

# Consumer Expenditure Survey -2023

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# Introduction

## ***Purpose of this analysis:***

To gain insights on consumer spending behavior in the U.S on food and groceries

Specifically, between five different groups of average income before taxes within the U.S

## ***My Questions:***

Out of the five quintiles of income, which quintile spends the most on fresh produce?

Which quintile spent the most on processed foods?

What were the top food categories that consumers spent the most on for each quintile of income?

Is there a significant difference in the spending on each food category between each quintile?

# Useful Insights

## ***Who can benefit from this analysis?***

- Grocery store chain

## ***Why?***

Insights into the spending habits of each group in each food category can help grocery stores with decision making, problem solving, advertising and etc.

This analysis can help when deciding the location of certain stores, which food items they will advertise the most and to who they will advertise these products

# Methodology

## ***Data***

- Data is from the Bureau of Labor Statistics website [bls.gov](https://www.bls.gov)
- I used the Consumer Expenditure Survey income quintiles before taxes 2023
- That is in a CSV file format

## ***Tool***

- I used Excel and Jupyter notebooks

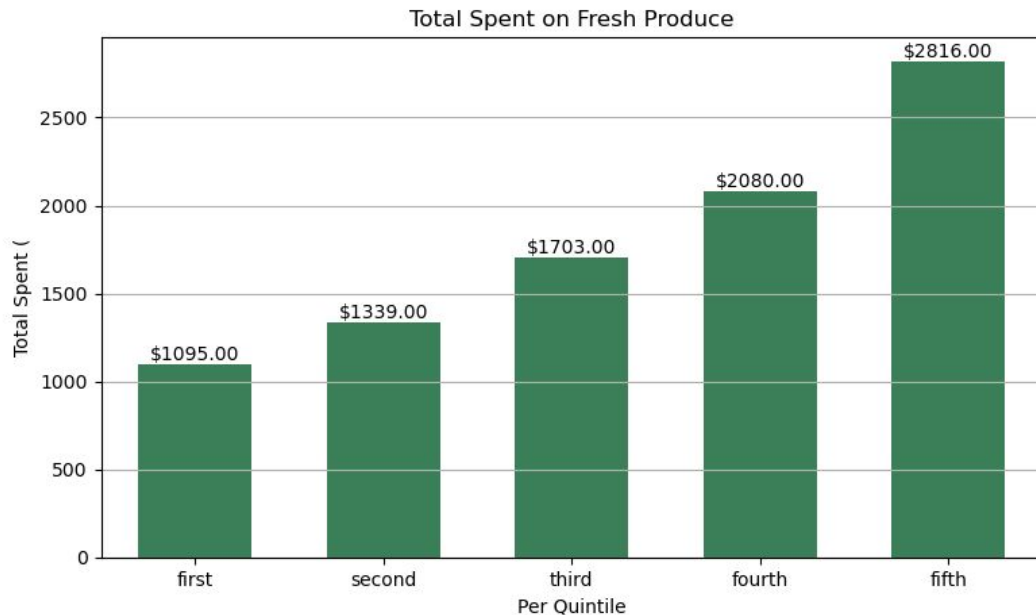
## ***Packages***

- I used the packages pandas, decimal, matplotlib, seaborn

# Question 1:

**Out of the five quintiles of income, which quintile spends the most on fresh produce?**

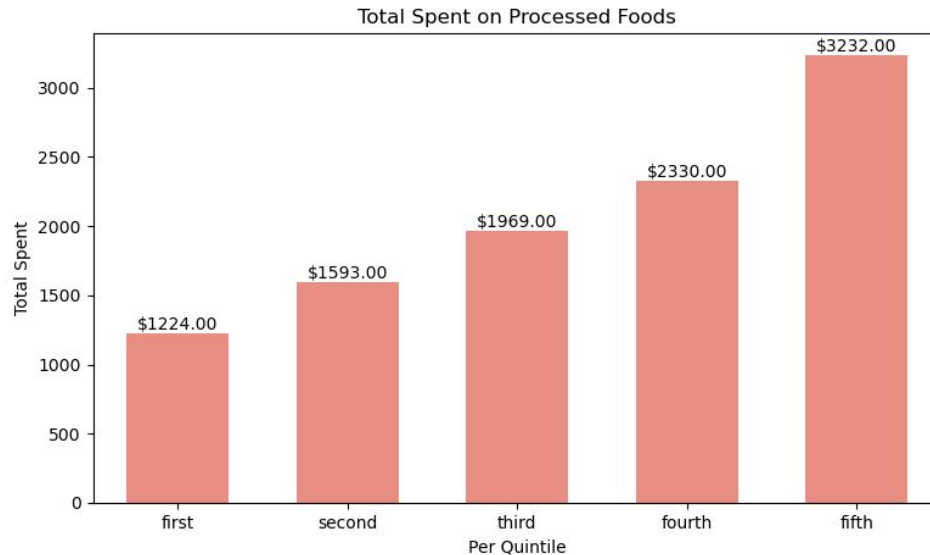
**Results: Quintile 5 spent the most on fresh produce at a total of \$2816 for the year**



# Question 2:

**Which quintile spent the most on processed foods?**

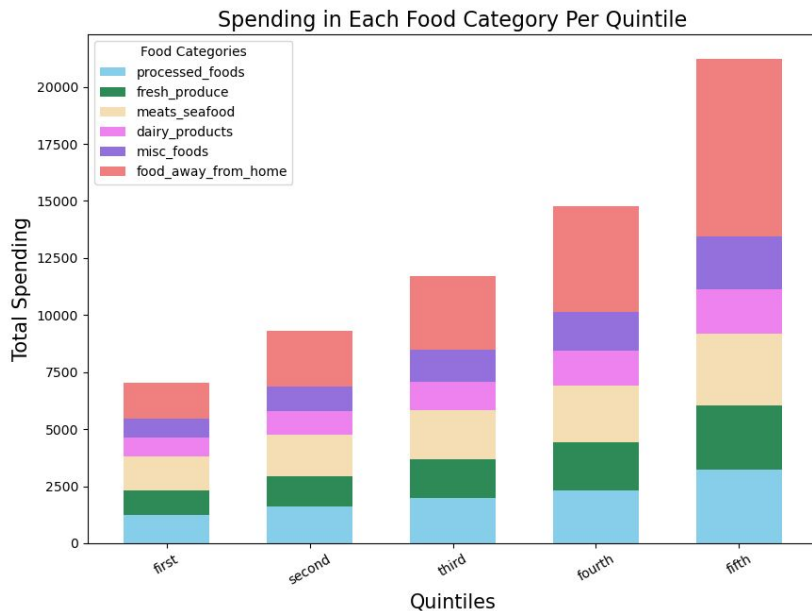
**Results: Quintile 5 also spent the most on fresh processed foods at a total of \$3232 for the year**



# Question 3:

**What were the top food categories that consumers spent the most on for each quintile of income?**

**Results: For each quintile it appears the category they spend the most on first is food away from home then second is meats and seafood**



## Question 3: Part 2

### Each quintile spends the most on food away from home

The first quintile spent the most on 'food\_away\_from\_home' with a total of: 1571\$  
The second quintile spent the most on 'food\_away\_from\_home' with a total of: 2421\$  
The third quintile spent the most on 'food\_away\_from\_home' with a total of: 3234\$  
The fourth quintile spent the most on 'food\_away\_from\_home' with a total of: 4633\$  
The fifth quintile spent the most on 'food\_away\_from\_home' with a total of: 7797\$

### Given that each quintile spent the most on food away from home, I removed the food away from home category to see what the other top categories would be

The first quintile spent the most on 'meats\_seafood' with a total of: 1508  
The second quintile spent the most on 'meats\_seafood' with a total of: 1828  
The third quintile spent the most on 'meats\_seafood' with a total of: 2160  
The fourth quintile spent the most on 'meats\_seafood' with a total of: 2500  
The fifth quintile spent the most on 'processed\_foods' with a total of: 3232



## Question 4:

Is there a significant difference in the spending on each food category between each quintile?

**Results:** from this line plot you can see

**how similar the spending patterns**

**are between each food category**

**besides the food away from home**

