ESM204-Assignment3

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##############################################################  
# Question 1  
##############################################################  
# Create a linear probability model that predicts a respondent’s probability of voting ‘yes’ on the ballot based on their age, income, NEP score, the risk reduction offered by the program, and the cost of the program to that respondent. Show the model and interpret the regression coefficients  
##############################################################  
  
# Probability of voting 'YES'  
### Not sure if all we need to have here are the coefficients but if so, this seems to give those to us.  
  
p\_yes <- lm(vote ~ age+income+NEP+risk+bid, data = whales)  
p\_yes

Call: lm(formula = vote ~ age + income + NEP + risk + bid, data = whales)

Coefficients: (Intercept) agetofifty agetoforty  
0.1196977 0.0099816 -0.0201190  
agetosixty agetothirty incomeone\_percent  
-0.0162261 0.0204401 0.0088282  
incomepoor incomerich incomevery\_rich  
0.0027386 0.0074891 0.0467922  
NEP risk bid  
0.0158639 0.0007445 -0.0010699

summary(p\_yes)

Call: lm(formula = vote ~ age + income + NEP + risk + bid, data = whales)

Residuals: Min 1Q Median 3Q Max -1.1078 -0.4242 0.1755 0.2968 0.7925

Coefficients: Estimate Std. Error t value Pr(>|t|)  
(Intercept) 0.1196977 0.1198911 0.998 0.319  
agetofifty 0.0099816 0.0633105 0.158 0.875  
agetoforty -0.0201190 0.0623958 -0.322 0.747  
agetosixty -0.0162261 0.0595666 -0.272 0.785  
agetothirty 0.0204401 0.0578269 0.353 0.724  
incomeone\_percent 0.0088282 0.0598973 0.147 0.883  
incomepoor 0.0027386 0.0649833 0.042 0.966  
incomerich 0.0074891 0.0682176 0.110 0.913  
incomevery\_rich 0.0467922 0.0674876 0.693 0.488  
NEP 0.0158639 0.0020887 7.595 1.58e-13 \*\*\* risk 0.0007445 0.0008363 0.890 0.374  
bid -0.0010699 0.0006585 -1.625 0.105  
— Signif. codes: 0 ‘***’ 0.001 ’****’ 0.01 ’*’ 0.05 ‘.’ 0.1 ‘’ 1

Residual standard error: 0.4291 on 488 degrees of freedom Multiple R-squared: 0.1201, Adjusted R-squared: 0.1003 F-statistic: 6.055 on 11 and 488 DF, p-value: 2.549e-09

# Making a table for the linear model results  
table\_p\_yes <- stargazer(p\_yes)

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu % Date and time: Wed, May 22, 2019 - 19:51:40