

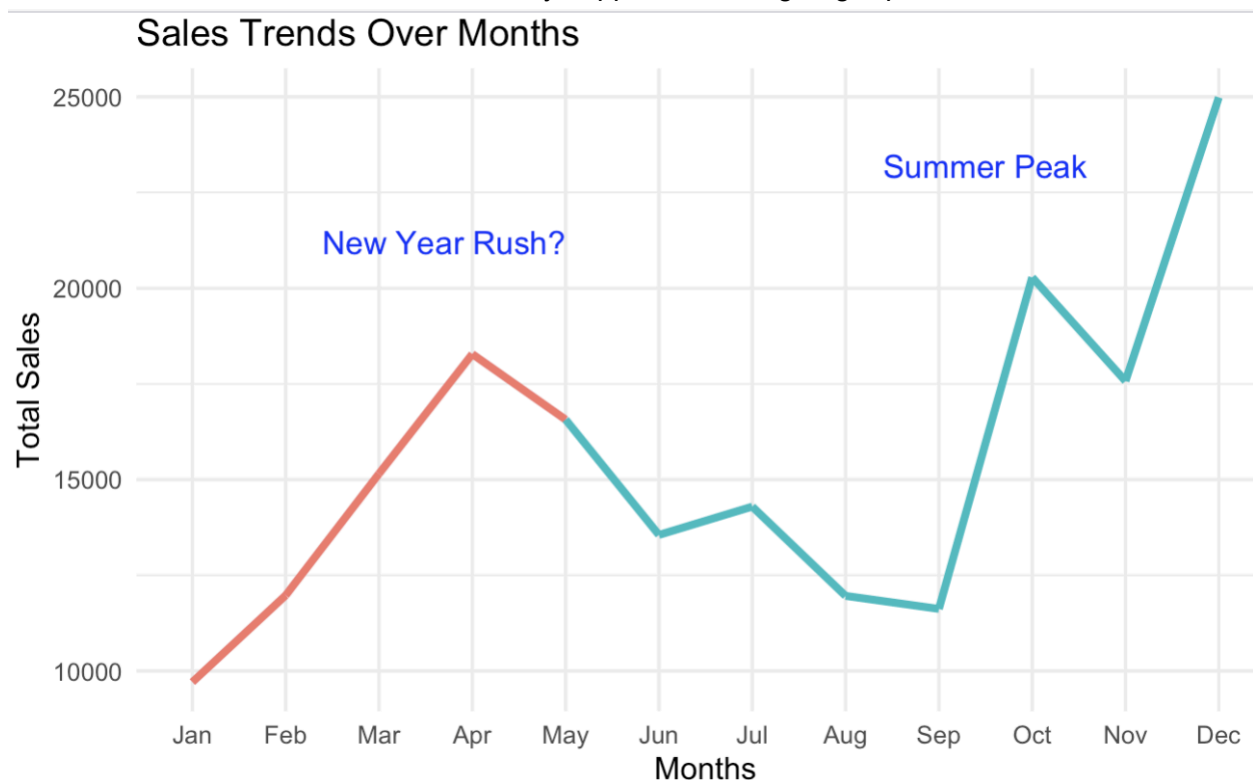
## DATA TRANSLATION CHALLENGE

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The intended purpose for this report is to help with target marketing. As a company, knowing when to increase advertisement or sales of a certain product is very important. This discrepancy could have a large impact on sales, so a company must know where to focus its products, along at the right time. Given these ideas, the target audience for this project is Amazon Marketers.

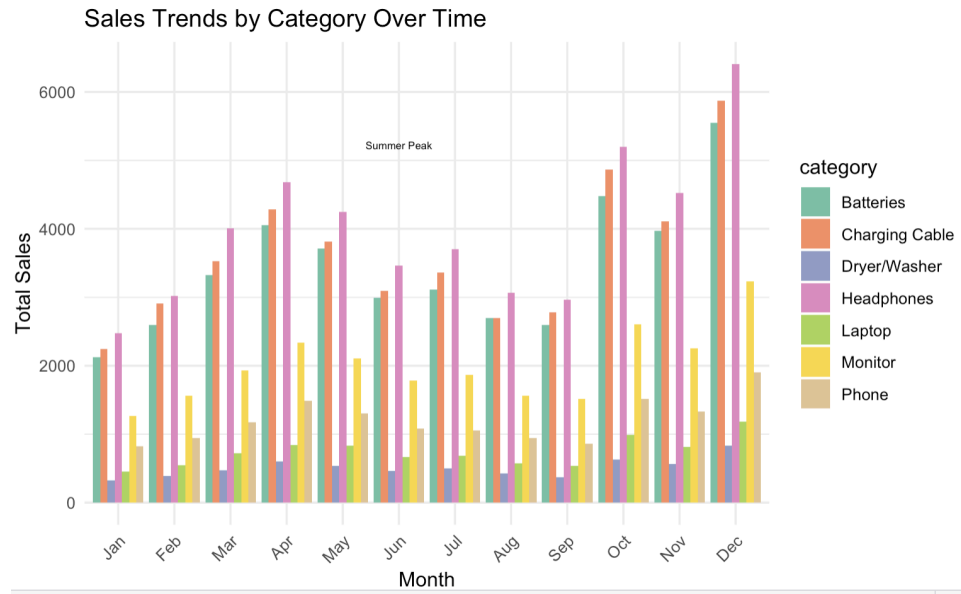
It is also important to note that the 10 ZIP codes given to us are all in urban areas, so the reach of this data should only be narrowed down to targeting those areas specifically, instead of using the information for all places in the country.

The first target a marketer wants to see are the dates when sales seem to rise. By following these trends, a marketer can more actively support and bring larger profits to Amazon.



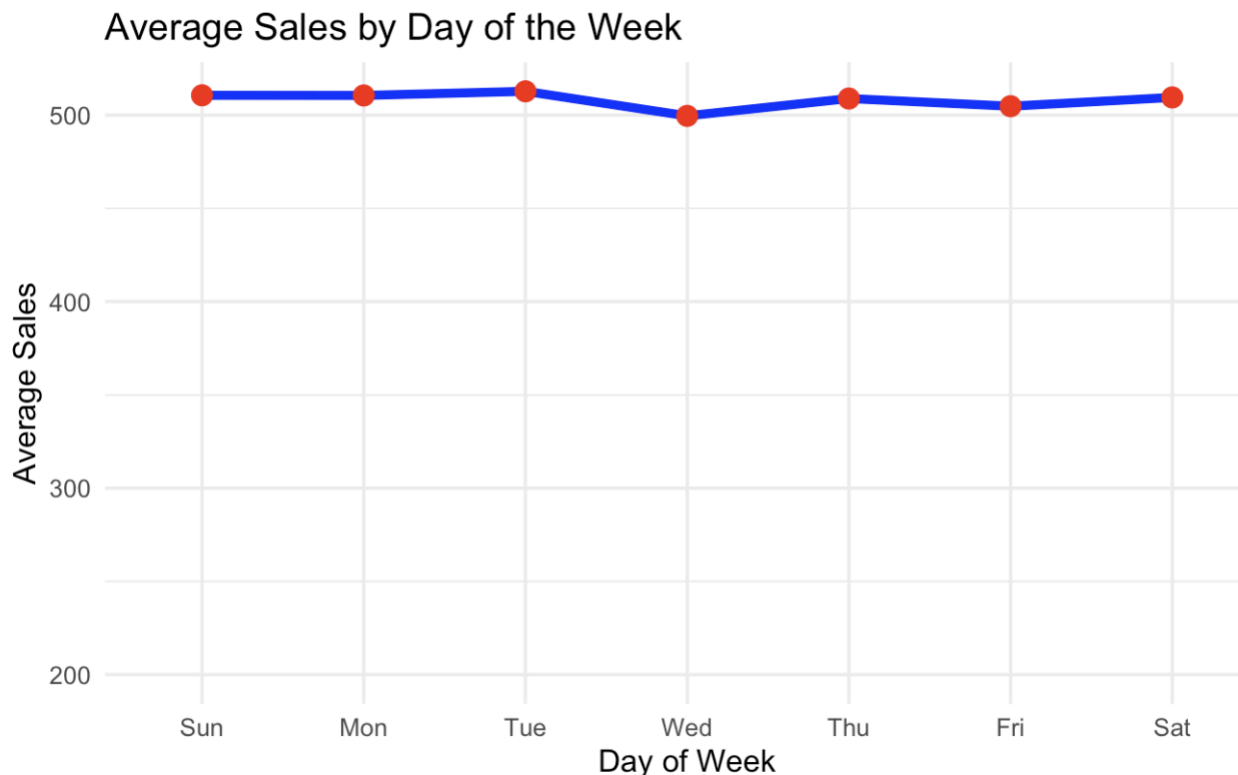
As seen, some trends for sales are largely reasonable. The most noticeable is the largest increase for the winter season; Christmas time is near which likely leads to an overall increase of goods bought. The same point could be made for october, but the large increase in April is unknown— something marketers could certainly take advantage of.

The next thing I want to look at are the proportions of what items are bought. This is important for marketers, as they want to know what composes the sales. Are a couple products driving the influx of sales, or is it a conglomerate?



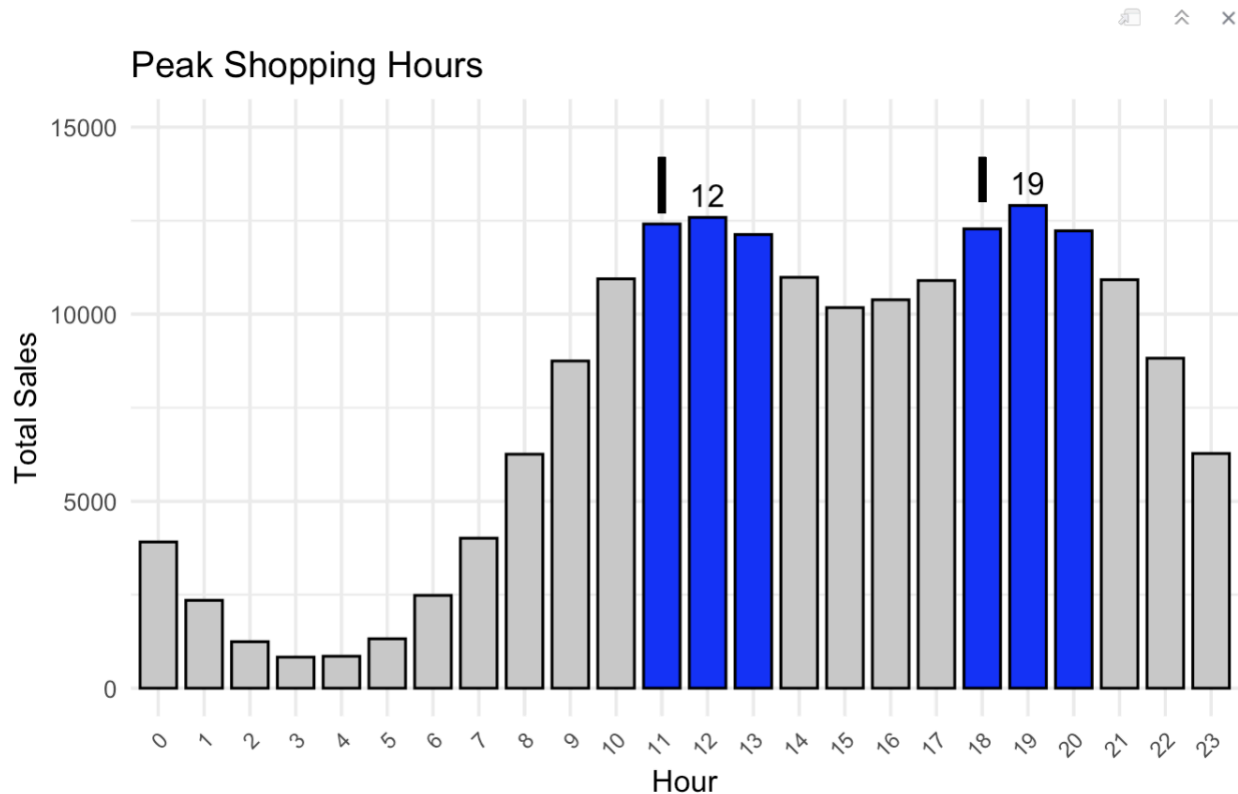
The data here shows that all of the products follow a similar trend. Like shown, there is a spike in April, October, and December, but all if the products seem to rise and dip. Products like headphones, charging cables, and batteries are already much higher than other products.

The next question I want to ask is, what days are people more likely to buy products? This could help marketers with planning targeted ads during specific days.



The information this graph brings to marketers is that the average sales for each day is quite similar, with only a marginal decrease in Wednesday; one that is not very relevant. This is useful information, meaning that Amazon can be less strict regarding the days that ads are posted.

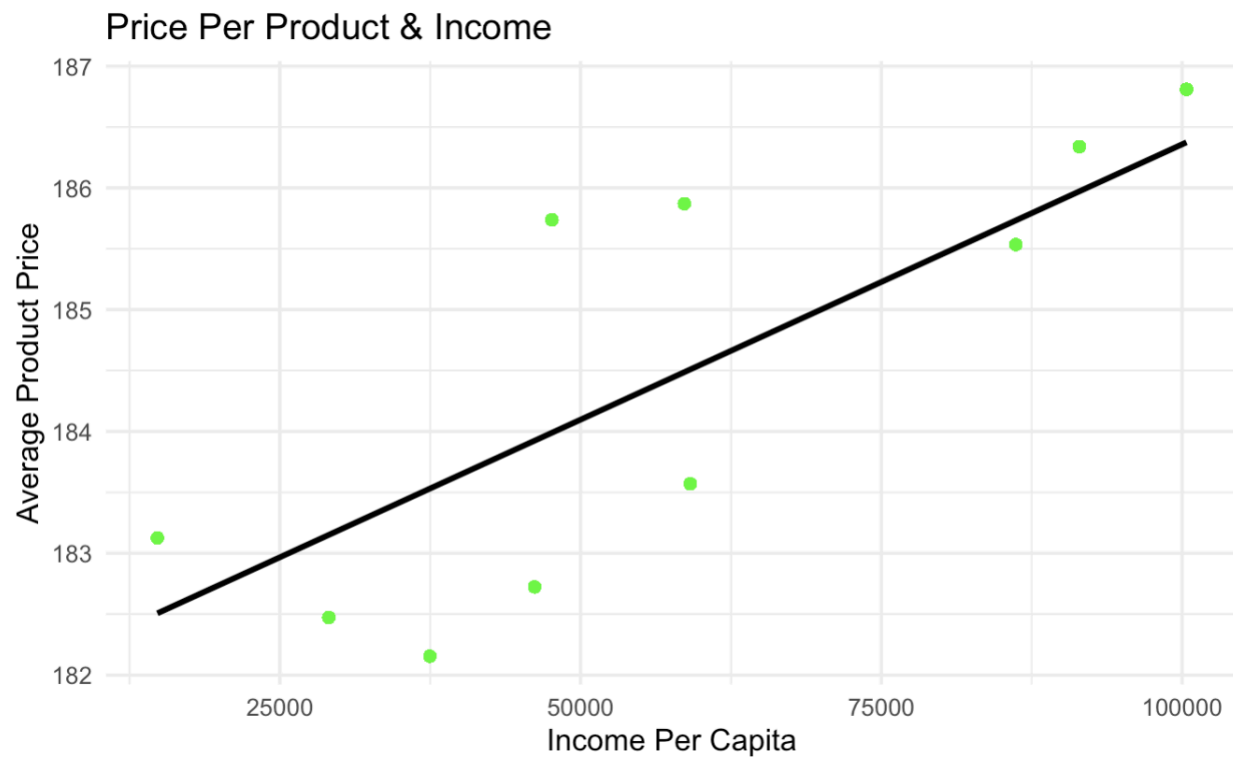
Now that we have information on the average sales for each day, I find it important to look at the average hours that people shop at, to get a general idea for when products are bought.



The given data for this graph shows two-time frames for activity peaks: one at 12 and one at 7pm. There are a couple reasons for these two times having the ; largest amount of sales. First, at 12, that is a time in which most people have lunch breaks. 7pm also makes sense logically, as that is a bit after most people get off of work, as it usually takes time to get back to a house before shopping. An important piece of data that we have gathered through this and the previous graph is time surges. There are time surges regarding the hours that people shop, but there seem to be none for the days overall. Considering there are little inconsistencies in the previous graph, there should not be a large difference for shopping hours during the weekend.

The last concept I wanted to tackle regarding strategic marketing is income in comparison to sales. IS there a difference for houses with larger incomes? This could help with finding what

areas marketers want to target regarding certain products.



This confirms the idea that as the average income per capita increases, the average sale price of a product increases as well. This could mean that people with larger incomes buy more expensive products, as they have the luxury to do such things.

Overall, I expect this report I have given to be valuable information to Amazon, regarding the day and time they should market their products, as well as enriching the company's understanding of sales trends over a year. While the data we were given heavily limits the scope of effect, this information could still prove valuable in urban areas around the country.