



# Food Access in Georgia

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# Overview

Goal: To understand the landscape of food access within Georgia's 159 counties

Null Hypothesis: Poverty Rate does not affect food access between the counties of Georgia.

Hypothesis: As the poverty rate increases, access to [healthy] food decreases.

Median Household Income	Average Poverty Rate (%)	Average # of Grocery Stores per County	Avg Population with Low Access to Stores, per County	Change of SNAP-authorized stores 2012-2017 (%)	Average Rate of Diabetes (%)
\$42,510 as of 2015	2008: 19.12% 2010: 21.72% 2015: 21.91%	11	15,081	-1.59%	12.69%

# How does poverty rate affect access to fresh foods?

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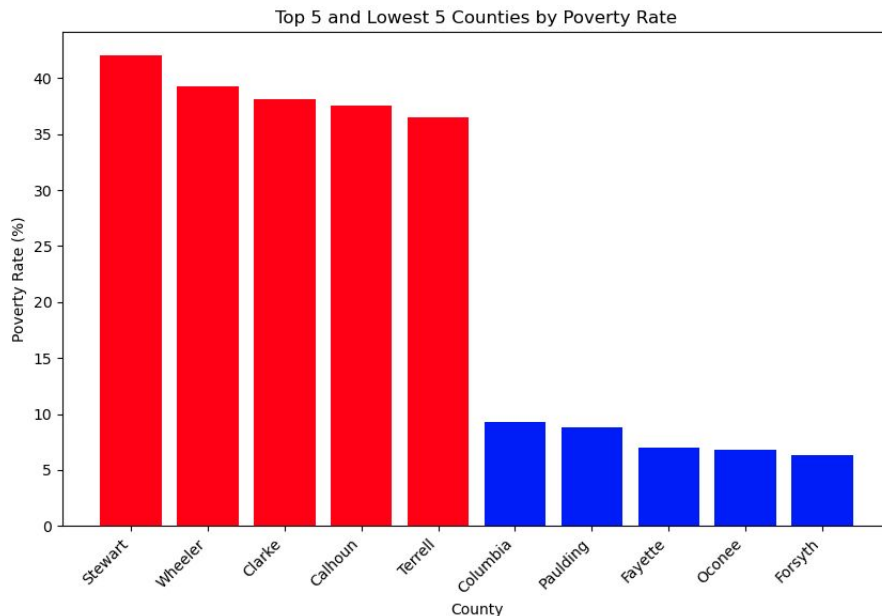


# Poverty Rate

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## Poverty Rate:

Low-income is defined as annual family income of less than or equal to 200 percent of the Federal poverty threshold based on family size.

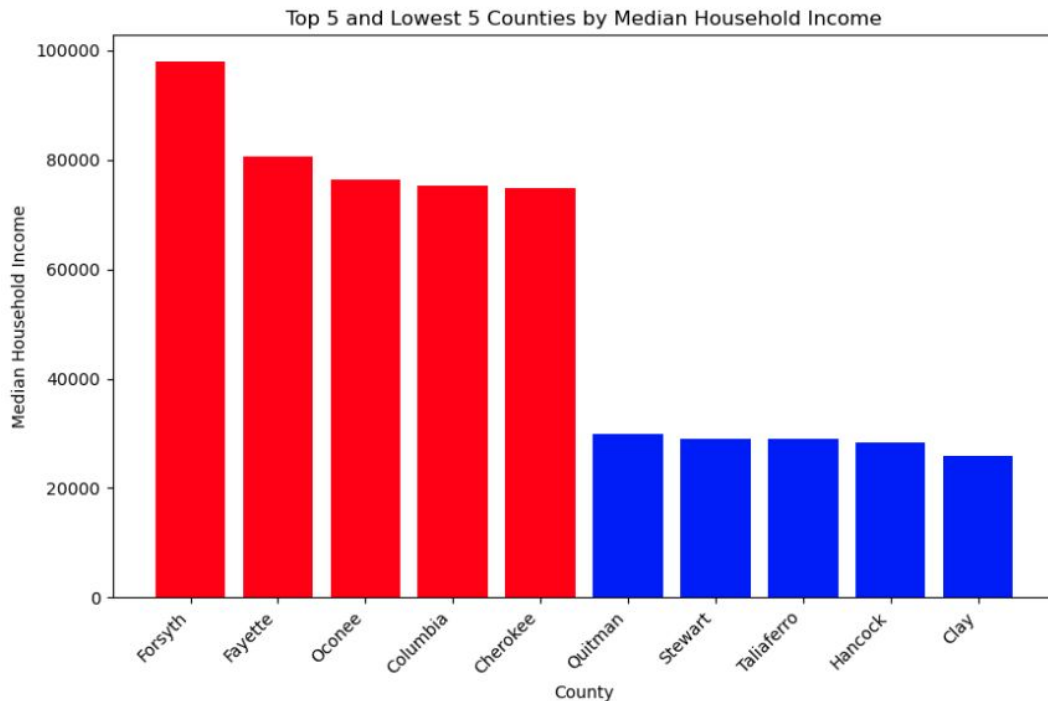


# Summary of Median Income

## Graph of Median Income:

Median household income  
state wide: \$42,510

SNAP Eligibility: If a household of 2  
makes less than \$1,526 a month they  
qualify for SNAP.



# Fast Food, Convenience Store, & Grocery Store Access

## Grocery Store:

Stores met the definition of a supermarket or large grocery store if they reported at least \$2 million in annual sales and contained all the major food departments found in a traditional supermarket, including fresh meat and poultry, dairy, dry and packaged foods, and frozen foods

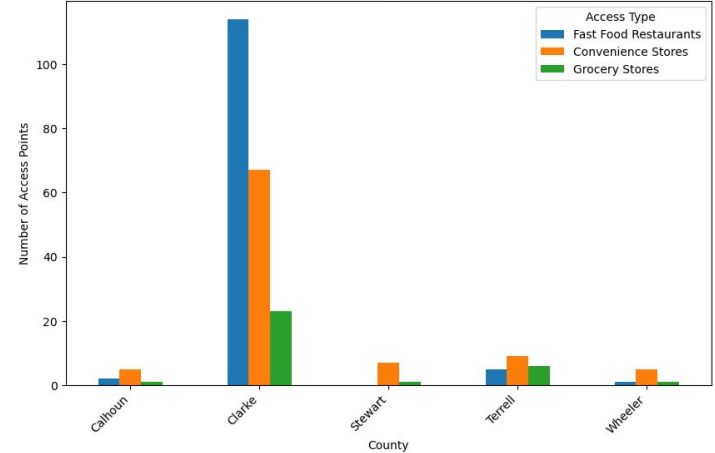
## Fast Food Restaurant

Limited-service restaurants include establishments primarily engaged in providing food services (except snack and nonalcoholic beverage bars) where patrons generally order or select items and pay before eating. Food and drink may be consumed on premises, taken out, or delivered to the customer's location. Some establishments in this industry may provide these food services in combination with alcoholic beverage sales.

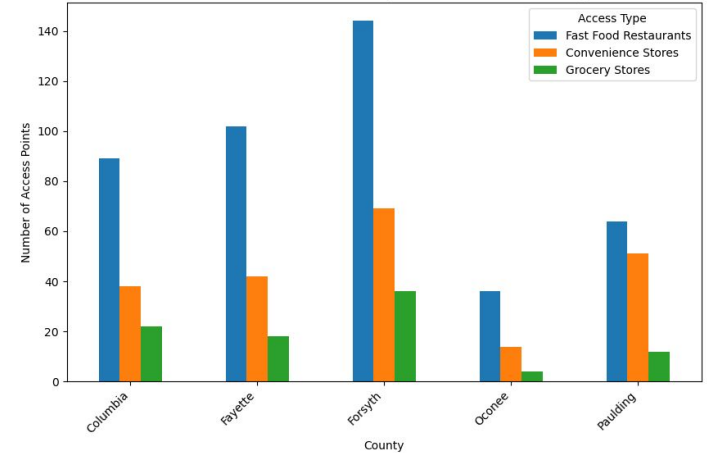
## Convenience Store:

Establishments known as convenience stores or food marts (defined by North American Industry Classification System (NAICS) codes 445120 and 447110) are primarily engaged in retailing a limited line of goods that generally includes milk, bread, soda, and snacks.

Fast Food, Convenience Store, & Grocery Store Access in High Poverty Counties



Fast Food, Convenience Store, & Grocery Store Access in Low Poverty Counties

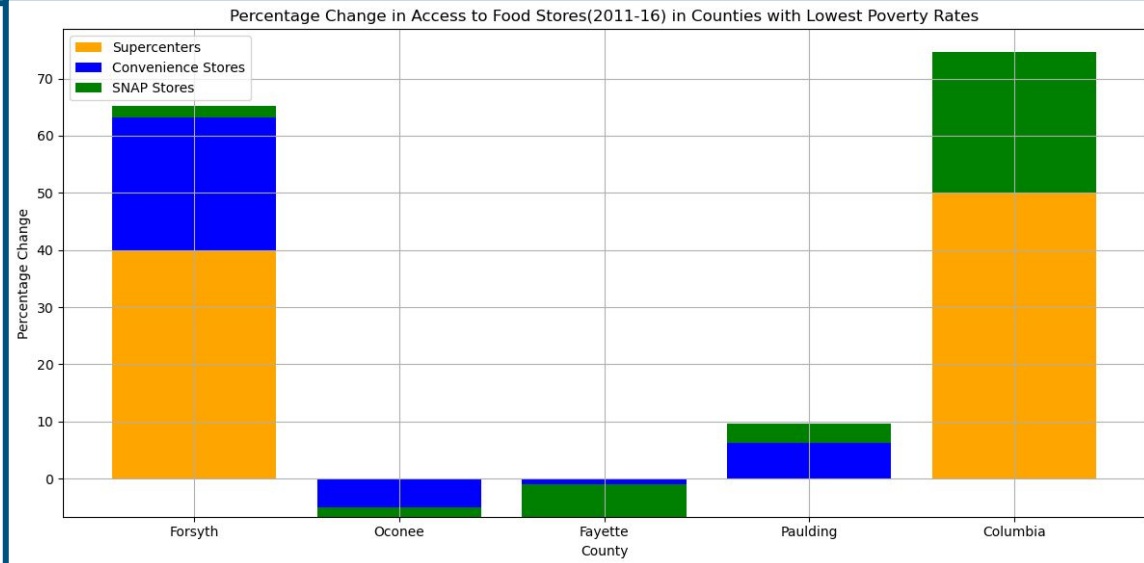
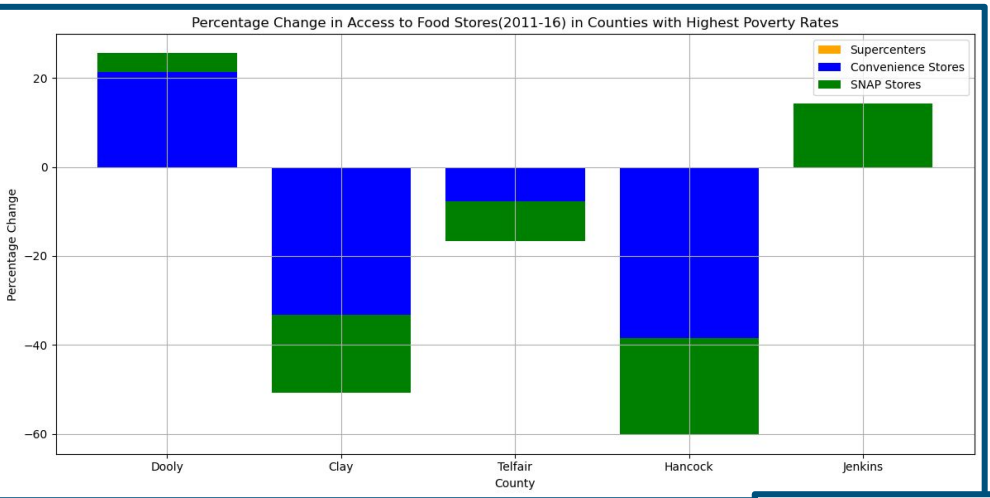


How has this trend changed over  
time?

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# Percent Change in Access to Food Stores by Store Type in Counties with Low vs. High Poverty Rates



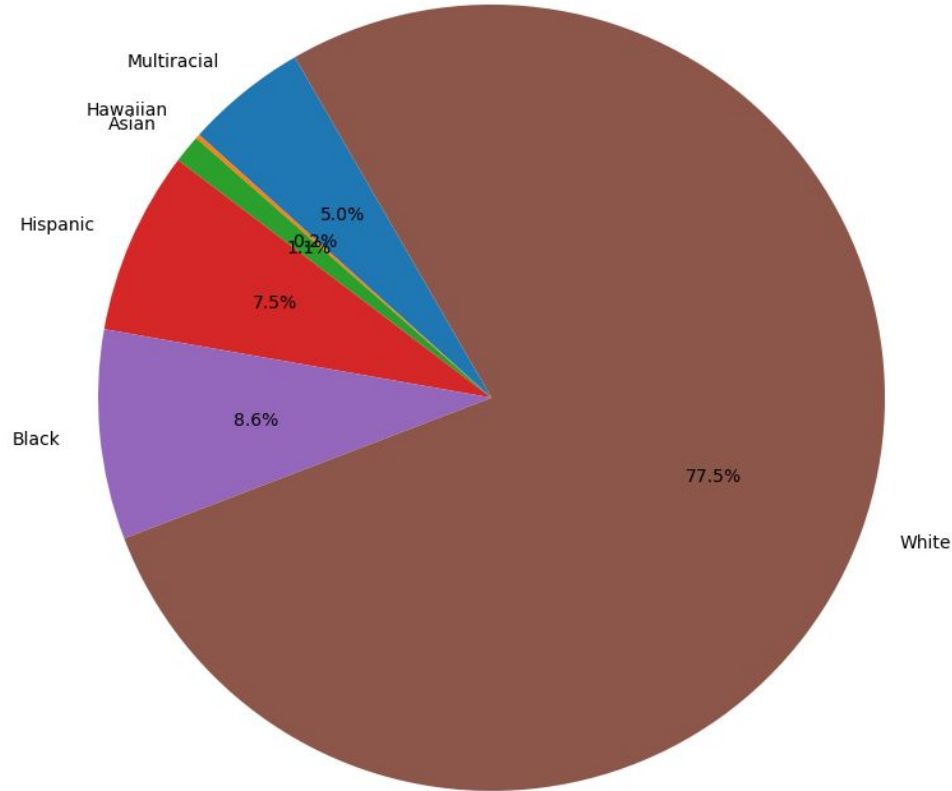


# Who is affected?

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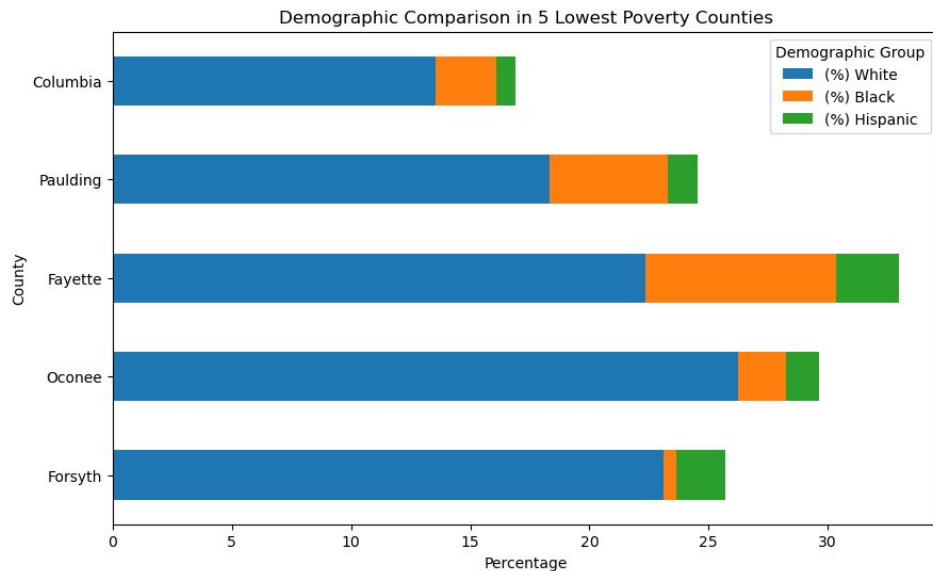
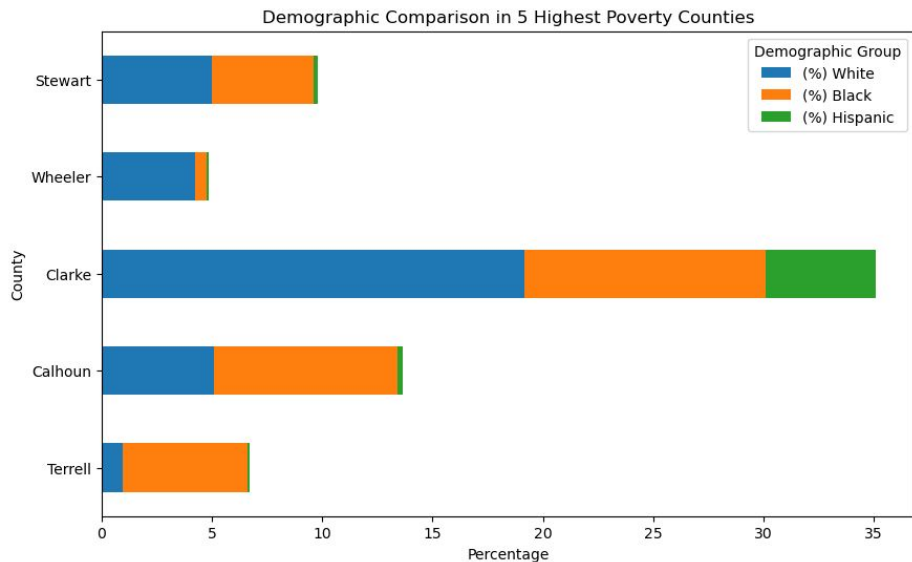
Demographics of Population with Low Access to Stores



## Low Access to Stores:

- number of people in a county living more than 1 mile from a supermarket or large grocery store if in an urban area
- more than 10 miles from a supermarket or large grocery store if in a rural area.

# Low Access Demographics by County

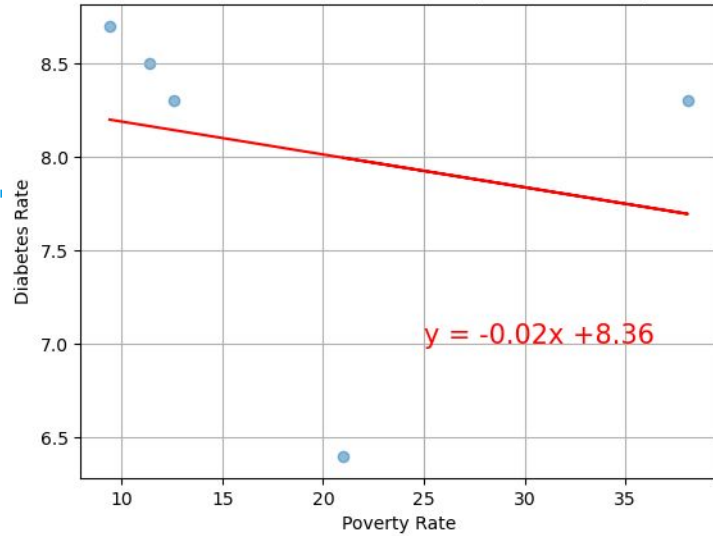


# How do these variables affect diabetes rates?

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Lowest 5 Diabetes Rates, Compared to Poverty

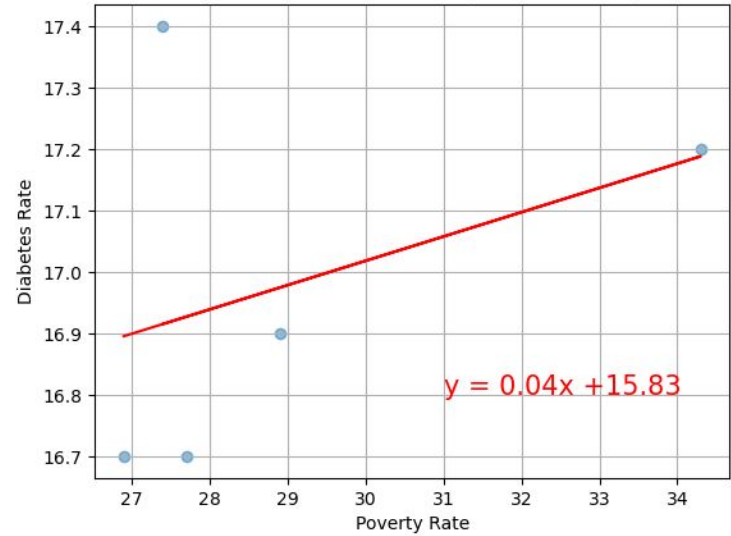


The r-value is: 0.04963428611368652

Counties with the Lowest Diabetes Rates:

	State	County	Adult Diabetes 2013	2015 Poverty Rate
0	GA	Cherokee	8.7	9.4
1	GA	Cobb	8.5	11.4
2	GA	Gwinnett	8.3	12.6
3	GA	Clarke	8.3	38.1
4	GA	Chattahoochee	6.4	21.0

Top 5 Diabetes Rates, Compared to Poverty

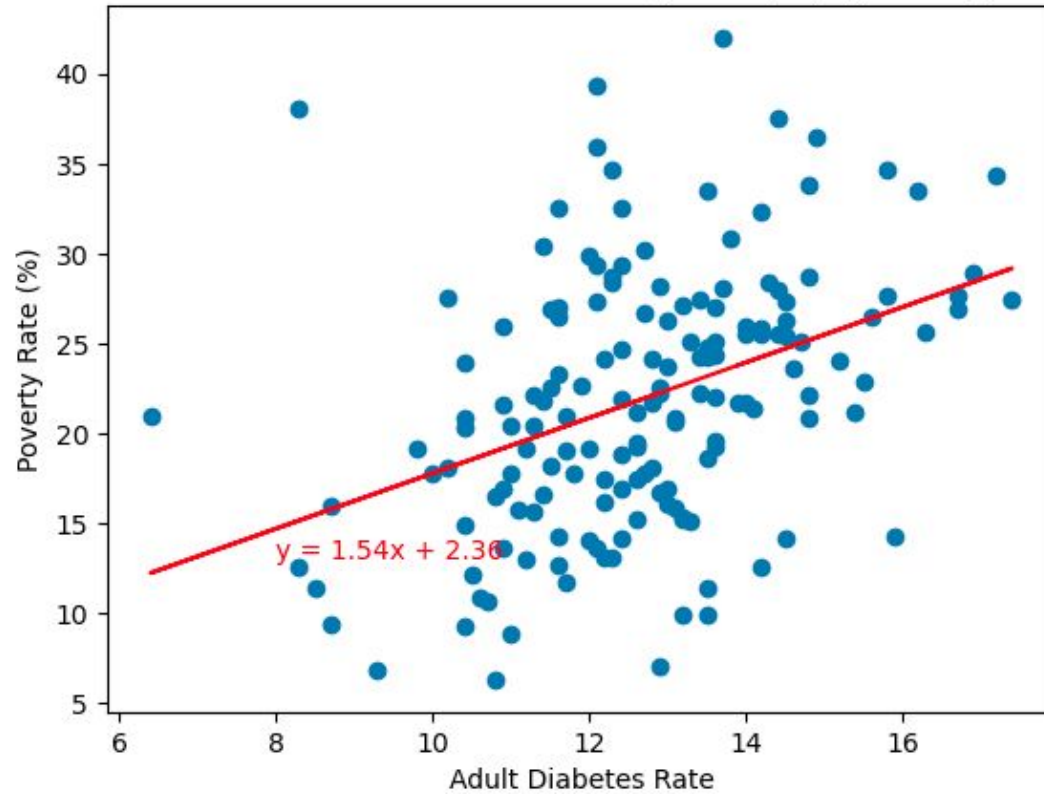


The r-value is: 0.1482573078286788

Counties with the Highest Diabetes Rates:

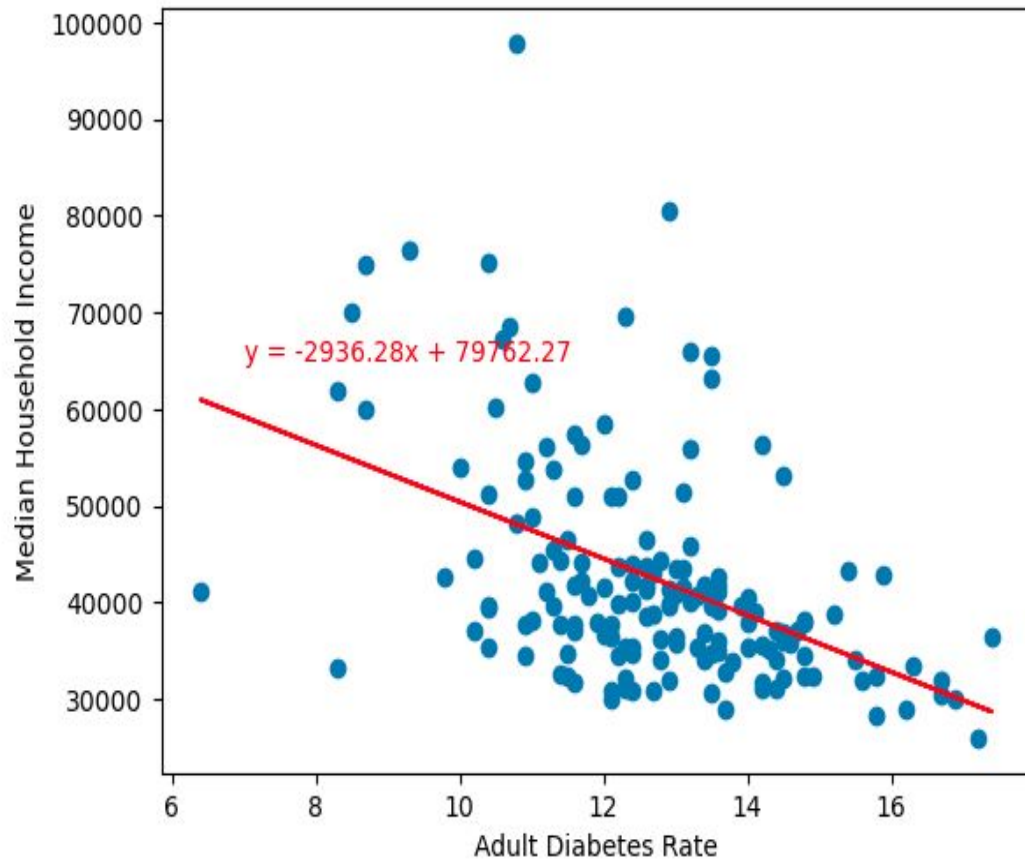
	State	County	Adult Diabetes 2013	2015 Poverty Rate
0	GA	McDuffie	17.4	27.4
1	GA	Clay	17.2	34.3
2	GA	Quitman	16.9	28.9
3	GA	Jefferson	16.7	27.7
4	GA	Randolph	16.7	26.9

Adult Diabetes Rate vs. Poverty Rate (%) by County



The r-squared is: 0.15757508043092436

Adult Diabetes Rate vs. Median Household Income by County



The r-squared is: 0.21364584459397454

# Conclusion:

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Based on the data we recovered, we were able to reject the null hypothesis. It does appear that as poverty rates increase, access to healthy food decreases. Additionally, it appears that as poverty rates increase, diabetes rates also increase.

Clarke County is a potential outlier in our data, because although it is among the highest poverty rate counties in Georgia, the population has similar food access to counties with relatively low poverty rates. This makes sense, because it is a college town, with a lot of the economy being supported by students.

Potential limitations in our dataset include a lack of comprehensive poverty rates, limited health information, and no data to represent actual consumer purchasing trends.

