Rebecca Ly

INFSCI 2725

February 22nd, 2016

House Votes Manual

(1) Overall classification accuracy:

Party = 0.96092 (418/267)

Democrat = 0.966292 (258/267)

Republican = 0.952381 (160/168)

(2) Sensitivity and specificity for each of the two parties:

Sensitivity: 258 / (258 + 8) = 0.97

Specificity: 160 / (160 + 9) = 0.95

(3) Positive and negative predictive value for each of the two parties:

Democrat: AUC = 0.988

Republican: AUC = 0.988

(4 Extra Point!) Calibration curve for a selected bin count or window size:

Republican:

Bin Count: 10, HL(10) = 41.7446

Democrat:

Bin Count: 10, HL(10) = 45.3499

House Votes Naïve

(1) Overall classification accuracy:

Party = 0.901149 (392/435)

Democrat = 0.891386 (238/167)

Republican = 0.916667 (154/168)

(2) Sensitivity and specificity for each of the two parties:

Sensitivity: 0.94

Specificity: 0.84

(3) Positive and negative predictive value for each of the two parties:

Democrat: AUC = 0.972735

Republican: AUC = 0.972735

(4 Extra Point!) Calibration curve for a selected bin count or window size:

Republican:

Bin Count: HL(10) = 1.15e+06

Democrat:

Bin Count: HL(10) = 1.21e+06

House Votes PC

(1) Overall classification accuracy:

Party = 0.958621 (417/435)

Democrat = 0.958801 (256/267)

Republican = 0.958333 (161/168)

(2) Sensitivity and specificity for each of the two parties:

Sensitivity: 0.98

Specificity: 0.95

(3) Positive and negative predictive value for each of the two parties:

Democrat: AUC = 0.989032

Republican: AUC = 0.989032

(4 Extra Point!) Calibration curve for a selected bin count or window size:

Democrat:

HL(10) = 2.26917

Republican:

HL(10) = 2.28648