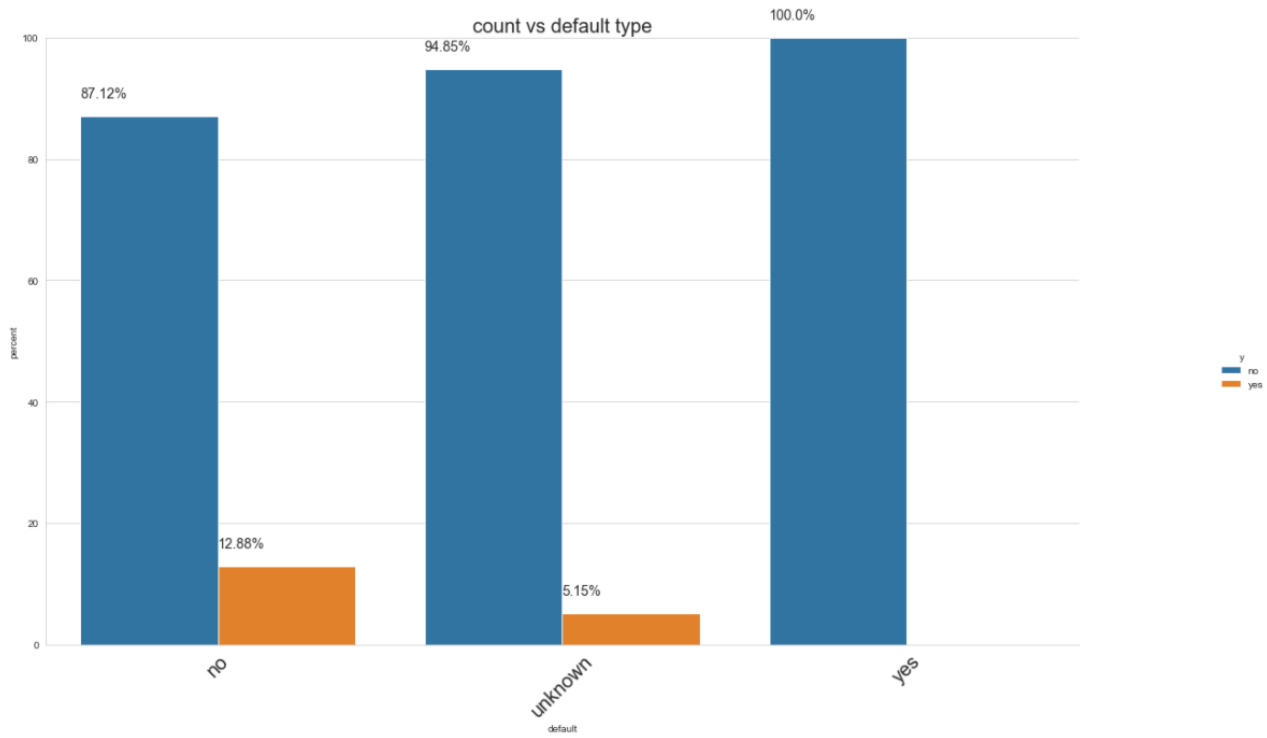
Exploratory Data analysis

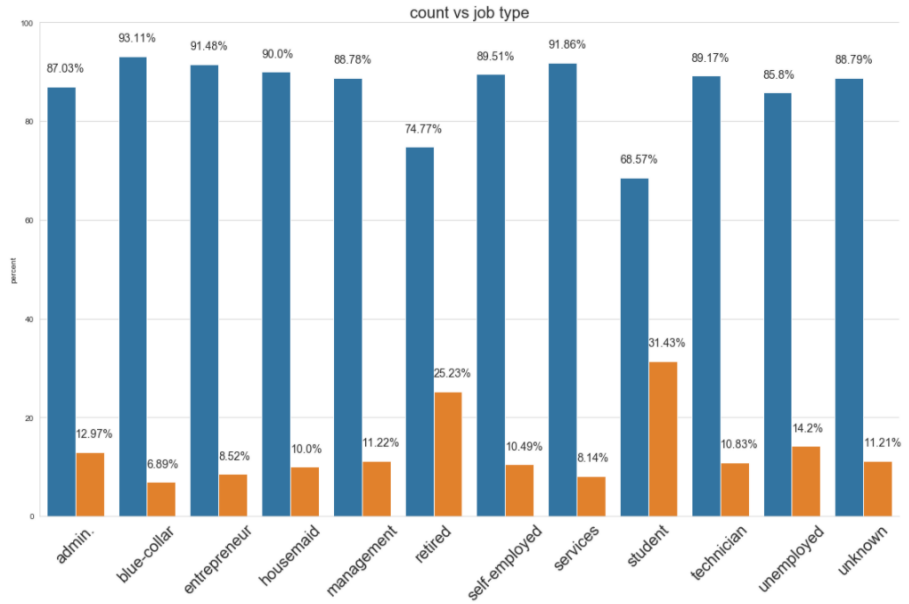
default

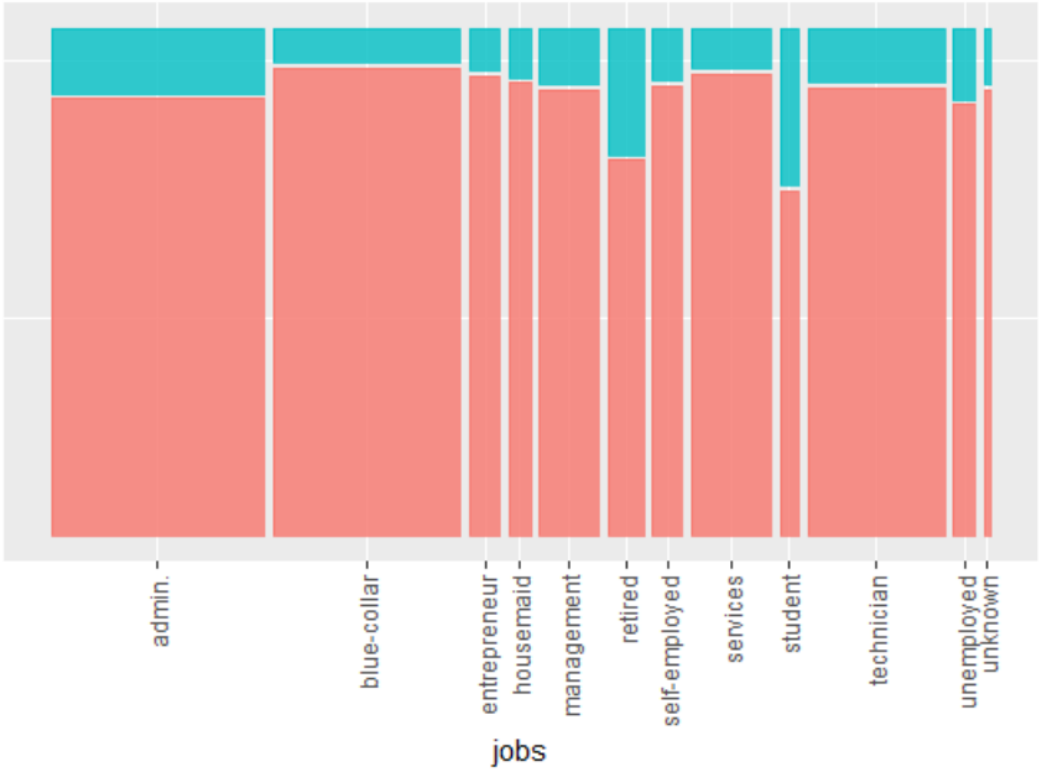
	y		
default	no	yes	Row Total
no	28391	4197	32588
	0.871	0.129	0.791
	0.689	0.102	
unknown	8154	443	8597
	0.948	0.052	0.209
	0.198	0.011	
yes	3	0	3
	1.000	0.000	0.000
	0.000	0.000	
Column Total	36548	4640	41188



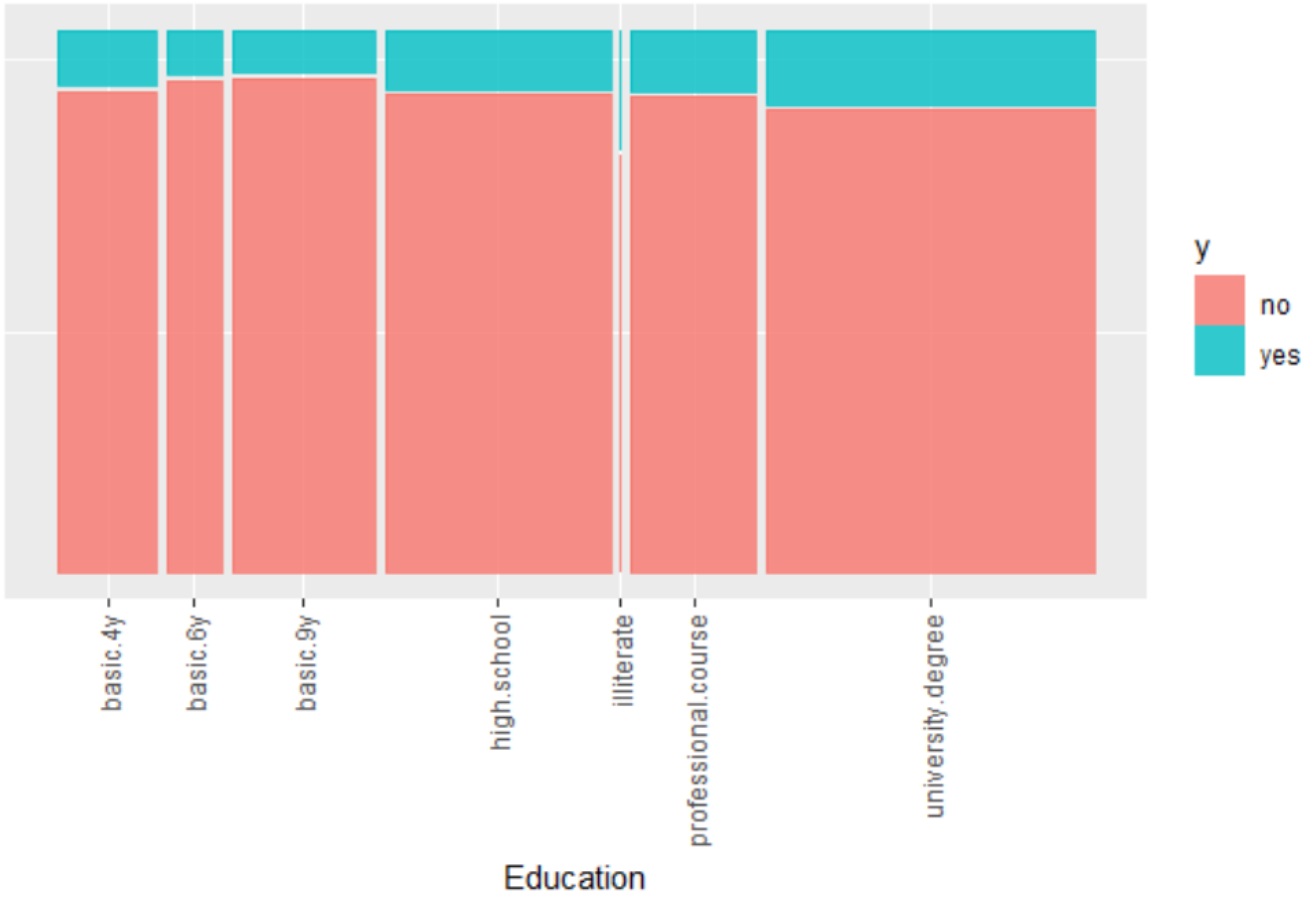
job

job	y		
	no	yes	Row Total
admin.	9070	1352	10422
	0.870	0.130	0.253
	0.220	0.033	
blue-collar	8616	638	9254
	0.931	0.069	0.225
	0.209	0.015	
entrepreneur	1332	124	1456
	0.915	0.085	0.035
	0.032	0.003	
housemaid	954	106	1060
	0.900	0.100	0.026
	0.023	0.003	
management	2596	328	2924
	0.888	0.112	0.071
	0.063	0.008	
retired	1286	434	1720
	0.748	0.252	0.042
	0.031	0.011	
self-employed	1272	149	1421
	0.895	0.105	0.035
	0.031	0.004	
services	3646	323	3969
	0.919	0.081	0.096
	0.089	0.008	
student	600	275	875
	0.686	0.314	0.021
	0.015	0.007	
technician	6013	730	6743
	0.892	0.108	0.164
	0.146	0.018	
unemployed	870	144	1014
	0.858	0.142	0.025
	0.021	0.003	
unknown	293	37	330
	0.888	0.112	0.008
	0.007	0.001	
Column Total	36548	4640	41188





education


y
no
yes
basic.4y
basic.6y
basic.9y
high.school
illiterate
professional.course
university.degree
Education

Housing and loans

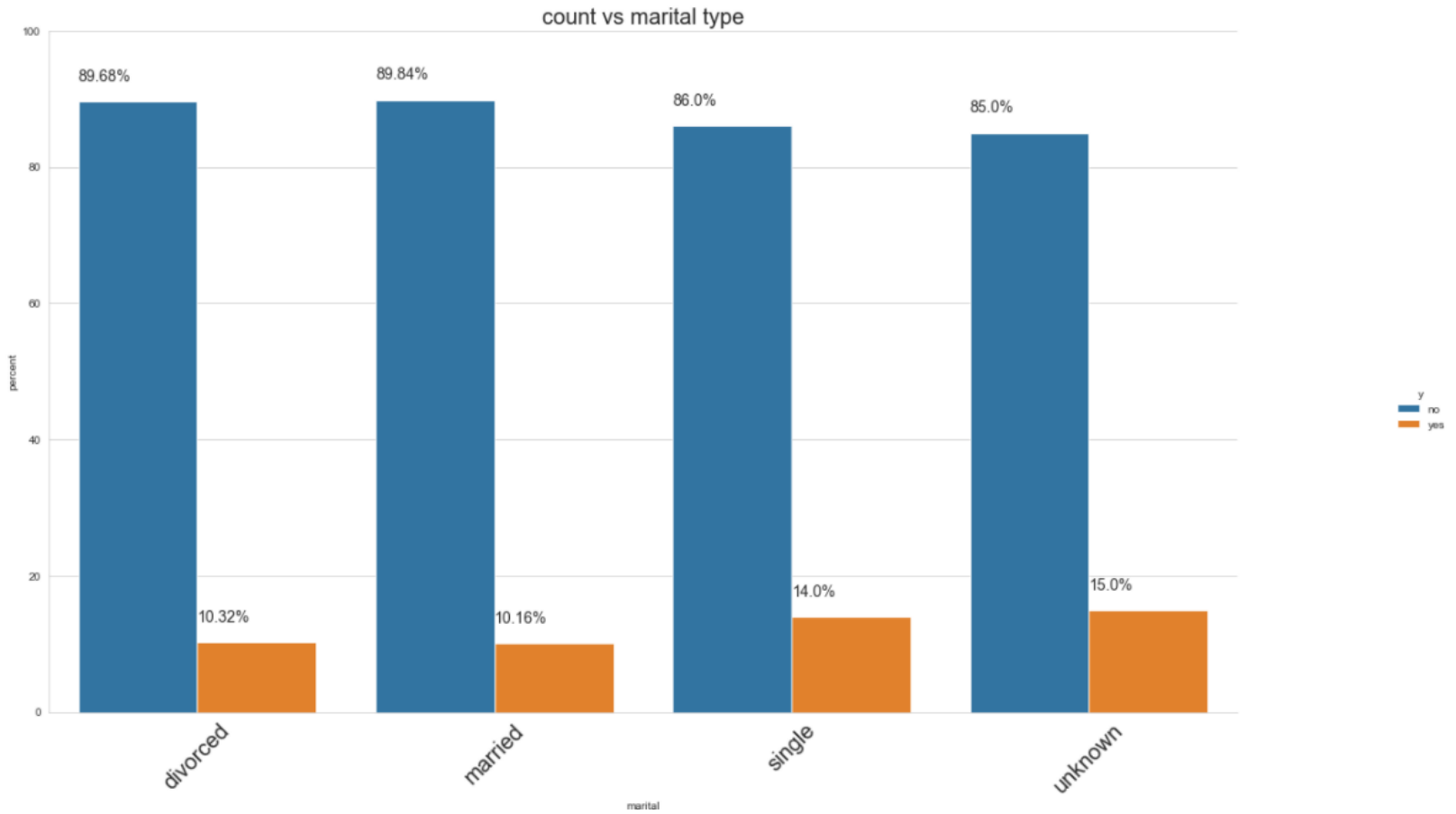
```
 Pearson's Chi-squared test

data:  bank_df$housing and bank_df$y
X-squared = 5.6845, df = 2, p-value = 0.05829
```

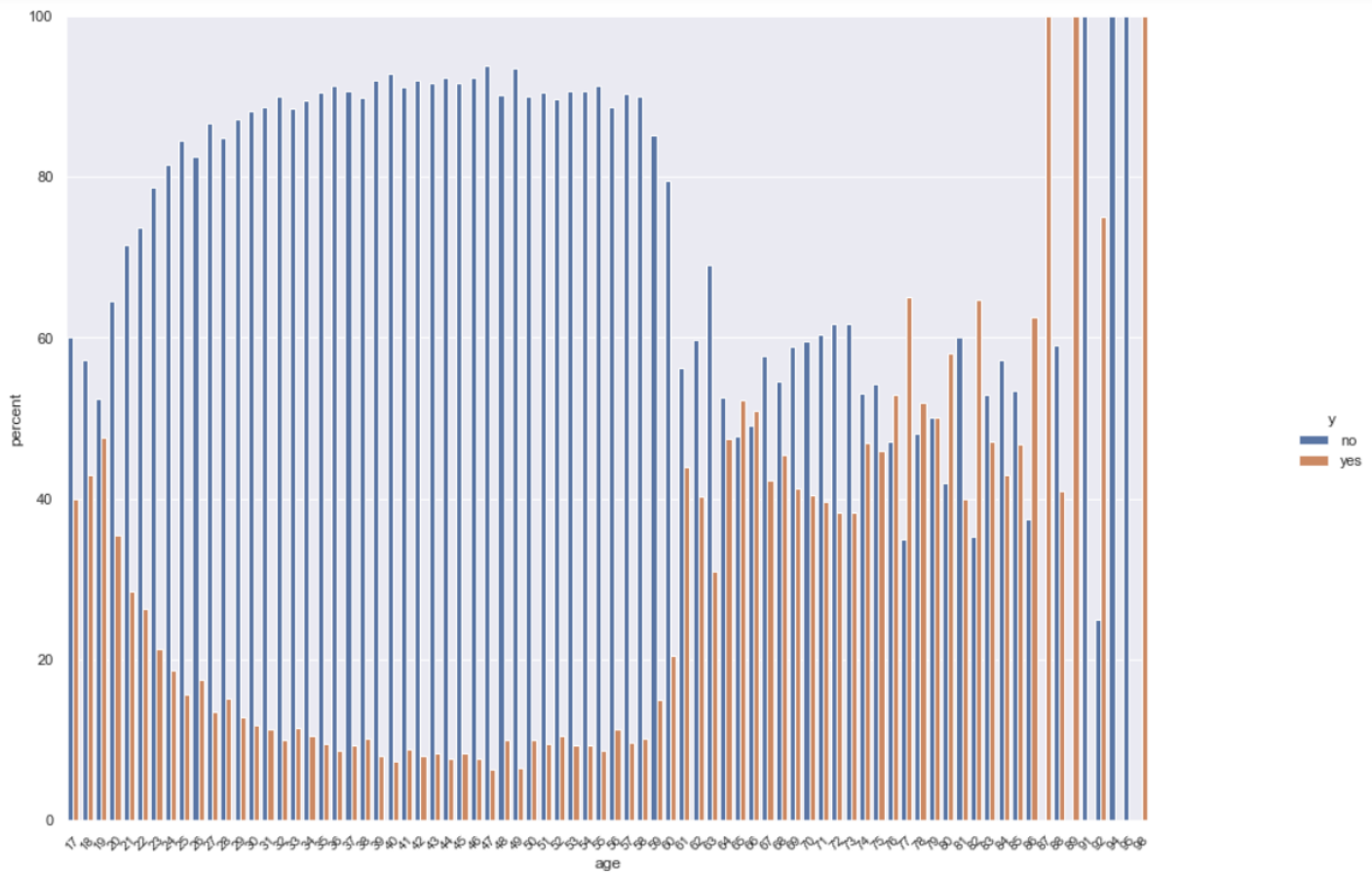
```
 Pearson's Chi-squared test

data:  bank_df$loan and bank_df$y
X-squared = 1.094, df = 2, p-value = 0.5787
```

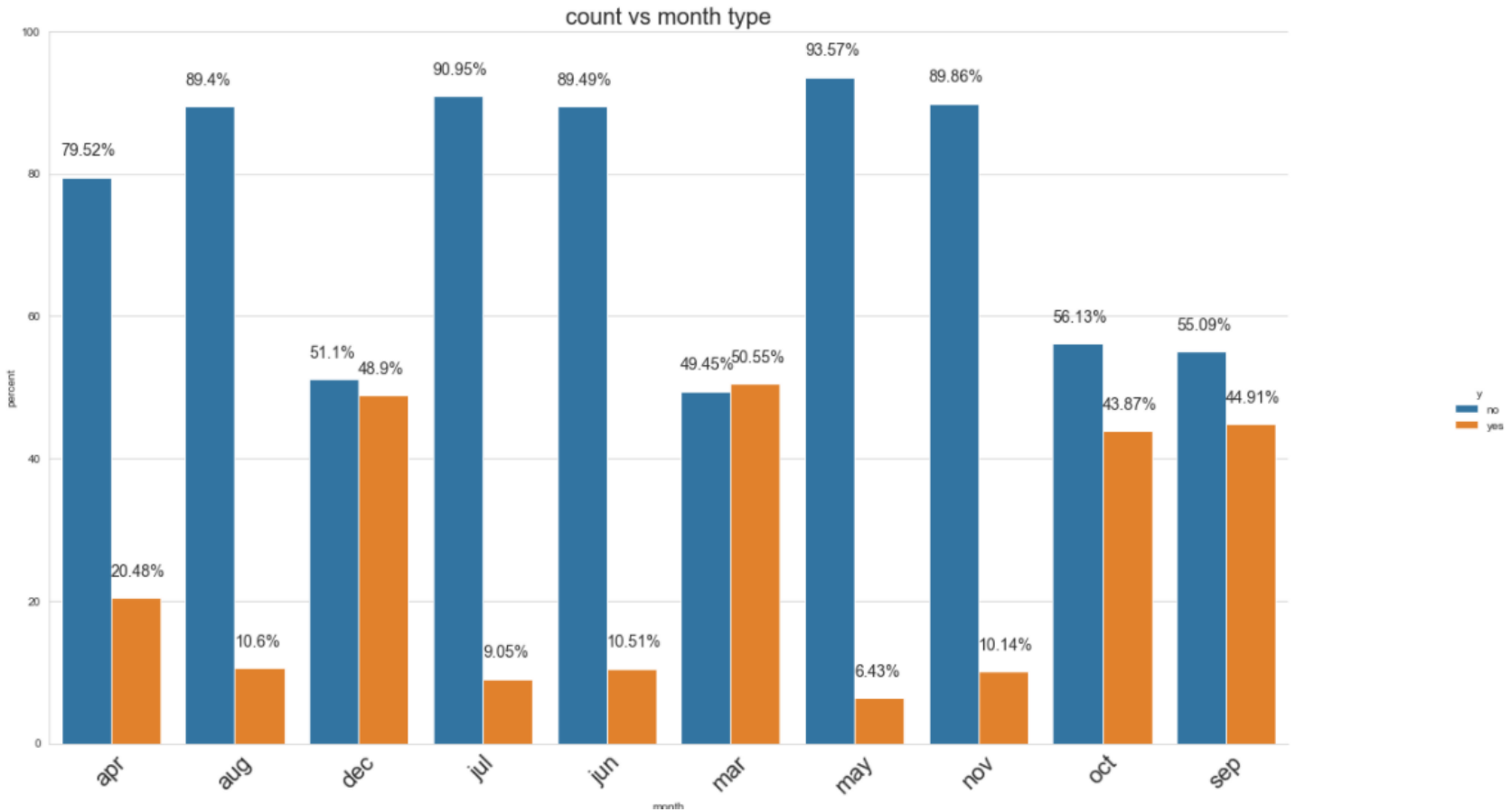
marital


count vs marital type
100
80
60
40
20
0
percent
89.68%
89.84%
86.0%
85.0%
10.32%
10.16%
14.0%
15.0%
divorced
married
single
unknown
marital
y
no
yes

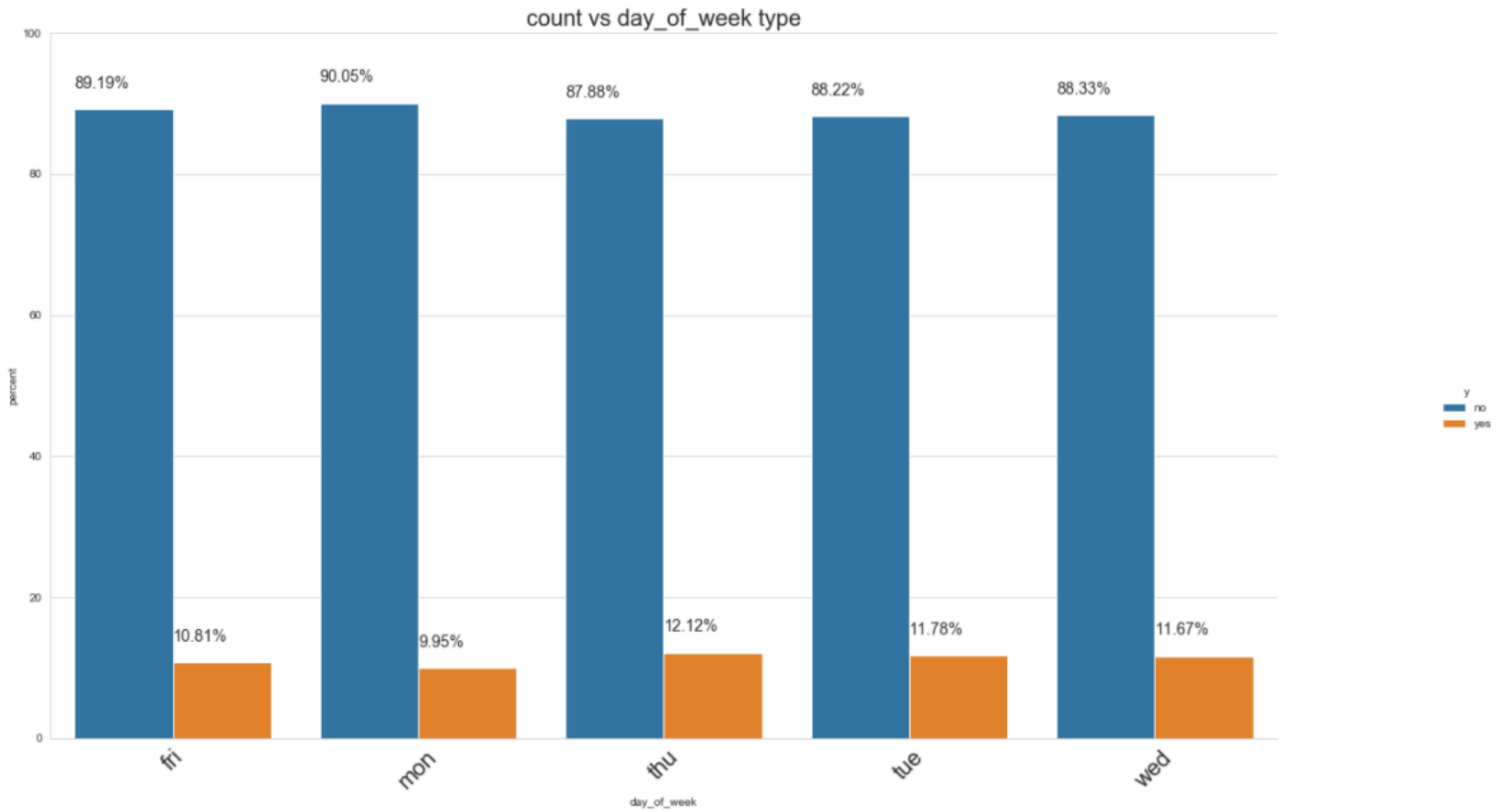
Age – percentage of yes and no with age



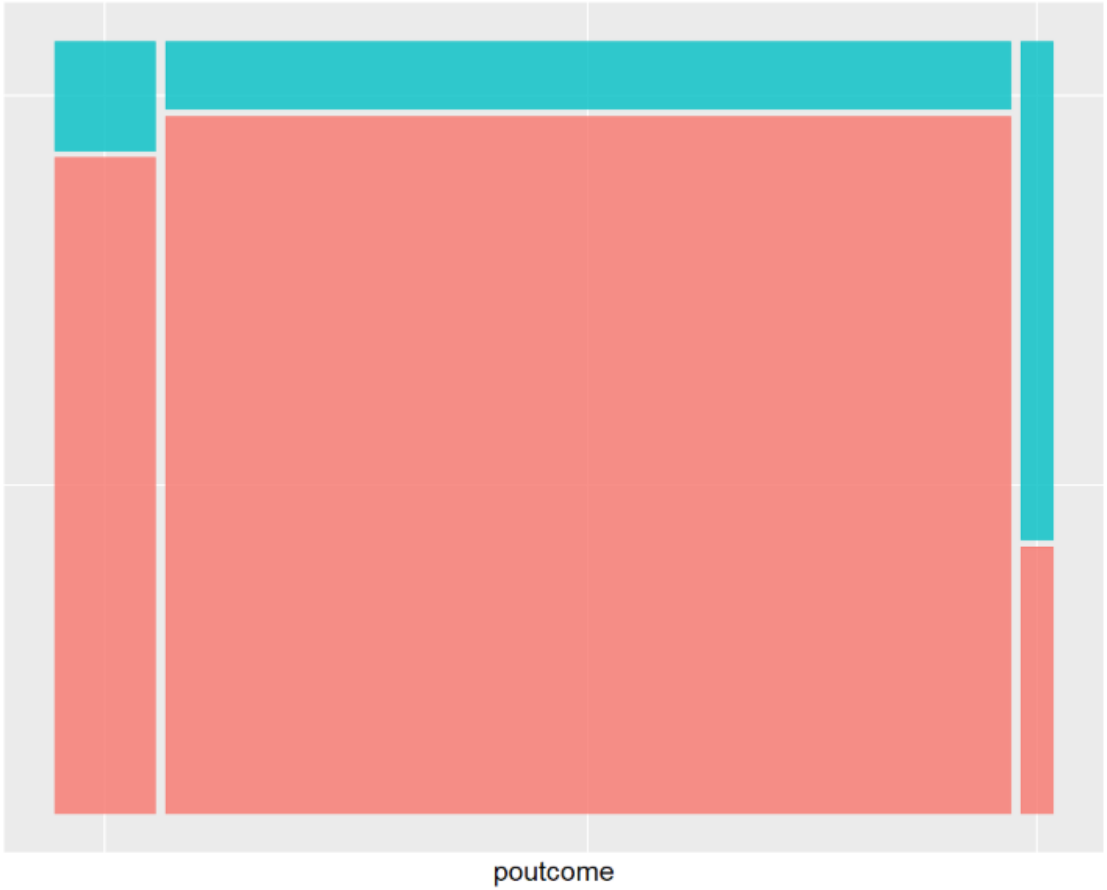
month

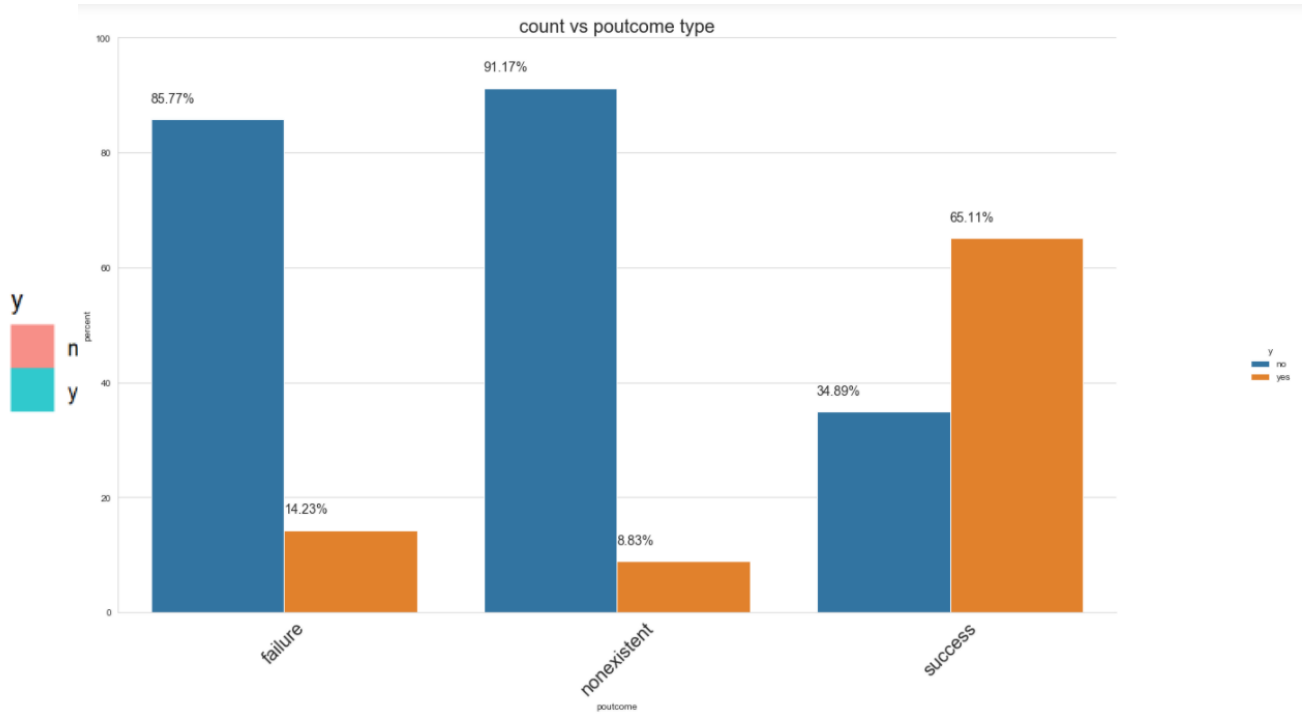

count vs month type
percent
100
80
60
40
20
0
79.52%
20.48%
89.4%
10.6%
51.1%
48.9%
90.95%
9.05%
89.49%
10.51%
49.45%
50.55%
93.57%
6.43%
89.86%
10.14%
56.13%
43.87%
55.09%
44.91%
apr
aug
dec
jul
jun
mar
may
nov
oct
sep
month
y
no
yes

Day of week

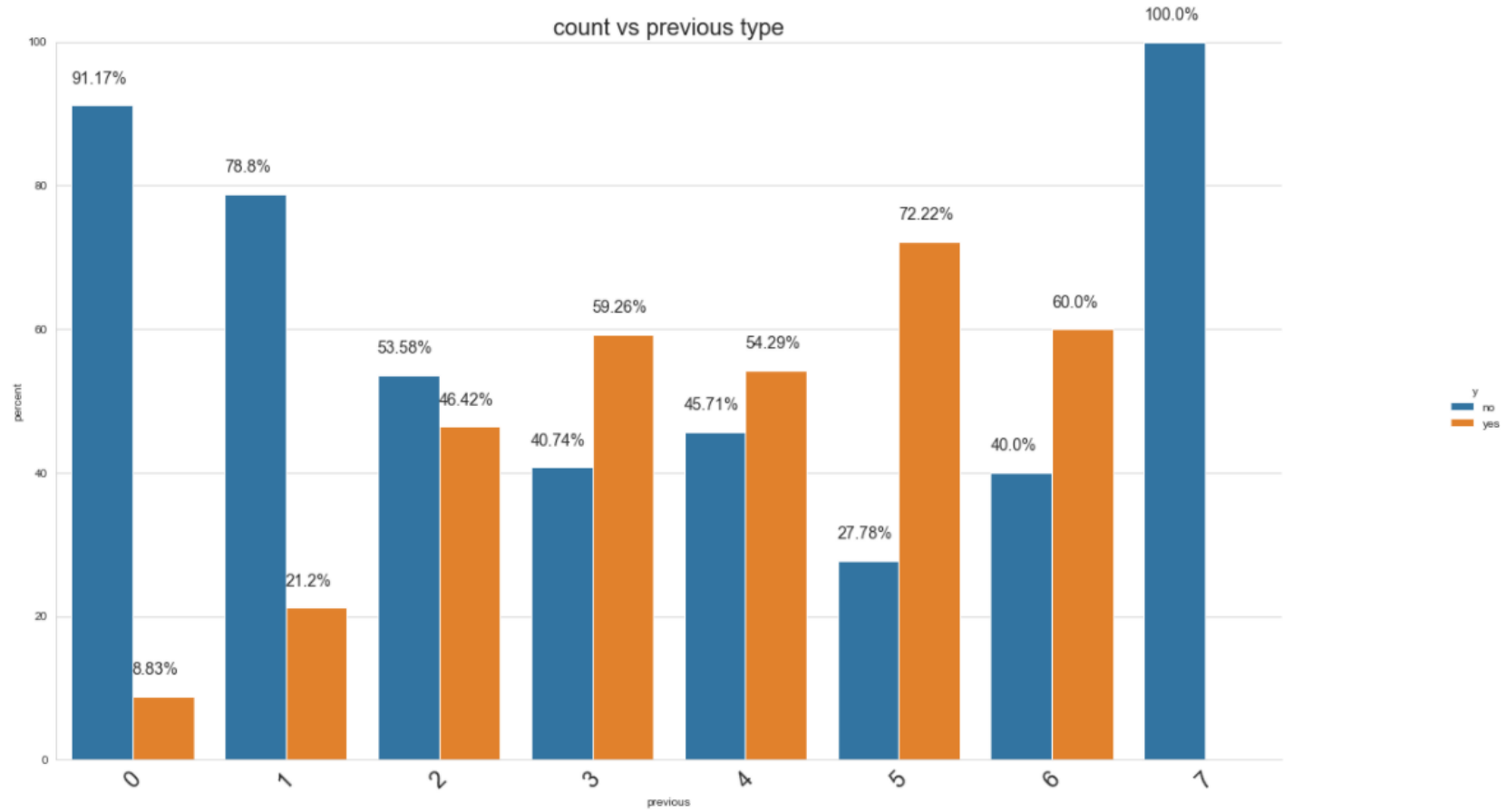

count vs day_of_week type
100
80
60
40
20
0
percent
89.19%
90.05%
87.88%
88.22%
88.33%
10.81%
9.95%
12.12%
11.78%
11.67%
fri
mon
thu
tue
wed
day_of_week
y
no
yes

Poutcome – success, failure, non-existent

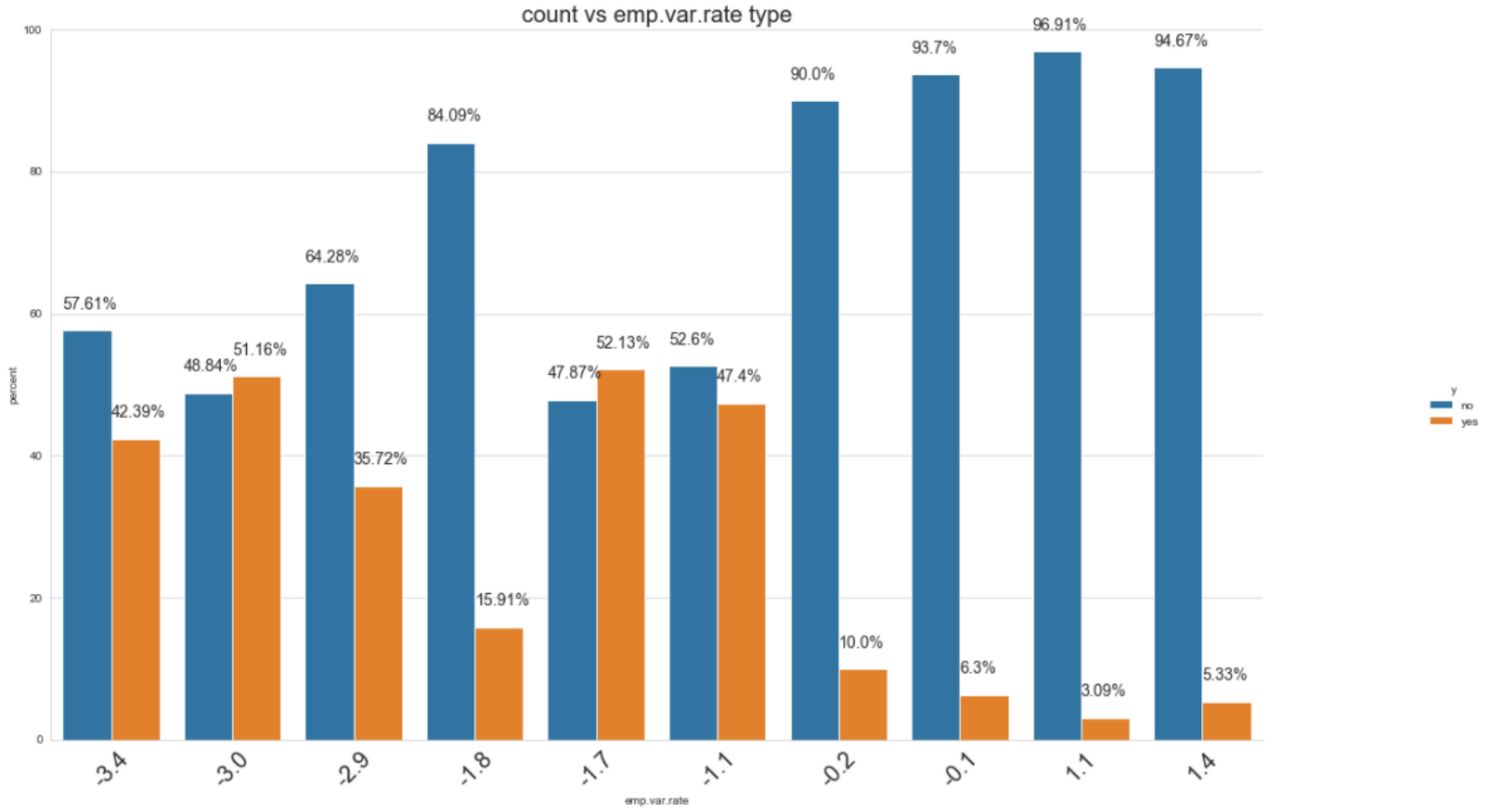




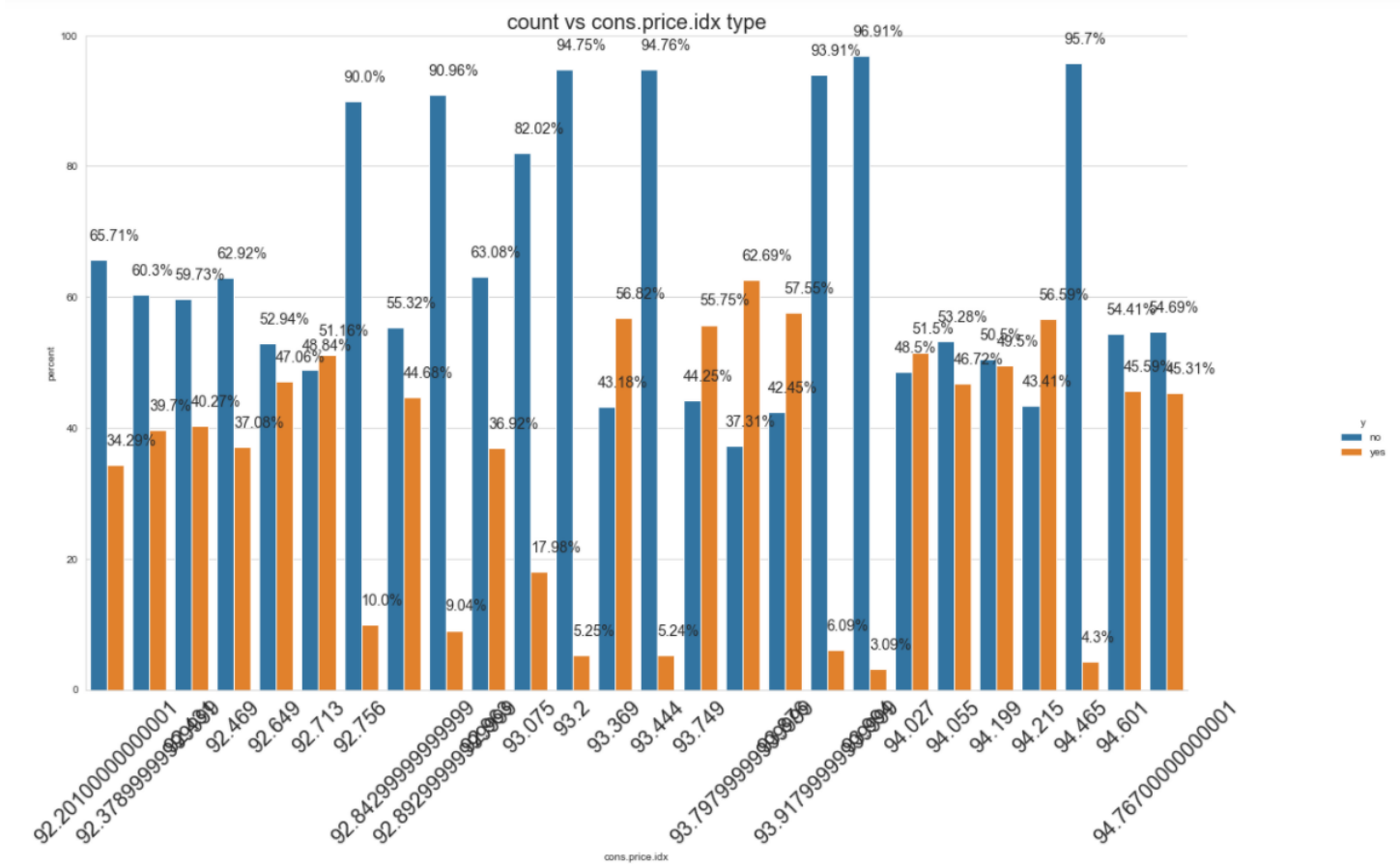
previous


count vs previous type
percent
previous
y
no
yes
91.17%
8.83%
78.8%
21.2%
53.58%
46.42%
40.74%
59.26%
45.71%
54.29%
27.78%
72.22%
40.0%
60.0%
100.0%

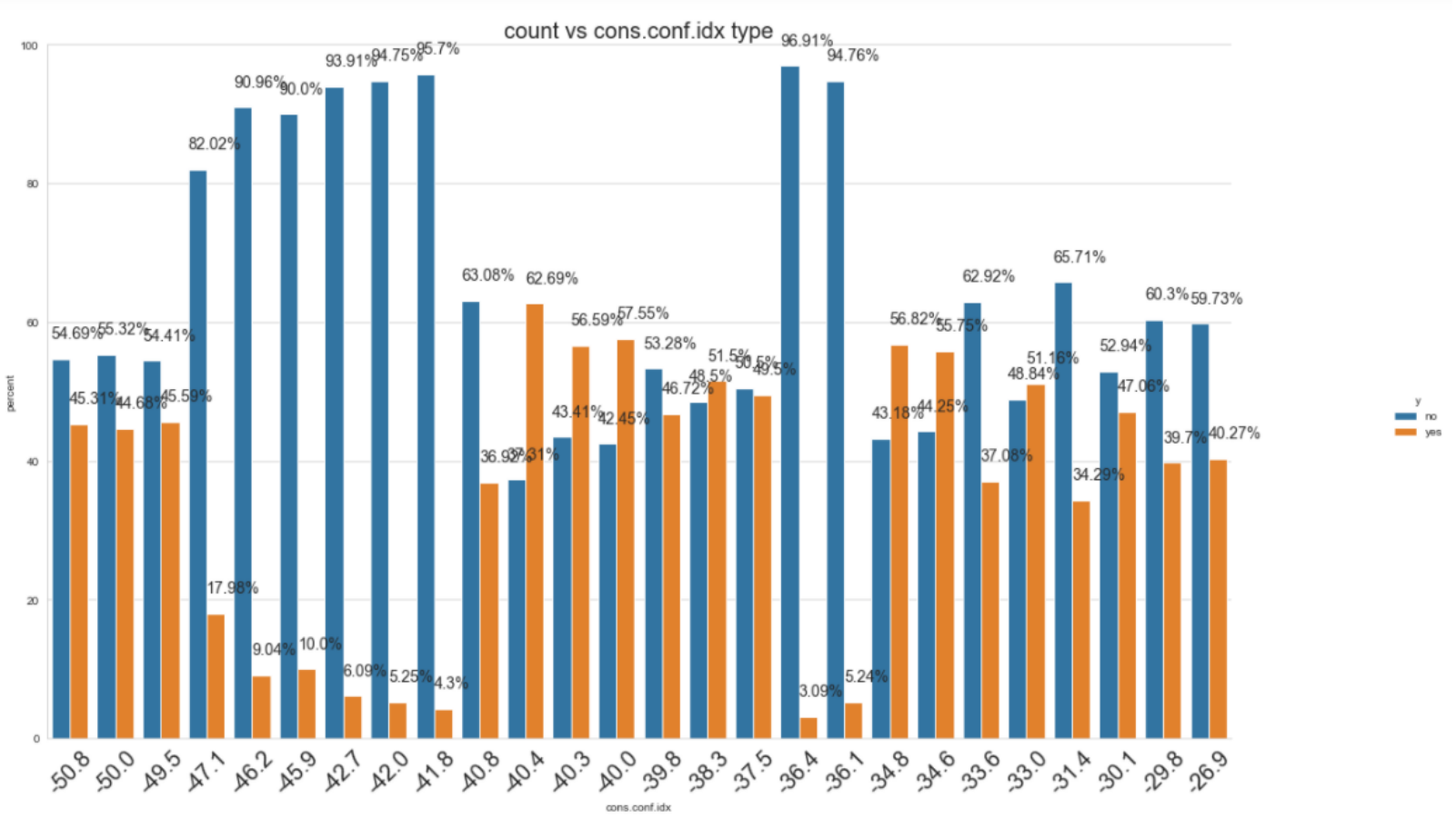
Emp.var.rate.type



Cons.price.idx.type



Cons.conf.idx.type



Nr.employed.type