

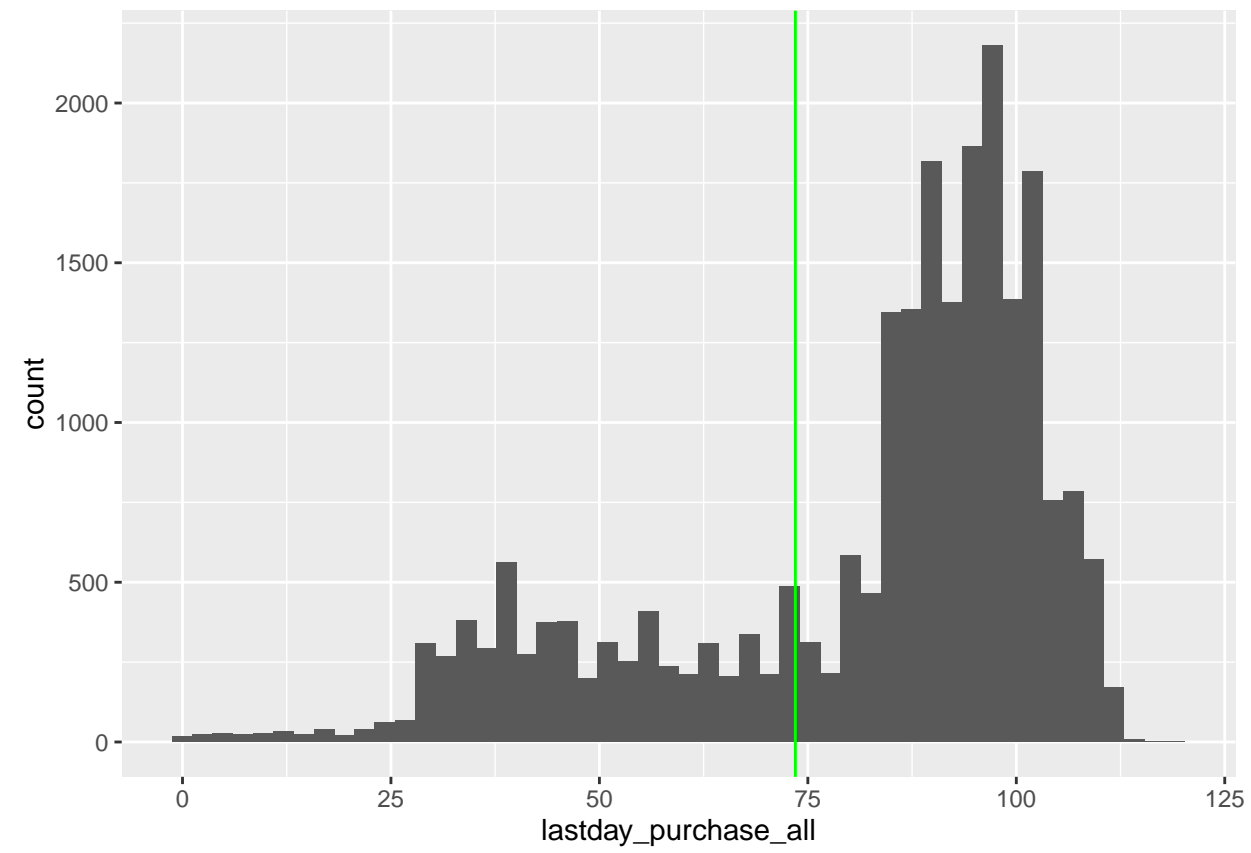
Heterogeneity in treatment effects of ‘Call to action’ using berry-2s method

Sandeep Gangarapu

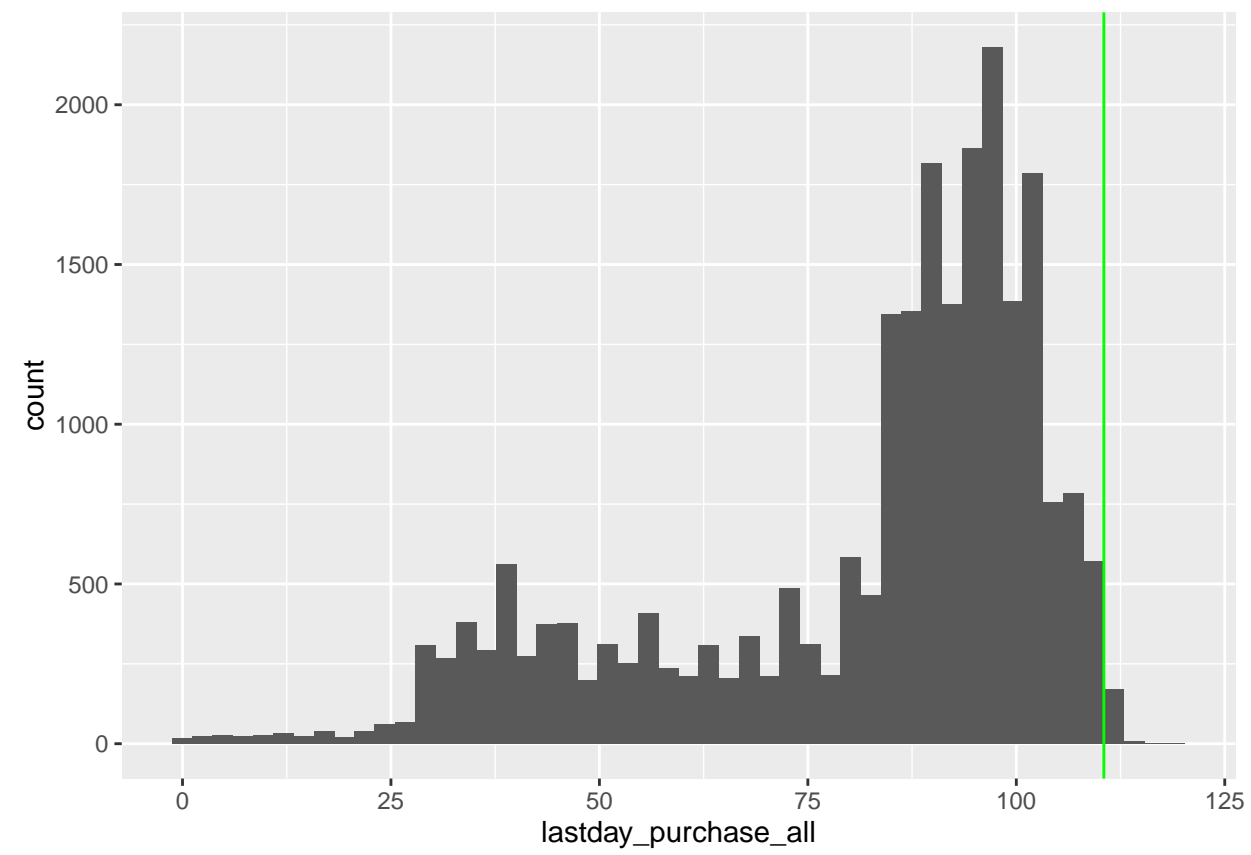
April 19, 2017

n	yval	p_value	path
12	0.5914309	0.0004883	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 46.96,num_purchase_all>=3.5
7	0.4375699	0.0000046	lastday_purchase_all>=15.5,lastday_purchase_all< 38.5,money_spend_all>=4.685,money_spend_all< 53.39,NPS>=9.5,num_purchase_all>=2.5
28	0.4218702	0.0000000	lastday_purchase_all< 15.5,NPS>=7.5,num_purchase_all>=2.5
15	0.3208552	0.0000000	lastday_purchase_all>=110.5,money_spend_all>=44.17,money_spend_all< 46.98,NPS< 4
30	0.1258806	0.0000000	lastday_purchase_all< 15.5,NPS>=7.5,num_purchase_all< 2.5
63	0.1205500	0.0000000	lastday_purchase_all>=35.5,lastday_purchase_all< 38.5,money_spend_all>=4.685,money_spend_all< 252.2,NPS>=9.5,num_purchase_all< 2.5
37	0.0986870	0.0000000	lastday_purchase_all>=15.5,lastday_purchase_all< 38.5,money_spend_all>=53.39,money_spend_all< 252.2,NPS>=9.5,num_purchase_all>=2.5
162	0.0880585	0.0000000	lastday_purchase_all>=15.5,money_spend_all>=594.4
50	0.0679456	0.0000000	lastday_purchase_all>=110.5,money_spend_all< 44.17,NPS< 4
156	0.0584985	0.0000000	lastday_purchase_all>=15.5,lastday_purchase_all< 73.5,money_spend_all>=252.2,money_spend_all< 594.4
115	0.0526434	0.0000000	lastday_purchase_all< 15.5,NPS< 7.5
88	0.0392513	0.0000000	lastday_purchase_all>=110.5,money_spend_all>=46.98,money_spend_all< 594.4,NPS< 4
140	0.0181342	0.0004160	lastday_purchase_all>=15.5,lastday_purchase_all< 35.5,money_spend_all>=4.685,money_spend_all< 252.2,NPS>=9.5,num_purchase_all< 2.5
693	0.0169541	0.0000000	lastday_purchase_all>=38.5,lastday_purchase_all< 73.5,money_spend_all>=4.685,money_spend_all< 252.2,NPS>=9.5
4858	0.0149474	0.0000000	lastday_purchase_all>=15.5,lastday_purchase_all< 73.5,money_spend_all>=4.685,money_spend_all< 252.2,NPS< 9.5
464	0.0128457	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 46.96,num_purchase_all>=1.5,num_purchase_all< 3.5
3692	0.0101637	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all>=46.96,money_spend_all< 594.4,num_purchase_all>=1.5
12650	0.0035681	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 594.4,num_purchase_all< 1.5
26	-0.0319563	0.0001034	lastday_purchase_all>=110.5,money_spend_all< 594.4,NPS>=4
76	-0.0550524	0.0000000	lastday_purchase_all>=15.5,lastday_purchase_all< 73.5,money_spend_all< 4.685

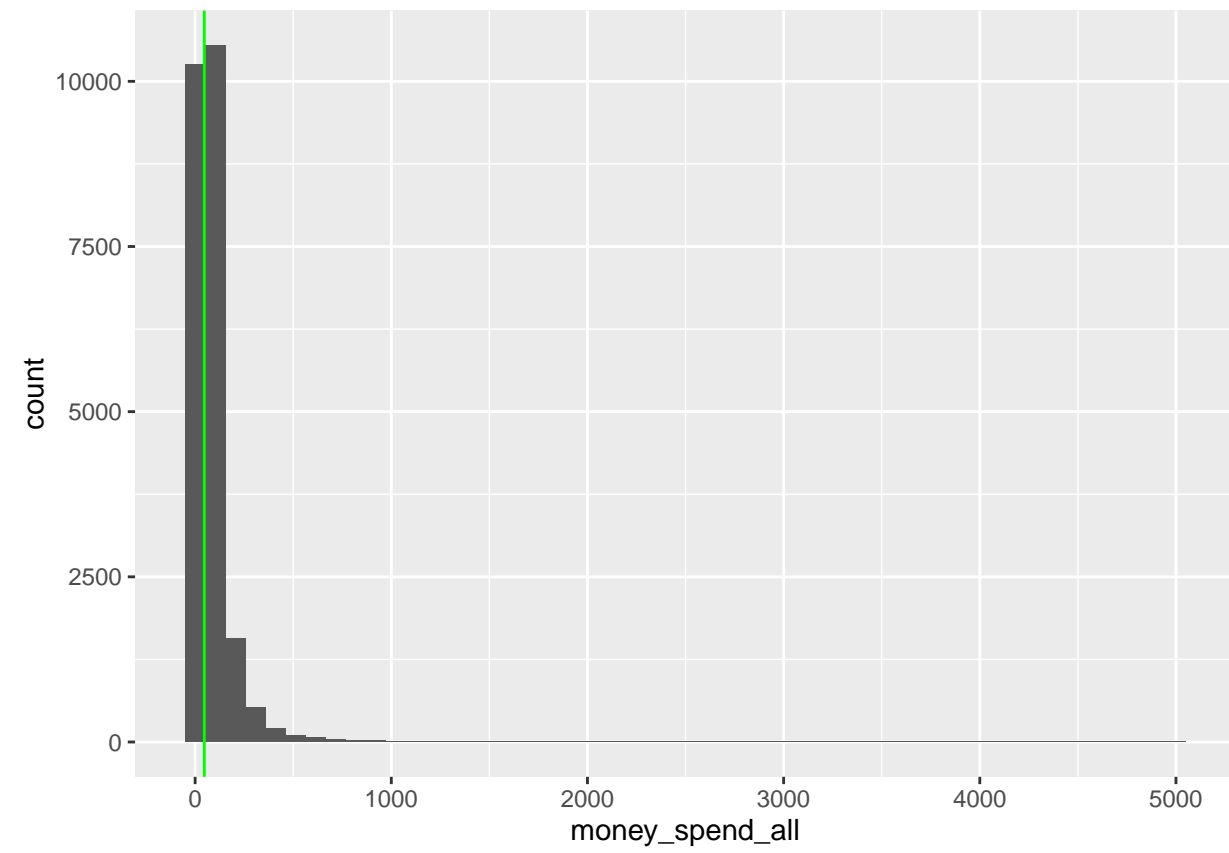
## [1] lastday\_purchase\_all>=73.5,lastday\_purchase\_all< 110.5,money\_spend\_all< 46.96,num\_purchase\_all>=3.5  
## 20 Levels: lastday\_purchase\_all< 15.5,NPS< 7.5 ...



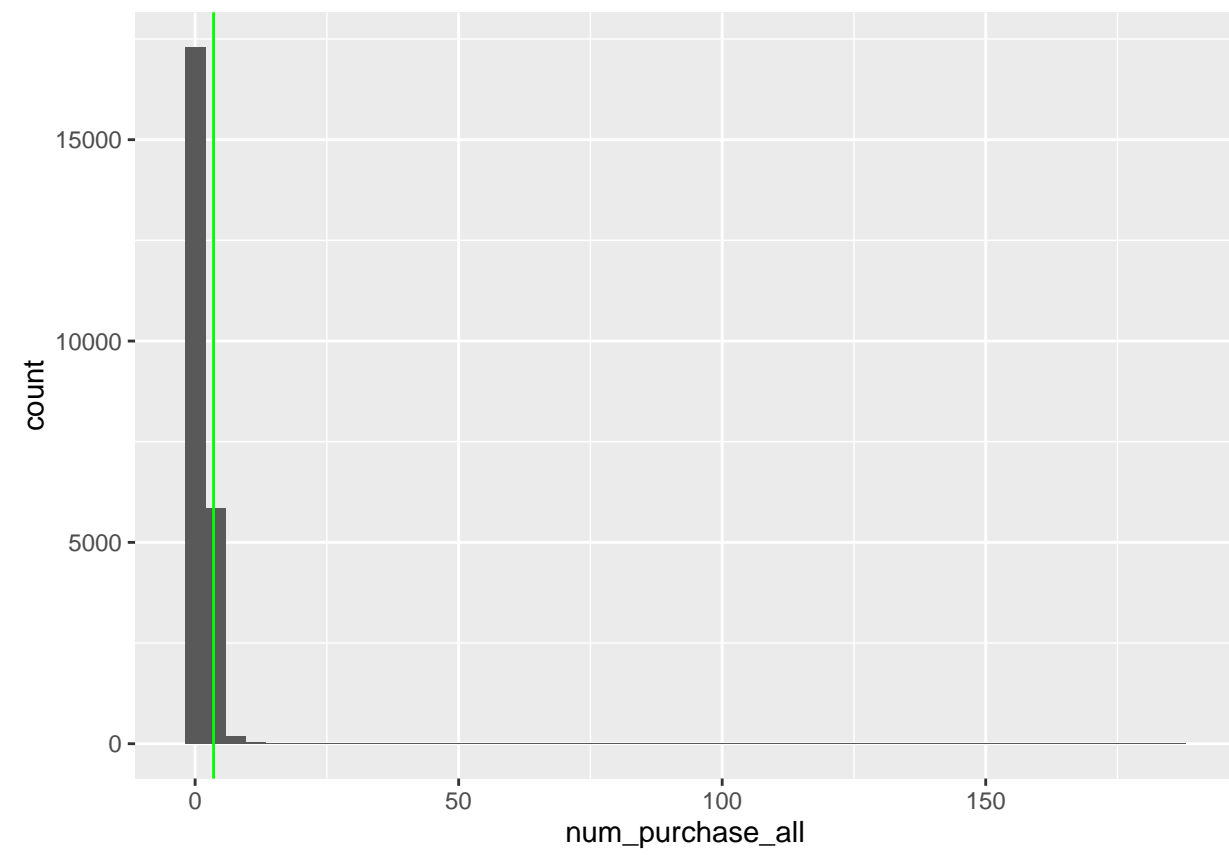
```
## [1] "lastday_purchase_all>=73.5" "26.7057614930229"
```



```
## [1] "lastday_purchase_all< 110.5" "99.2337984761579"
```

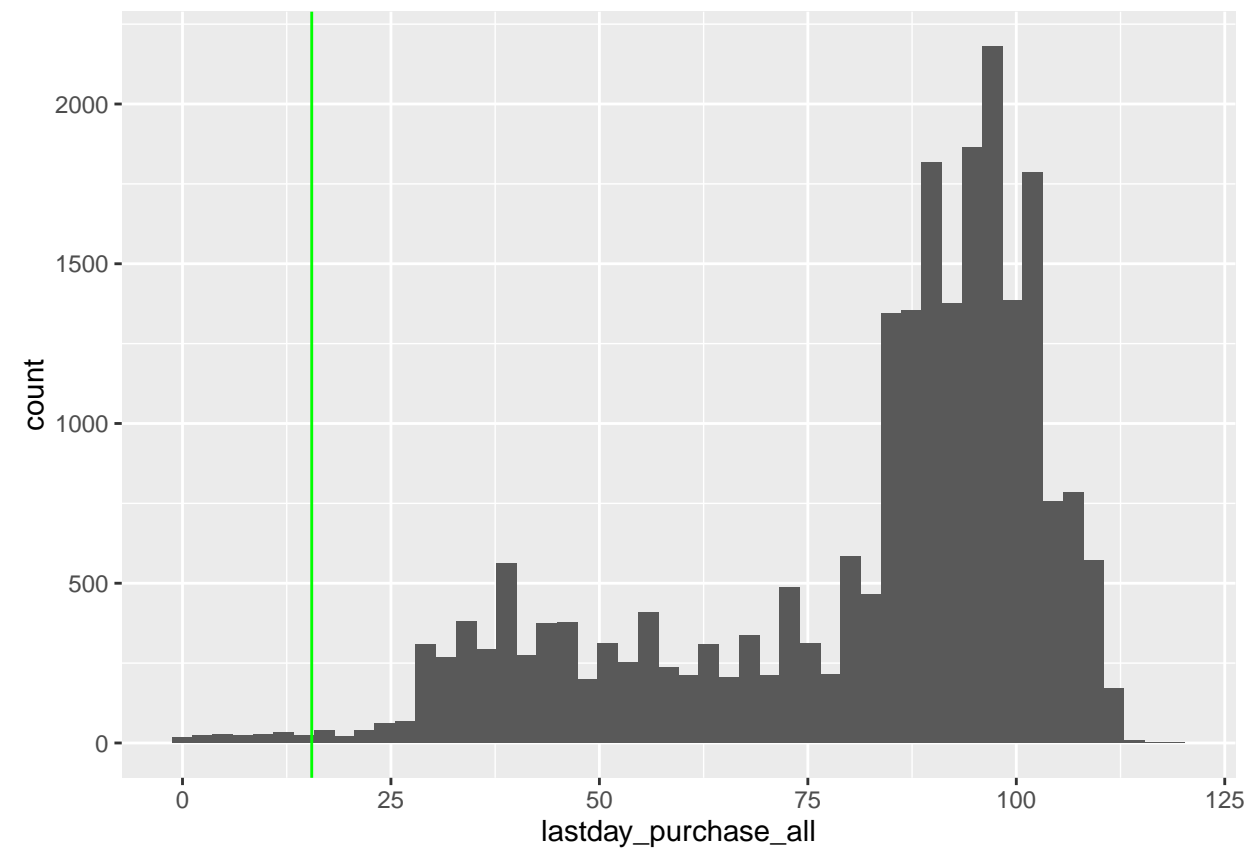


```
## [1] "money_spend_all< 46.96" "40.0008560910881"
```

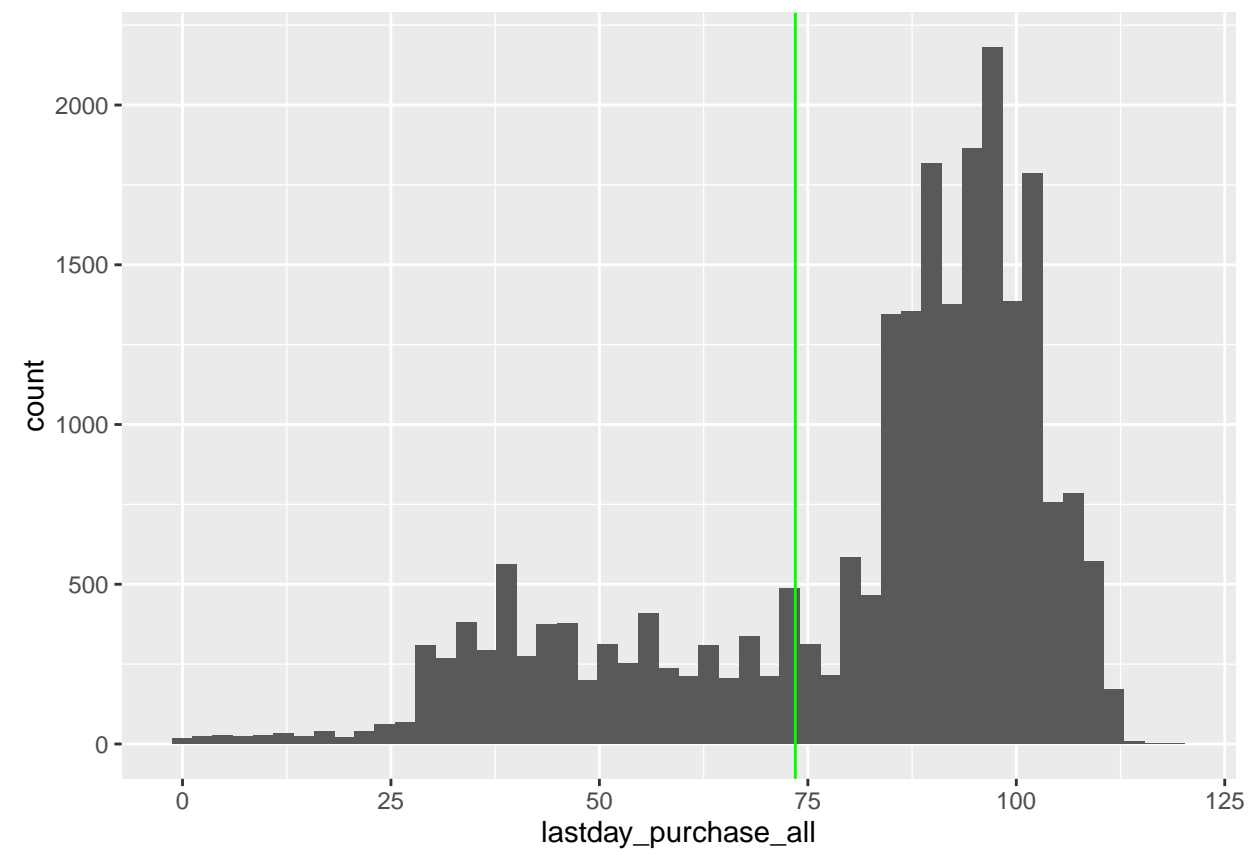


```
## [1] "num_purchase_all>=3.5" "96.0833832719801"
```

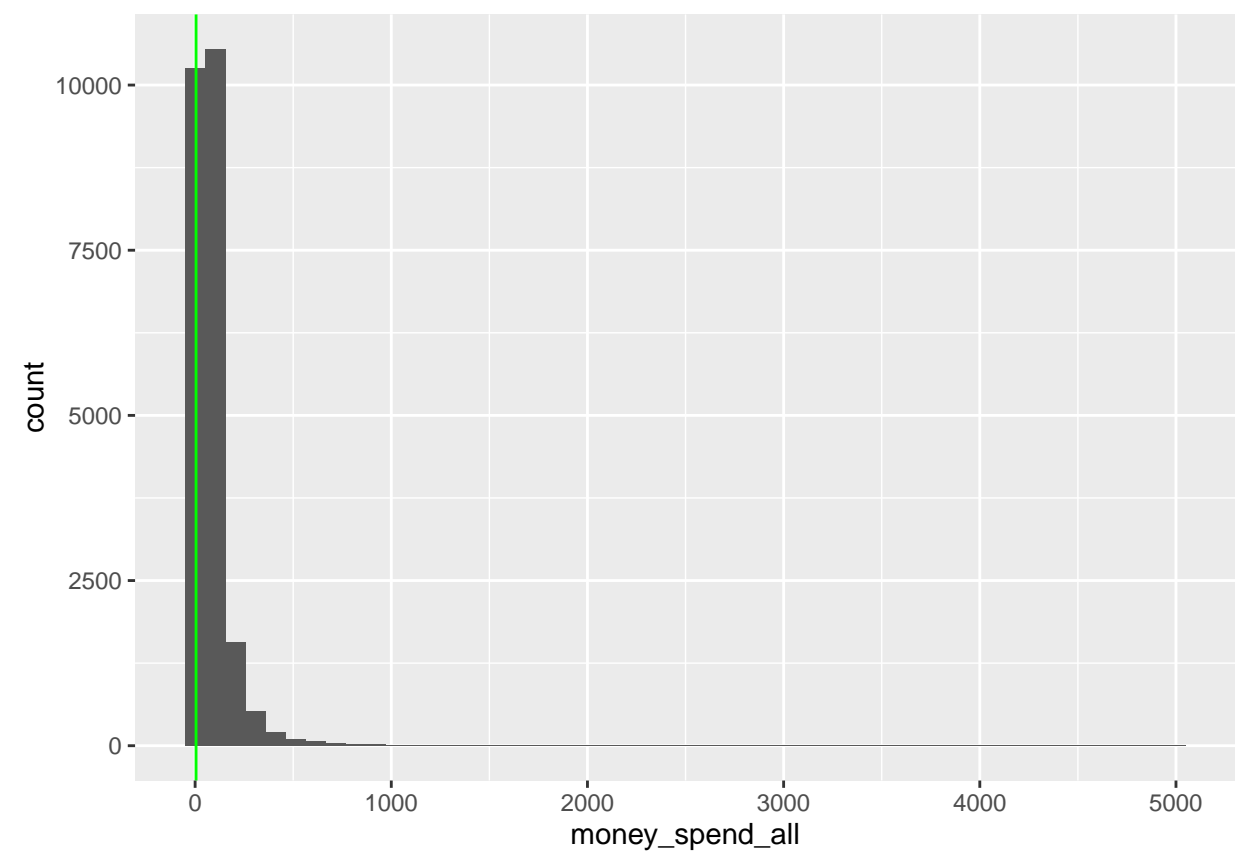
```
## [1] lastday_purchase_all>=15.5,lastday_purchase_all< 73.5,money_spend_all< 4.685
## 20 Levels: lastday_purchase_all< 15.5,NPS< 7.5 ...
```



```
## [1] "lastday_purchase_all>=15.5" "0.740518791199384"
```



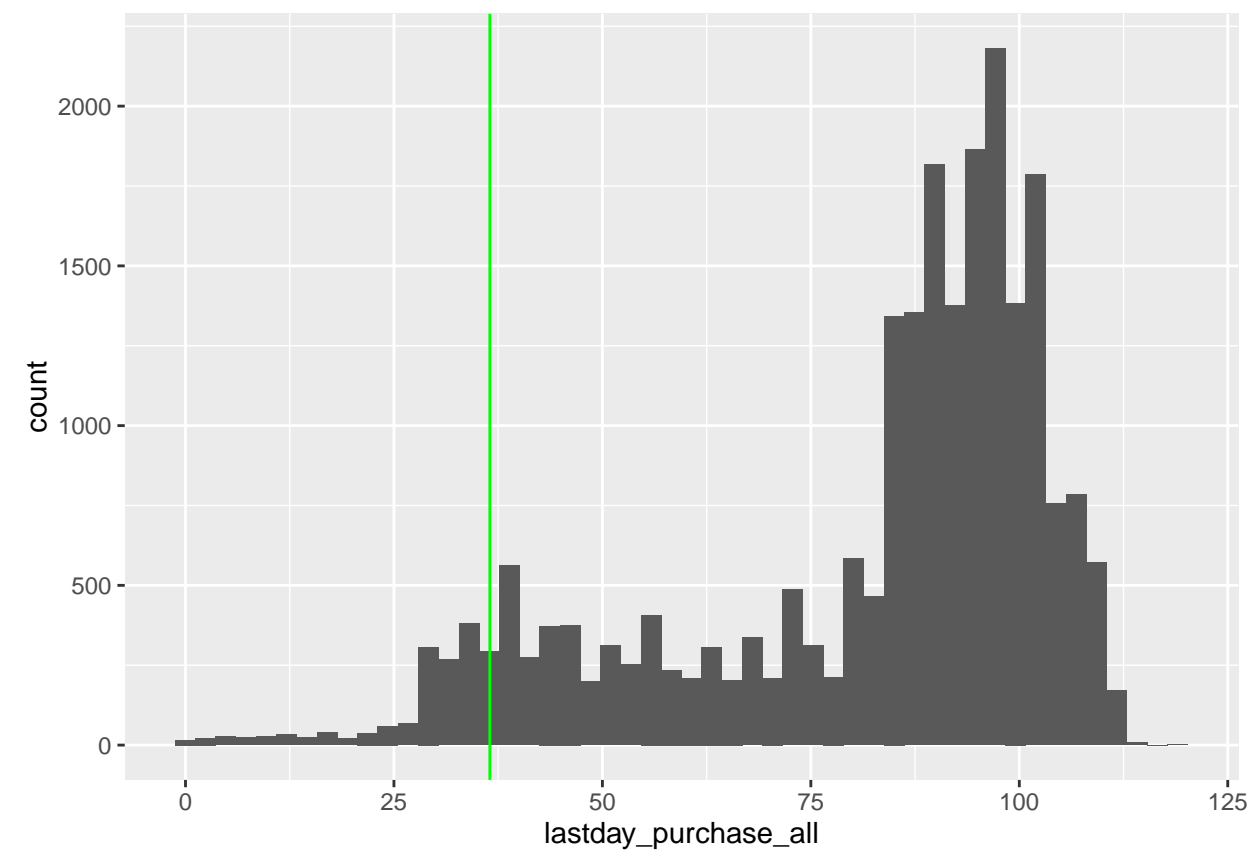
```
## [1] "lastday_purchase_all< 73.5" "26.7057614930229"
```



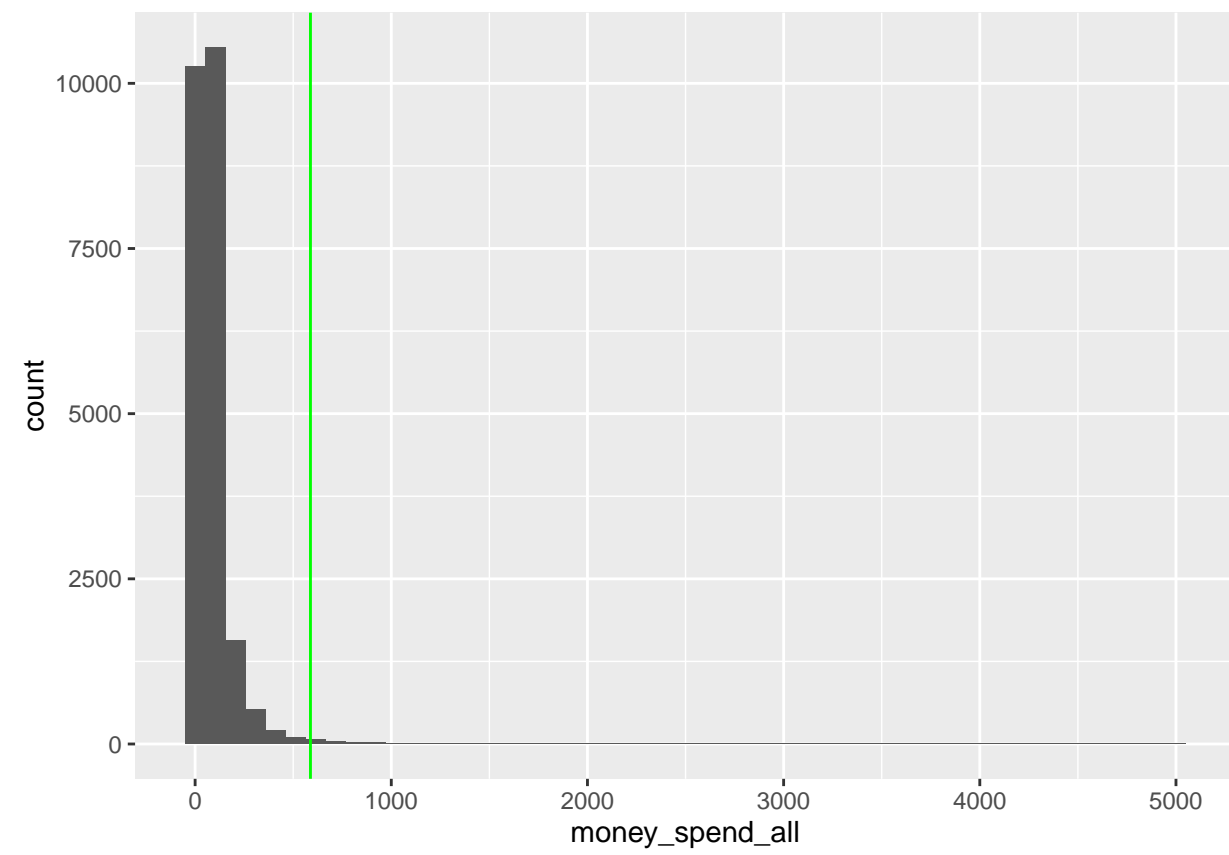
```
## [1] "money_spend_all< 4.685" "0.954541563222327"
```

n	yval	p_value	path
9	0.1335417	0.0061505	lastday_purchase_all< 36.5,money_spend_all>=587.9,num_purchase_all< 15.5
7	0.1250760	0.0293911	lastday_purchase_all< 103.5,money_spend_all>=253.9,money_spend_all< 255.6,num_purchase_all< 15.5
7	0.1095654	0.0334159	lastday_purchase_all< 103.5,num_purchase_all>=15.5
33	0.0083664	0.0001432	lastday_purchase_all< 103.5,money_spend_all>=250,money_spend_all< 253.9,num_purchase_all< 15.5
149	0.0067219	0.0000014	lastday_purchase_all>=36.5,lastday_purchase_all< 103.5,money_spend_all>=587.9,num_purchase_all< 15.5
759	0.0017522	0.0000000	lastday_purchase_all< 103.5,money_spend_all>=255.6,money_spend_all< 587.9,num_purchase_all< 15.5
1830	0.0000448	0.6363895	lastday_purchase_all>=103.5,NPS< 9.5,survey=0
20107	0.0000163	0.1279481	lastday_purchase_all< 103.5,money_spend_all< 250,num_purchase_all< 15.5
186	-0.0038012	0.0000000	lastday_purchase_all>=104.5,money_spend_all>=45.29,NPS>=9.5
96	-0.0067478	0.0000002	lastday_purchase_all>=104.5,NPS< 9.5,survey=1
64	-0.0423609	0.0000000	lastday_purchase_all>=104.5,money_spend_all< 41.78,NPS>=9.5
23	-0.0552657	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,NPS< 9.5,survey=1
49	-0.0635025	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all>=45.29,NPS>=9.5
27	-0.1170134	0.0000000	lastday_purchase_all>=104.5,money_spend_all>=41.78,money_spend_all< 45.29,NPS>=9.5
16	-0.2105732	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all< 45.29,NPS>=9.5

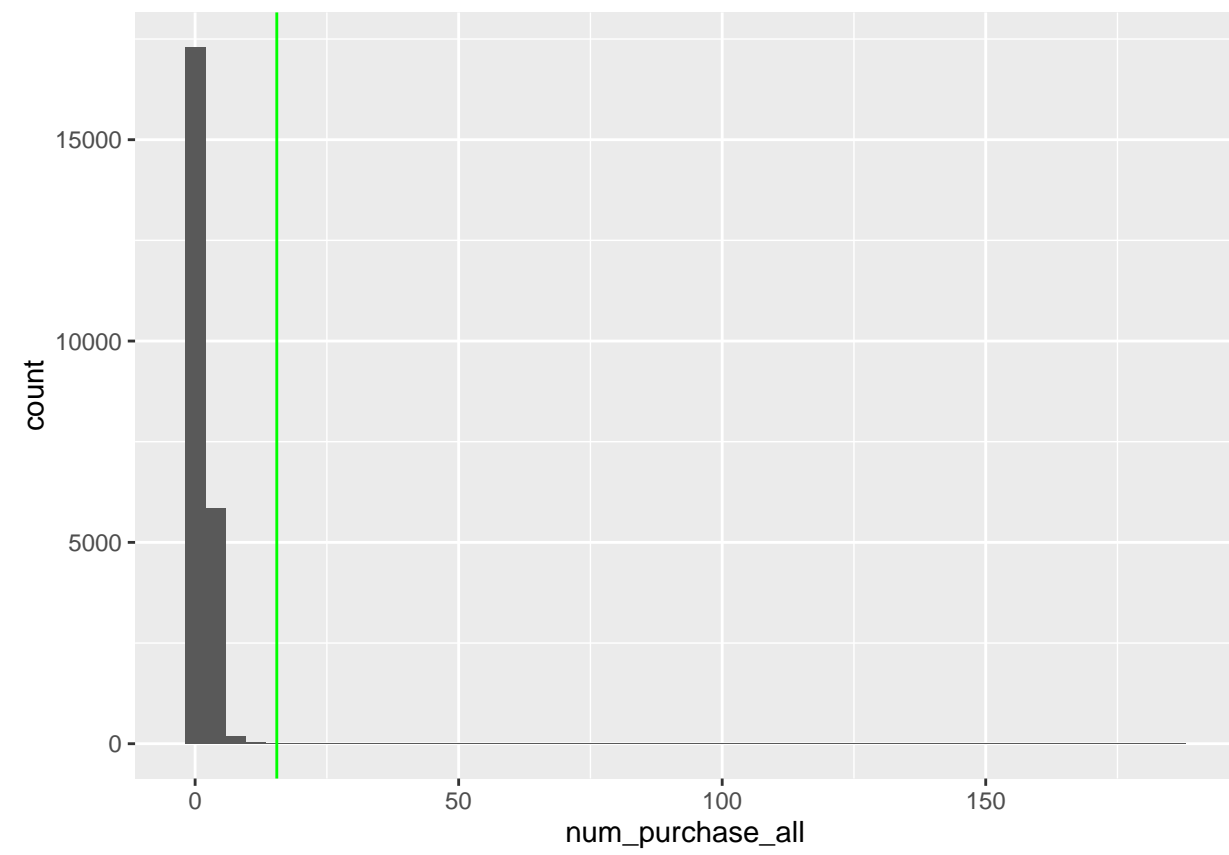
```
## [1] lastday_purchase_all< 36.5,money_spend_all>=587.9,num_purchase_all< 15.5
## 15 Levels: lastday_purchase_all< 103.5,money_spend_all< 250,num_purchase_all< 15.5 ...
```



```
## [1] "lastday_purchase_all< 36.5" "6.36075678452187"
```

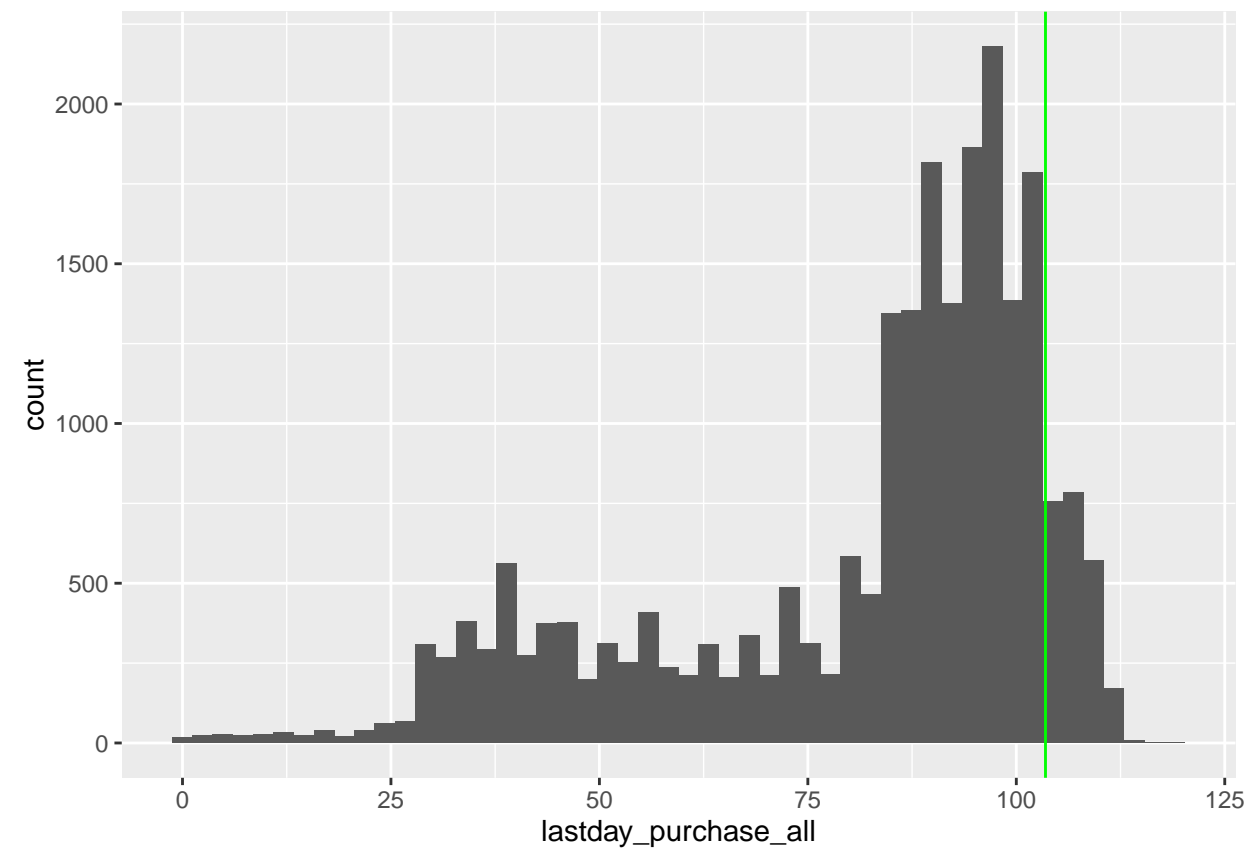


```
## [1] "money_spend_all>=587.9" "99.2637616642411"
```



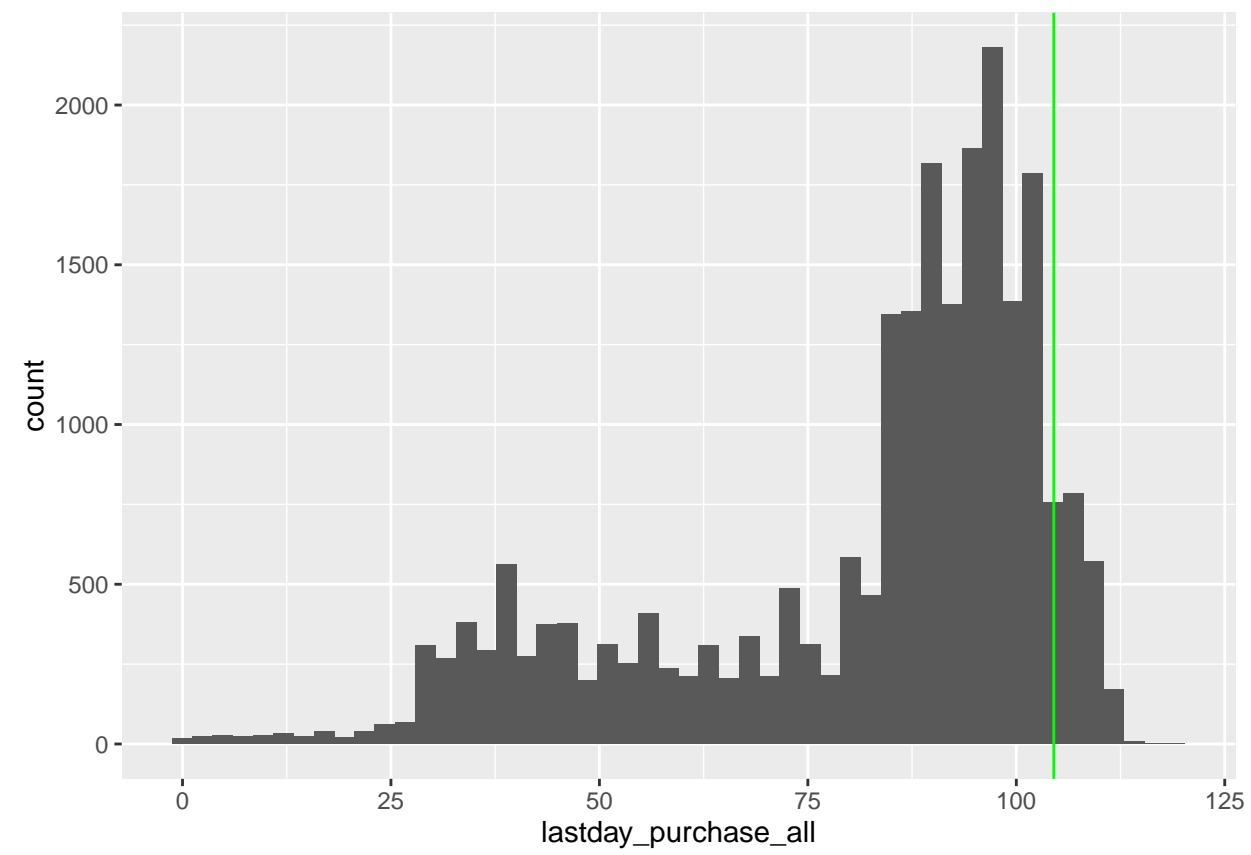
```
## [1] "num_purchase_all< 15.5" "99.9700368119168"
```

```
## [1] lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all< 45.29,NPS>=9.5
## 15 Levels: lastday_purchase_all< 103.5,money_spend_all< 250,num_purchase_all< 15.5 ...
```

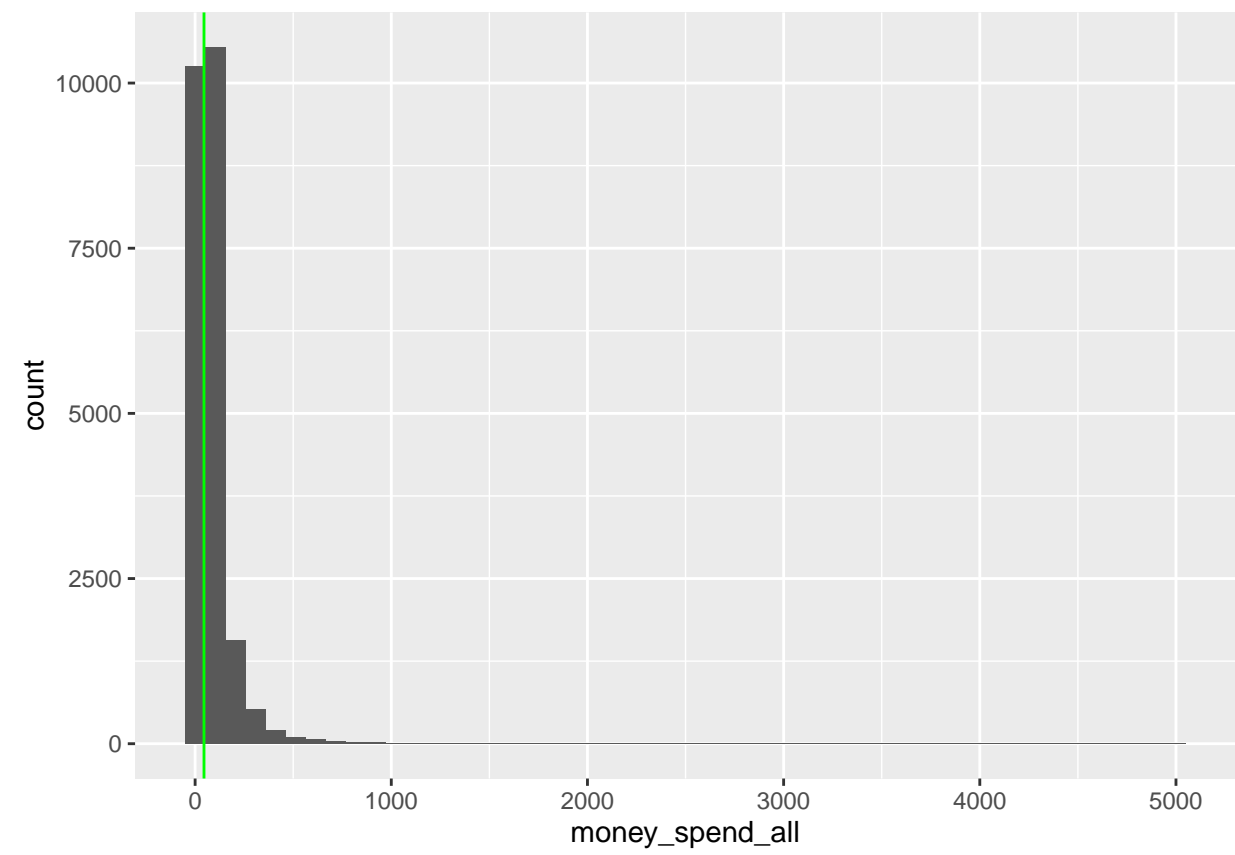


```
## [1] "lastday_purchase_all>=103.5" "90.1934765859087"
```

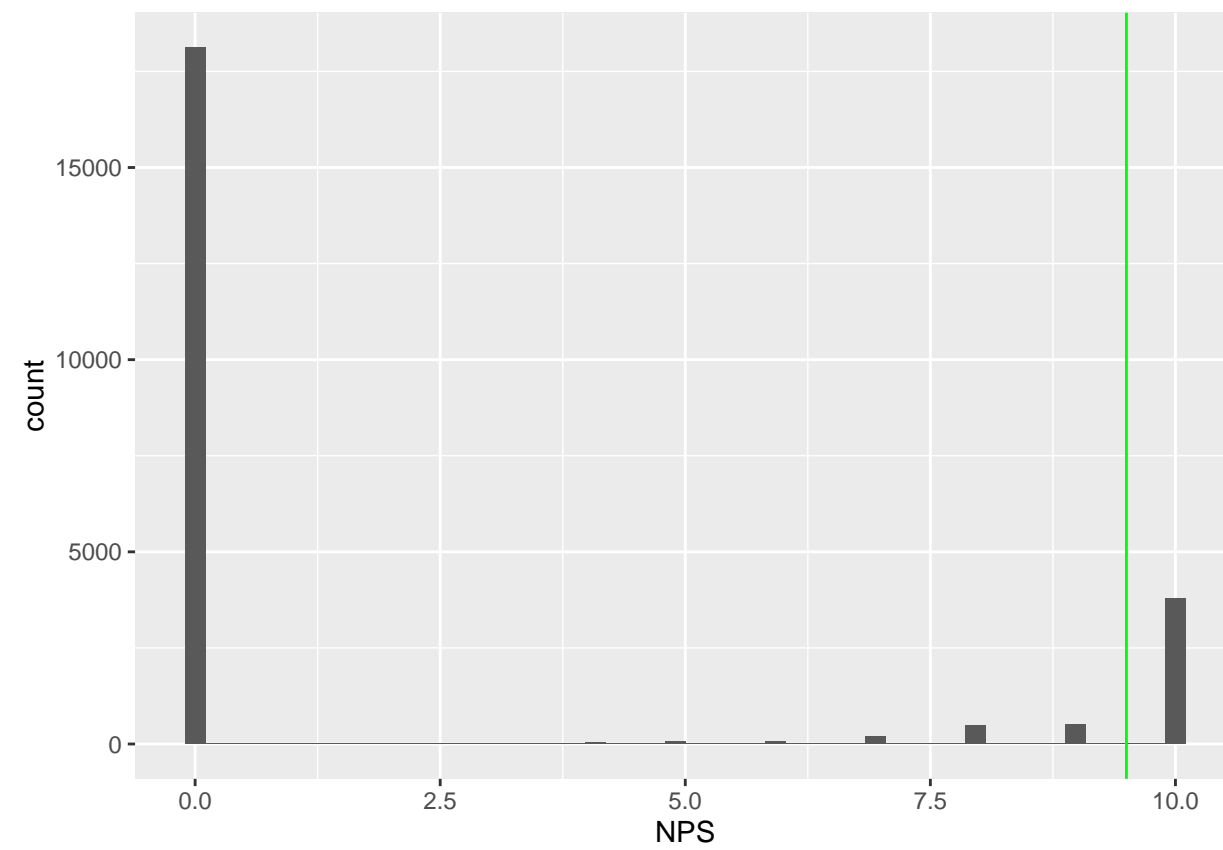




```
## [1] "lastday_purchase_all< 104.5" "92.0683160688297"
```



```
## [1] "money_spend_all< 45.29" "37.8948720143823"
```



```
## [1] "NPS>=9.5"      "83.7556716034586"
```

Altruistic group with number\_referrals as target\_variable

Altruistic group with coersion\_rate as target\_variable

Equitable group with number\_referrals as target\_variable

Equitable group with coersion\_rate as target\_variable

Egoistic group with number\_referrals as target\_variable

Egoistic group with coersion\_rate as target\_variable