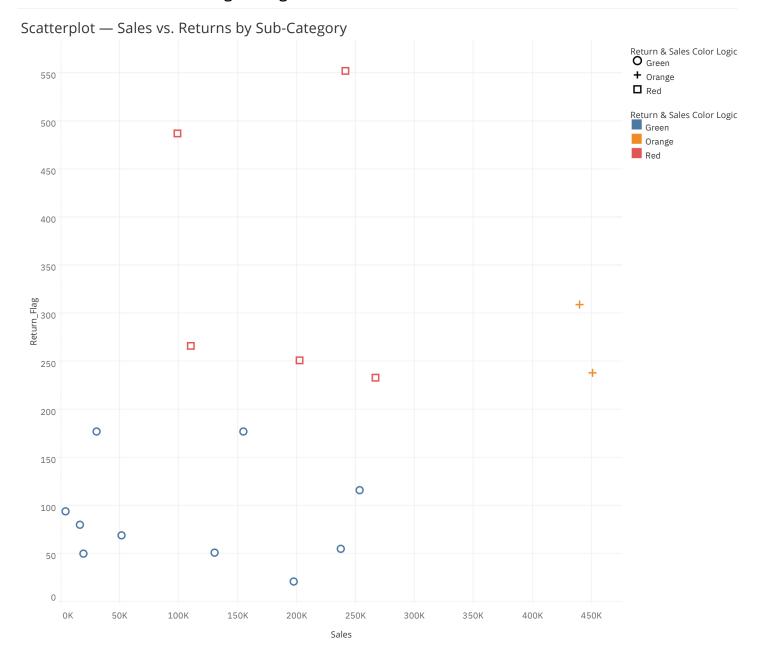
Page 1: High Returns and Sales Trends



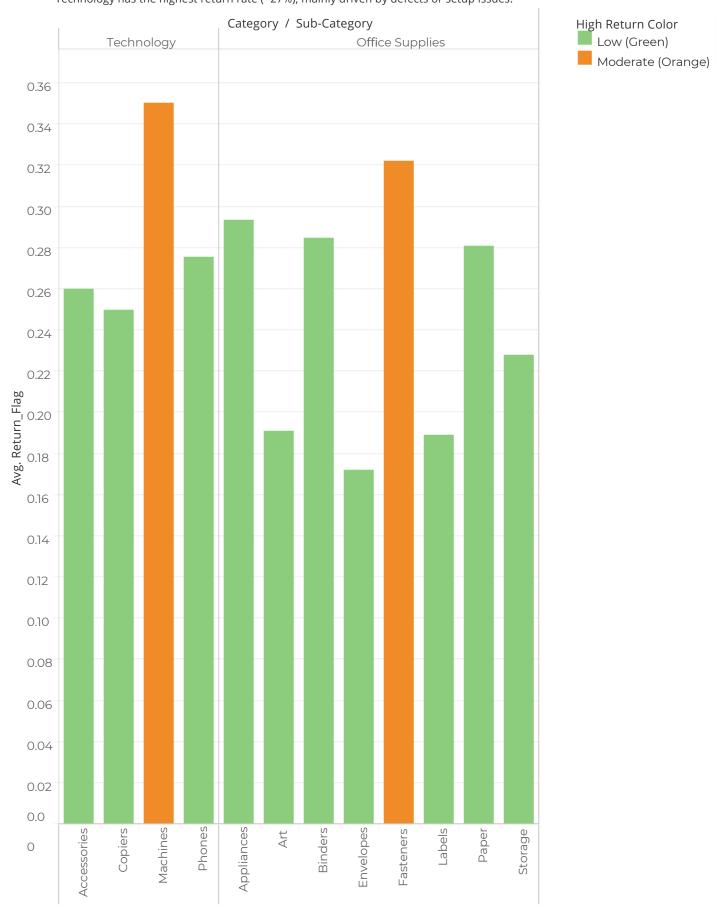
Key Insight: High return rates don't always correlate with high sales.

Paper: This category stands out as an outlier, with a high return rate (~28%) despite low sales. This could point to order fulfillment issues or mismatches between customer expectations and the product. Chairs & Phones: These categories show both high sales and high return rates, suggesting quality or sizing concerns.

Binders: With moderate sales and high returns, this could indicate bulk orders or quality problems.

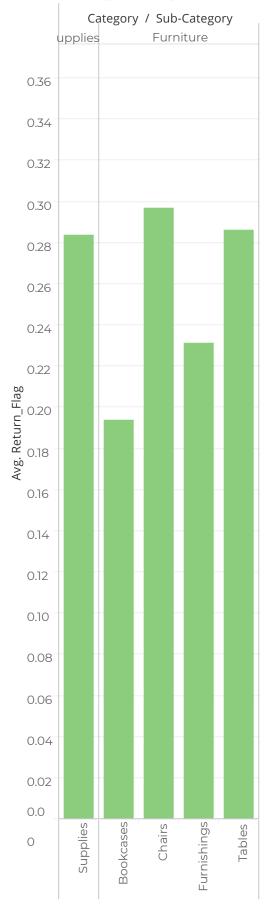
Page 2: Categories with the Highest Return Rates
Returns by Category

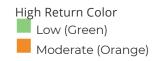
Technology has the highest return rate (~27%), mainly driven by defects or setup issues.



## **Returns by Category**

Technology has the highest return rate (~27%), mainly driven by defects or setup issues.





Technology: The Technology category has the highest return rate  $(\sim27\%)$ . This may indicate defects or unmet expectations from customers.

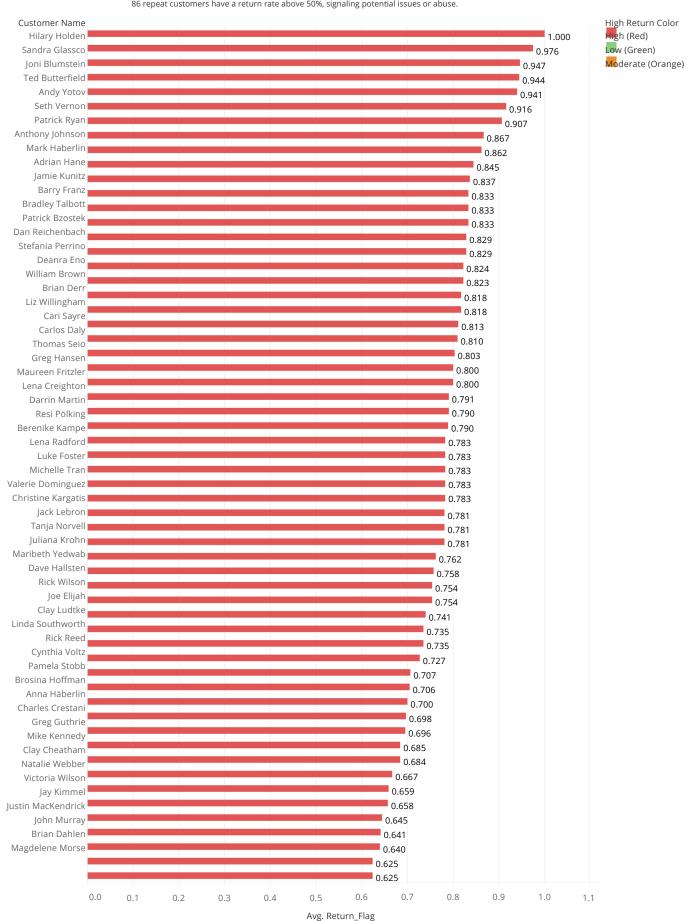
Office Supplies and Furniture: These categories have high return rates as well, with Furniture returns potentially linked to size or delivery issues.

Conclusion: The high return rates across all categories suggest the need for a deeper sub-category analysis.

### Page 3: Repeat Customers with High Return Rates

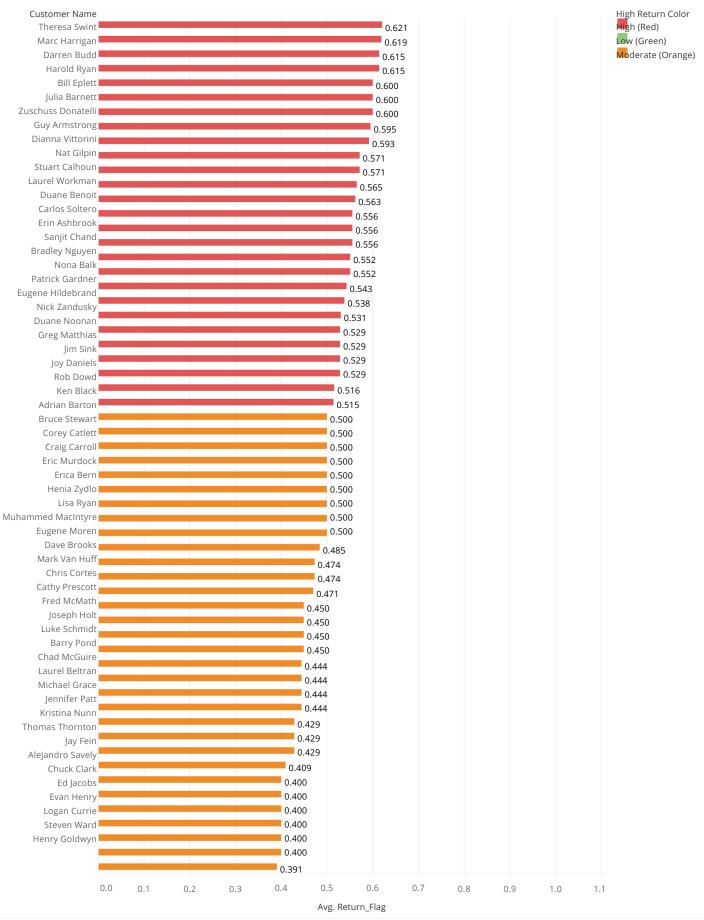
### Return Rate by Customers

86 repeat customers have a return rate above 50%, signaling potential issues or abuse.



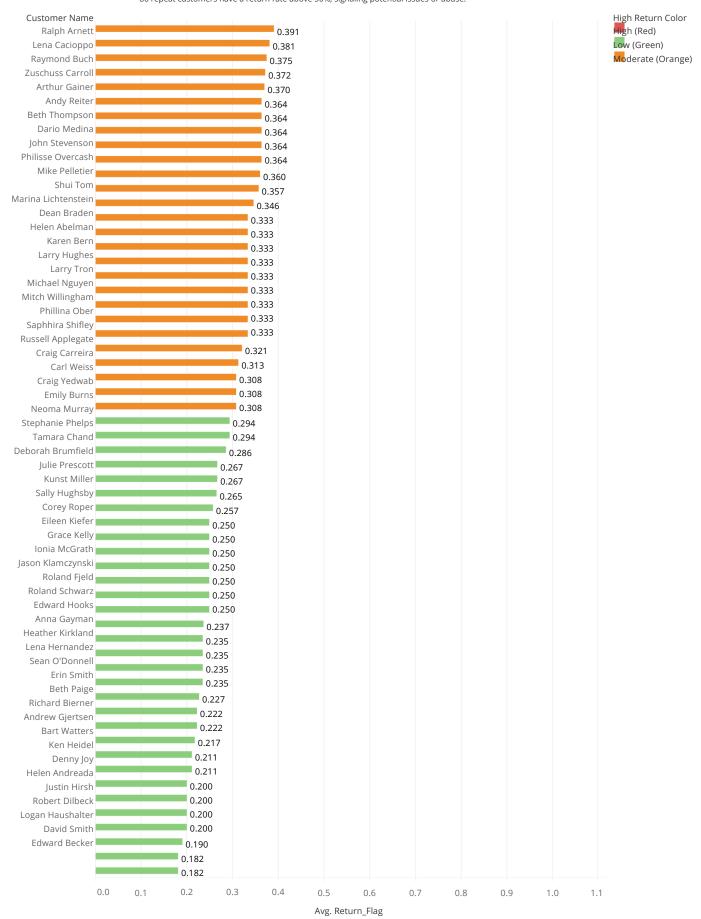
### Return Rate by Customers

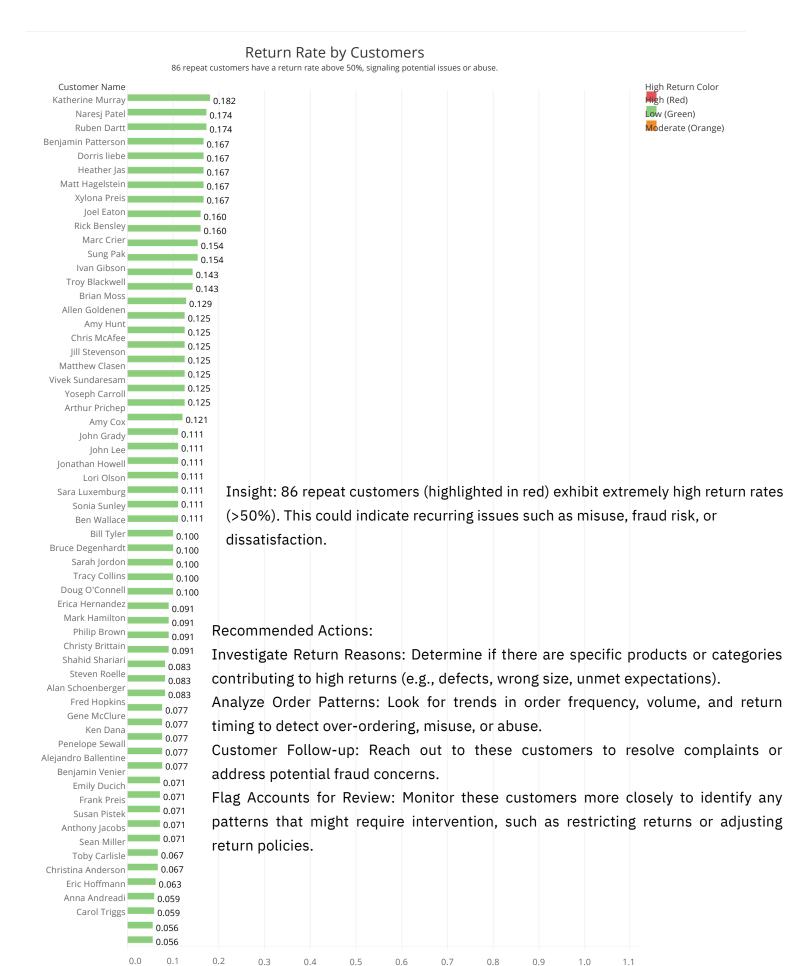
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### Return Rate by Customers

86 repeat customers have a return rate above 50%, signaling potential issues or abuse.



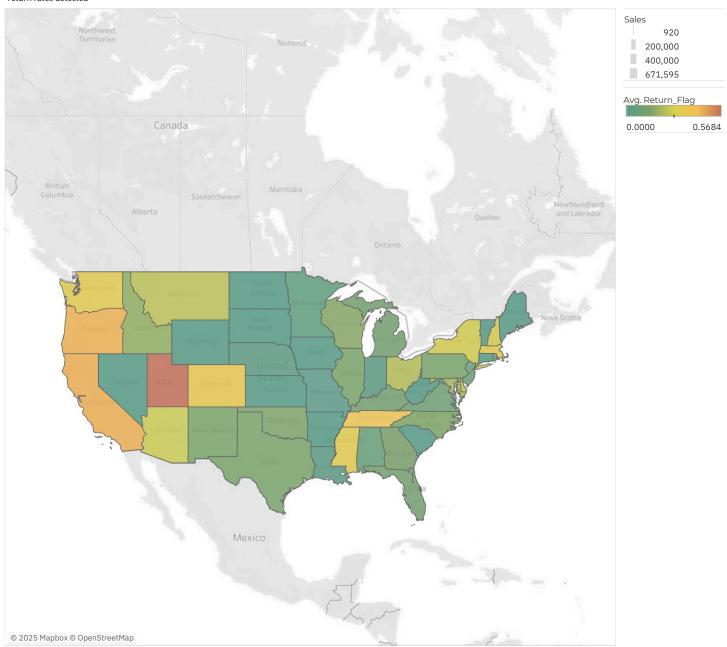


Avg. Return\_Flag

Page 4: Geographic Insights - Regional Hotspots of Returns

#### Return Rate by State

Higher return rates observed in Utah (~56.8%), indicating possible delivery or product fit issues. Focus states: Utah, New Hampshire, Oregon, Tennessee — high return rates detected



High Return Rate States: Several states exhibit exceptionally high return rates (>50%), which may signal fulfillment issues, product mismatches, or regional dissatisfaction.

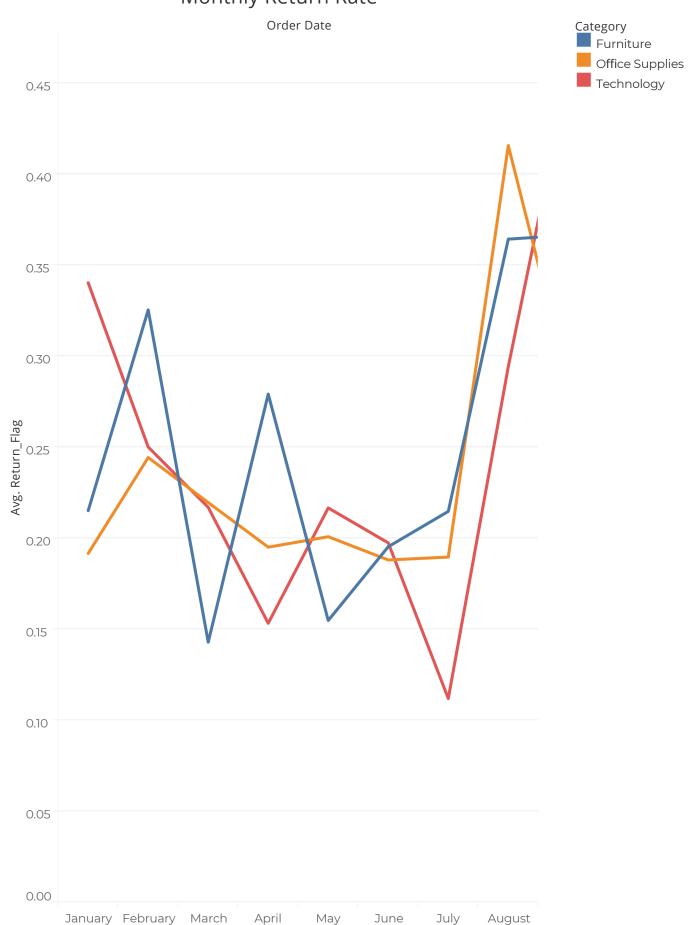
Utah: ~56.8% return rate on modest sales (\$22.6K). This suggests issues in delivery, local preferences, or potential misuse.

#### **Recommended Actions:**

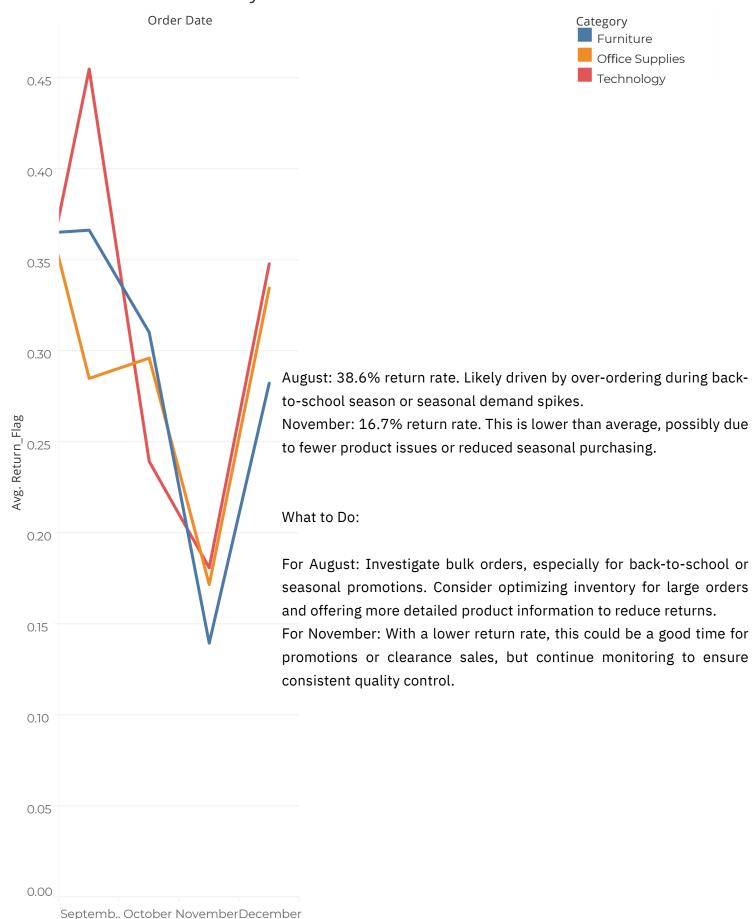
Investigate Fulfillment Issues: Focus on high-return states to identify specific problems in delivery or product issues.

Examine Shipping Logistics: Analyze whether delays, damages, or errors from specific warehouses or shipping partners are contributing to dissatisfaction.

Page 5: Return Rate Spikes by Month Monthly Return Rate

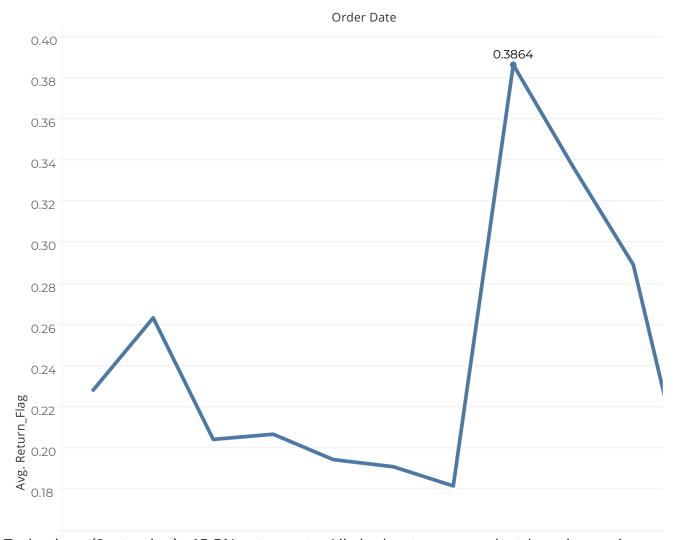


## Monthly Return Rate



### Page 6a: Return Rates by Category Over Time Return Rate Over Time

August: major spike in returns (~38.6%) likely due to seasonal bulk ordering. September: high technology returns (~45.5%), possibly from new product launches and setup issues



Technology (September): 45.5% return rate. Likely due to new product launches or issues with tech items (e.g., defects or setup difficulties).

Office Supplies (August): 41.6% return rate. Likely due to back-to-school overordering from schools or offices, with returns due to excess inventory.

Furniture (September): 36.6% return rate. Potentially related to damaged items during shipping or size issues that lead to returns.

What to Do:

For Technology (September): Investigate new tech products for defects or unclear setup instructions that might lead to higher return rates.

For Office Supplies (August): Check for bulk ordering patterns during the back-to-school period. Provide more detailed descriptions and quantity suggestions to reduce returns.

For Furniture (September): Review packaging and shipping procedures to reduce damage during transit. Ensure product sizing and details are clearer to customers to avoid returns.

# Page 6b: High Return Rates by Category and State Composite Heatmap — Return Rate by State and Category

		Category	Avg. Return_Flag		
State	Furniture	Office Su <sup>-</sup>	Γechnolo		
Alabama	0.0000	0.0000	0.2500	0.0000	0.6667
Arizona	0.2069	0.2956	0.2281		
Arkansas	0.0000	0.0000	0.0000		
California	0.4537	0.4680	0.3884		
Colorado	0.2923	0.4044	0.3333		
Connecticut	0.0000	0.0000	0.0000		
Delaware	0.1053	0.2464	0.3929		
District of					
Florida	0.1263	0.0935	0.1316		
Georgia	0.2432	0.0984	0.0769		
Idaho	0.2857	0.0000	0.4000		
Illinois	0.0902	0.1478	0.1398		
Indiana	0.0870	0.0000	0.0345		
Iowa	0.0000	0.0000	0.0000		
Kansas	0.0000	0.0000	0.0000		
Kentucky	0.2222	0.0449	0.1538		
Louisiana	0.0000	0.0500	0.0000		
Maine	0.0000	0.0000	0.0000		
Maryland	0.2857	0.1667	0.2500		
Massachusetts	0.2439	0.3707	0.3462		
Michigan	0.0392	0.1534	0.0000		
Minnesota	0.1429	0.0308	0.0000		
Mississippi	0.0000	0.4717	0.0000		
Missouri	0.0000	0.0233	0.0000		
Montana	0.0000	0.3333	0.0000		
Nebraska	0.0000	0.0385	0.0000		
Nevada	0.0000	0.0000	0.0000		
New Hampshire	0.	.3750 0.00	00 0.6667		
New Jersey	0.0000	0.0690	0.1304		
New Mexico	0.2500	0.0800	0.2000		
New York	0.2911	0.2253	0.4006		
North Carolina	0.1667	0.1469	0.1071		
North Dakota		0.0000			
Ohio	0.2368	0.1818	0.3134		
Oklahoma	0.0000	0.2326	0.0000		
Oregon	0.2963	0.4248	0.5833		
Pennsylvania	0.	.1608 0.08	15 0.2042		
Rhode Island	0.	.1176 0.00	00 0.2000		
South Carolina	0.0000	0.0000	0.0000		
South Dakota	0.	.0000 0.00	00 0.0000		
Tennessee	0.3115	0.3537	0.6000		
Texas	0.0667	0.1635	0.1042		

## Composite Heatmap — Return Rate by State and Category

	Category			Avg. Return_Flag	
State	Furniture	Office Su	Technolo		
Utah	0.4000	0.6027	0.5000	0.0000	0.6667
Vermont	0.0000	0.0000	0.0000		
Virginia	0.2167	0.0146	0.1951		
Washington	0.3169	0.3377	0.3481		
West Virginia	0.0000	0.0000			
Wisconsin	0.1667	0.1935	0.0769		
Wyoming	0.0000				

Technology:

New Hampshire: 66.67% return rate.

Oregon: 58.33% return rate.

Tennessee: 60.00% return rate.

Office Supplies:

Utah: 60.27% return rate.

Furniture:

Generally low return rates.

### Analysis:

Technology: High return rates in specific states may indicate product defects, dissatisfaction, or fulfillment issues.

Office Supplies: Utah's high return rate may signal overordering or product issues.

Furniture: Return rates are low, indicating no immediate concerns.

### Recommendations:

Technology: Investigate high-return states for product defects or customer dissatisfaction.

Office Supplies: Look into bulk ordering patterns in Utah for office supplies to avoid overordering.

Furniture: Continue monitoring and ensure that quality control remains consistent.