

# 2022 Data Analytics Competition Baltimore Ravens

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## Introduction



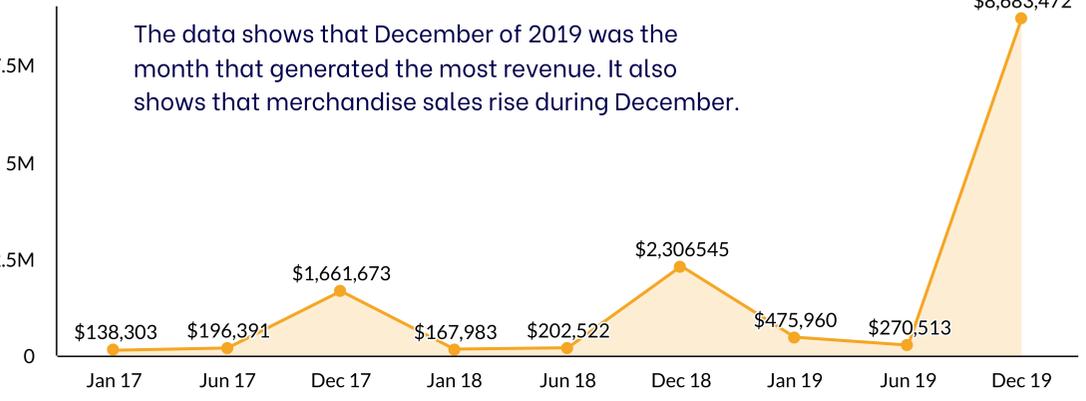
The Baltimore Ravens are a professional American football team that were established in 1996. It is one of the National Football League's 32 teams. In this data analysis, a data set consisting of the Ravens local merchandise sales from 2017 to 2019 was used. The goal of the analysis was to derive the best strategies for generating local revenue. The following areas were the focus of this analysis: total revenue for merchandise sales by year and month, top five product categories by revenue and units sold, top four players jerseys comparison by revenue and units sold, top three product subcategories by units sold, and revenue of merchandise sales by geographic location and zip codes.

### 1 Total Revenue for Merchandise Sales by Year



The bar chart shows that from year 2017 to 2019, a total revenue of \$34,961,950 was made. The year that generated the most revenue was 2019, with \$20,901,029.

### 2 Total Revenue for Merchandise Sales by Month



The data shows that December of 2019 was the month that generated the most revenue. It also shows that merchandise sales rise during December.

### 3 Top Five Product Categories

By Revenue



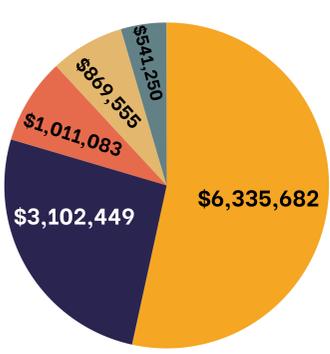
By Units Sold



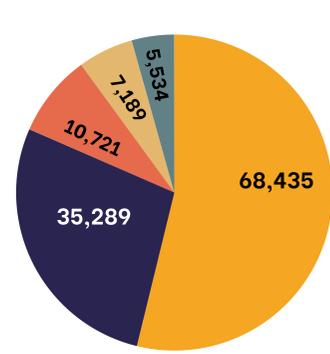
The bar chart by revenue shows that Jersey is the product that generates the most revenue, with \$13,913,097 in total. The bar chart by units sold shows that T-shirt has the most sales, with 211,263 total units. Even though Jerseys generate the most revenue, T-shirts are the most sold product.

### 4 Top Four Players Jerseys Comparison

By Revenue

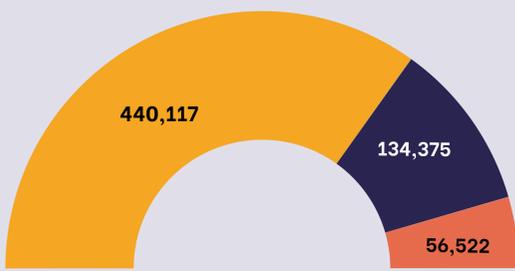


By Units Sold



As shown in the pie charts, Lamar Jackson Jerseys account for 53% of the total revenue from all player jerseys and his Jerseys have the most units sold, which is about 53% of all units sold.

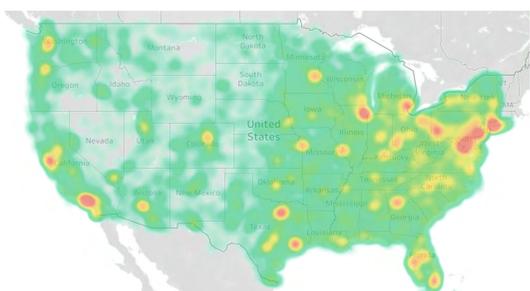
### 5 Top Three Product Subcategories by Units Sold



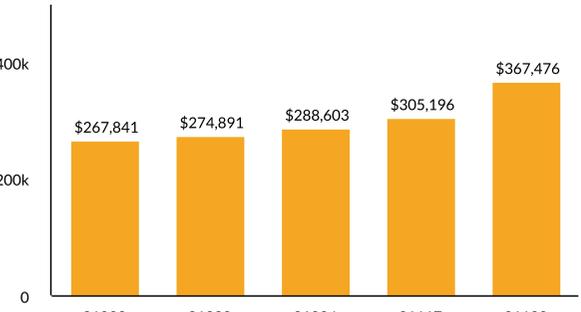
The chart shows that the product subcategory Men has the most units sold. They account for 70% of the sales. Men's merchandise sell at a rate of about three times that of women's merchandise.

### 6 Revenue of Merchandise Sales by Geographic Location and Zip Codes

Density Map



Top Five Zip Codes



The density map shows that the most revenue comes from Maryland. After further analysis, the bar chart displays that the top five zip codes that generate the most revenue are in Maryland, and they are at the top five M&T that Stadium in Baltimore, MD. The zip code that generates the most revenue is 21122, and the total revenue from this zip code is \$367,476. This zip code belongs to Pasadena, Maryland.

## Conclusion

Overall, the generated visualizations and metrics suggest the best strategies for local revenue optimization. Two examples of these strategies are to increase the price of the Lamar Jackson Jersey because of the high demand for them and to target the top five zip codes for total revenue, which are in Maryland, specially during football season.