Hamner & Kalkan Replication

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Pull in Data

```r
setwd("~/Documents/GitHubRepo/729_Reed_MLE_git/Exam/hanmer")
#data <- read.csv(file = "https://raw.githubusercontent.com/Neilblund/729A/master/data/voterid.csv", he
#or
#data <- read.dta(file = "hk1.dta")
#or
# data <- read.dta13(file = "hyperlink or filename goes here")
#save(data, file = "data.RData")
load("data.RData")
#View(data)
```

Introduction:

```r
#descriptive statistics for all variables
#stargazer(voterid, type = 'text')
# run probit, show results
data <- na.omit(data)
#View(data)
#View(data) - here we put the point prediction that we're looking for.
# If you're using mean, then keep mean.
# If you're using a SD up and down from the mean, then use that.
# If you're using a different range, then use that.
data$mean_gopleg <- mean(data$gopleg)
```

```
## Warning in mean.default(data$gopleg): argument is not numeric or logical:
## returning NA
```

```r
data$sd_gopleg <- 0.5*sd(data$gopleg)
data$med_g = median(data$gopleg)
```

```
## Warning in is.na(x): is.na() applied to non-(list or vector) of type 'NULL'
```

Descriptive statistics

```r
stargazer(data, header = F)
```

```r
# type = 'text',
```

Plot a histogram to see what the data looks like. Identify skewness for determining if using mean, median, or tail.

Statistic	N	Mean	St. Dev.	Min	Max
caseid	383	593.086	352.376	3	1,211
retecon	383	−0.159	0.568	−1.000	1.000
white	383	0.791	0.407	0	1
female	383	0.551	0.498	0	1
age	383	48.005	16.586	18	88
educ1_7	383	4.608	1.596	1	7
income	383	15.856	5.628	1	23
partyid	383	2.966	2.245	0	6
bushiraq	383	0.400	0.427	0.000	1.000
bushvote	383	0.512	0.501	0	1
ideol	383	4.305	1.412	1	7

Calculate the average effect of `variable name` using observed values.

The logit model.

A table of the logit model.

The logit predicted probabilities.

Calculate the average effects with a logit model.

A way to do this with probit.

```
# run probit, show results
(model_1p <- glm('bushvote ~ retecon + partyid +
                bushiraq + ideol +
                white + female + age +
                educ1_7 + income',
             family = binomial(link = "probit"),
             data = data))
```

```
##
## Call:  glm(formula = "bushvote ~ retecon + partyid +\n                    bushiraq + ideol + \n
## 	family = binomial(link = "probit"), data = data)
##
## Coefficients:
## (Intercept)      retecon       partyid      bushiraq         ideol
##   -2.611185     0.871338      0.583033      2.130149      0.180547
##       white       female           age       educ1_7        income
##    0.091140    -0.080501     -0.003582     -0.076131      0.014432
##
## Degrees of Freedom: 382 Total (i.e. Null);  373 Residual
## Null Deviance:        530.7
## Residual Deviance: 120.8     AIC: 140.8
```

A table printout of the probit model.

```
# summary(model_1p)
# stargazer(model_1p, title = "H&K Probit Table 1 - Replication")
# type = 'text',
# header=F,
```

Calculate the predicted probabilities in the probit model.

A summary of the probit test.

Calculate the average effects and difference for a probit model.

Summary: Interpreting the Coefficients, include the AIC

Log Likelihood

Deviances

Bayes

AIC

Simulations:

Violin Plots of the Simulation