

Vulnerable Populations During a Disaster

Madison County

Julie N. Zimmerman and Jeff Young, 2026

Not everyone has access to the same kinds of resources to be able to plan for, respond to, and recover from a disaster. While it can be tempting to see vulnerability and resilience as opposite sides of the same coin, this is not always the case. A community with a large vulnerable population can still have high levels of resilience.

In addition to providing data from the **2023 American Community Survey 5-year estimates**, this issue of Kentucky: By The Numbers includes two maps as a way to visualize county results from the two resources: the Social Vulnerability component of the FEMA National Risk Index and the ATSDR/CDC Social Vulnerability index.

For additional data, the **Kentucky: By The Numbers data series** includes detailed data compiled for the Statewide Extension Community Needs Assessment as well as other topic-specific issues that contain data for each county and the state. These can be found at the Kentucky: By The Numbers website.

*For counties with small populations and small population groups, the margins of error (indicated by a +/- ___) can be quite large. The **margin of error** tells us how precise the estimate is by indicating the **range within which the estimate most likely falls**. For help in understanding the margin of error, see the brief Kentucky: By The Numbers publication "And Now for the Grain of Salt."*

Data from the American Community Survey 5-Year Estimates

	Estimate	Margin of Error
Households with one or more persons under 18 years old	10,824	(+/- 585)
Households with one or more people 65 years and over	10,028	(+/- 308)
Number of grandparents living with and responsible for grandchildren	717	(+/- 201)
Population with a disability (noninstitutionalized)	14,706	(+/- 803)
Poverty rate of families with related children under 18 who are related to the householder	19.2%	(+/- 3.4)
Poverty rate of people ages 65 and over	9.0%	(+/- 2.3)
Percent of population 16 years and over who worked full-time, year-round in past 12 months who were below poverty	3.9%	(+/- 1.1)
Number of occupied housing units that are mobile homes, etc	2,552	(+/- 342)
Percent of occupied housing units that are mobile homes, etc	6.9%	(+/- 0.9)
Number of households that do not have a computer, tablet, etc.	2,011	(+/- 362)
Number of occupied housing units (households) with no vehicle	1,601	(+/- 366)

Continued on Next Page



Vulnerable Populations During a Disaster Madison County

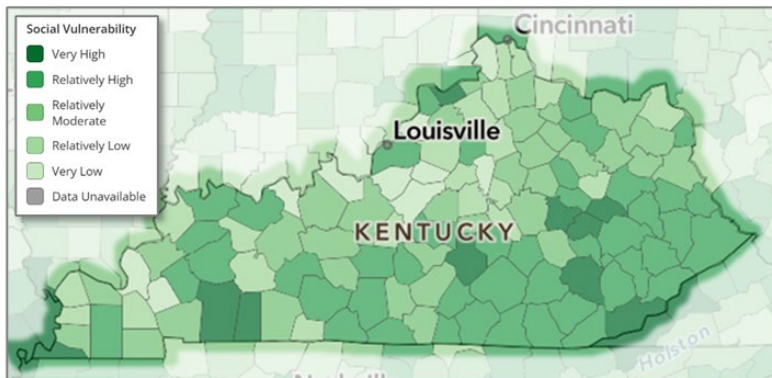


Kentucky: By The Numbers
<https://kybtn.mgcafe.uky.edu>

Julie N. Zimmerman and Jeff Young, 2026

On some websites, you can zoom in to see below the county level.

Social Vulnerability (FEMA National Risk Index)



<https://hazards.fema.gov/nri/social-vulnerability>

The Social Vulnerability component of the National Risk Index defines social vulnerability “as the susceptibility of social groups to the adverse impacts” to events such as disasters. Building off of data from the CDC/ATSDR Social Vulnerability Index to generate its own scores this component also uses a different number of categories ranging from “very low” to “very high.”

The Social Vulnerability Index uses socio-economic and demographic data from the American Community Survey 5-year estimates to identify the extent to which local populations include those who could face difficulties during or after a disaster. The index uses 16 variables including poverty and population ages 65 and over. The data are combined into a single score and grouped into 4 categories.

Social Vulnerability Index (ATSDR/CDC)



<https://www.atsdr.cdc.gov/place-health/php/svi/index.html>

Kentucky: By The Numbers is an Extension program in the Department of Community and Leadership Development at the University of Kentucky. For more information contact your local Cooperative Extension office or Dr. Julie N. Zimmerman, Professor of Rural Sociology, Department of Community and Leadership Development, 500 Garrigus Building, University of Kentucky, Lexington, KY 40546-0215. email: jzimm@uky.edu. The entire series is online at <https://kybtn.mgcafe.uky.edu>

Cooperative Extension Service

Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
Community and Economic Development

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, physical or mental disability or reprisal or retaliation for prior civil rights activity.



Disabilities accommodated with prior notification.