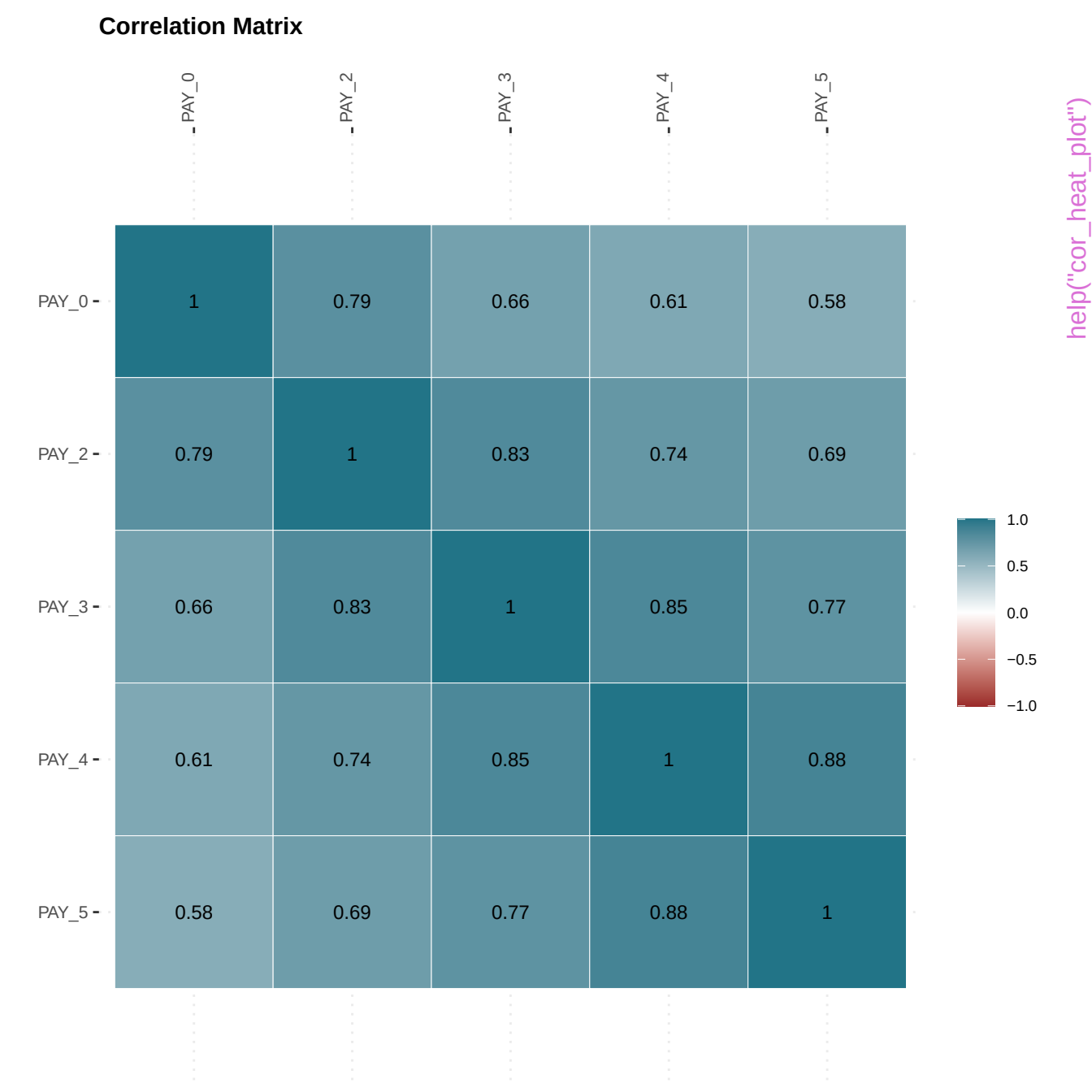
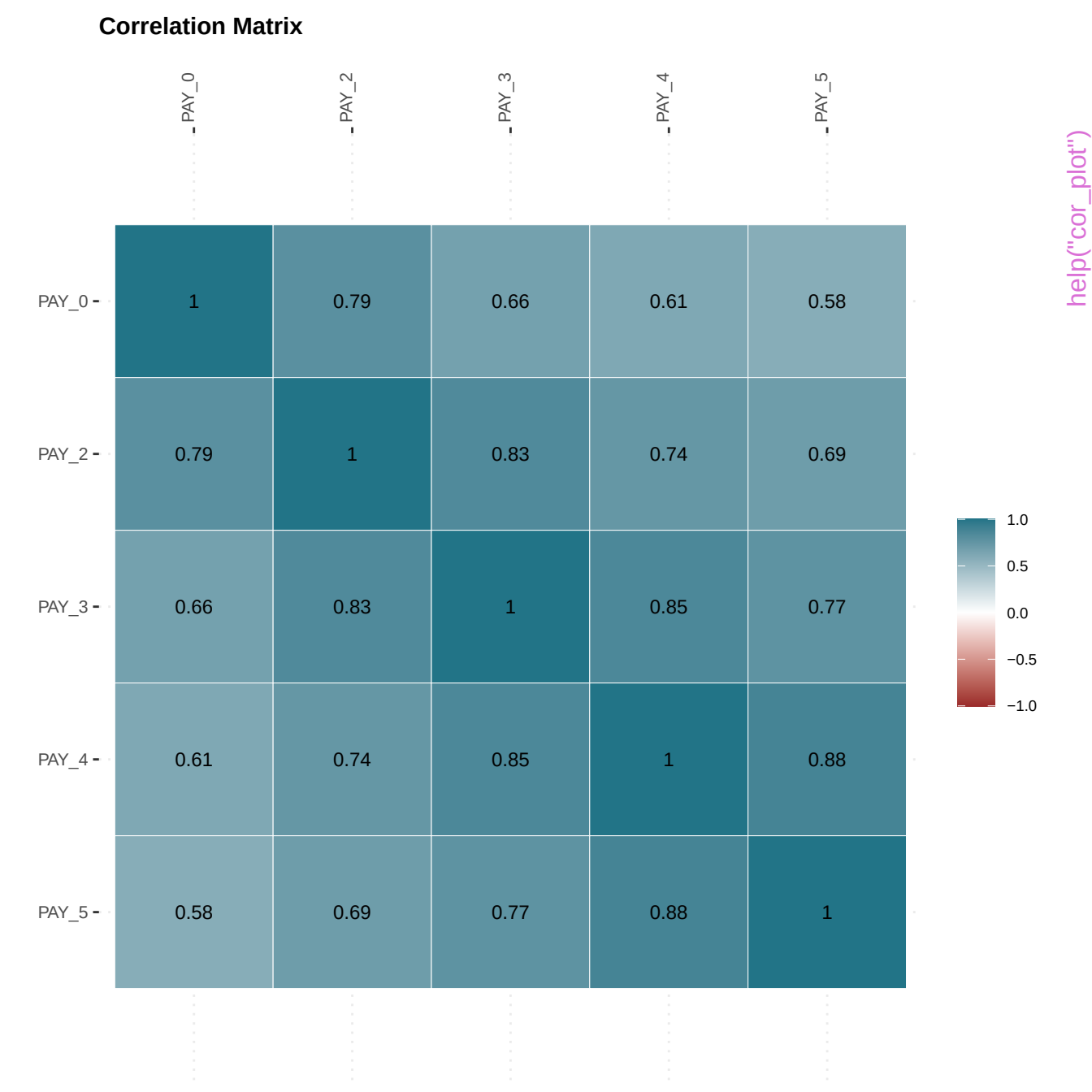
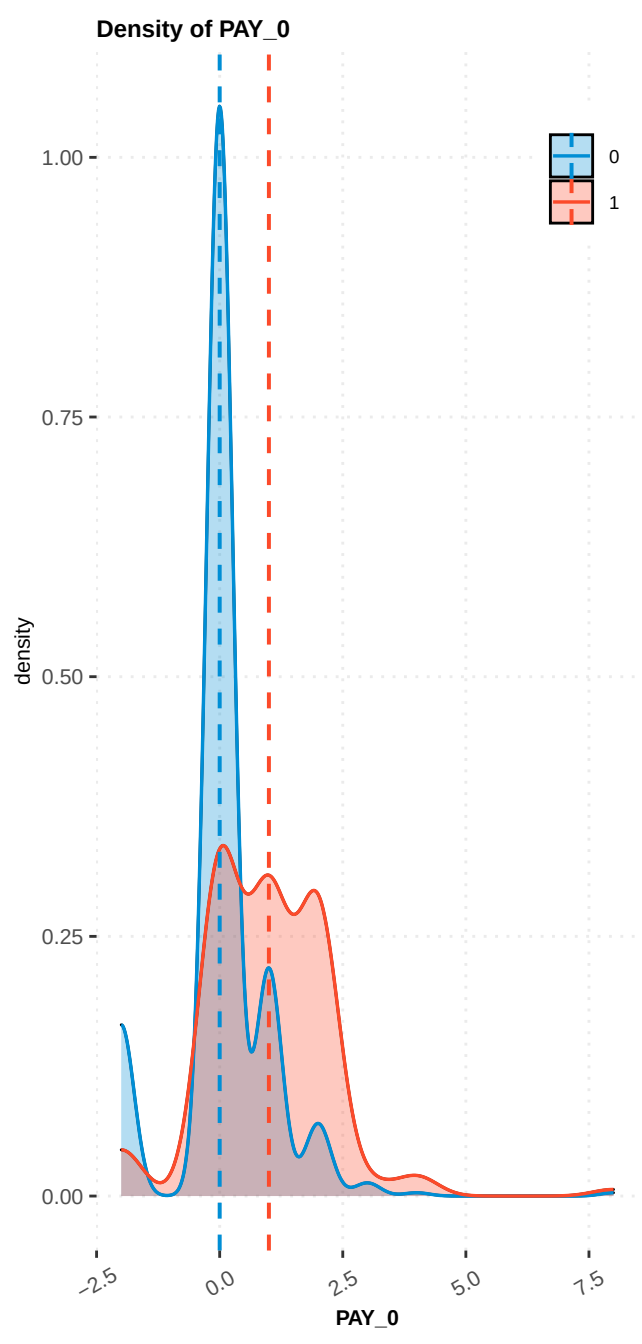
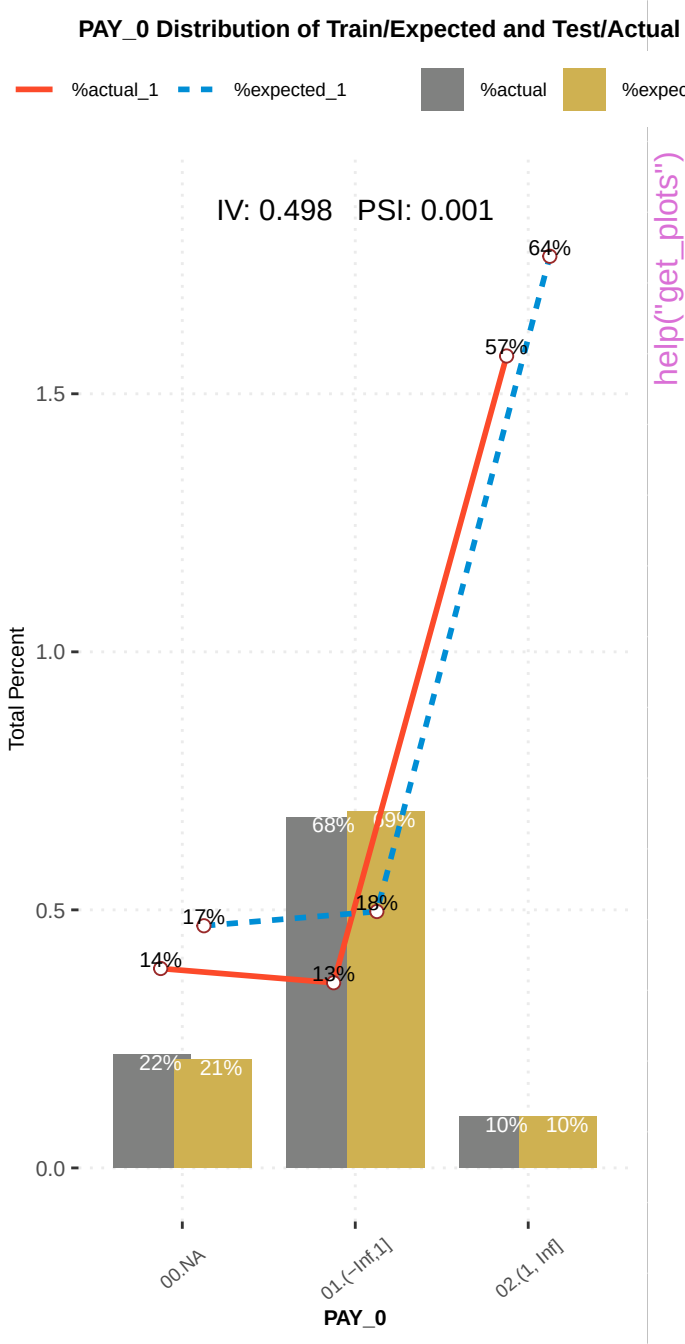

Correlation Matrix
PAY_0
PAY_2
PAY_3
PAY_4
PAY_5
PAY_0
PAY_2
PAY_3
PAY_4
PAY_5
1
0.79
0.66
0.61
0.58
0.79
1
0.83
0.74
0.69
0.66
0.83
1
0.85
0.77
0.61
0.74
0.85
1
0.88
0.58
0.69
0.77
0.88
1
1.0
0.5
0.0
−0.5
−1.0
help("cor_heat_plot")


Correlation Matrix
PAY_0
PAY_2
PAY_3
PAY_4
PAY_5
PAY_0
PAY_2
PAY_3
PAY_4
PAY_5
1
0.79
0.66
0.61
0.58
0.79
1
0.83
0.74
0.69
0.66
0.83
1
0.85
0.77
0.61
0.74
0.85
1
0.88
0.58
0.69
0.77
0.88
1
1.0
0.5
0.0
−0.5
−1.0
help("cor_plot")

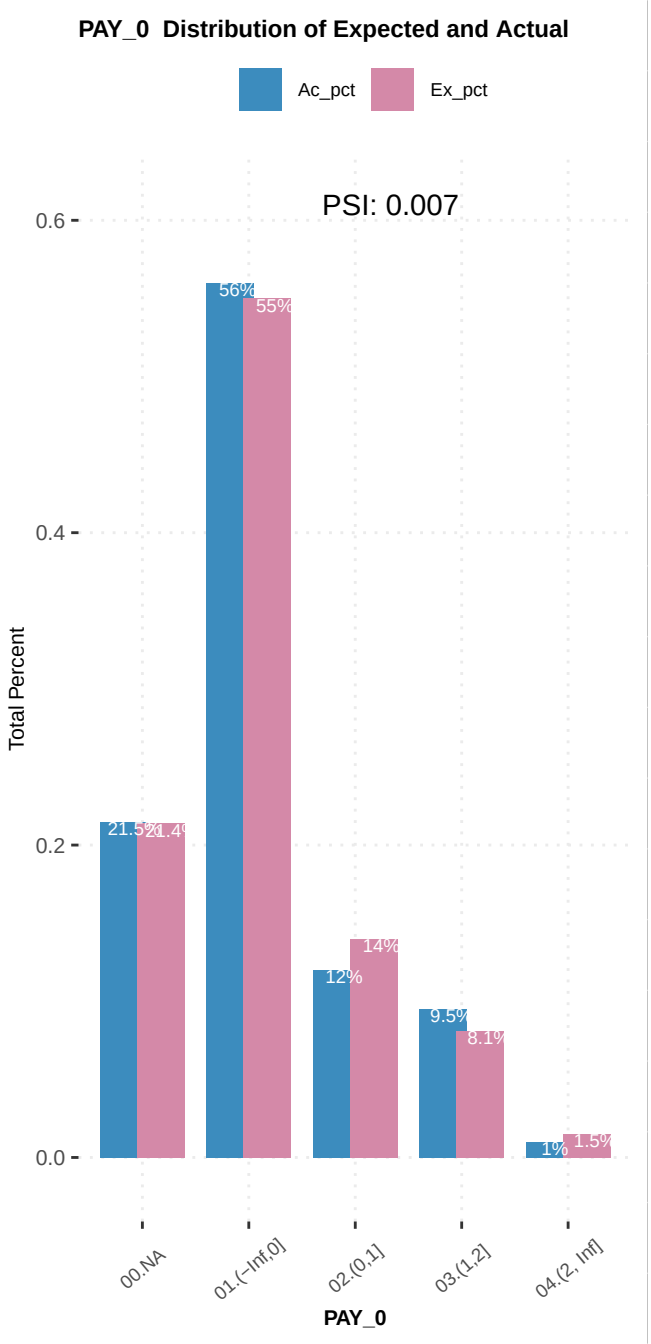




help("get_plots")

PSI of PAY_0

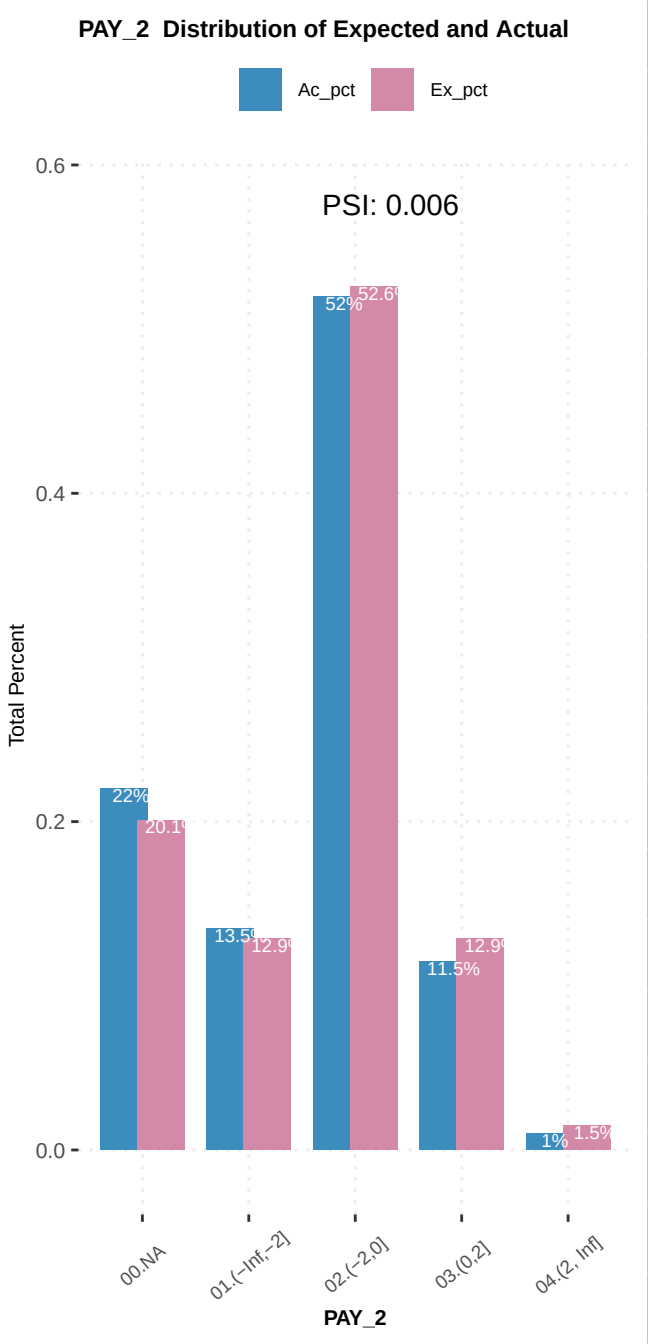
Bins	actual	expected	Ac_pct	Ex_pct	PSI_i	PSI
00.NA	43	171	21.5%	21.4%	0	0.007
01.(−Inf,0]	112	440	56%	55%	0	0.007
02.(0,1]	24	112	12%	14%	0.003	0.007
03.(1,2]	19	65	9.5%	8.1%	0.002	0.007
04.(2, Inf]	2	12	1%	1.5%	0.002	0.007



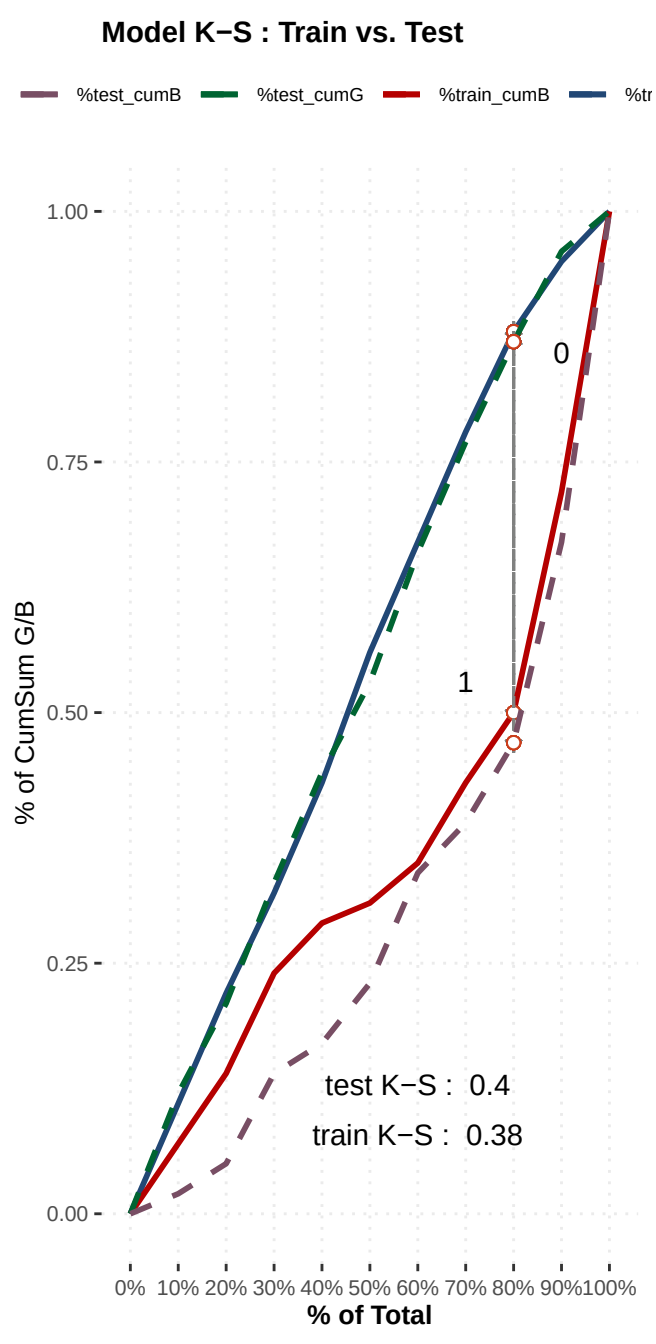
help("get_psi_plots")

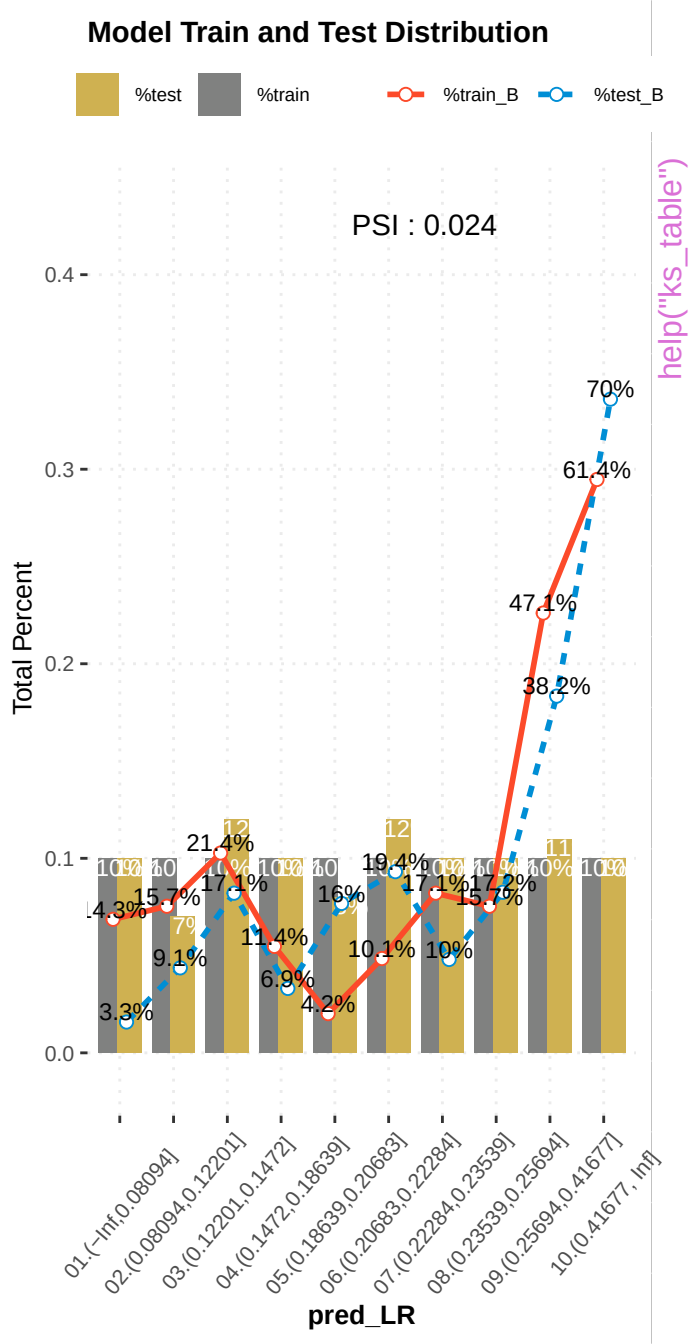
PSI of PAY_2

Bins	actua	expecte	Ac_pc	Ex_pc	PSI_i	PSI
00.NA	44	161	22%	20.1%	0.002	0.006
01.(−Inf ,−2]	27	103	13.5%	12.9%	0	0.006
02.(−2,0]	104	421	52%	52.6%	0	0.006
03.(0,2]	23	103	11.5%	12.9%	0.002	0.006
04.(2, Inf]	2	12	1%	1.5%	0.002	0.006

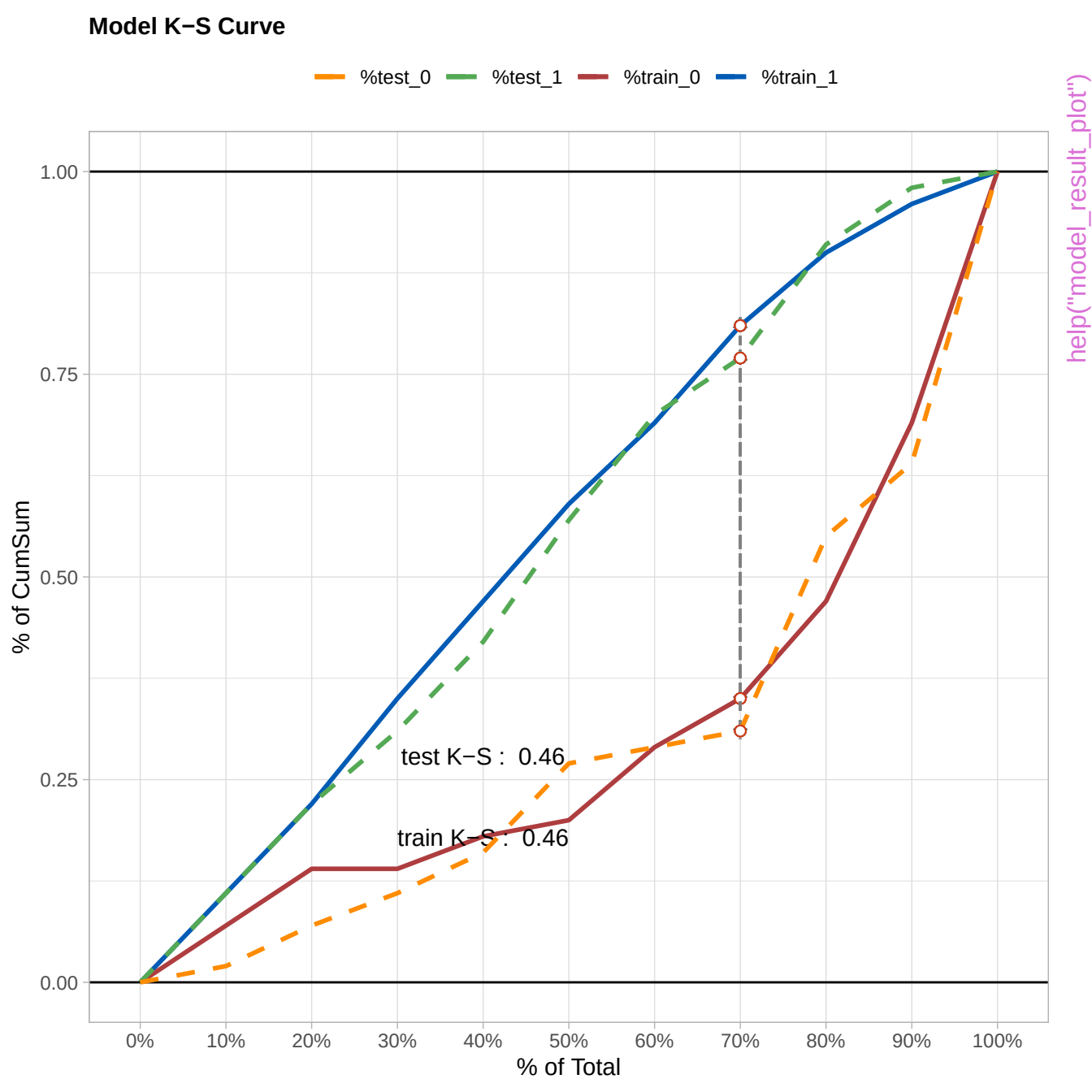


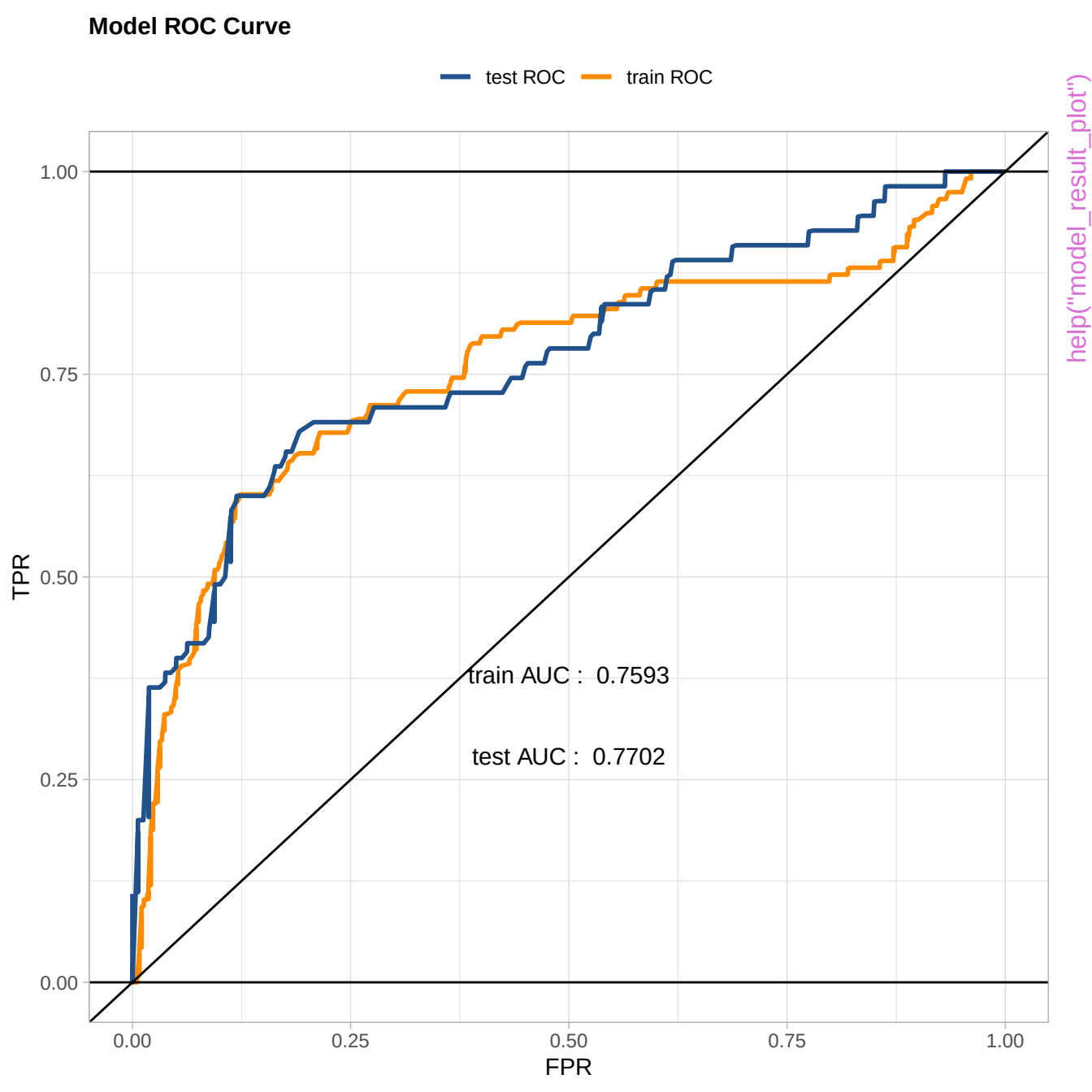
help("get_psi_plots")

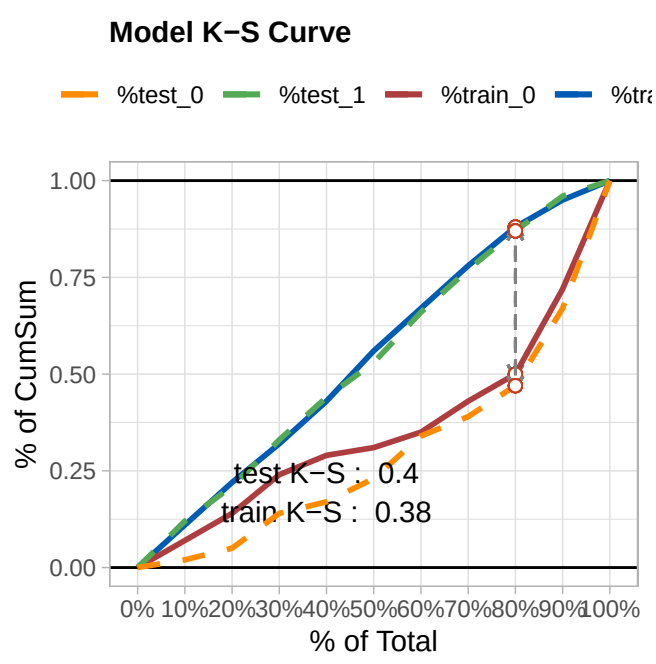


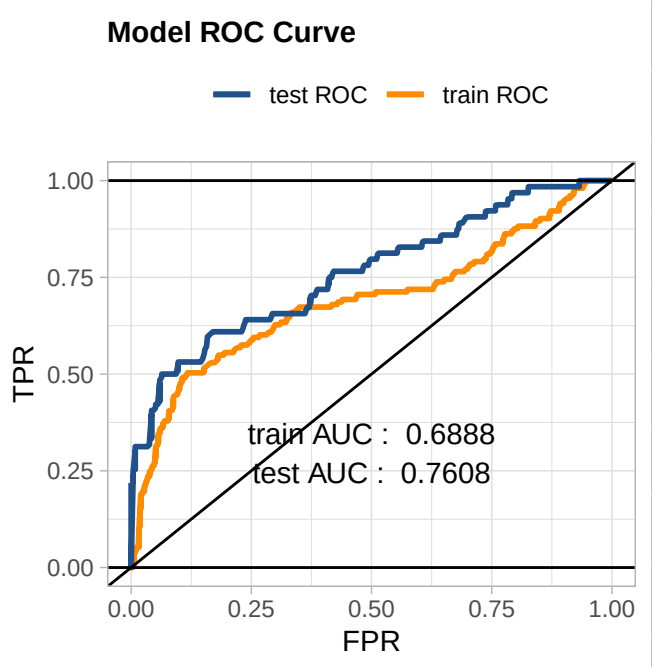


help("ks_table")

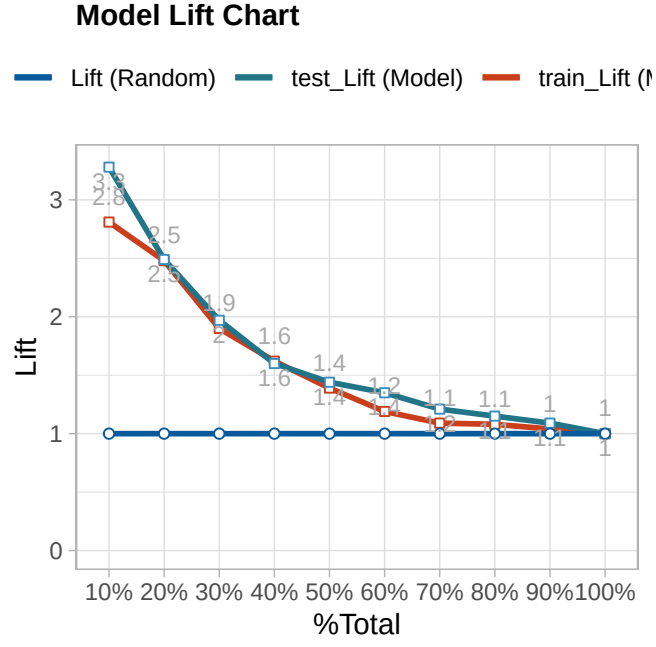

Model K−S Curve
%test_0
%test_1
%train_0
%train_1
help("model_result_plot")
1.00
0.75
0.50
0.25
0.00
% of CumSum
test K−S : 0.46
train K−S : 0.46
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
% of Total

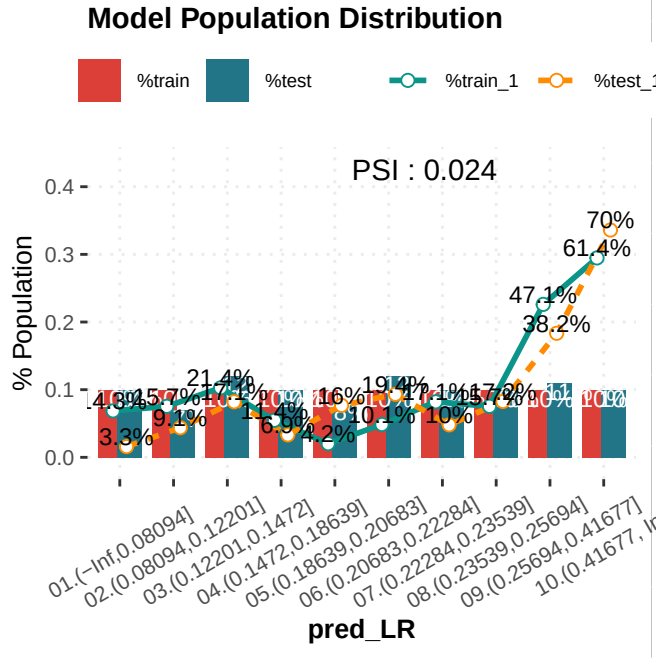

Model ROC Curve
test ROC
train ROC
help("model_result_plot")
1.00
0.75
0.50
0.25
0.00
TPR
train AUC : 0.7593
test AUC : 0.7702
0.00
0.25
0.50
0.75
1.00
FPR

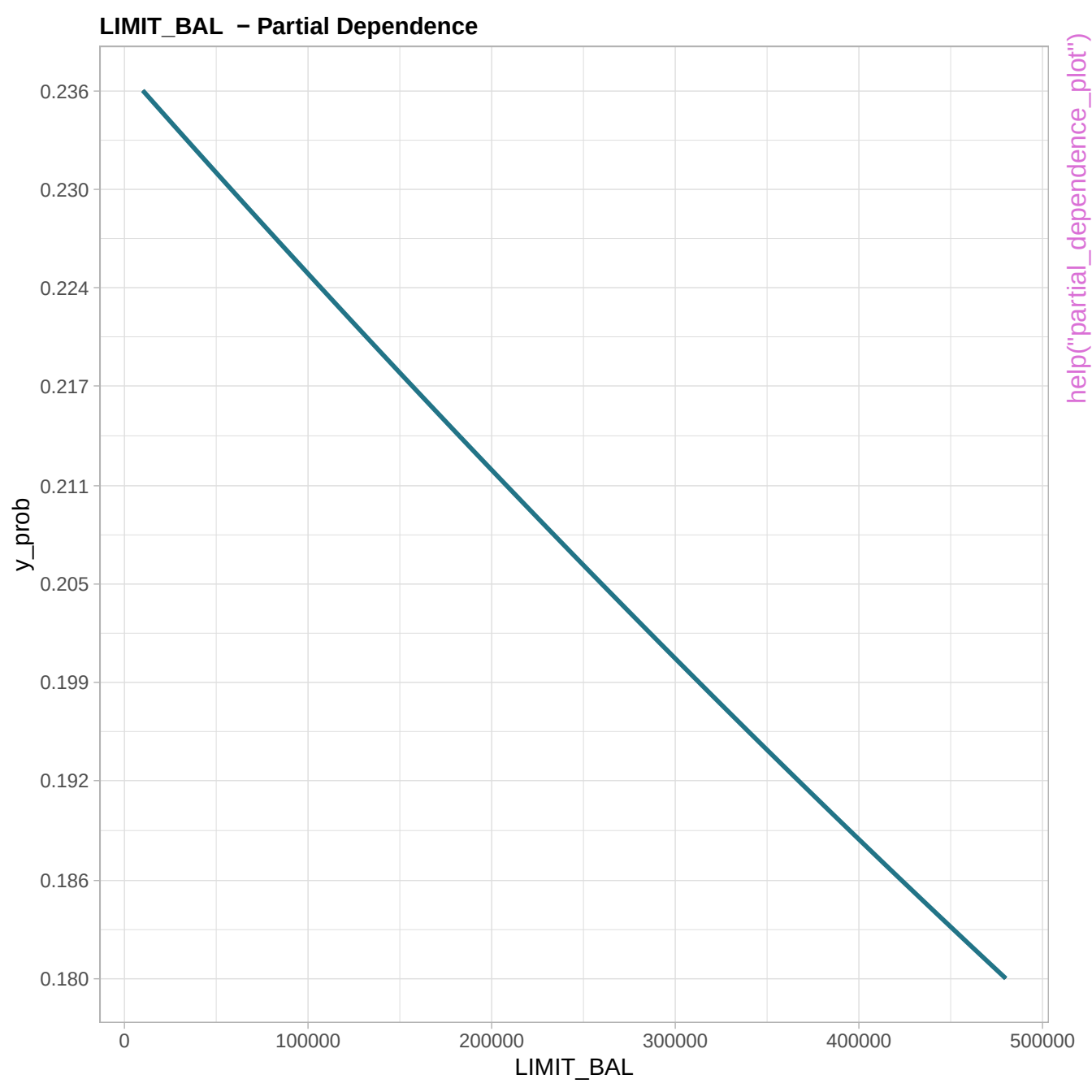


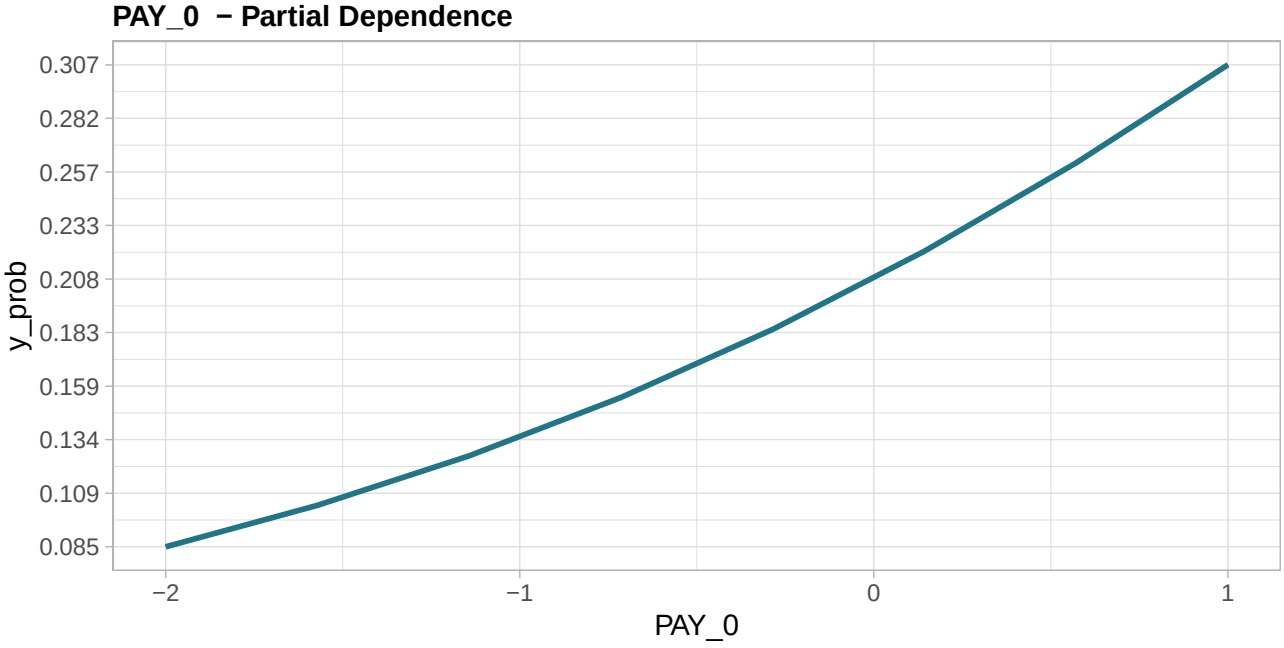


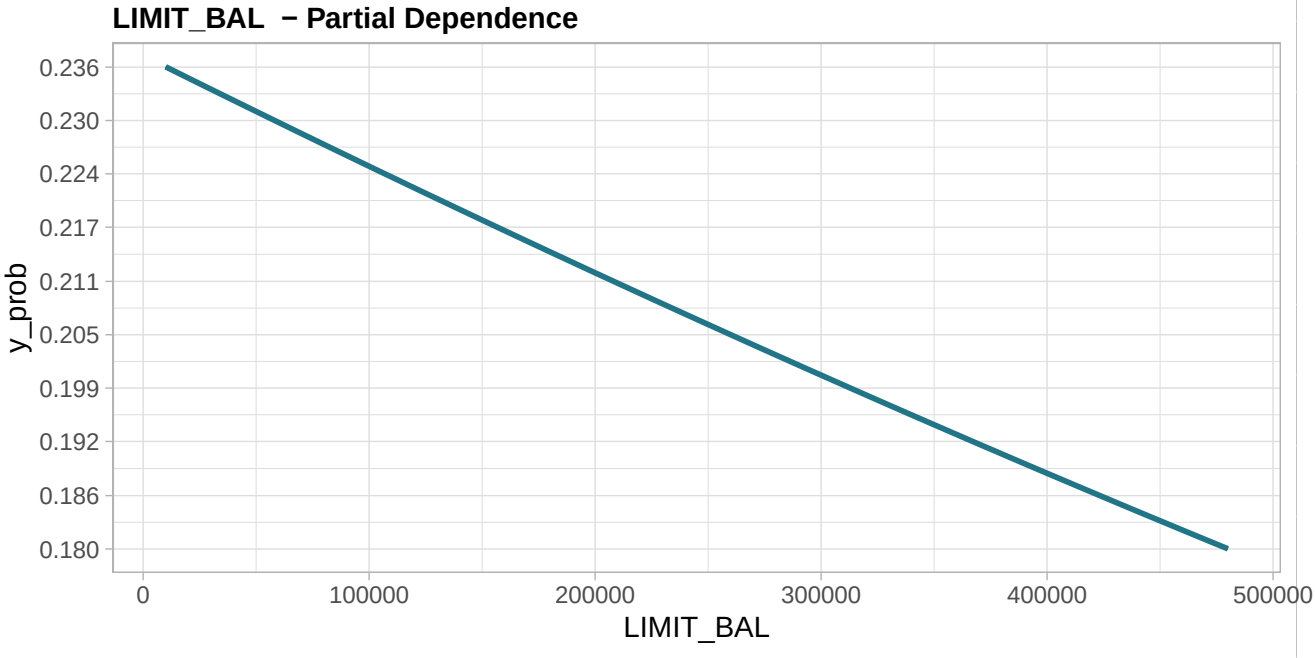
help("multi_grid")



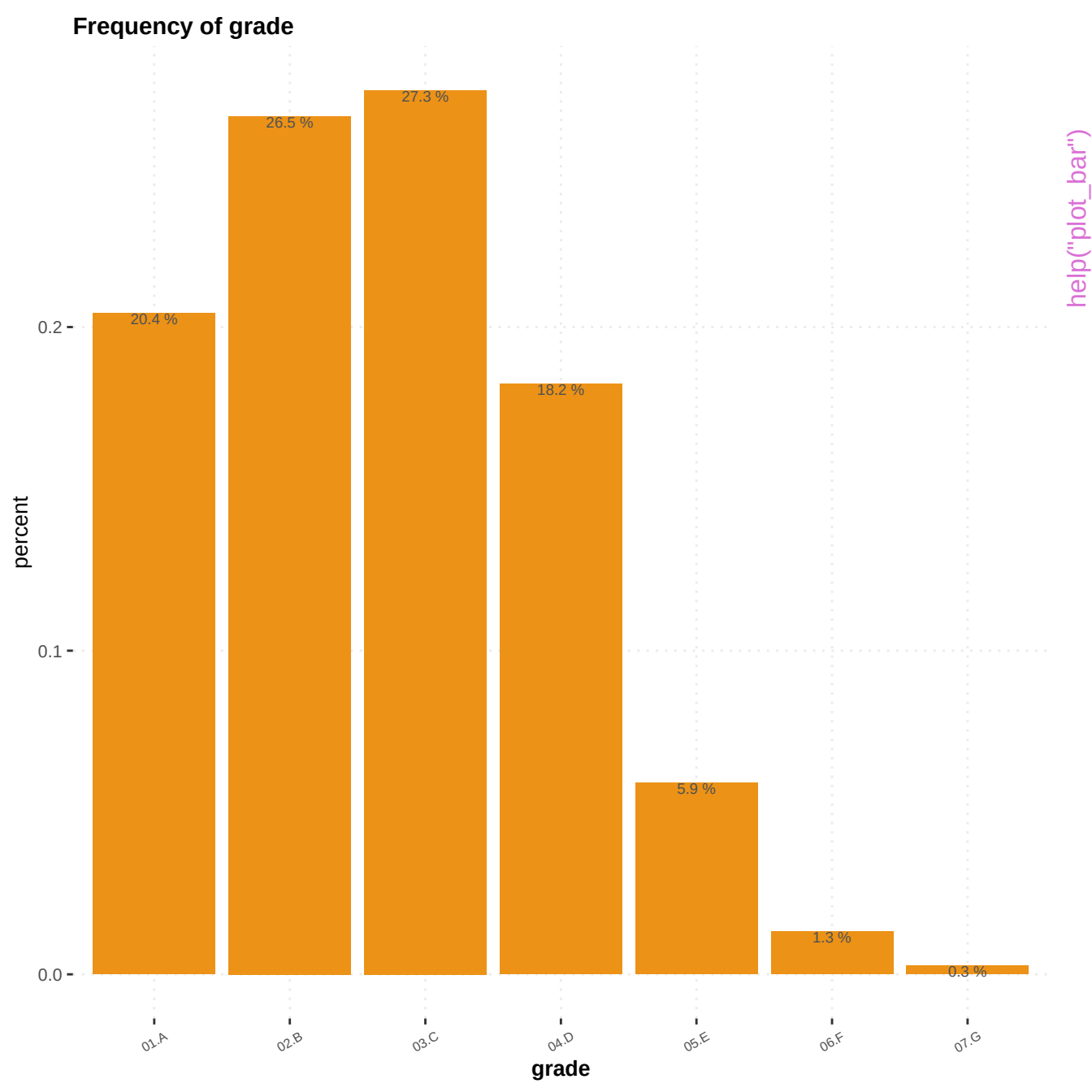


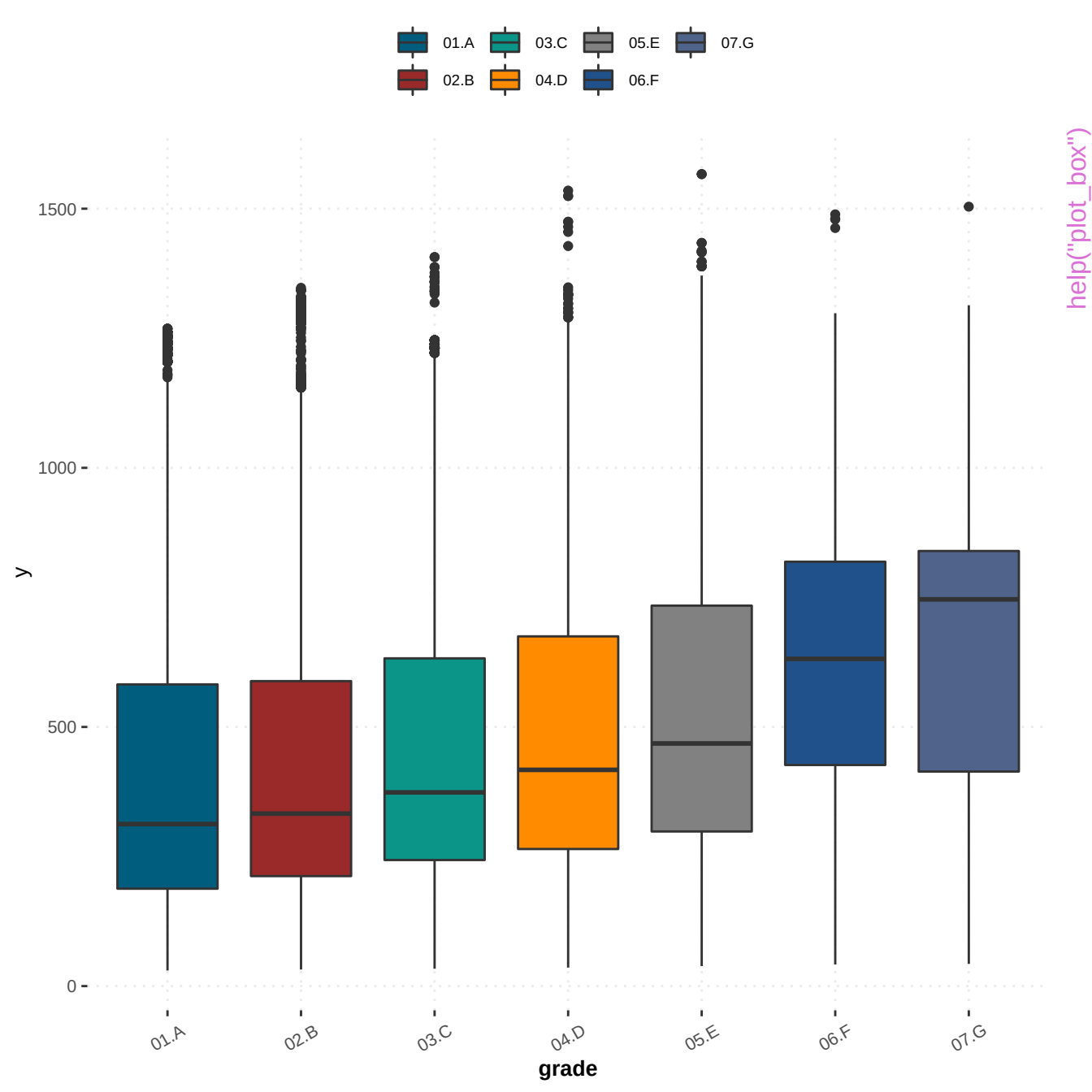

LIMIT_BAL − Partial Dependence
0.236
0.230
0.224
0.217
0.211
0.205
0.199
0.192
0.186
0.180
y_prob
0
100000
200000
300000
400000
500000
LIMIT_BAL
help("partial_dependence_plot")

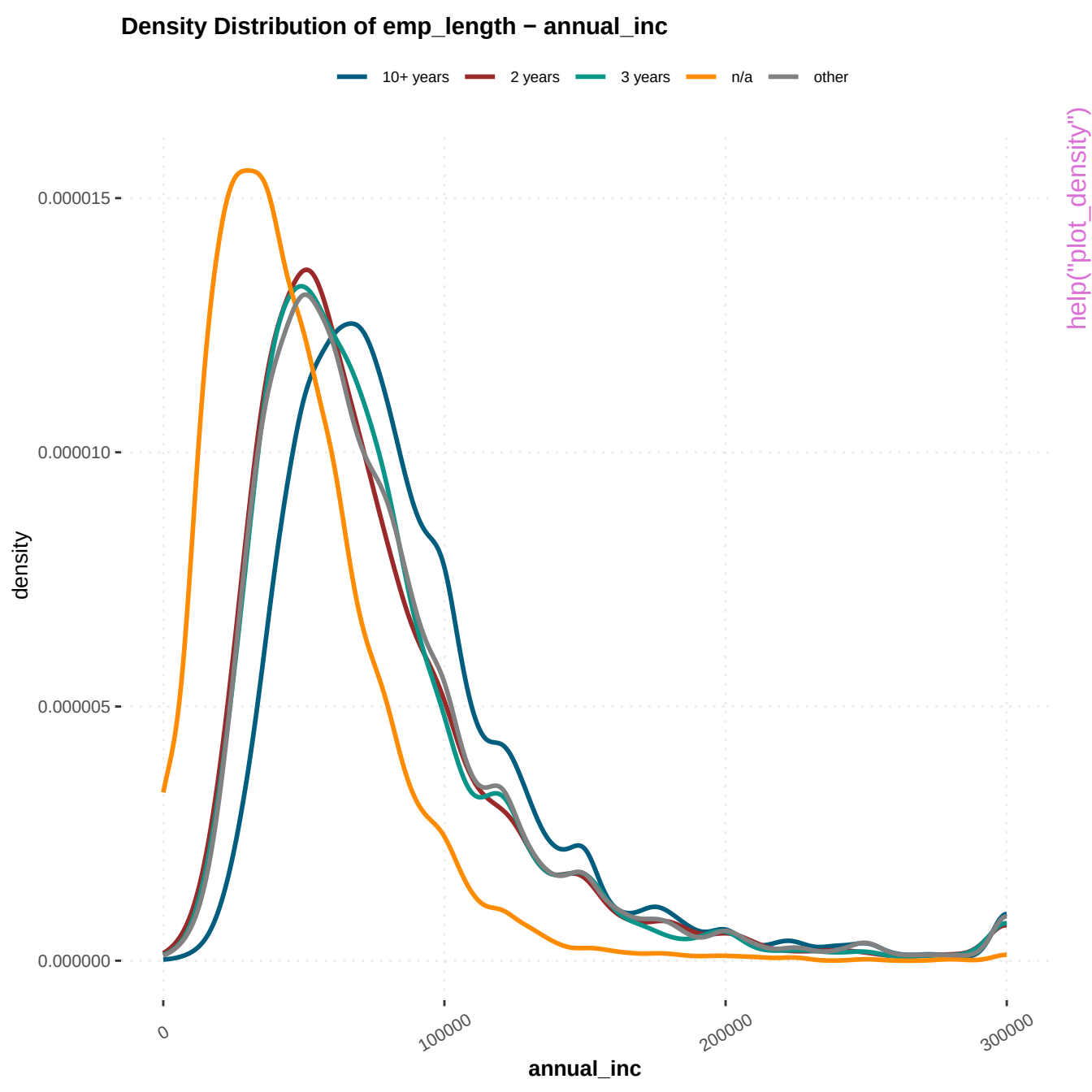


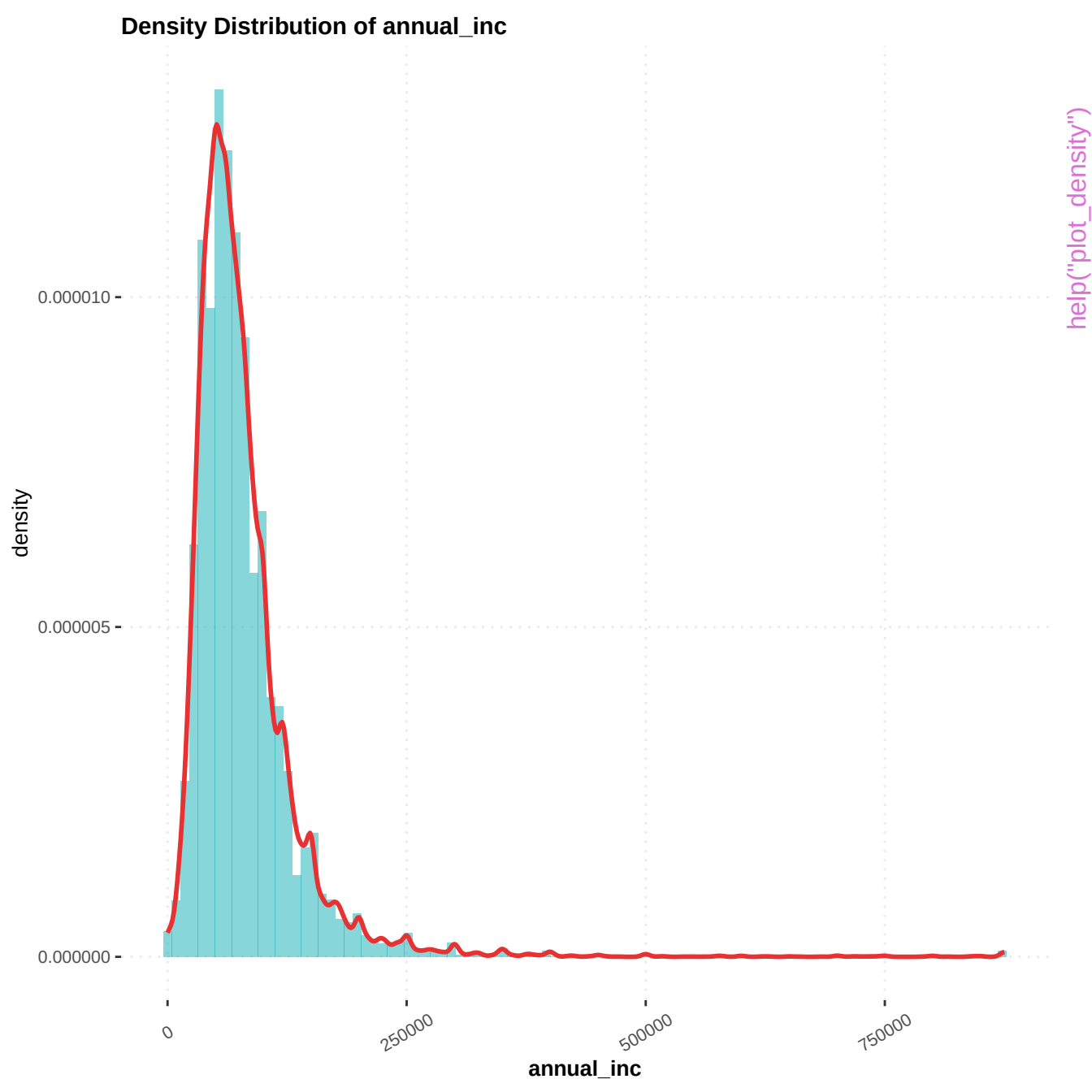


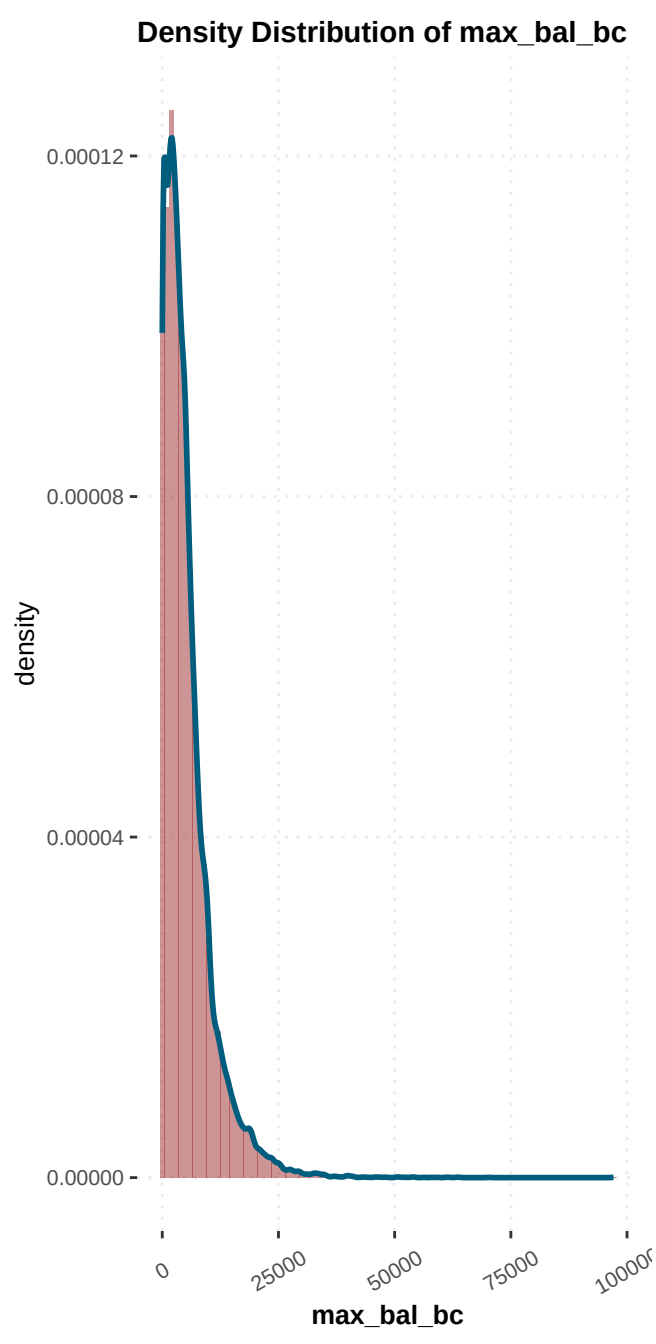
help("partial_dependence_plot")

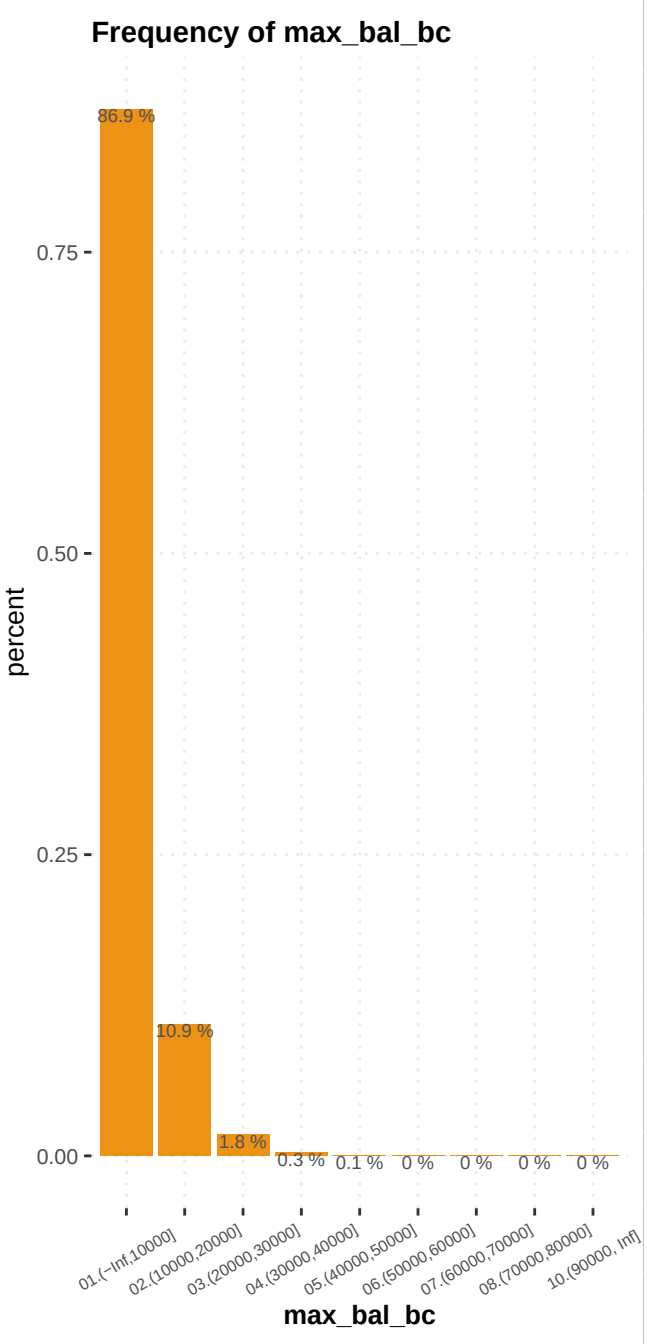

Frequency of grade
help("plot_bar")
percent
0.2
0.1
0.0
20.4 %
26.5 %
27.3 %
18.2 %
5.9 %
1.3 %
0.3 %
01.A
02.B
03.C
04.D
05.E
06.F
07.G
grade


01.A
02.B
03.C
04.D
05.E
06.F
07.G
1500
1000
500
0
y
01.A
02.B
03.C
04.D
05.E
06.F
07.G
grade
help("plot_box")

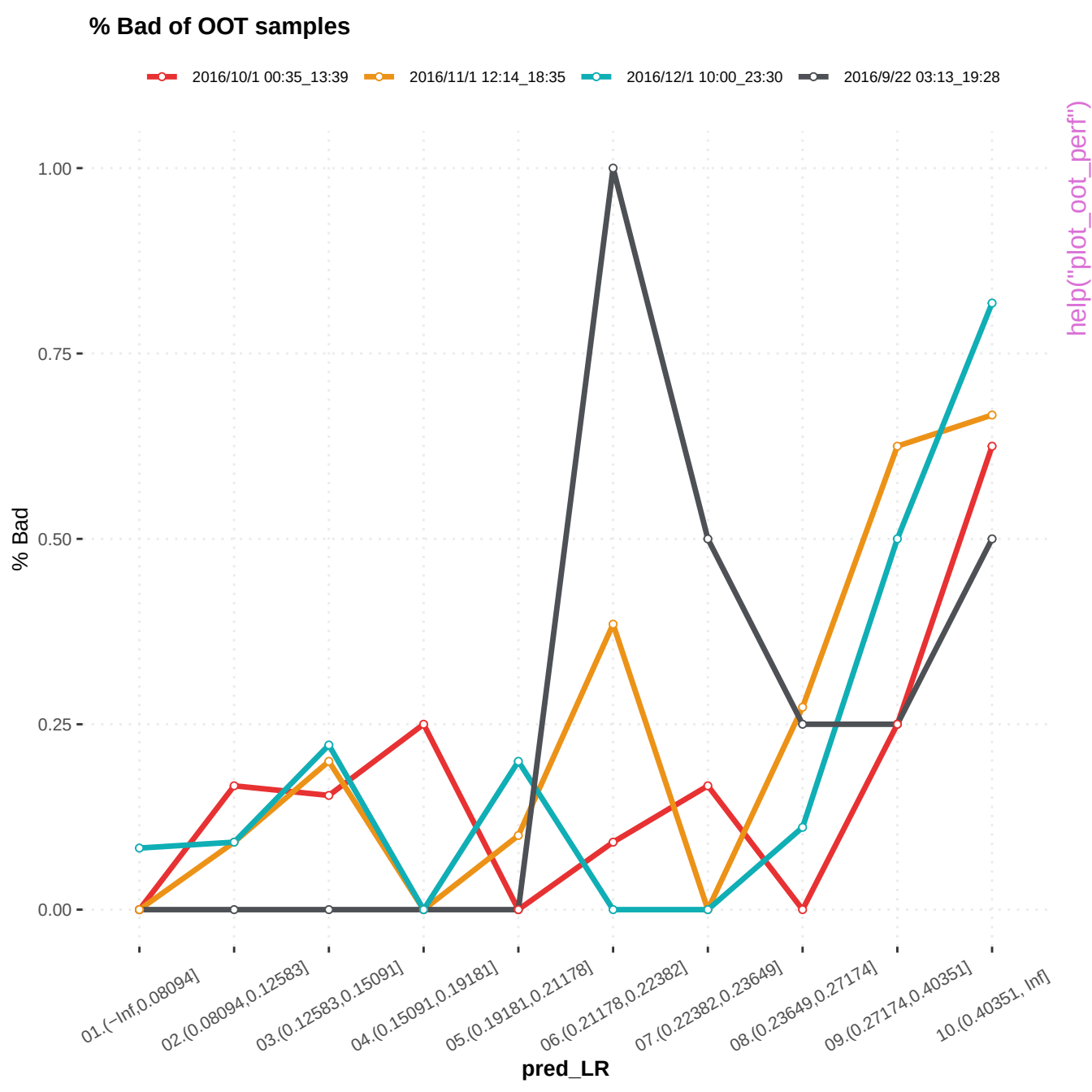

Density Distribution of emp_length − annual_inc
10+ years
2 years
3 years
n/a
other
help("plot_density")
0.000015
0.000010
0.000005
0.000000
density
0
100000
200000
300000
annual_inc

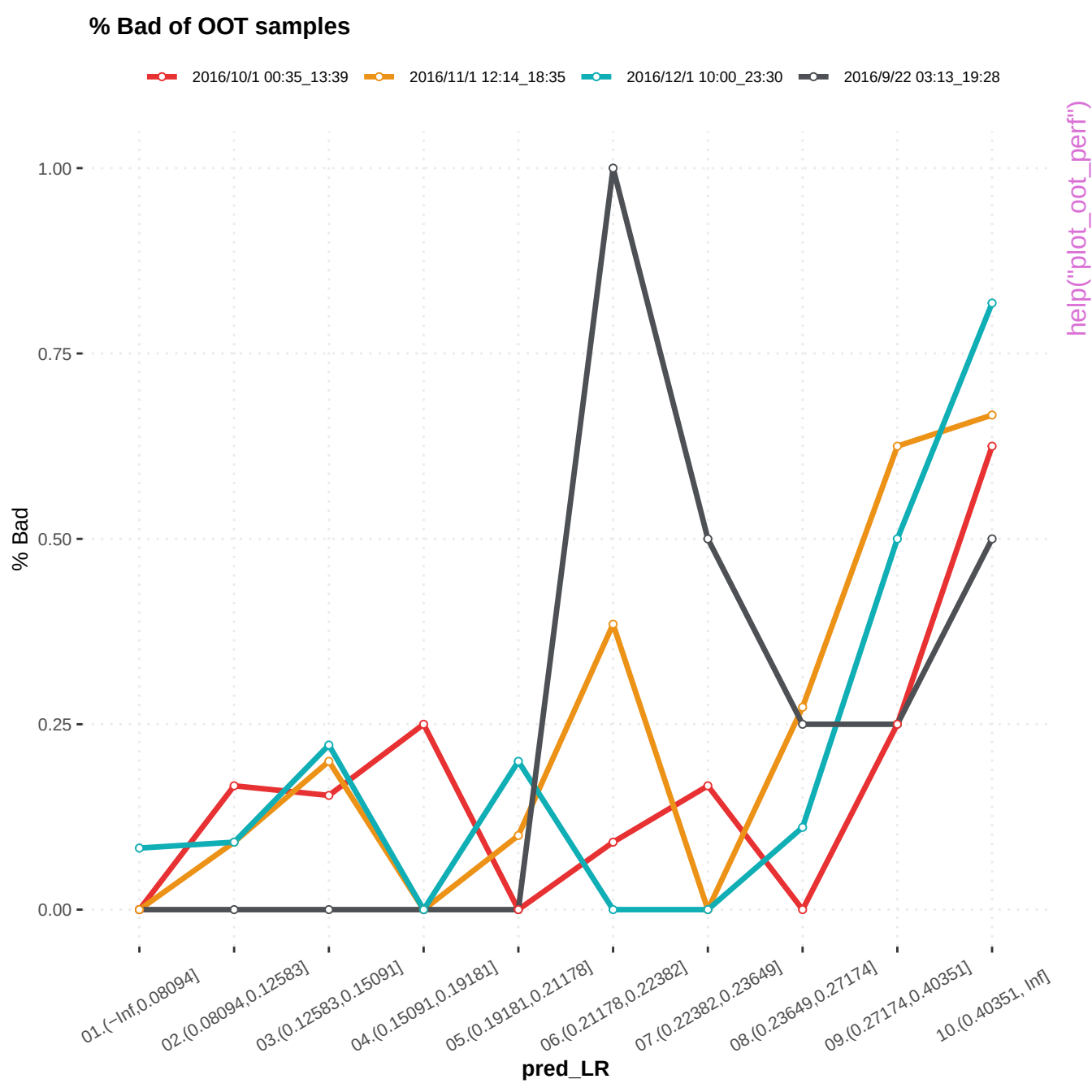

Density Distribution of annual_inc
0.000010
0.000005
0.000000
density
0
250000
500000
750000
annual_inc
help("plot_density")

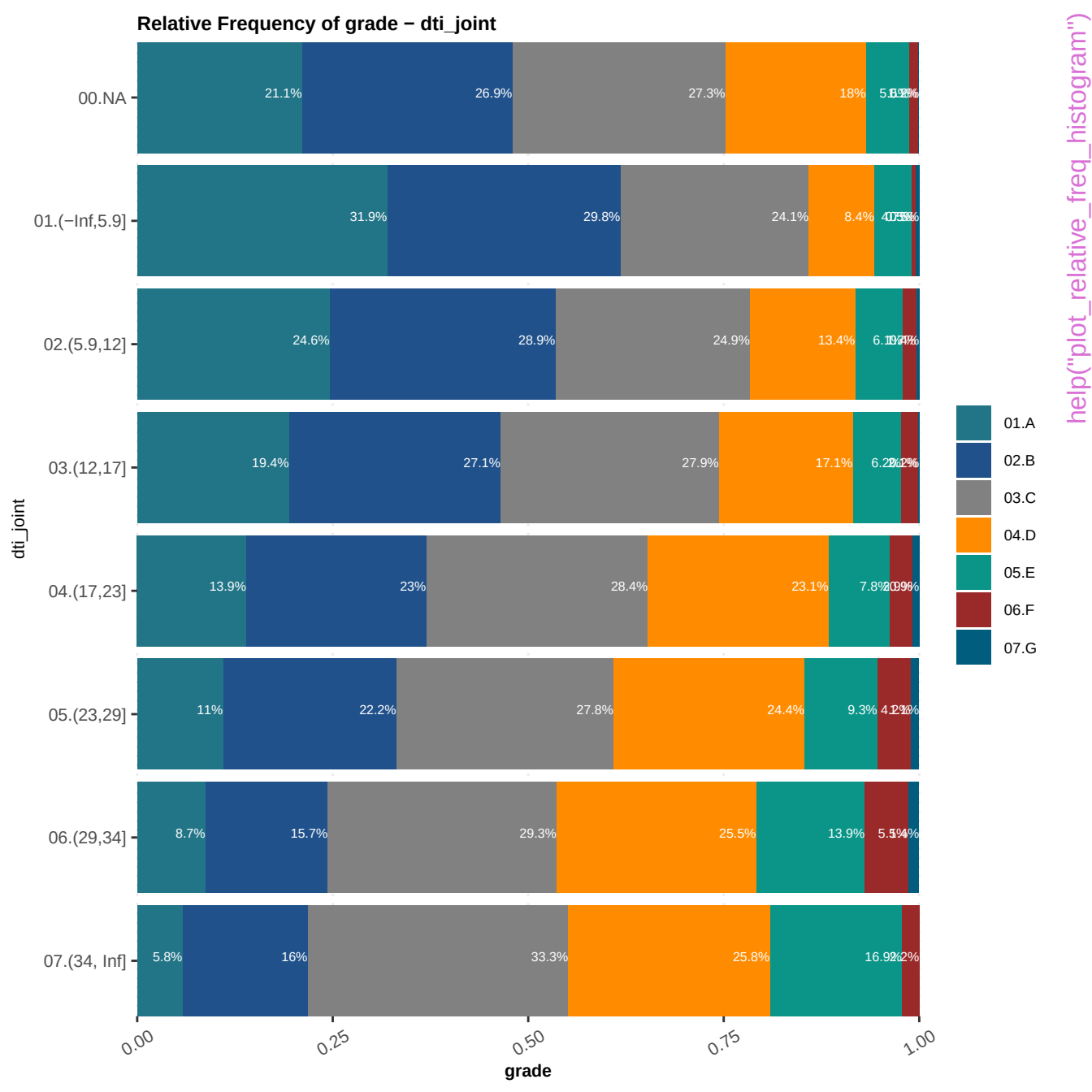




help("plot_distribution")


% Bad of OOT samples
2016/10/1 00:35_13:39
2016/11/1 12:14_18:35
2016/12/1 10:00_23:30
2016/9/22 03:13_19:28
help("plot_oot_perf")
1.00
0.75
0.50
0.25
0.00
% Bad
01.(−Inf,0.08094]
02.(0.08094,0.12583]
03.(0.12583,0.15091]
04.(0.15091,0.19181]
05.(0.19181,0.21178]
06.(0.21178,0.22382]
07.(0.22382,0.23649]
08.(0.23649,0.27174]
09.(0.27174,0.40351]
10.(0.40351, Inf]
pred_LR


% Bad of OOT samples
2016/10/1 00:35_13:39
2016/11/1 12:14_18:35
2016/12/1 10:00_23:30
2016/9/22 03:13_19:28
help("plot_oot_perf")
1.00
0.75
0.50
0.25
0.00
% Bad
01.(−Inf,0.08094]
02.(0.08094,0.12583]
03.(0.12583,0.15091]
04.(0.15091,0.19181]
05.(0.19181,0.21178]
06.(0.21178,0.22382]
07.(0.22382,0.23649]
08.(0.23649,0.27174]
09.(0.27174,0.40351]
10.(0.40351, Inf]
pred_LR


Relative Frequency of grade − dti_joint
00.NA
01.(−Inf,5.9]
02.(5.9,12]
03.(12,17]
04.(17,23]
05.(23,29]
06.(29,34]
07.(34, Inf]
21.1%
26.9%
27.3%
18%
31.9%
29.8%
24.1%
8.4%
24.6%
28.9%
24.9%
13.4%
19.4%
27.1%
27.9%
17.1%
13.9%
23%
28.4%
23.1%
7.8%
11%
22.2%
27.8%
24.4%
9.3%
8.7%
15.7%
29.3%
25.5%
13.9%
5.8%
16%
33.3%
25.8%
0.00
0.25
0.50
0.75
1.00
grade
dti_joint
01.A
02.B
03.C
04.D
05.E
06.F
07.G
help("plot_relative_freq_histogram")

eatur	e	bins	out	tot	tot	exp	ect	exp	ect	act	ual	act	ual	%	tot	exp	ect	act	ual	%	tot	exp	ect	act	ual	%	tot	ds_	ds_	ratio	PSI	IVi
PAY_3		00.NA	−1	5938		4089		3449		640		1849		1563		286		0.2		0.19		0.21		0.16		0.16		0.15		1.537		0		0.001		0.032
PAY_3		01.(−Inf,−1]	1	4085		2859		2324		535		1226		1004		222		0.14		0.14		0.14		0.19		0.19		0.18		1.249		0.002		0		0.006
PAY_3		02.(−1,1]	0	15768		11077		9167		1910		4691		3849		842		0.53		0.53		0.52		0.17		0.17		0.18		1.343		0.004		0		0.042
PAY_3		03.(1, Inf]		4209		2975		1410		1565		1234		598		636		0.14		0.14		0.14		0.52		0.53		0.52		0.259		0		0		0.332
Total		−−	−−	30000		21000		16350		4650		9000		7014		1986		1		1		1		0.22		0.22		0.22		1		0.006		0.001		0.412

help("plot_table")