

Analysis of Marketing Campaign Dataset Using IBM Watson

VAISHALI PATEL

What is a predictive model for **CouponValue** ? (Predictive strength: 100%)

Decision Rules **Tree**

Decision rules show that CarryOver and 2 other inputs predict CouponValue.



CouponValue

00 No value

05 percent

15 percent

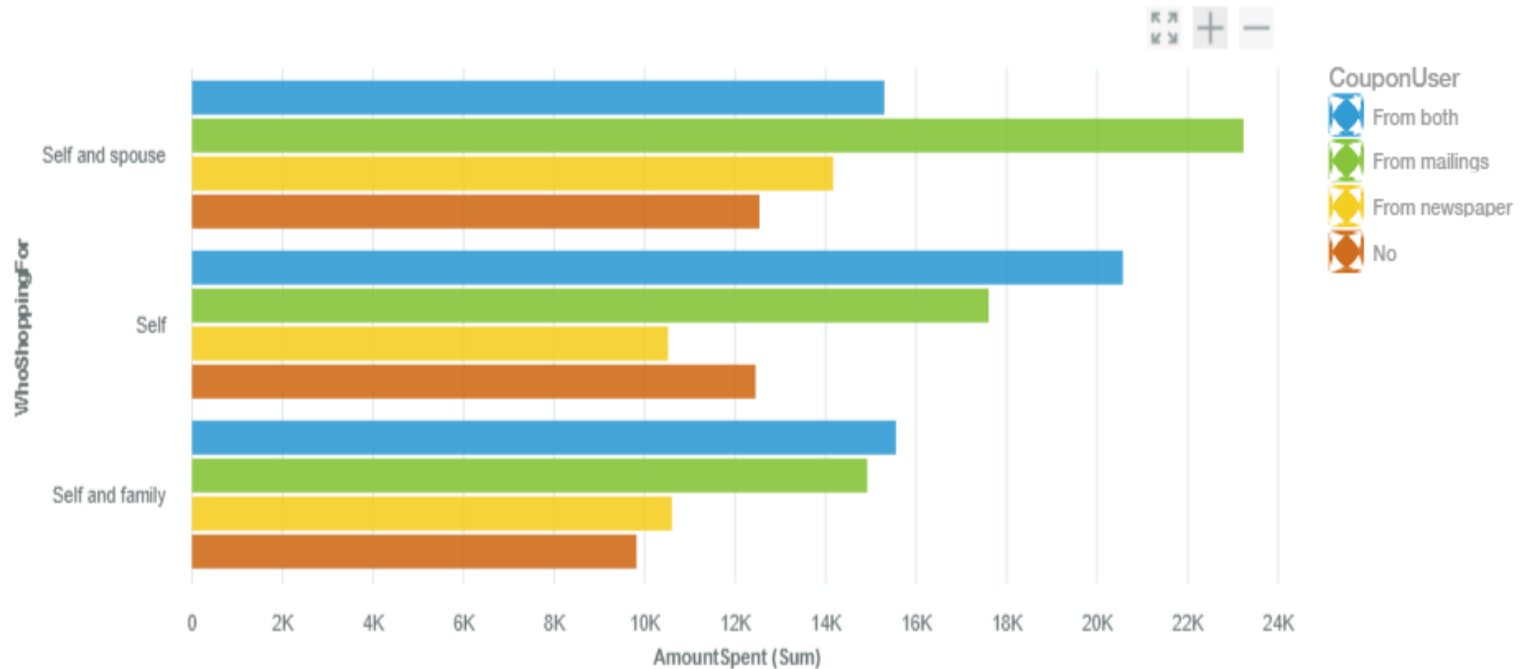
Full tree

5

5

- This predictive model represents Regression Trees for the attribute Coupon Value.
- It has generated a tree based on coupon value, which have input variables carry-over, coupon sequence and week.
- Rules are
 1. $\text{Carryover} \leq 0$, coupon sequence ≤ 1234
 2. $\text{Carryover} > 3$, week = 3
 3. $\text{Carryover} = 2$ to 3, week = 2
 4. $\text{Carryover} = 1$ to 2, week = 4

How do the values of **AmountSpent** ⊗ compare by **WhoShoppingFor** ⊗ and **CouponUser** ⊗ ?



- The above graph shows how much amount is spent on while exercising the coupon user.
- Highest amount spent is for Self & spouse, using the mail coupon user.
- Least amount spent is for self & family and they are not coupon users.


What is a predictive model for AmountSpent ⊗ ? (Predictive strength: 15%)

Decision Rules **Tree**

Decision rules show that WhoShoppingFor and 4 other inputs predict AmountSpent.



AmountSpent (Sum)

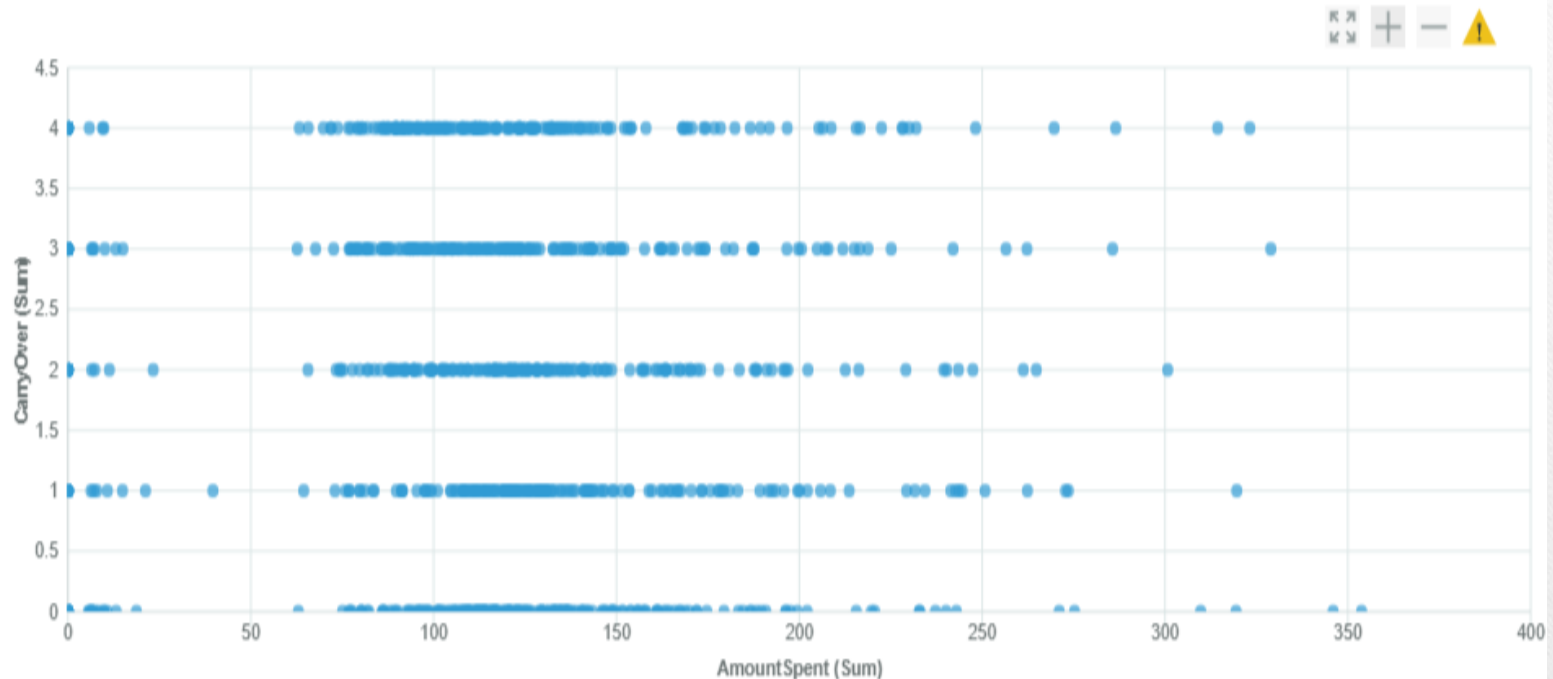


84.13 158.71

Full tree 5 5

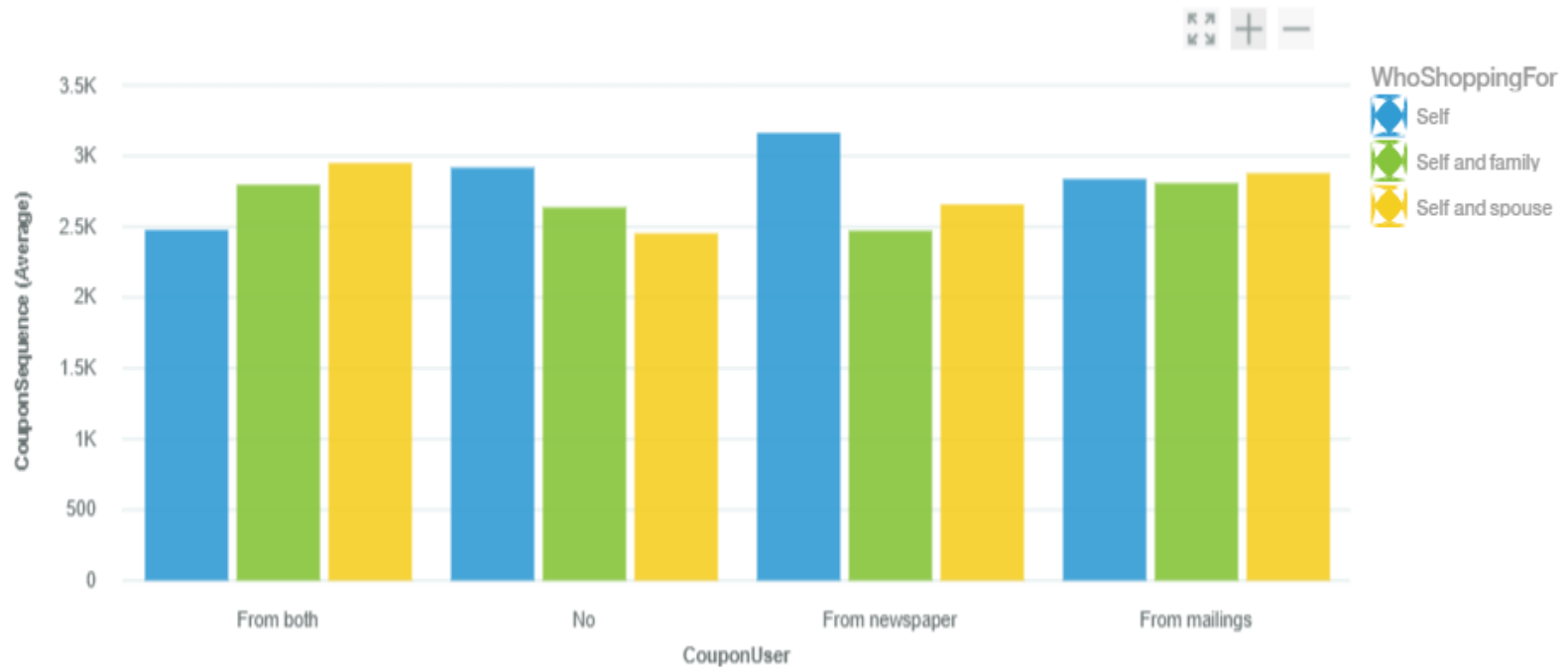
- Predictive model for Amount Spent, a full tree is created based on the value is predicted.
- The regression tree is based on the WhoShoppingFor and ShoppingStyle, Coupon User and Store size.

How are the values of **AmountSpent** ⊗ and **CarryOver** ⊗ associated?



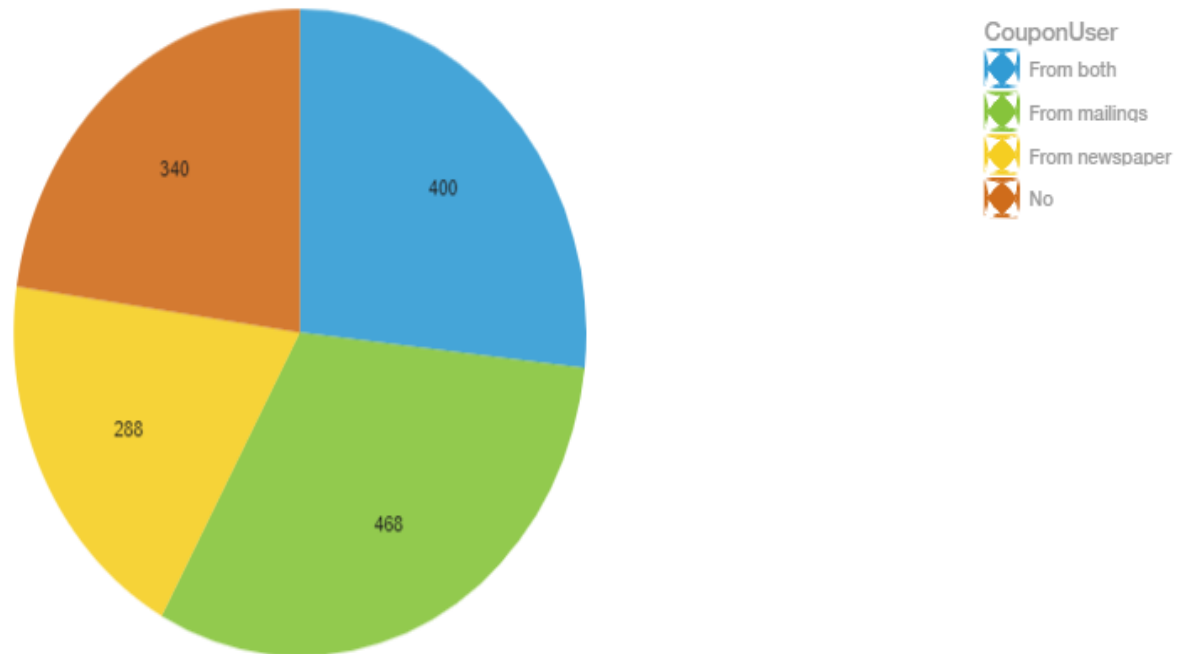
- This shows the association graphics related to amount spent and carryover.
- It clearly depicts that huge amount is spent between 75 to 200 by various carryover
- We can see that the frequency is decreasing as the carryover sum increases.

How do the values of **CouponSequence** (x) compare by **CouponUser** (x) and **WhoShoppingFor** (x) ?



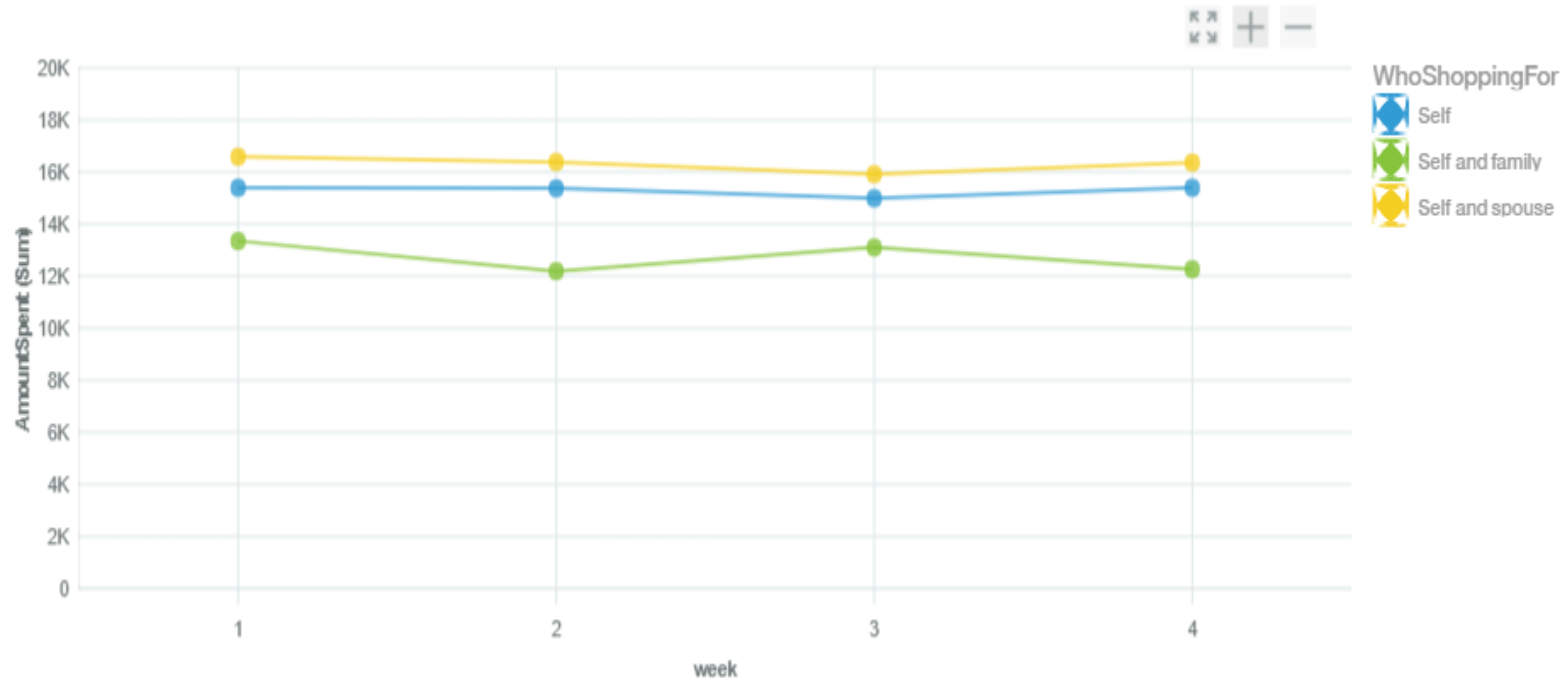
- The graphs shows the statistics about the couponsequence.
- Highest value of couponsequene comprises of self through newspaper.
- Moderately self, self and family, self and spouse will averagely have effects on couponsequence.
- Least is for self & spouse via “NO”.

What is the breakdown of the number of Rows ⊗ by CouponUser ⊗ ?



- There are maximum users who use mailings coupon followed by from both and No and lastly from newspaper.

What is the trend of AmountSpent (x) over week (x) by WhoShoppingFor (x) ?



- The picture represents that self & spouse spent the highest amount followed by self and lastly self and for family.
- Highest amount spent is around 16K
- Least one is rounded to 12K

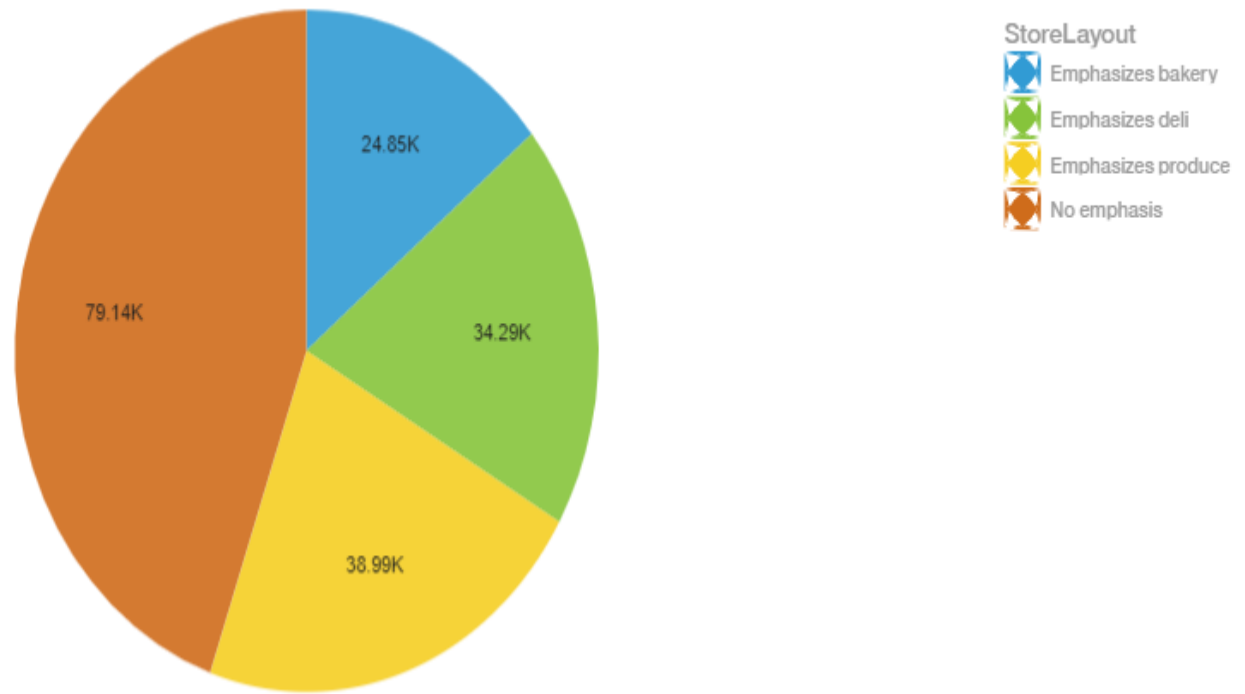
2018-04-22

22:23,

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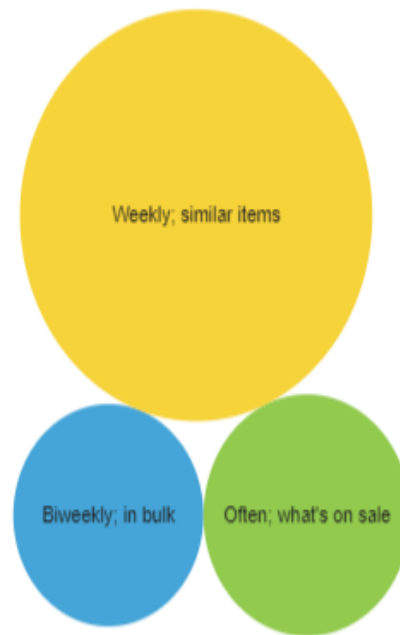
GMT-07:00

What is the breakdown of AmountSpent (x) by StoreLayout (x) ?



- If we focus on above pie chart, we can drop down that the store layout category “No Emphasis is more dominant.
- On overage contribution of empathizes deli and produce where nominal.
- The lest is by emphasizes bakery.

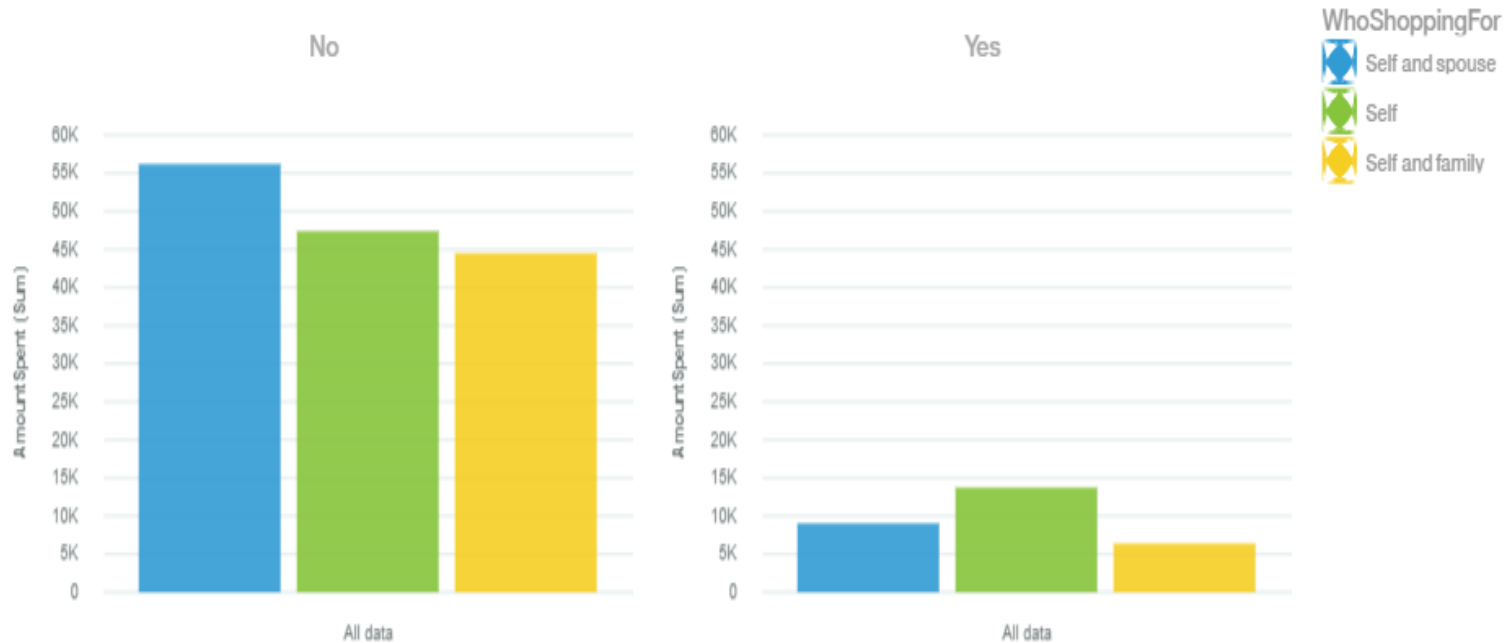
What are the values of **AmountSpent** (x) for each **ShoppingStyle** (x) ?



- The above figure shows that people usually buy the same product every week.
- Next is people focus on sales, once mandatory stuff is purchased
- Eventually, biweekly bulk shopping is done.
- Maximum amount spent: 31577.4
- Minimum amount spent: 108.32K

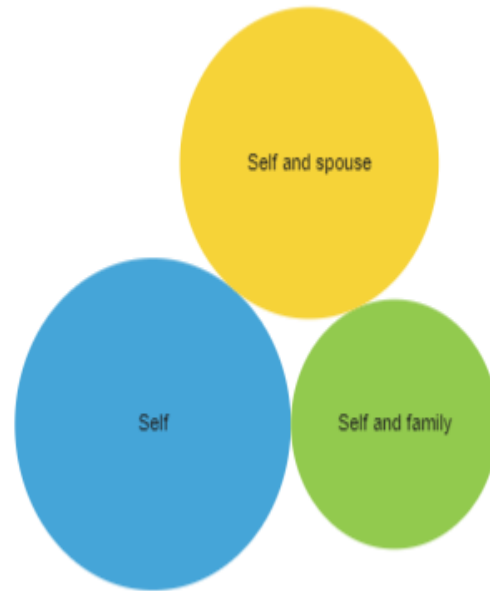
How do the values of AmountSpent (x) compare by WhoShoppingFor (x) ?

Filtered by Vegetarian: No, Yes (x)



- The graph clearly depicts that Non-Vegetarian spend more than Vegetarian and its almost 10% what they spend.
- Non-veg usually spent on both self and spouse, where as vegetarians not.
- Self & family always spend less in each of the cases.

What are the values of **CarryOver** (x) for each **WhoShoppingFor** (x) ?



- The illustration shows that the self has huge carryover values compared to self & spouse and self & family.
- The next would be self & spouse and lastly self & family.
- Highest carryover is 646.
- Smallest carryover is 1145.

Thank You!