**Some output from rpart function using Titanic dataset**

n= 2201

node), split, n, loss, yval, (yprob)

\* denotes terminal node

1) root 2201 711 No (0.6769650 0.3230350)

2) Sex=Male 1731 367 No (0.7879838 0.2120162)

4) Age=Adult 1667 338 No (0.7972406 0.2027594) \*

5) Age=Child 64 29 No (0.5468750 0.4531250)

10) Class=3rd 48 13 No (0.7291667 0.2708333) \*

11) Class=1st,2nd 16 0 Yes (0.0000000 1.0000000) \*

3) Sex=Female 470 126 Yes (0.2680851 0.7319149)

6) Class=3rd 196 90 No (0.5408163 0.4591837) \*

7) Class=1st,2nd,Crew 274 20 Yes (0.0729927 0.9270073) \*

Call:

rpart(formula = Survived ~ Class + Age + Sex, data = data, cp = 0.01)

n= 2201

CP nsplit rel error xerror xstd

1 0.30661041 0 1.0000000 1.0000000 0.03085662

2 0.02250352 1 0.6933896 0.6933896 0.02750982

3 0.01125176 2 0.6708861 0.6835443 0.02736973

4 0.01000000 4 0.6483826 0.6596343 0.02701971

Variable importance

Sex Class Age

73 23 4

Node number 1: 2201 observations, complexity param=0.3066104

predicted class=No expected loss=0.323035 P(node) =1

class counts: 1490 711

probabilities: 0.677 0.323

left son=2 (1731 obs) right son=3 (470 obs)

Primary splits:

Sex splits as RL, improve=199.821600, (0 missing)

Class splits as RRLL, improve= 69.684100, (0 missing)

Age splits as LR, improve= 9.165241, (0 missing)

Node number 2: 1731 observations, complexity param=0.01125176

predicted class=No expected loss=0.2120162 P(node) =0.7864607

class counts: 1364 367

probabilities: 0.788 0.212

left son=4 (1667 obs) right son=5 (64 obs)

Primary splits:

Age splits as LR, improve=7.726764, (0 missing)

Class splits as RLLL, improve=7.046106, (0 missing)