Return Rates by Causes

Visuals used to analyze the Cause of returns at SuperStore. Visuals can be filtered by category.
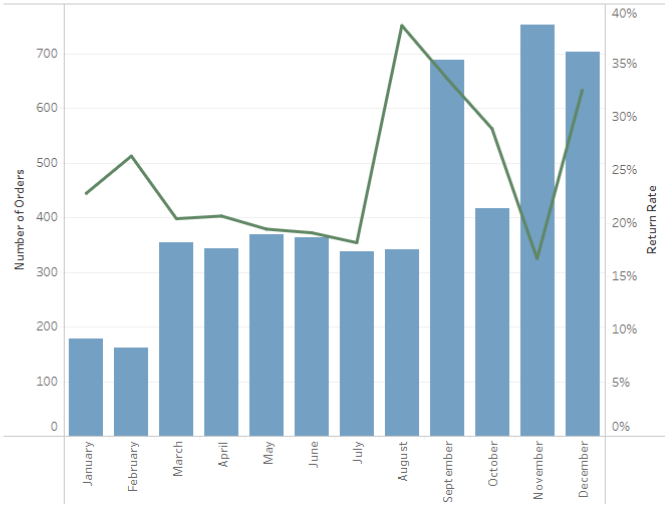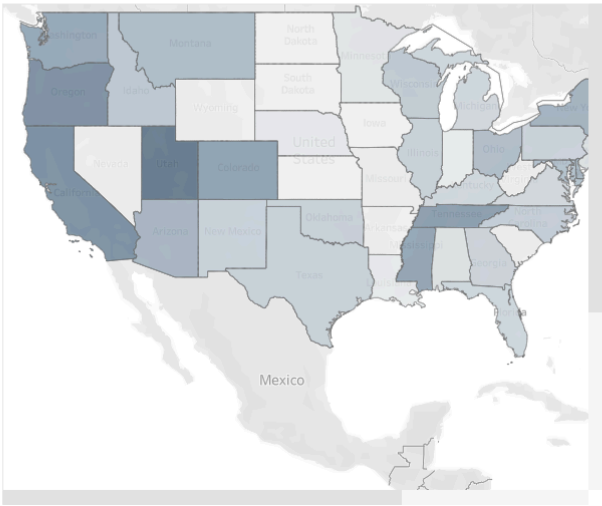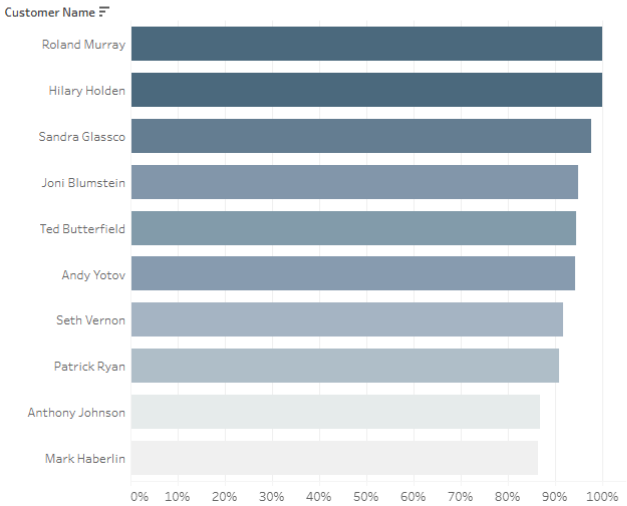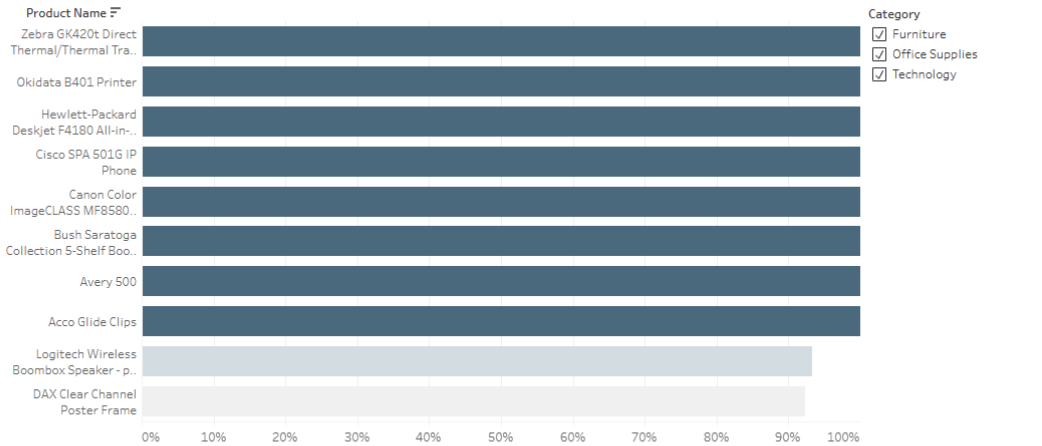
Top Customer Returns: Examines customers with the highest return rate. Customers with only one purchase were not considered. Some customers have return rates of 100%.

Top Product Returns: Examines products with the highest return rate. Products with only one purchase were not considered. Some products have return rates of 100%.

Returns by State: Shows return rates by state. Utah has the highest return rate.

Orders Composite: Shows the number of orders compared to return rates per typical month to identify any seasonal trends. Returns are highest around peak purchases, namely August/September and December.

Product Name — bar chart:
Zebra GK420t Direct Thermal/Thermal Tra..
Okidata B401 Printer
Hewlett-Packard Deskjet F4180 All-in-..
Cisco SPA 501G IP Phone
Canon Color ImageCLASS MF8580..
Bush Saratoga Collection 5-Shelf Boo..
Avery 500
Acco Glide Clips
Logitech Wireless Boombox Speaker - p..
DAX Clear Channel Poster Frame

Category
☑ Furniture
☑ Office Supplies
☑ Technology

Customer Name — bar chart:
Roland Murray
Hilary Holden
Sandra Glassco
Joni Blumstein
Ted Butterfield
Andy Yotov
Seth Vernon
Patrick Ryan
Anthony Johnson
Mark Haberlin

Returns Analysis Presentation

Returned purchases:
The leading cause of Superstore's declining profits.

1) Returns were first measured by the total number for a high-level view of the scale of the issue in comparison to sales.
2) Returns were also measured by a rate of return for a more in-depth analysis of this large data set.

Cause of Returns:
Multifaceted Problem

Customer - There are several customers with unusually high return rates; Several customers have a return rate of 100%.
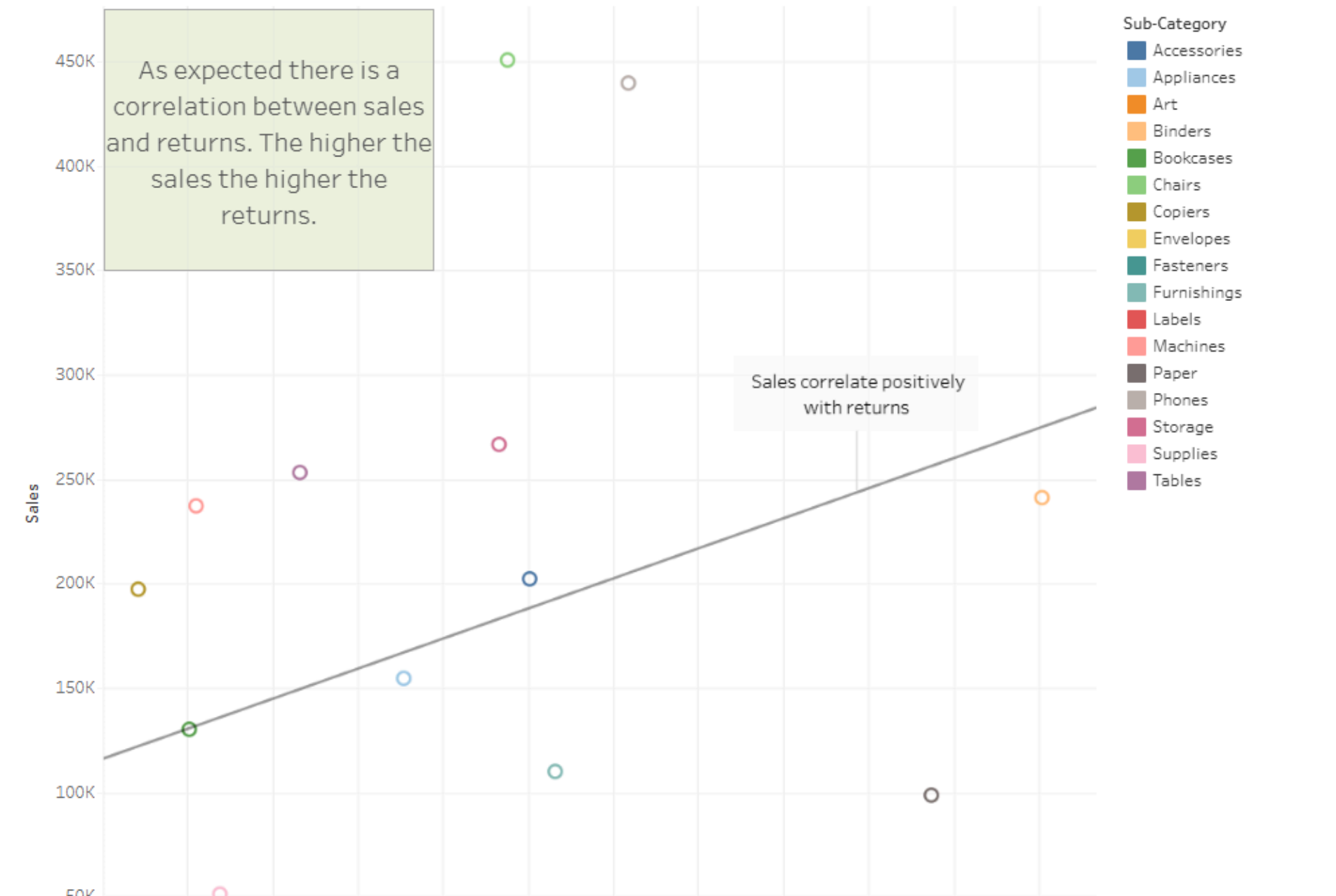**Product** - There are several products with unusually high return rates; Several products have a return rate of 100%.
State - The location where the order was delivered; Utah being a particular problem.
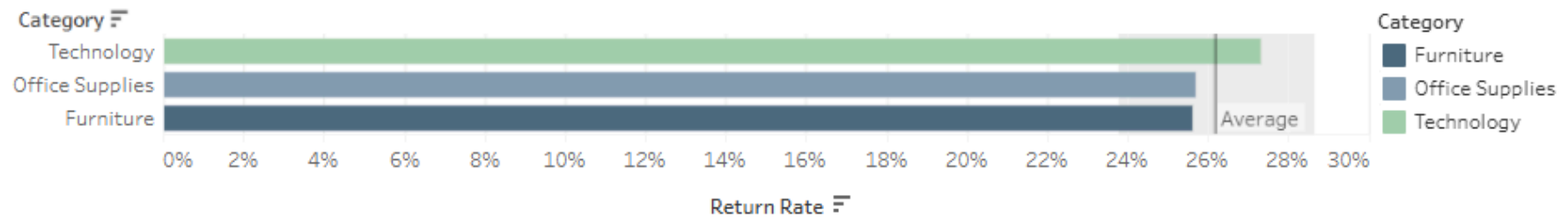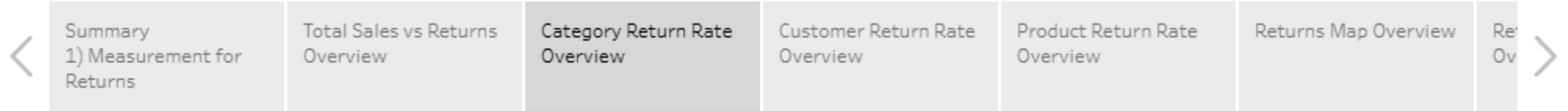**Month** - Orders are returned significantly more in August with September close behind corresponding with increased purchases.

Returns Analysis Presentation

As expected there is a correlation between sales and returns. The higher the sales the higher the returns.

Sales correlate positively with returns

Sub-Category
- Accessories
- Appliances
- Art
- Binders
- Bookcases
- Chairs
- Copiers
- Envelopes
- Fasteners
- Furnishings
- Labels
- Machines
- Paper
- Phones
- Storage
- Supplies
- Tables

Returns Analysis Presentation

Summary
1) Measurement for
Returns

Total Sales vs Returns
Overview

Category Return Rate
Overview

Customer Return Rate
Overview

Product Return Rate
Overview

Returns Map Overview

Re
Ov

Category

Technology	
Office Supplies	
Furniture	

0% 2% 4% 6% 8% 10% 12% 14% 16% 18% 20% 22% 24% 26% 28% 30%

Average

Return Rate

Category
- Furniture
- Office Supplies
- Technology
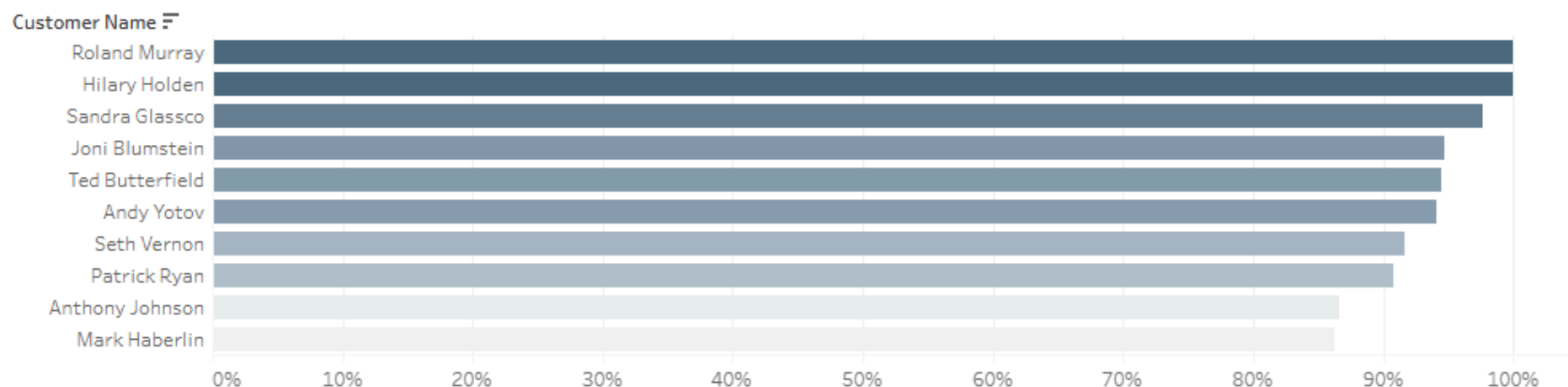
There is a greater return rate for products in the Technology category. This is enough to compare further results by category.
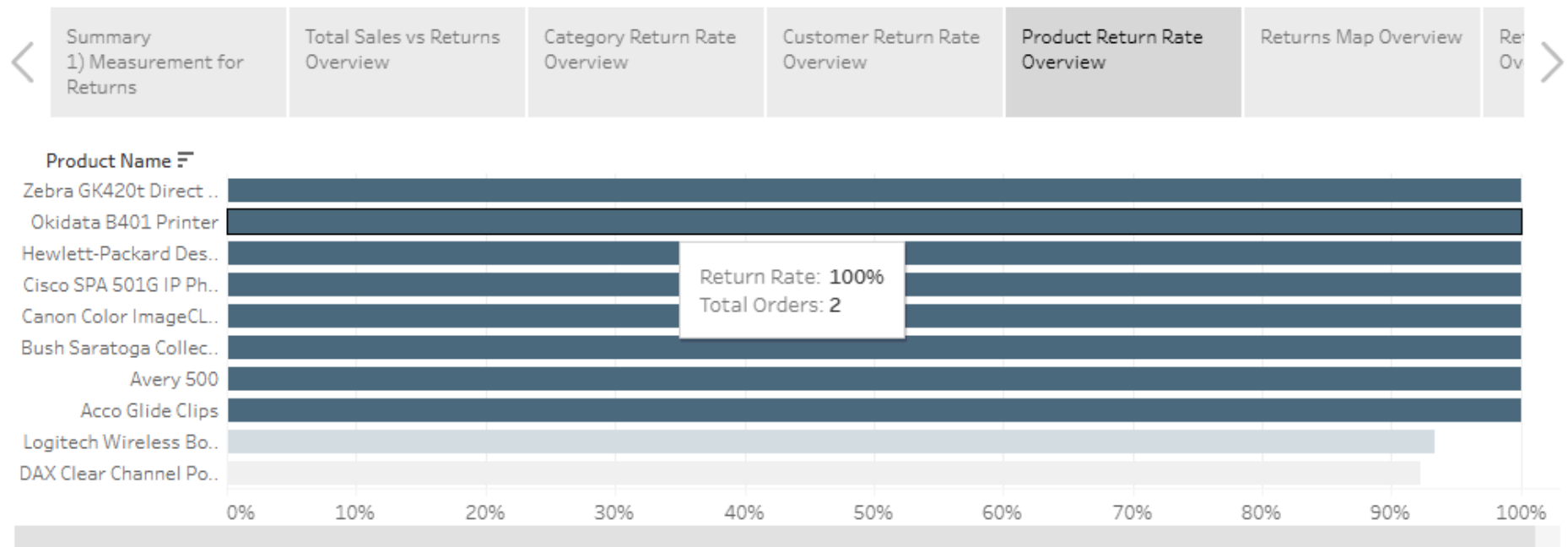
Returns Analysis Presentation

Customer Name

Roland Murray and Hilary Holden have returned every purchase they have made. While several other customers have a high return rate.

When examined by category we can see technology has significantly more 100% return rates.

Returns Analysis Presentation

Product Name

Product	
Zebra GK420t Direct ..	
Okidata B401 Printer	
Hewlett-Packard Des..	
Cisco SPA 501G IP Ph..	
Canon Color ImageCL..	
Bush Saratoga Collec..	
Avery 500	
Acco Glide Clips	
Logitech Wireless Bo..	
DAX Clear Channel Po..	

Return Rate: **100%**
Total Orders: **2**

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Zebra GK420t and Okidata B401 Printers have been returned after every purchase of that product. At the same time, 6 other products have a high return rate of 100% while several others have abnormally high return rates.

When examined by category we can see technology has significantly more 100% return rates.

Returns Analysis Presentation

Utah has the highest return rate *overall* and for *Office Supplies*.

California has the highest return rate for *Furniture*.
New Hampshire has the highest return rate for *Technology*.
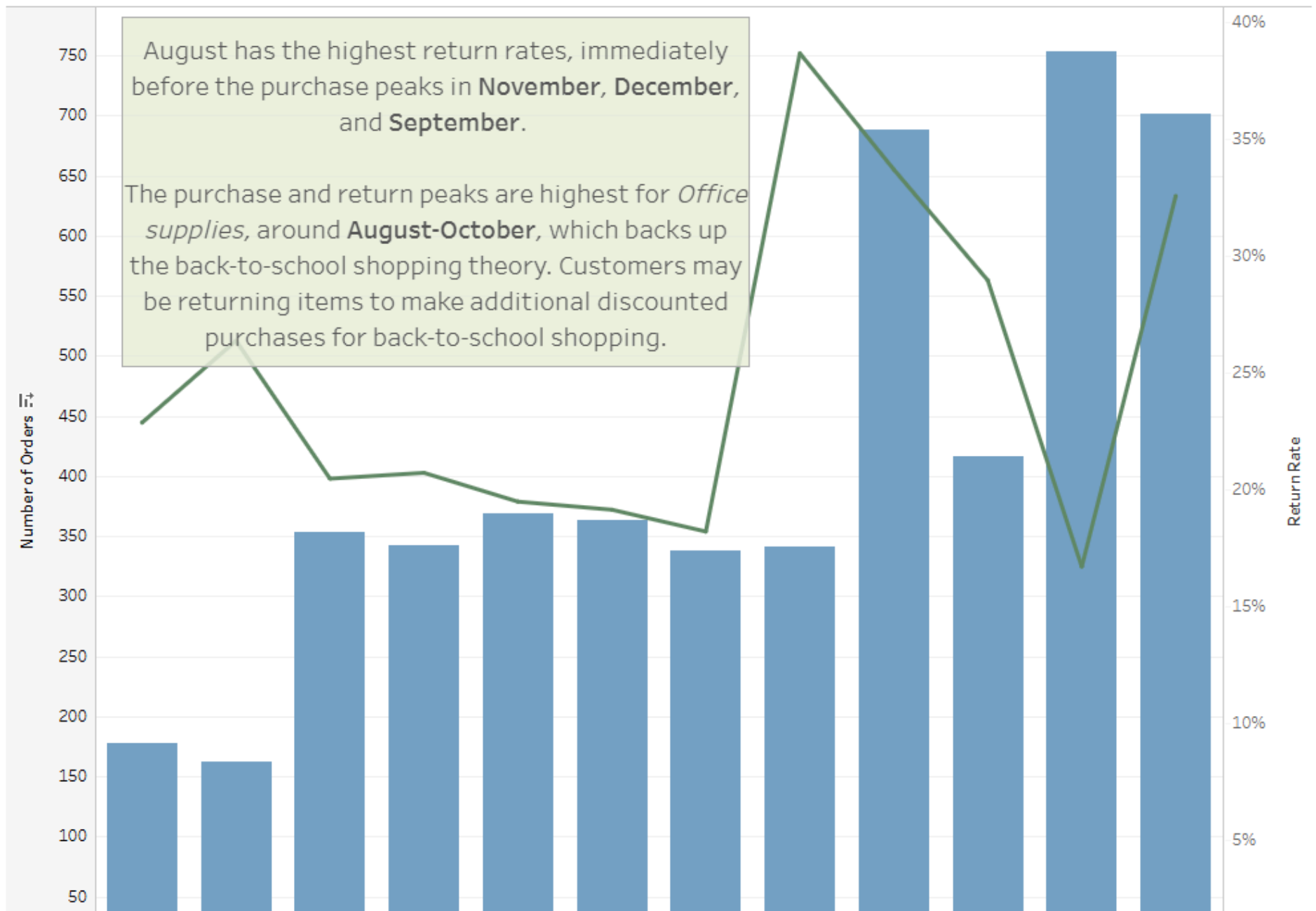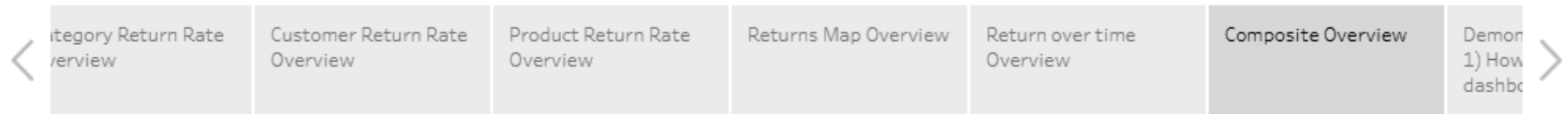
Returns Analysis Presentation

August purchases have the highest return rates *Overall* and for *Office Supplies*.

September purchases have the highest return rates for *Furniture* and *Technology*.

The peaks in February, August-October, and December could be attributed to seasonal events such as Valentine's Day, back-to-school shopping, and holiday shopping. These periods may

Returns Analysis Presentation

August has the highest return rates, immediately before the purchase peaks in **November**, **December**, and **September**.

The purchase and return peaks are highest for *Office supplies*, around **August-October**, which backs up the back-to-school shopping theory. Customers may be returning items to make additional discounted purchases for back-to-school shopping.

Returns Analysis Presentation

In Conclusion:

The cause of returns is a multidepartment widespread problem. There are several contributing factors such as Customer, Product, Location, and Time of year. All of which are affected by category.

Recommendations:

1) Employee training in the technology department to better assist customers in choosing the right product.

2) Reach out to customers with a 100% return rate to determine the reasons behind their decision. Implement any changes needed in our website or shipping partners that are causing these returns.

3) As triage, immediately stop selling the problem products.

4) Focus internal efforts on updating product information, and size guides, and promoting customer reviews via social media collaborations.

5) Consider stricter return policies or charging a return fee for purchases made in problem states.

6) Adjust promotional strategies such as promoting gift cards for holiday peaks, and shifting from discounts to value-added like free shipping.