

A background image showing several hands reaching towards a variety of fresh vegetables like corn, onions, tomatoes, and leafy greens on a wooden surface. The image is semi-transparent, allowing the text to be clearly visible.

# **Food System Strength**

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**#Food Desert**

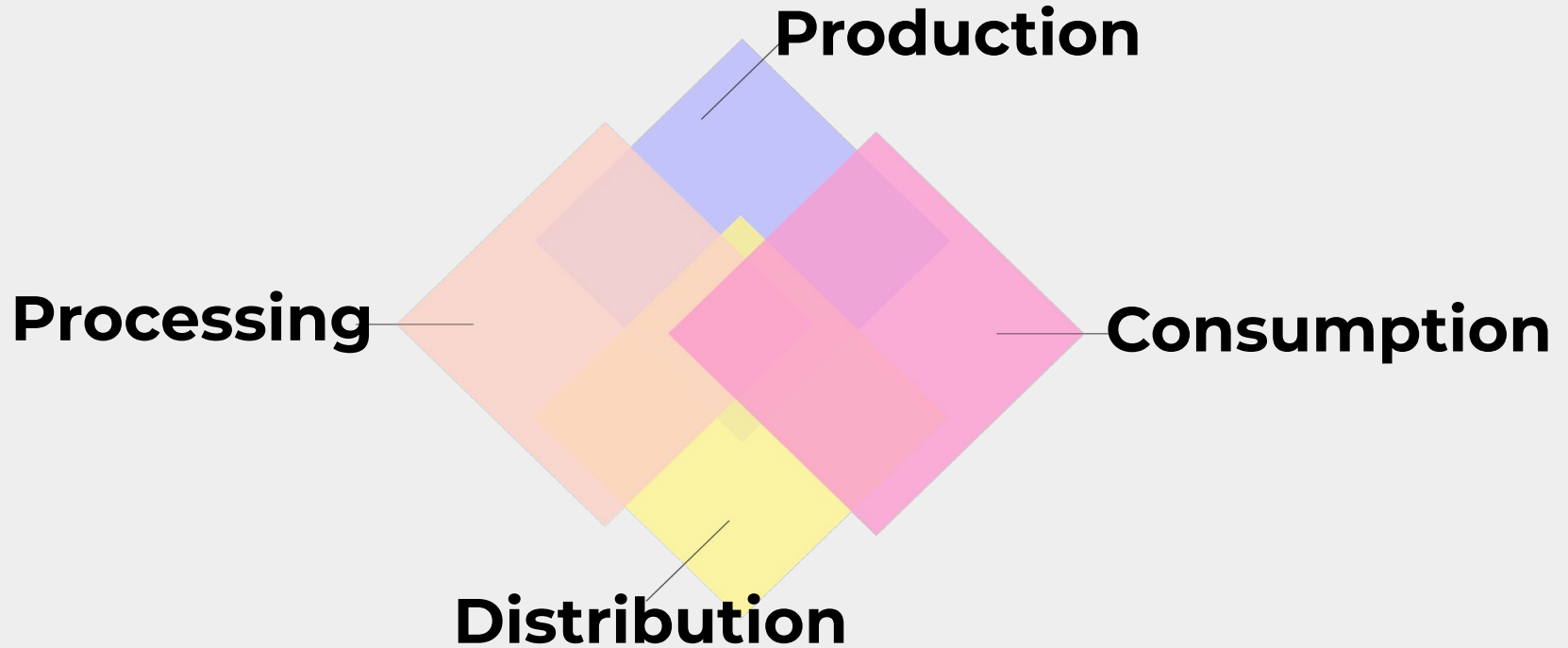
**#equity**



**#Insecurity**

**#Food System**

# Food Accessibility Index



# Data Collection

- The USDA Data Warehouse and Food & Agricultural Mapper & Extension tool
- County population estimates from the BEA were used to calculate per capita estimates
- Then filtered into two categories “**production and processing**” and “**distribution and consumption**” depending on which components of the food system the variables can be attributed to

# Data Details

Production

Processing

Distribution

Consumption

## Data included

- Annual average count - production establishments, per capita
- Farmland, percent of farmland acres designated as prime farmland

# Data Details(cont.)

Production

Processing

Distribution

Consumption

## Data included

- Annual average count - manufacturing establishments, per capita
- Annual average count - warehousing establishments, per capita
- Number of meat processors, per capita

# Data Details(cont.)

Production

Processing

Distribution

Consumption

## Data included

- Annual average count - stores, per capita
- Annual average count - food service establishments, per capita
- Annual average count - truck transportation establishments, per capita
- Annual average count - wholesalers establishments, per capita
- Number of SNAP Retailers

# Data Details(cont.)

Production

Processing

Distribution

Consumption

## Data included

- Food Insecurity Rate of Individuals
- Food Insecurity Rate of Children
- Cost per Meal
- Number of Households receiving Food Stamps/SNAP



# Creation of the Index

- Group each variable into 1st, 2nd, and 3rd quartiles
- Assign point values 1-4 for each variable depending on which quartile each individual county's data falls within

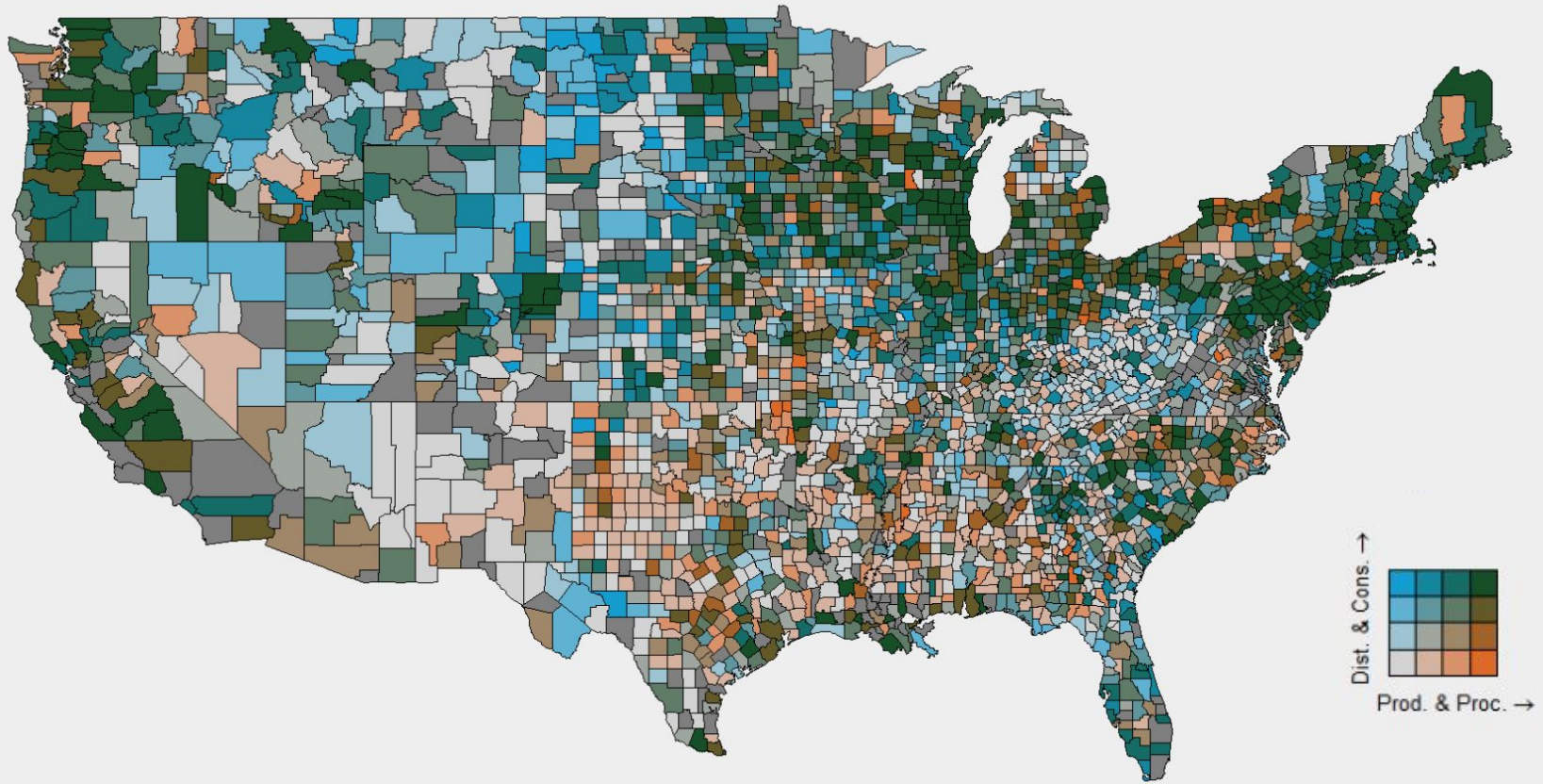
Quantile	Points
$\leq 25\%$	1
$> 25\%, \leq 50\%$	2
$> 50\%, \leq 75\%$	3
$> 75\%$	4

note: variables pertaining to food insecurity rates and cost per meal apply the point system where lower quartiles receive higher point-values, as higher levels of food insecurity and cost-per-meal indicate lower food-accessibility

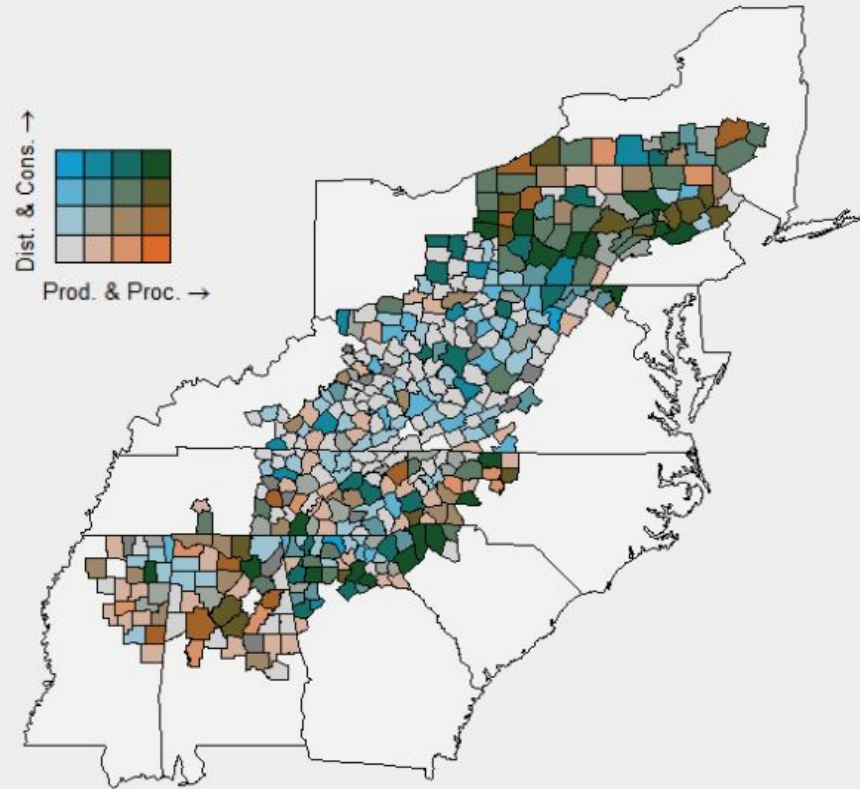
## Creation of the Index (cont.)

- The index was applied to each variable individually
- Point values for each variable were then summed across their respective category to establish a “total index value” for “production and processing” and “distribution and consumption”
- Each total index value was then divided by the total number of variables included in their respective categories in order to maintain a standard 1-4 index scale

# Visualization - United States



# Visualization - Appalachian Region



**Q&A**