

**What % of Montana's seniors
live in high flood risk areas?**

25%

1 in 4 Montana seniors (65+ years old) live in high flood risk areas

Disasters & Vulnerability

Using data to build a more resilient future for Montana



HEADWATERS
ECONOMICS

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**Community
Partnerships**

**Economic
Research**

**Data
Tools**



**HEADWATERS
ECONOMICS**

Independent Nonpartisan Research

FLOOD WISE COMMUNITY ASSISTANCE

**Free technical assistance
to decrease flood risk &
strengthen communities**

Three Forks, Montana



Williston, North Dakota



Manhattan, Kansas



Glendive, Montana



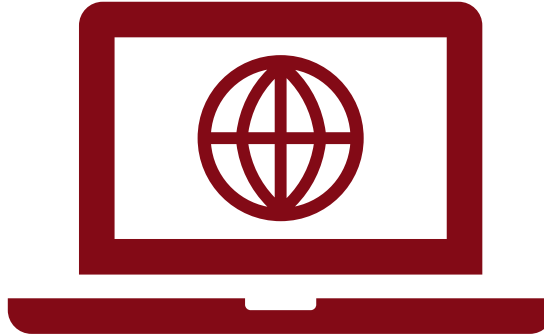
Today's agenda

1



**About
Our Tools**

2



**Live
Demo**

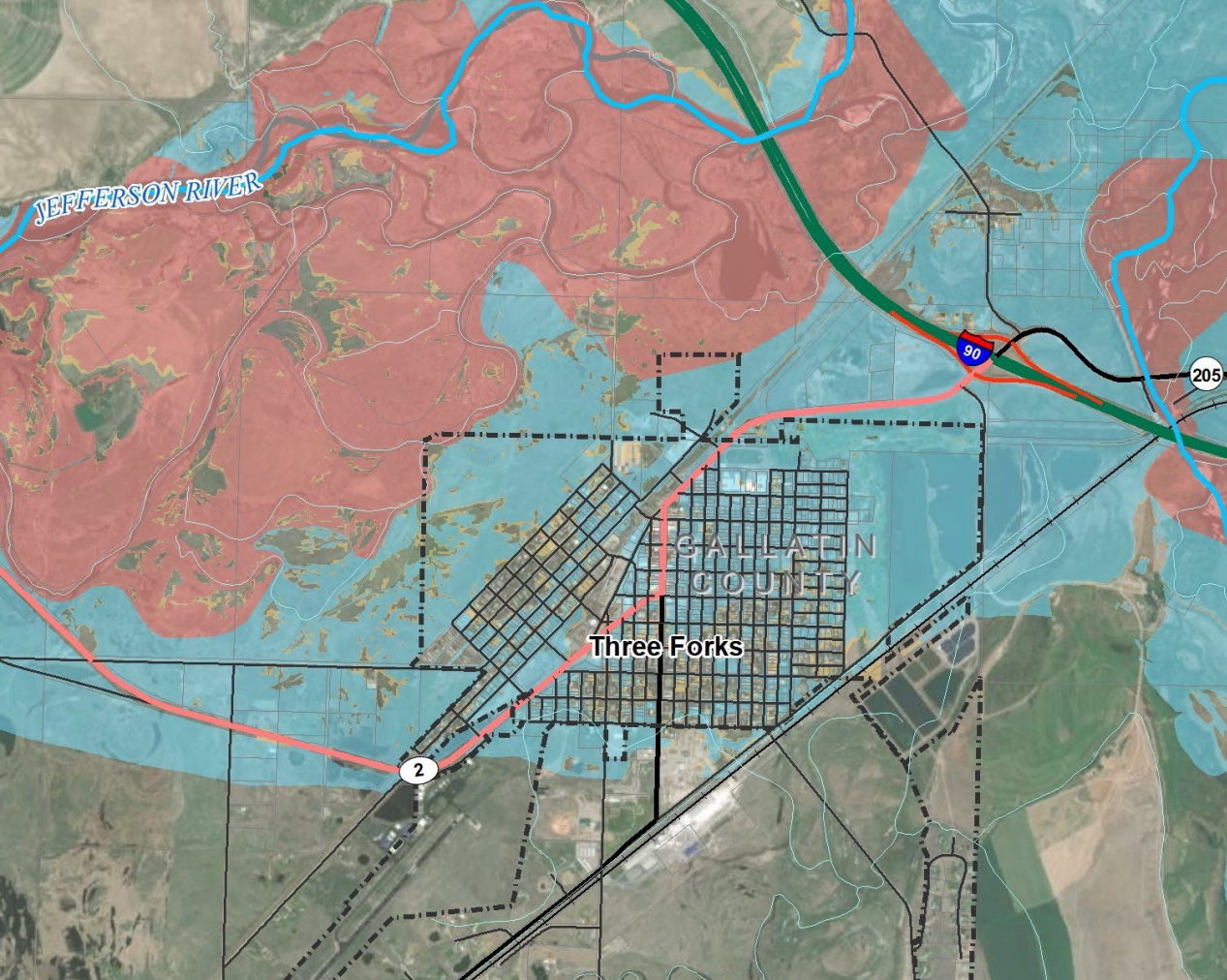
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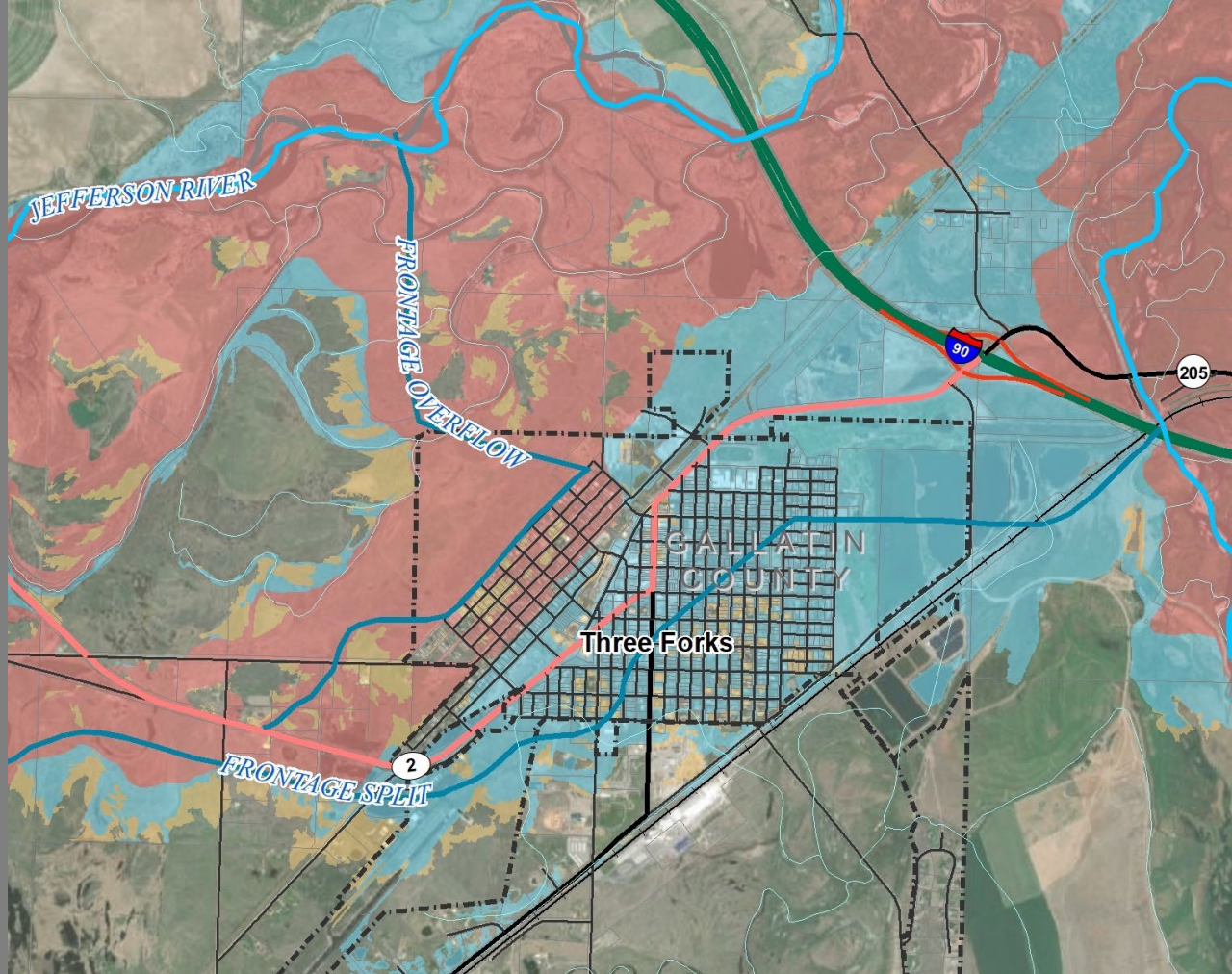
**Rural
Considerations**



Three Forks, Montana



Current Maps



Proposed Maps

Need for the Project

Blue = Floodplain (1% chance of flooding in a given year)

Red = Floodway (most severe risk, deepest water)

FEMA Grant Application

Project Benefits

- Protects region's key source of affordable housing (Zillow data)
- Benefits disadvantaged populations (Neighborhoods at Risk data)
- Addresses future climate risk (Neighborhoods at Risk data)



Our Family of Data Tools



Neighborhoods
at Risk



Economic
Profile System



**WILDFIRE RISK TO
COMMUNITIES**



Library of
Trails Benefits



Rural Capacity
Index

CUSTOM
**Agency
Tools**



Data from dozens of sources:





Maps reveal:

Exposure to flooding and heat

Potentially vulnerable populations

Temperature and precipitation projections



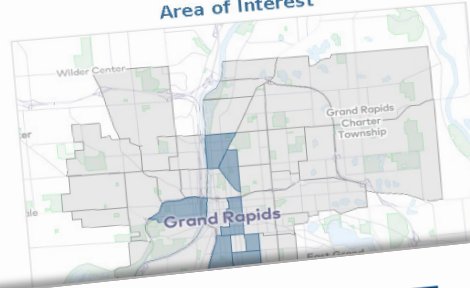
Neighborhoods at Risk

See where climate change will have greatest impacts

headwaterseconomics.org/nar

Live Demo

Area of Interest



Neighborhoods at Risk

Selected Tracts

Selected Location(s):
Grand Rapids, MI

Comparison Location:
U.S.

Produced by
Headwaters Economics'
Economic Profile System (EPS)
December 2, 2022

Neighborhoods at Risk

Selected Tracts

Families in Poverty

Total families for whom poverty status is determined, 2020*

Families in poverty	
Families with children in poverty	
Single mother families in poverty	

Percent of Total, 2020*

Families in poverty	
Families with children in poverty	
Single mother families in poverty	

Change in Percentage Points, 2010*-2020*

For example, if the value is 3% in 2010* and 4.5% in 2020*, the change is 1.5 percentage points.

Families in poverty

Families with children in poverty

Single mother families in poverty

High Reliability: Data with coefficients of variation (CVs) < 12% are in black.

Medium Reliability: Data with CVs between 12 & 40% are in orange.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

* Combined Tracts has the largest share of single mother families in poverty (16.5%).

The largest change in the share of single mother families in poverty occurred in Grand Rapids, MI, which went from 11.5% to 7.1%.

* ACS 5-year estimates used. 2020 represents average characteristics from 2016-2020; 2010 represents 2006-2010.

CITATION: U.S. Department of Commerce, 2022. Census Bureau, American Community Survey, Washington, D.C., reported by Headwaters Economics' Neighborhoods at Risk, headwatersecon.com/neighborhoods-at-risk.

Find more reports like this at headwatersecon.com/apps/neighborhoods-at-risk.

Neighborhoods at Risk

Selected Tracts

Language Proficiency

Population 5 years or older, 2020*

Speak English "not well"***	
Speak English "not well"***, percent	
Speak English "not well"***, change in percentage points**	

**For example, if the value is 3% in 2010* and 4.5% in 2020*, the change is 1.5 percentage points.

*** Includes "not well" and "not well at all."

High Reliability: Data with coefficients of variation (CVs) < 12% are in black.

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* Combined Tracts has the largest share of people who speak English "not well" (7.0%).

The largest change in the share of people who speak English "not well" occurred in Combined Tracts, which went from 9.7% to 7.0%.

* ACS 5-year estimates used. 2020 represents average characteristics from 2016-2020; 2010 represents 2006-2010.

CITATION: U.S. Department of Commerce, 2022. Census Bureau, American Community Survey, Washington, D.C., reported by Headwaters Economics' Neighborhoods at Risk, headwatersecon.com/neighborhoods-at-risk.

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Neighborhoods at Risk

Selected Tracts

People of Color and Hispanics

Total Population, 2020*

White alone	
Black or African American alone	
American Indian alone	

Hispanic or Latino (of any race)

Not Hispanic or Latino

Not Hispanic & White alone

People of Color and Hispanics

Percent of Total, 2020*

White alone

Black or African American alone

American Indian alone

Asian alone

Native Hawaiian & Other Pacific Is. alone

Some other race alone

Two or more races

Hispanic or Latino (of any race)

Not Hispanic or Latino

Not Hispanic & White alone

People of Color and Hispanics

High Reliability: Data with coefficients of variation (CVs) < 12% are in black.

Medium Reliability: Data with CVs between 12 & 40% are in orange.

Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

* Combined Tracts has the largest share of households with no car (5.8%).

The largest change in the share of households with no car occurred in Grand Rapids, MI, which went from 11.5% to 7.1%.

* ACS 5-year estimates used. 2020 represents average characteristics from 2016-2020; 2010 represents 2006-2010.

CITATION: U.S. Department of Commerce, 2022. Census Bureau, American Community Survey, Washington, D.C., reported by Headwaters Economics' Neighborhoods at Risk, headwatersecon.com/neighborhoods-at-risk.

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Neighborhoods at Risk

Selected Tracts

Potentially Vulnerable Households

Total Occupied Households, 2020*

People > 65 years & living alone

Single female households with children < 18 years

Households with no car

Percent of Total, 2020*

People > 65 years & living alone

Single female households with children < 18 years

Households with no car

Change in Percentage Points, 2010*-2020*

For example, if the value is 3% in 2010* and 4.5% in 2020*, the reported change in percentage points is 1.5.

People > 65 years & living alone

Single female households with children < 18 years

Households with no car

High Reliability: Data with coefficients of variation (CVs) < 12% are in black.

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* Combined Tracts has the largest share of single female households (18.2%).

The largest change in the share of single female households with children < 18 years occurred in Grand Rapids, MI, which went from 11.5% to 7.1%.

* ACS 5-year estimates used. 2020 represents average characteristics from 2016-2020; 2010 represents 2006-2010.

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Some challenges are uniquely rural.





Maps highlight:

Where communities need help the most

Root causes of capacity barriers

Rural Capacity Index

Where staffing & expertise are needed to support climate resilience

headwaterseconomics.org/equity/rural-capacity-map

Indicators of rural capacity



Local
Government Staff



Institutional
Capacity

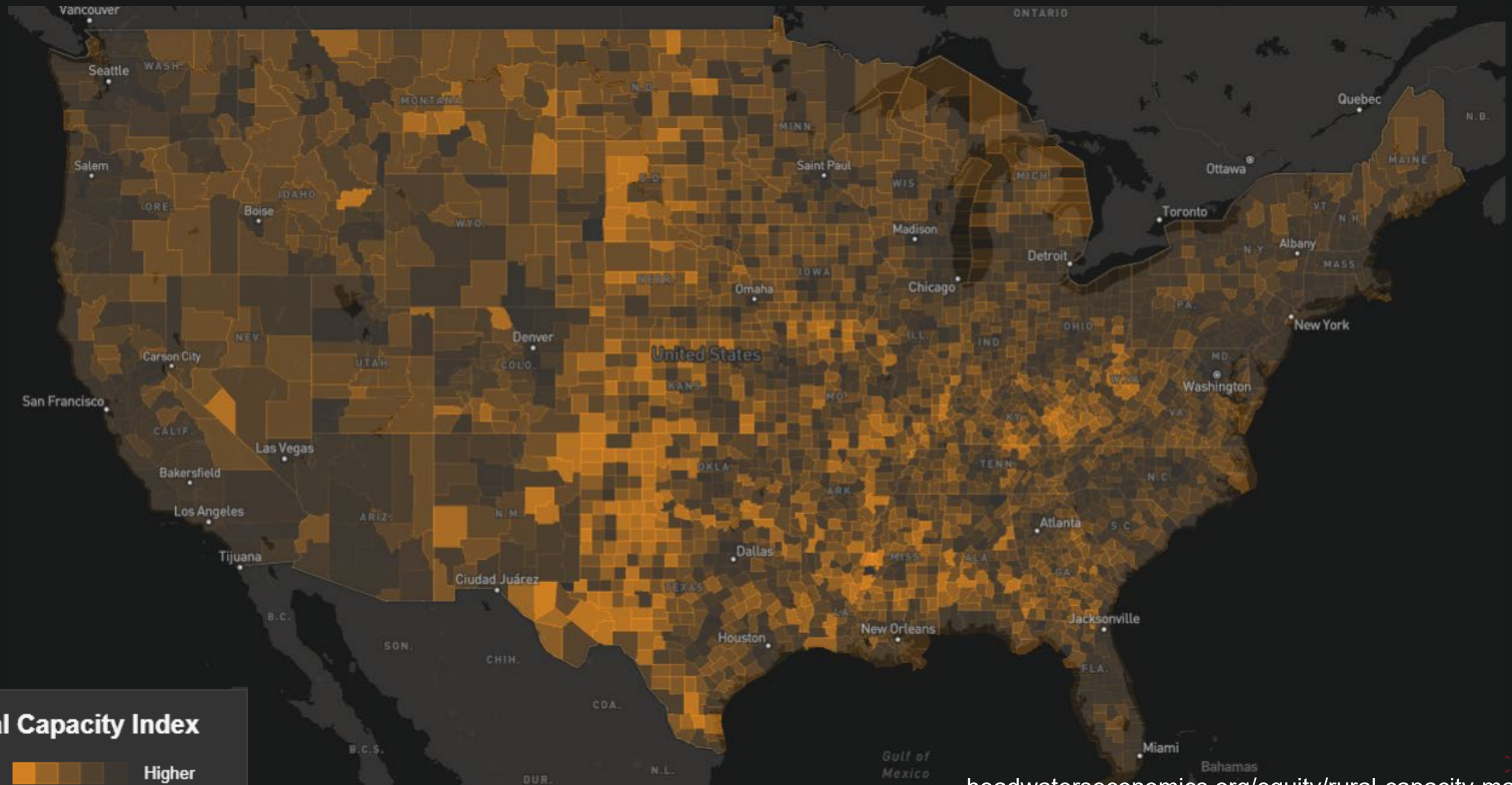


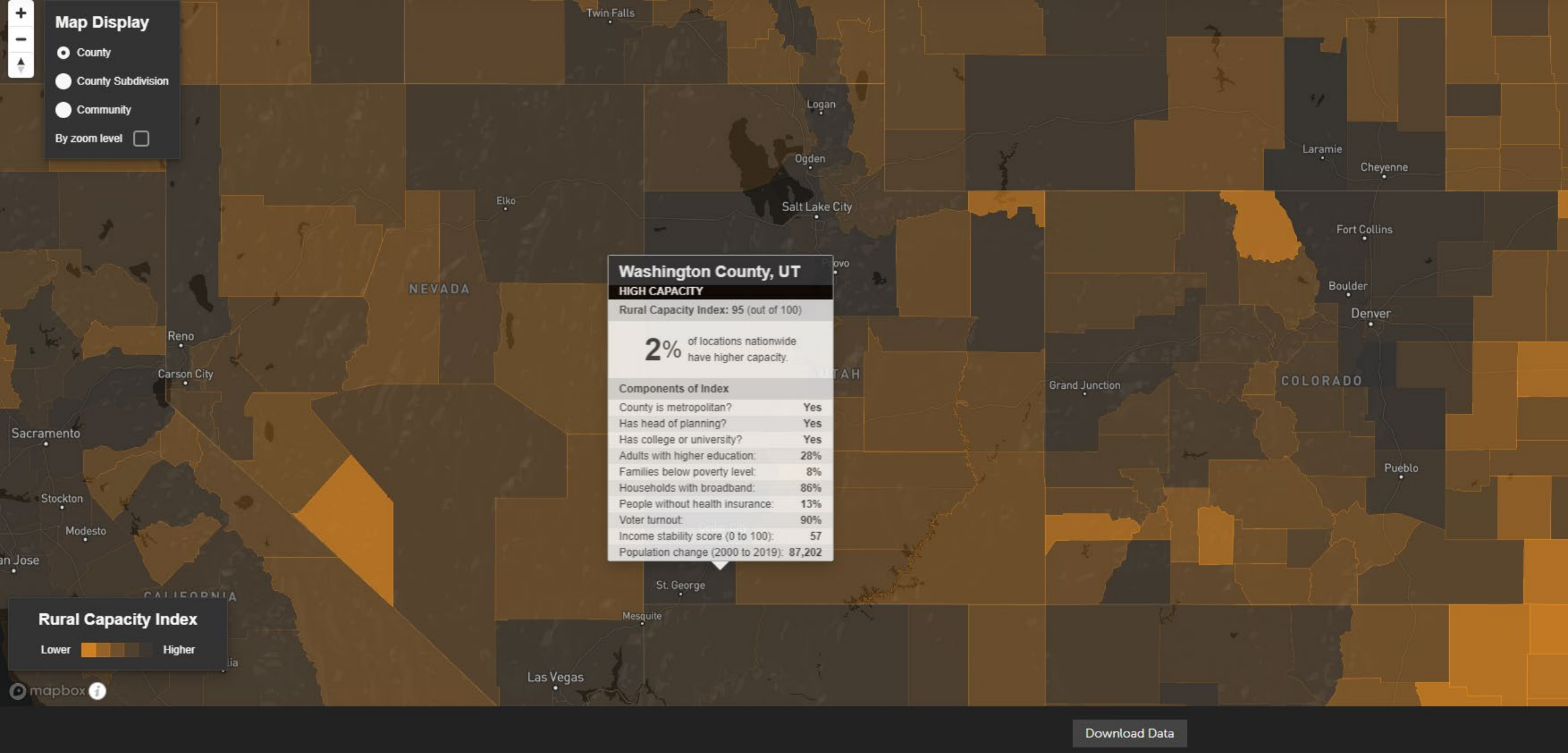
Economic
Opportunity

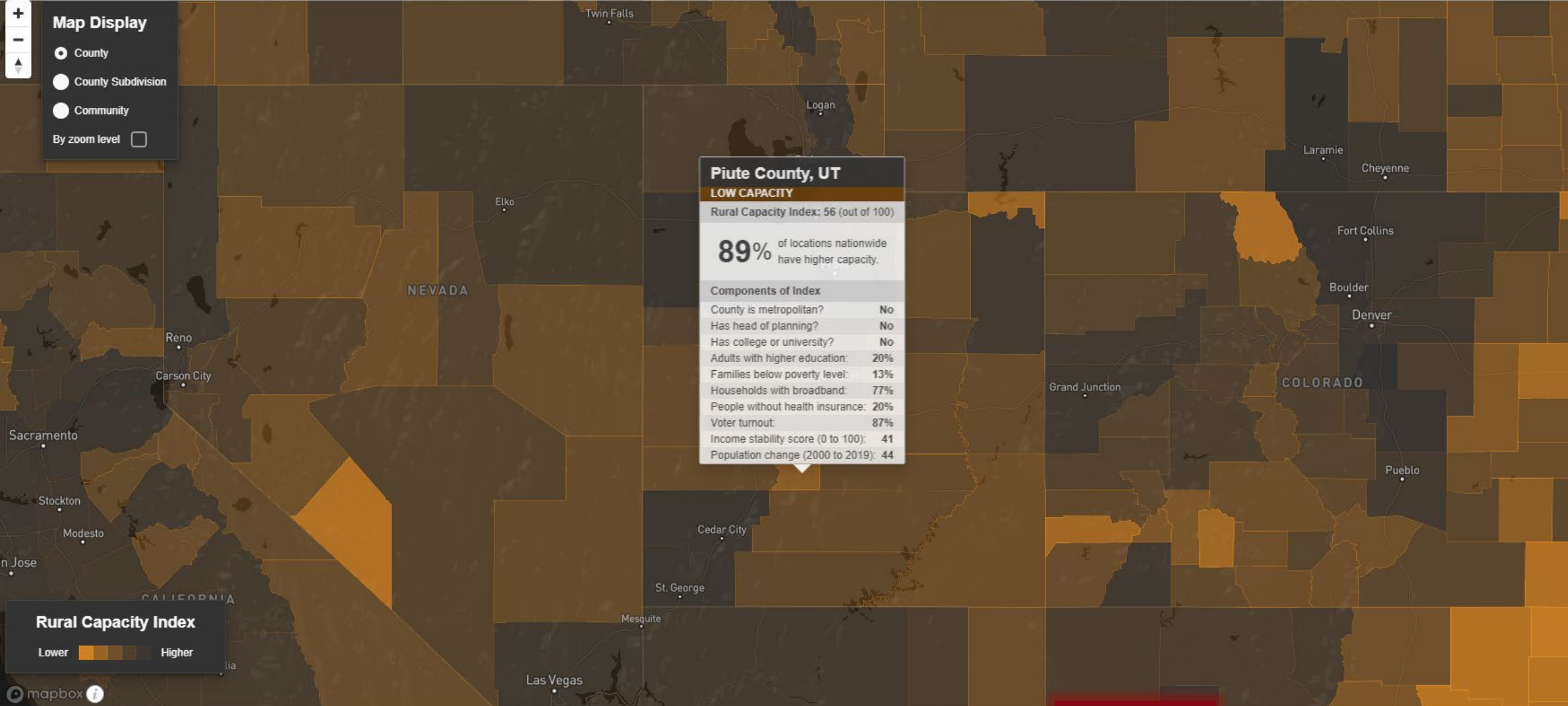


Education &
Engagement

Rural Capacity Index







Download Data

Learn more

Newsletter

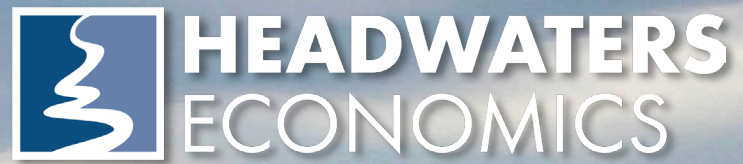


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Rural Capacity Map



[headwaterseconomics.org/
equity/rural-capacity-map/](https://headwaterseconomics.org/equity/rural-capacity-map/)



Independent Nonpartisan Research

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