

## Welcome to the Colorado Disproportionate Impact (CODI) Indicator

The CODI Indicator is intended to provide users – public agencies, nonprofits, or philanthropic partners– with data that draws from multiple areas reflecting social, economic and environmental stressors in any given community. Unlike other data resources, the strength of the CODI Indicator is the breadth and depth of the data because it draws from multiple data sources and allows users to better find and prioritize:

- Communities that are in greatest relative need; and
- Specific funding or programmatic resources that are more tailored to the needs of that specific community.

While there are other ways this data can be used, such as for communications and messaging around community needs, relationship building with stakeholders and policy development, the core purpose of the CODI Indicator is to inform the investment of resources in a manner that maximizes impact and ensures that resources are directed to the most urgent needs of any given community.



The Colorado Disproportionate Impact (CODI) indicator model identifies disproportionately impacted communities and further explores the relative contribution of 12 dimensions on the community score.

**Throughout the site, the higher the score on the overall index and on any sub-scores, the more disproportionately impacted the community.**



**Higher scores** represent higher disproportionate impact in the community

**Lower scores** represent lower disproportionate impact in the community

[Read the Documentation](#)

[Proceed to CODI Indicator](#)

# Introducing CODI

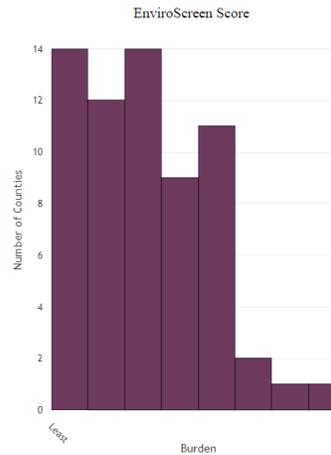
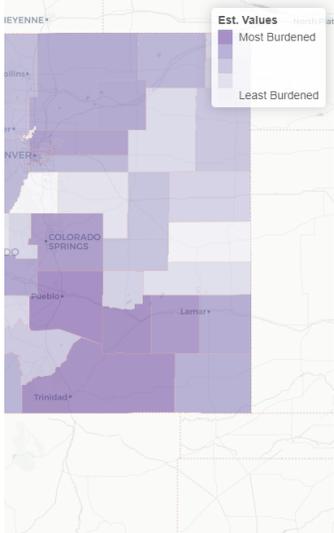
DECEMBER 13, 2023

Measure or %

Percentile Rank

Remove

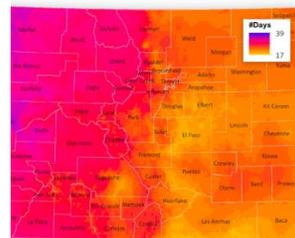
Score goes from 0 to 100, with the highest score representing the highest burden. The EnviroScreen score is a percentile, which means that 70% of the area in question. Suppose a county has an EnviroScreen score of 70. This means its EnviroScreen score is higher than 70% of all other counties in the state. Suppose a census tract has an EnviroScreen score of 20. This means its EnviroScreen score is higher than 20% of all other census tracts in the state, or 80% of census tracts in Colorado are more likely to be affected by environmental health issues.



### Risk Maps

On this website, you will see a variety of risk maps indicating different levels of climate change risk for different parts of Colorado. The index on the top right shows which census tracts our analysis showed faced the greatest risks. Each tract is ranked on a scale between 0 and 1, with 1 indicating a greater threat faced from climate impacts in comparison to the rest of the state. The light green color indicates lower levels while dark blue areas face the greatest threats.

- Heat
- Ozone
- Wildfires
- Drought

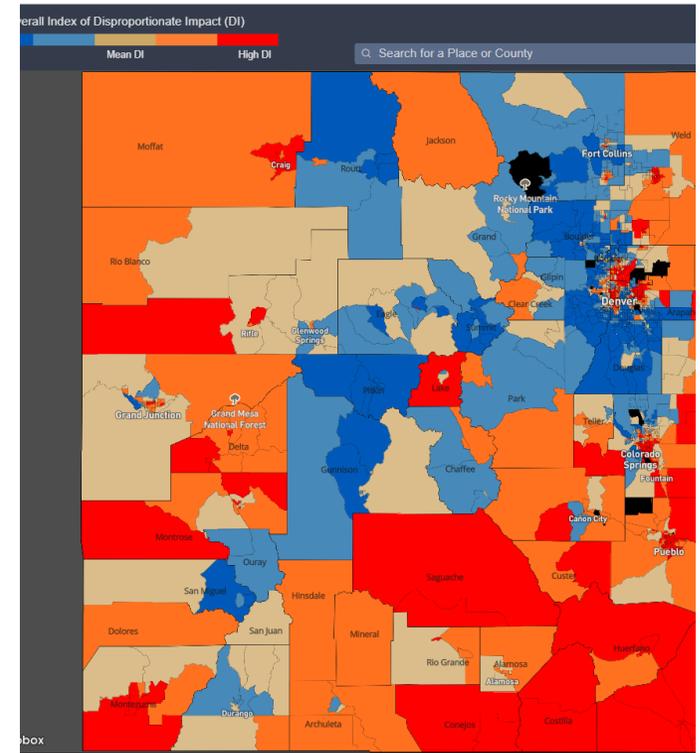


### Emission Scenario Maps

These maps indicate the impacts of various climate change emission levels. In this case, the darker colors indicate a higher risk where fire danger is very high. The other maps show similar impacts for extreme heat, air pollution, and drought, and in each of these cases, the darker colors indicate the highest risk.

- Heat
- Ozone
- Wildfires

- About Us
- Our Climate Research
- Climate Maps
- Impacts & Solutions



# Complementary applications

# Taskforce representation

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Food

Housing

Early  
childhood

Energy

General  
human service

Older adults

Faith  
community

Workforce



Social



Economic



Environmental/Health

CODI  
incorporates a  
broader  
definition of  
disproportionate  
impact

# Dimensions in CODI model

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Classroom

ECE

Health Care

Household

Economic

Environment

Employment  
& Workforce  
Readiness

Housing

Food

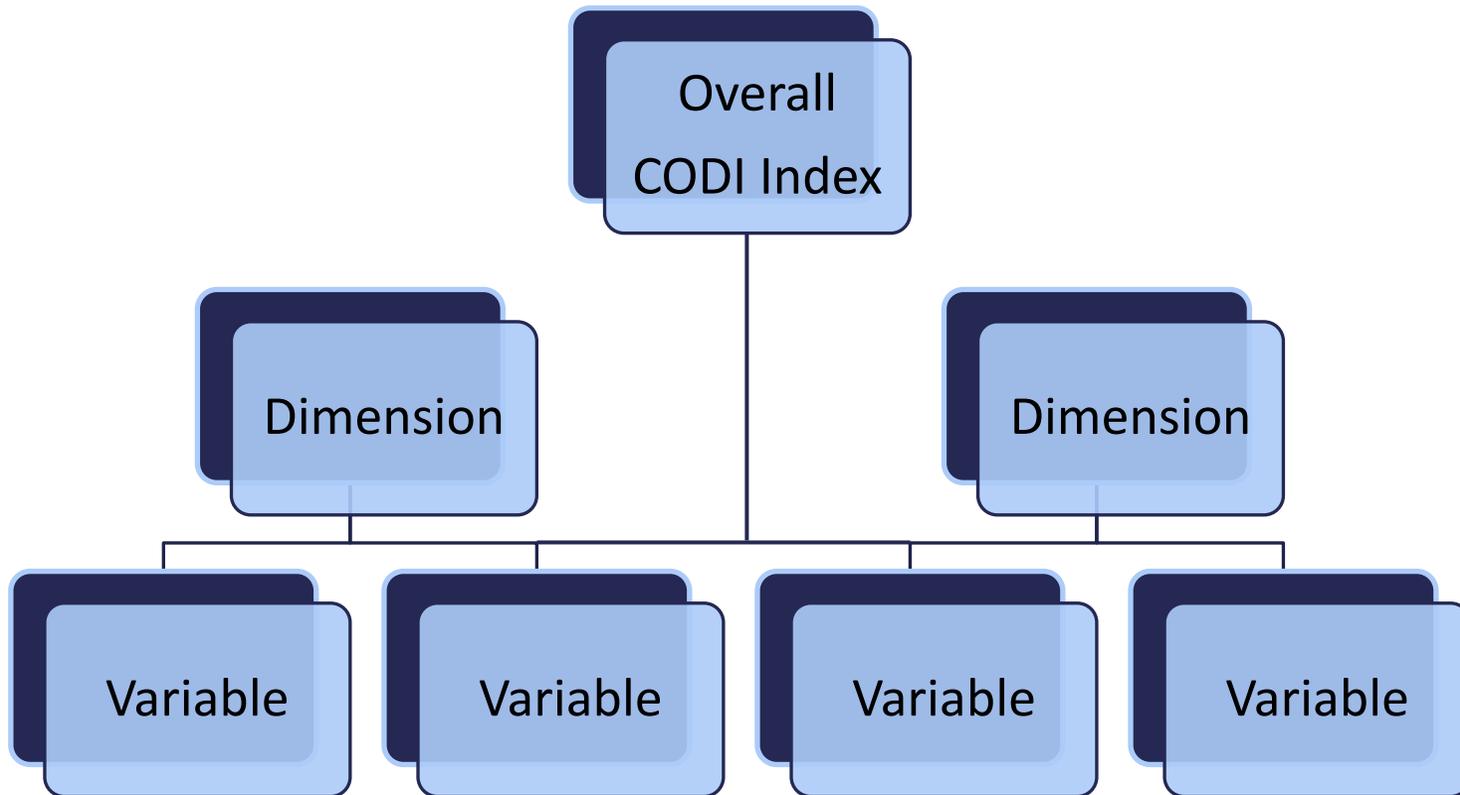
Health

Social

Transportation

# CFC modeling approach

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Comparisons can be made **at any level of the model:** Overall CODI Index, Dimension, Variable.

Model built at the **Census Tract** level of geography.

# Constructing the CODI index

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All variables are converted into **standard scores** – stated as standard deviations from the mean

This allows for **comparisons** of variables and for **combination** of variables into index scores

Index scores created by the **simple arithmetic average** of the standard scores

CODI variables then combined into an **overall CODI index** and **scores for each of the dimensions**



# Demographic variables

- Total population
- Share BIPOC
- Share over 65
- Share under 18



# Interpreting the findings

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This model is measuring  
**Disproportionate Impact**



It is a **Deficit-Based**  
**model**



Higher Scores are more  
**Challenged**

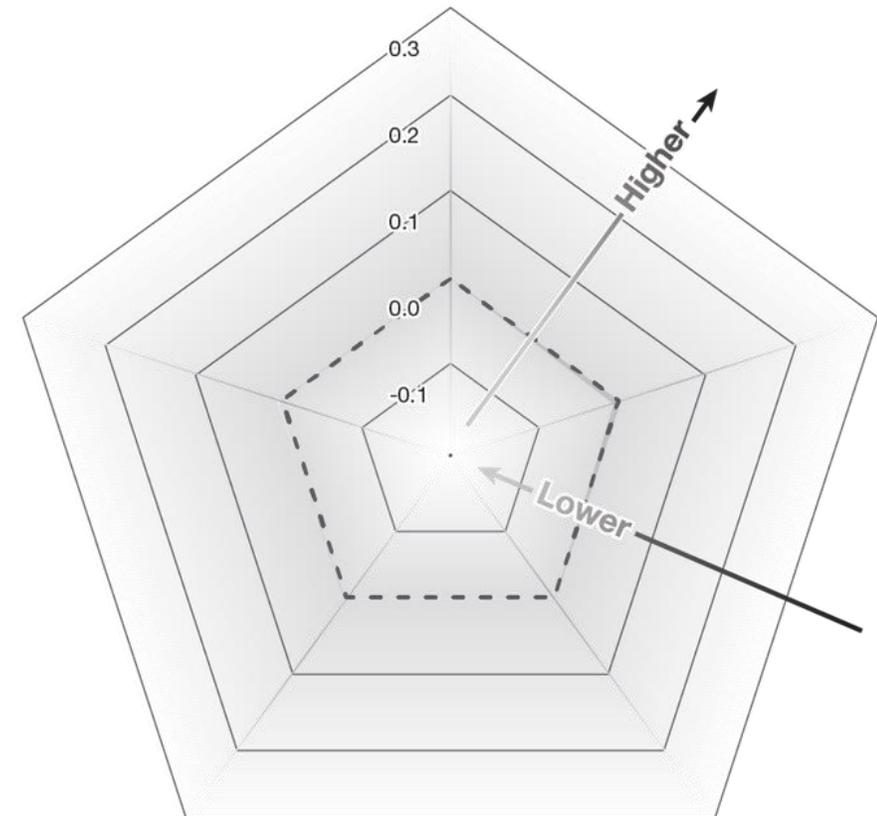
# Reading radar graphs

The 0.0 contour is the mean – the state average

The contours are scaled as standard deviations above or below the state average

Points outside the 0.0 contour identify scores higher than the state average and inside the 0.0 contour identify cohort scores lower than the state average

Since CODI measures deficits, the further out on the graph, the more disproportionately impacted



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## CODI Demo

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SAMPLE USE CASES

Energy

Food

Needs assessments



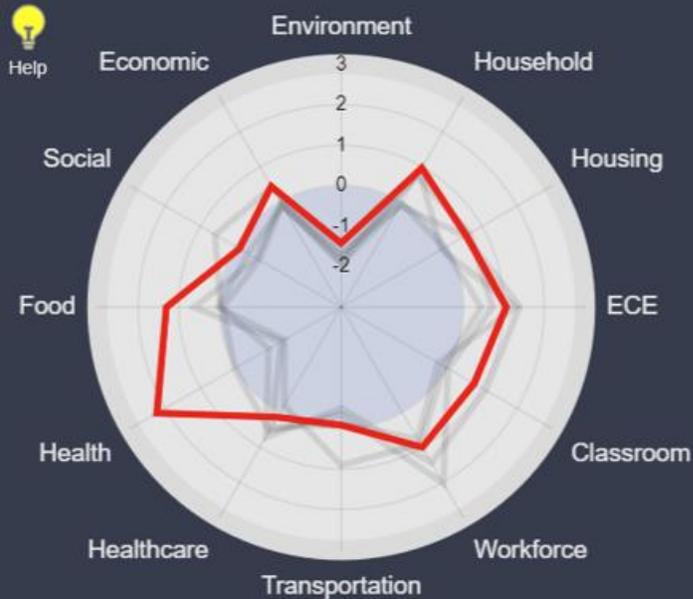
# Sample use case #1: Wood burning as energy

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# Distribution of Colorado reliance on wood as primary heating fuel



Source: American Community Survey



**0.62**  
Overall Index

### Demographic Variables

Total Population:	1,892
Population Under 18:	19.77%
Population 65 and Older:	24.21%
Black, Indigenous, and Other People of Color:	55.29%

## Overall Index of Disproportionate Impact (DI)

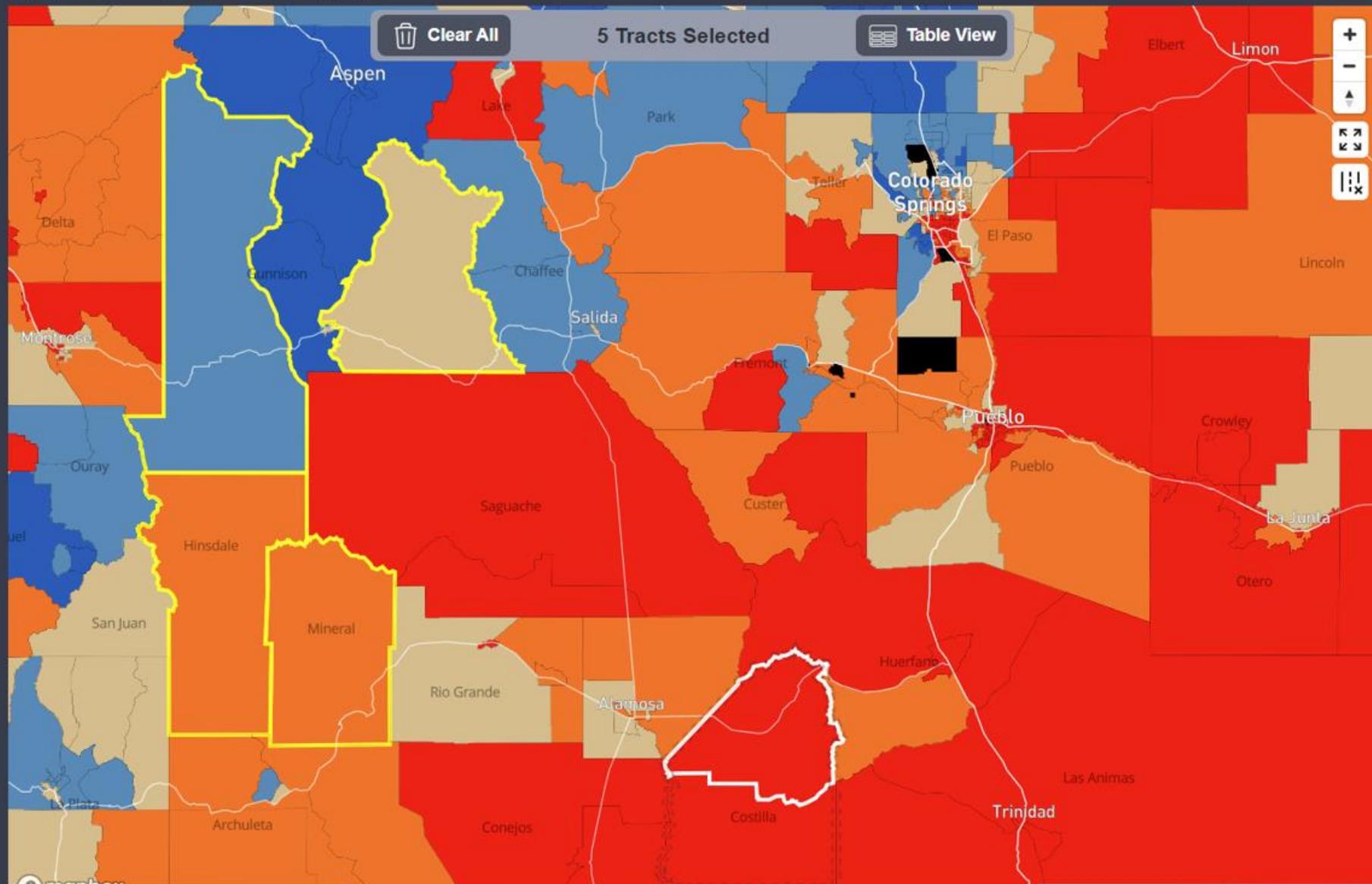


Search for a Place or County

Clear All

5 Tracts Selected

Table View





Sample use  
case #2:  
Food access  
in a resort  
town

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The graph's color reflects the Overall Index score

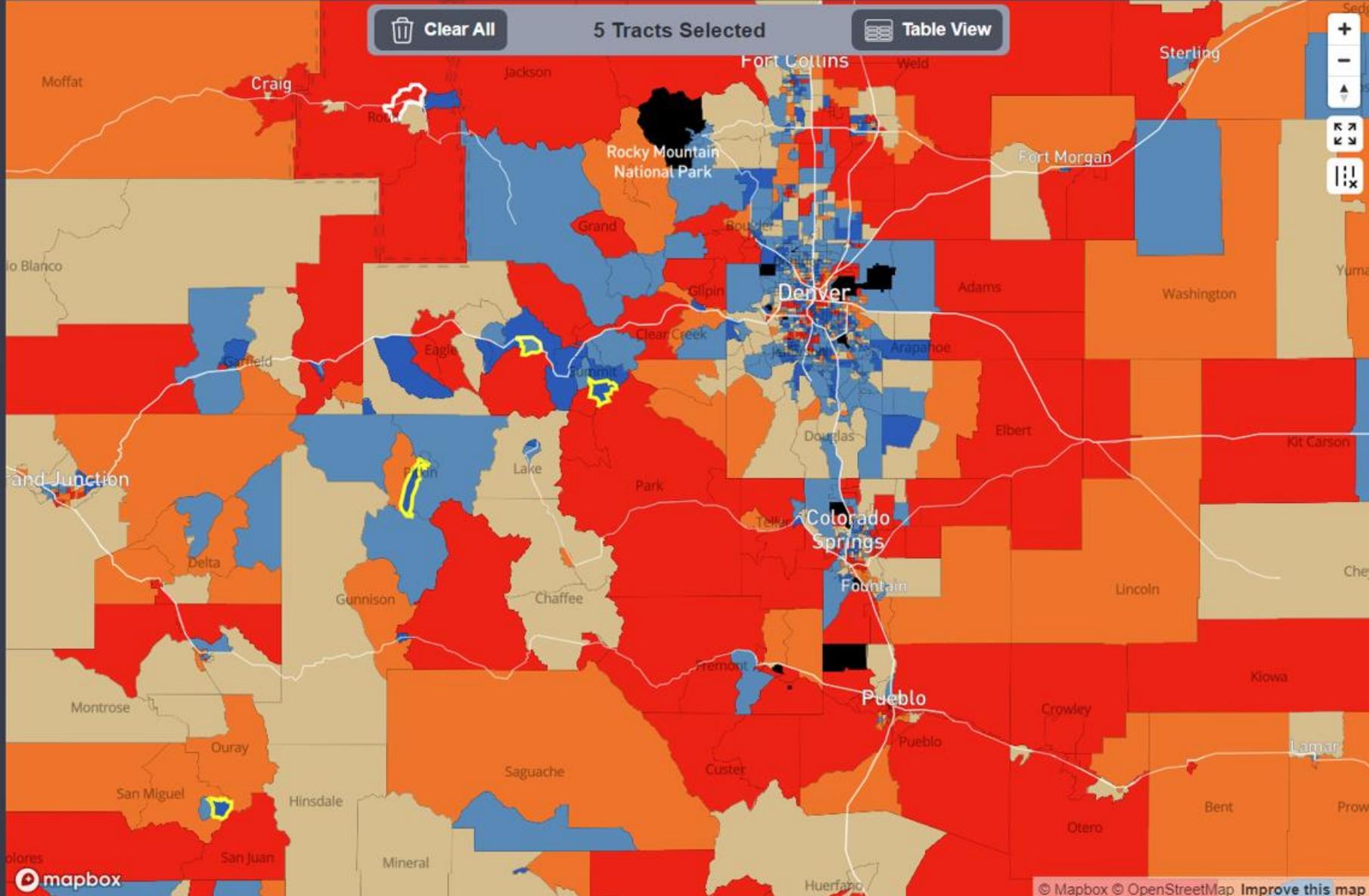
-0.26	1.37
Overall Index	Food Index

Demographics **Food Variables**

Food Variables	
Price of a Banana:	\$1.49
Low Access to Healthy Food:	95.6%
Households Receiving SNAP:	12.8%

Search for a Place or County

Clear All 5 Tracts Selected Table View





# Sample use case #3: Baselineing a needs assessment

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Overall Index

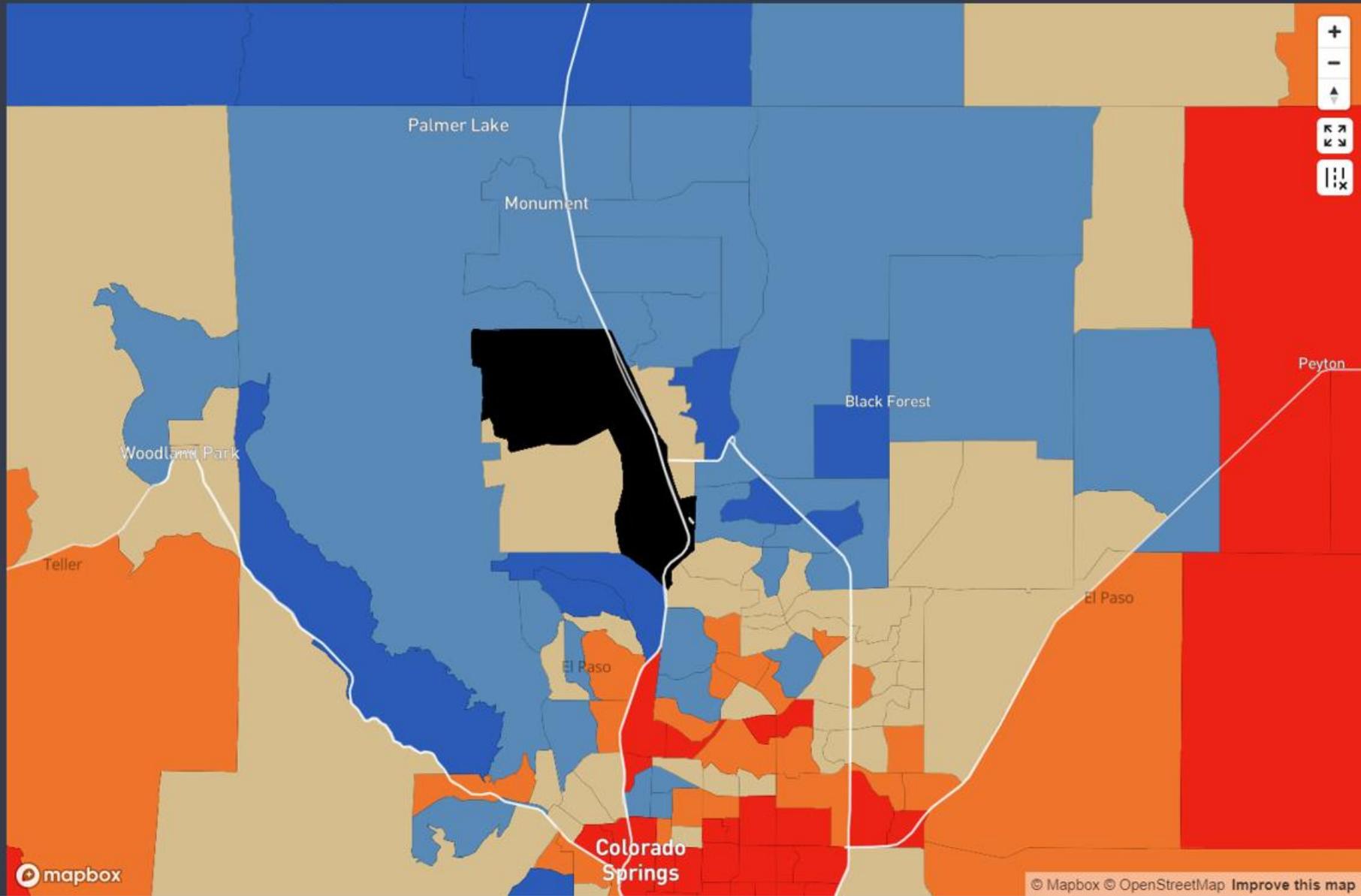
### Demographic Variables

Total Population:	-
Population Under 18:	-
Population 65 and Older:	-
Black, Indigenous, and Other People of Color:	-

### Overall Index of Disproportionate Impact (DI)



Search for a Place or County



## Transportation Index



Search for a Place or County



Help



Overall Index

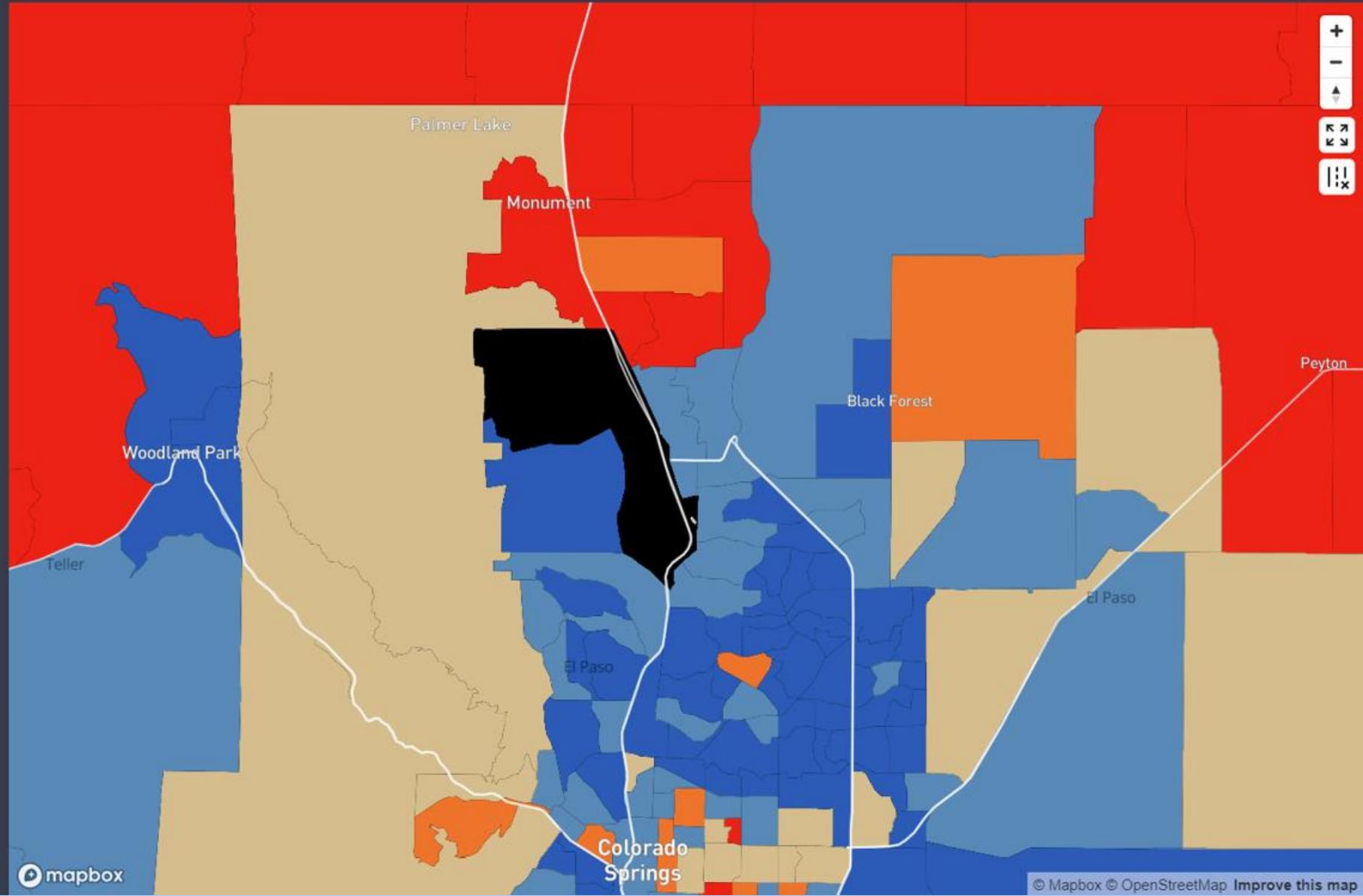
Transportation Index

Demographics

Transportation Variables

### Transportation Variables

- No Car Access: -
- Not Commuting in an SOV: -
- Low Travel Time to Work: -
- Bridges in Poor Condition: -



mapbox

© Mapbox © OpenStreetMap Improve this map

# Technical Q and A

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# Further Inquiries | More Insight | Follow Us

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The Colorado Futures Center is a 501c3 organization dedicated to informing about economic, fiscal and public policy issues impacting community economic health and quality of life.



@colofutures

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