

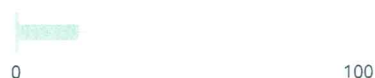
National Risk Index



June 19, 2024

Champaign County, Ohio

Summary

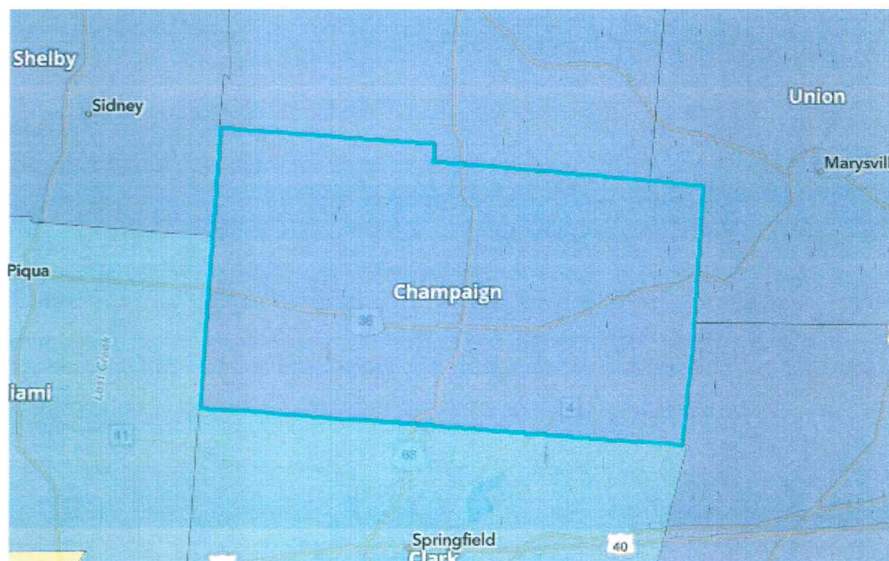
Risk Index is **Very Low**Score **25.7**Expected Annual Loss is **Very Low**Score **29.0**Social Vulnerability is **Very Low**Score **18.5**Community Resilience is **Very High**Score **83.9**

While reviewing this report, keep in mind that low risk is driven by lower loss due to natural hazards, lower social vulnerability, and higher community resilience.

For more information about the National Risk Index, its data, and how to interpret the information it provides, please review the **About the National Risk Index** and **How to Take Action** sections at the end of this report. Or, visit the National Risk Index website at hazards.fema.gov/nri/learn-more to access supporting documentation and links.

Risk Index

The Risk Index rating is **Very Low** for **Champaign County, OH** when compared to the rest of the U.S.



Score

25.74

National Percentile

25.74

Percentile Within Ohio

25.00

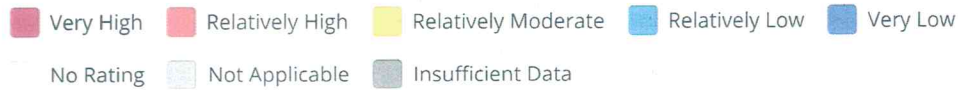
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100

26% of U.S. counties have a lower Risk Index

25% of counties in Ohio have a lower Risk Index

Risk Index Legend



Hazard Type Risk Index

Hazard type Risk Index scores are calculated using data for only a single hazard type, and reflect a community's Expected Annual Loss value, community risk factors, and the adjustment factor used to calculate the risk value.

Hazard Type	Risk Index Rating	Risk Index Score	National Percentile
Avalanche	Not Applicable	--	
Coastal Flooding	Not Applicable	--	
Cold Wave	Relatively Low	43.8	0  100
Drought	No Rating	0	0  100
Earthquake	Very Low	59.4	0  100
Hail	Very Low	26.8	0  100
Heat Wave	Relatively Low	53.8	0  100
Hurricane	Very Low	28.9	0  100
Ice Storm	Relatively Moderate	82.4	0  100
Landslide	Relatively Low	21.9	0  100
Lightning	Relatively Low	58.9	0  100
Riverine Flooding	Relatively Low	52.7	0  100
Strong Wind	Relatively Low	49.1	0  100
Tornado	Relatively Low	50.6	0  100
Tsunami	Not Applicable	--	
Volcanic Activity	Not Applicable	--	
Wildfire	Very Low	10.5	0  100
Winter Weather	Relatively Moderate	61	0  100

Risk Factor Breakdown

Hazard Type	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
Tornado	\$1,140,293	Very Low	Very High	1.05	\$1,202,845	50.6
Riverine Flooding	\$501,063	Very Low	Very High	1.05	\$533,574	52.7
Strong Wind	\$356,599	Very Low	Very High	1.05	\$375,711	49.1
Ice Storm	\$317,916	Very Low	Very High	1.05	\$334,948	82.4
Earthquake	\$237,865	Very Low	Very High	1.05	\$256,740	59.4
Lightning	\$133,851	Very Low	Very High	1.05	\$140,417	58.9
Heat Wave	\$102,104	Very Low	Very High	1.05	\$106,638	53.8
Winter Weather	\$86,294	Very Low	Very High	1.05	\$91,058	61
Hurricane	\$41,074	Very Low	Very High	1.05	\$41,751	28.9
Cold Wave	\$40,348	Very Low	Very High	1.05	\$39,800	43.8
Hail	\$34,987	Very Low	Very High	1.05	\$35,726	26.8
Landslide	\$21,900	Very Low	Very High	1.05	\$20,756	21.9
Wildfire	\$3,758	Very Low	Very High	1.05	\$3,723	10.5
Drought	\$0	Very Low	Very High	1.05	\$0	0
Avalanche	--	Very Low	Very High	1.05	--	--
Coastal Flooding	--	Very Low	Very High	1.05	--	--
Tsunami	--	Very Low	Very High	1.05	--	--
Volcanic Activity	--	Very Low	Very High	1.05	--	--

Expected Annual Loss

In **Champaign County, OH**, expected loss each year due to natural hazards is **Very Low** when compared to the rest of the U.S.



Score **28.97**

National Percentile

28.97

Percentile Within Ohio

26.10

0 100

29% of U.S. counties have a lower Expected Annual Loss

26% of counties in Ohio have a lower Expected Annual Loss

Expected Annual Loss Legend

Very High
 Relatively High
 Relatively Moderate
 Relatively Low
 Very Low

No Expected Annual Losses
 Not Applicable
 Insufficient Data

Composite Expected Annual Loss **\$3,018,051.87**

Composite Expected Annual Loss Rate National Percentile **9.7**

Building EAL **\$1,765,644.45** Population EAL **0.09 fatalities**

Building EAL Rate **\$1 per \$4.34K of building value** Population EAL Rate **1 per 440.72K people**

Agriculture EAL **\$234,507.13** Population Equivalence EAL **\$1,017,900.30**

Agriculture EAL Rate **\$1 per \$584.78 of agriculture value**

Expected Annual Loss for Hazard Types

Expected Annual Loss scores for hazard types are calculated using data for only a single hazard type, and reflect a community's relative expected annual loss for only that hazard type.

14 of 18 hazard types contribute to the expected annual loss for **Champaign County, OH**.

Hazard Type	Expected Annual Loss Rating	EAL Value	Score
Tornado	Relatively Low	\$1,140,293	55.3
Riverine Flooding	Relatively Low	\$501,063	55.0

Hazard Type	Expected Annual Loss Rating	EAL Value	Score
Strong Wind	Relatively Low	\$356,599	54.5
Ice Storm	Relatively Moderate	\$317,916	83.1
Earthquake	Very Low	\$237,865	60.0
Lightning	Relatively Low	\$133,851	63.4
Heat Wave	Relatively Low	\$102,104	57.5
Winter Weather	Relatively Moderate	\$86,294	65.1
Hurricane	Very Low	\$41,074	30.4
Cold Wave	Relatively Low	\$40,348	47.2
Hail	Very Low	\$34,987	31.8
Landslide	Relatively Low	\$21,900	63.7
Wildfire	Very Low	\$3,758	12.1
Drought	No Expected Annual Losses	\$0	0.0
Avalanche	Not Applicable	--	--
Coastal Flooding	Not Applicable	--	--
Tsunami	Not Applicable	--	--
Volcanic Activity	Not Applicable	--	--

Expected Annual Loss Values

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Avalanche	--	--	--	--	--
Coastal Flooding	--	--	--	--	--
Cold Wave	\$40,348	\$2,204	\$5,513	0.00	\$32,631
Drought	\$0	n/a	n/a	n/a	\$0
Earthquake	\$237,865	\$187,396	\$50,470	0.00	n/a
Hail	\$34,987	\$17,592	\$1,792	0.00	\$15,604
Heat Wave	\$102,104	\$200	\$95,809	0.01	\$6,096
Hurricane	\$41,074	\$30,199	\$253	0.00	\$10,622
Ice Storm	\$317,916	\$301,960	\$15,956	0.00	n/a
Landslide	\$21,900	\$4,500	\$17,400	0.00	n/a
Lightning	\$133,851	\$5,927	\$127,924	0.01	n/a
Riverine Flooding	\$501,063	\$13,764	\$324,570	0.03	\$162,729

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Strong Wind	\$356,599	\$314,418	\$37,021	0.00	\$5,160
Tornado	\$1,140,293	\$829,982	\$309,098	0.03	\$1,213
Tsunami	--	--	--	--	--
Volcanic Activity	--	--	--	--	--
Wildfire	\$3,758	\$3,411	\$345	0.00	\$1
Winter Weather	\$86,294	\$54,093	\$31,749	0.00	\$452

Exposure Values

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Avalanche	--	--	--	--	--
Coastal Flooding	--	--	--	--	--
Cold Wave	\$456,411,170,163	\$7,667,574,489	\$448,606,461,531	38,672.97	\$137,134,143
Drought	\$0	n/a	n/a	n/a	\$0
Earthquake	\$456,749,857,000	\$7,667,457,000	\$449,082,400,000	38,714.00	n/a
Hail	\$456,411,511,695	\$7,667,577,552	\$448,606,800,000	38,673.00	\$137,134,143
Heat Wave	\$456,411,170,163	\$7,667,574,489	\$448,606,461,531	38,672.97	\$137,134,143
Hurricane	\$456,147,276,452	\$7,663,301,239	\$448,350,052,315	38,650.87	\$133,922,897
Ice Storm	\$456,274,036,020	\$7,667,574,489	\$448,606,461,531	38,672.97	n/a
Landslide	\$37,131,186,244	\$577,843,864	\$36,553,342,380	3,151.15	n/a
Lightning	\$456,274,377,552	\$7,667,577,552	\$448,606,800,000	38,673.00	n/a
Riverine Flooding	\$10,440,373,646	\$191,822,919	\$10,237,444,618	882.54	\$11,106,109
Strong Wind	\$456,411,511,695	\$7,667,577,552	\$448,606,800,000	38,673.00	\$137,134,143
Tornado	\$456,411,511,695	\$7,667,577,552	\$448,606,800,000	38,673.00	\$137,134,143
Tsunami	--	--	--	--	--
Volcanic Activity	--	--	--	--	--
Wildfire	\$51,126,806,633	\$754,088,151	\$50,364,819,687	4,341.79	\$7,898,795
Winter Weather	\$456,411,170,163	\$7,667,574,489	\$448,606,461,531	38,672.97	\$137,134,143

Annualized Frequency Values

Hazard Type	Annualized Frequency	Events on Record	Period of Record
Avalanche	--	--	--

Hazard Type	Annualized Frequency	Events on Record	Period of Record
Coastal Flooding	--	--	--
Cold Wave	0.8 events per year	13	2005-2021 (16 years)
Drought	0 events per year	0	2000-2021 (22 years)
Earthquake	0.060% chance per year	n/a	2021 dataset
Hail	3.7 events per year	125	1986-2021 (34 years)
Heat Wave	0.8 events per year	13	2005-2021 (16 years)
Hurricane	0 events per year	1	East 1851-2021 (171 years) / West 1949-2021 (73 years)
Ice Storm	0.8 events per year	54	1946-2014 (67 years)
Landslide	0 events per year	0	2010-2021 (12 years)
Lightning	71.1 events per year	1,565	1991-2012 (22 years)
Riverine Flooding	1.5 events per year	35	1996-2019 (24 years)
Strong Wind	2.5 events per year	86	1986-2021 (34 years)
Tornado	0.3 events per year	6	1950-2021 (72 years)
Tsunami	--	--	--
Volcanic Activity	--	--	--
Wildfire	0.001% chance per year	n/a	2021 dataset
Winter Weather	2.8 events per year	46	2005-2021 (16 years)

Historic Loss Ratios

Hazard Type	Overall Rating
Avalanche	--
Coastal Flooding	--
Cold Wave	Very Low
Drought	No Rating
Earthquake	Relatively Low
Hail	Very Low
Heat Wave	Very Low
Hurricane	Relatively Low
Ice Storm	Relatively Moderate
Landslide	Relatively Low
Lightning	Relatively Low

Hazard Type	Overall Rating
Riverine Flooding	Very Low
Strong Wind	Relatively Low
Tornado	Relatively Low
Tsunami	--
Volcanic Activity	--
Wildfire	Relatively Low
Winter Weather	Relatively Low

Expected Annual Loss Rate

Hazard Type	Building EAL Rate (per building value)	Population EAL Rate (per population)	Agriculture EAL Rate (per agriculture value)
Avalanche	--	--	--
Coastal Flooding	--	--	--
Cold Wave	\$1 per \$3.48M	1 per 81.37M	\$1 per \$4.20K
Drought	--	--	--
Earthquake	\$1 per \$40.92K	1 per 8.89M	--
Hail	\$1 per \$435.86K	1 per 250.40M	\$1 per \$8.79K
Heat Wave	\$1 per \$38.41M	1 per 4.68M	\$1 per \$22.50K
Hurricane	\$1 per \$253.90K	1 per 1.77B	\$1 per \$12.91K
Ice Storm	\$1 per \$25.39K	1 per 28.11M	--
Landslide	\$1 per \$1.70M	1 per 25.78M	--
Lightning	\$1 per \$1.29M	1 per 3.51M	--
Riverine Flooding	\$1 per \$557.09K	1 per 1.38M	\$1 per \$842.71
Strong Wind	\$1 per \$24.39K	1 per 12.12M	\$1 per \$26.58K
Tornado	\$1 per \$9.24K	1 per 1.45M	\$1 per \$113.06K
Tsunami	--	--	--
Volcanic Activity	--	--	--
Wildfire	\$1 per \$2.25M	1 per 1.30B	\$1 per \$107.24M
Winter Weather	\$1 per \$141.75K	1 per 14.13M	\$1 per \$303.33K

Social Vulnerability

Social groups in **Champaign County, OH** have a **Very Low** susceptibility to the adverse impacts of natural hazards when compared to the rest of the U.S.



Score **18.46**

National Percentile

18.46

Percentile Within Ohio

29.50

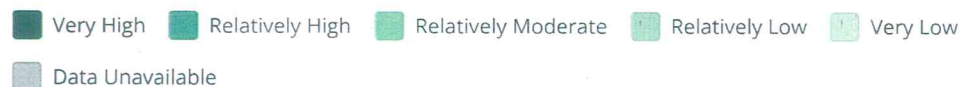
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18% of U.S. counties have a lower Social Vulnerability

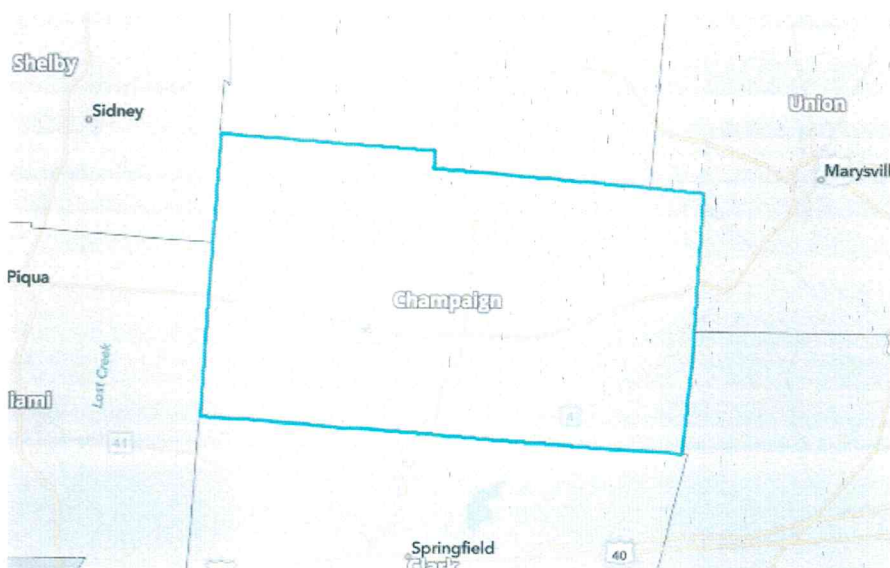
30% of counties in Ohio have a lower Social Vulnerability

Social Vulnerability Legend



Community Resilience

Communities in **Champaign County, OH** have a **Very High** ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.



Score **83.86**

National Percentile

83.86

Percentile Within Ohio

60.20

0 100

16% of U.S. counties have a higher Community Resilience

40% of counties in Ohio have a higher Community Resilience

Community Resilience Legend



About the National Risk Index

The National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 natural hazards: Avalanche, Coastal Flooding, Cold Wave, Drought, Earthquake, Hail, Heat Wave, Hurricane, Ice Storm, Landslide, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire, and Winter Weather.

The National Risk Index leverages available source data for Expected Annual Loss due to these 18 hazard types, Social Vulnerability, and Community Resilience to develop a baseline relative risk measurement for each United States county and Census tract. These measurements are calculated using average past conditions, but they cannot be used to predict future outcomes for a community. The National Risk Index is intended to fill gaps in available data and analyses to better inform federal, state, local, tribal, and territorial decision makers as they develop risk reduction strategies.

Explore the National Risk Index Map at hazards.fema.gov/nri/map.

Visit the National Risk Index website at hazards.fema.gov/nri/learn-more to access supporting documentation and links.

Calculating the Risk Index

Risk Index scores are calculated using an equation that combines scores for Expected Annual Loss due to natural hazards, Social Vulnerability and Community Resilience:

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

Risk Index scores are presented as a composite score for all 18 hazard types, as well as individual scores for each hazard type.

For more information, visit hazards.fema.gov/nri/determining-risk.

Calculating Expected Annual Loss

Expected Annual Loss scores are calculated using an equation that combines values for exposure, annualized frequency, and historic loss ratios for 18 hazard types:

$$\text{Expected Annual Loss} = \text{Exposure} \times \text{Annualized Frequency} \times \text{Historic Loss Ratio}$$

Expected Annual Loss scores are presented as a composite score for all 18 hazard types, as well as individual scores for each hazard type.

For more information, visit hazards.fema.gov/nri/expected-annual-loss.

Calculating Social Vulnerability

Social Vulnerability is measured using the Social Vulnerability Index (SVI) published by the Centers for Disease Control and Prevention (CDC).

For more information, visit hazards.fema.gov/nri/social-vulnerability.

Calculating Community Resilience

Community Resilience is measured at the County level using the Baseline Resilience Indicators for Communities (HVRI BRIC) published by the University of South Carolina's Hazards and Vulnerability Research Institute (HVRI).

For more information, visit hazards.fema.gov/nri/community-resilience.

How to Take Action

There are many ways to reduce natural hazard risk through mitigation. Communities with high National Risk Index scores can take action to reduce risk by decreasing Expected Annual Loss due to natural hazards, decreasing Social Vulnerability, and increasing Community Resilience.

For information about how to take action and reduce your risk, visit hazards.fema.gov/nri/take-action.

Disclaimer

The National Risk Index (the Risk Index or the Index) and its associated data are meant for planning purposes only. This tool was created for broad nationwide comparisons and is not a substitute for localized risk assessment analysis. Nationwide datasets used as inputs for the National Risk Index are, in many cases, not as accurate as available local data. Users with access to local data for each National Risk Index risk factor should consider substituting

the Risk Index data with local data to recalculate a more accurate risk index. If you decide to download the National Risk Index data and substitute it with local data, you assume responsibility for the accuracy of the data and any resulting data index. Please visit the [Contact Us](#) page if you would like to discuss this process further.

The methodology used by the National Risk Index has been reviewed by subject matter experts in the fields of natural hazard risk research, risk analysis, mitigation planning, and emergency management. The processing methods used to create the National Risk Index have produced results similar to those from other natural hazard risk analyses conducted on a smaller scale. The breadth and combination of geographic information systems (GIS) and data processing techniques leveraged by the National Risk Index enable it to incorporate multiple hazard types and risk factors, manage its nationwide scope, and capture what might have been missed using other methods.

The National Risk Index does not consider the intricate economic and physical interdependencies that exist across geographic regions. Keep in mind that hazard impacts in surrounding counties or Census tracts can cause indirect losses in your community regardless of your community's risk profile.

Nationwide data available for some risk factors are rudimentary at this time. The National Risk Index will be continuously updated as new data become available and improved methodologies are identified.

The National Risk Index Contact Us page is available at hazards.fema.gov/nri/contact-us.