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CSIT 226: Lab 2  
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Lab: 2

Problem to be answered:

How is the company performing in terms of sales? Are there any issues to address? What are some potential solutions to resolve such issues, if any?

Dataset(s): Superstore.xlsx  
Profit Targets.txt

Questions to be answered from the Dataset:

What department has the largest sales?

Which state had the most Sales?

What are the sales by region per quarter?

Which customer segment had the largest sales?

Answer(s):

After inspecting the data and reviewing the analytics We can determine the Technology Department to have the largest number of sales with its largest contributor being in the Corporate Consumer Sector with a little over 1.3 million sales. The State with the highest number of sales is a tricky question as there are two states with high number of sales. Those two States are California and Massachusetts. Although Massachusetts beats California in the first quarter and third quarter. California only exceeds Massachusetts in the fourth quarter with only around 60,000 more sales than Massachusetts. It is safe to say that Massachusetts is the state with the highest number of sales overall. In the first Quarter Sales are around 2 million, however then drops to around an abysmal 97 thousand in the second Quarter. During the third Quarter sales are at roughly 3.2 million, and finally on the fourth Quarter Sales grow around 300,000 to reach 3.5 million. The largest customer segment based on Sales is the Corporate Segment

Best Practices/Noteworthy Thoughts:

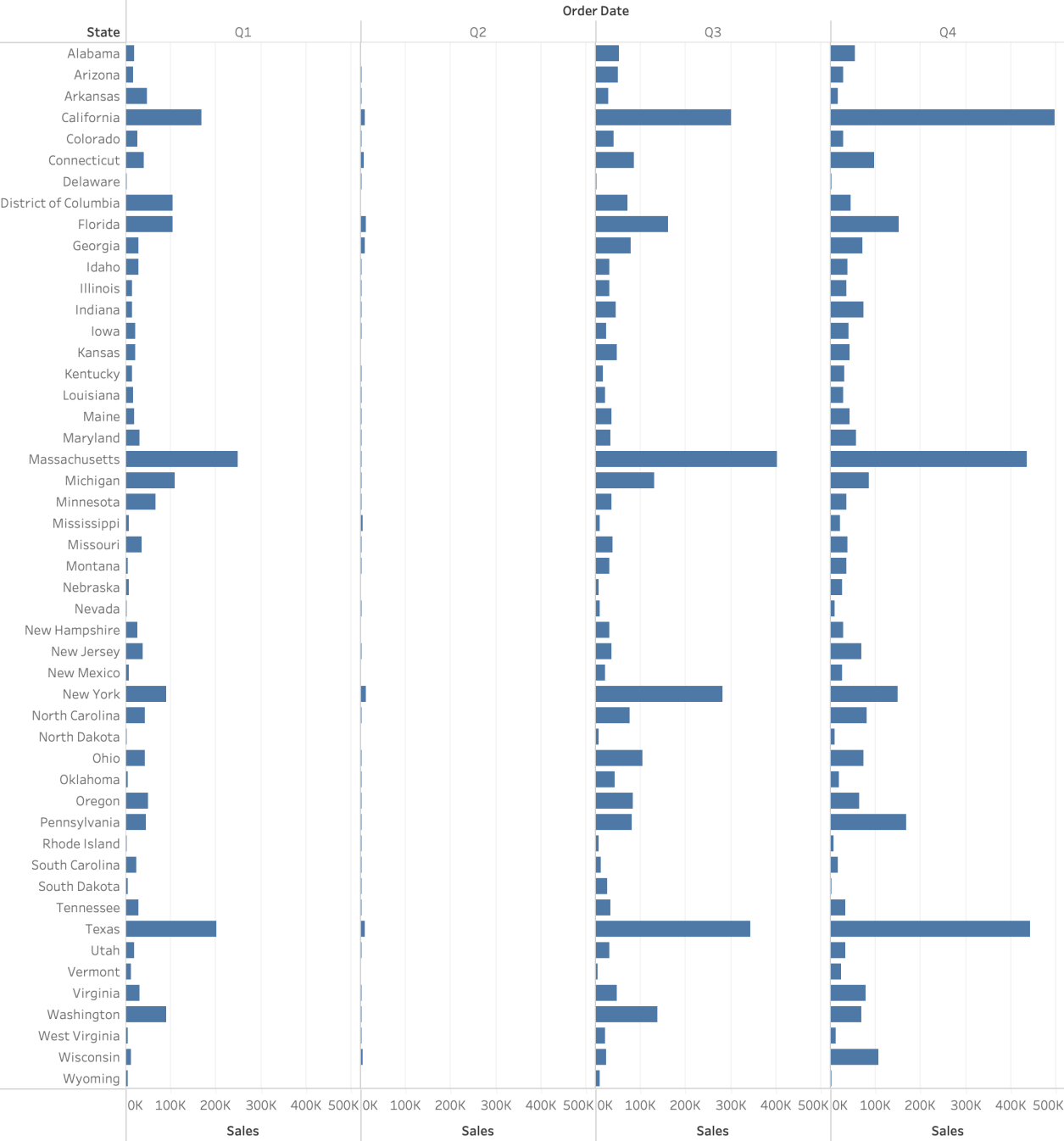
Used red colors to indicate losses or missed goals and green to indicate profit gains or meeting goals.

Upon inspecting regional average profit data, I noticed in a few Quarters some Departments are operating at a lost. For instance, in the first quarter three of the

regions are losing somewhere between an average 19 to 33 dollars in the furniture Department in addition to the second Quarter where that average loss increases to 479. There are some discrepancies worth looking into the furniture Department during these first two Quarters, specifically in the West, South, and East Regions of the company where this Department seems to be at a negative profit. Even in the Strongest Department during the third Quarter there is an average loss of 45 dollars.

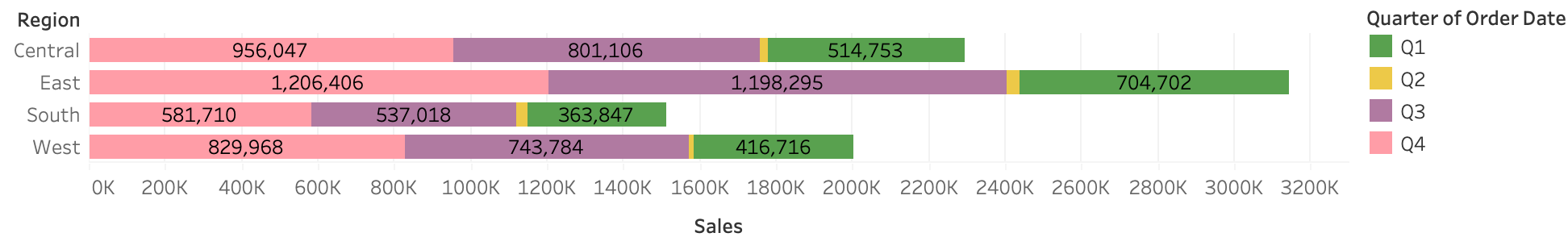
Challenges: It was challenging adding many different fields to a single chart and trying to make it display correctly. It was also challenging to correlate different parts of the charts to answer the questions, there are a lot of moving parts.

State Quarterly Sales



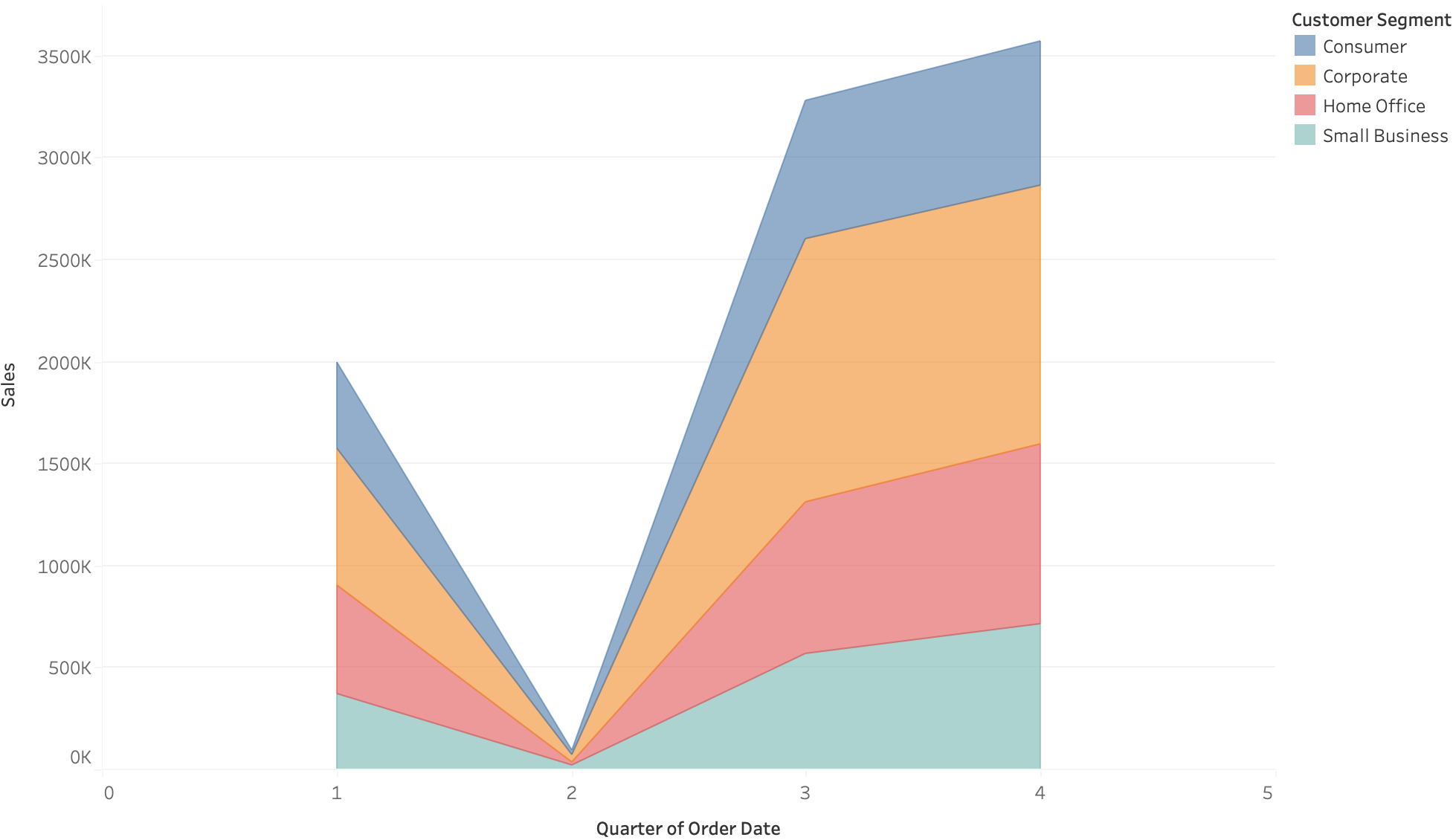
Sum of Sales for each State broken down by Order Date Quarter.

# Regional Quaterly Sales



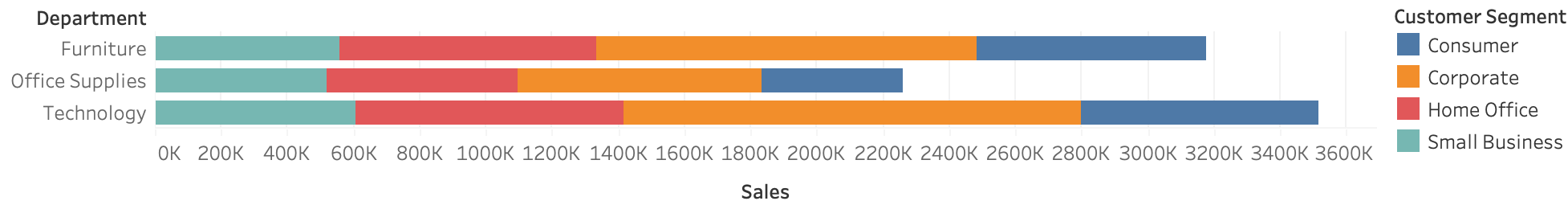
Sum of Sales for each Region. Color shows details about Order Date Quarter. The marks are labeled by sum of Sales.

Quarterly Sales numbers based on Customer Segment



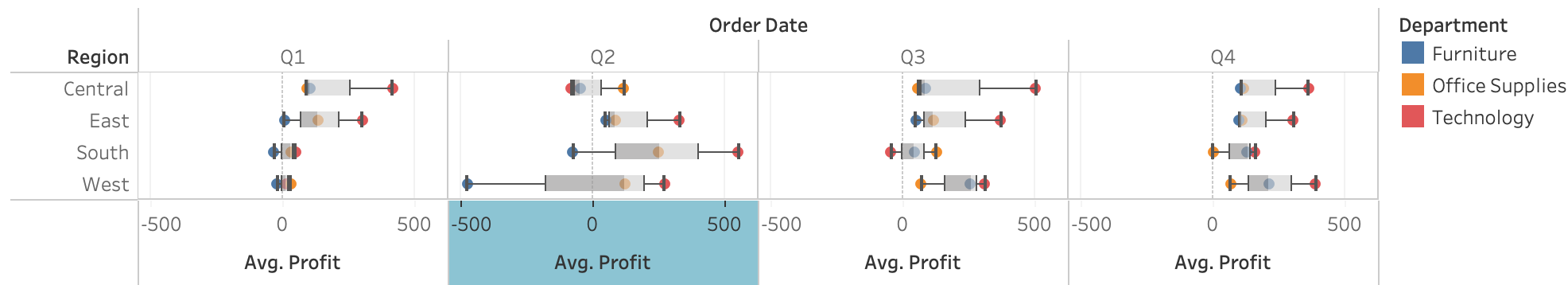
The plot of sum of Sales for Order Date Quarter. Color shows details about Customer Segment.

# Department Sales Numbers



Sum of Sales for each Department. Color shows details about Customer Segment.

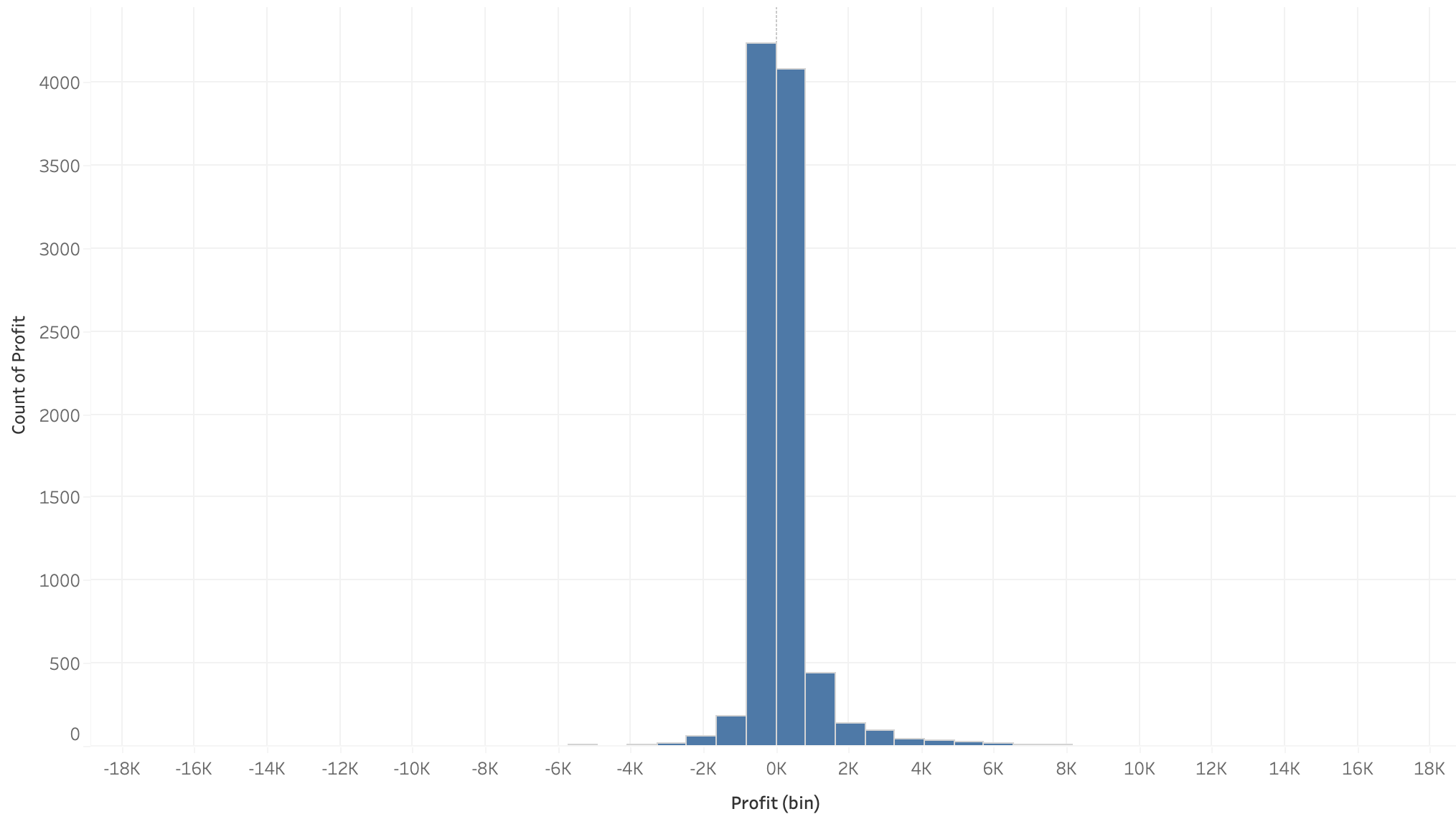
Average Quaterly Profit per Region based on Department



Average of Profit for each Region broken down by Order Date Quarter. Color shows details about Department. Details are shown for Region.

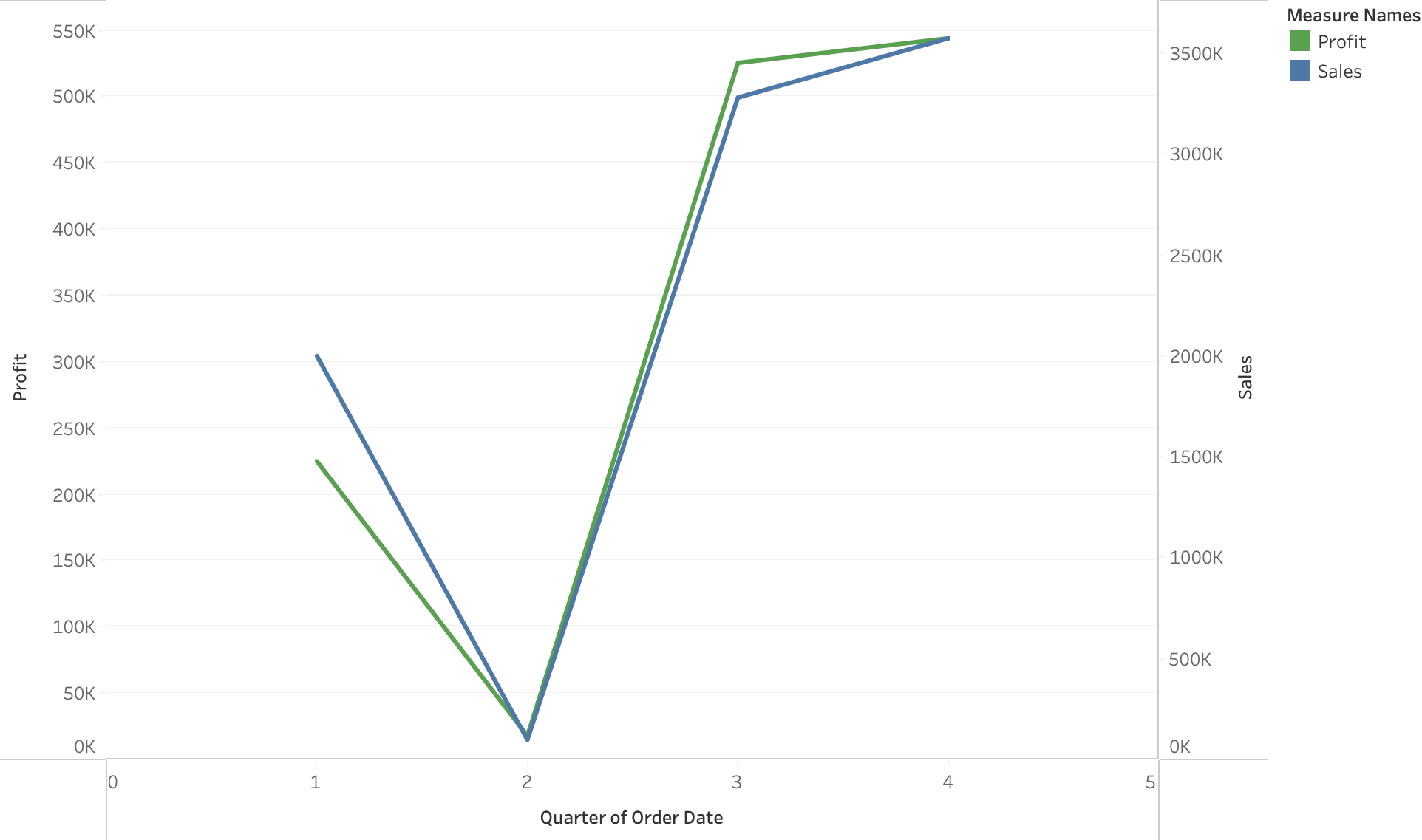


Average Profit Histogram



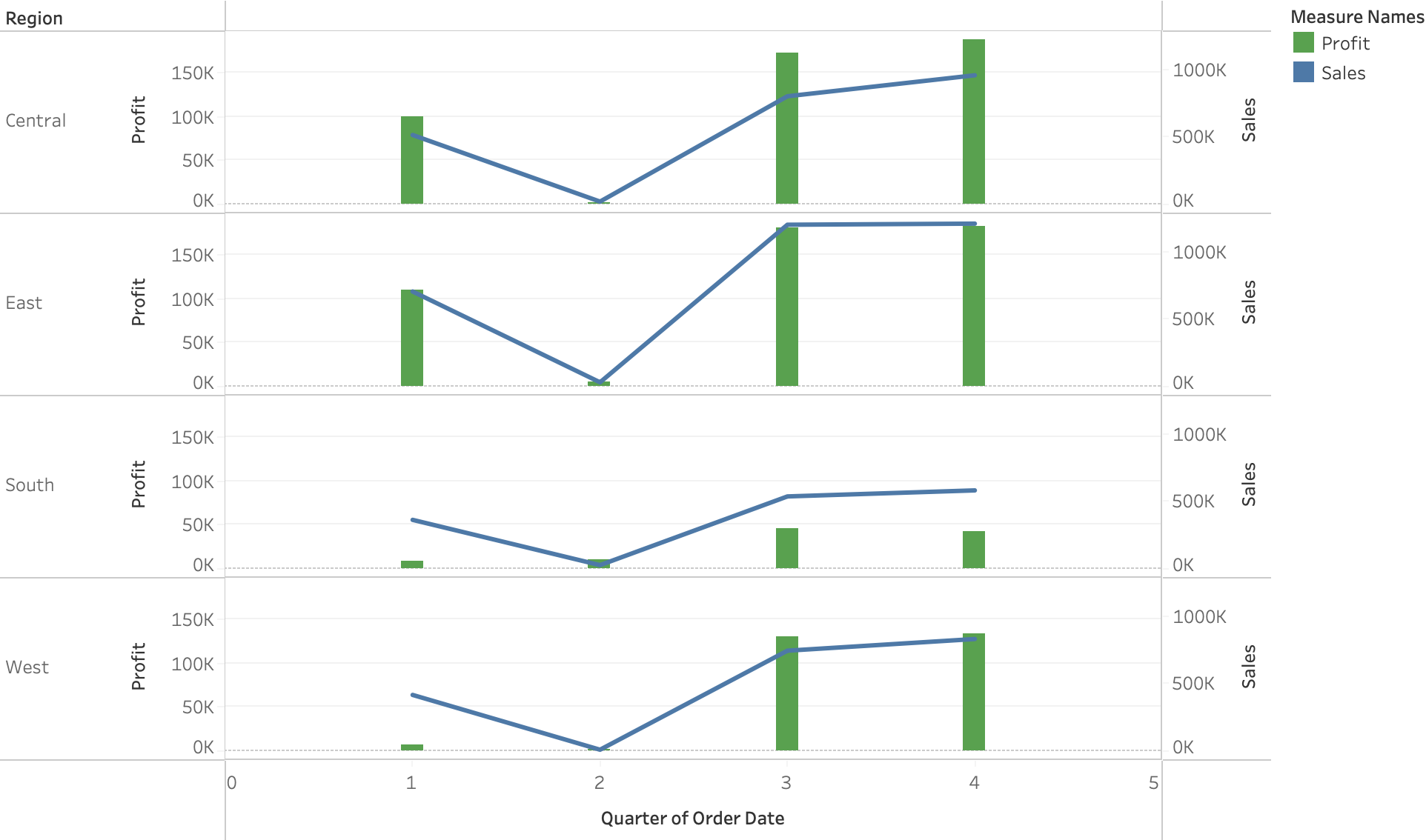
The trend of count of Profit for Profit (bin).

Quarterly Sales vs Profit



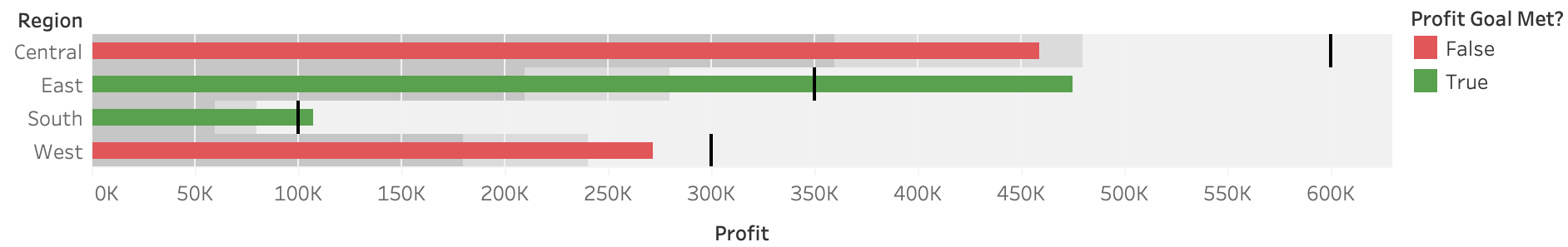
The trends of Profit and Sales for Order Date Quarter. Color shows details about Profit and Sales.

# Regional Profit vs Sales



The trends of Profit and Sales for Order Date Quarter broken down by Region. Color shows details about Profit and Sales.

# Regional Profit Targets



Sum of Profit for each Region. Color shows details about Profit Goal Met?.