



# Northwind Traders Analysis



By Keene Kelderman



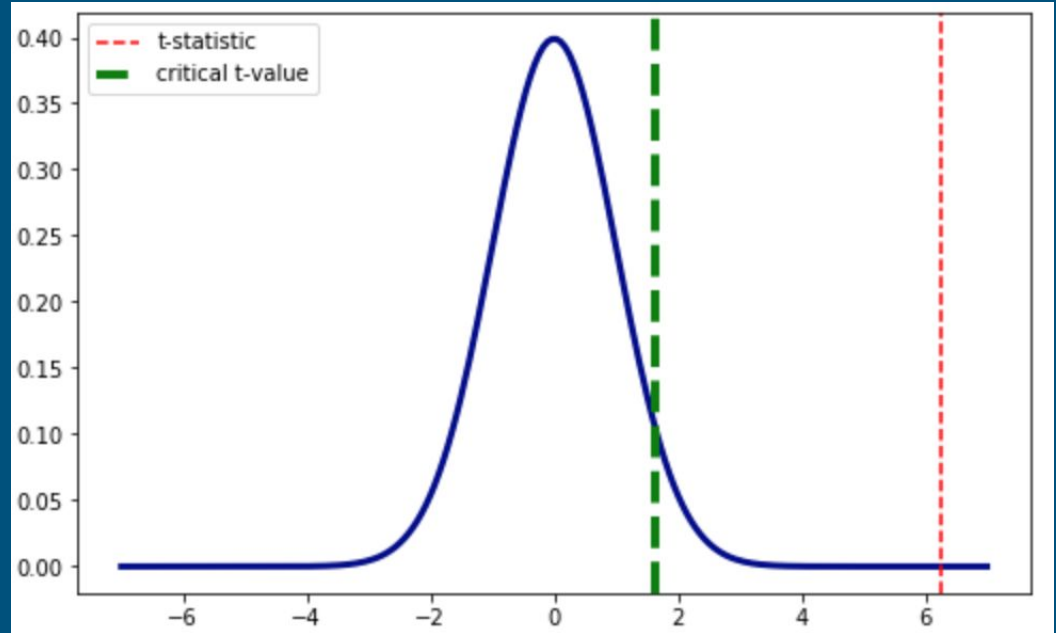
1) Does discount amount have a statistically significant effect on the quantity of a product in an order? If so, at what level(s) of discount?

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# Question 1 Summary

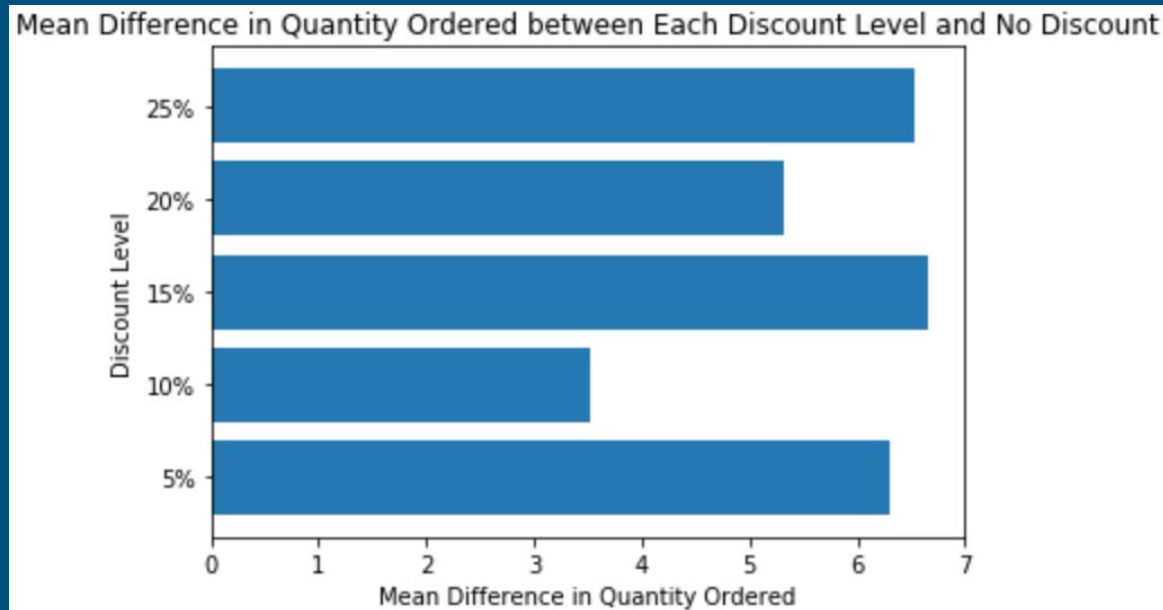
All Discount Amounts compared to Non-discounted orders

- Statistically significant difference
- Discounts result in an increase of 5.4 quantity ordered



# Question 1 Summary

Each Discount Amount compared to Non-discounted orders



# Question 1 Summary

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Discount	P-Value	Reject Null?	Cohen d	Mean	Mean_diff
5%	0.000136	True	0.347157	28.010811	6.295549
10%	0.018728	True	0.196096	25.236994	3.521732
15%	0.000086	True	0.372698	28.382166	6.666904
20%	0.000406	True	0.300928	27.024845	5.309583
25%	0.000080	True	0.366873	28.240260	6.524998

2) Do some product categories generate more money per order for Northwind Traders than others?

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# Question 2 Summary

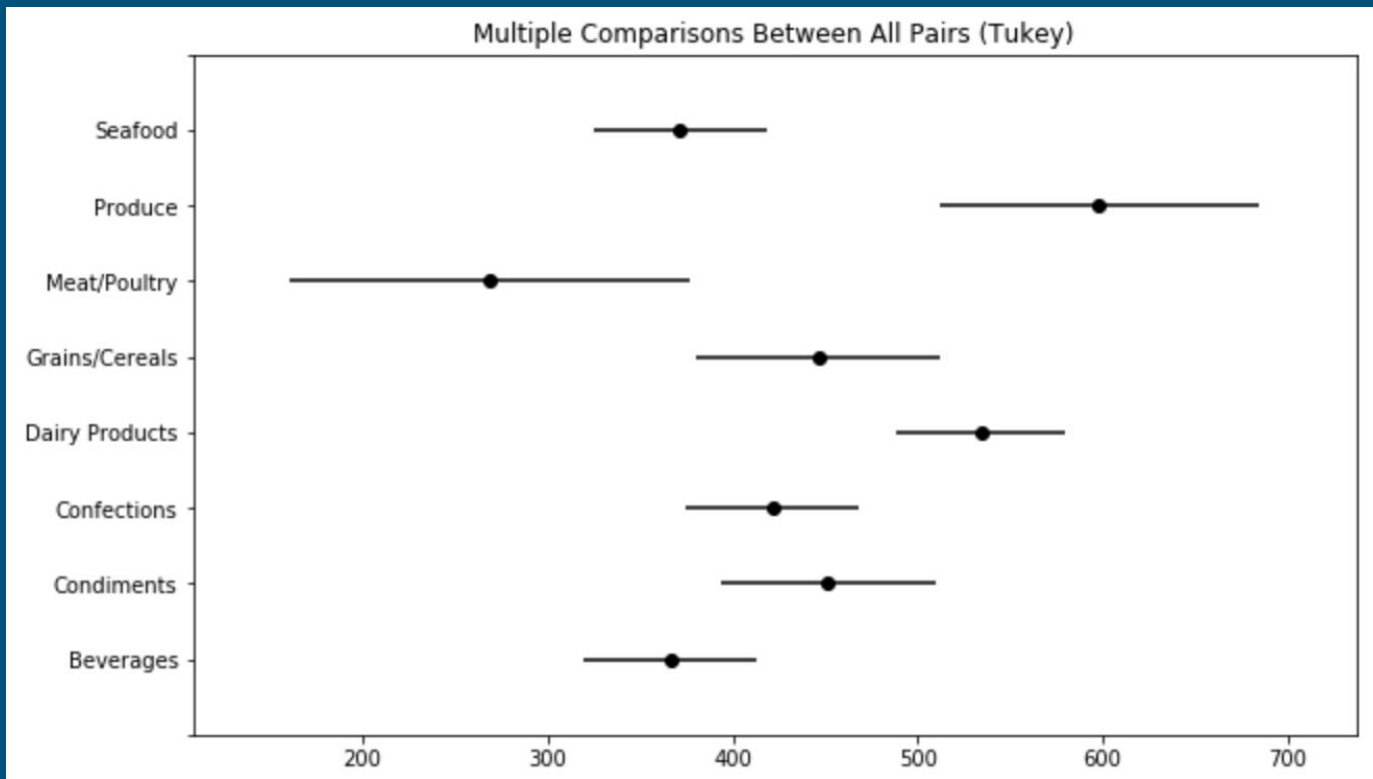
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## Average Order cost per Category

- 1) Produce: \$598.10
- 2) Dairy Products: \$534.03
- 3) Condiments: \$451.62
- 4) Grains/Cereals: \$446.54
- 5) Confections: \$421.38
- 6) Seafood: \$371.66
- 7) Beverages: \$366.20
- 8) Meat/Poultry: \$268.80



# Question 2 Summary





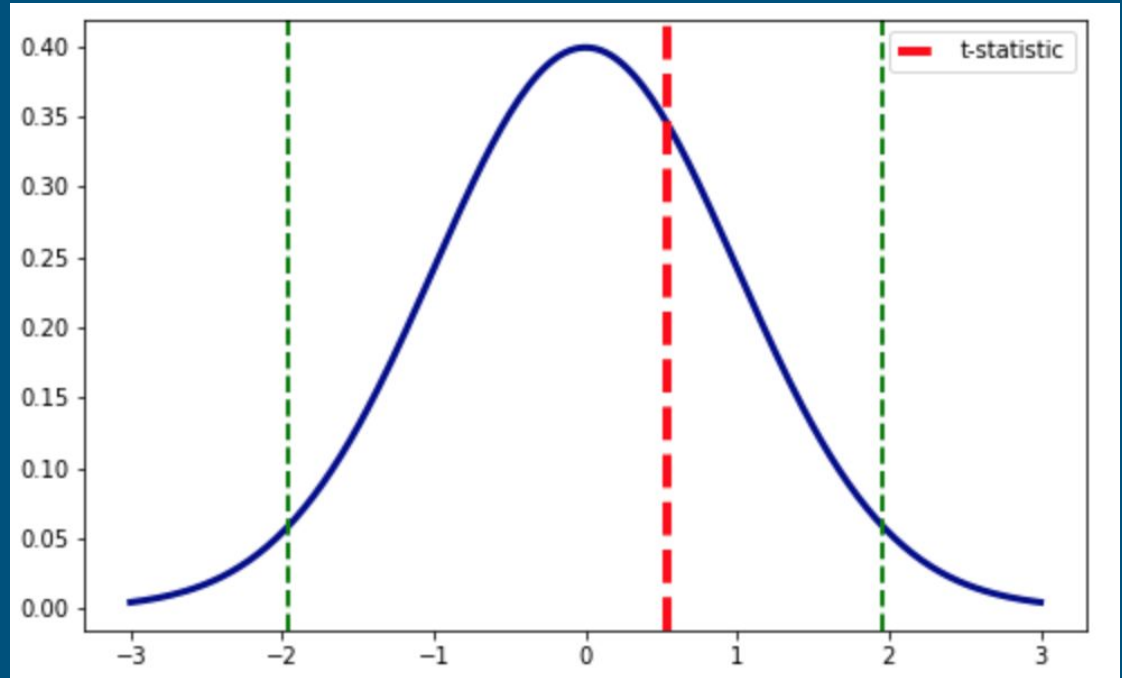
3) Do employees in certain regions generate more money for the company than other employees in other regions?

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# Question 3 Summary

No Statistical  
Significance:

- Failed to reject the null hypothesis



# Question 3 Summary

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North American Employees: 5

North American Sales: 586

British Isle Employees: 4

British Isle Sales: 213

4) Are there customer regions that purchase significantly more goods from Northwind Traders than others?

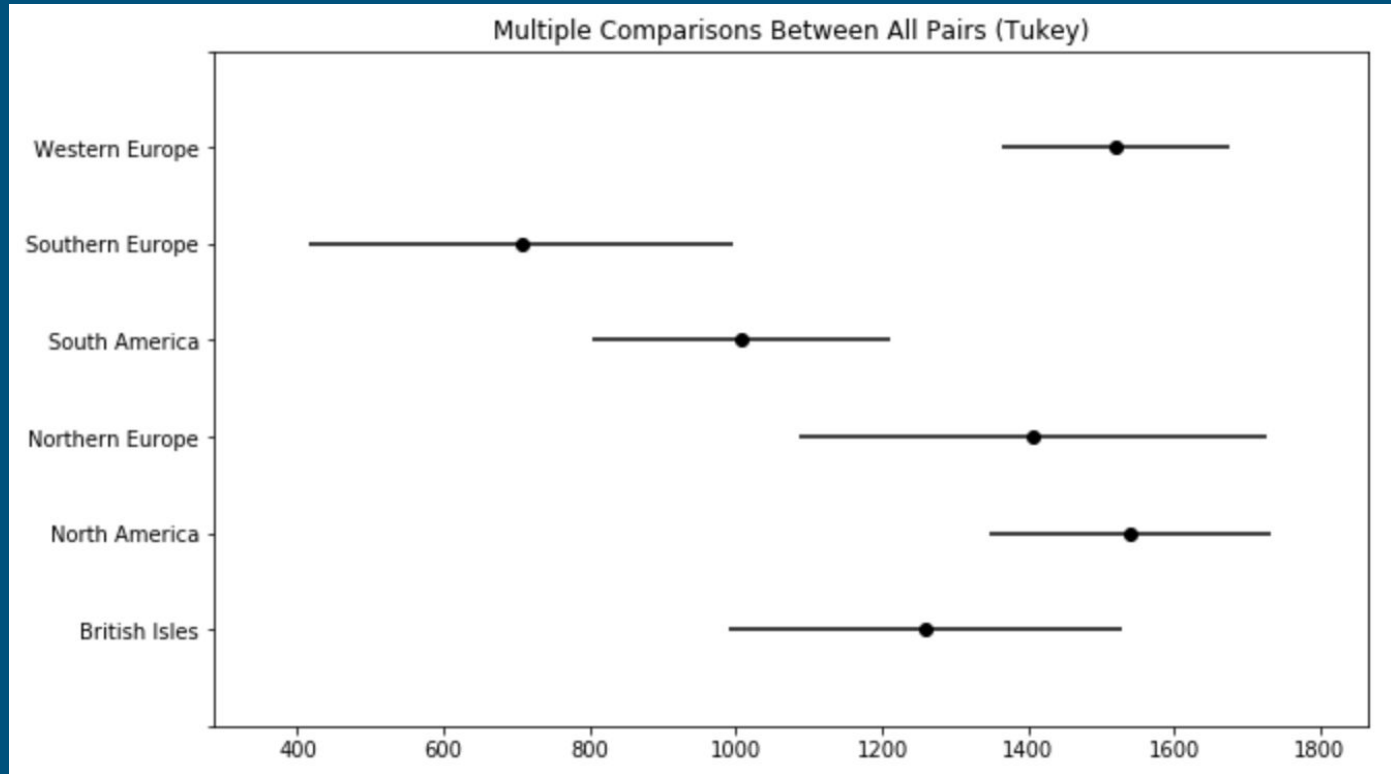
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# Question 4 Summary

Reject null hypothesis,  
but no order



# Question 4 Summary



# Follow-up Questions

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- 1) It's been determined that discounts result in a higher quantity ordered, but do they actually result in more revenue for the company?
- 2) Even though there is no difference between the amount sold by each region, is there a difference between the amount sold by the various employees? Are some employees better at selling goods than others?
- 3) Is there a statically significant difference in the amount ordered for each product category by region? That is, do some regions order more of one category of product than other regions? Or even, do some regions order more of one category of product compared to other product categories?



Thanks for listening!