Gov 52 Final Replication Project

```
##Logit Models
mod.40 = multinom(Q23_1~Extra+Open+consc+Agree+emotstab+educ+income+race+dideo+PartyID+gender+Age, data=
```

weights: 69 (44 variable)

initial value 2125.814779 iter 10 value 892.386497 iter 20 value 866.816234 iter 30 value 865.715867 iter 40 value 865.524042 iter 50 value 865.493756 final value 865.492331 converged

```
mod.50 = polr(Q23_1~Extra+Open+consc+Agree+emotstab+educ+income+race+dideo+PartyID+gender+Age, data=d1)

# No controls
mod.140 = multinom(Q23_1~Extra+Open+consc+Agree+emotstab, data=d1) # not used
```

weights: 21 (12 variable)

initial value 2146.688412 iter 10 value 935.628373 iter 20 value 930.547491 final value 930.547217 converged

```
mod.150 = polr(Q23_1~Extra+Open+consc+Agree+emotstab, data=d1)

## TABLE 1 OUTPUT - ordered logit used
stargazer(mod.150,mod.50, type='latex', style='default', out = "table1.htm",
          title = "Table 1",
          notes = "Entries are ordered logistic regression coefficients, robust standard errors in paren
          column.labels = c("No controls", "Demographic controls"),
          dep.var.caption = "Attractiveness of Elected Office",
          dep.var.labels = "",
          covariate.labels = c("Extraversion", "Openness to experience", "Agreeableness",
                               "Conscientiousness", "Emotional stability",
                               "Education: Less than high school", "Education: High school",
                               "Education: Bachelor's degree", "Education: Graduate degree",
                               "Income", "Race: Afican American", "Race: Asian",
                               "Race: Native American", "Race: Hispanic",
                               "Race: Multiracial", "Ideology: Liberal",
                               "Ideology: Conservative", "Party ID: Democrat",
                               "PartyID: Republican", "Gender: Female", "Age (in years)",
                               "Observations"))
```

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Fri, May 07, 2021 - 00:32:34

Table 1: Table 1

	Attractiveness of F	
	No controls	Demog
	(1)	
Extraversion	0.610***	
	(0.138)	
Openness to experience	0.753***	
	(0.151)	
Agreeableness	−0.876***	
	(0.139)	
Conscientiousness	−0.746***	
	(0.126)	
Emotional stability	0.015	
	(0.097)	
Education: Less than high school		
Education: High school		
Education: Bachelor's degree		
Education: Graduate degree		
Income		
Race: Afican American		
Race: Asian		
Race: Native American		
Race: Hispanic		
Race: Multiracial		
Ideology: Liberal		
Ideology: Conservative		
Party ID: Democrat		

```
# stargazer(mod.150,mod.50, type='text', style='ajps') #text test
```

```
# Original replication code used model 51, but the models in tables are 50 and 150, AND the figure capt
# Added correct leveling, selected relevant columns

effagree <- as.data.frame(effect(c('Agree'), mod=mod.50, xlevels=list(Agree=c(0,0.5, 1, 1.5, 2,2.5,3)))
  dplyr::select("Agree", "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.")
  rename("possible" = "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.",
         "score" = "Agree") %>%
  mutate(type = "Agreeableness")
```

```
##
## Re-fitting to get Hessian
```

```
effcons = as.data.frame(effect(c('consc'), mod=mod.50, xlevels=list(consc=c(0,0.5, 1, 1.5, 2,2.5,3)))) %
  dplyr::select("consc", "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.")
  rename("possible" = "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.",
         "score" = "consc") %>%
  mutate(type = "Conscientiousness")
```

```
##
## Re-fitting to get Hessian
```

```
effextra = as.data.frame(effect(c('Extra'), mod=mod.50, xlevels=list(Extra=c(0,0.5, 1, 1.5, 2,2.5,3))))
  dplyr::select("Extra", "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.")
  rename("possible" = "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.",
         "score" = "Extra") %>%
  mutate(type = "Extraversion")
```

```
##
## Re-fitting to get Hessian
```

```
effopen = as.data.frame(effect(c('Open'), mod=mod.50, xlevels=list(Open=c(0,0.5, 1, 1.5, 2,2.5,3)))) %>%
  dplyr::select("Open", "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.") %
  rename("possible" = "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.",
         "score" = "Open") %>%
  mutate(type = "Openness")
```

```
##
## Re-fitting to get Hessian
```

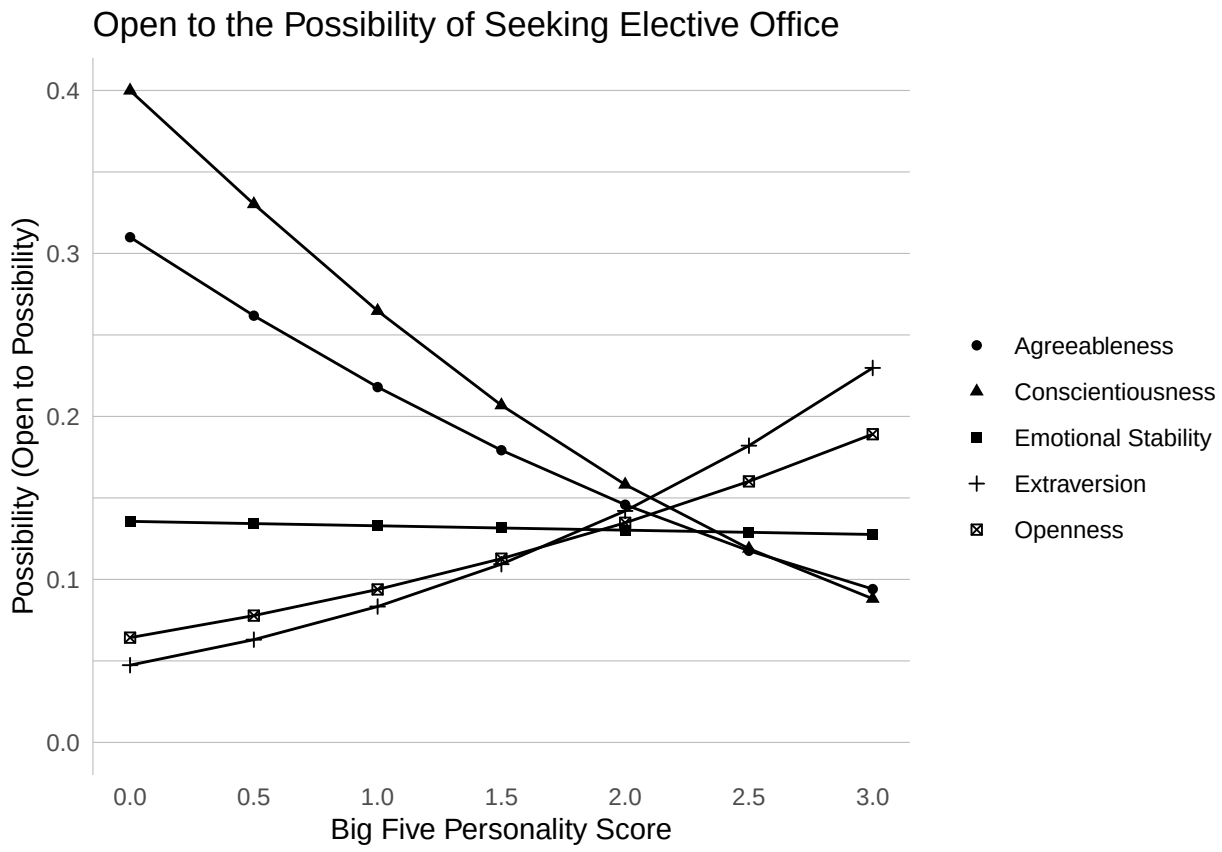
```
effneuro = as.data.frame(effect(c('emotstab'), mod=mod.50, xlevels=list(emotstab=c(0,0.5, 1, 1.5, 2,2.5
  dplyr::select("emotstab", "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future
  rename("possible" = "prob.I.am.open.to.the.possibility.of.holding.elective.office.in.the.future.",
         "score" = "emotstab") %>%
  mutate(type = "Emotional Stability")
```

```
##
## Re-fitting to get Hessian
```

```
# combining
fig1_data <- rbind(effagree, effcons, effextra, effopen, effneuro)
```

```
fig1_data %>%
  ggplot(aes(x = score, y = possible, shape = type)) +
  geom_line() +
  geom_point() +
  xlim(0,3) +
  ylim(0,.4) +
  theme_minimal() +
  theme(panel.grid.major.x = element_blank(),
        panel.grid.major.y = element_line( size=.2, color="grey" ),
        panel.grid.minor.y = element_line( size=.2, color="grey" ),
        panel.grid.minor.x = element_blank(),
        axis.line.y.left = element_line(size=.2, color="grey")) +
  labs(title = "Open to the Possibility of Seeking Elective Office",
       x = "Big Five Personality Score",
       y = "Possibility (Open to Possibility)",
       linetype = "",
       shape = "") +
  scale_x_continuous(breaks = c(0, 0.5, 1, 1.5, 2, 2.5,3))
```

```
## Scale for 'x' is already present. Adding another scale for 'x', which will
## replace the existing scale.
```



```
ggsave("figure1.jpg", width = 13)
```

```
## Saving 13 x 4.5 in image
```

```
d2 <- read.dta("data/AMOS replication.dta") %>%
  mutate(runhigher = factor(progamb_runhigher),
         progamb = as.numeric(runhigher))
d2$progamb_winlegis_1[d2$progamb_winlegis_1==-99] <- NA
```

```
# ordered logit, no controls (col 1, table 2)
mod.71=polr(runhigher~extra4pt+ open4pt+agree4pt+ consc4pt+ stable4pt, data=d2)

# ordered logit, controls (col 2, table 2)
mod.71c <- polr(runhigher~extra4pt+ open4pt+agree4pt+ consc4pt+ stable4pt+ closevote+ tenure+ progamb_cu
# coefficients slightly different - appears something is different about the data because the observati

mod.72 = polr(runhigher~extra4pt+ open4pt+agree4pt+ consc4pt+ stable4pt+ closevote+ tenure+ progamb_curi

# Table 2
stargazer(mod.71, mod.71c, type = "html", out = "table2.htm",
          column.labels = c("No controls", "Demographic controls"),
          dep.var.caption = "Progressive Political Ambition",
          notes = "Entries are ordered logistic regression coefficients, robust standard errors in paren
          dep.var.labels = "",
          title = "Table 2",
          covariate.labels = c("Extraversion", "Openness to experience", "Agreeableness",
                               "Conscientiousness", "Emotional stability",
                               "Won previous election by 5% pts. or less", "Years in office",
                               "Anticipated length in current office",
                               "Term limits exist for current office", "Partisan elections",
                               "Probability current seat filled by similar candidate",
                               "Probability similar candidate could win legislative seat",
                               "Gender: Female", "Observations"))
```

```
##
## <table style="text-align:center"><caption><strong>Table 2</strong></caption>
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td></td><td colspan="2" style="border-bottom: 1px solid black"></td></tr>
## <tr><td style="text-align:left"></td><td colspan="2"></td></tr>
## <tr><td style="text-align:left"></td><td>No controls</td><td>Demographic controls</td></tr>
## <tr><td style="text-align:left"></td><td>(1)</td><td>(2)</td></tr>
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td style="text-align:left"></td><td>(0.056)</td><td>(0.064)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Openness to experience</td><td>0.022</td><td>-0.002</td></tr>
## <tr><td style="text-align:left"></td><td>(0.059)</td><td>(0.067)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Agreeableness</td><td>-0.106</td><td>-0.130</td></tr>
## <tr><td style="text-align:left"></td><td>(0.082)</td><td>(0.093)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Conscientiousness</td><td>0.0003</td><td>-0.005</td></tr>
## <tr><td style="text-align:left"></td><td>(0.077)</td><td>(0.090)</td></tr>
```

```
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Emotional stability</td><td>0.112<sup>*</sup></td><td>0.130<sup>*</su
## <tr><td style="text-align:left"></td><td>(0.061)</td><td>(0.071)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Won previous election by 5% pts. or less</td><td></td><td>0.009</td>
## <tr><td style="text-align:left"></td><td></td><td>(0.145)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Years in office</td><td></td><td>-0.058<sup>***</sup></td></tr>
## <tr><td style="text-align:left"></td><td></td><td>(0.008)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Anticipated length in current office</td><td></td><td>0.029<sup>***<
## <tr><td style="text-align:left"></td><td></td><td>(0.009)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Term limits exist for current office</td><td></td><td>0.098</td></tr
## <tr><td style="text-align:left"></td><td></td><td>(0.110)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Partisan elections</td><td></td><td>0.007</td></tr>
## <tr><td style="text-align:left"></td><td></td><td>(0.100)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Probability current seat filled by similar candidate</td><td></td><td
## <tr><td style="text-align:left"></td><td></td><td>(0.002)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Probability similar candidate could win legislative seat</td><td></t
## <tr><td style="text-align:left"></td><td></td><td>(0.002)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Gender: Female</td><td></td><td>-0.070</td></tr>
## <tr><td style="text-align:left"></td><td></td><td>(0.098)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td style="text-align:left"></td><td colspan="2" style="text-align:right">Entries are ordered log
## </table>
```

```
stargazer(mod.71, mod.71c, type = "text")
```

```
##
## ===============================================
##                         Dependent variable:
##                     ---------------------------
##                              runhigher
##                           (1)            (2)
## -----------------------------------------------
## extra4pt                0.162***      0.170***
##                         (0.056)        (0.064)
##
## open4pt                  0.022         -0.002
##                         (0.059)        (0.067)
##
## agree4pt                 -0.106        -0.130
##                         (0.082)        (0.093)
##
## consc4pt                 0.0003        -0.005
##                         (0.077)        (0.090)
##
```

```
## stable4pt              0.112*        0.130*
##                       (0.061)       (0.071)
##
## closevote                            0.009
##                                     (0.145)
##
## tenure                             -0.058***
##                                     (0.008)
##
## progamb_current                    0.029***
##                                     (0.009)
##
## termlimits                           0.098
##                                     (0.110)
##
## partisanelect                        0.007
##                                     (0.100)
##
## progamb_similar_1                   -0.004*
##                                     (0.002)
##
## progamb_winlegis_1                 0.006***
##                                     (0.002)
##
## genderFemale                        -0.070
##                                     (0.098)
##
## ------------------------------------------------
## Observations           2,398         1,875
## ================================================
## Note:               *p<0.1; **p<0.05; ***p<0.01
```

```
# they use mod 72, but that's not what's displayed (same as fig 1 in this regard)

mod.72.o.ef = as.data.frame(effect(c('open4pt'),mod=mod.71c, xlevels=list(open4pt=c(0,0.5, 1, 1.5, 2,2.5
  dplyr::select("open4pt", "prob.X2") %>%
  rename("maybe" = "prob.X2",
         "score" = "open4pt") %>%
  mutate(type = "Openness")
```

```
##
## Re-fitting to get Hessian
```

```
mod.72.c.ef = as.data.frame(effect(c('consc4pt'),mod=mod.71c, xlevels=list(open4pt=c(0,0.5, 1, 1.5, 2,2
  dplyr::select("consc4pt", "prob.X2") %>%
  rename("maybe" = "prob.X2",
         "score" = "consc4pt") %>%
  mutate(type = "Conscientiousness")
```

```
##
## Re-fitting to get Hessian
```

```
mod.72.e.ef = as.data.frame(effect(c('extra4pt'),mod=mod.71c, xlevels=list(open4pt=c(0,0.5, 1, 1.5, 2,2
  dplyr::select("extra4pt", "prob.X2") %>%
  rename("maybe" = "prob.X2",
         "score" = "extra4pt") %>%
  mutate(type = "Extraversion")
```

```
##
## Re-fitting to get Hessian
```

```
mod.72.a.ef = as.data.frame(effect(c('agree4pt'),mod=mod.71c, xlevels=list(open4pt=c(0,0.5, 1, 1.5, 2,2
  dplyr::select("agree4pt", "prob.X2") %>%
  rename("maybe" = "prob.X2",
         "score" = "agree4pt") %>%
  mutate(type = "Agreeableness")
```

```
##
## Re-fitting to get Hessian
```

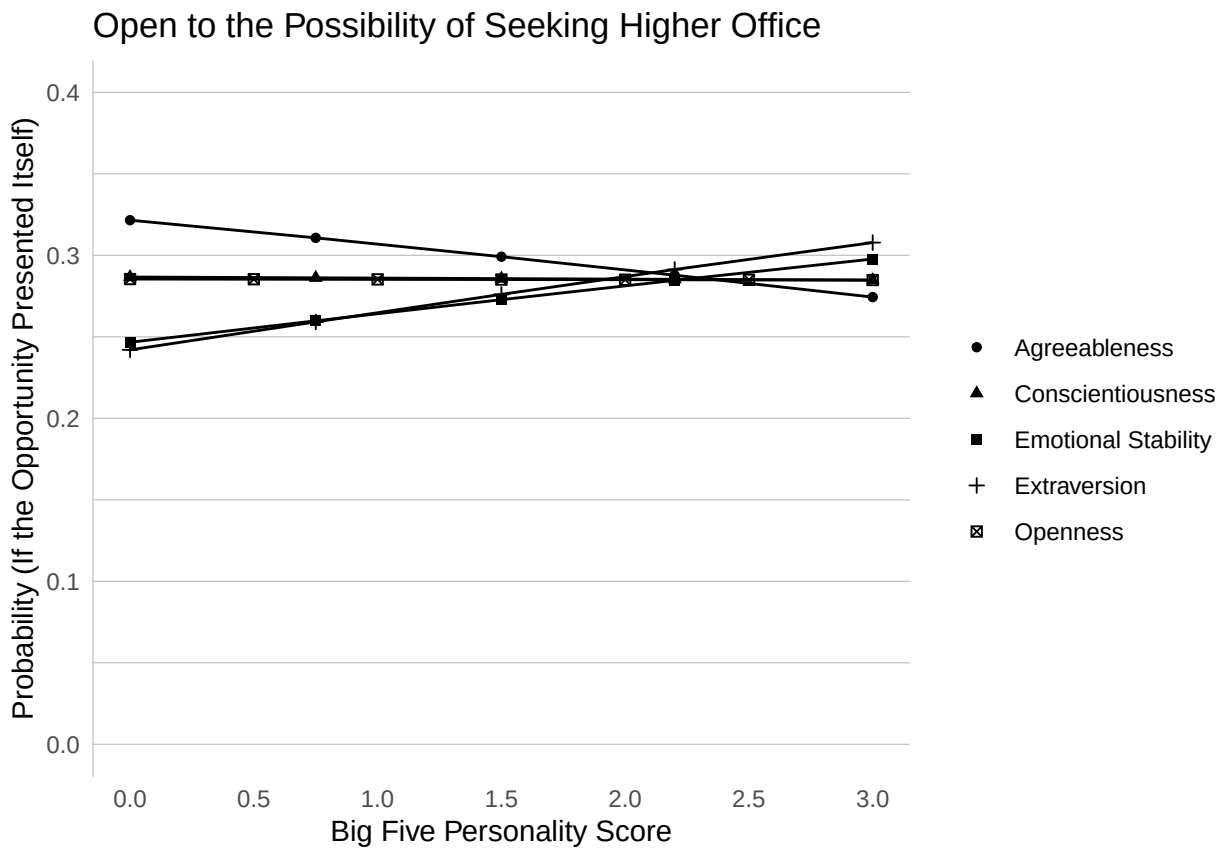
```
mod.72.n.ef = as.data.frame(effect(c('stable4pt'),mod=mod.71c, xlevels=list(open4pt=c(0,0.5, 1, 1.5, 2,
  dplyr::select("stable4pt", "prob.X2") %>%
  rename("maybe" = "prob.X2",
         "score" = "stable4pt") %>%
  mutate(type = "Emotional Stability")
```

```
##
## Re-fitting to get Hessian
```

```
fig2_data <- rbind(mod.72.o.ef, mod.72.c.ef, mod.72.e.ef, mod.72.a.ef, mod.72.n.ef)
```

```
fig2_data %>%
  ggplot(aes(x = score, y = maybe, shape = type)) +
  geom_line() +
  geom_point() +
  xlim(0,3) +
  ylim(0,.4) +
  theme_minimal() +
  theme(panel.grid.major.x = element_blank(),
        panel.grid.major.y = element_line( size=.2, color="grey" ),
        panel.grid.minor.y = element_line( size=.2, color="grey" ),
        panel.grid.minor.x = element_blank(),
        axis.line.y.left = element_line(size=.2, color="grey")) +
  labs(title = "Open to the Possibility of Seeking Higher Office",
       x = "Big Five Personality Score",
       y = "Probability (If the Opportunity Presented Itself)",
       linetype = "",
       shape = "") +
  scale_x_continuous(breaks = c(0, 0.5, 1, 1.5, 2, 2.5,3))
```

```
## Scale for 'x' is already present. Adding another scale for 'x', which will
## replace the existing scale.
```




```
ggsave("figure2.jpg", width = 13)
```

```
## Saving 13 x 4.5 in image
```

```
# Ordered logit
mod.100 = polr(office~extra4pt+ open4pt+agree4pt+ consc4pt+ stable4pt, data=d2)
mod.101 = polr(office~extra4pt+ open4pt+agree4pt+ consc4pt+ stable4pt+ closevote+ tenure+ progamb_curre

# Multinomial (not used)
mod.111 = multinom(office~extra4pt+ open4pt+agree4pt+ consc4pt+ stable4pt+ closevote+ tenure+ progamb_cu
```

```
## # weights:  45 (28 variable)
## initial  value 1844.570033
## iter  10 value 1723.037023
## iter  20 value 1666.460593
## iter  30 value 1651.112719
## final  value 1650.313543
## converged
```

```
# Table 3
stargazer(mod.100,mod.101, type='html', style='default', out = "table3.htm",
          column.labels = c("No controls", "Demographic controls"),
          dep.var.caption = "Appeal of Higher Office",
          notes = "Entries are ordered logistic regression coefficients, robust standard errors in pare
```

```
          dep.var.labels = "",
          title = "Table 3",
          covariate.labels = c("Extraversion", "Openness to experience", "Agreeableness",
                               "Conscientiousness", "Emotional stability",
                               "Won previous election by 5% pts. or less", "Years in office",
                               "Anticipated length in current office",
                               "Term limits exist for current office", "Partisan elections",
                               "Probability current seat filled by similar candidate",
                               "Probability similar candidate could win legislative seat",
                               "Gender: Female", "Observations"))
```

```
##
## <table style="text-align:center"><caption><strong>Table 3</strong></caption>
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td></td><td colspan="2" style="border-bottom: 1px solid black"></td></tr>
## <tr><td style="text-align:left"></td><td colspan="2"></td></tr>
## <tr><td style="text-align:left"></td><td>No controls</td><td>Demographic controls</td></tr>
## <tr><td style="text-align:left"></td><td>(1)</td><td>(2)</td></tr>
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td style="text-align:left"></td><td>(0.062)</td><td>(0.071)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Openness to experience</td><td>0.149<sup>**</sup></td><td>0.148<sup>
## <tr><td style="text-align:left"></td><td>(0.066)</td><td>(0.073)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Agreeableness</td><td>-0.235<sup>**</sup></td><td>-0.241<sup>**</sup
## <tr><td style="text-align:left"></td><td>(0.092)</td><td>(0.103)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Conscientiousness</td><td>-0.026</td><td>0.032</td></tr>
## <tr><td style="text-align:left"></td><td>(0.085)</td><td>(0.098)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Emotional stability</td><td>0.113</td><td>0.109</td></tr>
## <tr><td style="text-align:left"></td><td>(0.070)</td><td>(0.080)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Won previous election by 5% pts. or less</td><td></td><td>-0.207</td
## <tr><td style="text-align:left"></td><td></td><td>(0.163)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Years in office</td><td></td><td>-0.032<sup>***</sup></td></tr>
## <tr><td style="text-align:left"></td><td></td><td>(0.009)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Anticipated length in current office</td><td></td><td>0.019<sup>**</
## <tr><td style="text-align:left"></td><td></td><td>(0.009)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Term limits exist for current office</td><td></td><td>-0.086</td></t
## <tr><td style="text-align:left"></td><td></td><td>(0.121)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Partisan elections</td><td></td><td>-0.055</td></tr>
## <tr><td style="text-align:left"></td><td></td><td>(0.109)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Probability current seat filled by similar candidate</td><td></td><t
## <tr><td style="text-align:left"></td><td></td><td>(0.002)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Probability similar candidate could win legislative seat</td><td></t
## <tr><td style="text-align:left"></td><td></td><td>(0.002)</td></tr>
```

```
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td style="text-align:left">Gender: Female</td><td></td><td>-0.086</td></tr>
## <tr><td style="text-align:left"></td><td></td><td>(0.107)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td></tr>
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td colspan="3" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"
## <tr><td style="text-align:left"></td><td colspan="2" style="text-align:right">Entries are ordered log
## </table>
```