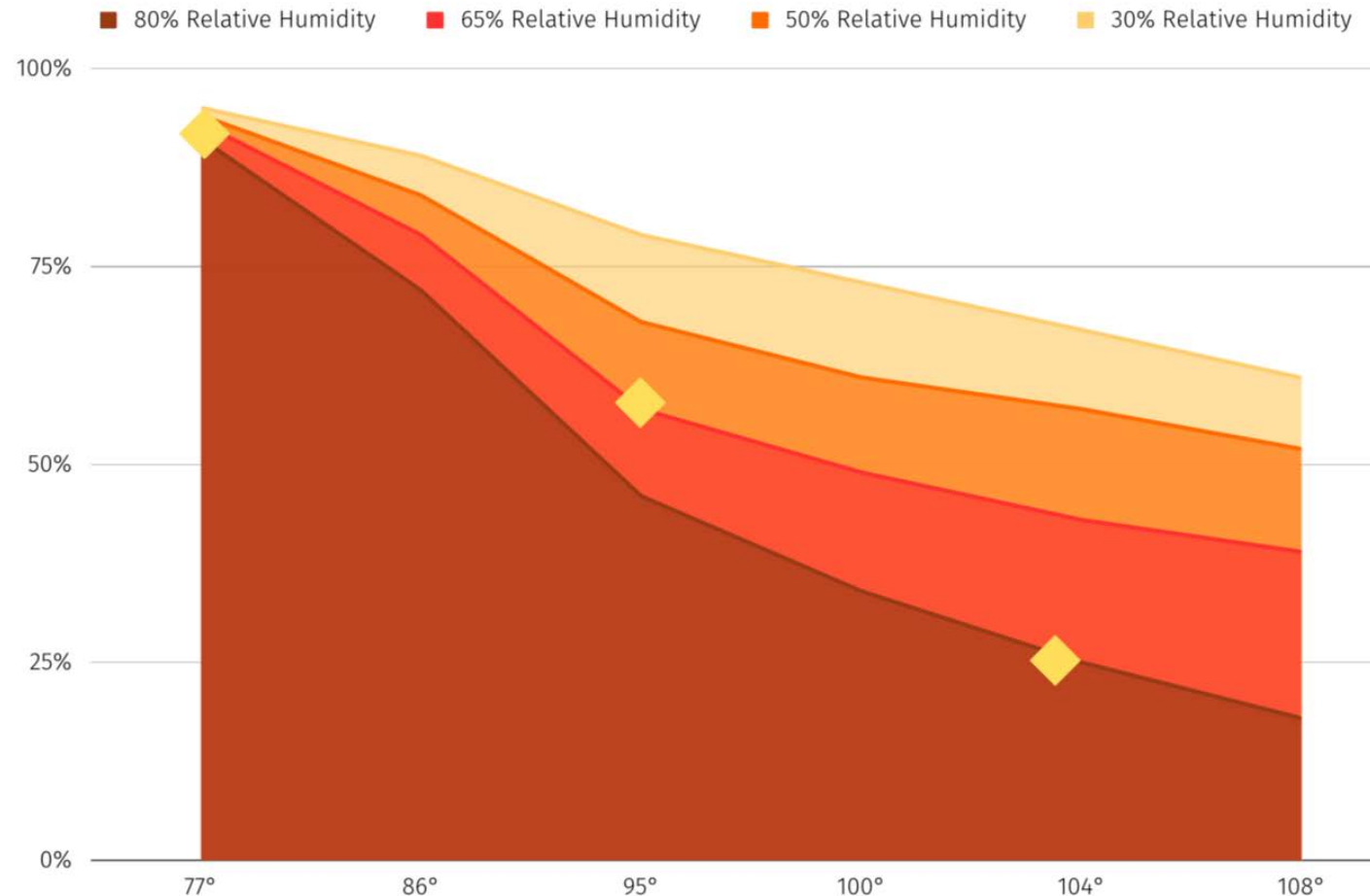
a worker is able to work at 68% of full capacity when it's 95° with 50% RH

-equivalent to 40 minutes per hour-



a worker is able to work at 25% of full capacity when it's 104° with 80% RH

-equivalent to 15 minutes per hour-



US\$ 2.1 Trillion

Estimated annual global cost of lost work time due to reduced worker capacity

US\$ 100 Billion

Estimated annual U.S. cost of lost work time due to reduced worker capacity

87 Countries

Number of countries where annual labor capacity loss in outdoor workers equals four weeks or more per person.

SPAIN

(Martínez-Solanas et al., 2018)

Analyzed 16 million
workers comp claims
from 1994 to 2013

580,000 days of work lost every year

Estimated annual cost of occupational heat-related injuries — **€319.4 million (US\$319.8 million)**

- Business cost due to sick leave
 - **€59.2 million (US\$59.3 million)**
- Worker income loss
 - **€49.2 million (US\$49.3 million)**
- Disability pain and suffering
 - **€183 million (US\$183.2 million)**
- Health care
 - **€28 million (US\$28 million)**

South Australia

(Xiang et al., 2018)

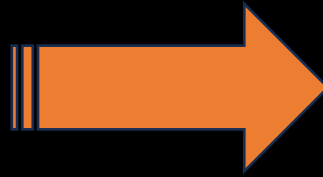
Analyzed workers
comp claims from
2000 to 2014

More **AU\$6 million** in annual medical costs
(US\$4 million)

Medical costs increased 41.6% per degree
Celsius when the temperature exceeded
33°C (91.4°F).

Occupational Safety and Health Administration (OSHA)

OSHA has jurisdiction over all private employers throughout the country



22 State Plan States

OSHA has delegated the authority to ensure protection for workers within the state

- Creates workplace safety standards
- Educates employers
- Enforces Safety Standards

- Enforces federal safety standards
- Can create their own safety standards provided they are stronger than existing federal standards

STATE HEAT RULES



California

**Outdoor Heat
and Wildfire
Smoke
Standards**

*Indoor Heat
Standard under
consideration*



Washington

**Outdoor Heat
Standard**

*Wildfire Smoke
Standard under
consideration*



Oregon

**Indoor/Outdoor
Heat Standard**

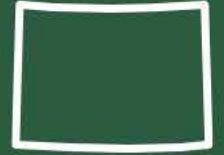
**Wildfire Smoke
Standard**

**Heat in Labor
Housing Standard**



Minnesota

**Indoor Heat
Standard**



Colorado

**Outdoor Heat
Standard for
Agricultural
Workers**

STATE HEAT RULES — PROPOSED



Maryland

**Proposed Heat
Standard**

**suspended for
revision**



North Carolina

**Indoor/Outdoor
Heat Standard**

**proposal in
development**



Nevada

**Indoor/Outdoor
Heat Standard**

proposal stalled



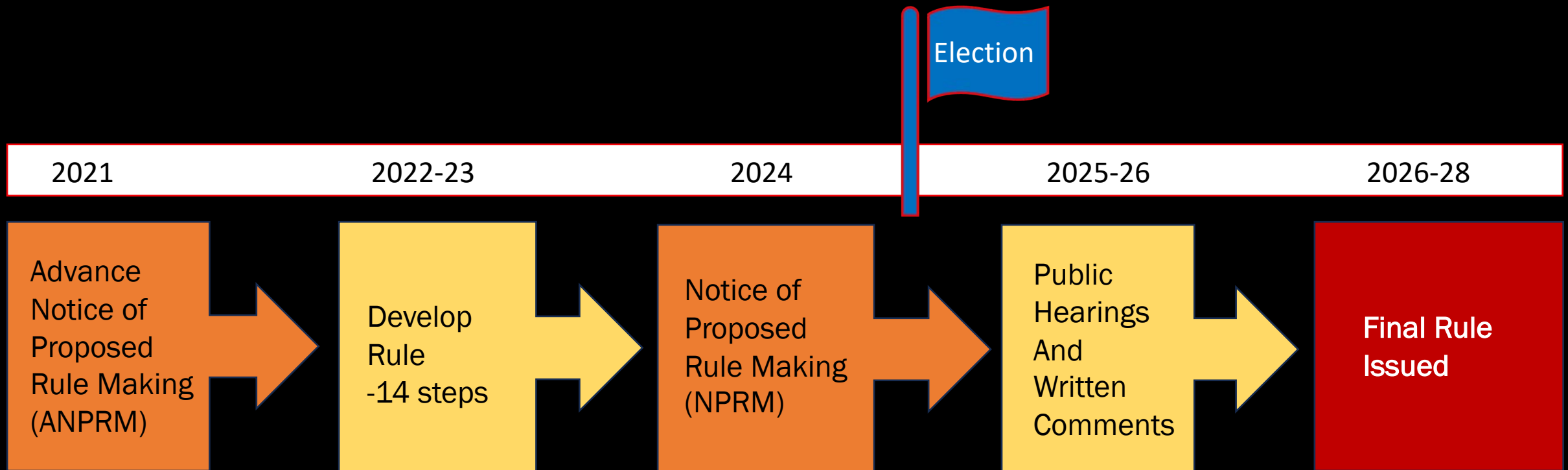
Virginia

**Virginia OSHA
developed
proposed
indoor/outdoor
heat standard**

-VOTED DOWN

OSHA Heat Rule Standard in Development

On average it takes 7 to 8 years for OSHA to develop a standard



A close-up photograph of a man with dark skin, wearing a dark t-shirt, drinking from a clear plastic water bottle. He has a grey towel draped over his head, and his eyes are closed, suggesting he is hot or tired. The background is a blurred green, likely foliage. The text is overlaid on the left side of the image.

Asunción Valdivia
Heat Illness, Injury and
Fatality Prevention Act

S.2501/H.R.4897

Congress should direct OSHA to issue an interim standard that would protect workers until a final rule can be completed.

Senate Bill Champions

- Sen. Sherrod Brown (OH)
- Sen. Alex Padilla (CA)
- Sen. Catherine Cortez Masto (NV)

House Bill Champions

- Rep. Judy Chu (CA-28)
- Raúl García (AZ-7)
- Alma Adams (NC-12)
- Bobby Scott (VA-3)



WATER.
REST.
SHADE.

Is that too much to ask?

AGUA.
DESCANSO.
SOMBRA.

¿Es mucho pedir?



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YEARS

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DEFENSOR DE SEGURIDAD Y SALUD DEL TRABAJADOR

jfulcher@citizen.org