

Heterogeneity in treatment effects of ‘Call to action’ using berry-2s method

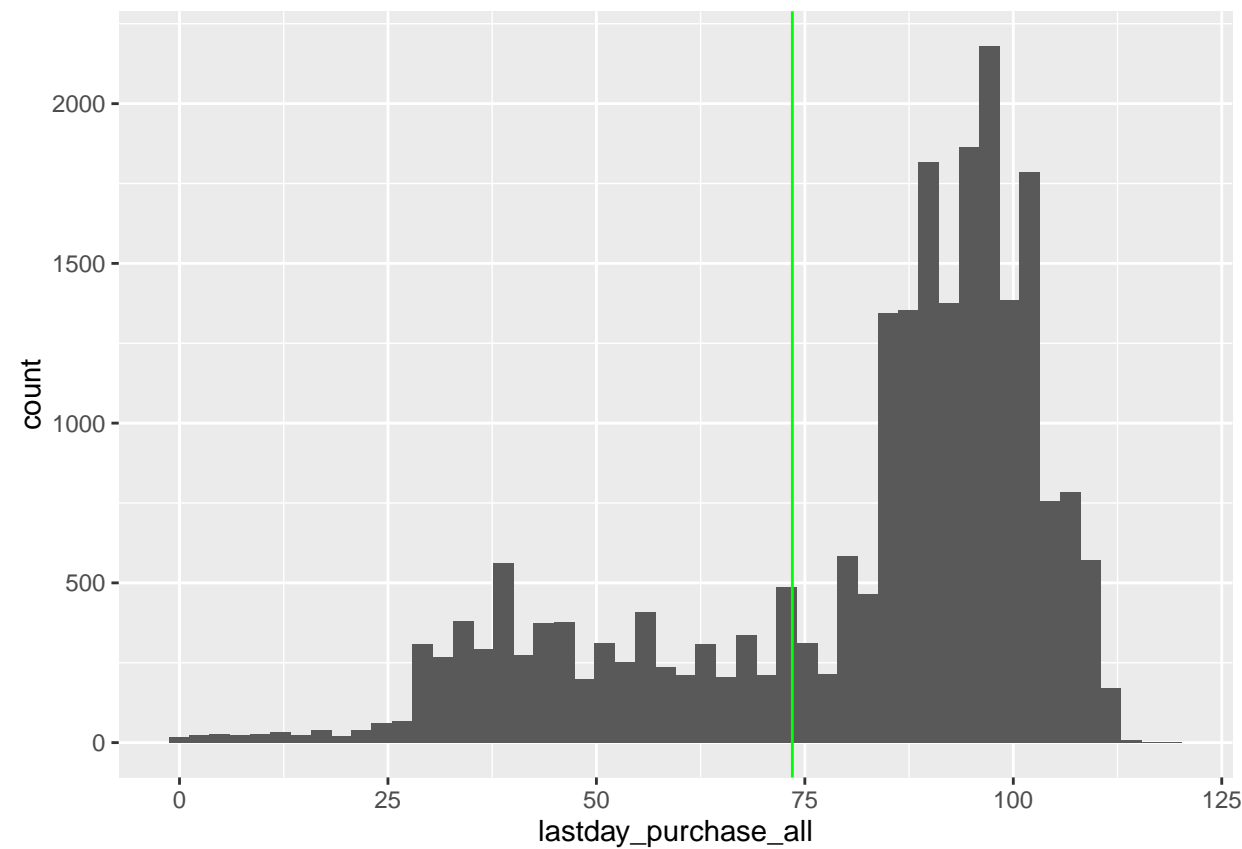
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April 27, 2017

Altruistic group with number\_referrals as target\_variable

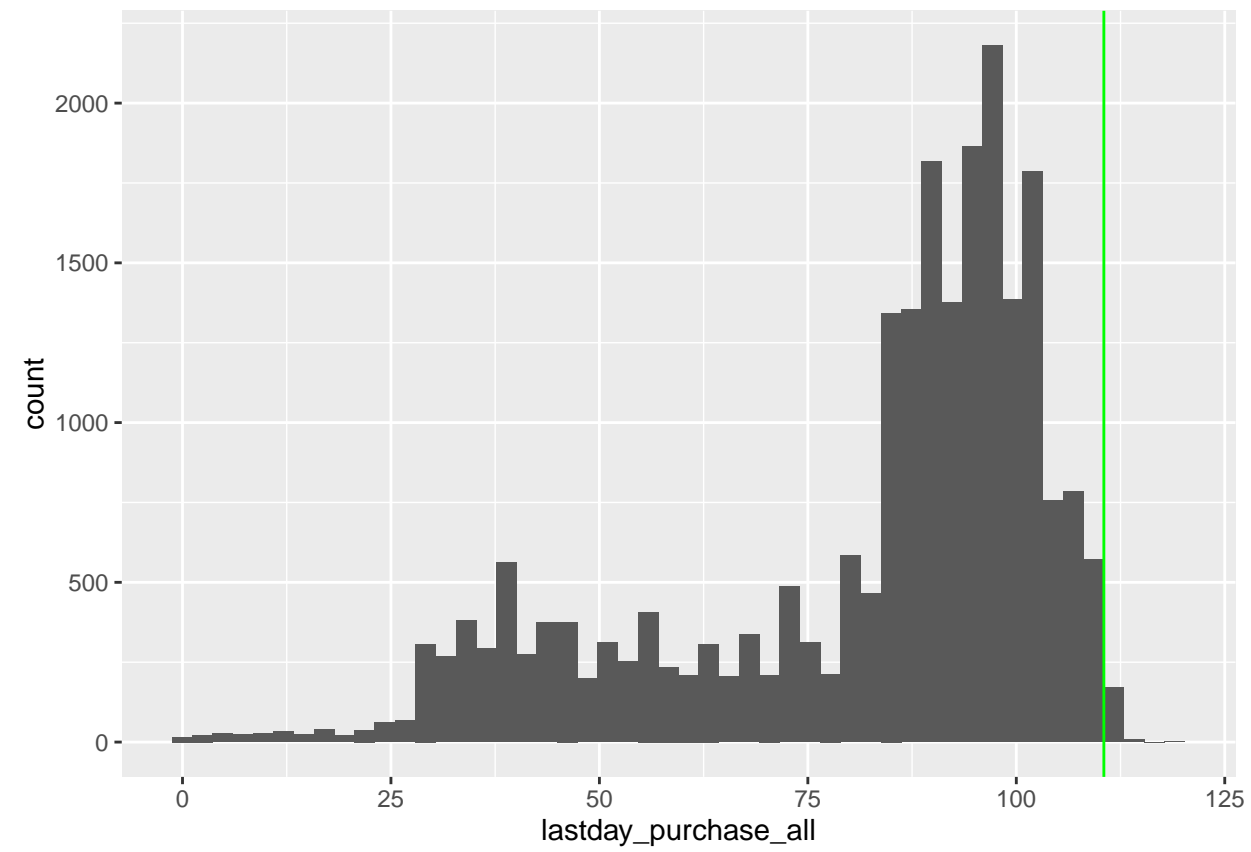
n	yval	p_value	path
9	0.7260776	0.0015126	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all>=0.01,money_spend_all< 46.96,num_purchase_all>=3.5
28	0.4526133	0.0000000	lastday_purchase_all< 15.5,NPS>=7.5,num_purchase_all>=2.5
15	0.3149905	0.0000000	lastday_purchase_all>=110.5,money_spend_all>=44.17,money_spend_all< 46.98,survey=0
13	0.1255041	0.0786430	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 0.01,num_purchase_all>=1.5
30	0.1092767	0.0000000	lastday_purchase_all< 15.5,NPS>=7.5,num_purchase_all< 2.5
164	0.0850863	0.0000000	lastday_purchase_all>=15.5,money_spend_all>=591
50	0.0715405	0.0000000	lastday_purchase_all>=110.5,money_spend_all< 44.17,survey=0
115	0.0494062	0.0000000	lastday_purchase_all< 15.5,NPS< 7.5
88	0.0310484	0.0000000	lastday_purchase_all>=110.5,money_spend_all>=46.98,money_spend_all< 591,survey=0
6028	0.0175140	0.0000000	lastday_purchase_all>=15.5,lastday_purchase_all< 73.5,money_spend_all< 591
454	0.0133938	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all>=0.01,money_spend_all< 46.96,num_purchase_all>=1.5,num_purchase_all< 3.5
3692	0.0100656	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all>=46.96,money_spend_all< 591,num_purchase_all>=1.5
12650	0.0035714	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 591,num_purchase_all< 1.5
26	-0.0292968	0.0002003	lastday_purchase_all>=110.5,money_spend_all< 591,survey=1

## [1] lastday\_purchase\_all>=73.5,lastday\_purchase\_all< 110.5,money\_spend\_all>=0.01,money\_spend\_all< 46.96,num\_purchase\_all>=3.5  
## 14 Levels: lastday\_purchase\_all< 15.5,NPS< 7.5 ...

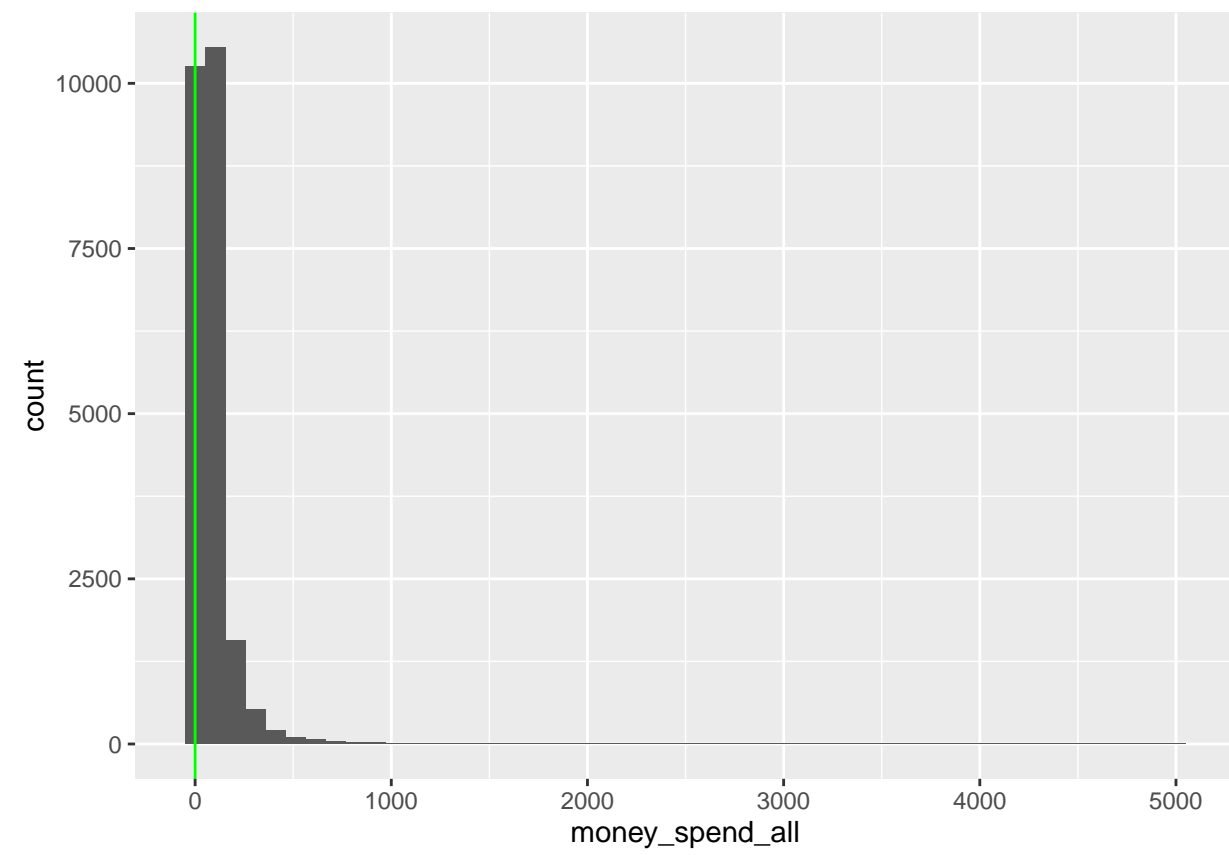


## [1] "lastday\_purchase\_all>=73.5" "26.7057614930229"

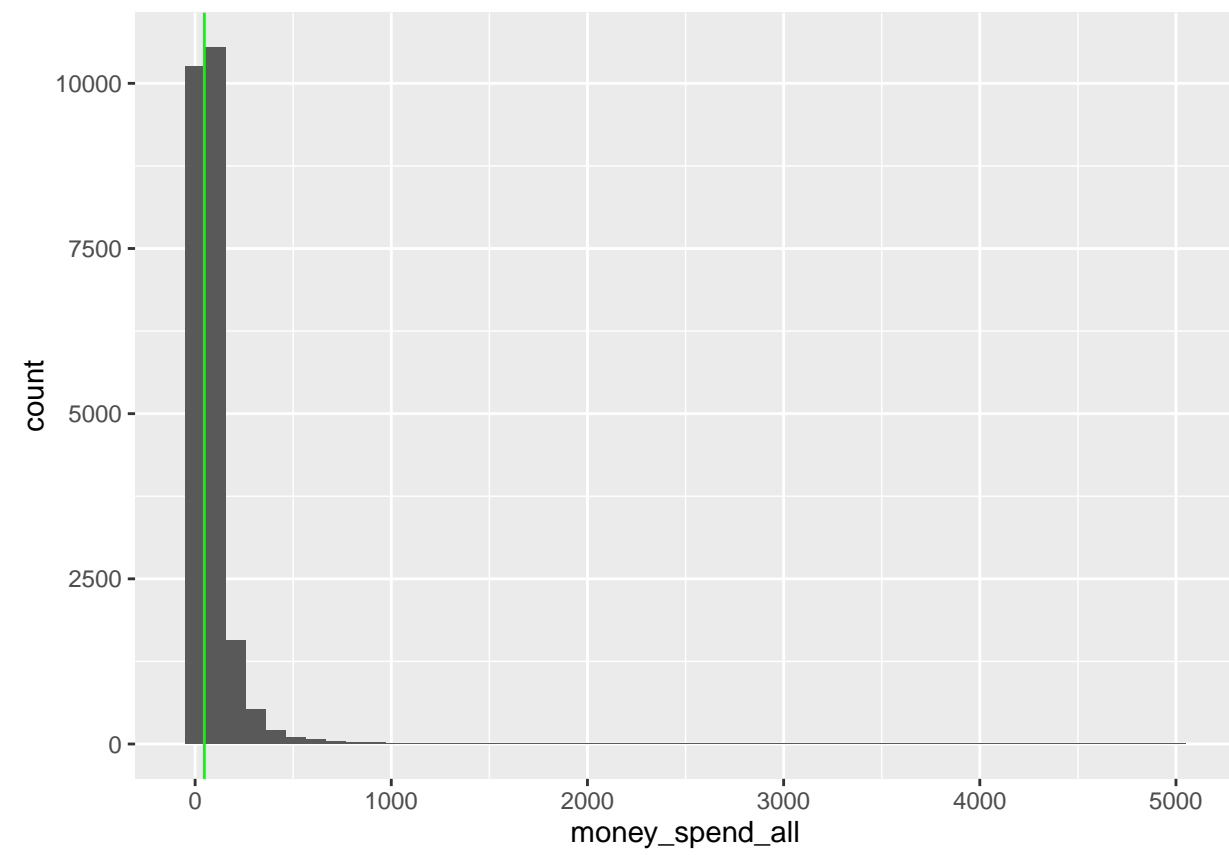
```
## [1] "mean"  
## [1] 81.78401  
## [1] "median"  
## [1] 90
```



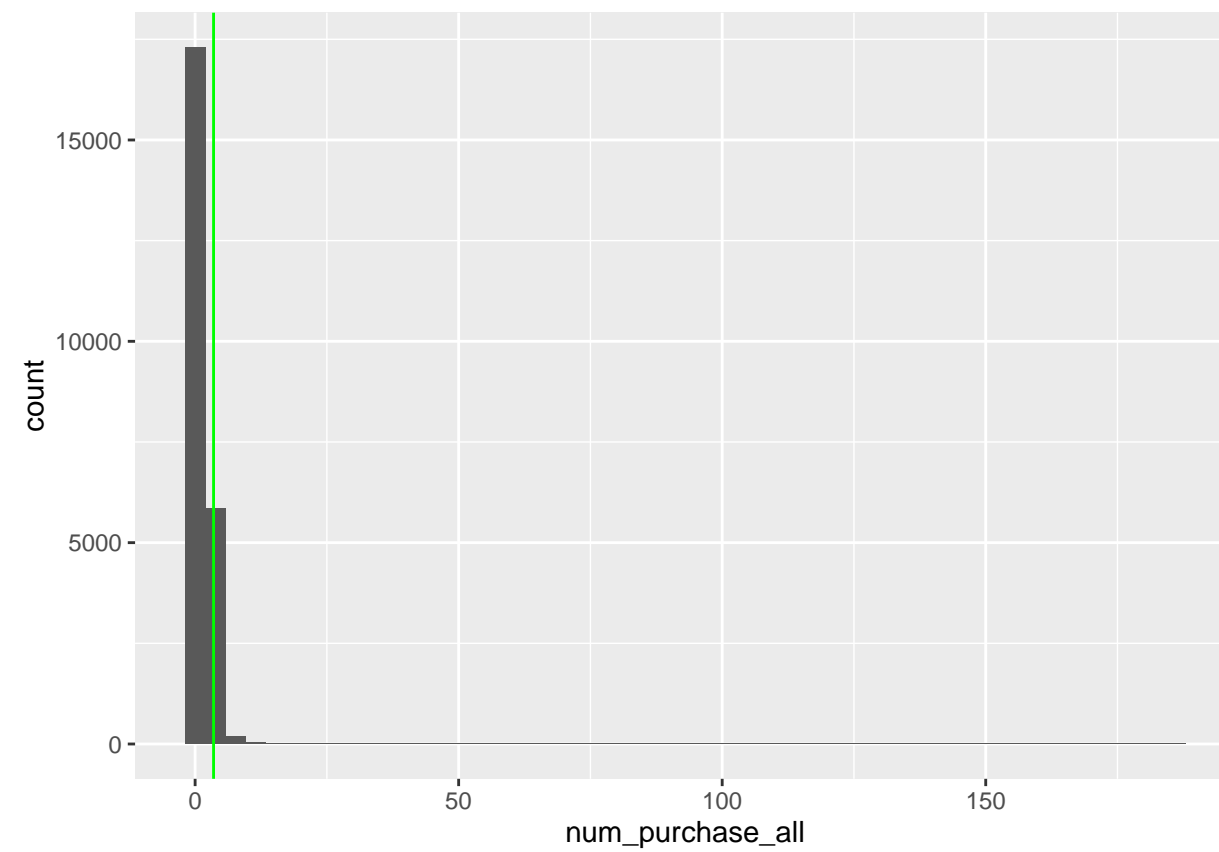
```
## [1] "lastday_purchase_all< 110.5" "99.2337984761579"  
## [1] "mean"  
## [1] 81.78401  
## [1] "median"  
## [1] 90
```



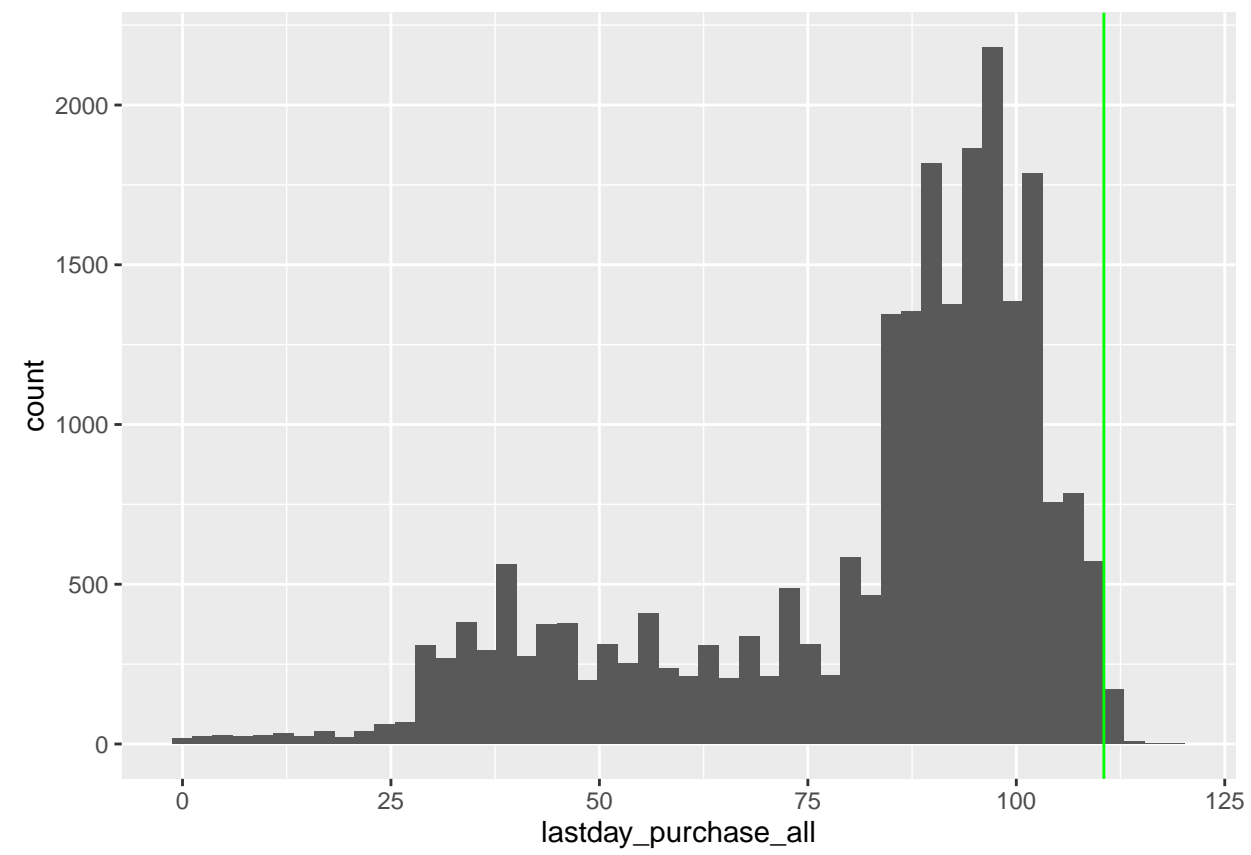
```
## [1] "money_spend_all>=0.01" "0.90317609793682"  
## [1] "mean"  
## [1] 84.6052  
## [1] "median"  
## [1] 57.94
```



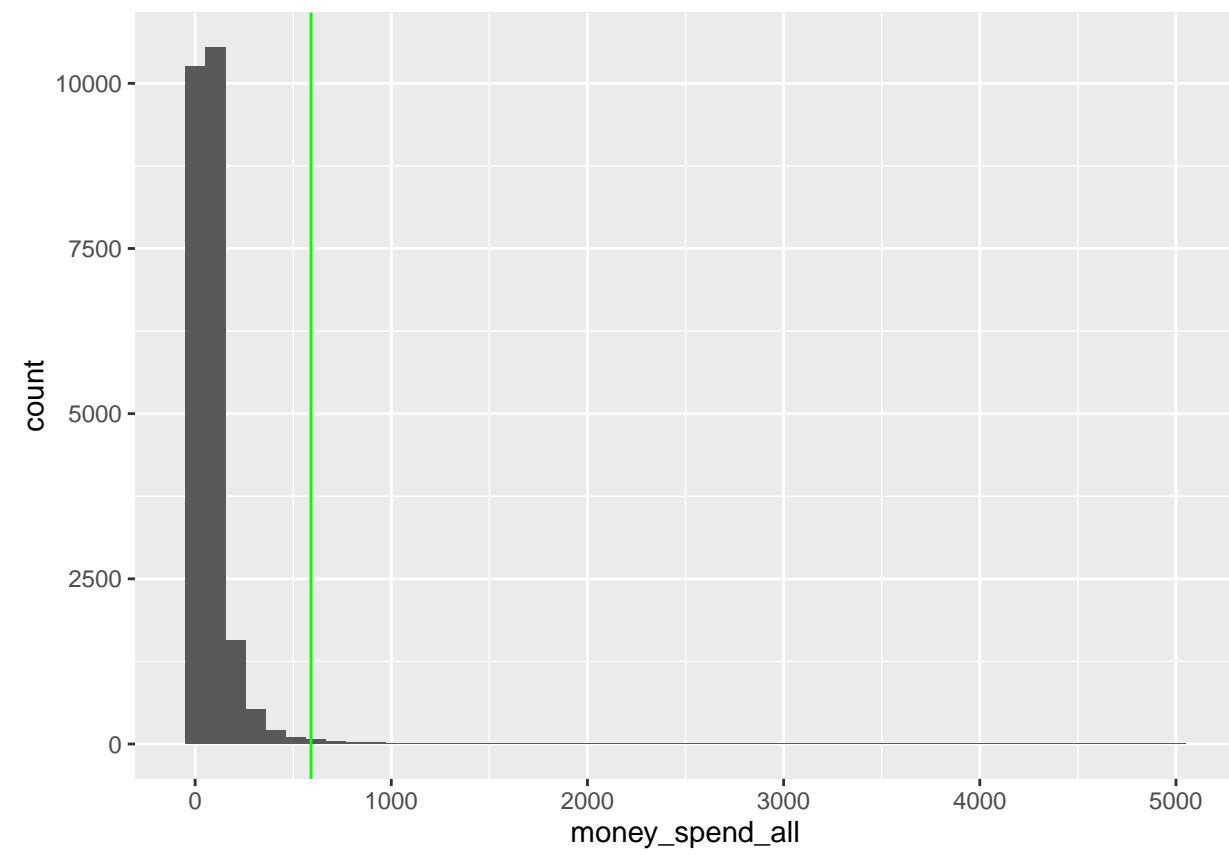
```
## [1] "money_spend_all< 46.96" "40.0008560910881"  
## [1] "mean"  
## [1] 84.6052  
## [1] "median"  
## [1] 57.94
```



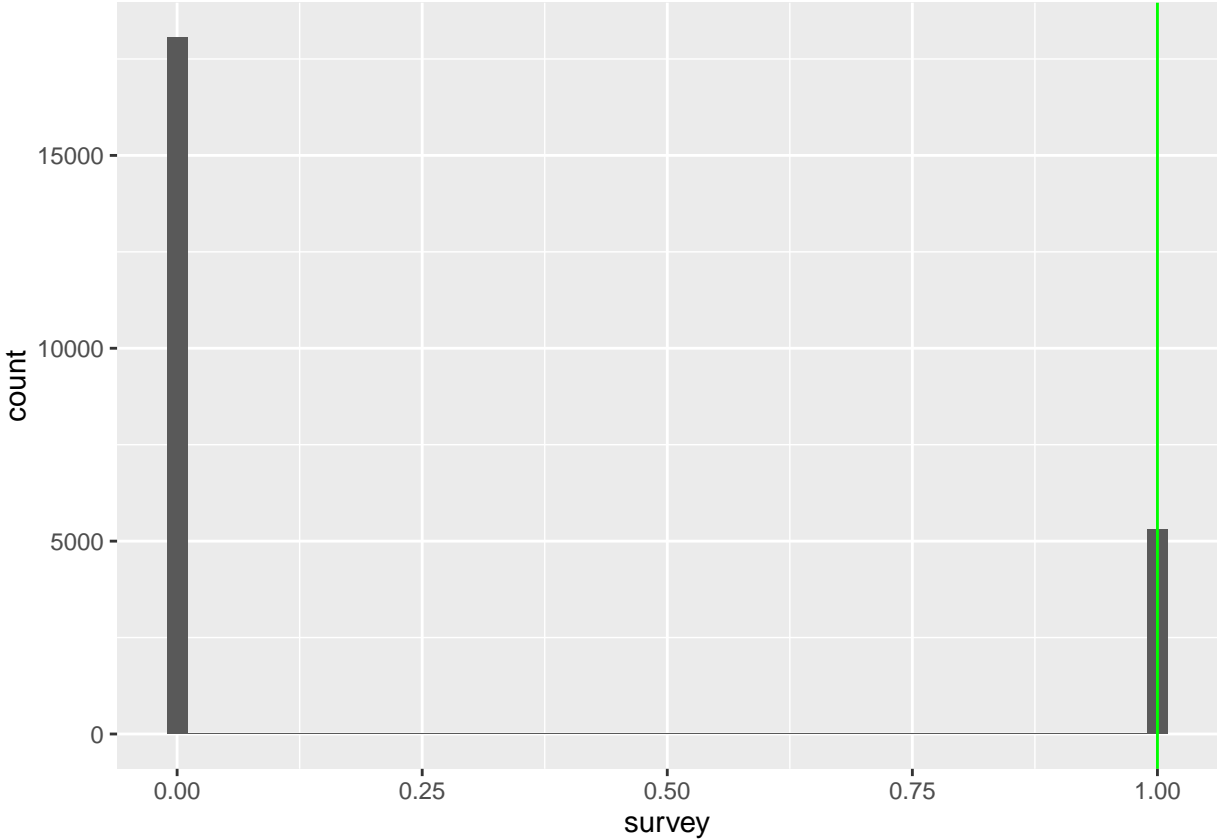
```
## [1] "num_purchase_all>=3.5" "96.0833832719801"  
## [1] "mean"  
## [1] 1.441529  
## [1] "median"  
## [1] 1  
  
## [1] lastday_purchase_all>=110.5,money_spend_all< 591,survey=1  
## 14 Levels: lastday_purchase_all< 15.5,NPS< 7.5 ...
```



```
## [1] "lastday_purchase_all>=110.5" "99.2337984761579"  
## [1] "mean"  
## [1] 81.78401  
## [1] "median"  
## [1] 90
```



```
## [1] "money_spend_all< 591" "99.2766030305625"  
## [1] "mean"  
## [1] 84.6052  
## [1] "median"  
## [1] 57.94
```



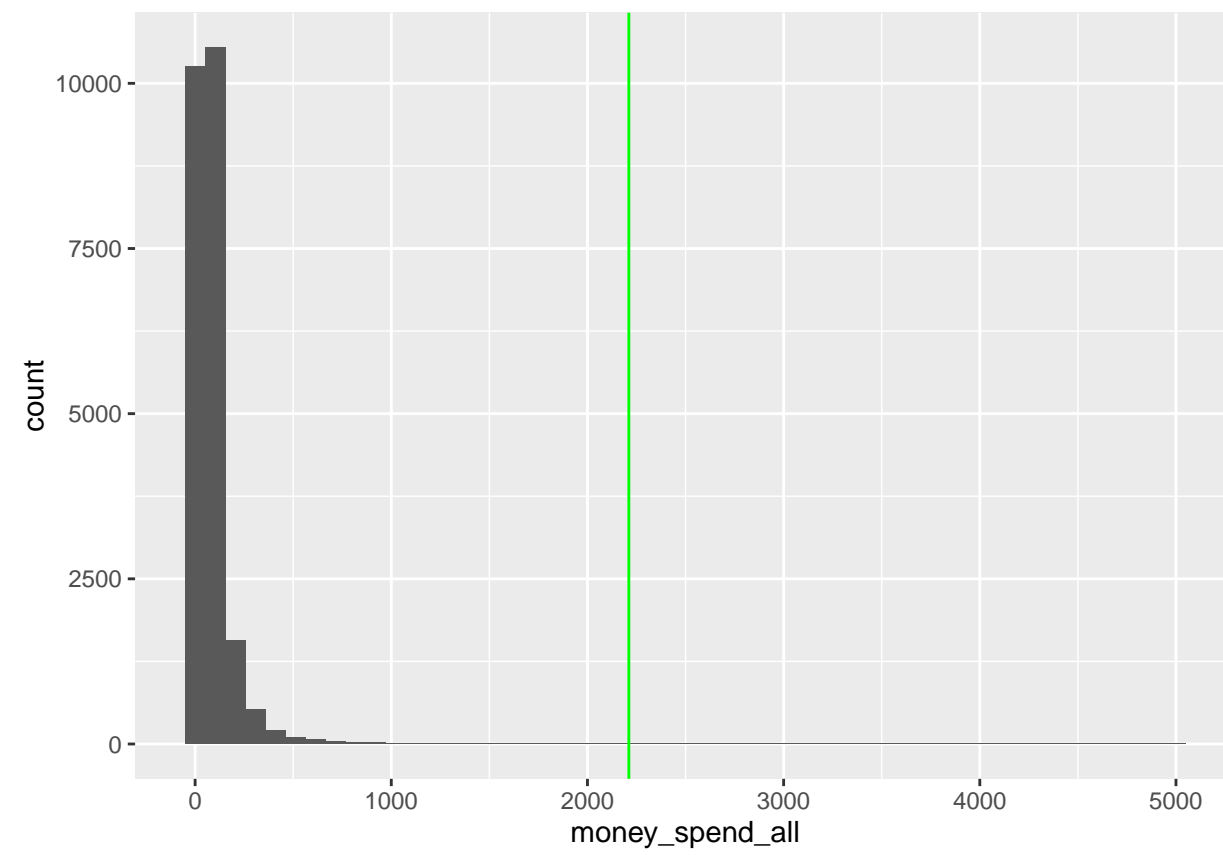
```
## [1] "survey=1" "100"
## [1] "mean"
## [1] 0.227121
## [1] "median"
## [1] 0
```

Equitable group with number\_referrals as target\_variable

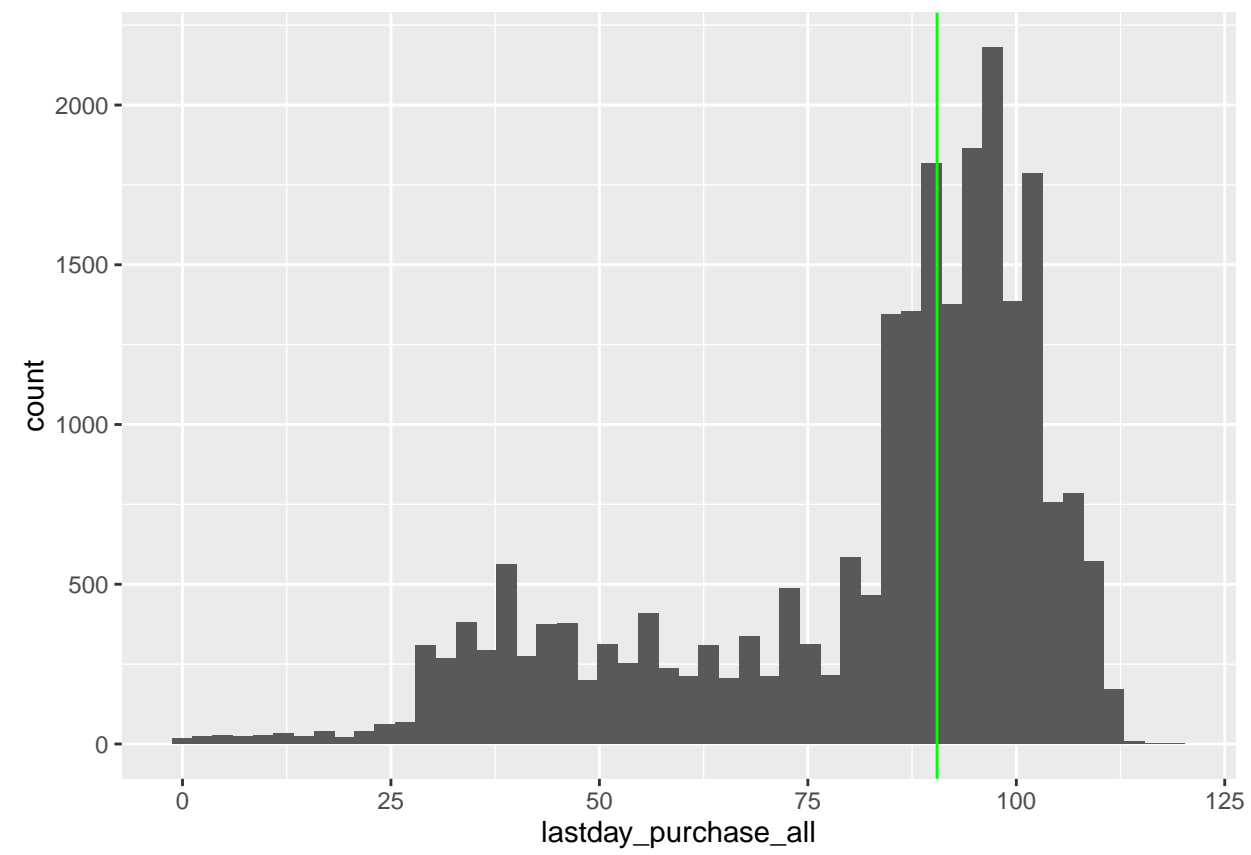
n	yval	p_value	path
8	1.2388617	0.0031872	money_spend_all>=2211
15	0.4681168	0.0002596	lastday_purchase_all>=9.5,lastday_purchase_all< 44.5,money_spend_all>=37.98,money_spend_all< 38.98,NPS>=7.5
7	0.4370049	0.0620636	lastday_purchase_all< 57.5,money_spend_all>=261,money_spend_all< 265.9
28	0.2724270	0.0000007	lastday_purchase_all>=87.5,lastday_purchase_all< 88.5,money_spend_all< 38.98,NPS>=7.5
10	0.2591918	0.0000076	lastday_purchase_all>=57.5,money_spend_all>=261,money_spend_all< 262.8
24	0.1748128	0.0007172	lastday_purchase_all< 9.5,money_spend_all< 261,NPS>=7.5
56	0.1650411	0.0000000	lastday_purchase_all>=40.5,lastday_purchase_all< 44.5,money_spend_all< 37.98,NPS>=7.5
135	0.1406550	0.0000000	lastday_purchase_all< 57.5,money_spend_all>=265.9,money_spend_all< 2211
52	0.0456610	0.0000266	lastday_purchase_all>=88.5,lastday_purchase_all< 90.5,money_spend_all< 38.98,NPS>=7.5
115	0.0230059	0.0004565	lastday_purchase_all>=9.5,lastday_purchase_all< 40.5,money_spend_all< 37.98,NPS>=7.5
1590	0.0182433	0.0000000	lastday_purchase_all>=9.5,lastday_purchase_all< 90.5,money_spend_all>=38.98,money_spend_all< 261,NPS>=7.5
777	0.0145179	0.0000000	lastday_purchase_all>=57.5,money_spend_all>=262.8,money_spend_all< 2211
427	0.0116237	0.0000000	lastday_purchase_all>=44.5,lastday_purchase_all< 87.5,money_spend_all< 38.98,NPS>=7.5
17887	0.0031524	0.0000000	money_spend_all< 261,NPS< 7.5
2231	-0.0016566	0.0025719	lastday_purchase_all>=90.5,money_spend_all< 261,NPS>=7.5

```
## [1] money_spend_all>=2211
## 15 Levels: lastday_purchase_all< 57.5,money_spend_all>=261,money_spend_all< 265.9 ...
```

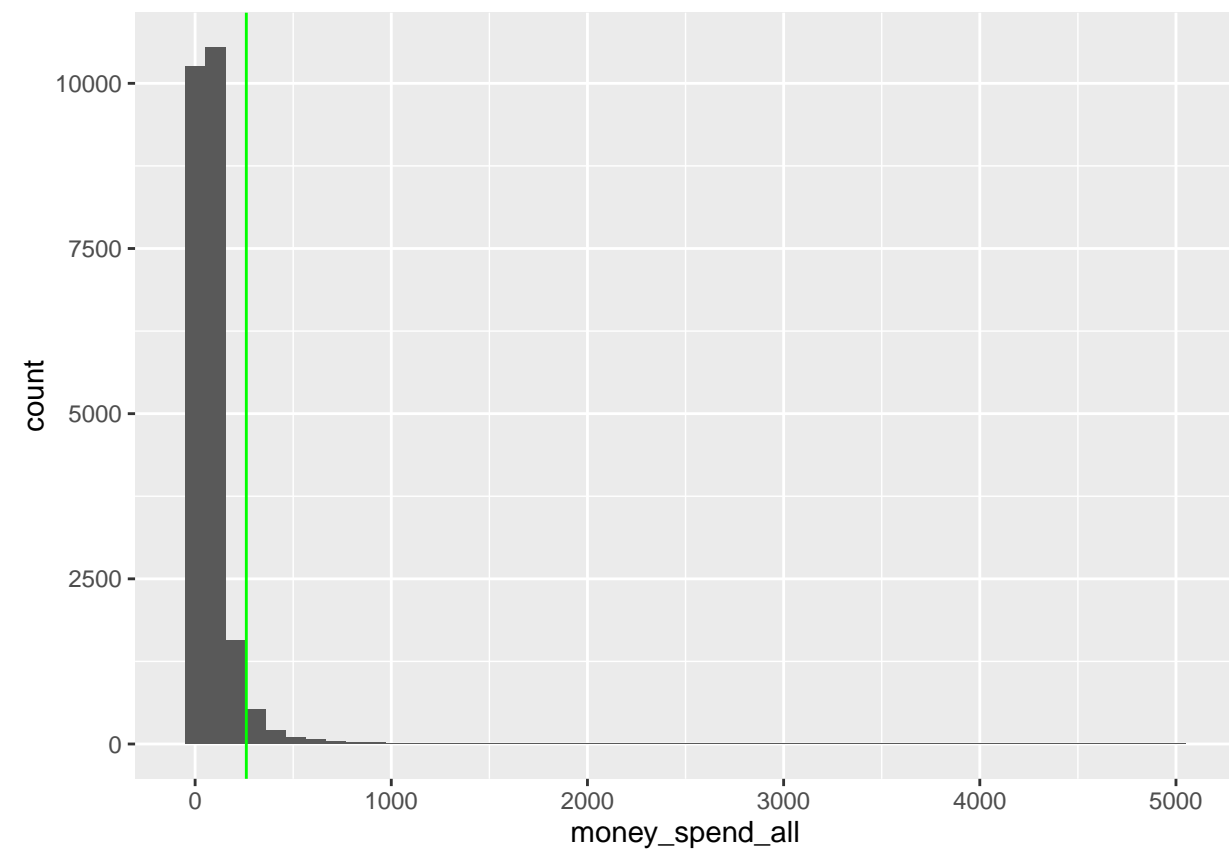




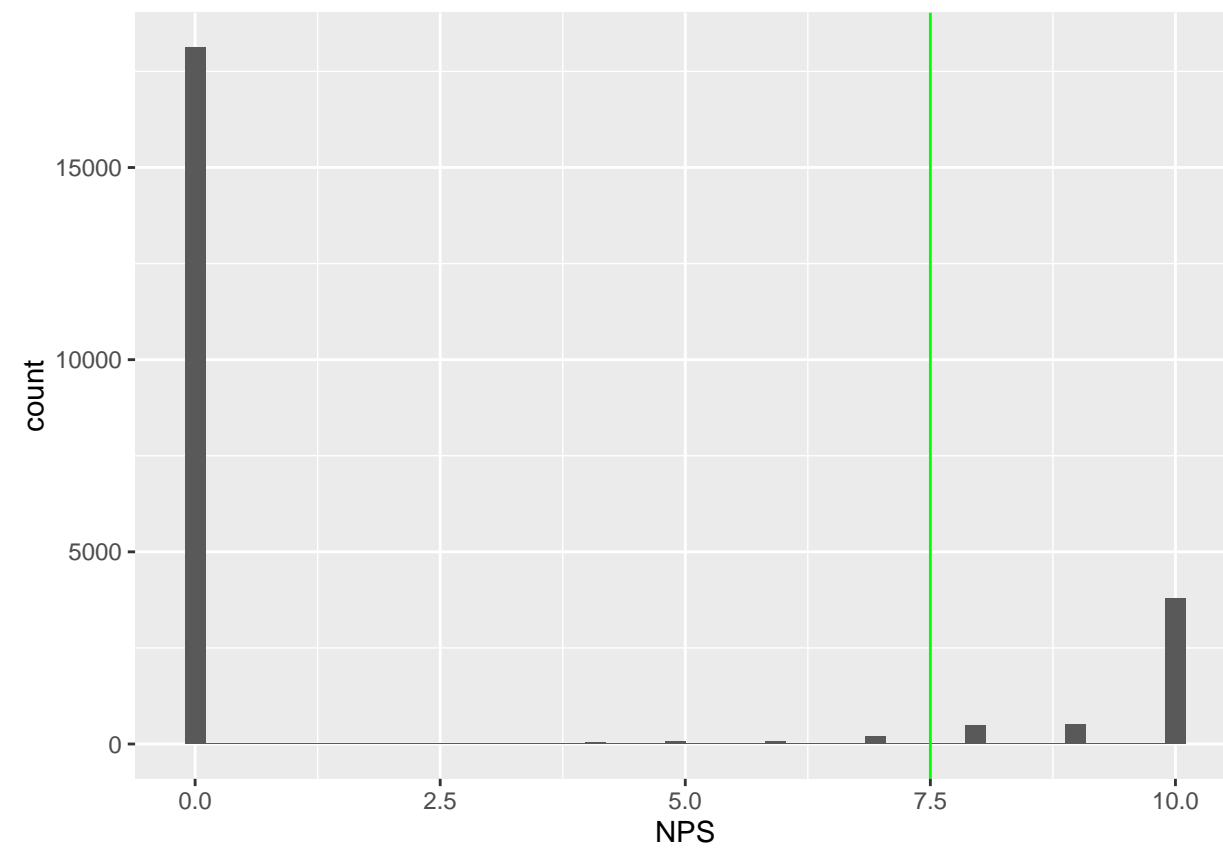
```
## [1] "money_spend_all>=2211" "99.9657563564763"  
## [1] "mean"  
## [1] 84.6052  
## [1] "median"  
## [1] 57.94  
  
## [1] lastday_purchase_all>=90.5,money_spend_all< 261,NPS>=7.5  
## 15 Levels: lastday_purchase_all< 57.5,money_spend_all>=261,money_spend_all< 265.9 ...
```



```
## [1] "lastday_purchase_all>=90.5" "50.5307764746169"  
## [1] "mean"  
## [1] 81.78401  
## [1] "median"  
## [1] 90
```



```
## [1] "money_spend_all< 261" "95.9934937077305"  
## [1] "mean"  
## [1] 84.6052  
## [1] "median"  
## [1] 57.94
```



```
## [1] "NPS>=7.5"      "79.449533430357"  
## [1] "mean"  
## [1] 2.095069  
## [1] "median"  
## [1] 0
```