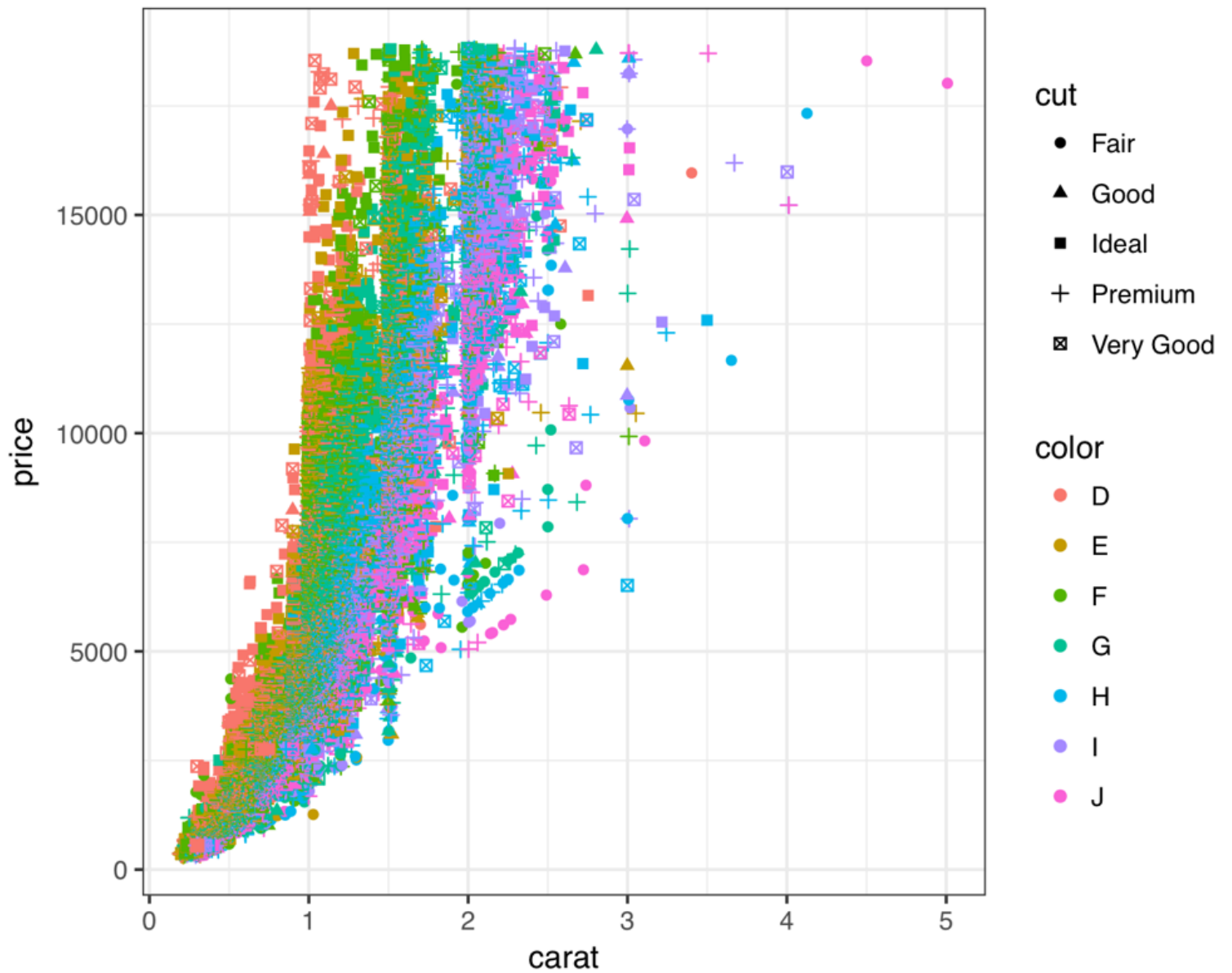
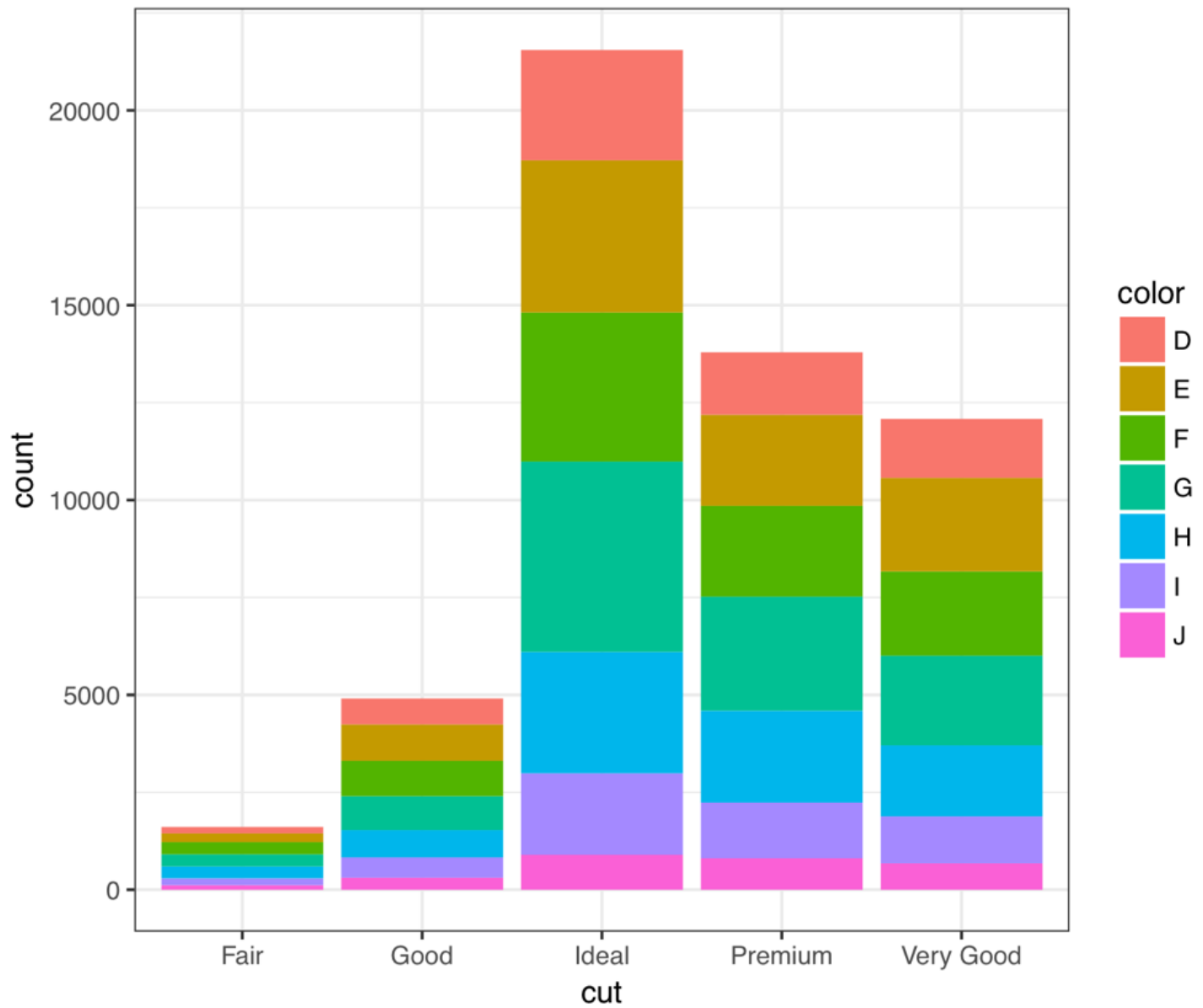


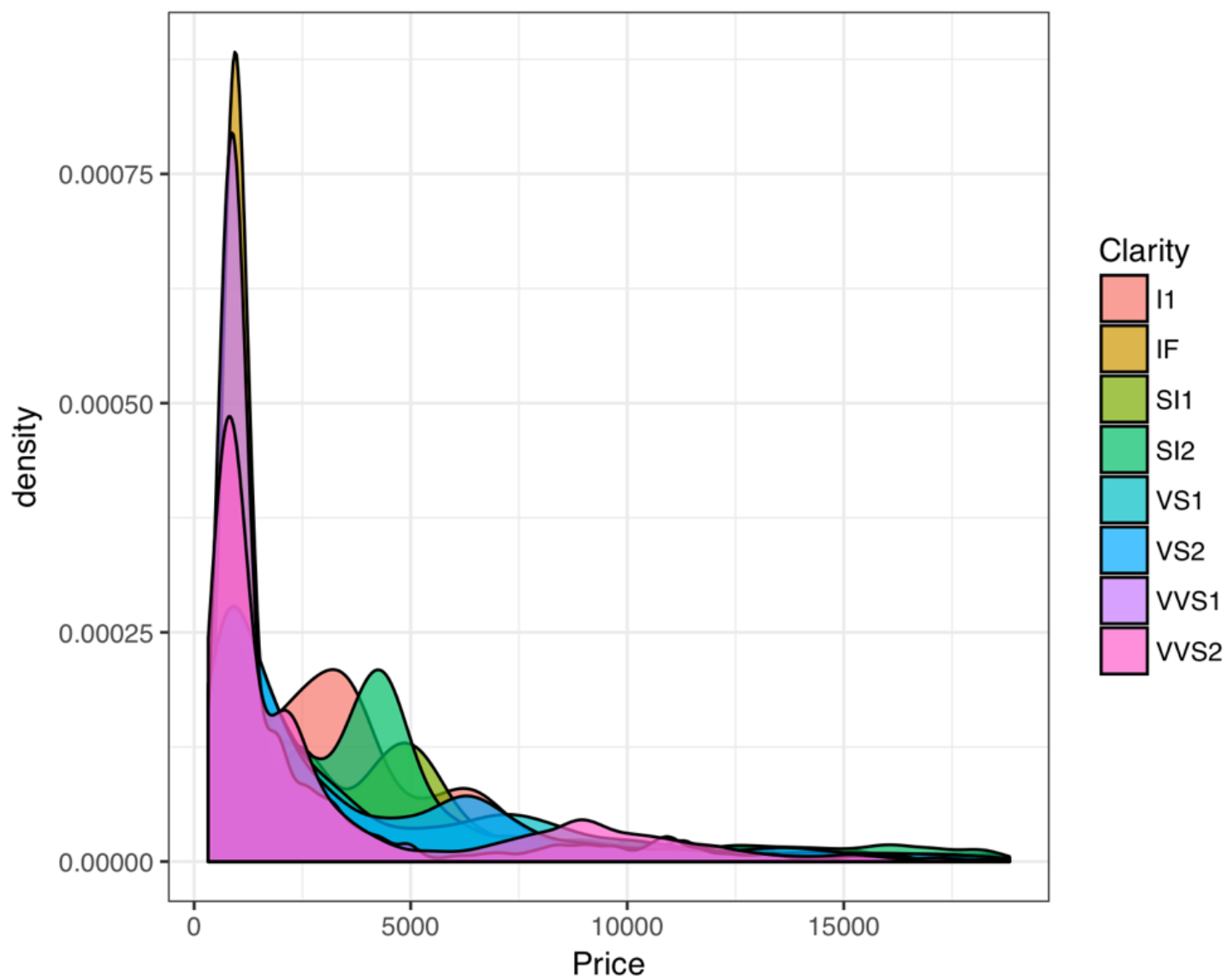
Carat and Price based on Diamond Cut and Color)



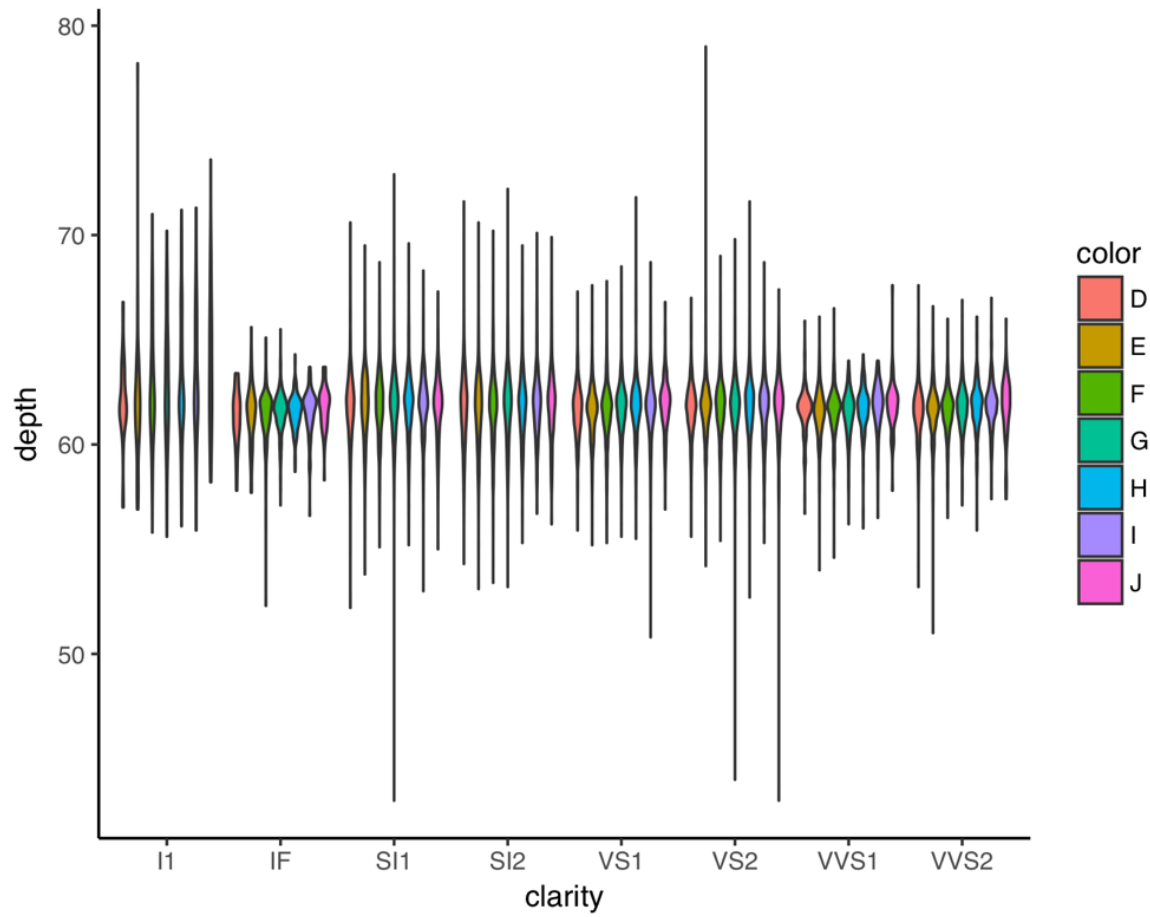
# Color vs Cut



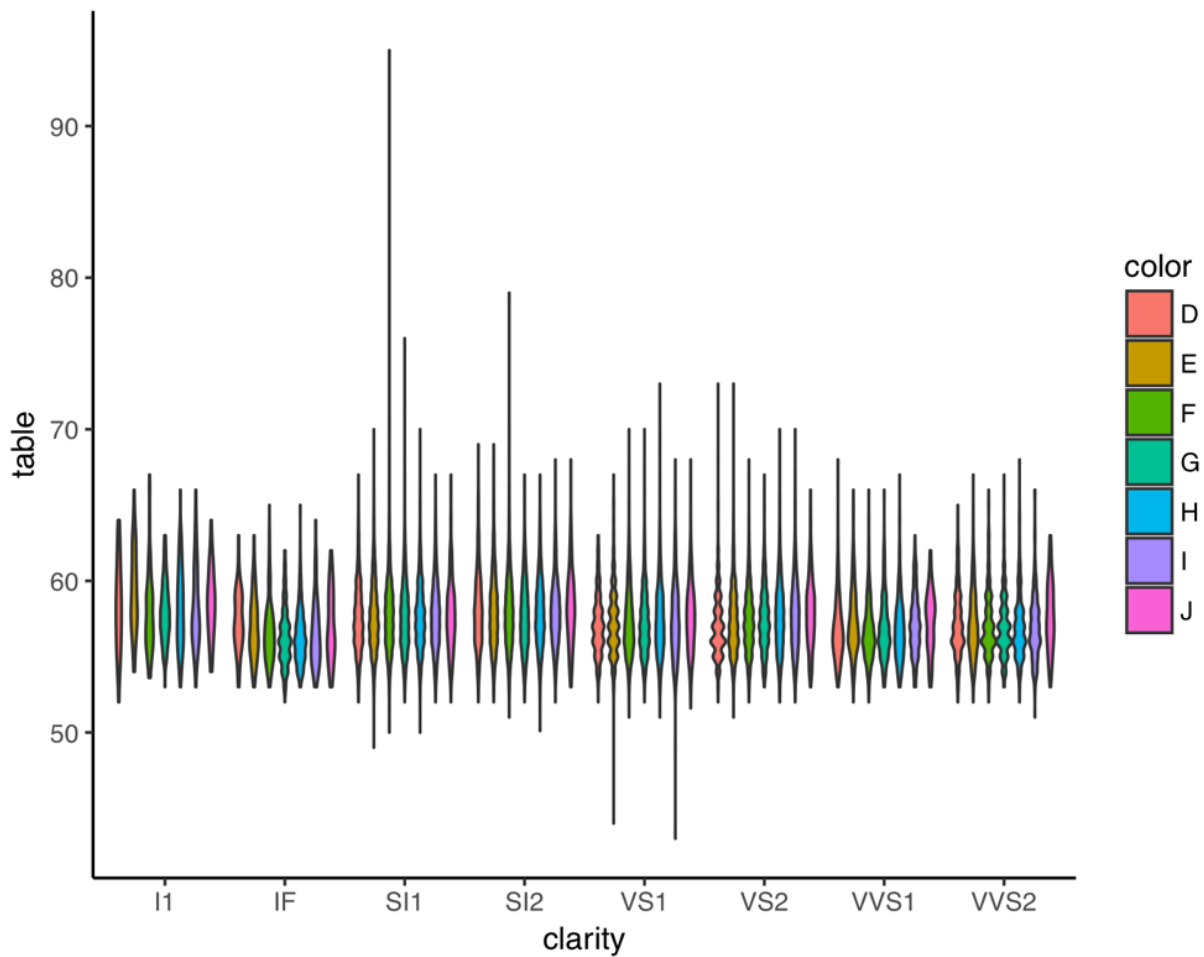
Price grouped by cut



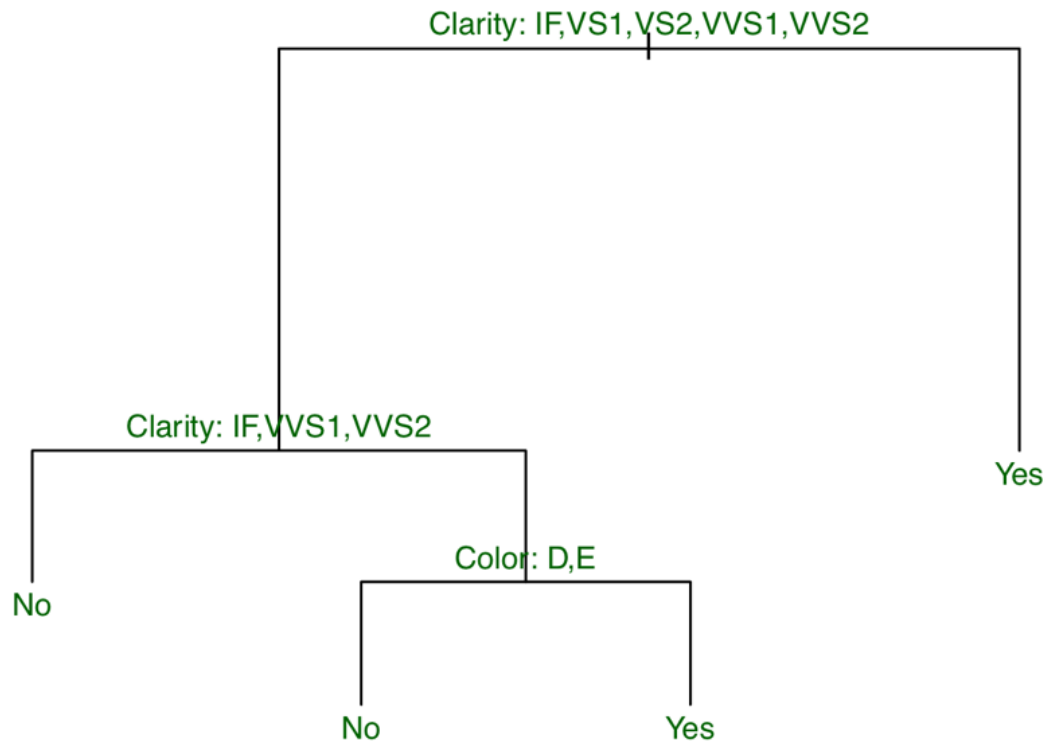
How Color impacts Depth and Clarity



How Color impacts Table and Clarity



## Classification Tree Built on Diamond Training Set



Deviance Residuals:

Min	1Q	Median	3Q	Max
-1.8941	-1.0939	0.6032	1.0880	1.9175

Coefficients:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	0.17213	0.08317	2.070	0.0385 *
ColorE	0.05060	0.03328	1.520	0.1284
ColorF	0.43468	0.03345	12.995	< 2e-16 ***
ColorG	0.51101	0.03268	15.638	< 2e-16 ***
ColorH	0.78154	0.03465	22.558	< 2e-16 ***
ColorI	0.95532	0.03883	24.604	< 2e-16 ***
ColorJ	1.08067	0.04840	22.326	< 2e-16 ***
ClarityIF	-1.83718	0.09653	-19.033	< 2e-16 ***
ClaritySI1	-0.39294	0.08115	-4.842	1.28e-06 ***
ClaritySI2	0.35899	0.08262	4.345	1.39e-05 ***
ClarityVS1	-0.88263	0.08226	-10.730	< 2e-16 ***
ClarityVS2	-0.74146	0.08123	-9.128	< 2e-16 ***
ClarityVVS1	-1.77977	0.08804	-20.216	< 2e-16 ***
ClarityVVS2	-1.25186	0.08458	-14.801	< 2e-16 ***

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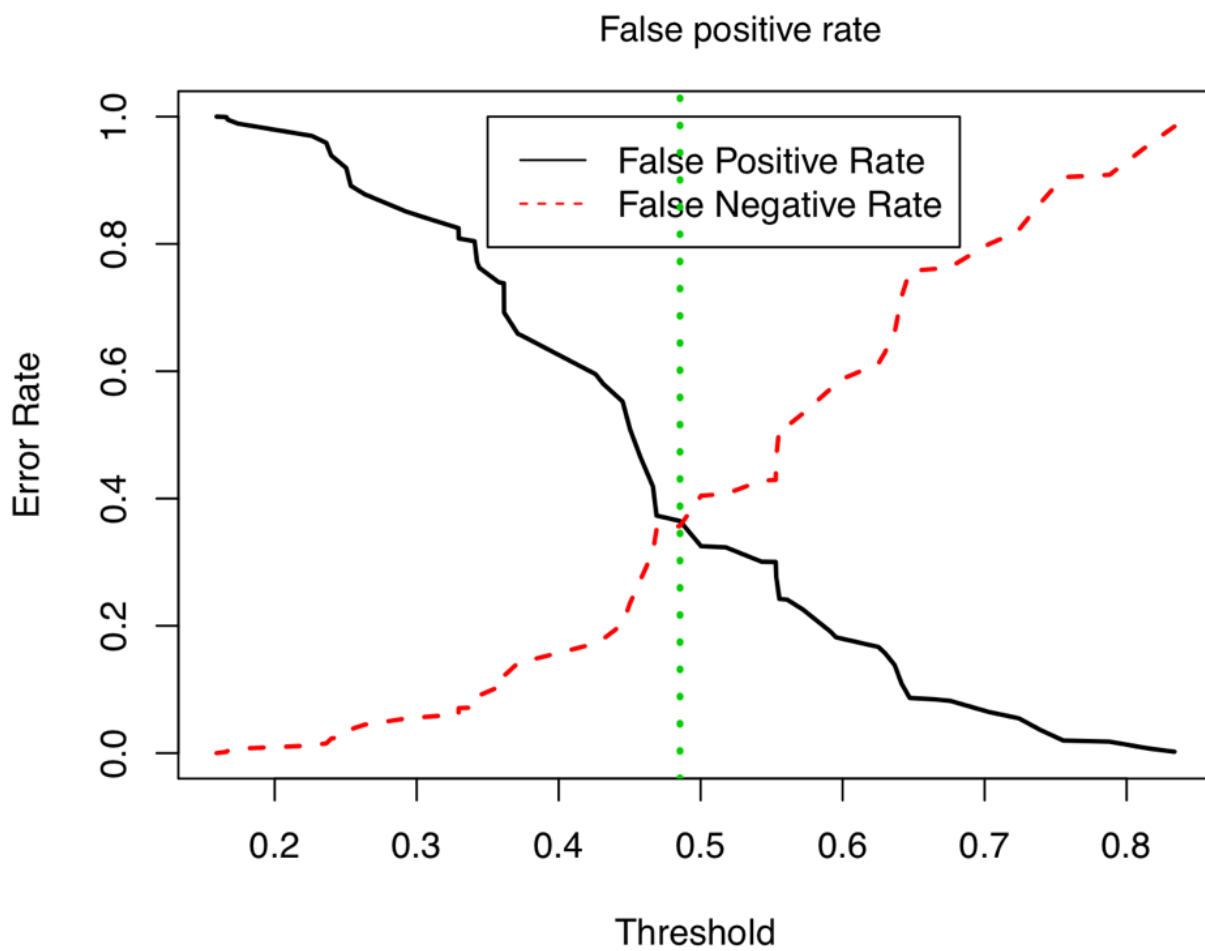
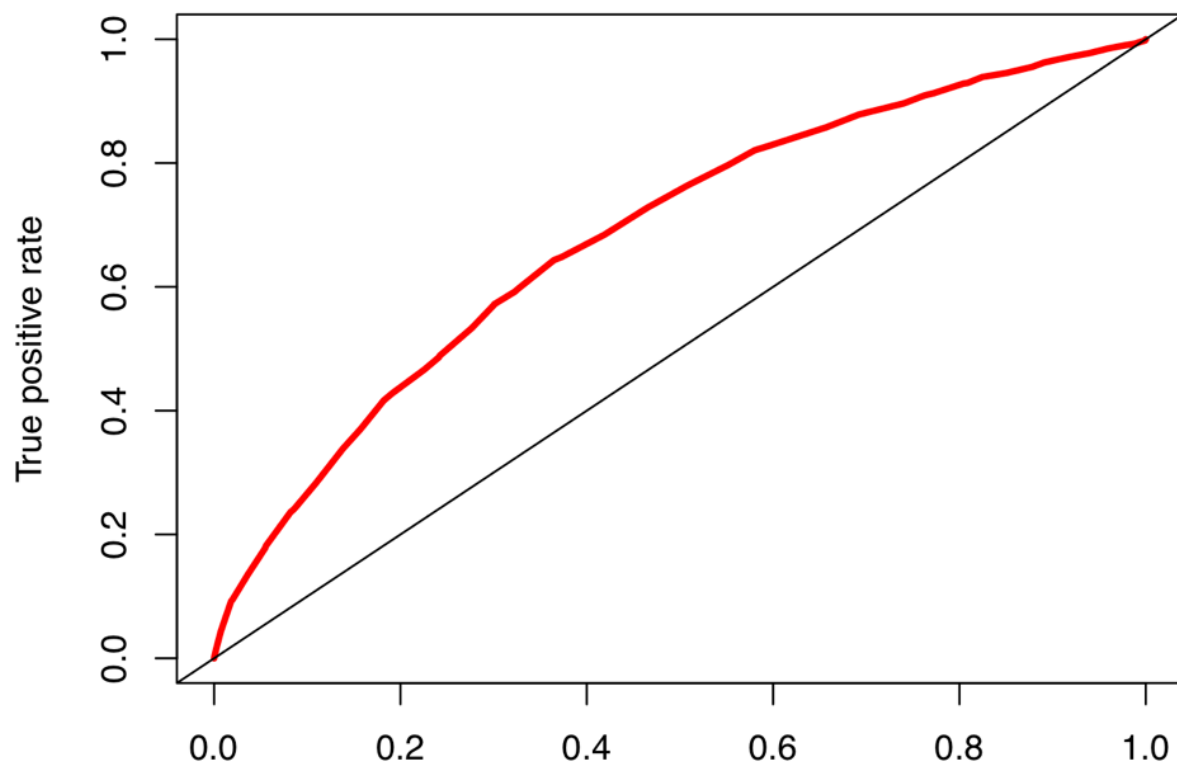
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

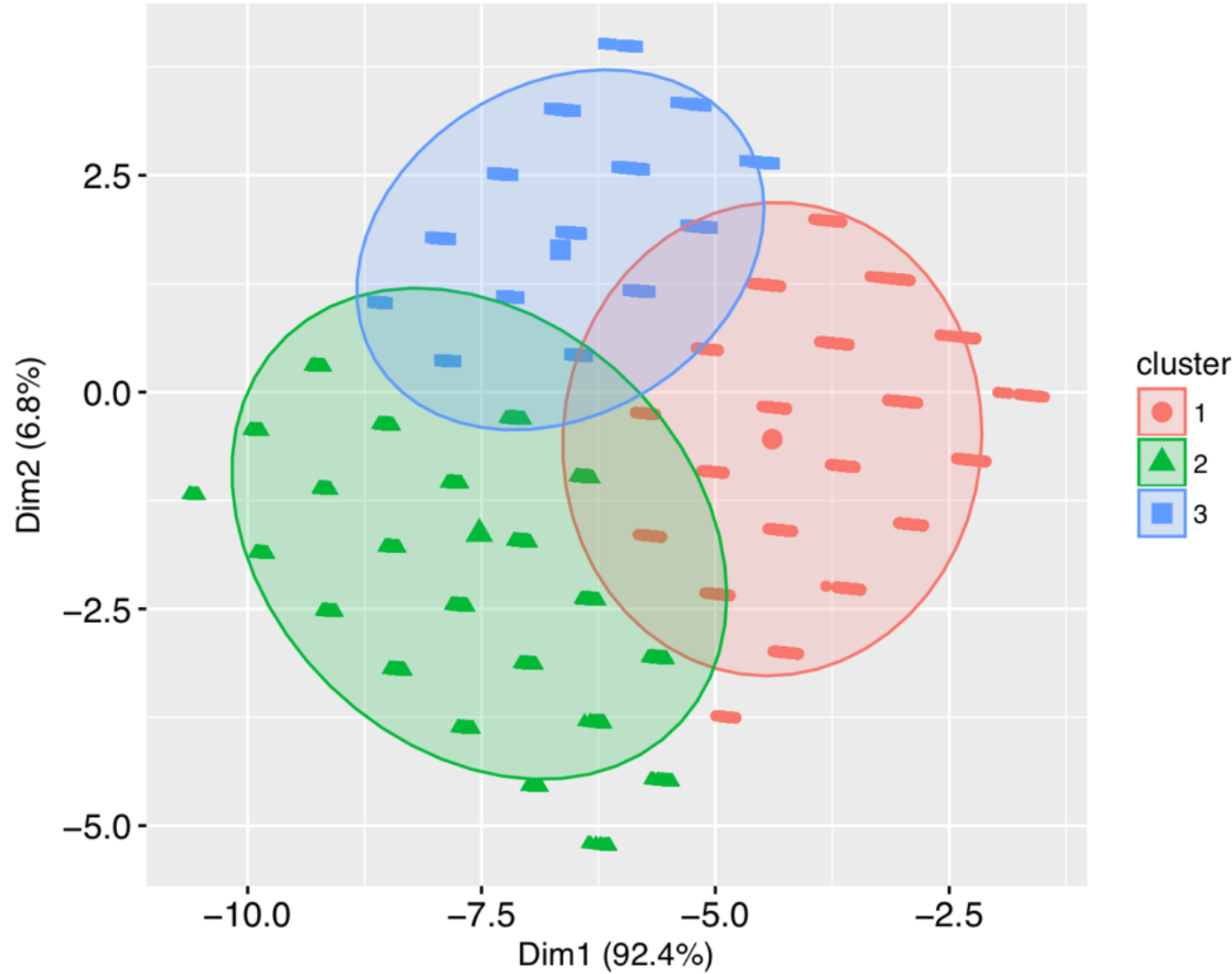
Null deviance: 74777 on 53939 degrees of freedom  
Residual deviance: 69129 on 53926 degrees of freedom  
AIC: 69157

Number of Fisher Scoring iterations: 4

ROC Curve



Cluster plot **Color & Clarity & Carat**





Cluster plot Color & Clarity & Price

