

# Adapting the NRI for Wisconsin

The National Risk Index (NRI) is a mapping application from FEMA that identifies communities at risk for negative impacts as a result of a natural hazard. To downscale the NRI to for comparison across Wisconsin only, this map replicates the NRI with only Wisconsin data.

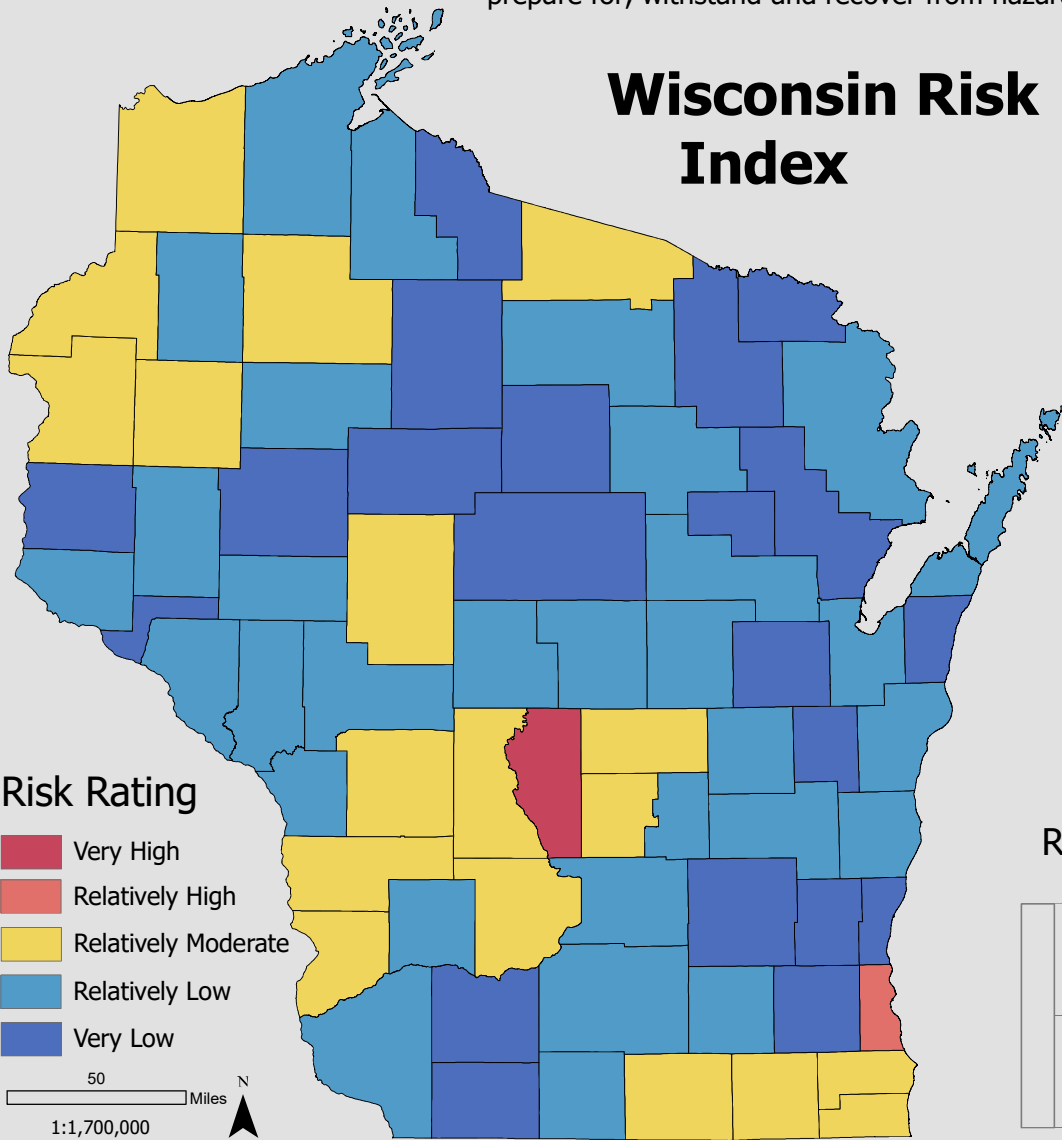
$$\text{Risk} = \text{Expected Annual Loss} \times \text{Social Vulnerability} \div \text{Community Resilience}$$

**Expected Annual Loss:** average economic loss in dollars from natural hazards each year

**Social Vulnerability:** susceptibility of social groups to impacts of natural hazards

**Community Resilience:** ability of a community to prepare for, withstand and recover from hazards

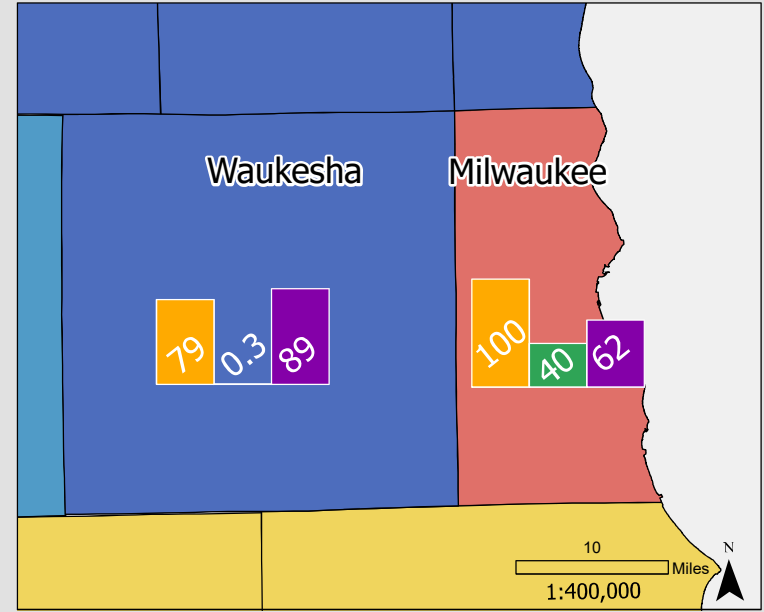
## Wisconsin Risk Index



### Risk Rating

- Very High
- Relatively High
- Relatively Moderate
- Relatively Low
- Very Low

## A Closer Look: Waukesha and Milwaukee County Comparison



	Waukesha	Milwaukee
Expected Annual Loss	\$14,000,000	\$25,000,000
Expected Annual Loss from Heatwaves	\$400,000	\$3,000,000

Variables affecting social vulnerability include characteristics such as:

- socioeconomic status
- gender
- race and ethnicity

Community Resilience is determined by six categories of variables:

- Human Well-Being/Cultural/Social
- Economic/Financial
- Infrastructure/Built Environment/Housing
- Institutional/Governance
- Community capacity
- Environmental/Natural

### Risk Rating Component Scores



Sources: FEMA, [hazards.fema.gov/nri/](https://hazards.fema.gov/nri/), U of SC Hazards and Vulnerability Research Institute, WI DNR

Projection: NAD 1983 Contiguous USA Albers

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