

# Analysing the 2024 U.S. Presidential Election\*

## Spotlight on North Carolina's Role as a Battleground State

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\*Code and data are available at: <https://>

# 1 Introduction

## 2 Data

### 2.1 Measurement

The data used in this paper were obtained from the websites of various food retail companies, including Voila, T&T, Loblaws, No Frills, Metro, Galleria, Walmart Canada, Save-On-Foods. The data was gathered by using screen-scrape of website UI, starting from Feb.28 to Nov.14. This data captures the product name, units, and prices of each vendors. (Filipp 2024)

This data has some limitations. There are missing data on certain days for certain vendors, some missing points occur on days which those specific extracts failed. While data collection for some products starts from July. This data didn't include all vendors in the markets, which may cause bias to our analysis.

### 2.2 Key Observation Variables

#### 2.2.1 Current Time

The current time(`current_price`) is the time when this data is retrieved.

#### 2.2.2 Current Price

The current price(`current_price`) is the price of the product retrieved at the time accessed.

#### 2.2.3 Old Price

The current price(`old_price`) is the “old price” of the product retrieved at the time accessed that is struck out by the vendor. It appears whenever there is a sales on and the vendor wants to show the change in price. This is the key variable to differentiate between sale and silent price drops.

### 2.3 Overview

Figure 1 is a graph

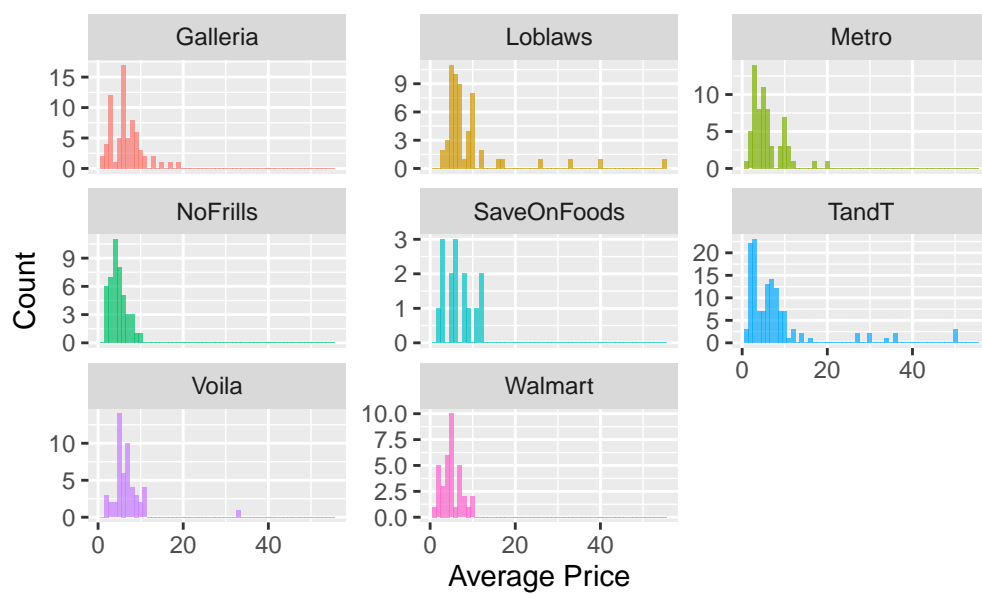


Figure 1: Distribution of Average Prices by Vendor

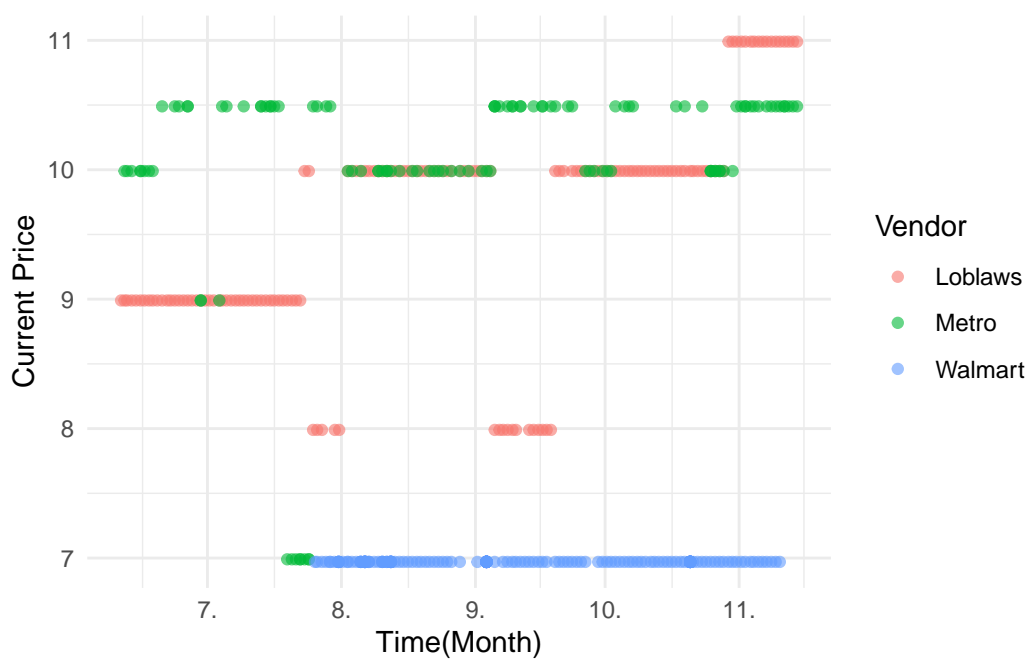


Figure 2: Price Change of Lipton Ginseng Lemon Green Tea 72 Counts

### **3 Results**

### **4 Discussion**

#### **4.1 Correlation Versus Causation**

#### **4.2 Missing Data**

#### **4.3 Sources of Bias.**

## References

Filipp, Jacob. 2024. "Project HAmmer." <https://jacobfilipp.com/hammer/>.