

OCTOBER 16, 2025

MEASURING WHAT MATTERS: CALCULATING AND COMMUNICATING COMMUNITY ROI

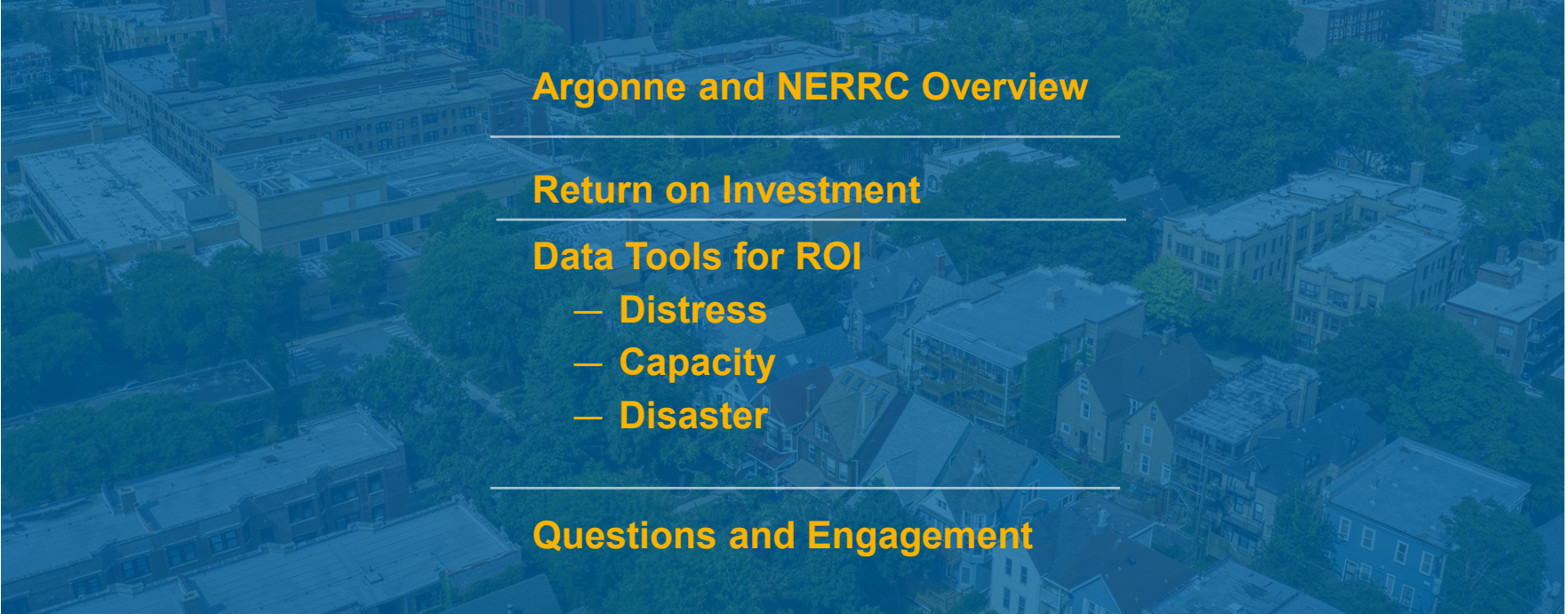
ALISON TURNER
SENIOR ECONOMIC DEVELOPMENT RESEARCHER
ARGONNE NATIONAL LABORATORY



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AGENDA



Argonne and NERRC Overview

Return on Investment

Data Tools for ROI

- Distress
 - Capacity
 - Disaster
-

Questions and Engagement



ARGONNE AND NERRC OVERVIEW



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ABOUT US

Argonne is Part of the Department of Energy National Laboratory Complex



NATIONAL ECONOMIC RESEARCH & RESILIENCE CENTER (NERRC)

About Us

We provide innovative and transparent economic data access, research, and analysis to support and strengthen economic development and resilience in communities across the nation.



Find us at: <https://www.anl.gov/dis/national-economic-research-resilience-center>

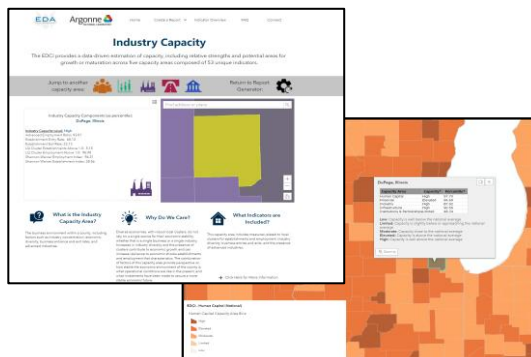
TOOLS AND MODELS

National Economic Resilience Data Explorer



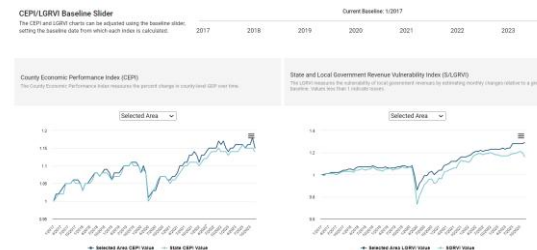
Baseline economic context

Economic Development Capacity Index



Assessment of county-level capacity, strengths, and opportunities for investment

Economic Performance and Government Revenue Indices



Near-real time measures of economic activity



RETURN ON INVESTMENT



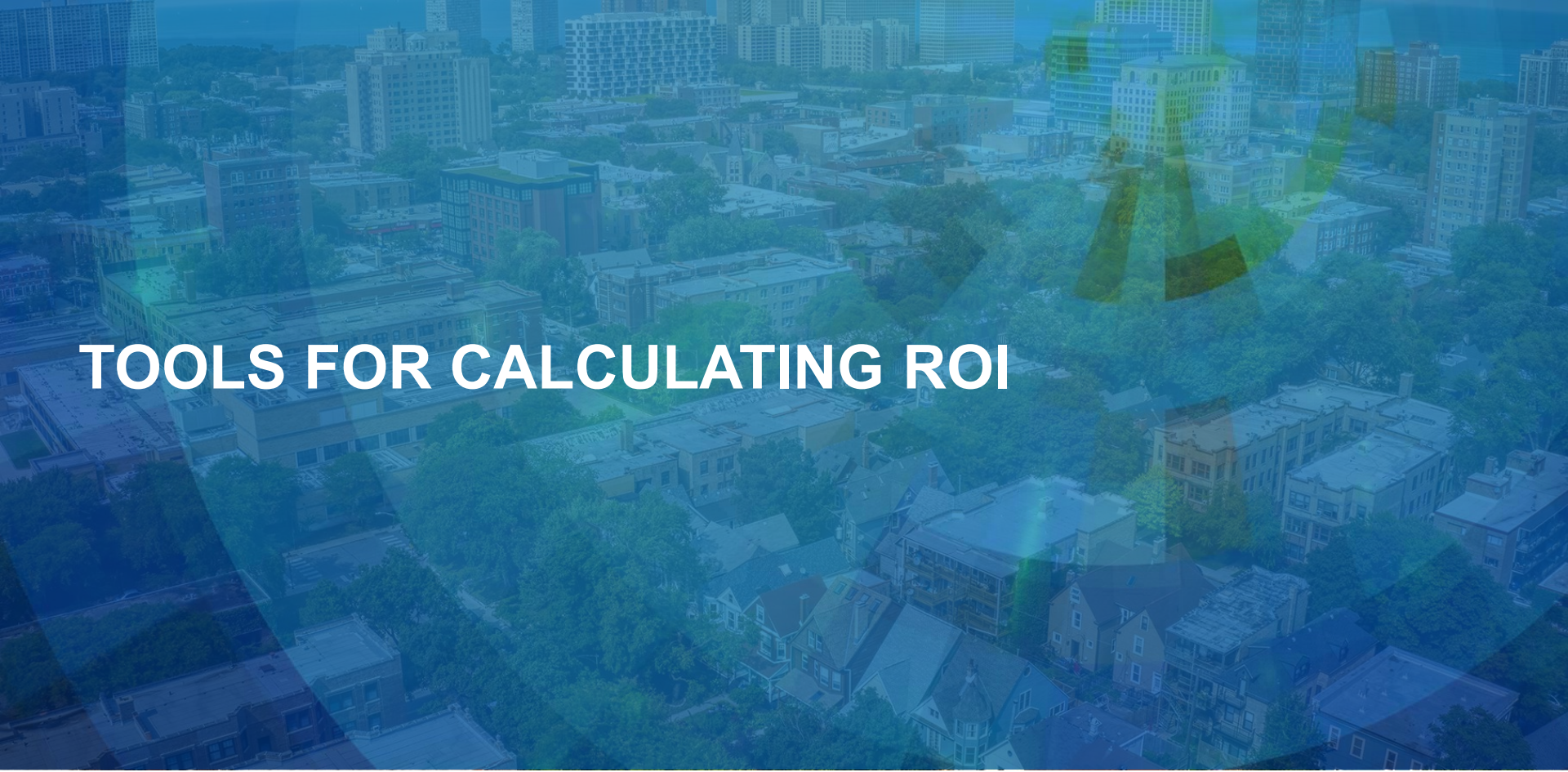
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DIFFICULTY OF ROI CALCULATIONS

- Expectation
 - Calculated baseline, change, and forecast
 - Easy access of uniform data
 - Established geography for data collection
- Reality
 - Data lags create difficulty in establishing change and forecast
 - Difficult to access consistent data over time
 - Unclear lines of impact radius



TOOLS FOR CALCULATING ROI



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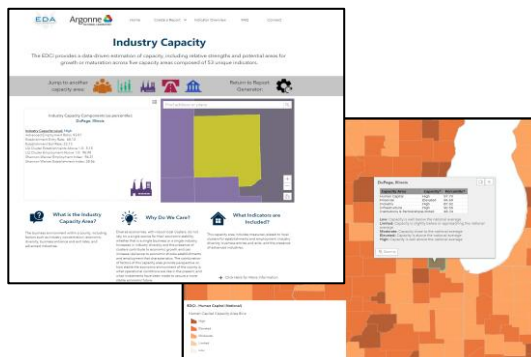
TOOLS AND MODELS

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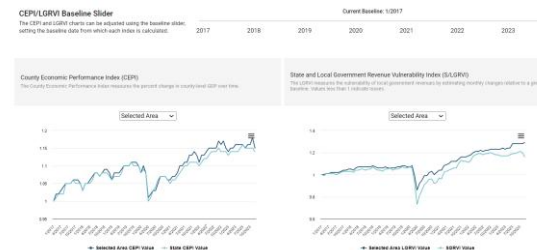
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NATIONAL ECONOMIC RESILIENCE DATA EXPLORER (NERDE)

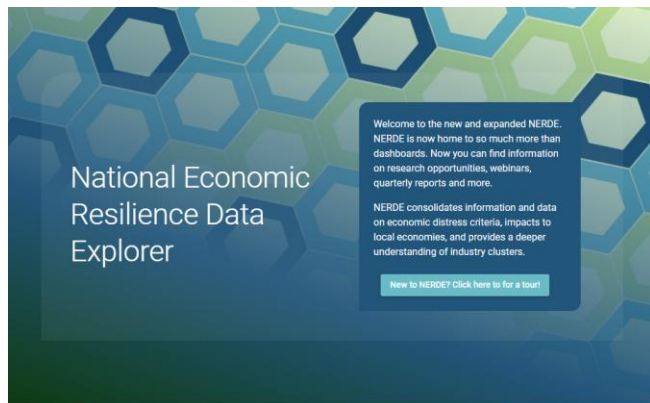


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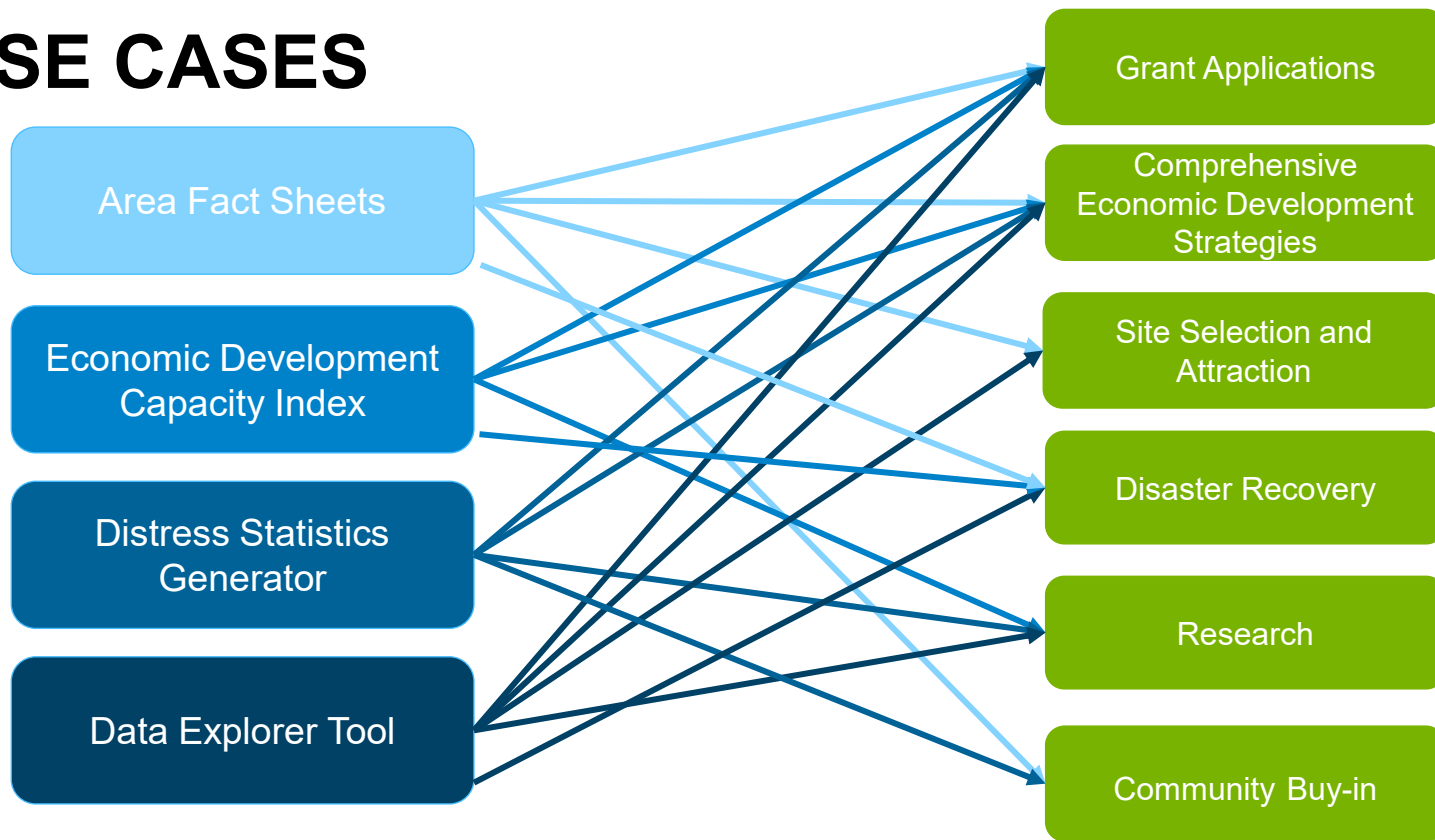


Home to all your Economic Development Data
Explore, Discover, Research



- Clearinghouse for economic development data
- Designed with data pain points in mind for communities applying for grants, planning for the future, looking to encourage entrepreneurship and attract business
- Data available at the State, Economic Development District, County, and Tract level

USE CASES



TODAY'S EXAMPLES



Establishing a baseline

- Pinpointing areas of distress or special need
- Mapping supporting capacities



Defining key capacity areas

- Creating narrative for future return
- Establishing metrics of success



Evaluating change

- Understanding local revenue impacts
- Preparing for future change

SPECIFICS



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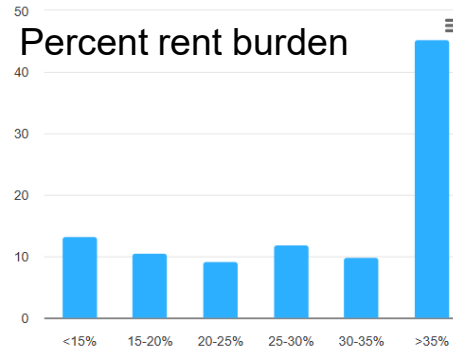
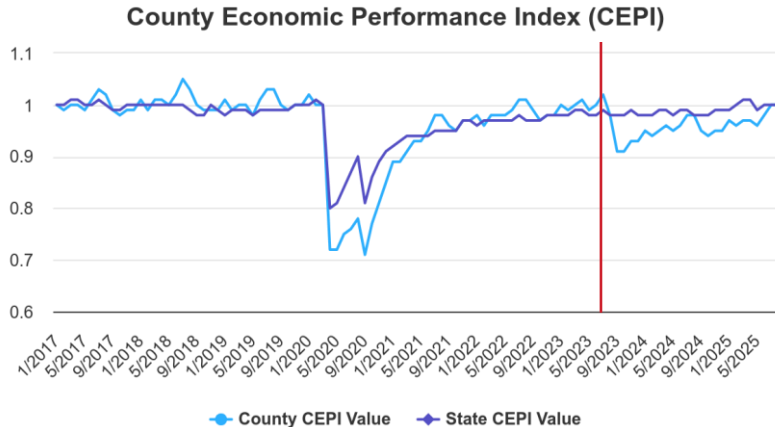
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MAUI, HAWAII

Lahaina Wildfires 2023

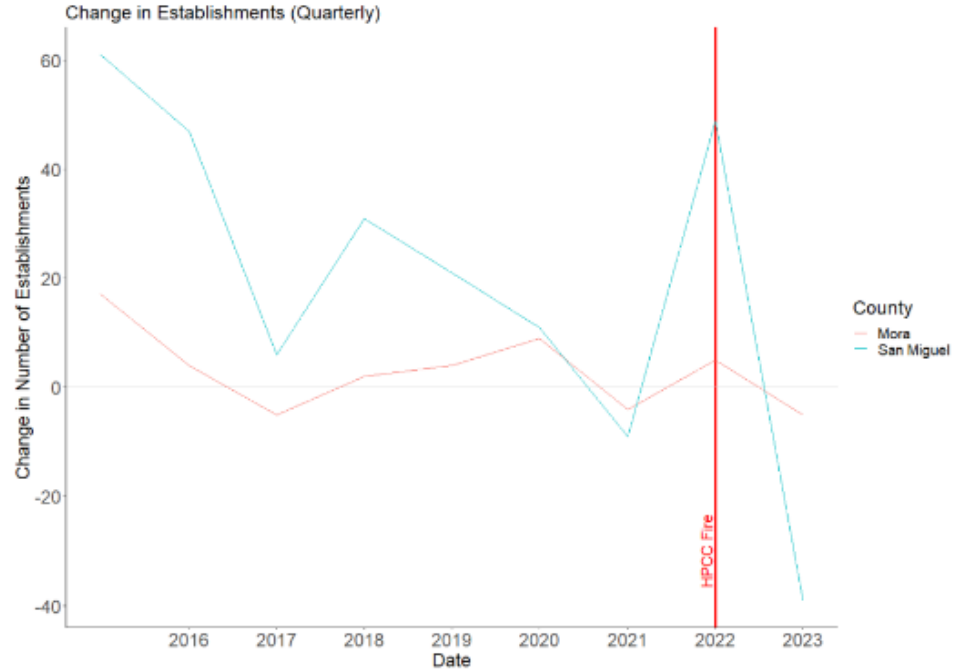
- 102 lives lost
- Existing housing burden was **exacerbated**
- Required expedited planning and permitting



MORA & SAN MIGUEL, NEW MEXICO

Hermit's Peak/Calf Canyon Fires 2022

- Severe economic impact to an area with a significant grey economy
- Exacerbated regional population decline and economic disparity



GENERAL USE



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EVALUATING CHANGE

Key metrics available in NERDE

Data Requested	Where to find in NERDE
Jobs created, retained, or lost	Internal
Businesses created, retained, or lost	Available Jan 2026
Average wages by sector or position	Industry Trends; Wage Location Quotient
Labor Force Participation Rate	Workforce; Workforce Summary
County GDP	Local Economy; County Economic Performance Index
Primary sectors, industries, businesses	Local Economy; Top industries by GDP, Top industries by Employment
Unemployment rate	Summary; 24 Month Unemployment
Change in tax base	Local Economy; Local Government Revenue Vulnerability Index



BASELINE DATA

Overview

Data Downloads

Geography	24-Month Unemployment	Per-Capita Income	Disaster in the Past 5 Years	Adjacent to Tribal Boundary
National	3.96%	\$66,244		
Bennett County	2.73% 68.99% of National	\$50,582 76.36% of National	Yes	Yes
Butte County	1.69% 42.75% of National	\$47,947 72.38% of National	Yes	No
Custer County	2.19% 55.22% of National	\$63,933 96.51% of National	No	Yes
Fall River County	2.31% 58.36% of National	\$54,948 82.95% of National	No	Yes
Harding County	1.49% 37.62% of National	\$52,013 78.52% of National	No	No
Lawrence County	1.68% 42.37% of National	\$71,209 107.50% of National	Yes	No
Meade County	1.73% 43.80% of National	\$54,673 82.53% of National	Yes	Yes
Pennington County	1.77% 44.66% of National	\$70,030 105.72% of National	No	Yes
Perkins County	1.43% 36.13% of National	\$54,855 82.81% of National	No	Yes
Selected Area	1.78% 45.08% of National		Yes	Yes

Average unemployment values are weighted by the labor force population for each county, while average per capita income values are weighted by the total population for each county.

Colors in the table indicate a gradient of distress. Highlighted values in **yellow** indicate communities under slight distress, **light orange** indicates mild distress, **dark orange** indicates moderate distress, and **red** indicates severe distress. The disaster and tribal columns are highlighted in red for communities that have experienced a disaster or are adjacent to a tribal boundary

Distress Data Download

Distress criteria, including current unemployment, 24-month unemployment, per capita income, and median household income are available for all US counties.

[DOWNLOAD DISTRESS DATA](#)

NERDE Data Download

If you would like to download an excel document containing a "snapshot" of our NERDE datasets, please click here to download an excel file of NERDE data.

[DOWNLOAD NERDE DATA](#)

API Access

NERDE data is also made available through a publicly-available REST API. To access data, please visit our API page.

[ACCESS THE REST API](#)

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CAPACITY AREAS

Overview

- Capacity in NERDE
 - Data explorer tool, start with the EDCI Summary to dive into data
- Capacity in EDCI
 - A quick snapshot of capacity over time
 - Ability to compare counties

Where Selected Area stands out

Every area has strengths. Below are the top 5 indicators for the selected area as compared to the rest of the country by percentile. These values are represented by the highest capacity values from the Economic Development Capacity Index. To learn more about the indicators that feed into the Economic Development Capacity Index, click [here](#).

Percent Inventive Class

Los Alamos County, New Mexico

Percent of Homeownership

Mora County, New Mexico

All Mines Per Square Mile

Los Alamos County, New Mexico

Percent Creative Class

Los Alamos County, New Mexico

Advanced Employment Level Ratio

Los Alamos County, New Mexico

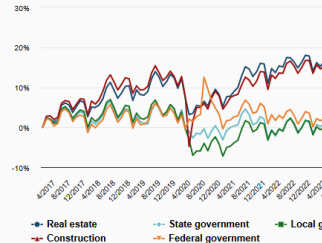
Mortgage

The following chart presents gross mortgage costs as a percent of total household income.

Change in Employment Across Top 5 Industries

Understanding changes in employment by sector can help to plan around growth and decline within the local economy.

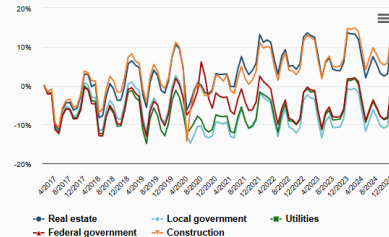
Santa Fe County



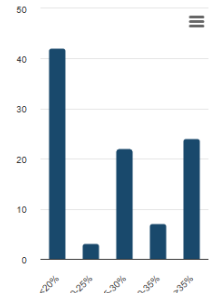
Change in Employment Across Top 5 Industries by Total Value Added to GDP

Understanding changes in employment by sector can help to plan around growth and decline within the local economy.

Taos County



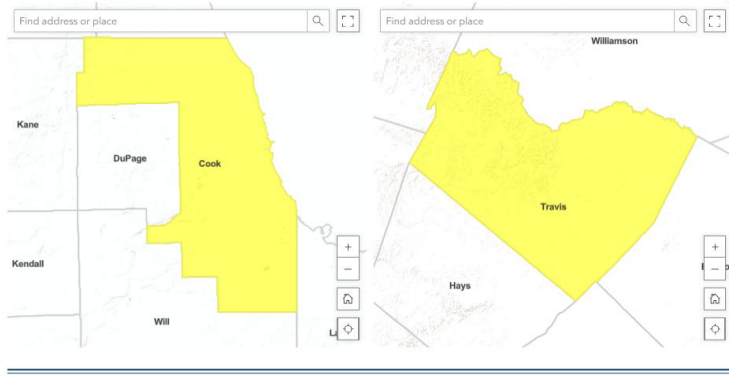
Mora County, New Mexico



View Sources

CAPACITY AREAS

EDCI



County: Cook, Illinois

Human Capital: **0.58**
 Human Capital Capacity: **Elevated**
 Financial: **1.00**
 Financial Capacity: **High**
 Industry Composition: **0.94**
 Industry Composition Capacity: **High**
 Infrastructure: **0.85**
 Infrastructure Capacity: **Elevated**
 Institutions & Partnerships: **0.93**
 Institutions & Partnerships Capacity: **Elevated**

County: Travis, Texas

Human Capital: **0.88**
 Human Capital Capacity: **High**
 Financial: **0.99**
 Financial Capacity: **High**
 Industry Composition: **0.95**
 Industry Composition Capacity: **High**
 Infrastructure: **0.97**
 Infrastructure Capacity: **High**
 Institutions & Partnerships: **0.89**
 Institutions & Partnerships Capacity: **Elevated**

Human Capital



Value: **0.58**
 Capacity: **Elevated**

[Learn More](#)

Financial



Value: **1.00**
 Capacity: **High**

[Learn More](#)

Industry



Value: **0.94**
 Capacity: **High**

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Infrastructure



Value: **0.85**
 Capacity: **Elevated**

[Learn More](#)

Institutions & Partnerships



Value: **0.93**
 Capacity: **Elevated**

[Learn More](#)

Industry | National Percentile:

Indicator	National Percentile	Value	Change Over Time
Advanced Employment Ratio	0.87	0.09	down
Establishment Entry Rate	0.81	10.84	up
Establishment Exit Rate	0.11	-11.38	down
LQ Cluster Establishments Above 1.0	1.00	8	no change
LQ Cluster Employment Above 1.0	0.09	11	no change
Shannon-Weiner Employment Index	0.98	3.62	no change
Shannon-Weiner Establishment Index	0.38	3.43	no change

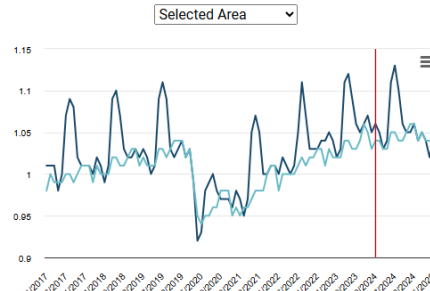
EVALUATING CHANGE



- County Economic Performance Index and State and Local Revenue Vulnerability Index
- Risk and Resilience Disaster Declarations

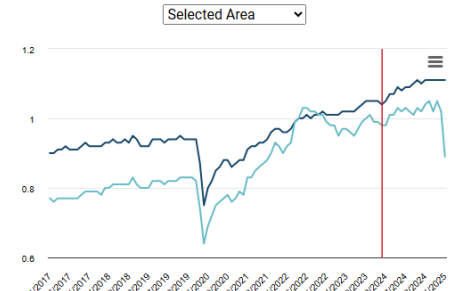
County Economic Performance Index (CEPI)

The County Economic Performance Index measures the percent change in county-level GDP over time. Values less than 1 indicate decline in GDP.



State and Local Government Revenue Vulnerability Index (\$/LGRVI)

The LGRVI measures the vulnerability of local government revenues by estimating monthly changes relative to a given baseline. Values less than 1 indicate losses.



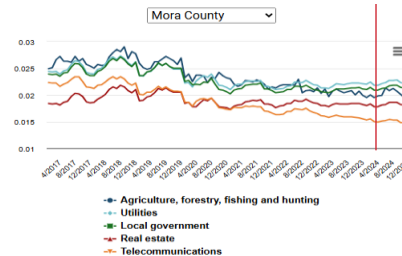
Major Disaster Declarations, Past 5 Years

FEMA Disaster Declarations are announced after a major natural disaster. Because COVID19 was announced as a Disaster for every geographic area...

Declaration Date ↓	Declaration Number	Incident
2024-06-20	4795	SOUTH FORK FIRE, SALT FIRE, AND FLOODING
2022-05-04	4652	WILDFIRES, STRAIGHT-LINE WINDS, FLOODING, MUDFLOWS, AND DEBRIS FLO
2022-05-04	4652	WILDFIRES, STRAIGHT-LINE WINDS, FLOODING, MUDFLOWS, AND DEBRIS FLO
2022-05-04	4652	WILDFIRES, STRAIGHT-LINE WINDS, FLOODING, MUDFLOWS, AND DEBRIS FLO
2022-05-04	4652	WILDFIRES, STRAIGHT-LINE WINDS, FLOODING, MUDFLOWS, AND DEBRIS FLO
2022-05-04	4652	WILDFIRES, STRAIGHT-LINE WINDS, FLOODING, MUDFLOWS, AND DEBRIS FLO
2022-04-30	5438	CALF CANYON FIRE
2022-04-28	5437	COOK'S PEAK FIRE
2022-04-12	5431	HERMIT'S PEAK FIRE

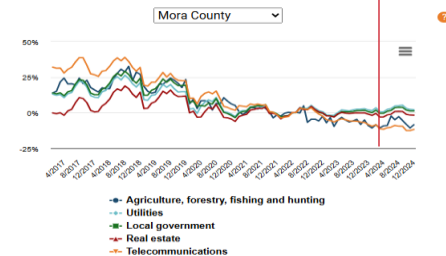
Value Added by Current Top 5 County Industries

Value-added is the total output of an industry minus its inputs. Unit is USD in Billions.



Percent Employment Across Current Top 5 Industries

Adjusted percentage change in employment by industry by county for the given month from the base month.





QUESTIONS?



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USING ARTIFICIAL INTELLIGENCE (AI)

Using NERDE for your AI queries

- Uploading Area Fact Sheets from NERDE can help with AI “hallucinations” common with Census queries
 - Gives the chatbot a place to start
 - Assures data quality for queries



✎ Can you summarize these documents into a paragraph about the region, a swot, and resilience recommendations?



Region Overview:

Johnson, Magoffin, and Martin Counties are located in Kentucky within the Big Sandy Area Development District. Each county faces significant economic challenges, with high poverty rates—30% in Magoffin, 23% in Martin, and 21% in Johnson. The region's key industries include retail trade, government enterprises, mining, and health care, although the area has low human capital, financial capacity, and infrastructure development. Per capita incomes range from \$19,582 to \$41,338, with varying levels of educational attainment and workforce engagement.

SWOT Analysis:

Strengths:

- Strong government and retail trade presence across the counties.
- Martin and Magoffin have relatively stable health care and social assistance sectors.
- High rates of health insurance coverage in all counties (above 95%).

Weaknesses:

- Low per capita incomes and significant poverty rates.





THANK YOU!

Contact us: turnera@anl.gov | nerrc@anl.gov



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