

Summary	Correlation (Sales and Returns)	Return Rate by Category	Monthly Return Rate by Category	Return Rate by State	Return Rate by Year	Return Rate by R..
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# Superstore

## Returned Orders Causes

### Summary

#### Measure Used

##### Return Rate

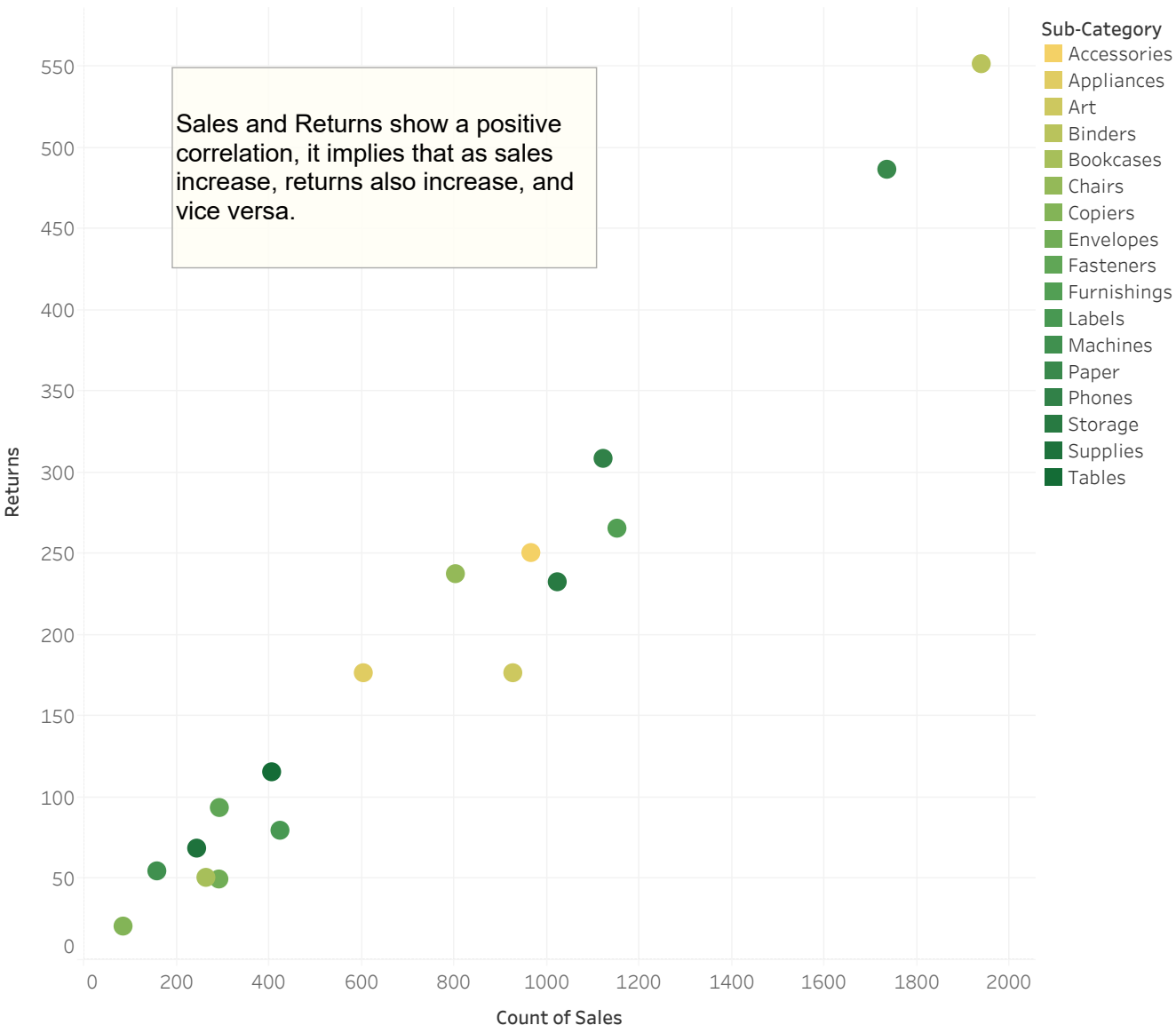
- Percentage of total sales that result in returns.
- It is calculated as the total number of returns divided by the total number of sales
- Provides a standardized metric that can be compared across different periods, products, or regions
- Useful for evaluating trends and patterns in return behavior over time
- Focus on customer satisfaction, process efficiency, and trend analysis.



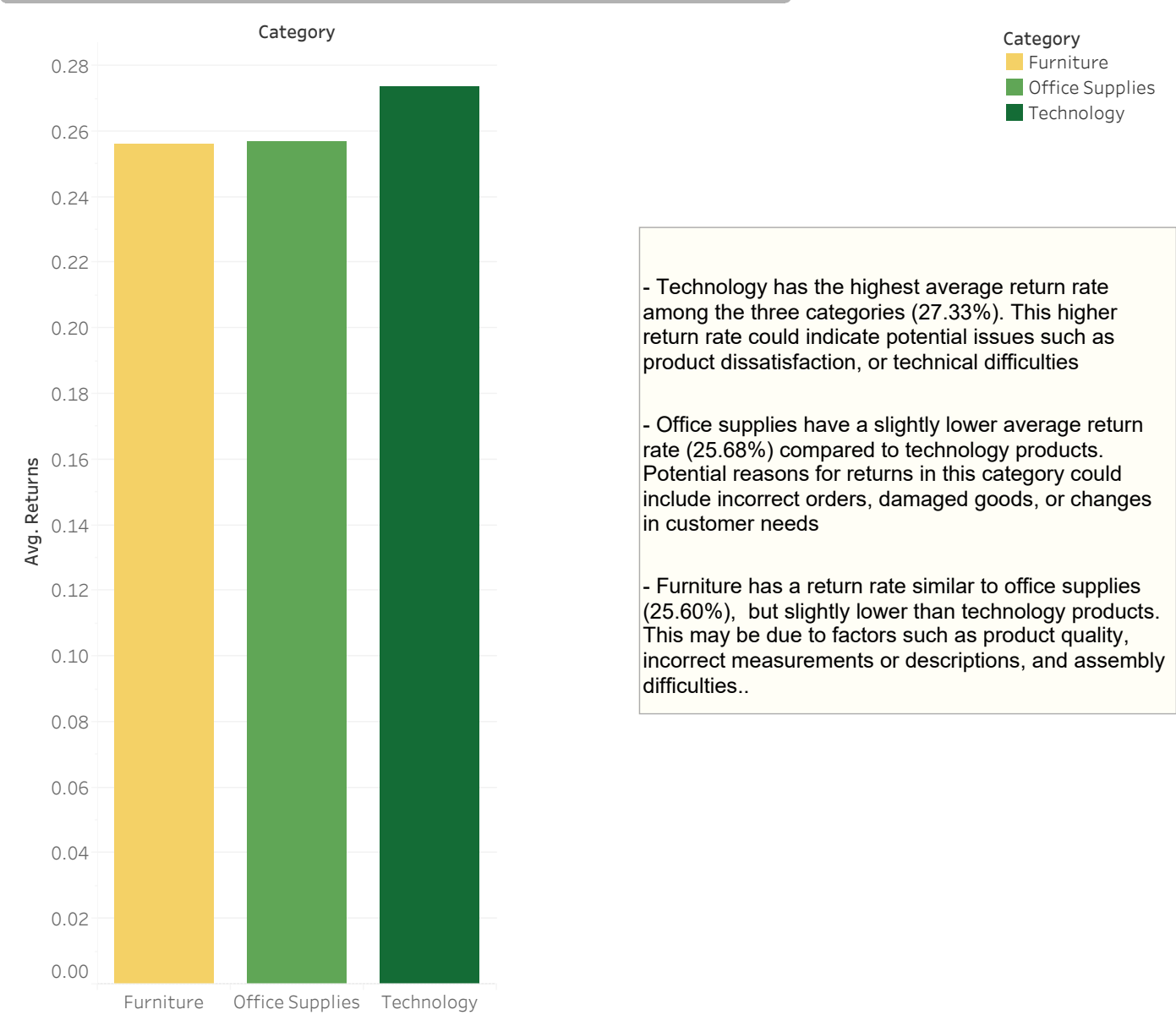
#### Root Causes

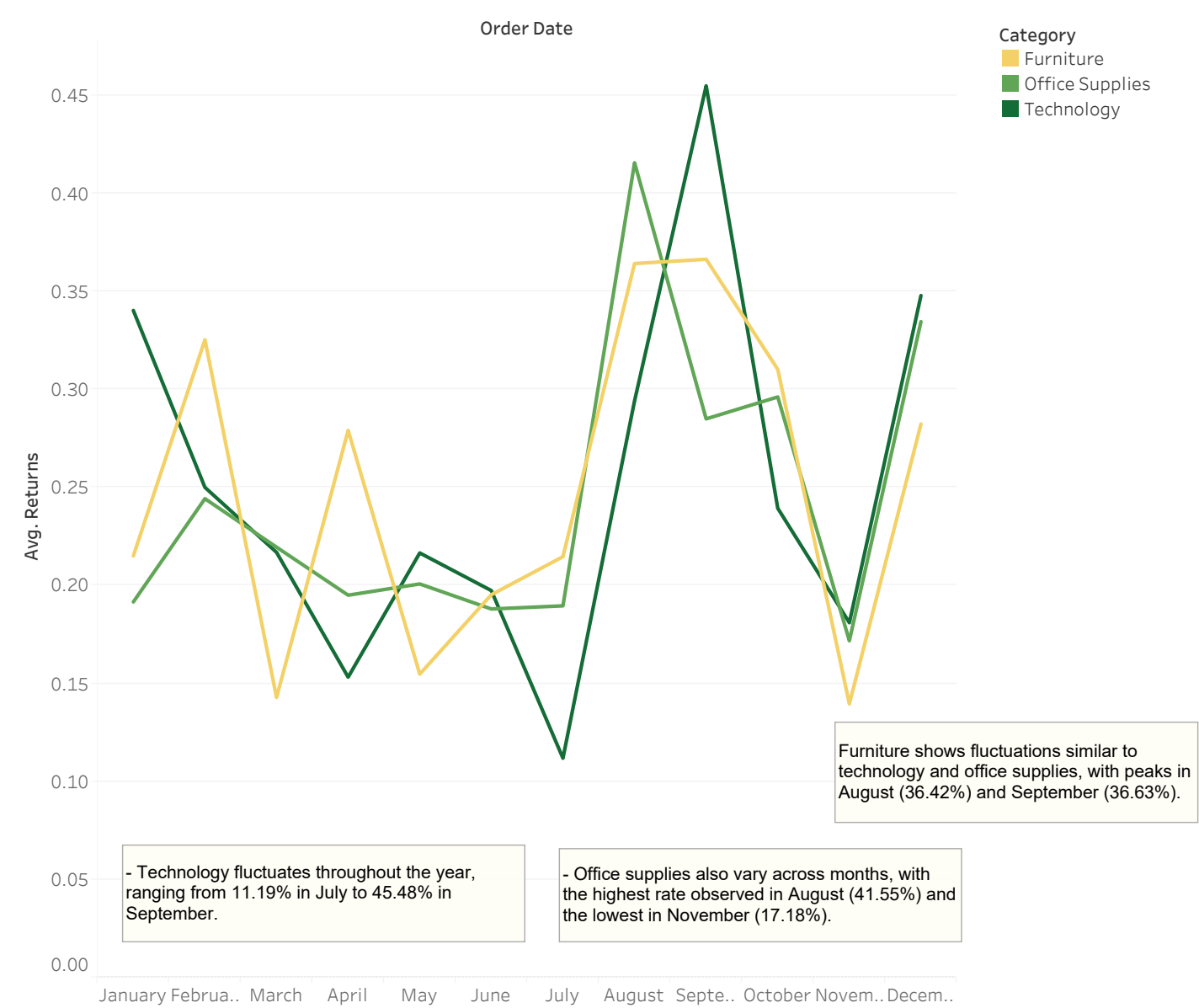
- **Customer Behavior:** some customers exhibit significantly higher return rates
- **Product Category and Type:** different product categories show varying return rates
- **Geographical Factors:** return rates vary by region and state
- **Temporal Trends:** return rates fluctuate throughout the year and over different months
- **Shipping Mode:** return rates vary based on shipping mode, with expedited options like "Same Day"
- **Yearly Trends:** return rates exhibit variations from year to year



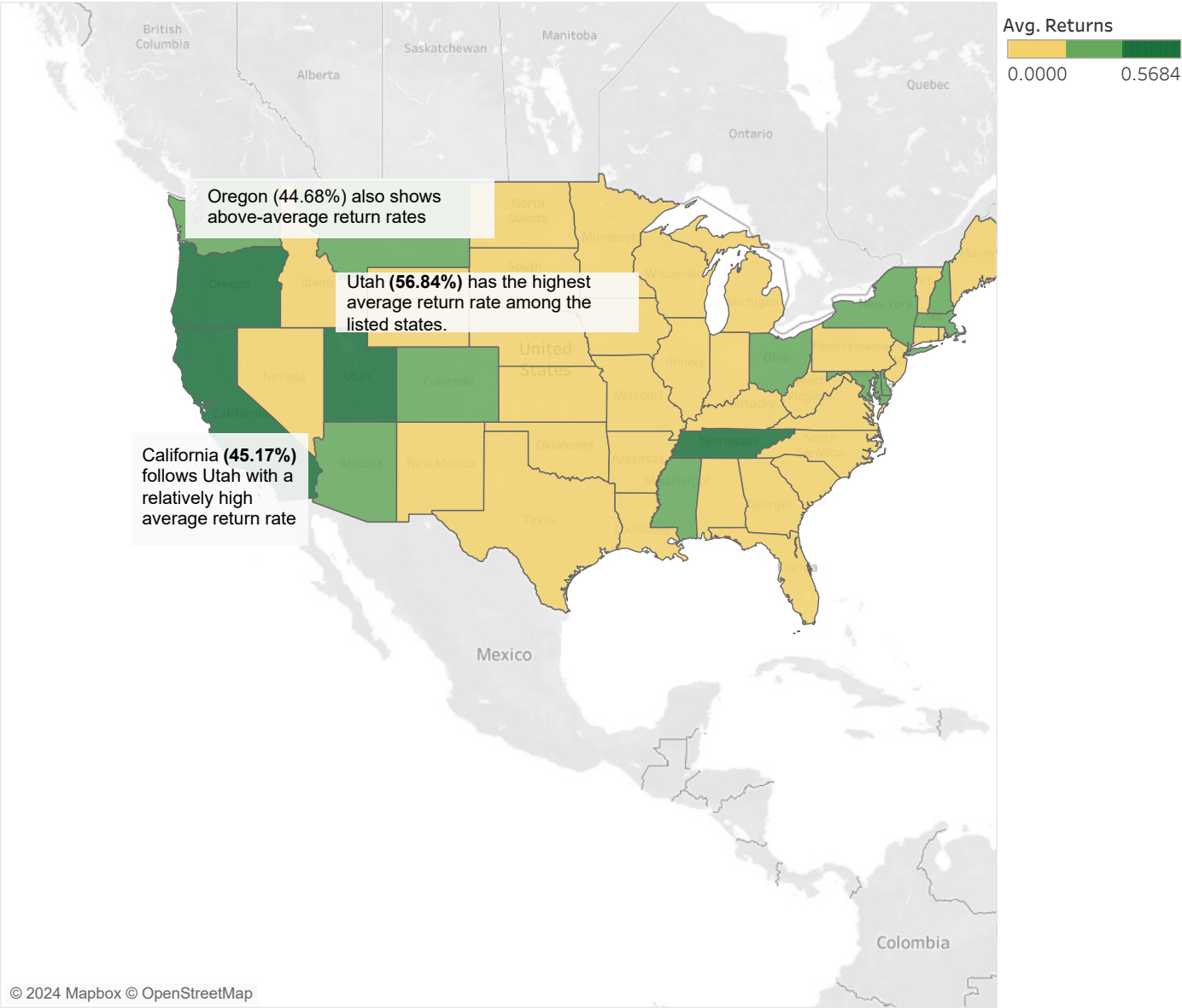


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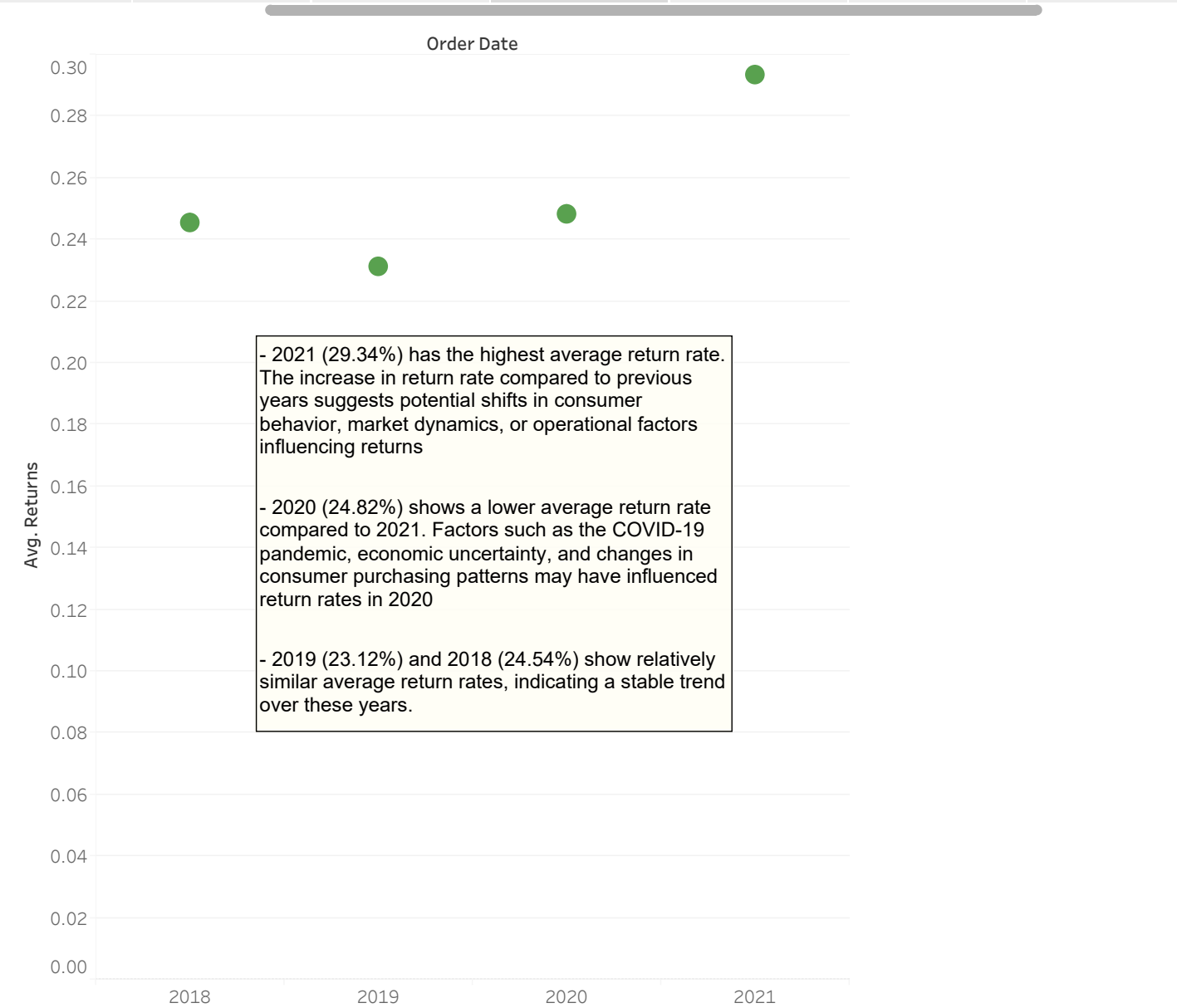




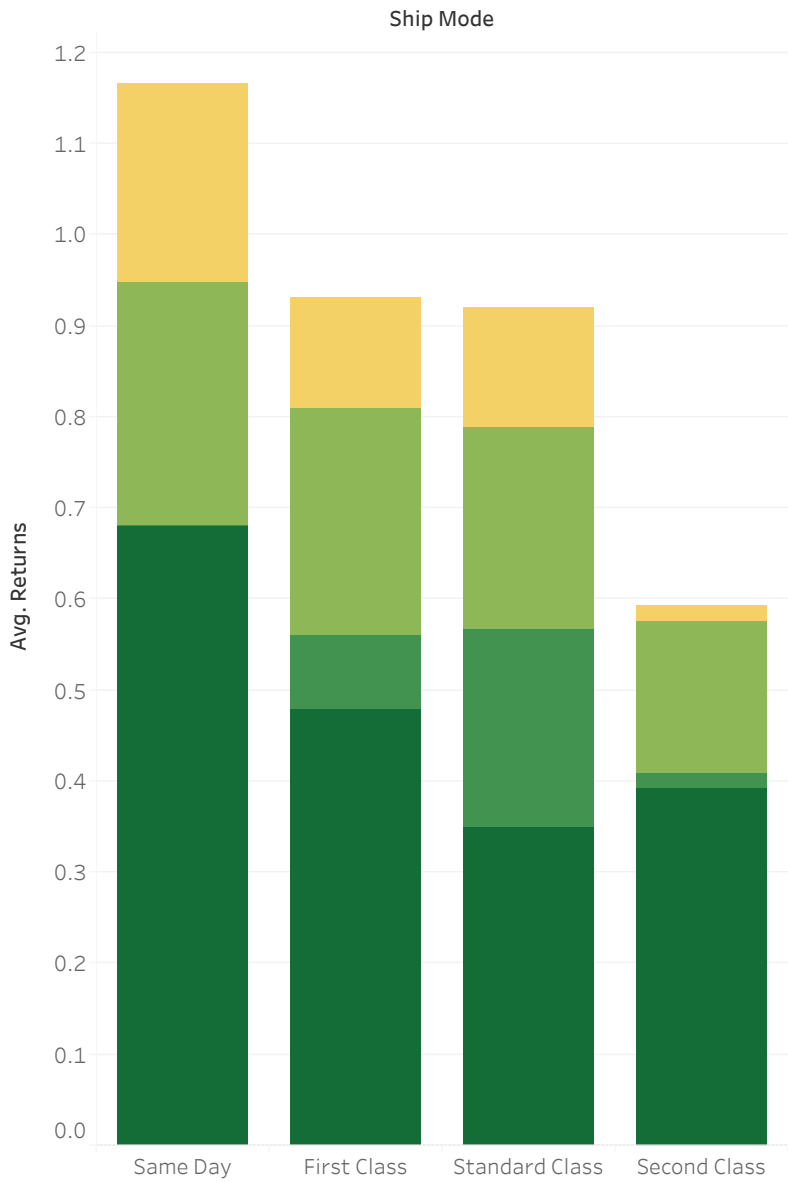
Correlation (Sales and R..	Return Rate by Category	Monthly Return Rate by Category	Return Rate by State	Return Rate by Year	Return Rate by Region & Ship M..	Return Rate by Customer (Top ..
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Return Rate by Category	Monthly Return Rate by Category	Return Rate by State	Return Rate by Year	Return Rate by Region & Ship M..	Return Rate by Customer (Top 10)	Returned Orders Causes
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Monthly Return Rate ..	Return Rate by State	Return Rate by Year	Return Rate by Region & Ship M..	Return Rate by Customer (Top 10)	Returned Orders Causes	Conclusion
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- Same Day has the highest average return rate in the West region (68.09%).
- Standard Class has the highest average return rate (21.62%), followed by "First Class" (8.13%) in the South region.
- Same Day has the highest average return rate in the East region (26.63%) similar to the West region
- In the Central region, return rates for all ship modes are relatively lower compared to other regions. However, the Same Day option still exhibits a noticeable return rate (21.74%)

High return rates associated with same-day delivery options highlight potential challenges in providing expedited services

Monthly Return Ra..	Return Rate by State	Return Rate by Year	Return Rate by Region & Ship M..	Return Rate by Customer (Top 10)	Returned Orders Causes	Conclusion
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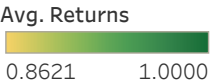
Customer Name

Roland Murray	1.0000
Hilary Holden	1.0000
Sandra Glassco	0.9759
Joni Blumstein	0.9474
Ted Butterfield	0.9444
Andy Yotov	0.9412
Seth Vernon	0.9159
Patrick Ryan	0.9074
Anthony Johnson	0.8667
Mark Haberlin	0.8621

- Sandra Glassco, Hilary Holden, and Roland Murray have the highest return rates, each with a perfect return rate of 100%

- Joni Blumstein, Ted Butterfield, and Andy Yotov have return rates ranging from 94% to 95%

- Seth Vernon, Patrick Ryan, Anthony Johnson, and Mark Haberlin have return rates ranging from 86% to 92%





Monthly Return Ra..	Return Rate by State	Return Rate by Year	Return Rate by Region & Ship M..	Return Rate by Customer (Top 10)	Returned Orders Causes	Conclusion
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## Returned Orders Causes

Use the following visualization to understand the return rate by the following criteria:

- Return Rate by Customer
- Return Rate by Category
- Return Rate by Year
- Return Rate by State
- Return Rate by Month & Category
- Return Rate by Region & Ship Mode

Also, the visualization can help to understand the correlation between Sales and Returns.

The category, Sub-Category, Year of Or..

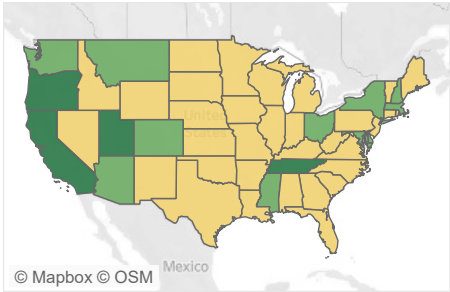
### Return Rate by Customer

Customer Name		
Roland Murray		1.0000
Hilary Holden		1.0000
Sandra Glassco		0.9759
Joni Blumstein		0.9474
Ted Butterfield		0.9444
Andy Yotov		0.9412
Seth Vernon		0.9159
Patrick Ryan		0.9074
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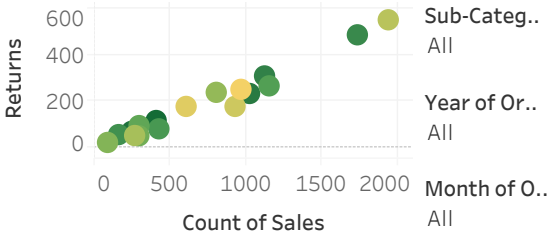
### Total Sales and Returns

Sales	2,901,677
Returns	3,226

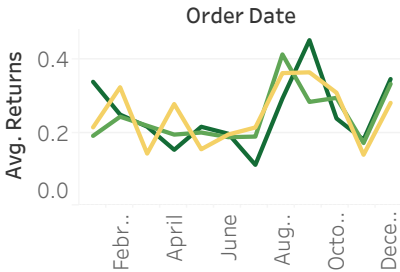
### Return Rate by State



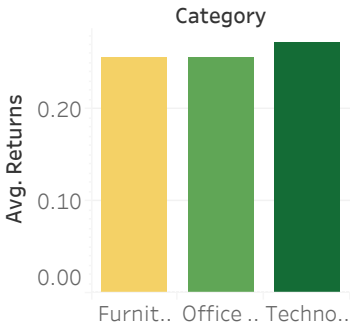
### Correlation between Sales and Returns



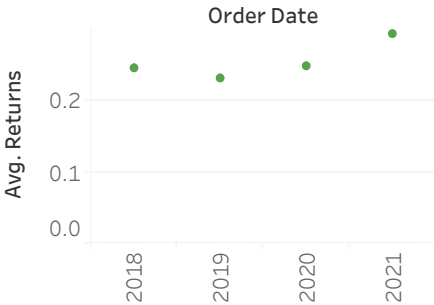
### Return Rate by Month and Category



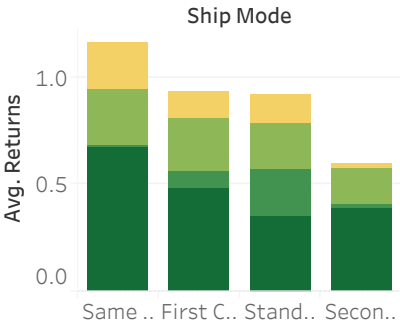
### Return Rate by Category



### Return Rate by Year



### Return Rate by Region & Ship Mode



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### Conclusion

- The correlation between sales and returns allows businesses to target strategies to improve return handling, customer satisfaction, and overall operations.

#### Technology Businesses:

- Pay attention to factors that cause returns, such as product quality, customer assistance, and explaining product features.

#### Seasonal Return Patterns:

- High return rates during specific months suggest potential issues with customer satisfaction, product quality, or operational glitches that need attention.

#### Data-Driven Decisions:

- Use monthly return rate data to optimize inventory management, marketing campaigns, and customer service strategies.
- Refine marketing strategies to target specific areas with high return rates.
- Enhance customer support by addressing common return reasons in different states.
- Optimize same-day delivery services to minimize returns due to quality issues or dissatisfaction..

