

# Retail Sales EDA & Forecasting



## Correlation Matrix

	<i>Weekly_Sales</i>	<i>Temperature</i>	<i>Fuel_Price</i>	<i>MarkDown1</i>	<i>MarkDown2</i>	<i>MarkDown3</i>	<i>MarkDown4</i>	<i>MarkDown5</i>	<i>CPI</i>	<i>Unemployment</i>
Weekly_Sales	1									
Temperature	-0.002312447	1								
Fuel_Price	-0.000120296	0.143858819	1							
MarkDown1	0.047172342	-0.026415133	0.297056262	1						
MarkDown2	0.020716467	-0.179672448	0.029153237	0.174867684	1					
MarkDown3	0.038562039	-0.056026324	0.018614902	-0.01441094	-0.006080232	1				
MarkDown4	0.037467181	-0.05028091	0.166621948	0.838904415	0.113249988	-0.012020093	1			
MarkDown5	0.050465293	-0.014752445	0.215419702	0.415050183	0.131735086	0.04247116	0.303369575	1		
CPI	-0.020921335	0.182111607	-0.164210406	0.010914758	-0.003553899	-0.005838833	-0.002047144	0.067905904	1	
Unemployment	-0.025863716	0.09673018	-0.033852703	-0.105168294	-0.041427281	-0.018077638	-0.076512836	-0.120406278	-0.299953018	1

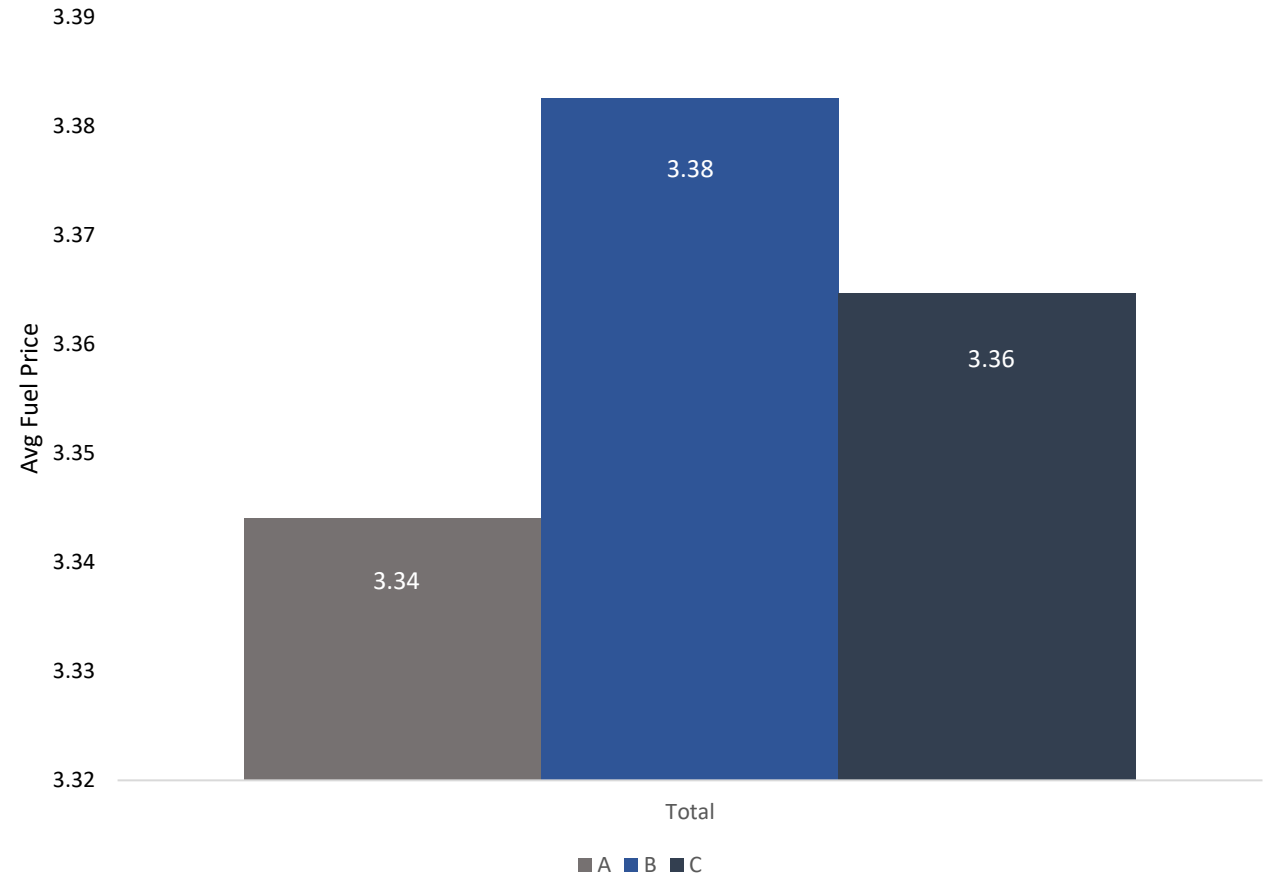
# The Change in fuel price over 3 years

The Fuel Price in **2011 & 2012** started to increase from Mar to May , In May the fuel price reached the highest price , It was **3.97**



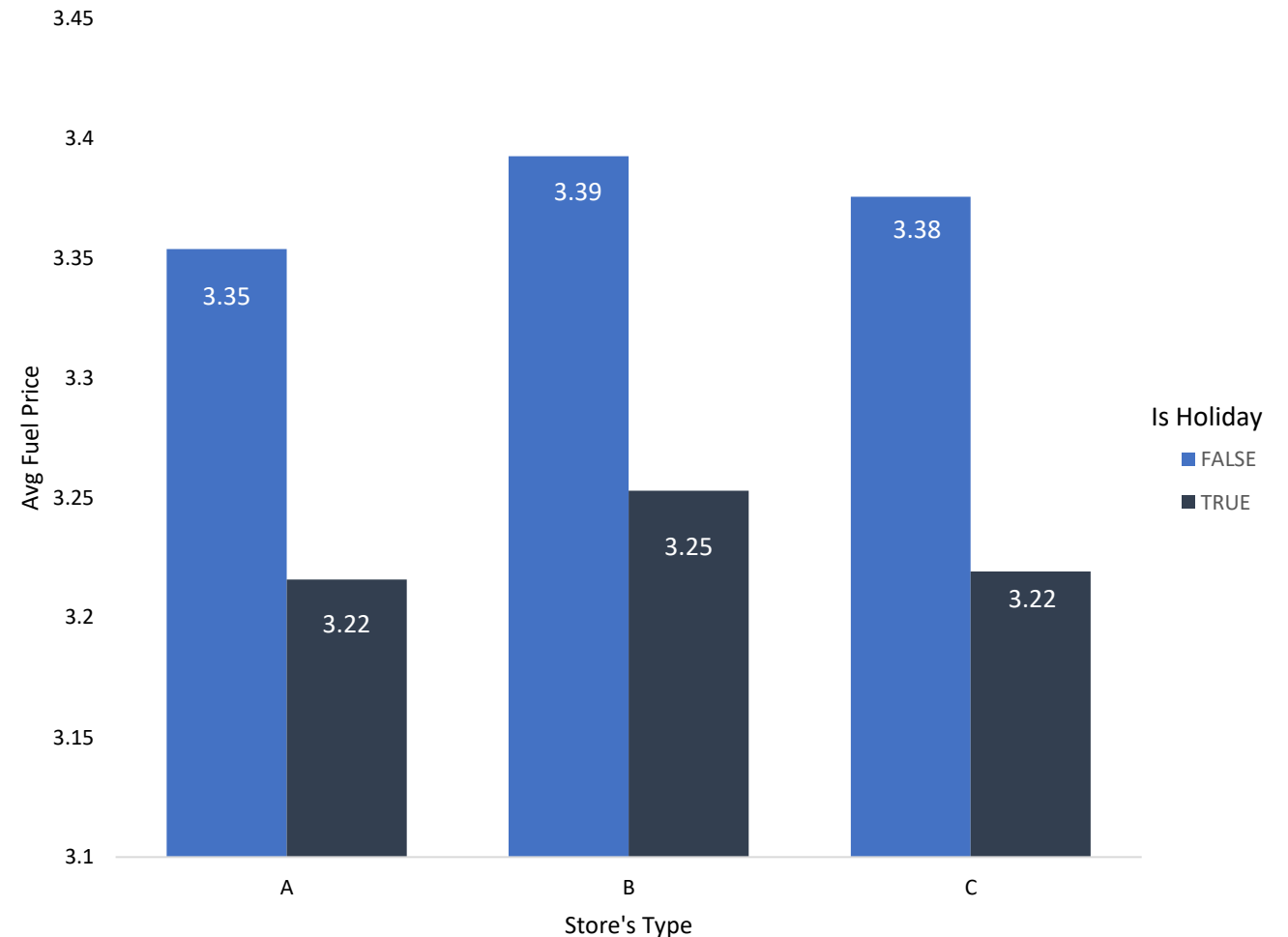
# The Fuel Price based on the type of the store

There is significant increase in the fuel price for **the type B store**.



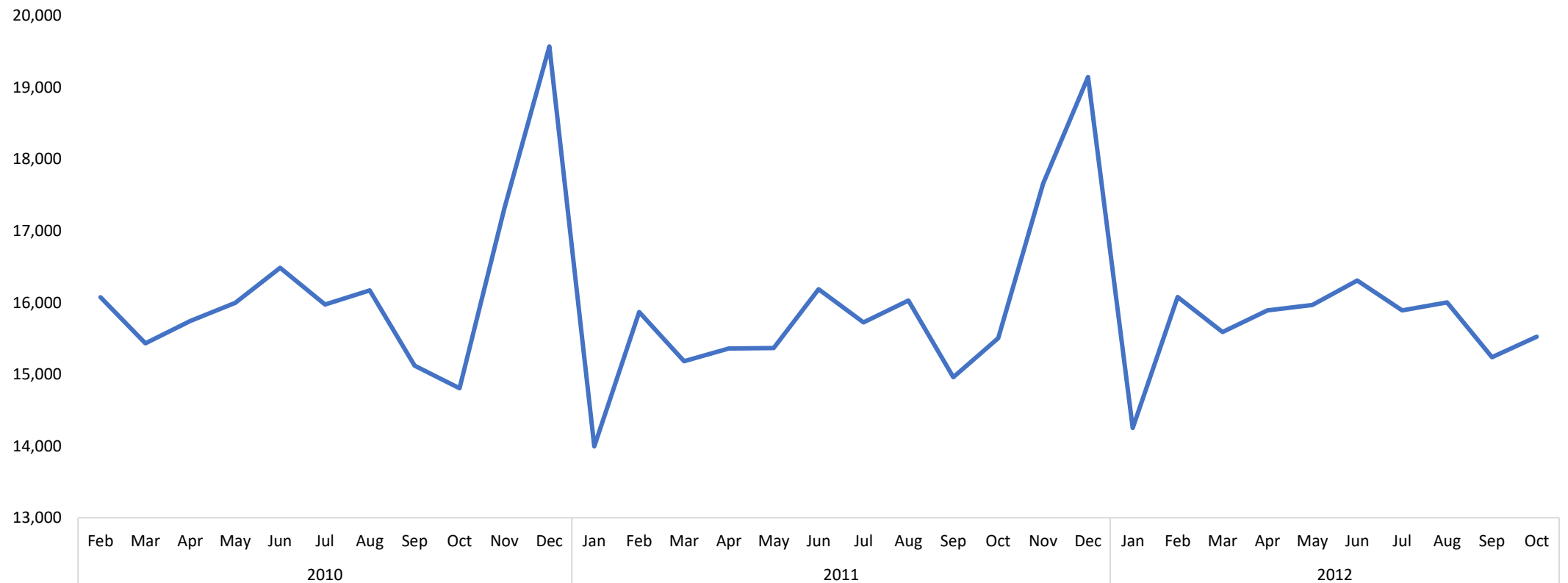
# The Change of the Fuel Price based on The Type and whether the day is holiday or not

The fuel prices were very less in the weekends compared to the prices during the weeks.

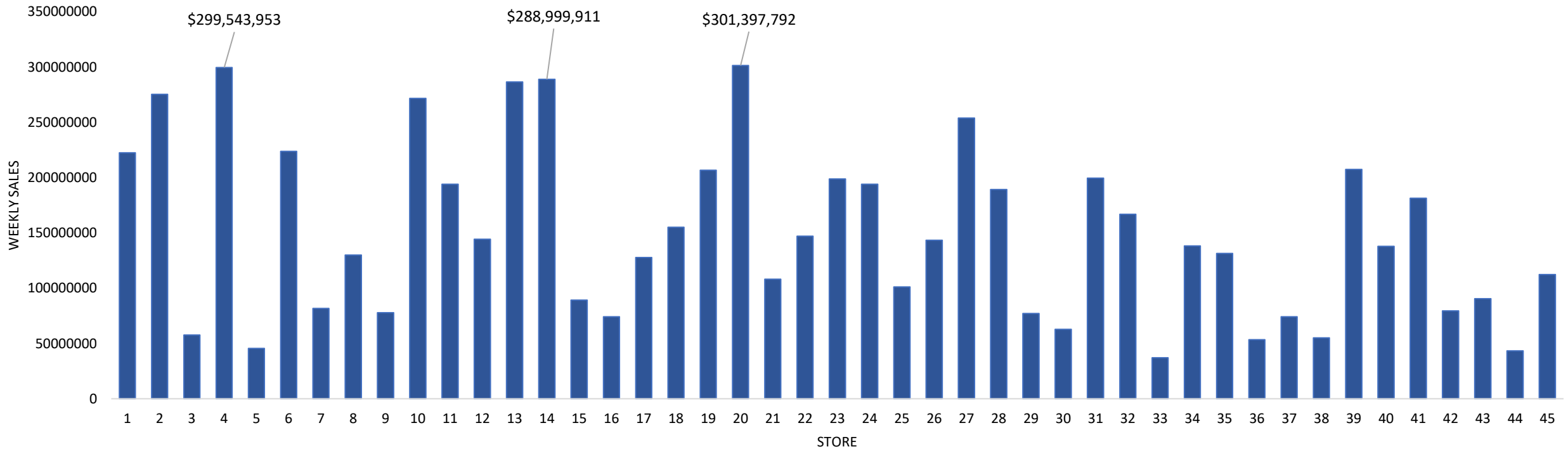


# The Change in Weekly sales over 3 years

The weekly Sales started to raise from **oct to Dec 2010 & 2011** and then suddenly decreased.



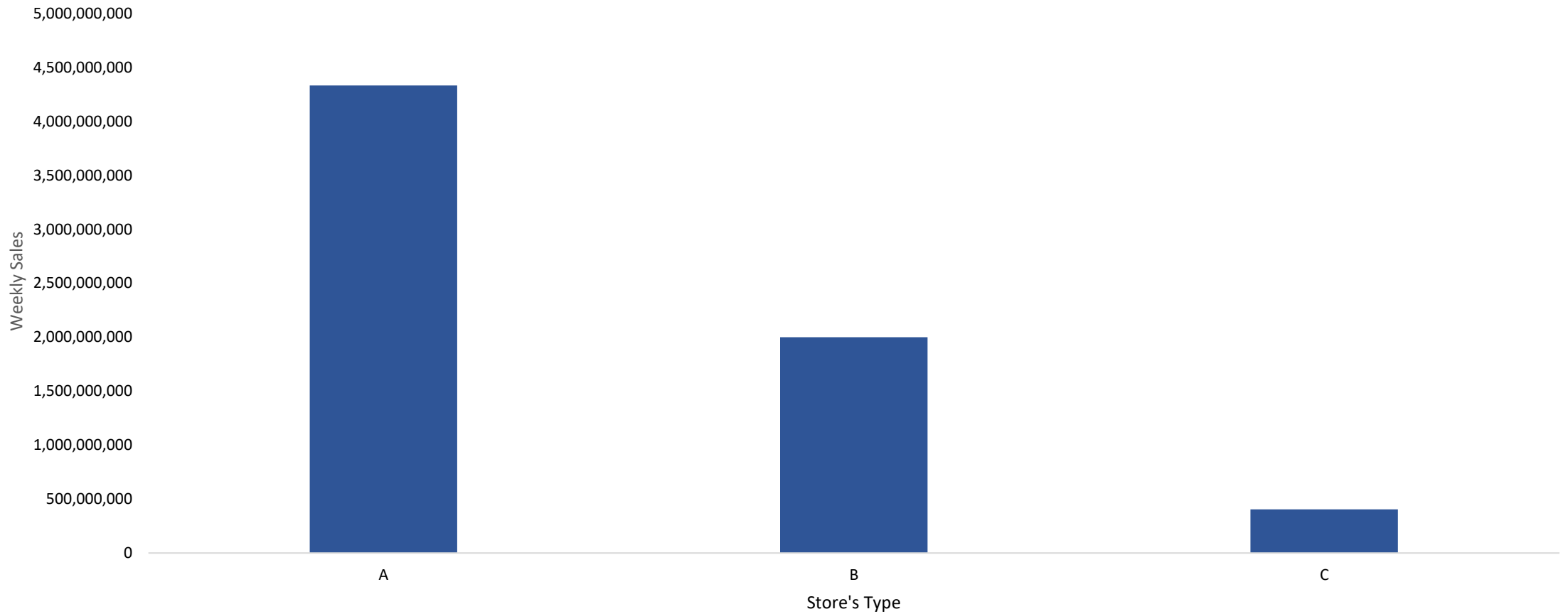
# Sales by Stores



## Top Stories :

- **Store 20** had \$301,397,792 sales.
- **Store 4** had \$299,543,953 sales.
- **Store 14** had \$288,999,911 sales.

# Sales by Store's Type





# Sales Predicting For Nov & Dec 2012

