

# Demand Graphs - All Purpose Flour

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## Demand Specification

In this exercise, I estimate demand based on a panel specification. The demand is estimated at market level with defined as the combination of DMA and Chain. We restrict to market with at least 3 stores in the top 90 percent of stores in terms of sales in the category. For each market and brand  $k$ , we run the regression

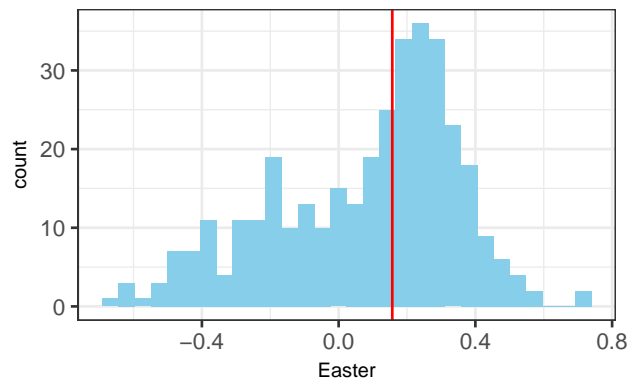
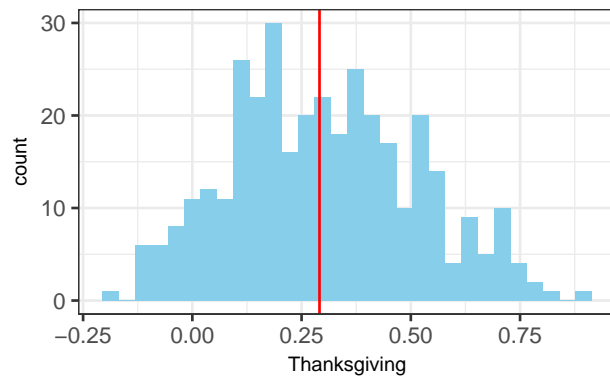
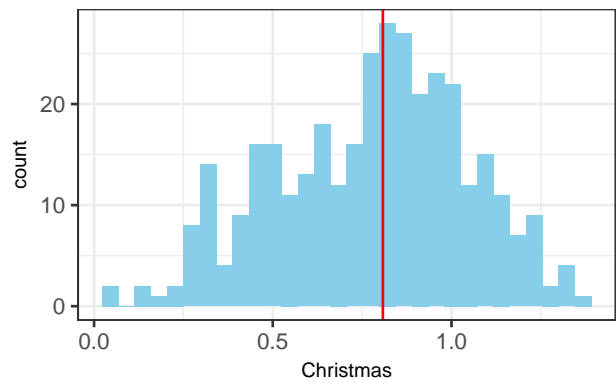
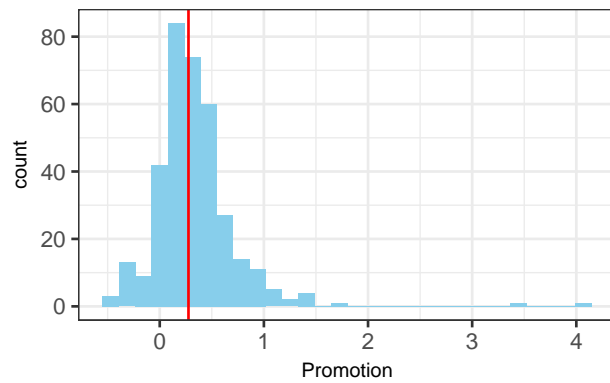
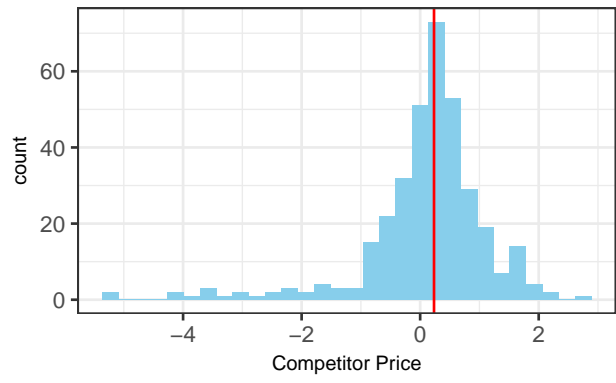
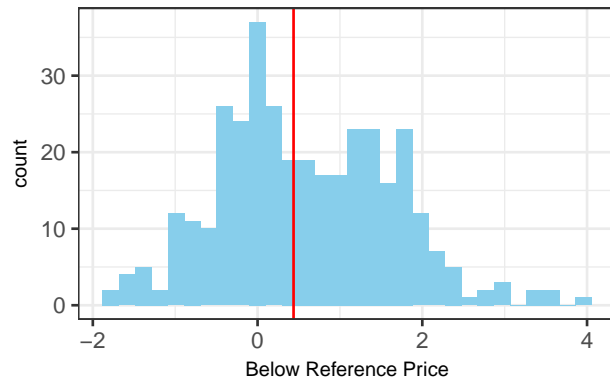
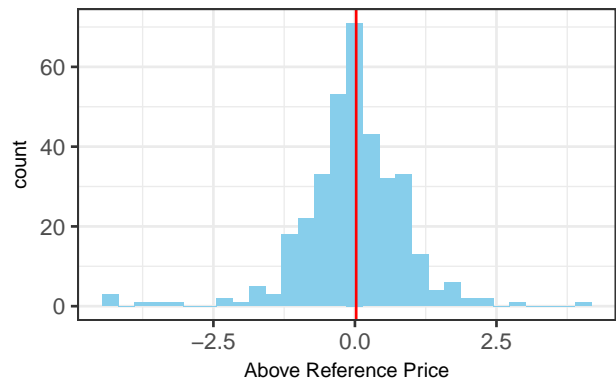
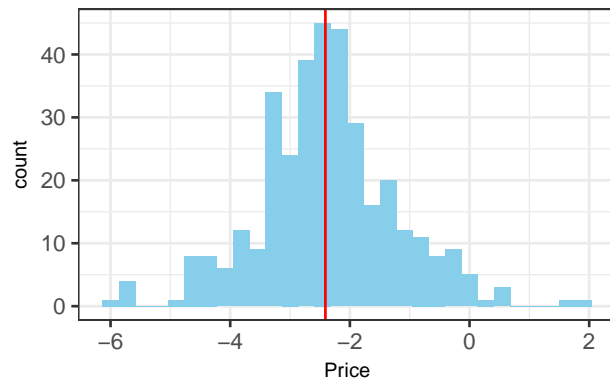
$$y_{sjt} = \alpha_s + \beta_1 \ln p_{sjt} + \beta_2 \mathbb{I}_{p_{sjt} \geq p_{sj,t-1}} (\ln p_{sjt} - \ln p_{sj,t-1}) + \beta_3 \mathbb{I}_{p_{sjt} < p_{sj,t-1}} (\ln p_{sjt} - \ln p_{sj,t-1}) \\ + \beta_4 \ln(\text{other price}) + \beta_5 \text{promotion} + \beta_6 \text{Seasonality} + \beta_7 \text{Time Trend, 7 degree polynomial}$$

## Demand Estimates Using Prices - No Instrumental Variables

Plot the estimates regardless of statistical significance. Results are shown below:

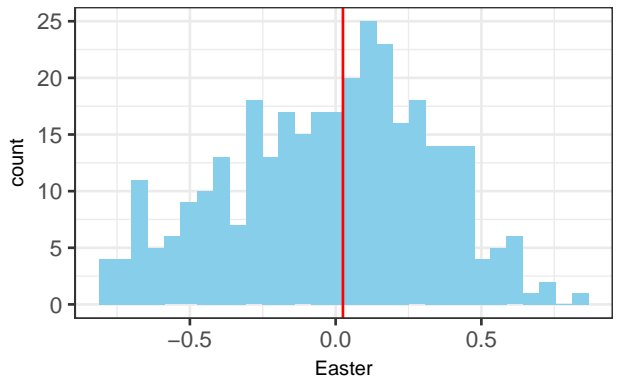
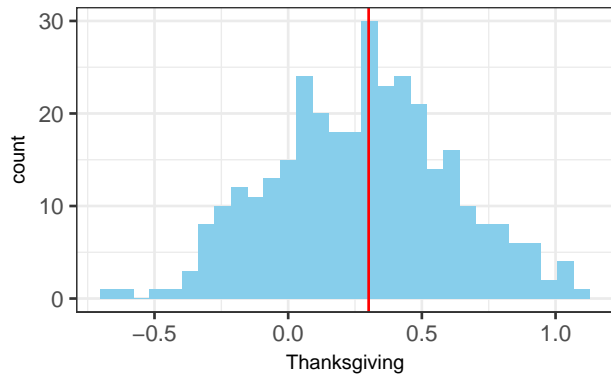
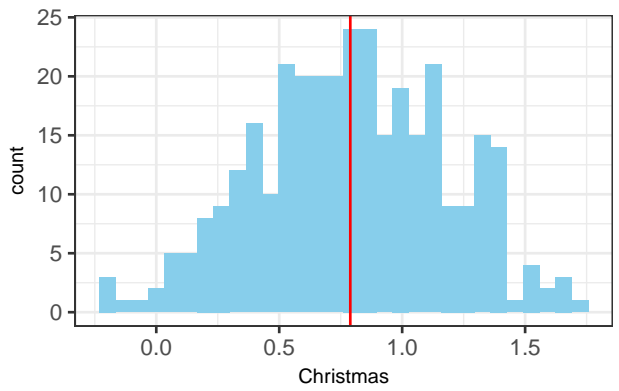
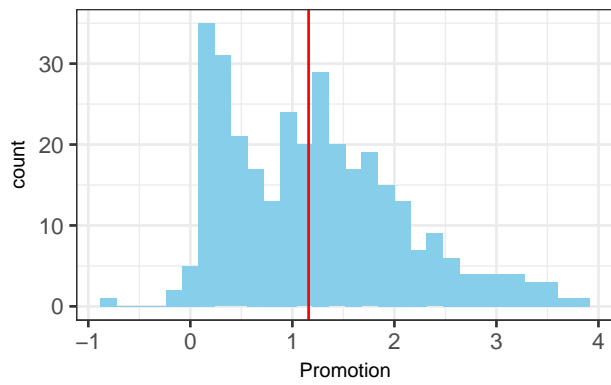
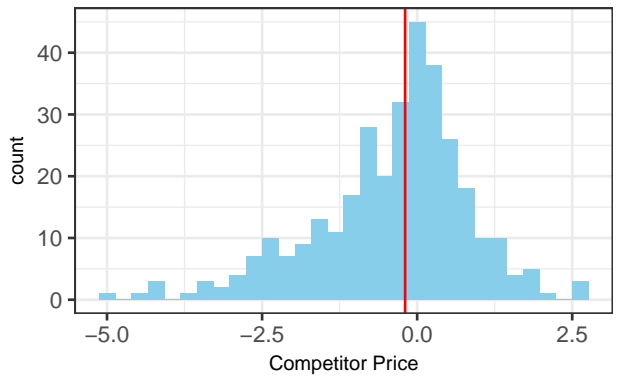
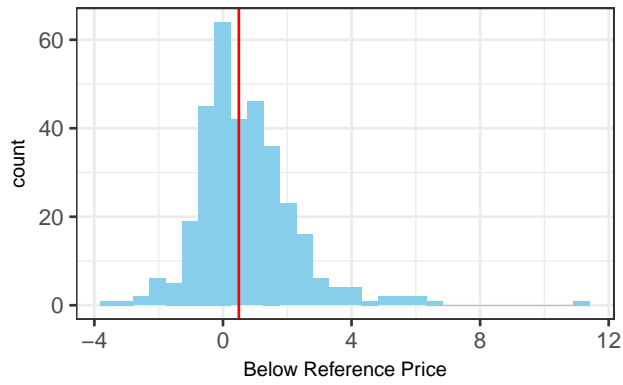
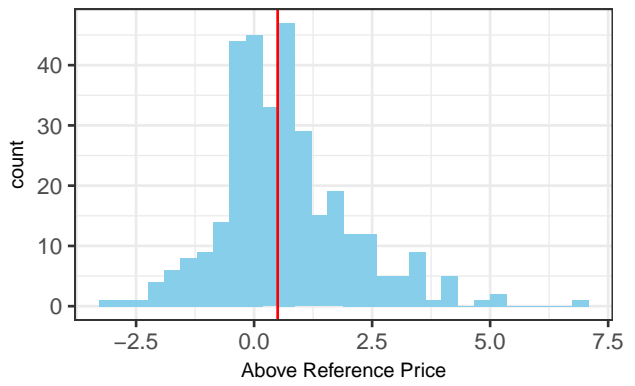
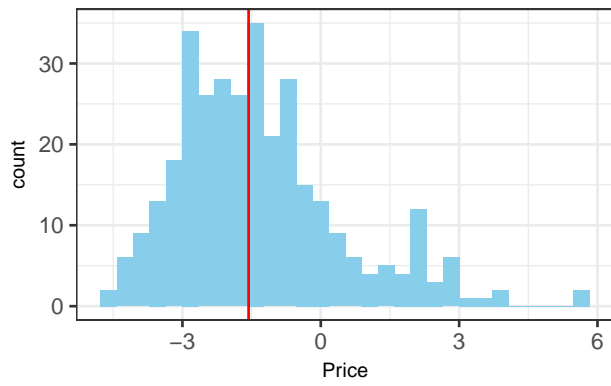
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## GOLD MEDAL



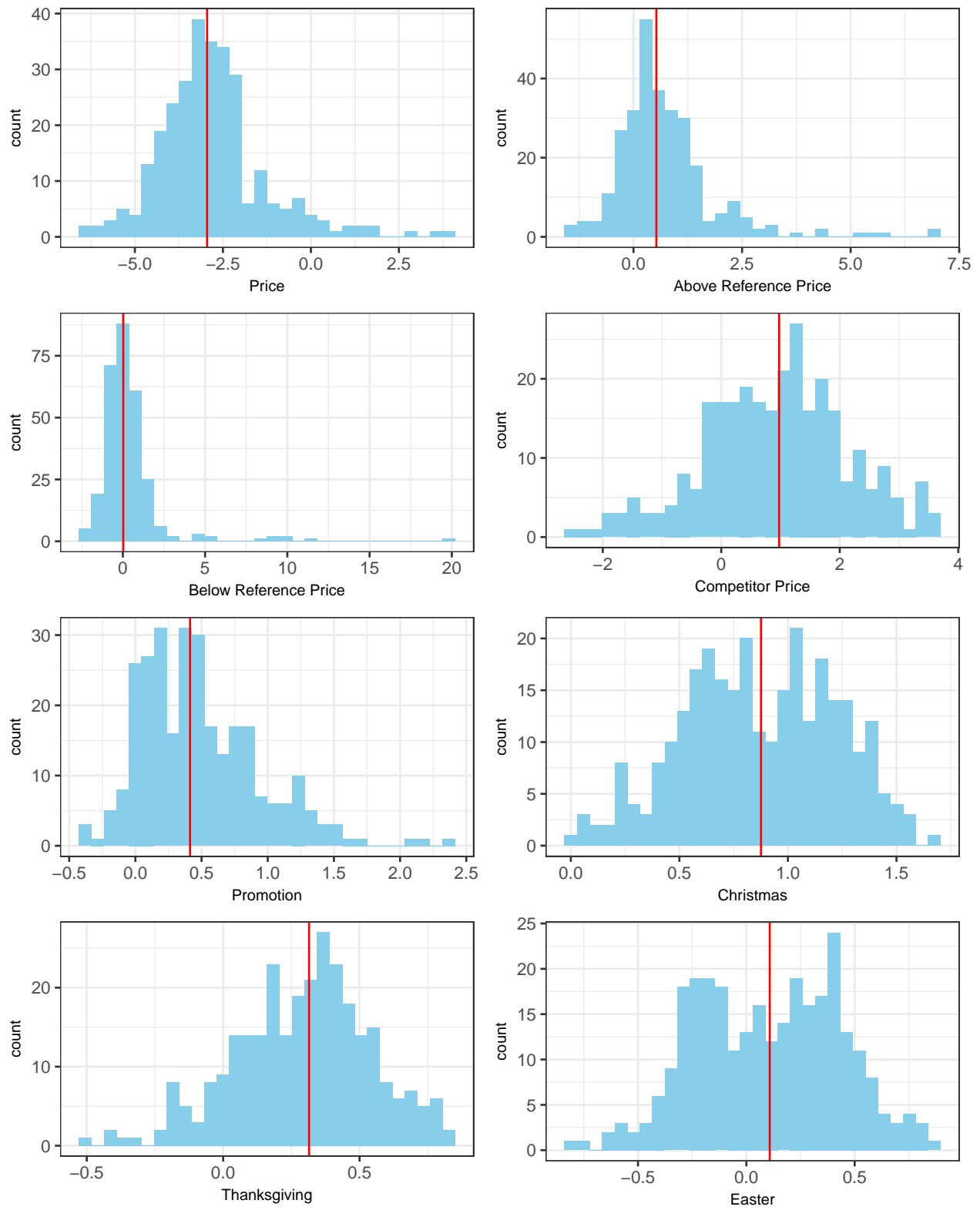
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# KING ARTHUR FLOUR

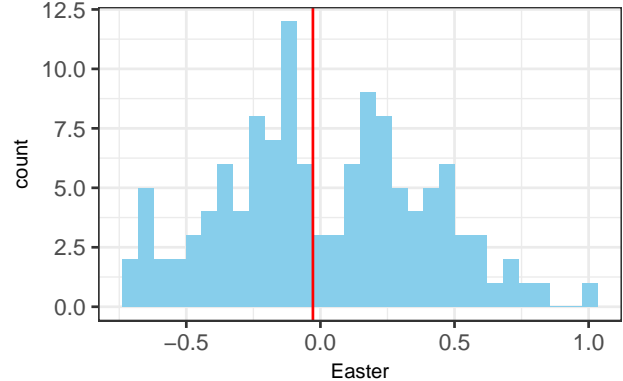
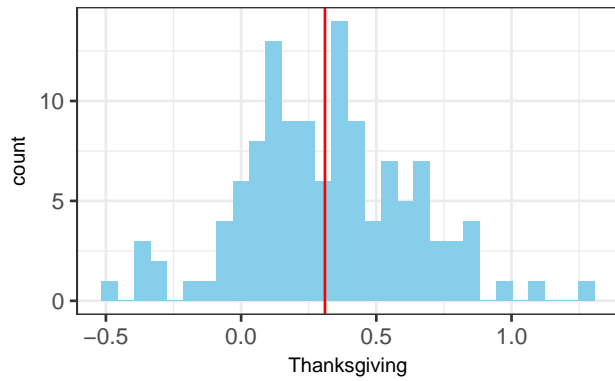
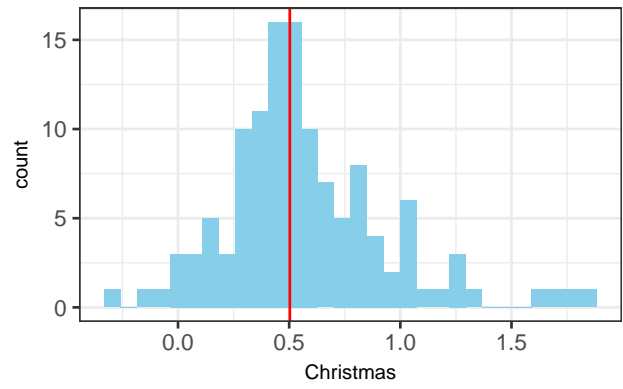
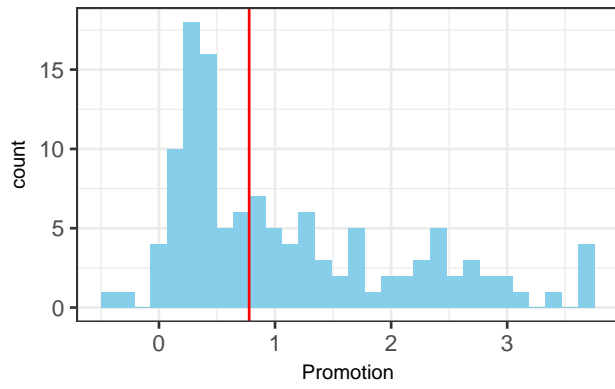
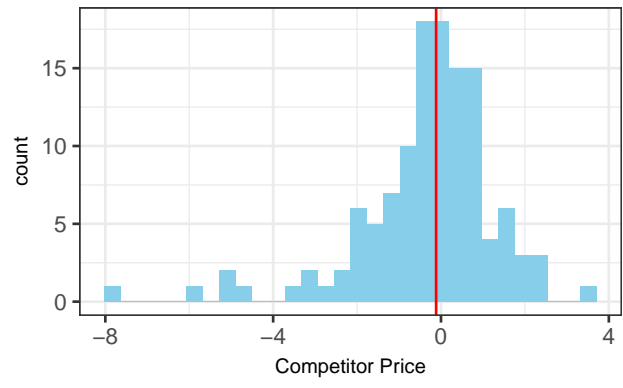
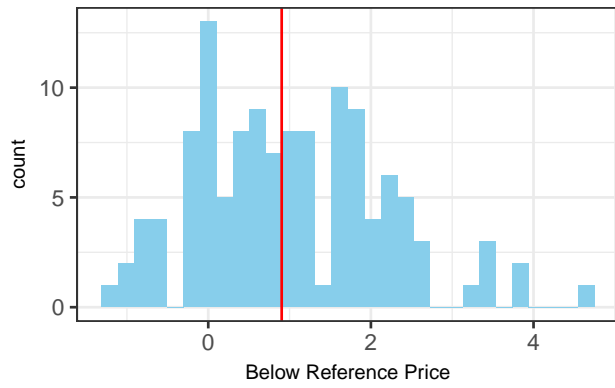
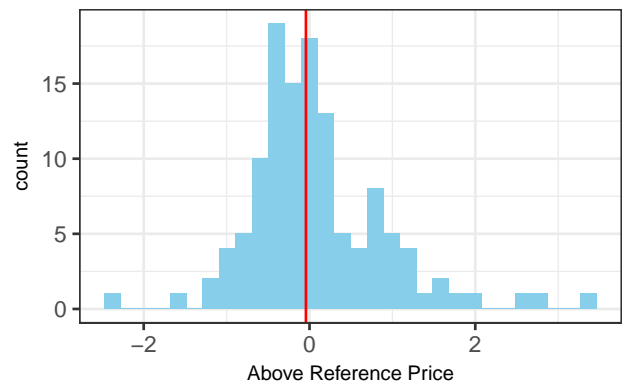
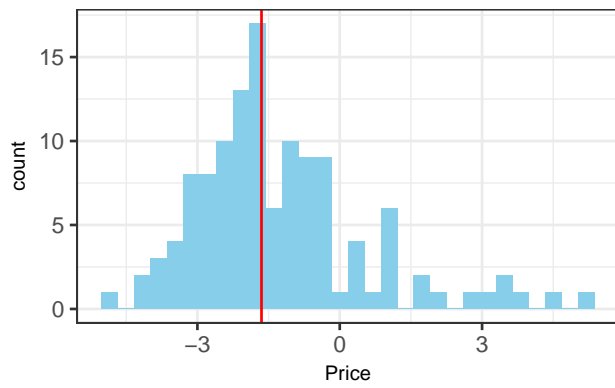


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# PILLSBURY BEST



# WHITE LILY

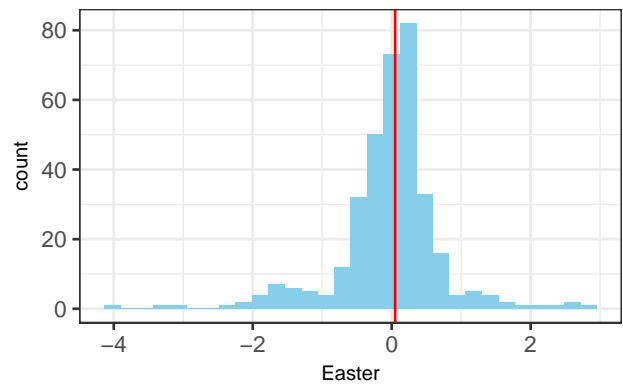
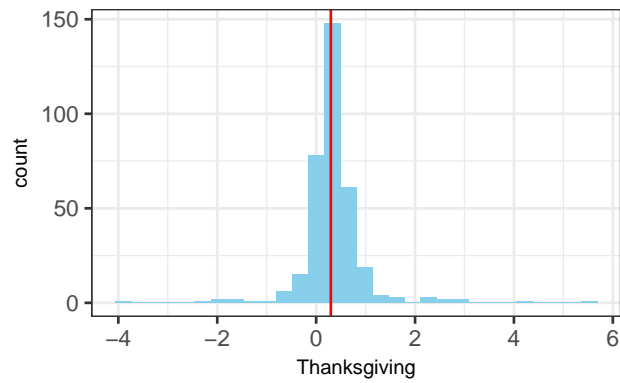
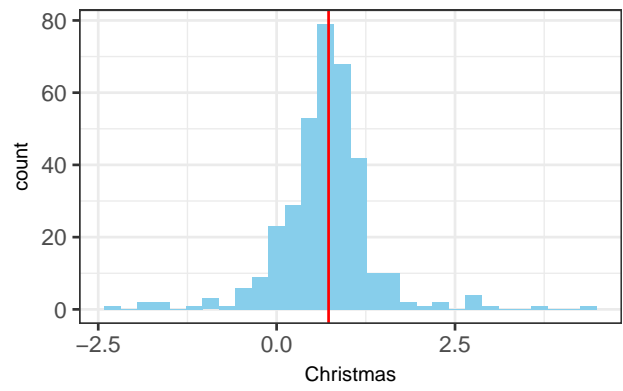
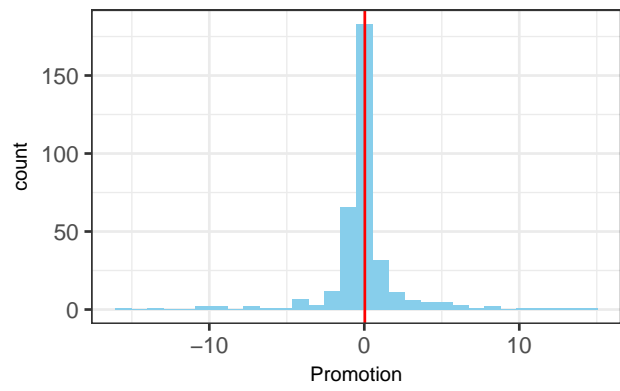
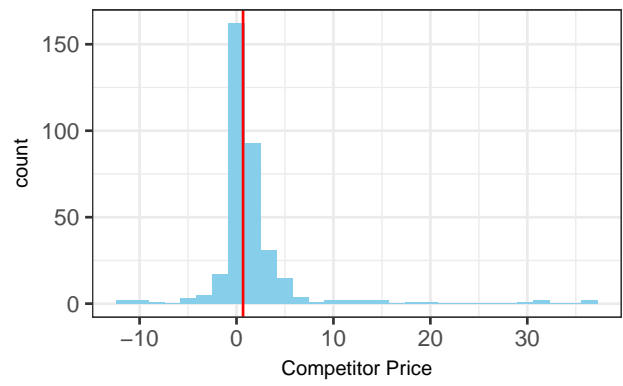
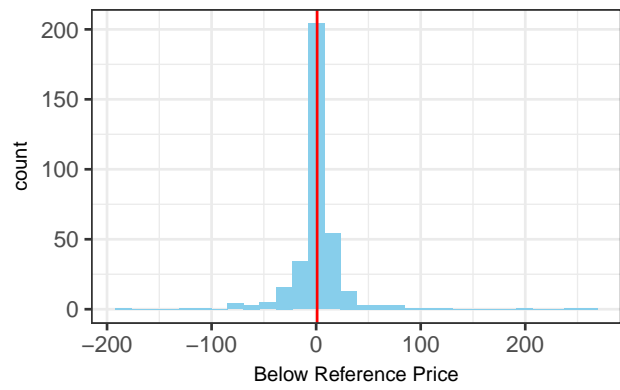
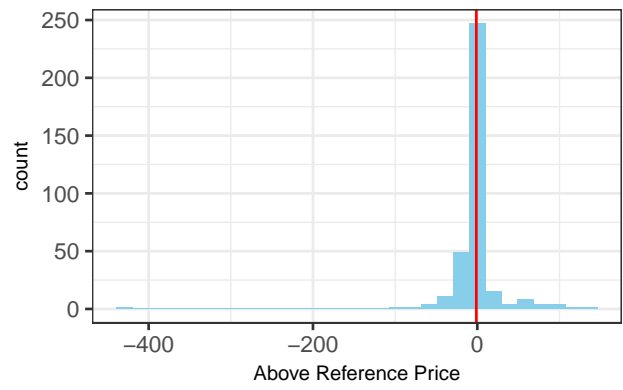
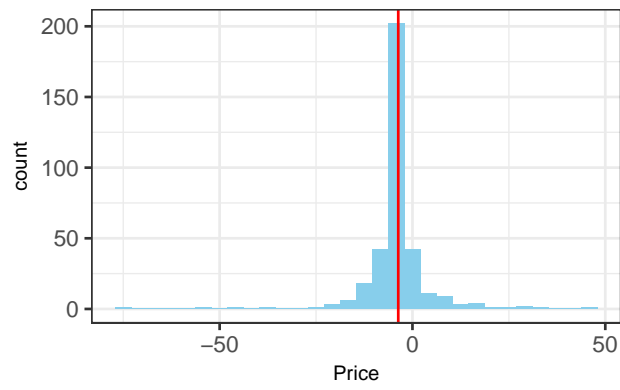


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## Demand Estimates Using Prices - Hausman Instruments

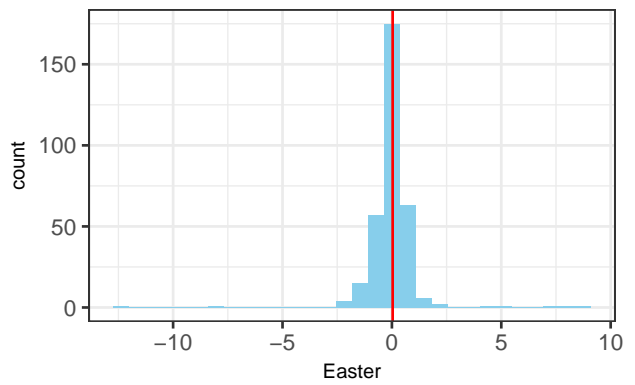
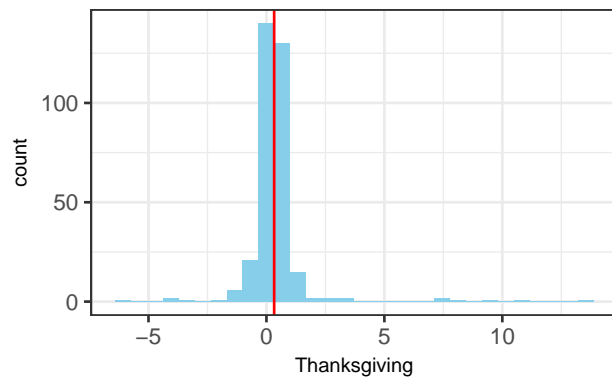
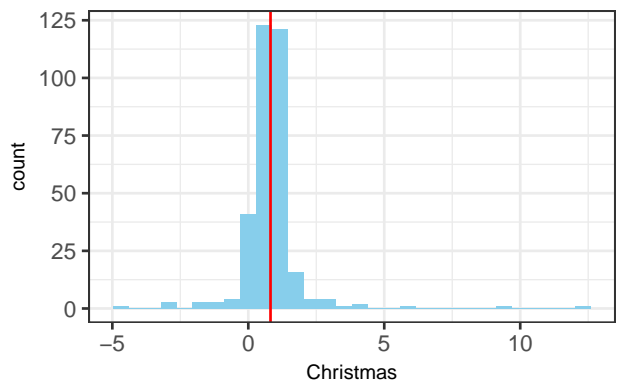
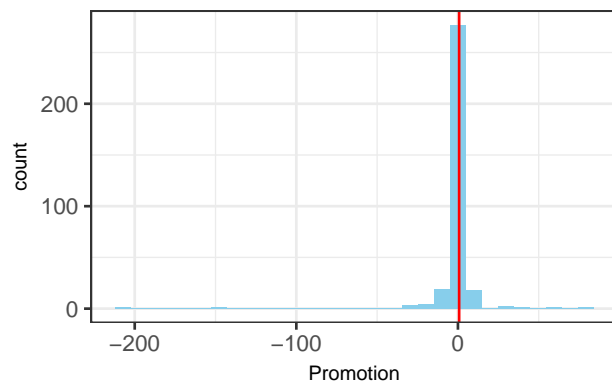
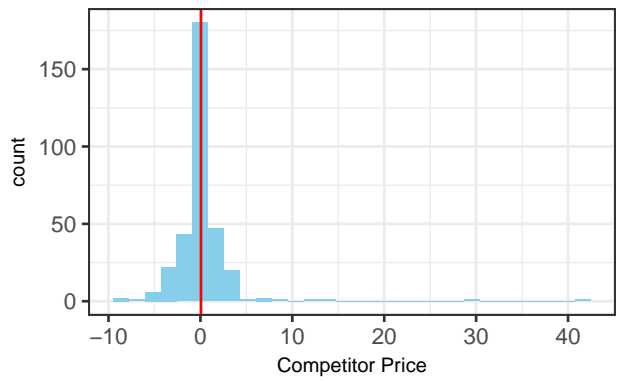
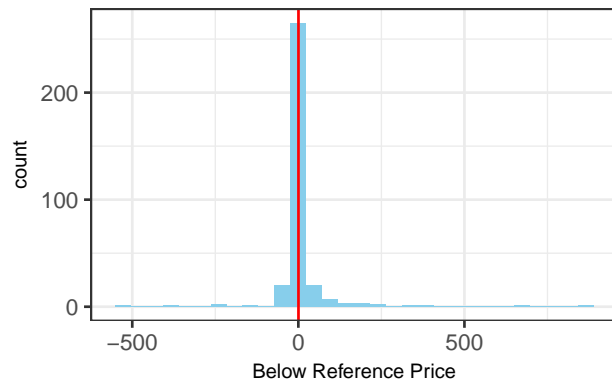
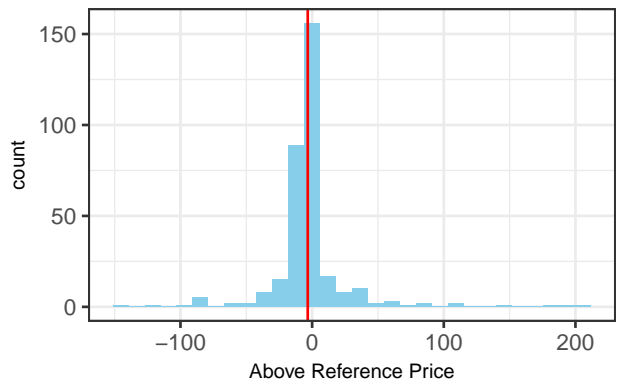
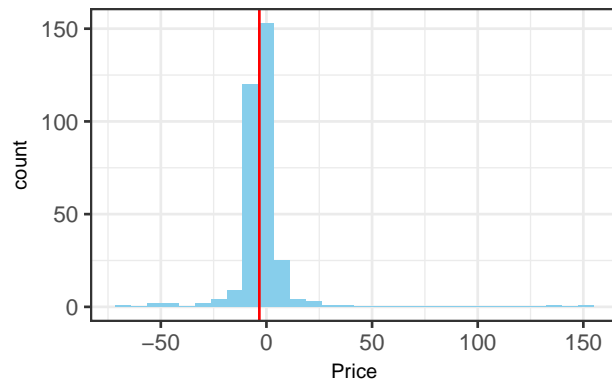
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## GOLD MEDAL



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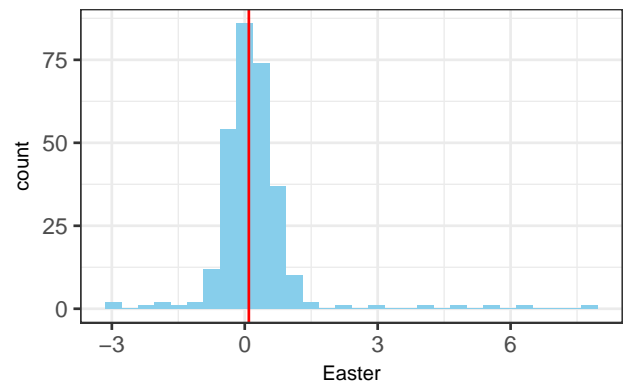
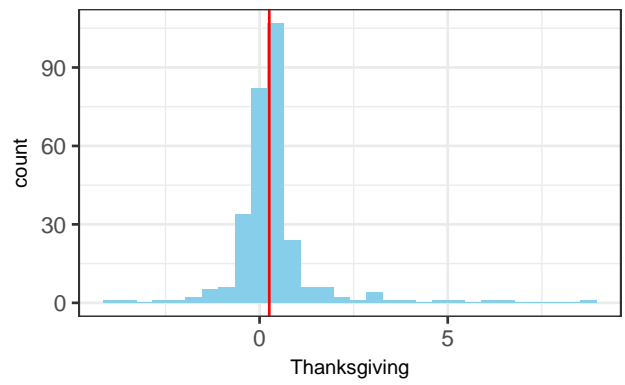
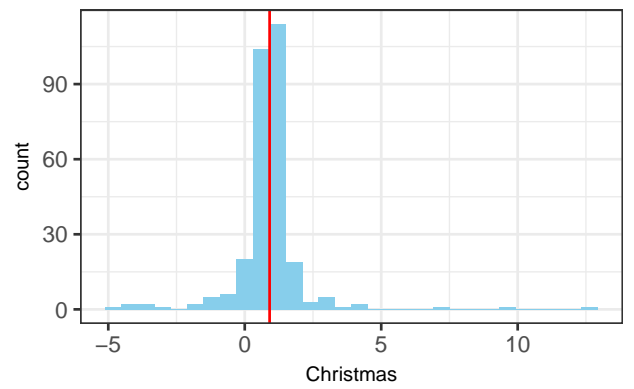
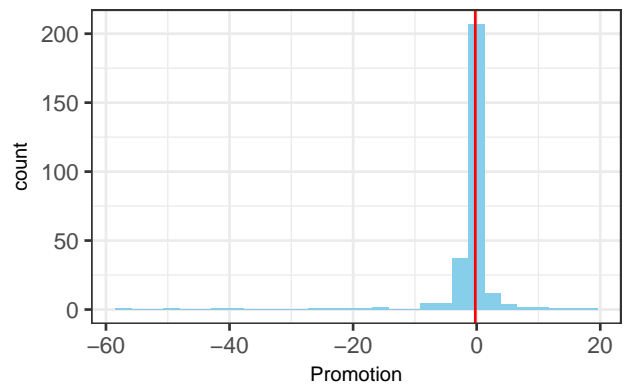
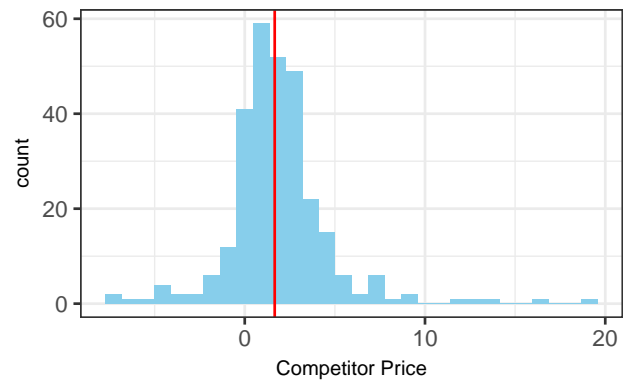
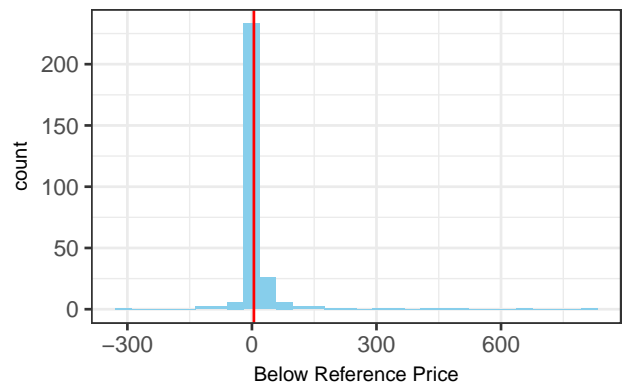
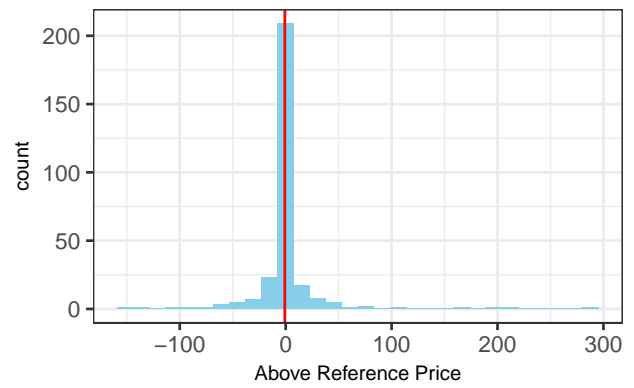
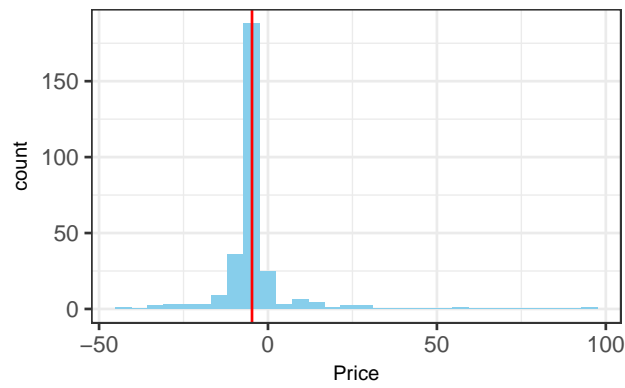
# KING ARTHUR FLOUR



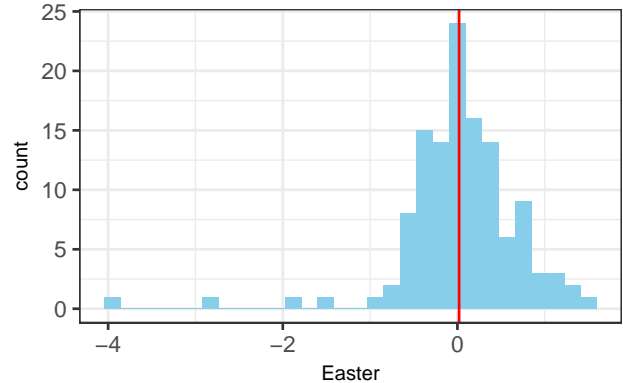
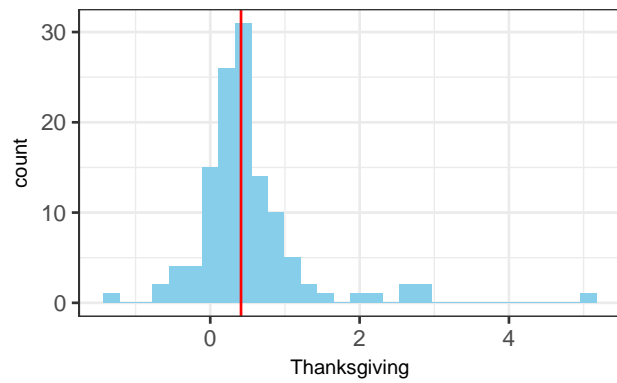
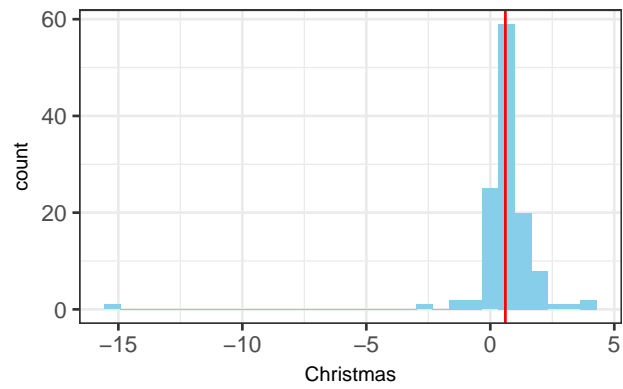
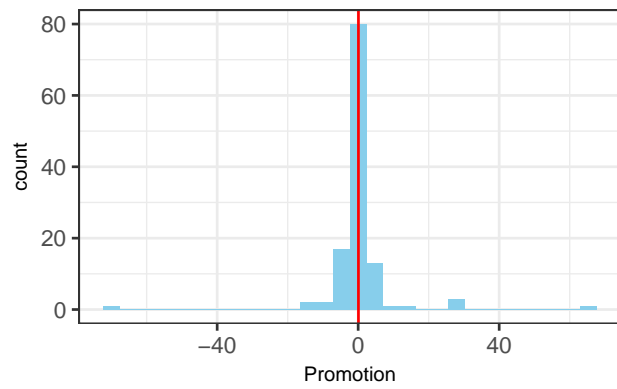
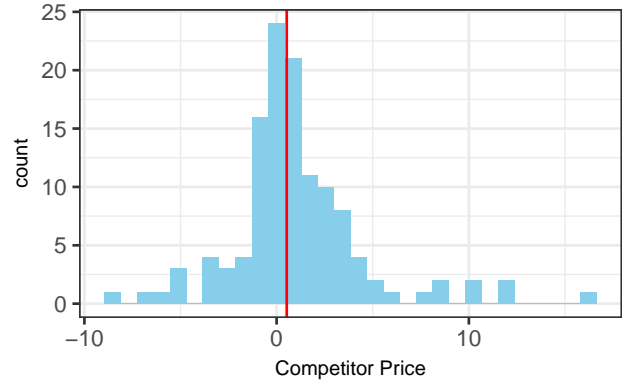
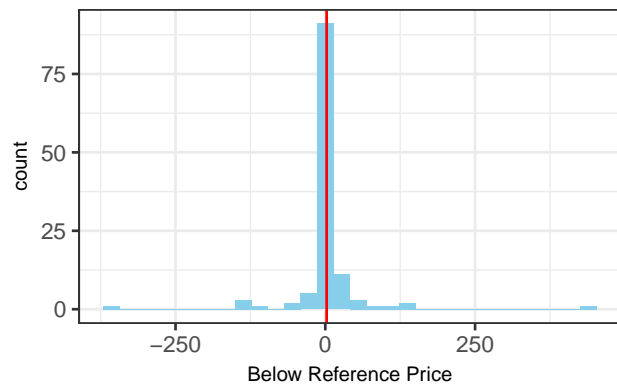
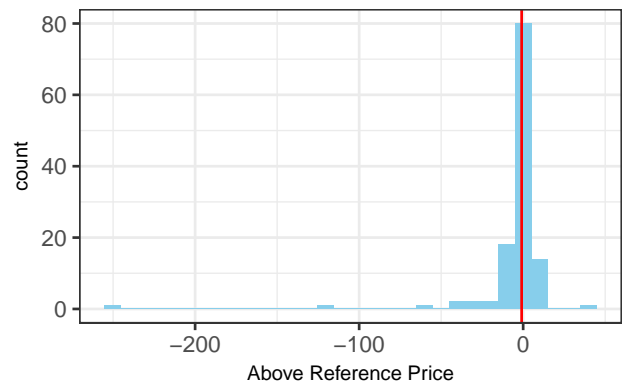
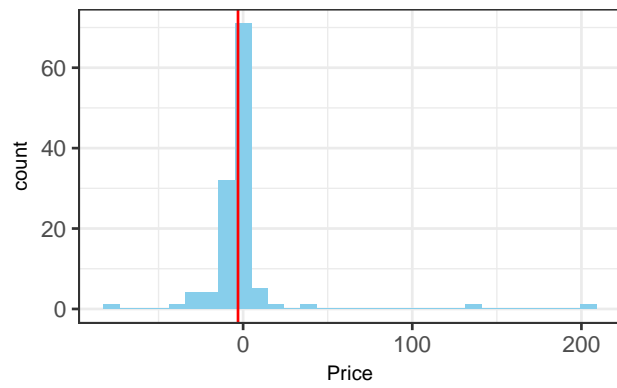
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# PILLSBURY BEST



# WHITE LILY



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