



Killer Heat in the United States

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AP/John Locher

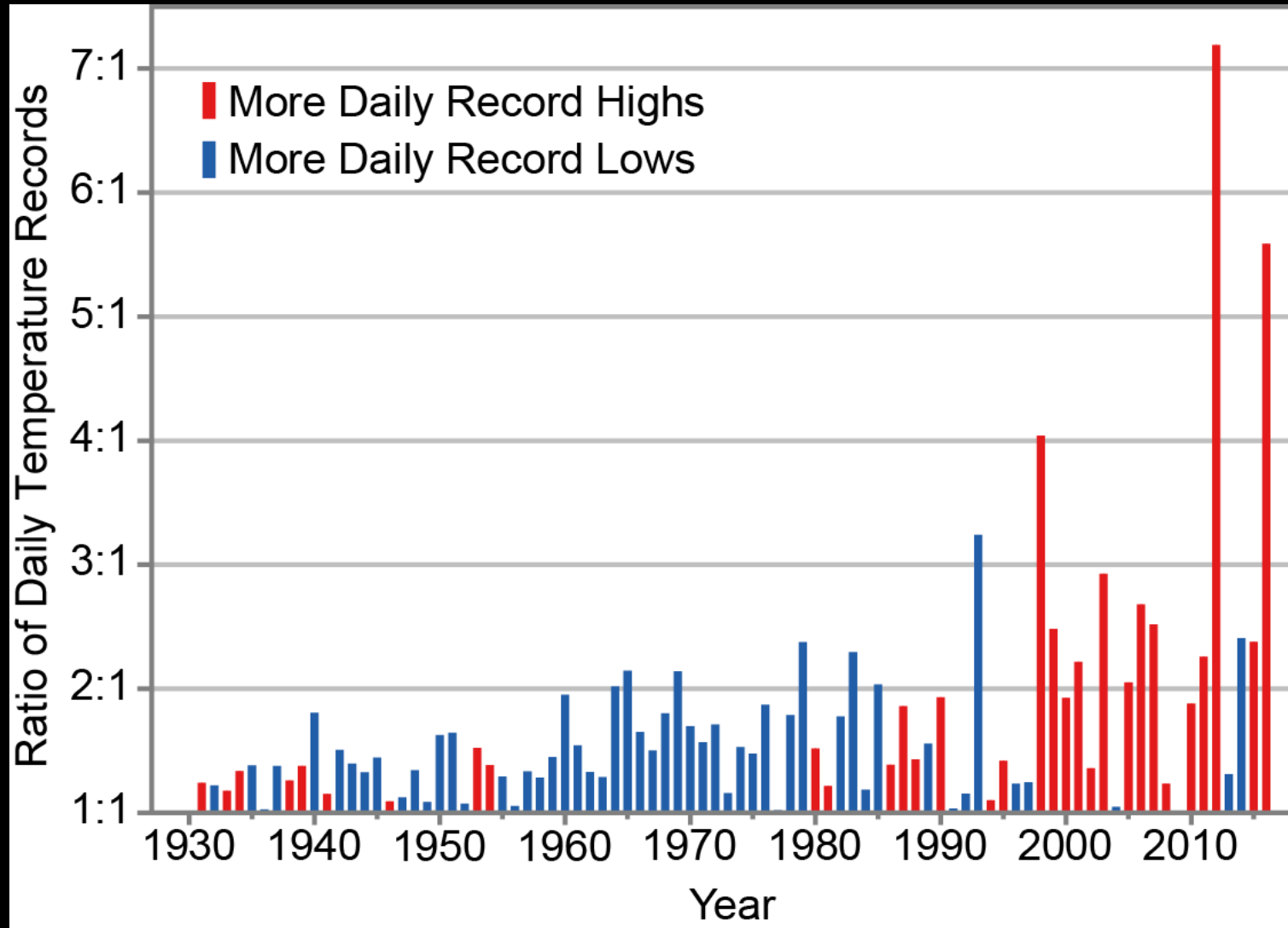
[Union of
Concerned Scientists

Science for a
and healthier planet
and safer world.

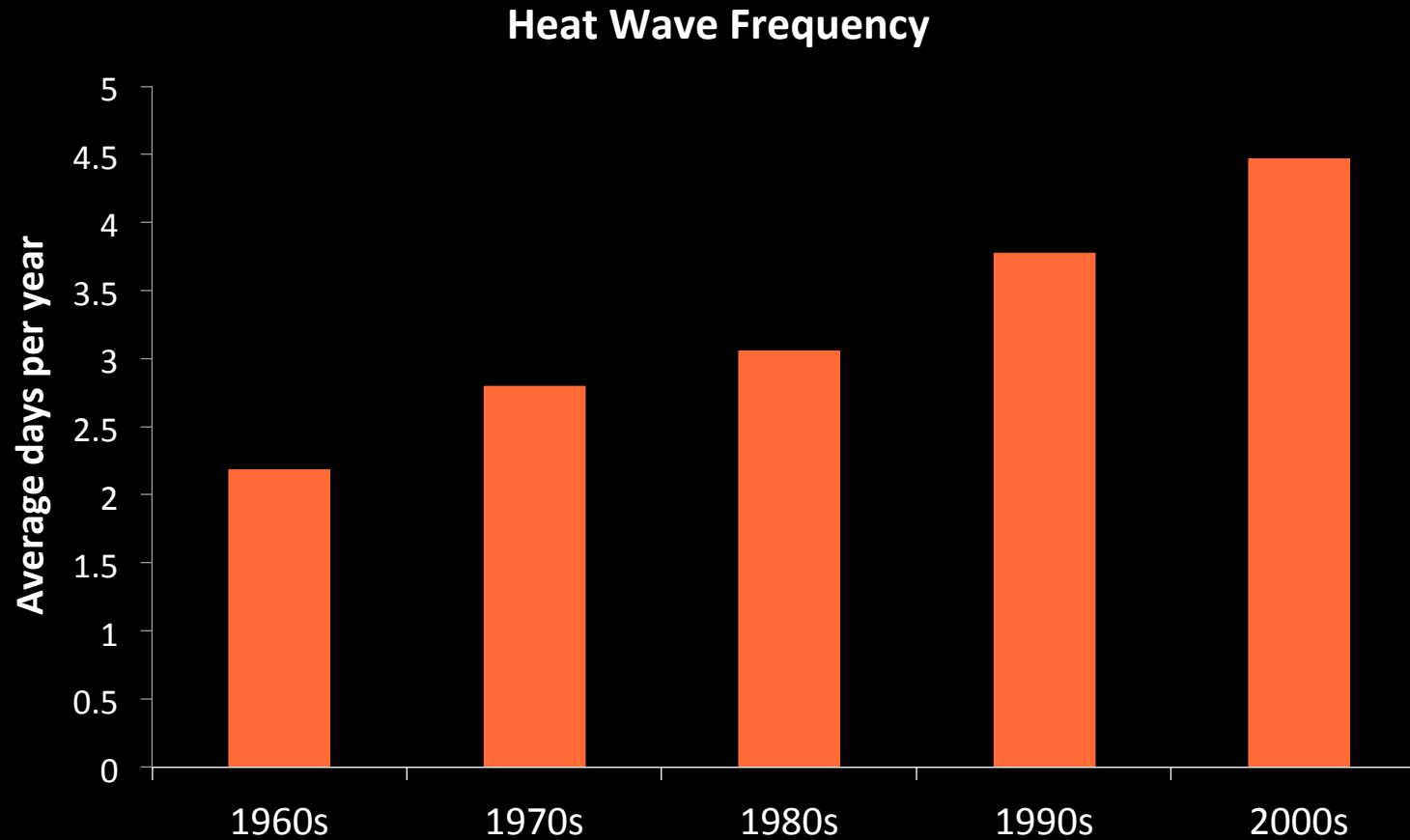




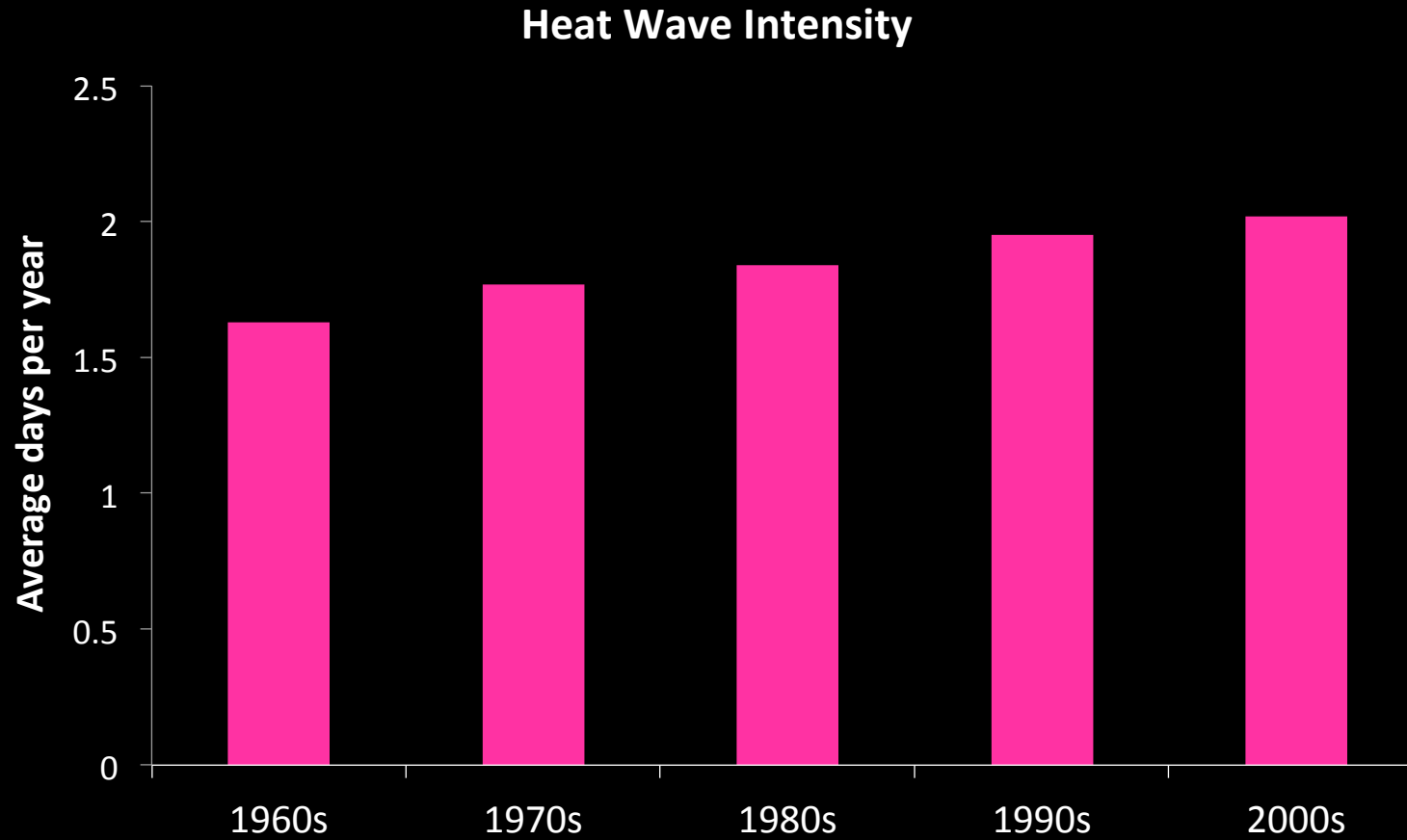
Extreme heat on the rise



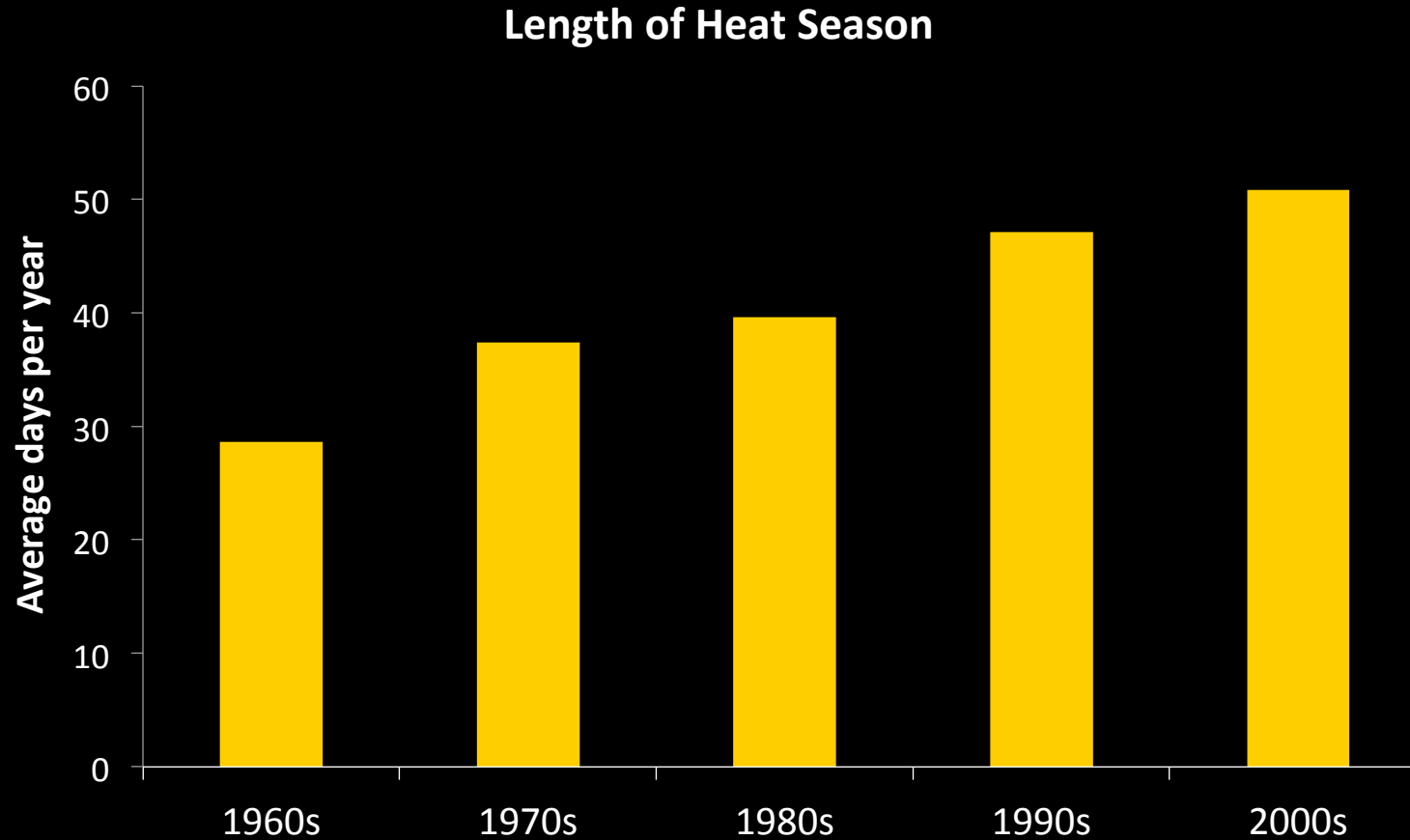
Extreme heat on the rise



Extreme heat on the rise



Extreme heat on the rise





“We have seen a huge spike in ER visits and admissions... We have been admitting people left and right.”

--Dr. Arash Armin, Trenton, MI. July 19, 2019

Killer Heat in the United States

Climate Choices and the Future of Dangerously Hot Days

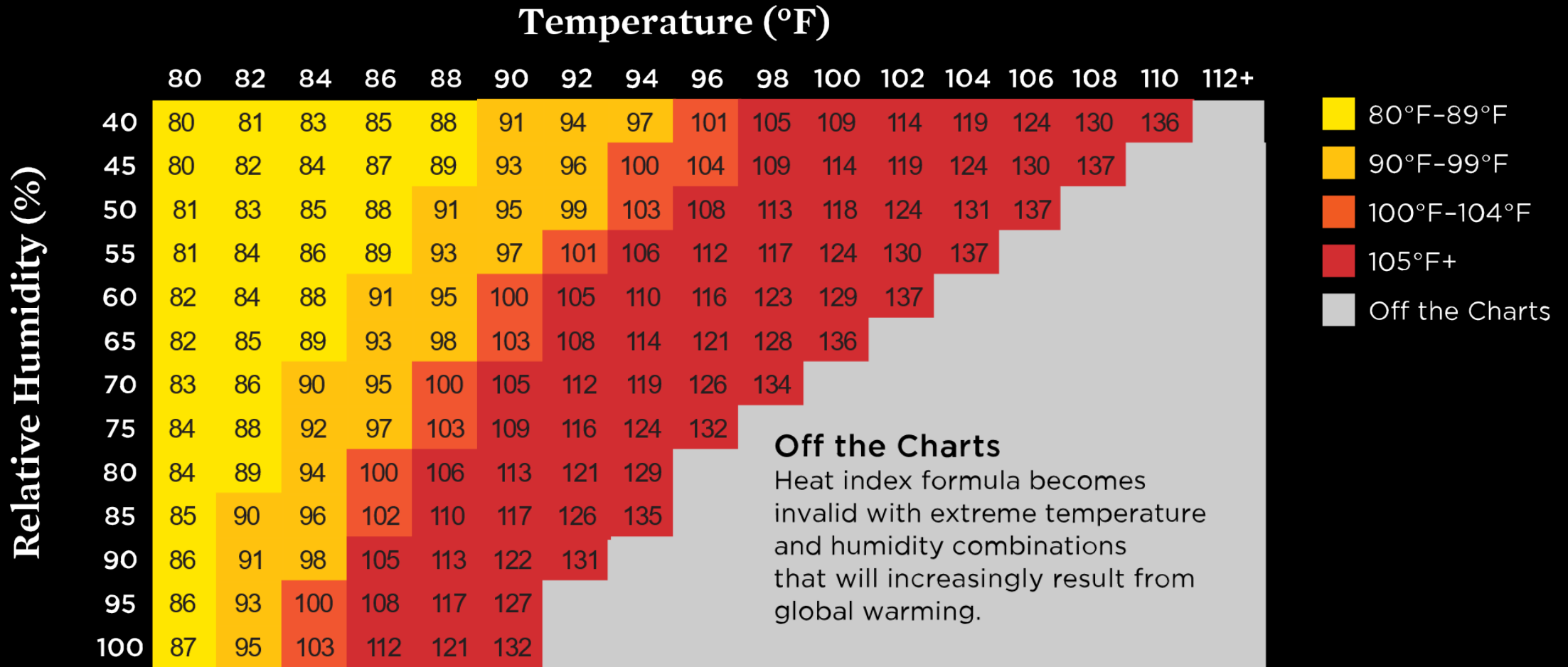


Union of
Concerned Scientists

About the Killer Heat analysis

- High-resolution climate models
- Use temperature and humidity to calculate **heat index**
- Three future emissions scenarios
- Data for every community in the lower 48

The Heat Index



Heat Index Above 90°F



Outdoor workers become more susceptible to heat-related illness.

Heat Index Above 100°F



Children, elderly adults, pregnant women, and people with underlying conditions are at heightened risk of heat-related illness.

Heat Index Above 105°F

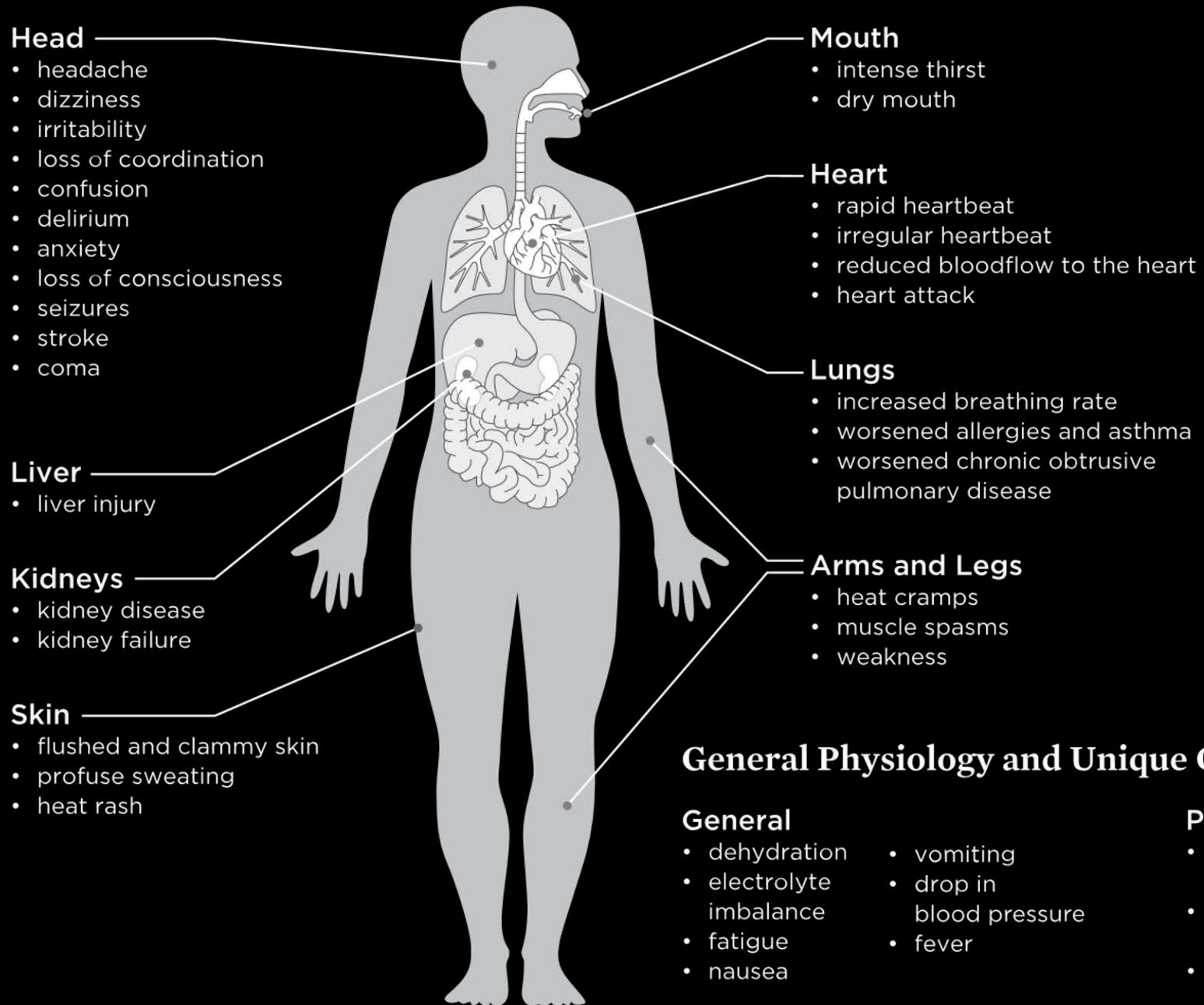


Anyone could be at risk of heat-related illness or even death as a result of prolonged exposure.

Heat Index Off the Charts



Undetermined: any level of exposure is presumed extremely dangerous for all people and likely to result in heat-related illness or even death.



General Physiology and Unique Circumstances

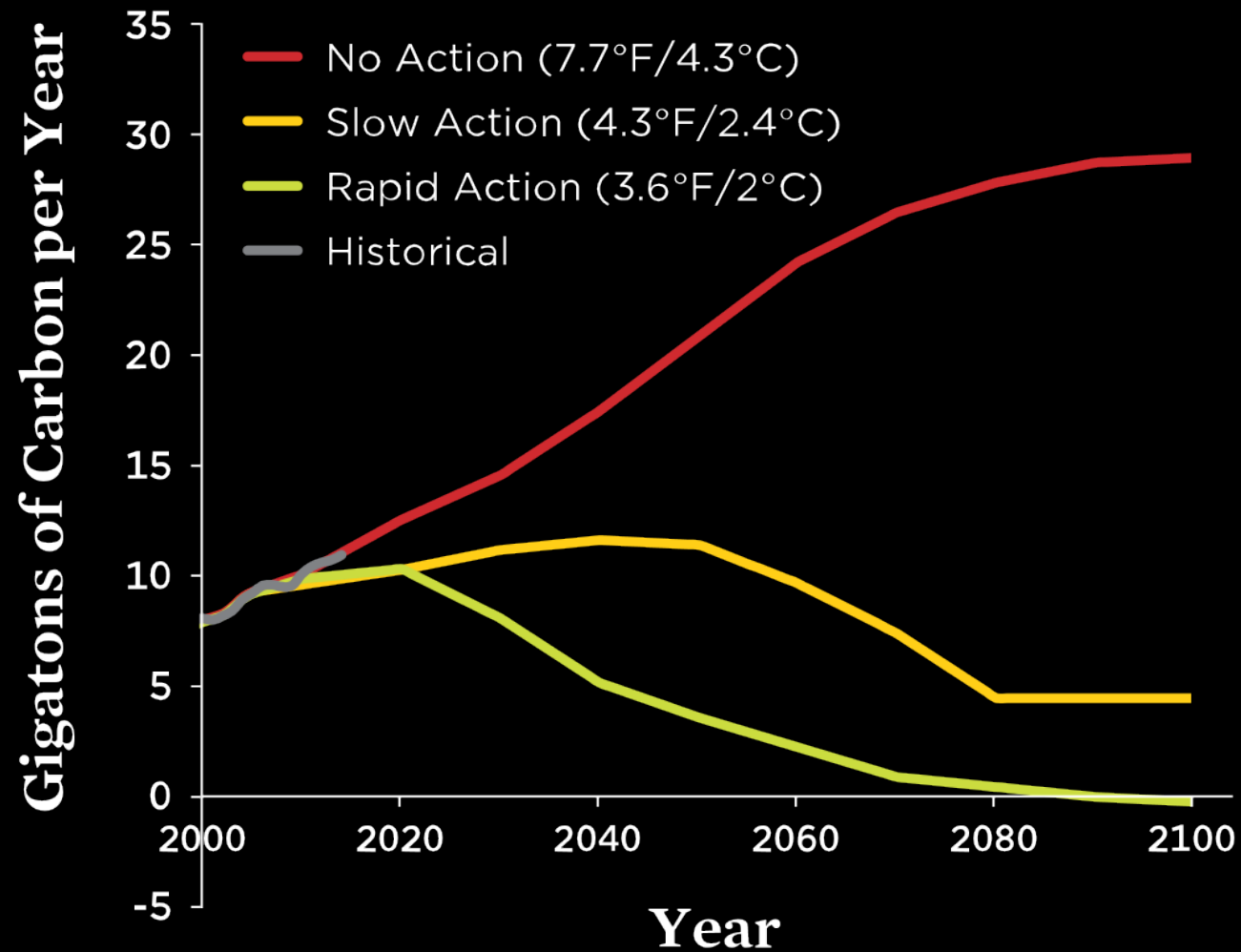
General

- dehydration
- electrolyte imbalance
- fatigue
- nausea
- vomiting
- drop in blood pressure
- fever

Pregnant People

- fetal nutrition deficits
- preterm delivery and birth
- stillbirth

Three future scenarios

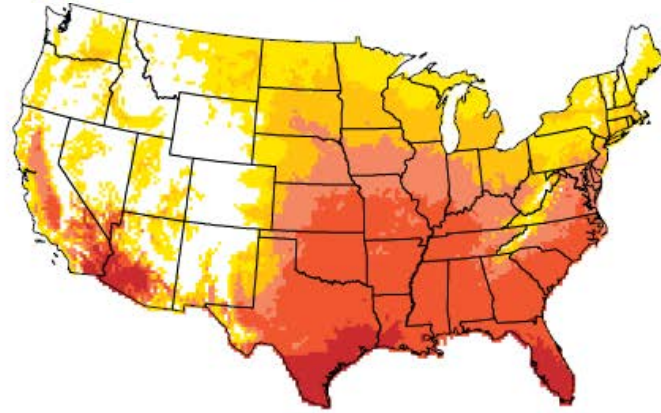
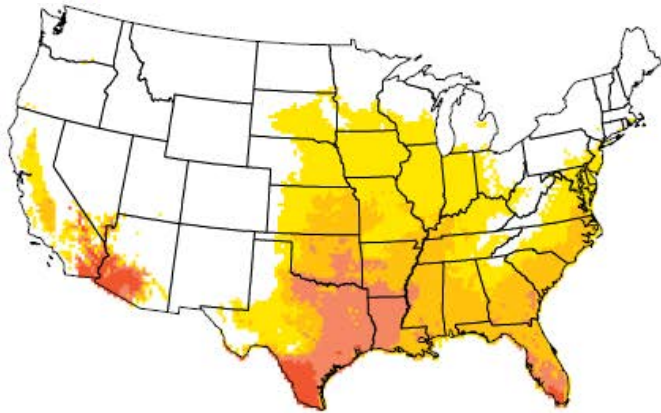


Midcentury: Steep increase in extreme heat

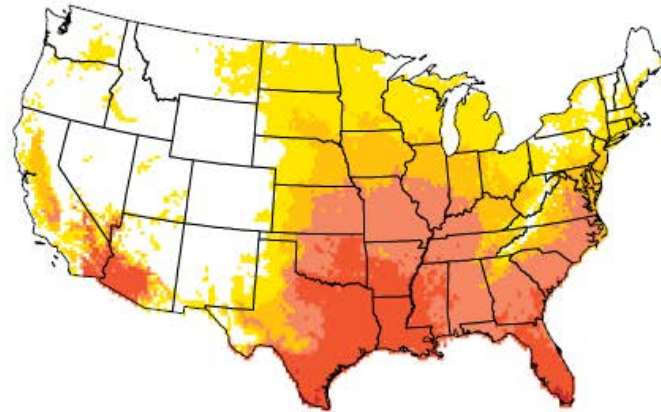
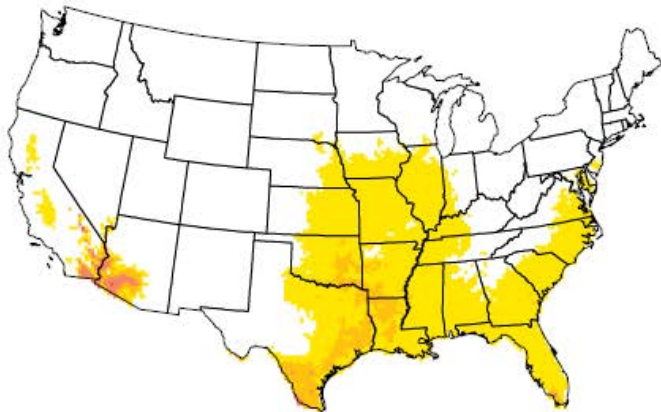
Historical

Midcentury No Action

100°F+



105°F+



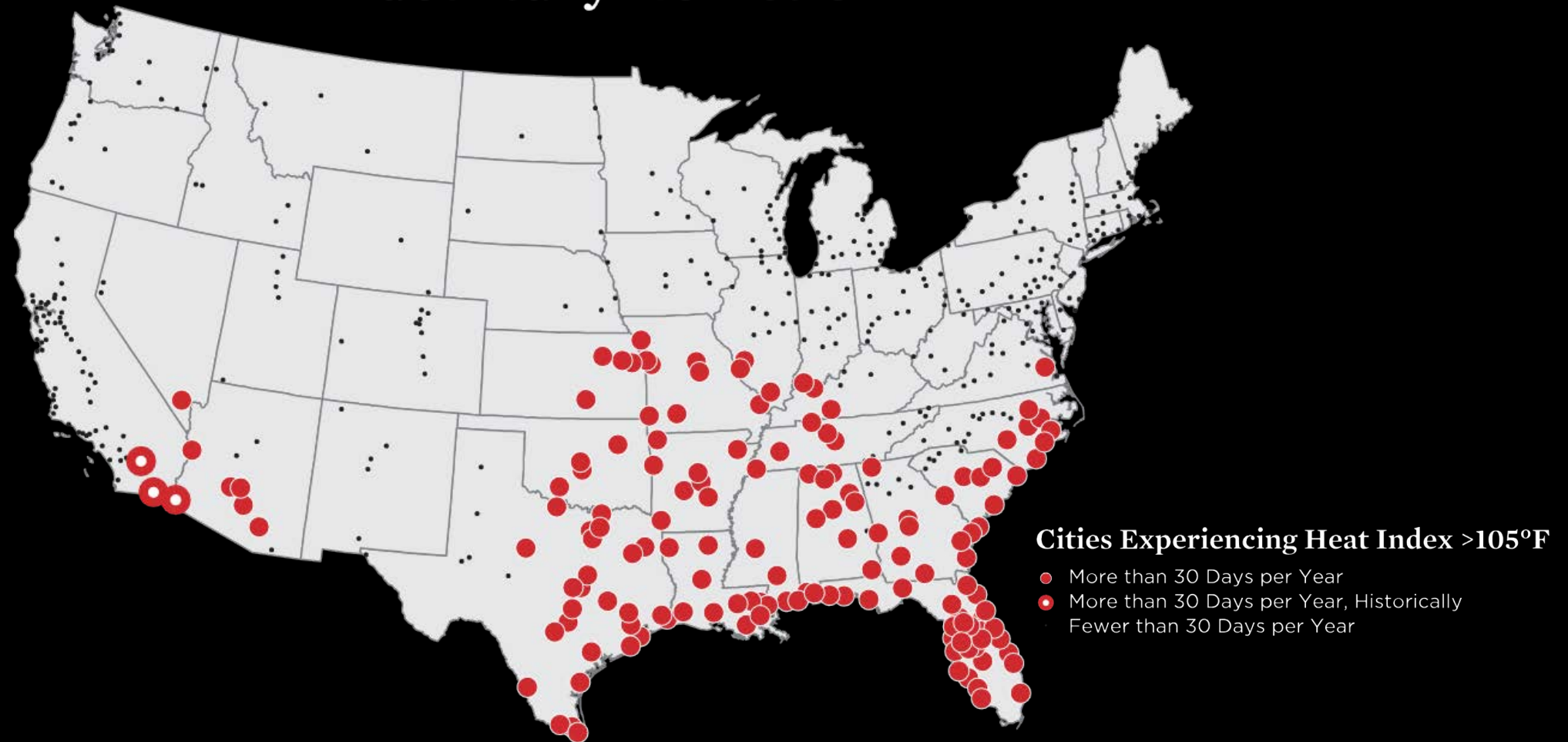
Average Days per Year



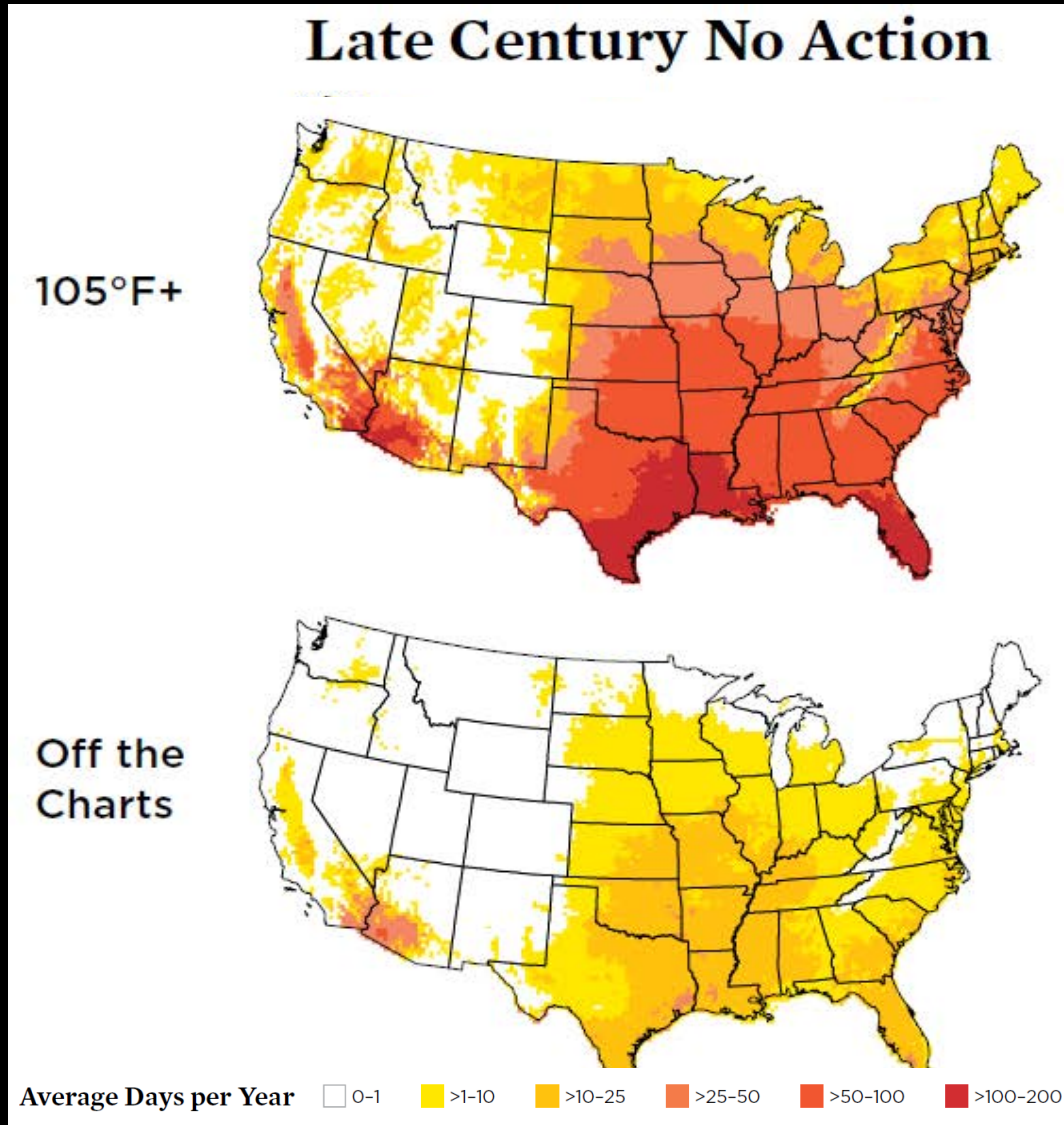
	Historical	Midcentury
Redding	2	24
Santa Rosa	0	1
Sacramento	1	13
Fresno	3	27
Los Angeles	0	3

Cities with frequent, dangerous heat

Midcentury No Action



Late century: Unprecedented heat



	Historical	Late century
Redding	2	52
Santa Rosa	0	5
Sacramento	1	37
Fresno	3	59
Los Angeles	0	15

Taking action now would limit expansion of heat

Late Century No Action



Late Century Rapid Action



Cities Experiencing Heat Index >105°F

- More than 30 Days per Year
- More than 30 Days per Year, Historically
- Fewer than 30 Days per Year

Adaptation:
Keeping People Safe



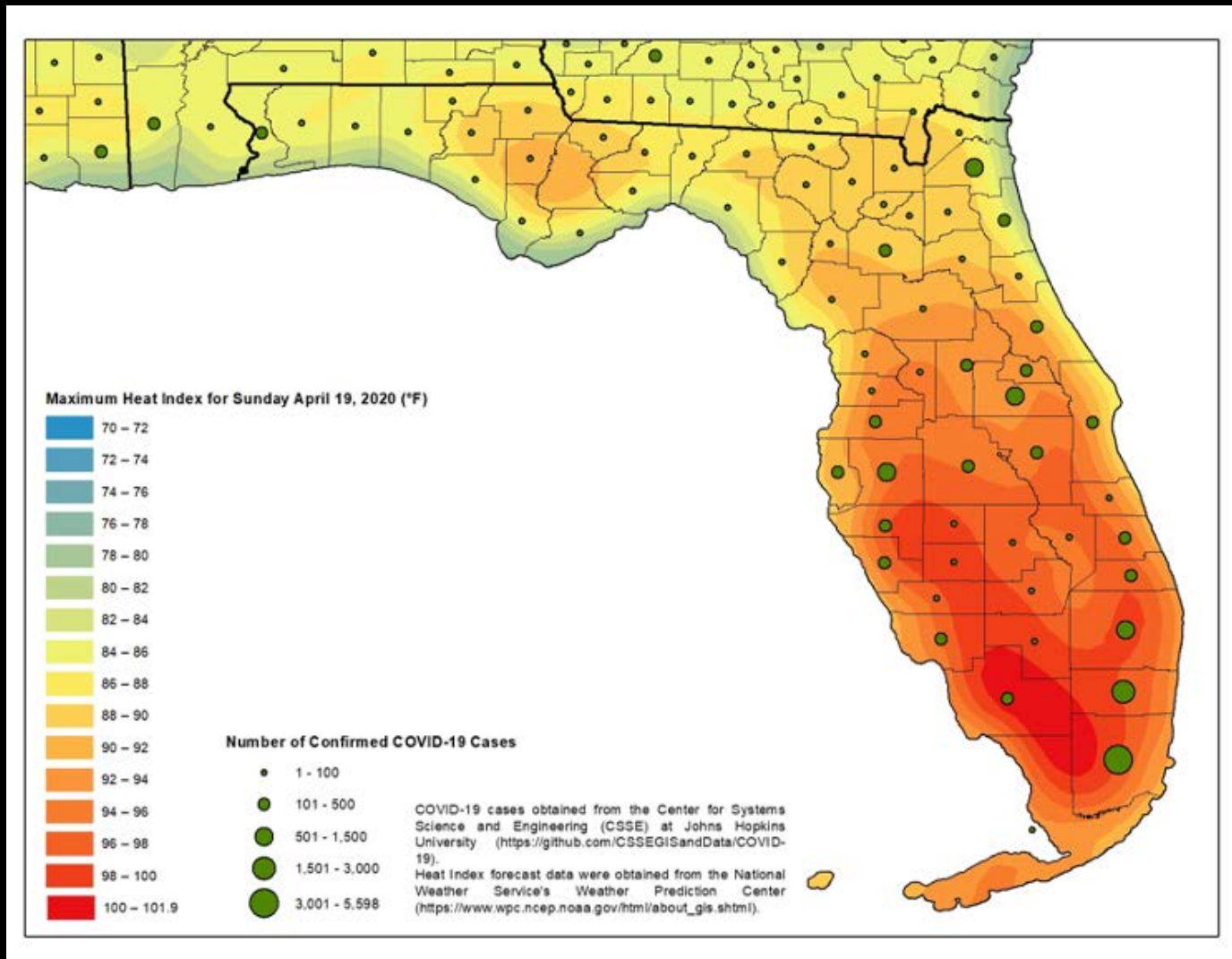
Mitigation:
Reaching net zero emissions by 2050



[Keeping people safe

- Improved heat early-warning systems
- State/local heat adaptation and emergency response plans
- Cooling standards for public housing
- Investments in community cooling infrastructure, trees, shading, cool roofs
- Bill assistance programs for low-income households
- Investments in heat- and climate-smart infrastructure
- Reforming utility disconnect policies

Heat waves and COVID-19



Keeping workers safe from extreme heat



AP: Rich Pedroncelli



AP Photo: Charlie Riedel

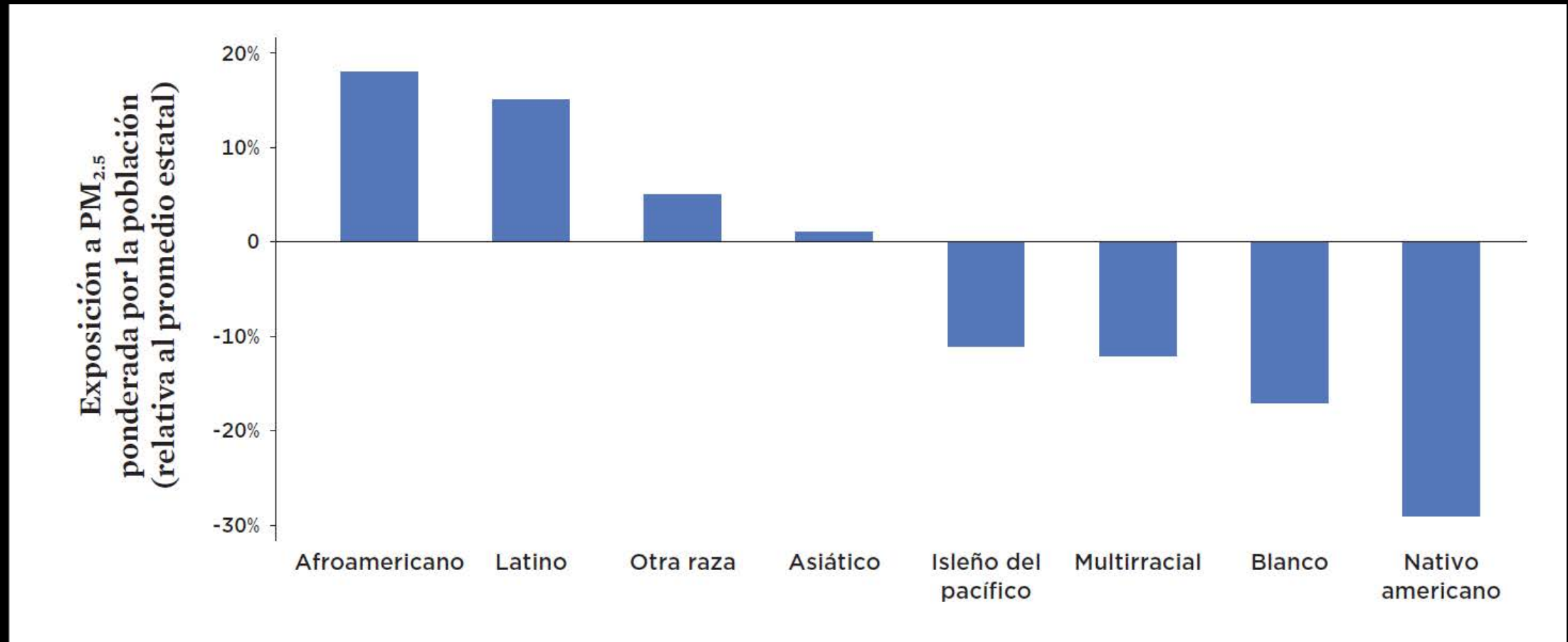
National Occupational Safety Standards for Heat

- *H.R.3668 - Asuncion Valdivia Heat Illness and Fatality Prevention Act of 2019*

Transitioning away from fossil fuels



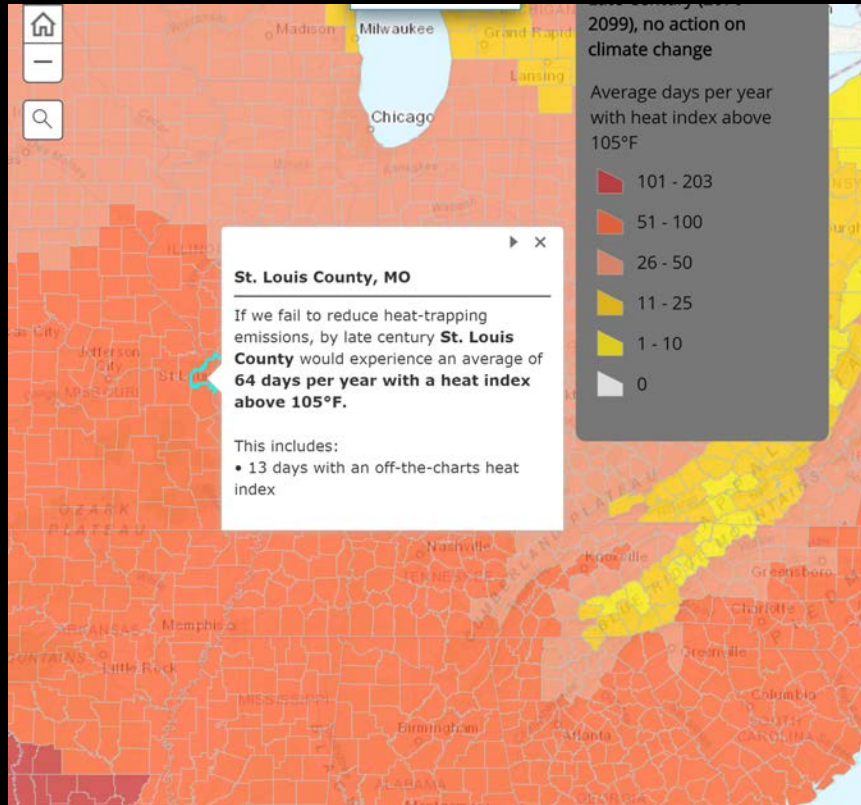
Co-benefits of cleaner vehicles



Resources

www.ucsusa.org/killer-heat

Interactive maps



Interactive data widget

Extreme Heat & Climate Change

HOW OFTEN WILL YOU ENDURE EXTREME HEAT WHERE YOU LIVE?

This tool shows the rapid increases in extreme heat projected to occur in locations across the US due to climate change. Results show the average number of days per year above a selected heat index, or “feels like” temperature, for three different time periods: historical, midcentury, and late century.

The results highlight a stark choice: We can continue along our current path, where we fail to reduce heat-trapping emissions and extreme heat soars, or we can act decisively now and stop the worst from becoming reality.

TYPE IN YOUR LOCATION (CITY OR COUNTY) i



CHOOSE HOW HOT i

Above 100°

GO

- + Spreadsheets with all the data
- + Spanish language webpage and materials

[Thank you

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Learn more: www.ucsusa.org/killer-heat