

Superstore Returns Presentation

Superstore Returns Analysis Intr..	Understanding Return Metrics	Evaluating Total Sales & Returns	Assessing Return Rates by Category	Analyzing Return Rates Over Time	How to Use Dashboard for Future Analysis of..	Examining the Geograp..
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Introduction:

The Superstore is experiencing a high number of returns, so the following analysis evaluates:

- **WHAT** (product categories and sub-categories)
- **WHEN** (months/seasons)
- **WHERE** (states and regions)
- **WHO** (customers)
- **WHY** (root causes)

to determine why customers return their orders and the **NEXT STEPS** to reduce return rates in the future, thereby helping the Superstore boost operational efficiency and strengthen customer loyalty.

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Dataset & Return Metrics

DATASET

SOURCE: Internal sales database comprised of transactional records from 2018 to 2021.

Analysis focused on the following:

DIMENSIONS:

- **Category** and **Sub-Category**: identifies the type of product sold
- **Customer Name**: identifies specific customers who returned a product
- **State and Region**: specifies the geographical area where the return was made
- **Order Date (Month)**: pinpoints the timeframe the return was made

METRICS:

- **SUM(Sales)** = total sales
- **SUM(Return Status)** = returned orders ("1" for returned, "0" for not returned)
- **AGG(Return Rate)** = sum of returned orders ÷ total number of orders
- **Customer Name** = customers filtered by top 10 highest return rates (Top 10 by [Return Rate]) and customers with only 1 order (COUNT([Order ID] > 1) are filtered out.

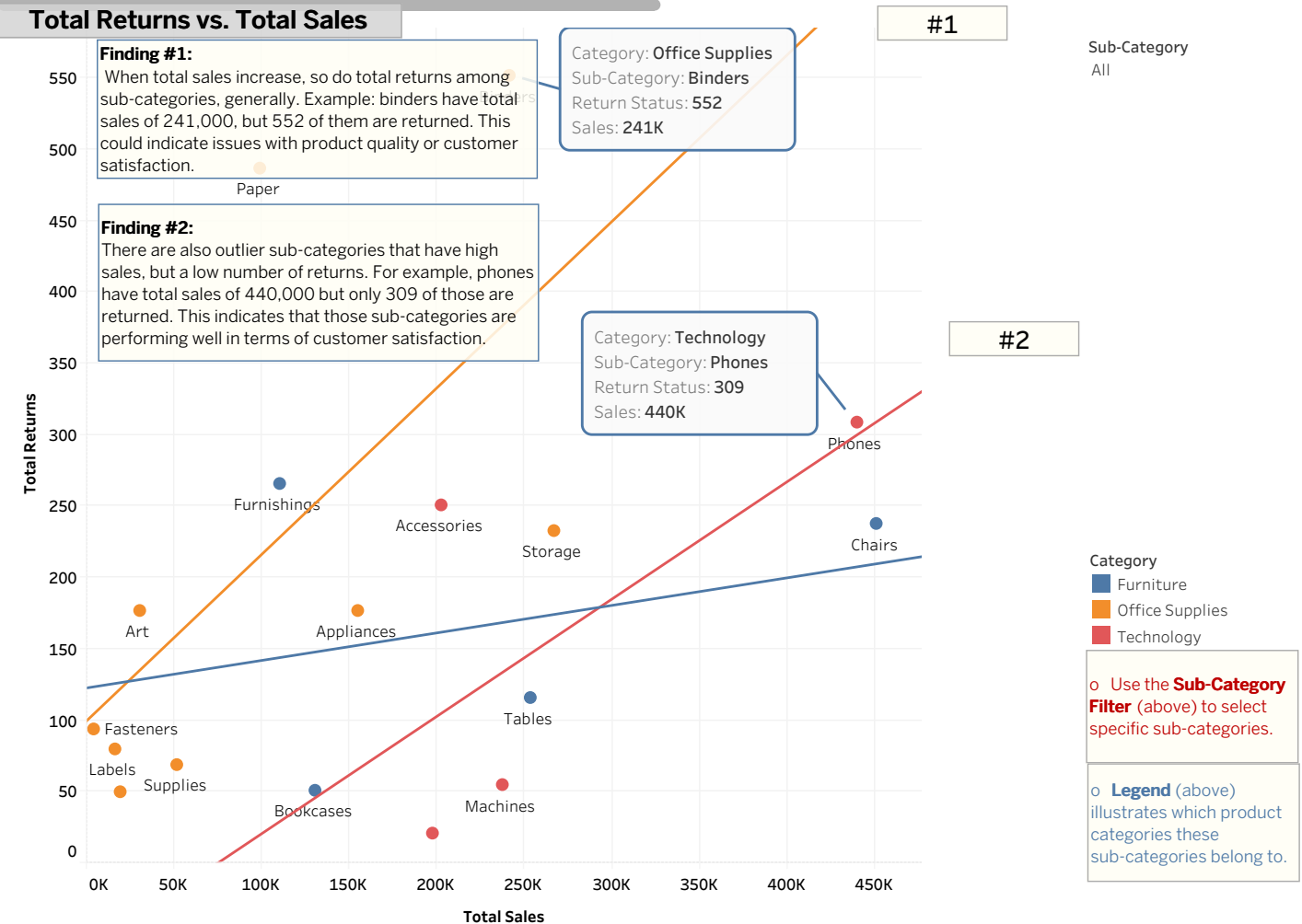
STRATEGY:

- Analyzing **total sales** and **total returns** provides a complete view of return volume and its impact on sales. These figures help assess the financial effect of returns in absolute terms, revealing potential profitability issues. Example: a high-sales product with low returns may still significantly affect profitability if total returns are large. Similarly, rising returns over time could indicate product quality or customer satisfaction problems that average return rates may mask.
- **Average return rates** help analyze returns relative to sales or units sold, making it easier to compare performance across products, time periods, or customer segments. They normalize data, aiding trend identification, product quality assessment, and performance evaluation.



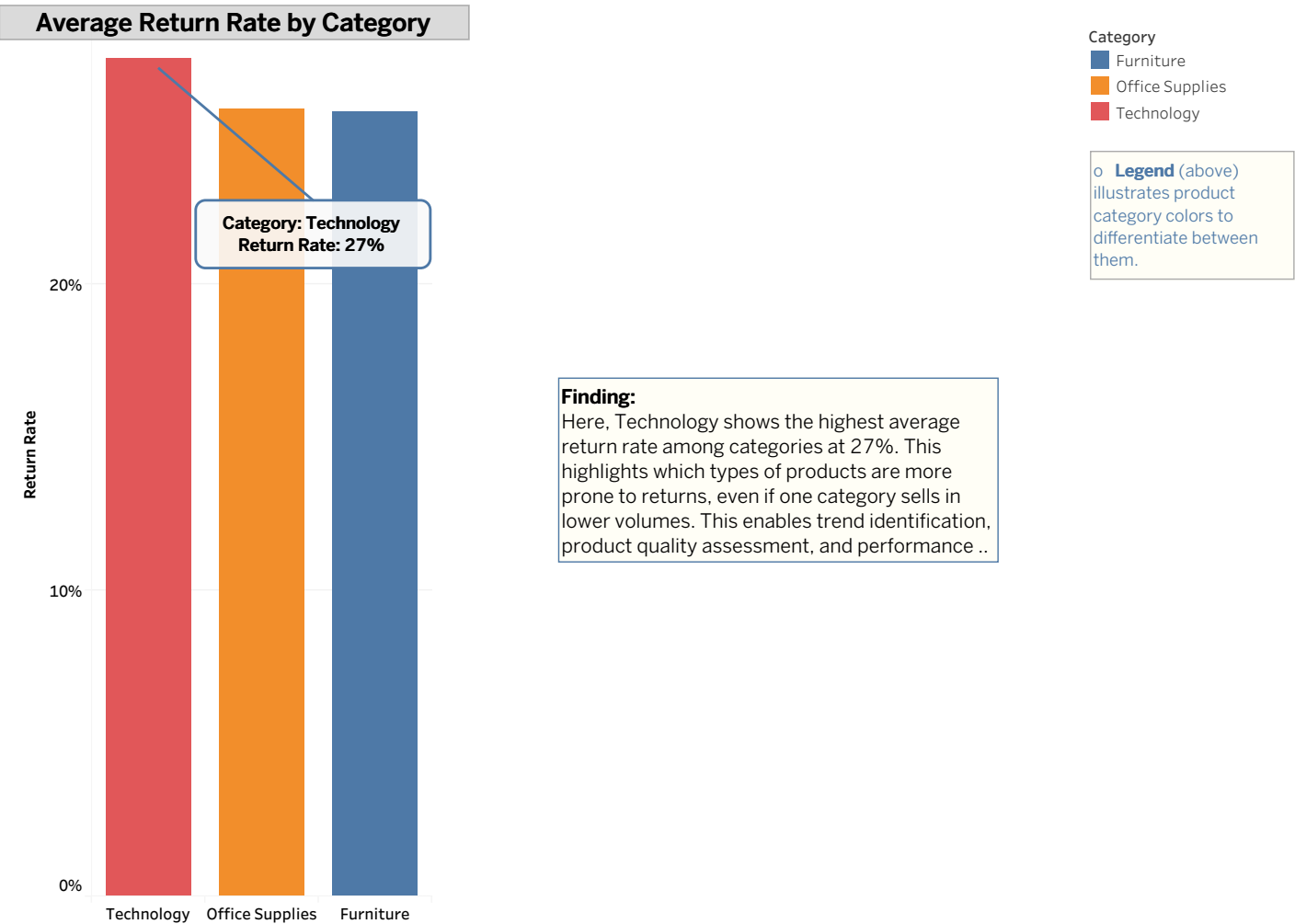
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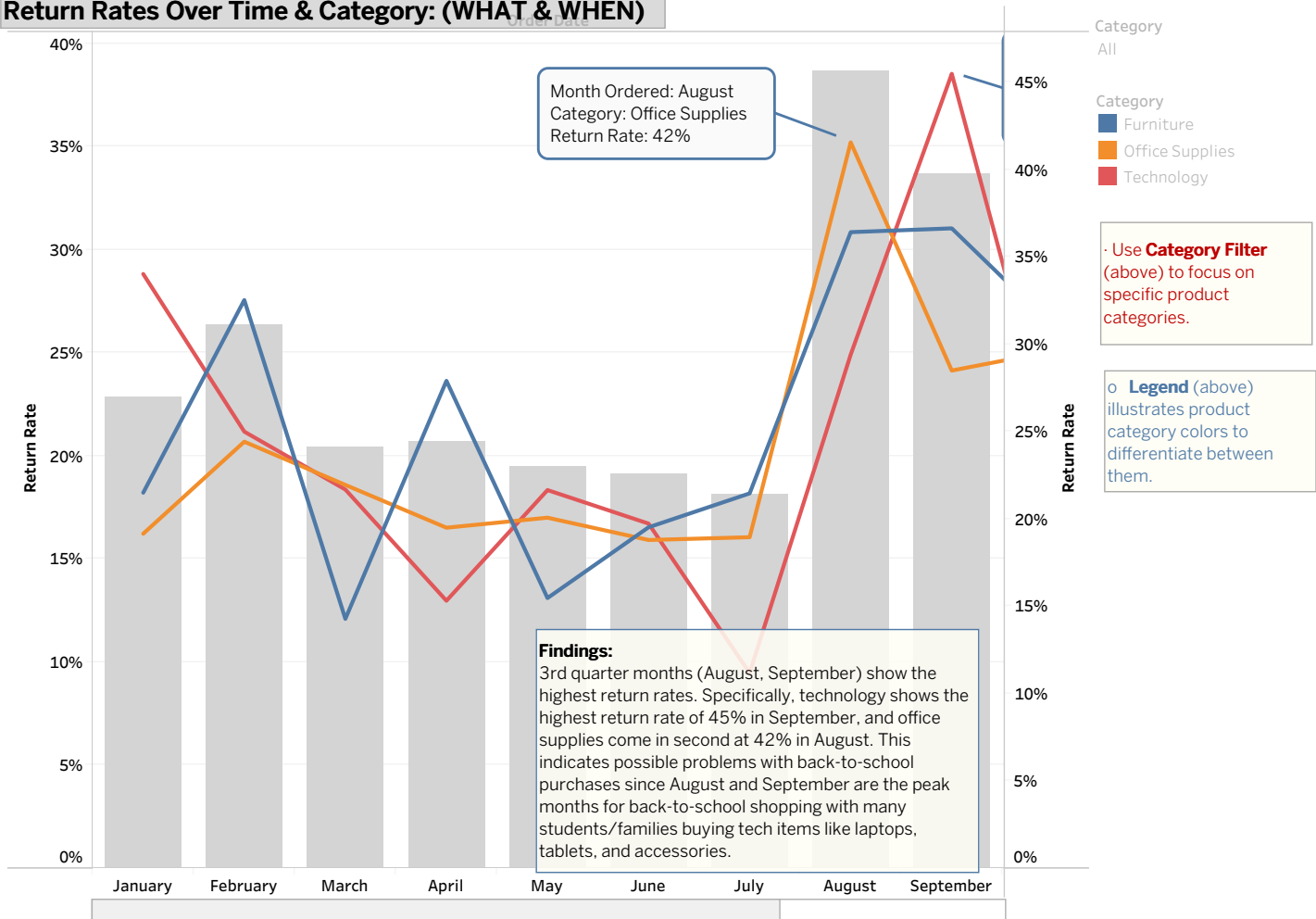
Superstore Returns Analysis..	Understanding Return Metrics	Evaluating Total Sales & Returns	Assessing Return Rates by Category	Analyzing Return Rates Over Time	How to Use Dashboard for Future Analysis of..	Examining the Geographical Locat..
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Understanding Return Metrics	Evaluating Total Sales & Returns	Assessing Return Rates by Category	Analyzing Return Rates Over Time	How to Use Dashboard for Future Analysis of..	Examining the Geographical Locatio..	Pinpointing Return Rates by Category ..
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Return Rates Over Time & Category: (WHAT & WHEN)



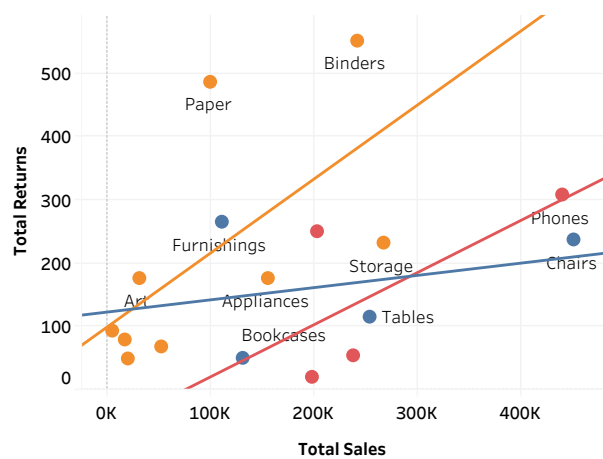
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Evaluating Total Sales & Returns	Assessing Return Rates by Category	Analyzing Return Rates Over Time	How to Use Dashboard for Future Analysis of..	Examining the Geographical Locatio..	Pinpointing Return Rates by Category & ..	How to Use Dashboard for Futu..
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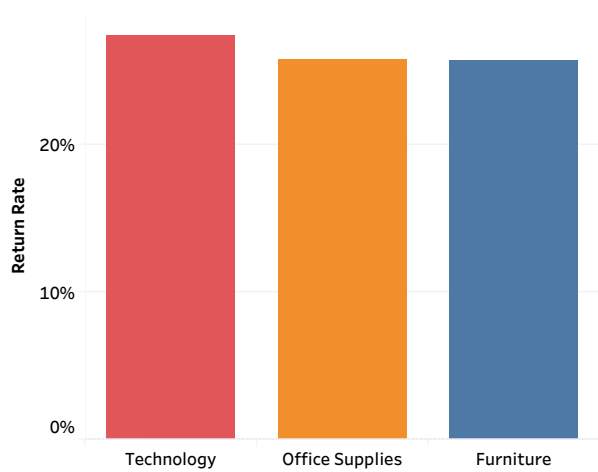
DASHBOARD USAGE (1)

Understanding Returns by Product Categories Over Time

Total Sales vs. Total Returns



Return Rate by Category

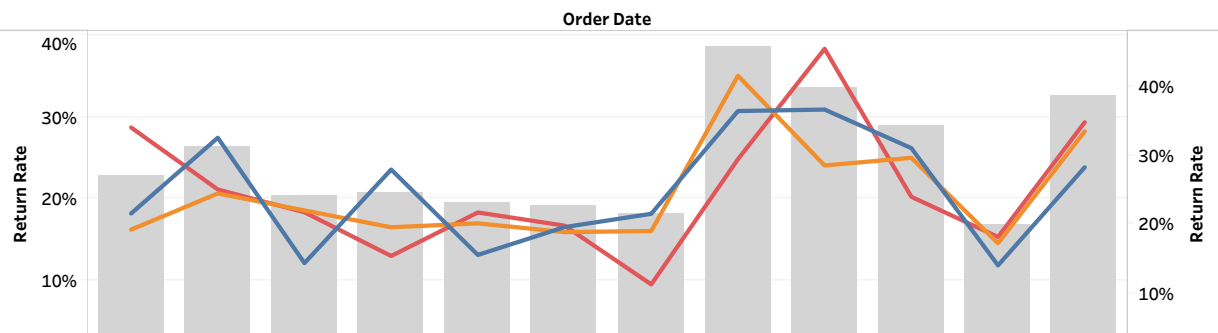


Category
● Furniture
● Office Supplies
● Technology

Category
■ Furniture
■ Office Supplies
■ Technology

o Use the **Category Filter** (above) to switch between different product categories to **analyze returns** in terms of total sales vs. total returns, category return rates, and return rate categories over time.

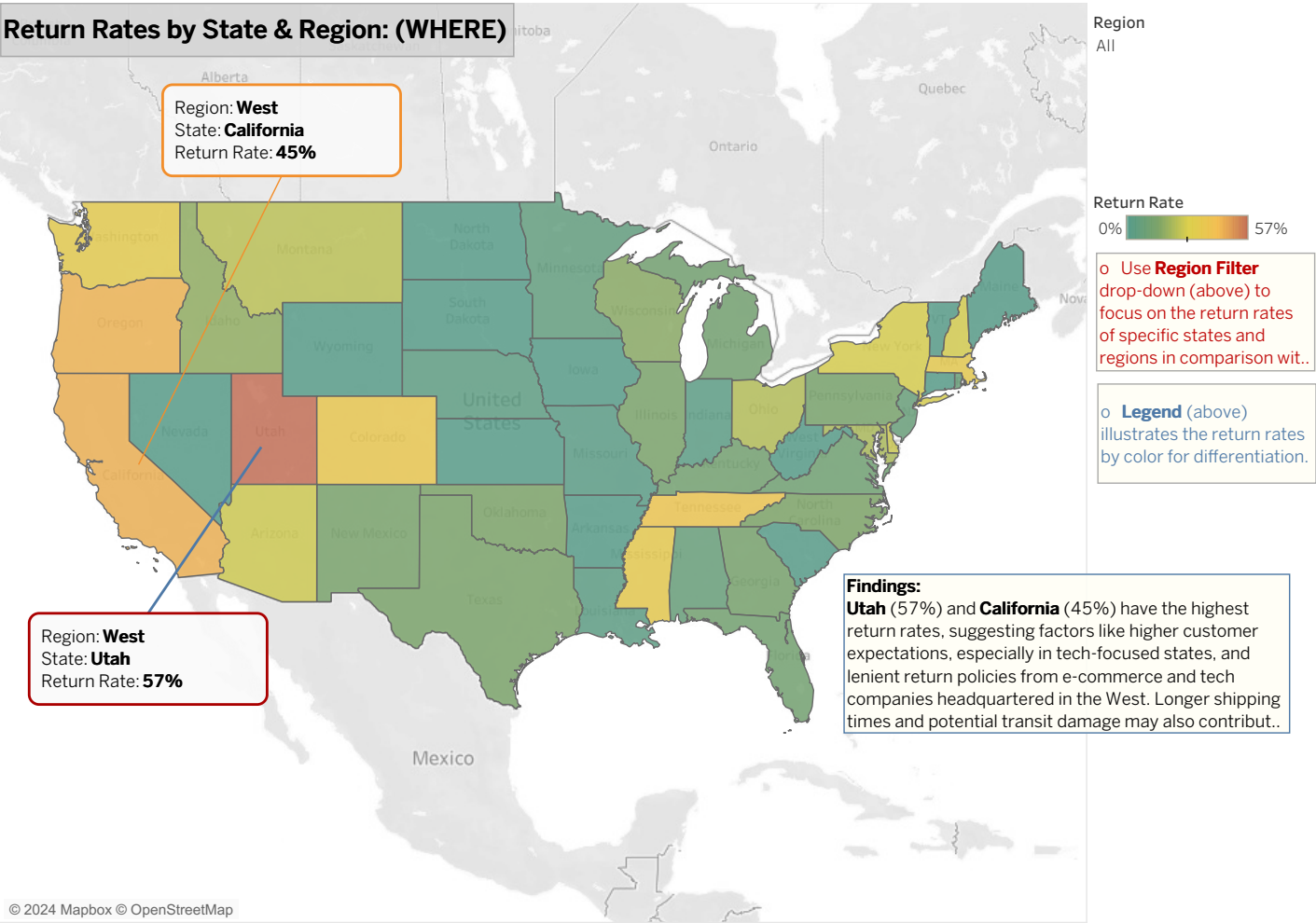
Return Rate by Category & Time



o **Legend** (above) illustrates product category colors.

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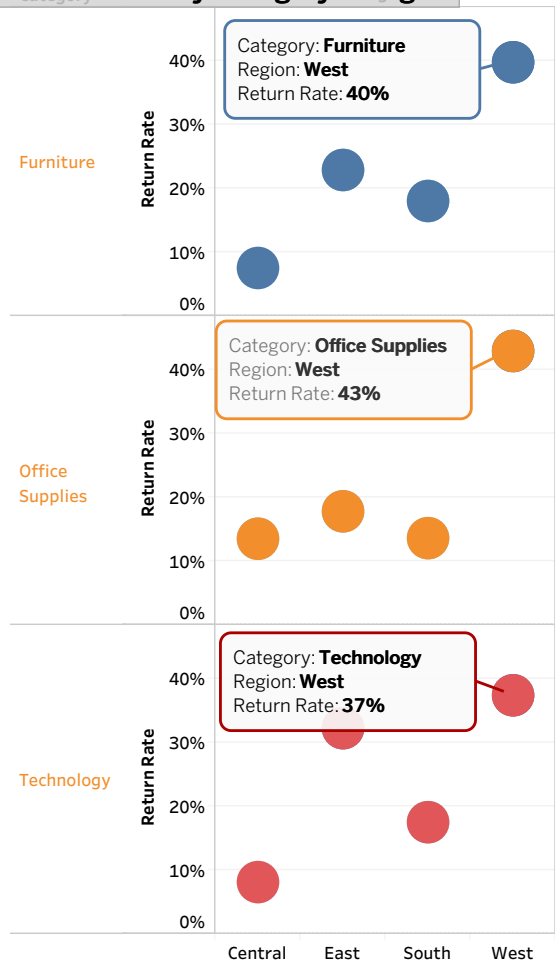
Assessing Return Rates by Catego..	Analyzing Return Rates Over Time	How to Use Dashboard for Future Analysis of..	Examining the Geographical Locatio..	Pinpointing Return Rates by Category & ..	How to Use Dashboard for Future Analysis of..	Investigating Return Rates by Customers
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Superstore Returns Presentation

Analyzing Return Rates Over Time	How to Use Dashboard for Future Analysis of..	Examining the Geographical Locatio..	Pinpointing Return Rates by Category & ..	How to Use Dashboard for Future Analysis of..	Investigating Return Rates by Customers	Identifying Root Causes
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Return Rates by Category & Region



Findings:

Again, the western region shows the highest rates of return for each category: furniture (40%), office supplies (43%), and technology (37%). This allows for a more concentrated effort to improve customer behavior, operational challenges, or regional characteri..

Return Rate
8% 43%

Category
Furniture
Office Supplies
Technology

o **Legend** (above) illustrates the return rate percentages by color for differentiation.

o **Legend** (above) illustrates product category colors to differentiate between them.

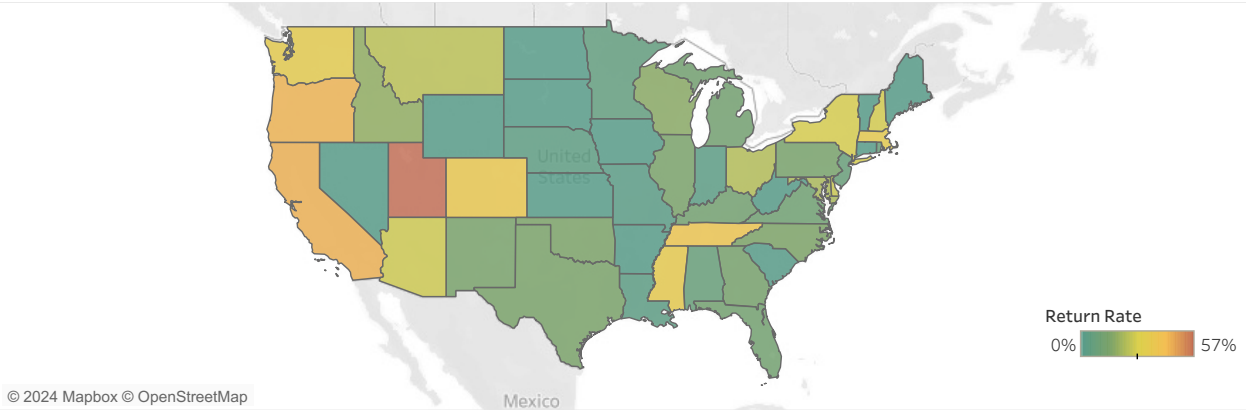
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How to Use Dashboard for F..	Examining the Geographical Locatio..	Pinpointing Return Rates by Category & ..	How to Use Dashboard for Future Analysis of..	Investigating Return Rates by Customers	Identifying Root Causes	Returns Summary
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DASHBOARD USAGE (2)

Understanding Return Rate by Category & Region/State

Return Rate By State & Region



- Region
- All
- Category
- All
- Category
- Furniture
- Office Supplies
- Technology

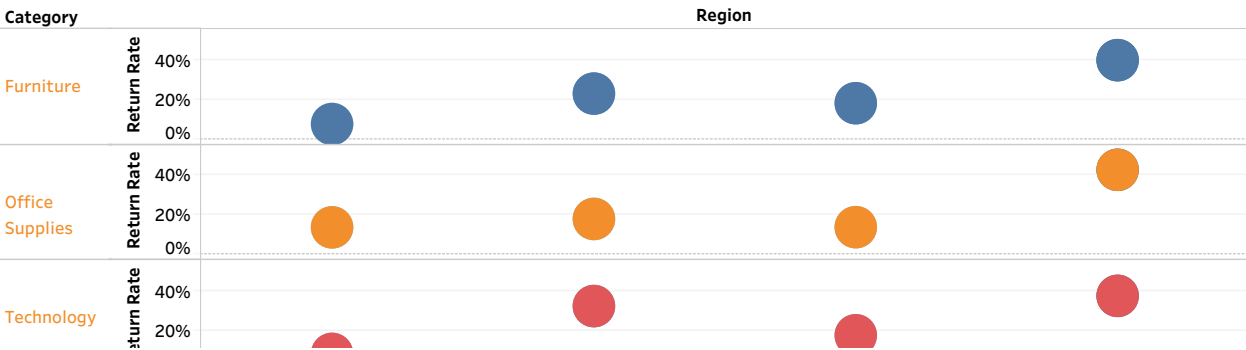
o Use **Region Filter** (drop-down above) to select specific regions to analyze.

o Use **Category Filter** (drop-down above) to select specific product categories to analyze return rates in certain .

o **Legend** (above right): illustrates product category colors.

o **Legend** (right side of map): illustrates the return rate

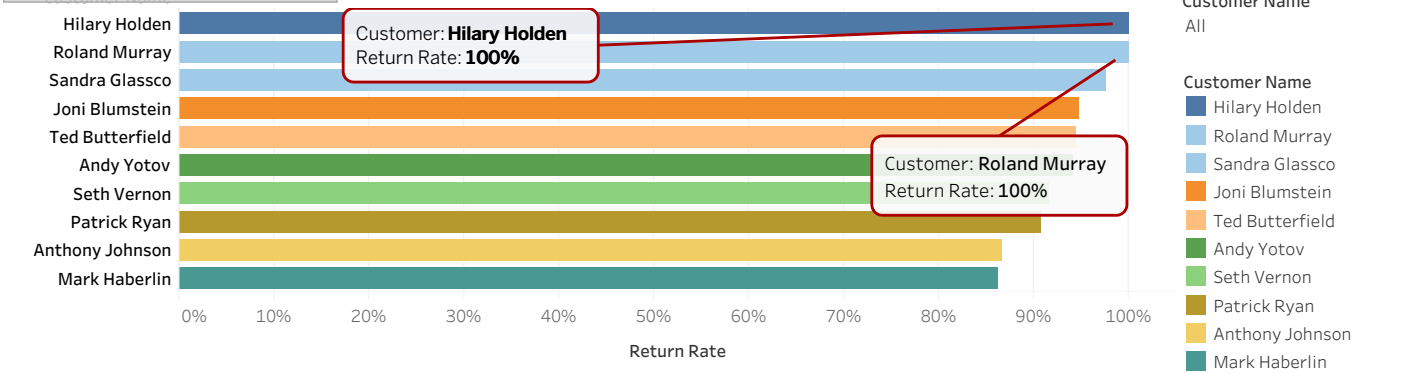
Return Rate by Category & Region



Superstore Returns Presentation

Examining the Geographical Lo..	Pinpointing Return Rates by Category & ..	How to Use Dashboard for Future Analysis of..	Investigating Return Rates by Customers	Identifying Root Causes	Returns Summary	Next Steps
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Return Rate by Customer



Findings:
2 customers have a **return rate of 100% (Hilary Holden, Roland Murray)**. Identifying customers who are more prone to making returns enables further investigation into why they are returning specific products. Reasons for high return rates include product quality issues, product not matching the description or image, customer expectations vs. reality, and shipping ..

o Use **Customer Name Filter** (above) to analyze customers with the top 10 highest return rate percentages (minus customers with only 1 order) individually.

o **Legend** (above) illustrates customer name colors to differentiate between them.

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Examining the Geograp..	Pinpointing Return Rates by Category & ..	How to Use Dashboard for Future Analysis of..	Investigating Return Rates by Customers	Identifying Root Causes	Returns Summary	Next Steps
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Root Causes of High Return Rates: (WHY)

1. When total sales increase, so do total returns among sub-categories, generally. The root causes could be issues with **product quality** or **customer satisfaction**.



2. High **return rates** among **categories** highlight products that are more prone to returns. Technology had the highest rate of return. Root causes include **compatibility and complexity** (products more complex requiring compatibility with other devices/systems); **rapid product evolution and obsolescence** (products evolve quickly, so customers may realize after purchase that a newer/better model is available); **high customer expectations** and **performance variability** (customers have high expectations, especially for high-cost items); and **product setup and installation difficulties** (requiring setup/installation, and if the process is too complex or if technical issues arise, customers may opt to return the item rather than troubleshoot).

3. High return rates during the back-to-school season (August, September) indicate possible **problems with students/families buying tech items like laptops, tablets, and accessories**.

4. Western states have the highest return rates by product category, likely due to factors such as **higher quality expectations**, especially in tech-savvy areas like California, and **lenient return policies** from e-commerce and tech companies based in the region. **Longer shipping times, handling errors, and transit damage** may also contribute to higher return rates.

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Superstore High Returns Summary

CONCLUSION:

We've analyzed the following information which affects the Superstore's high number of returns:

• WHAT:

- The technology product category, as well as, the binders and phones sub-categories have the highest return rates and the highest total returns.

• WHEN:

- August and September have the highest return rates.

• WHERE:

- The western United States (specifically Utah and California) have the highest return rates.

• WHO:

- Hilary Holden and Roland Murray have the highest return rates of 100%.

• WHY:

- Product quality, compatibility, and complexity
- Rapid product evolution and obsolescence
- Product setup and installation difficulties
- Back-to-school shopping
- E-commerce giants and tech companies are headquartered in the western region
- Lenient return policies
- Extended shipping times, handling errors, or damage during



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Recommended NEXT STEPS:

Create a **SURVEY** with questions related to each root cause of high returns and send to the top return rate customers.

Analyzing **return reasons**, **customer feedback**, and **return data trends** can help identify the main drivers for high returns, allowing the Superstore to **adjust marketing**, **product details**, or **quality control** to reduce them.

