Legislature Size and Party Unity

Jacyln Kaslovsky and Michael P. Olson

```
##############################################################################
# Load in the Data  ##########################################################
##############################################################################

dat_ilin <- read.csv("Data/ilin_data.csv")

dat_njvt <- read.csv("Data/njvt_data.csv")

dubin <- read.csv("Data/dubin_excerpt.csv")
```

```
##############################################################################
# Descriptive Information and Summary Stats ##################################
##############################################################################

# what is the median size of legislatures during this time period?

  median(dubin$lht,na.rm=T)
```

```
## [1] 100
```

```
# create the lagged size variable and the change

  dubin <- dubin %>% arrange(state,year)
  dubin <- DataCombine::slide(Var="lht",NewVar="lht_lag",GroupVar="state",TimeVar="year",
                              slideBy = -1,data=dubin)
```

```
##
## Lagging lht by 1 time units.
```

```
  dubin$change <- dubin$lht-dubin$lht_lag
  dubin <- dubin[!is.na(dubin$change),]

# create indicators for changes of 10 or 5

  dubin$bigchange10 <- ifelse(abs(dubin$change)>=10,1,0)
  dubin$bigchange5 <- ifelse(abs(dubin$change)>=5,1,0)

# how many changes of these sizes do states have?

  ag_changes <- as.data.frame(dubin %>% group_by(state) %>%
                                summarize(big_changes10=sum(bigchange10,na.rm=T),
                                big_changes5=sum(bigchange5,na.rm=T)))

# how many total? how many on average across states?

  sum(ag_changes$big_changes10,na.rm=T)
```

```
## [1] 150
```

```
  sum(ag_changes$big_changes5,na.rm=T)
```

```
## [1] 273
```

```
  median(ag_changes$big_changes10)
```

```
## [1] 2
```

```
  median(ag_changes$big_changes5)
```

```
## [1] 4
```

```
  bc10 <- dubin[dubin$bigchange10==1,]
  nrow(bc10[bc10$change>0 & !is.na(bc10$change),])
```

```
## [1] 97
```

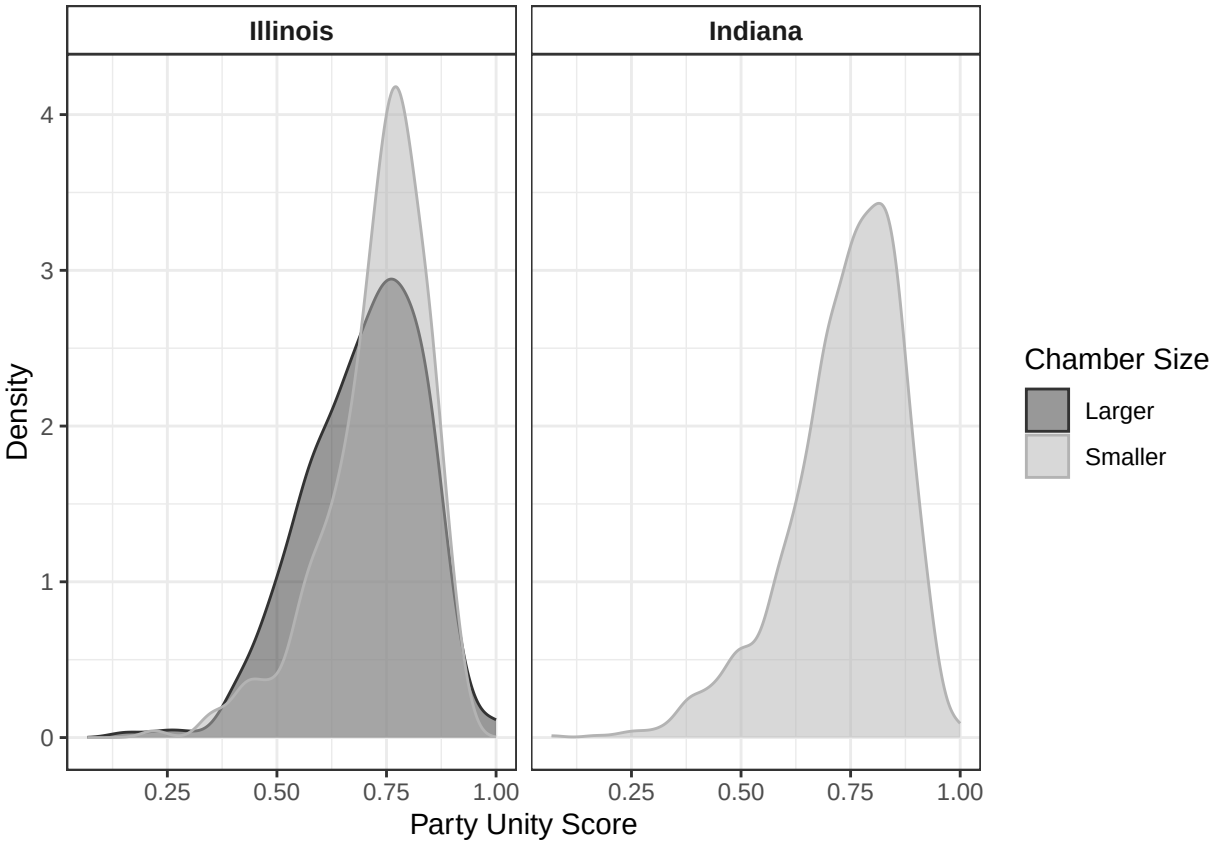
```
  nrow(bc10[bc10$change<0 & !is.na(bc10$change),])
```

```
## [1] 53
```

```
# IL/IN party unity score density plot ##############################################

dat_ilin$chamber_size <- ifelse(dat_ilin$bigger==1,"Larger","Smaller")

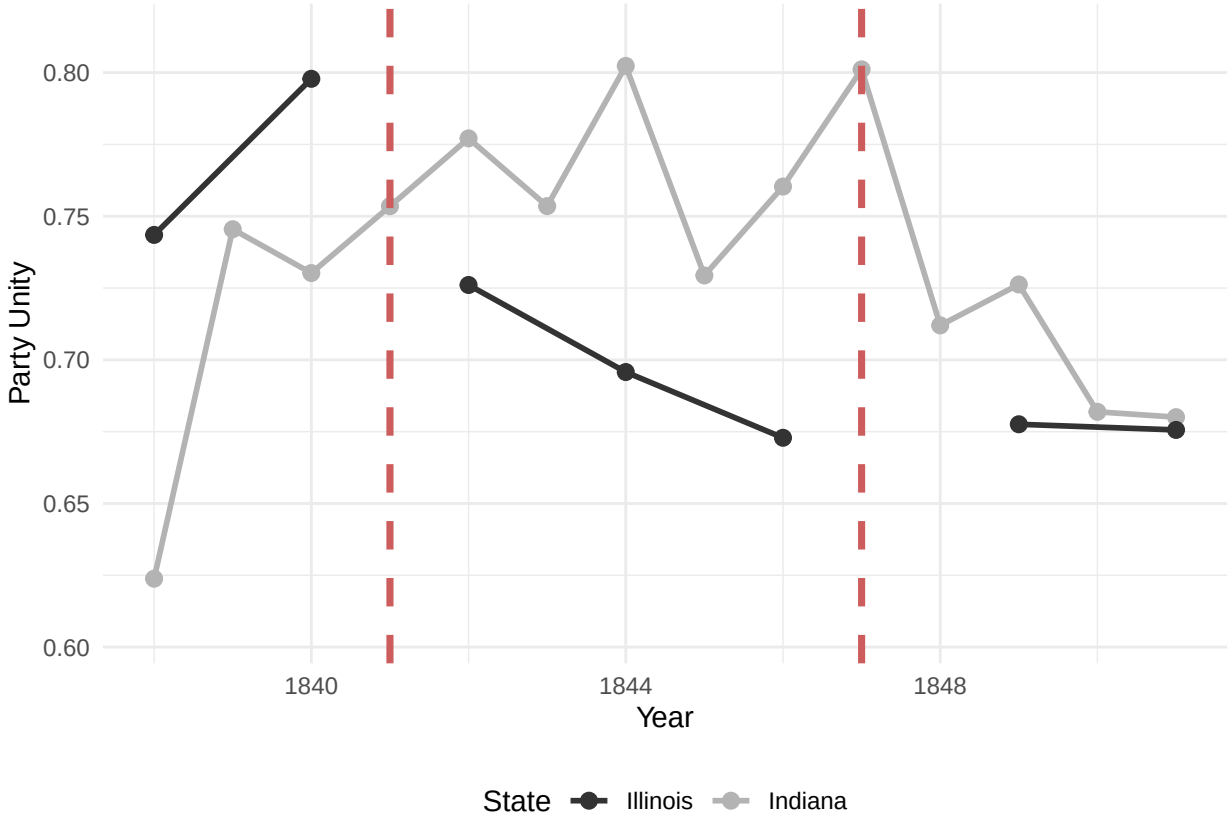
ggplot(dat_ilin, aes(x=partyunity, fill=chamber_size,colour=chamber_size)) +
  geom_density(alpha=.5)+
  scale_color_grey(end=0.7)+scale_fill_grey(end=0.7)+
  theme_bw()+
  ylab("Density")+xlab("Party Unity Score")+
  labs(fill="Chamber Size",colour="Chamber Size") +
  facet_wrap(~State)+
  theme(strip.background = element_rect(fill="white"),
        strip.text = element_text(face="bold",size=10))
```




```
# graphical presentation of IL/IN results ###################################################

ggplot(data=dat_ilin,aes(x=year,y=partyunity,group=interaction(State,bigger3),colour=State))+
  geom_point(stat="summary",fun.y="mean",size=2.5)+
  geom_line(stat="summary",fun.y="mean",size=1)+
  xlab("Year")+ylab("Party Unity")+
  geom_vline(xintercept=1841,colour="indianred",linetype=2,size=1.25)+
  geom_vline(xintercept=1847,colour="indianred",linetype=2,size=1.25)+
  scale_colour_grey(end=0.7)+
  theme_minimal()+
  theme(legend.position = "bottom")
```

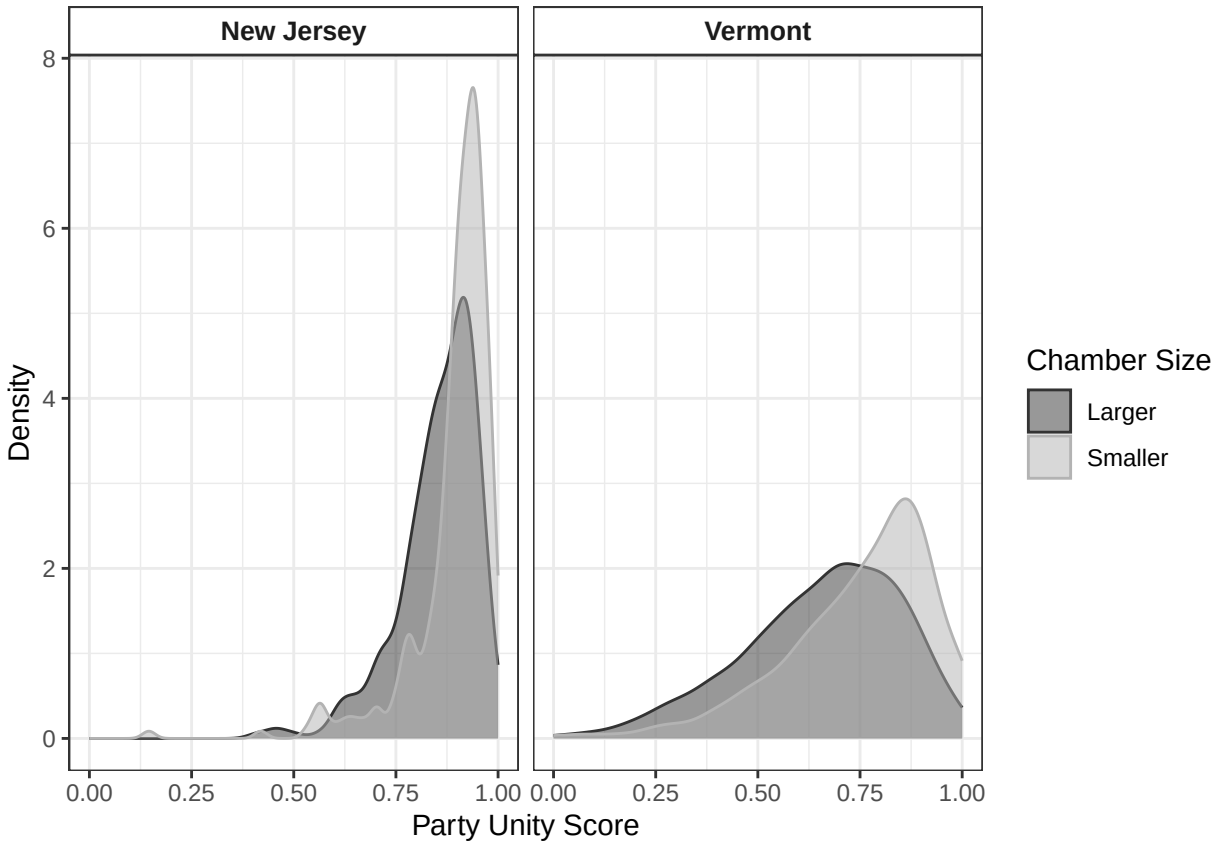
```
## No summary function supplied, defaulting to `mean_se()`
## No summary function supplied, defaulting to `mean_se()`
```




```
# NJ/VT party unity score density plot ##############################################

dat_njvt$chamber_size <- ifelse(dat_njvt$bigger==1,"Larger","Smaller")

ggplot(dat_njvt, aes(x=partyunity, fill=chamber_size,colour=chamber_size)) +
  geom_density(alpha=.5)+
  scale_color_grey(end=0.7)+scale_fill_grey(end=0.7)+
  theme_bw()+
  ylab("Density")+xlab("Party Unity Score")+
  labs(fill="Chamber Size",colour="Chamber Size") + facet_wrap(~State)+
  theme(strip.background = element_rect(fill="white"),
        strip.text = element_text(face="bold",size=10))
```




```
################################################################################
# Illinois and Indiana Analysis ################################################
################################################################################

# main regression table ########################################################

ilin_state <- felm(partyunity~bigger+majority+maj_share+inc|state+mod_year|0|ko_id,data=dat_ilin)
ilin_state_int <- felm(partyunity~bigger*majority+maj_share+inc|state+mod_year|0|ko_id,data=dat_ilin)
ilin_id <- felm(partyunity~bigger+majority+maj_share+inc|ko_id+mod_year|0|ko_id,data=dat_ilin)
ilin_id_int <- felm(partyunity~bigger*majority+maj_share+inc|ko_id+mod_year|0|ko_id,data=dat_ilin)

ilin_state_cont <- felm(partyunity~lht+majority+maj_share+inc|state+mod_year|0|ko_id,data=dat_ilin)
ilin_state_int_cont <- felm(partyunity~lht*majority+maj_share+inc|state+mod_year|0|ko_id,data=dat_ilin)
ilin_id_cont <- felm(partyunity~lht+majority+maj_share+inc|ko_id+mod_year|0|ko_id,data=dat_ilin)
ilin_id_int_cont <- felm(partyunity~lht*majority+maj_share+inc|ko_id+mod_year|0|ko_id,data=dat_ilin)

ilinsg <-  stargazer(ilin_state,ilin_state_int,ilin_id,ilin_id_int,
                     dep.var.labels = c("Party Unity Score"),
                     order=c(1,5,2,3,4),
                     covariate.labels = c("Chamber Larger",
                                          "Larger $\\times$ In Maj.",
                                          "In Majority",
                                          "Majority Seat Share", "Incumbent"),
                     keep.stat = c("n"),report = "vc*s",table.placement = "!ht",
                     add.lines = list(c("Fixed Effects","\\multicolumn{2}{c}{State + Year}",
                                        "\\multicolumn{2}{c}{Legislator + Year} \\\\ %")),
                     title = "Party Unity and Legislature Size: Illinois and Indiana, 1838 to 1851 \\vspace{-0.75e
                     notes.append = FALSE,notes.label = "", no.space=T,
                     digits=3,digits.extra=3,
                     omit.table.layout = "l#",
                     star.char=c("*","**"),star.cutoffs = c(.1,.05),
                     notes="\\parbox[t]{0.75\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear regressi
                       standard errors clustered by legislator in parentheses. Observations are at the legislator-l
                $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}")
```

```
##
## % Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com
```

```
## % Date and time: Fri, Aug 09, 2024 - 10:57:03
## \begin{table}[!ht] \centering
##   \caption{Party Unity and Legislature Size: Illinois and Indiana, 1838 to 1851 \vspace{-0.75em}}
##   \label{ilintab}
## \begin{tabular}{@{\extracolsep{5pt}}lcccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
## \\[-1.8ex] & \multicolumn{4}{c}{Party Unity Score} \\
## \hline \\[-1.8ex]
##  Chamber Larger & $-$0.066$^{**}$ & $-$0.019 & $-$0.095$^{**}$ & $-$0.068 \\
##   & (0.015) & (0.018) & (0.024) & (0.045) \\
##   Larger $\times$ In Maj. &  & $-$0.071$^{**}$ &  & $-$0.037 \\
##   &  & (0.017) &  & (0.047) \\
##   In Majority & $-$0.023$^{**}$ & $-$0.011$^{*}$ & $-$0.002 & $-$0.002 \\
##   & (0.006) & (0.006) & (0.008) & (0.008) \\
##   Majority Seat Share & $-$0.140$^{**}$ & $-$0.152$^{**}$ & 0.021 & 0.020 \\
##   & (0.061) & (0.061) & (0.089) & (0.089) \\
##   Incumbent & 0.013$^{*}$ & 0.014$^{**}$ & 0.014$^{**}$ & 0.014$^{**}$ \\
##   & (0.007) & (0.007) & (0.007) & (0.007) \\
##  \hline \\[-1.8ex]
## Fixed Effects & \multicolumn{2}{c}{State + Year} & \multicolumn{2}{c}{Legislator + Year} \\ % &  &  \\
## Observations & 1,997 & 1,997 & 1,997 & 1,997 \\
## \hline
## \hline \\[-1.8ex]
## \multicolumn{5}{r}{\parbox[t]{0.75\textwidth}{\footnotesize \textit{Note}: Entries are linear regression coeffi
##                       standard errors clustered by legislator in parentheses. Observations are at the legislat
##                $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\
## \end{tabular}
## \end{table}
```

```
ilinsg_cont <-  stargazer(ilin_state_cont,ilin_state_int_cont,ilin_id_cont,ilin_id_int_cont,
                          dep.var.labels = c("Party Unity Score"),
                          order=c(1,5,2,3,4),
                          covariate.labels = c("Chamber Size",
                                               "Size $\\times$ In Maj.",
                                               "In Majority",
                                               "Majority Seat Share", "Incumbent"),
                          keep.stat = c("n"),report = "vc*s",table.placement = "!ht",
                          add.lines = list(c("Fixed Effects","State + Year","State + Year","Leg. + Year","Leg. + Y
                          title = "Party Unity and Legislature Size: Illinois and Indiana, 1838 to 1851  \\vspace{
                          notes.append = FALSE,notes.label = "", no.space=T,
                          digits=3,digits.extra=3,
                          omit.table.layout = "l#",
                          star.char=c("*","**"),star.cutoffs = c(.1,.05),
                          notes="\\parbox[t]{0.75\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear reg
                        standard errors clustered by legislator in parentheses. Observations are at the legislator-
              $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}")
```

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## \begin{table}[!ht] \centering
##   \caption{Party Unity and Legislature Size: Illinois and Indiana, 1838 to 1851  \vspace{-0.75em}}
##   \label{ilintab}
## \begin{tabular}{@{\extracolsep{5pt}}lcccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
## \\[-1.8ex] & \multicolumn{4}{c}{Party Unity Score} \\
## \hline \\[-1.8ex]
##  Chamber Size & $-$0.001$^{**}$ & $-$0.0004 & $-$0.002$^{**}$ & $-$0.002$^{*}$ \\
##   & (0.0003) & (0.0005) & (0.001) & (0.001) \\
##   Size $\times$ In Maj. &  & $-$0.001$^{**}$ &  & $-$0.001 \\
##   &  & (0.001) &  & (0.001) \\
##   In Majority & $-$0.023$^{**}$ & 0.096$^{*}$ & $-$0.002 & 0.053 \\
```

```
##   & (0.006) & (0.052) & (0.008) & (0.114) \\
##   Majority Seat Share & $-$0.206$^{**}$ & $-$0.212$^{**}$ & $-$0.009 & $-$0.010 \\
##   & (0.055) & (0.056) & (0.088) & (0.088) \\
##   Incumbent & 0.014$^{**}$ & 0.014$^{**}$ & 0.015$^{**}$ & 0.015$^{**}$ \\
##   & (0.007) & (0.007) & (0.007) & (0.007) \\
##  \hline \\[-1.8ex]
## Fixed Effects & State + Year & State + Year & Leg. + Year & Leg. + Year \\
## Observations & 1,997 & 1,997 & 1,997 & 1,997 \\
## \hline
## \hline \\[-1.8ex]
## \multicolumn{5}{r}{\parbox[t]{0.75\textwidth}{\footnotesize \textit{Note}: Entries are linear regression coeffi
##                       standard errors clustered by legislator in parentheses. Observations are at the legislat
##               $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\
## \end{tabular}
## \end{table}
```

```
star_panel(ilinsg,ilinsg_cont,panel.label.fontface="bold",
panel.names = c("Binary Independent Variable",
                "Continuous Independent Variable"),
                same.summary.stats = T,
                same.lhs.vars = F)
```

```
##  [1] ""
##  [2] "% Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gma
##  [3] "% Date and time: Fri, Aug 09, 2024 - 10:57:03"
##  [4] "\\begin{table}[!ht] \\centering "
##  [5] "  \\caption{Party Unity and Legislature Size: Illinois and Indiana, 1838 to 1851 \\vspace{-0.75em}} "
##  [6] "  \\label{ilintab} "
##  [7] "\\begin{tabular}{@{\\extracolsep{5pt}}lcccc} "
##  [8] "\\\\[-1.8ex]\\hline "
##  [9] "\\hline \\\\[-1.8ex] "
## [10] "\\\\[-1.8ex] & \\multicolumn{4}{c}{Party Unity Score} \\\\ "
## [11] "\\hline \\\\[-1.8ex] "
## [12] "\\\\[-2.0ex] \\multicolumn{5}{@{} l}{\\textbf{Panel A: Binary Independent Variable}}\n \\\\\n \\\\[-1.5ex]
## [13] " Chamber Larger & $-$0.066$^{**}$ & $-$0.019 & $-$0.095$^{**}$ & $-$0.068 \\\\ "
## [14] "  & (0.015) & (0.018) & (0.024) & (0.045) \\\\ "
## [15] "  Larger $\\times$ In Maj. &  & $-$0.071$^{**}$ &  & $-$0.037 \\\\ "
## [16] "  &  & (0.017) &  & (0.047) \\\\ "
## [17] "  In Majority & $-$0.023$^{**}$ & $-$0.011$^{*}$ & $-$0.002 & $-$0.002 \\\\ "
## [18] "  & (0.006) & (0.006) & (0.008) & (0.008) \\\\ "
## [19] "  Majority Seat Share & $-$0.140$^{**}$ & $-$0.152$^{**}$ & 0.021 & 0.020 \\\\ "
## [20] "  & (0.061) & (0.061) & (0.089) & (0.089) \\\\ "
## [21] "  Incumbent & 0.013$^{*}$ & 0.014$^{**}$ & 0.014$^{**}$ & 0.014$^{**}$ \\\\ "
## [22] "  & (0.007) & (0.007) & (0.007) & (0.007) \\\\ "
## [23] "\\\\[-1.83ex] \n \\hline \\\\[-1.83ex]"
## [24] "\\\\[-2.0ex] \\multicolumn{5}{@{} l}{\\textbf{Panel B: Continuous Independent Variable}}\n \\\\\n \\\\[-1
## [25] " Chamber Size & $-$0.001$^{**}$ & $-$0.0004 & $-$0.002$^{**}$ & $-$0.002$^{*}$ \\\\ "
## [26] "  & (0.0003) & (0.0005) & (0.001) & (0.001) \\\\ "
## [27] "  Size $\\times$ In Maj. &  & $-$0.001$^{**}$ &  & $-$0.001 \\\\ "
## [28] "  &  & (0.001) &  & (0.001) \\\\ "
## [29] "  In Majority & $-$0.023$^{**}$ & 0.096$^{*}$ & $-$0.002 & 0.053 \\\\ "
## [30] "  & (0.006) & (0.052) & (0.008) & (0.114) \\\\ "
## [31] "  Majority Seat Share & $-$0.206$^{**}$ & $-$0.212$^{**}$ & $-$0.009 & $-$0.010 \\\\ "
## [32] "  & (0.055) & (0.056) & (0.088) & (0.088) \\\\ "
## [33] "  Incumbent & 0.014$^{**}$ & 0.014$^{**}$ & 0.015$^{**}$ & 0.015$^{**}$ \\\\ "
## [34] "  & (0.007) & (0.007) & (0.007) & (0.007) \\\\ "
## [35] " \\hline \\\\[-1.8ex] "
## [36] "Fixed Effects & \\multicolumn{2}{c}{State + Year} & \\multicolumn{2}{c}{Legislator + Year} \\\\ % &  &  \\
## [37] "Observations & 1,997 & 1,997 & 1,997 & 1,997 \\\\ "
## [38] "\\hline "
## [39] "\\hline \\\\[-1.8ex] "
## [40] "\\multicolumn{5}{r}{\\parbox[t]{0.75\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear regress
## [41] "                       standard errors clustered by legislator in parentheses. Observations are at the leg
## [42] "               $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\\\ "
```

```
## [43] "\\end{tabular} "
## [44] "\\end{table} "
```

```
# mechanism table ###################################################################

# within-district models

ilin_dist <- felm(partyunity~bigger+majority+maj_share+inc|county+mod_year|0|ko_id,data=dat_ilin)
ilin_distid <- felm(partyunity~bigger+majority+maj_share+inc|id_county+mod_year|0|ko_id,data=dat_ilin)

ilin_dist_cont <- felm(partyunity~lht+majority+maj_share+inc|county+mod_year|0|ko_id,data=dat_ilin)
ilin_distid_cont <- felm(partyunity~lht+majority+maj_share+inc|id_county+mod_year|0|ko_id,data=dat_ilin)

# single-county sample models

dat_ilin$out <- dat_ilin$partyunity

ilin_single <- felm(out~bigger+majority+maj_share+inc|state+mod_year|0|ko_id,data=dat_ilin[dat_ilin$single_il_coun
ilin_id_single <- felm(out~bigger+majority+maj_share+inc|ko_id+mod_year|0|ko_id,data=dat_ilin[dat_ilin$single_il_c

ilin_single_cont <- felm(out~lht+majority+maj_share+inc|state+mod_year|0|ko_id,data=dat_ilin[dat_ilin$single_il_co
ilin_id_single_cont <- felm(out~lht+majority+maj_share+inc|ko_id+mod_year|0|ko_id,data=dat_ilin[dat_ilin$single_il

mechsg <-  stargazer(ilin_dist,ilin_distid,ilin_single,ilin_id_single,
                     dep.var.caption = c("Party Unity Score"),
                     dep.var.labels=c("Within District Models","Single IL County Sample"),
                     covariate.labels = c("Chamber Larger",
                                          "In Majority",
                                          "Majority Seat Share", "Incumbent"),
                     keep.stat = c("n"),report = "vc*s",table.placement = "!ht",
                     add.lines = list(
                       c("Fixed Effects","Year + District","Year + Leg.-District","Year + State","Year + Leg.")),
                     title = "Exploring Theoretical Mechanisms: Illinois and Indiana, 1838 to 1851  \\vspace{-0.75
                     notes.append = FALSE,notes.label = "", no.space=T,
                     digits=3,digits.extra=3,column.sep.width = "0pt",
                     omit.table.layout = "l#",
                     star.char=c("*","**"),star.cutoffs = c(.1,.05),
                     notes="\\parbox[t]{0.95\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear regressi
                       standard errors clustered by legislator in parentheses. Observations are at the legislator-
               $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}")
```

```
##
## % Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com
## % Date and time: Fri, Aug 09, 2024 - 10:57:04
## \begin{table}[!ht] \centering
##   \caption{Exploring Theoretical Mechanisms: Illinois and Indiana, 1838 to 1851  \vspace{-0.75em}}
##   \label{mechtest}
## \begin{tabular}{@{\extracolsep{0pt}}lcccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
## \\[-1.8ex] & \multicolumn{2}{c}{Within District Models} & \multicolumn{2}{c}{Single IL County Sample} \\
## \hline \\[-1.8ex]
##  Chamber Larger & $-$0.077$^{**}$ & $-$0.086$^{**}$ & $-$0.078$^{**}$ & $-$0.068$^{**}$ \\
##   & (0.016) & (0.029) & (0.018) & (0.026) \\
##   In Majority & $-$0.012$^{*}$ & $-$0.0002 & $-$0.010 & 0.0001 \\
##   & (0.006) & (0.009) & (0.006) & (0.009) \\
##   Majority Seat Share & $-$0.089 & $-$0.014 & $-$0.093 & $-$0.012 \\
##   & (0.065) & (0.096) & (0.065) & (0.097) \\
##   Incumbent & 0.011 & 0.014$^{*}$ & 0.012 & 0.014$^{*}$ \\
##   & (0.007) & (0.008) & (0.008) & (0.008) \\
##  \hline \\[-1.8ex]
## Fixed Effects & Year + District & Year + Leg.-District & Year + State & Year + Leg. \\
## Observations & 1,997 & 1,997 & 1,592 & 1,592 \\
## \hline
```

```
## \hline \\[-1.8ex]
## \multicolumn{5}{r}{\parbox[t]{0.95\textwidth}{\footnotesize \textit{Note}: Entries are linear regression coeffi
##                         standard errors clustered by legislator in parentheses. Observations are at the legislat
##               $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\
## \end{tabular}
## \end{table}
```

```
mechsg_cont <-  stargazer(ilin_dist_cont,ilin_distid_cont,ilin_single_cont,ilin_id_single_cont,
                          dep.var.caption = c("Party Unity Score"),
                          dep.var.labels=c("Within District Models","Single IL Member $+$ County Sample"),
                          covariate.labels = c("Chamber Size",
                                               "In Majority",
                                               "Majority Seat Share", "Incumbent"),
                          keep.stat = c("n"),report = "vc*s",table.placement = "!ht",
                          add.lines = list(
                            c("Fixed Effects","Year + District","Year + Leg.-District","Year + State","Year + Leg.
                          title = "Exploring Theoretical Mechanisms: Illinois and Indiana, 1838 to 1851 \\vspace{-
                          notes.append = FALSE,notes.label = "", no.space=T,
                          digits=3,digits.extra=3,column.sep.width = "0pt",
                          omit.table.layout = "l#",
                          star.char=c("*","**"),star.cutoffs = c(.1,.05),
                          notes="\\parbox[t]{0.8\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear reg
                        standard errors clustered by legislator in parentheses. Observations are at the legislator-
              $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}")
```

```
##
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## % Date and time: Fri, Aug 09, 2024 - 10:57:04
## \begin{table}[!ht] \centering
##   \caption{Exploring Theoretical Mechanisms: Illinois and Indiana, 1838 to 1851 \vspace{-0.75em}}
##   \label{mechtest}
## \begin{tabular}{@{\extracolsep{0pt}}lcccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
## \\[-1.8ex] & \multicolumn{2}{c}{Within District Models} & \multicolumn{2}{c}{Single IL Member $+$ County Sample
## \hline \\[-1.8ex]
##  Chamber Size & $-$0.002$^{**}$ & $-$0.002$^{**}$ & $-$0.002$^{**}$ & $-$0.001$^{*}$ \\
##   & (0.0004) & (0.001) & (0.0004) & (0.001) \\
##   In Majority & $-$0.012$^{*}$ & $-$0.0002 & $-$0.010 & 0.0001 \\
##   & (0.006) & (0.009) & (0.006) & (0.009) \\
##   Majority Seat Share & $-$0.135$^{**}$ & $-$0.029 & $-$0.140$^{**}$ & $-$0.026 \\
##   & (0.061) & (0.095) & (0.061) & (0.097) \\
##   Incumbent & 0.011 & 0.014$^{*}$ & 0.012 & 0.014$^{*}$ \\
##   & (0.007) & (0.008) & (0.008) & (0.008) \\
##  \hline \\[-1.8ex]
## Fixed Effects & Year + District & Year + Leg.-District & Year + State & Year + Leg. \\
## Observations & 1,997 & 1,997 & 1,592 & 1,592 \\
## \hline
## \hline \\[-1.8ex]
## \multicolumn{5}{r}{\parbox[t]{0.8\textwidth}{\footnotesize \textit{Note}: Entries are linear regression coeffic
##                         standard errors clustered by legislator in parentheses. Observations are at the legislat
##               $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\
## \end{tabular}
## \end{table}
```

```
star_panel(mechsg,mechsg_cont,panel.label.fontface="bold",
           panel.names = c("Binary Independent Variable",
                           "Continuous Independent Variable"),
                          same.lhs.vars = F,same.summary.stats = T)
```

```
##  [1] ""
##  [2] "% Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gma
##  [3] "% Date and time: Fri, Aug 09, 2024 - 10:57:04"
##  [4] "\\begin{table}[!ht] \\centering "
##  [5] "  \\caption{Exploring Theoretical Mechanisms: Illinois and Indiana, 1838 to 1851  \\vspace{-0.75em}} "
```

```
##  [6] "  \\label{mechtest} "
##  [7] "\\begin{tabular}{@{\\extracolsep{0pt}}lcccc} "
##  [8] "\\\\[-1.8ex]\\hline "
##  [9] "\\hline \\\\[-1.8ex] "
## [10] "\\\\[-1.8ex] & \\multicolumn{2}{c}{Within District Models} & \\multicolumn{2}{c}{Single IL County Sample}
## [11] "\\hline \\\\[-1.8ex] "
## [12] "\\\\[-2.0ex] \\multicolumn{5}{@{} l}{\\textbf{Panel A: Binary Independent Variable}}\n \\\\\n \\\\[-1.5ex
## [13] " Chamber Larger & $-$0.077$^{**}$ & $-$0.086$^{**}$ & $-$0.078$^{**}$ & $-$0.068$^{**}$ \\\\ "
## [14] "  & (0.016) & (0.029) & (0.018) & (0.026) \\\\ "
## [15] "  In Majority & $-$0.012$^{*}$ & $-$0.0002 & $-$0.010 & 0.0001 \\\\ "
## [16] "  & (0.006) & (0.009) & (0.006) & (0.009) \\\\ "
## [17] "  Majority Seat Share & $-$0.089 & $-$0.014 & $-$0.093 & $-$0.012 \\\\ "
## [18] "  & (0.065) & (0.096) & (0.065) & (0.097) \\\\ "
## [19] "  Incumbent & 0.011 & 0.014$^{*}$ & 0.012 & 0.014$^{*}$ \\\\ "
## [20] "  & (0.007) & (0.008) & (0.008) & (0.008) \\\\ "
## [21] "\\\\[-1.83ex] \n \\hline \\\\[-1.83ex]"
## [22] "\\\\[-2.0ex] \\multicolumn{5}{@{} l}{\\textbf{Panel B: Continuous Independent Variable}}\n \\\\\n \\\\[-1
## [23] " Chamber Size & $-$0.002$^{**}$ & $-$0.002$^{**}$ & $-$0.002$^{**}$ & $-$0.001$^{*}$ \\\\ "
## [24] "  & (0.0004) & (0.001) & (0.0004) & (0.001) \\\\ "
## [25] "  In Majority & $-$0.012$^{*}$ & $-$0.0002 & $-$0.010 & 0.0001 \\\\ "
## [26] "  & (0.006) & (0.009) & (0.006) & (0.009) \\\\ "
## [27] "  Majority Seat Share & $-$0.135$^{**}$ & $-$0.029 & $-$0.140$^{**}$ & $-$0.026 \\\\ "
## [28] "  & (0.061) & (0.095) & (0.061) & (0.097) \\\\ "
## [29] "  Incumbent & 0.011 & 0.014$^{*}$ & 0.012 & 0.014$^{*}$ \\\\ "
## [30] "  & (0.007) & (0.008) & (0.008) & (0.008) \\\\ "
## [31] " \\hline \\\\[-1.8ex] "
## [32] "Fixed Effects & Year + District & Year + Leg.-District & Year + State & Year + Leg. \\\\ "
## [33] "Observations & 1,997 & 1,997 & 1,592 & 1,592 \\\\ "
## [34] "\\hline "
## [35] "\\hline \\\\[-1.8ex] "
## [36] "\\multicolumn{5}{r}{\\parbox[t]{0.95\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear regress
## [37] "                        standard errors clustered by legislator in parentheses. Observations are at the leg
## [38] "              $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\\\ "
## [39] "\\end{tabular} "
## [40] "\\end{table} "
```

```
###############################################################################
# New Jersey and Vermont Analysis ##############################################
###############################################################################

# main regression analyses

njvt2 <- felm(partyunity~bigger+majority+maj_share+inc|state+modyear1|0|id,data=dat_njvt)
njvtint2 <- felm(partyunity~bigger*majority+maj_share+inc|state+modyear1|0|id,data=dat_njvt)
njvt3 <- felm(partyunity~bigger+majority+maj_share+inc|id+modyear1|0|id,data=dat_njvt)
njvtint1 <- felm(partyunity~bigger*majority+maj_share+inc|id+modyear1|0|id,data=dat_njvt)

njvt2_cont <- felm(partyunity~lht+majority+maj_share+inc|state+modyear1|0|id,data=dat_njvt)
njvtint2_cont <- felm(partyunity~lht*majority+maj_share+inc|state+modyear1|0|id,data=dat_njvt)
njvt3_cont <- felm(partyunity~lht+majority+maj_share+inc|id+modyear1|0|id,data=dat_njvt)
njvtint1_cont <- felm(partyunity~lht*majority+maj_share+inc|id+modyear1|0|id,data=dat_njvt)

njvtsg <-  stargazer(njvt2,njvtint2,njvt3,njvtint1,
                     dep.var.labels = c("Party Unity Score"),
                     order=c(1,5,2,3,4),
                     covariate.labels = c("Chamber Larger",
                                          "Larger $\\times$ In Maj.",
                                          "In Majority",
                                          "Majority Seat Share", "Incumbent"),
                     keep.stat = c("n"),report = "vc*s",table.placement = "!ht",
                     add.lines = list(c("Fixed Effects","\\multicolumn{2}{c}{State + Year}","\\multicolumn{2}{c}{L
                     title = "Party Unity and Legislature Size: New Jersey and Vermont, 1957-1974 \\vspace{-0.75em
                     notes.append = FALSE,notes.label = "", no.space=T,
                     #table.layout ="-ld-#-t-as-n",
```

```
                    omit.table.layout = "l#",
                    digits=3,digits.extra=3,
                    star.char=c("*","**"),star.cutoffs = c(.1,.05),
                    notes="\\parbox[t]{0.75\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear regressi
                      standard errors clustered by legislator in parentheses. Observations are at the legislator-
              $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}")
```

```
##
## % Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com
## % Date and time: Fri, Aug 09, 2024 - 10:57:05
## \begin{table}[!ht] \centering
##   \caption{Party Unity and Legislature Size: New Jersey and Vermont, 1957-1974 \vspace{-0.75em}}
##   \label{njvttab}
## \begin{tabular}{@{\extracolsep{5pt}}lcccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
## \\[-1.8ex] & \multicolumn{4}{c}{Party Unity Score} \\
## \hline \\[-1.8ex]
##  Chamber Larger & $-$0.052$^{**}$ & $-$0.057$^{**}$ & $-$0.051$^{**}$ & 0.016 \\
##   & (0.011) & (0.016) & (0.014) & (0.016) \\
##   Larger $\times$ In Maj. &  & 0.006 &  & $-$0.090$^{**}$ \\
##   &  & (0.018) &  & (0.017) \\
##   In Majority & $-$0.042$^{**}$ & $-$0.045$^{**}$ & 0.029$^{**}$ & 0.069$^{**}$ \\
##   & (0.010) & (0.014) & (0.012) & (0.014) \\
##   Majority Seat Share & $-$0.074 & $-$0.074 & $-$0.003 & $-$0.0005 \\
##   & (0.057) & (0.057) & (0.053) & (0.053) \\
##   Incumbent & 0.018$^{**}$ & 0.018$^{**}$ & 0.018$^{**}$ & 0.018$^{**}$ \\
##   & (0.007) & (0.007) & (0.009) & (0.009) \\
##  \hline \\[-1.8ex]
## Fixed Effects & \multicolumn{2}{c}{State + Year} & \multicolumn{2}{c}{Leg. + Year} \\ % &  &  \\
## Observations & 2,539 & 2,539 & 2,539 & 2,539 \\
## \hline
## \hline \\[-1.8ex]
## \multicolumn{5}{r}{\parbox[t]{0.75\textwidth}{\footnotesize \textit{Note}: Entries are linear regression coeffi
##                       standard errors clustered by legislator in parentheses. Observations are at the legislat
##               $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\
## \end{tabular}
## \end{table}
```

```
njvtsg_cont <-  stargazer(njvt2_cont,njvtint2_cont,njvt3_cont,njvtint1_cont,
                          dep.var.labels = c("Party Unity Score"),
                          order=c(1,5,2,3,4),
                          covariate.labels = c("Chamber Size",
                                               "Size $\\times$ In Maj.",
                                               "In Majority",
                                               "Majority Seat Share", "Incumbent"),
                          keep.stat = c("n"),report = "vc*s",table.placement = "!ht",
                          add.lines = list(c("Fixed Effects","\\multicolumn{2}{c}{State + Year}","\\multicolumn{2}
                          title = "Party Unity and Legislature Size: New Jersey and Vermont, 1957-1974 \\vspace{-0
                          notes.append = FALSE,notes.label = "", no.space=T,
                          #table.layout ="-ld-#-t-as-n",
                          omit.table.layout = "l#",
                          digits=3,digits.extra=3,
                          star.char=c("*","**"),star.cutoffs = c(.1,.05),
                          notes="\\parbox[t]{0.75\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear reg
                        standard errors clustered by legislator in parentheses. Observations are at the legislator-
              $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}")
```

```
##
## % Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com
## % Date and time: Fri, Aug 09, 2024 - 10:57:05
## \begin{table}[!ht] \centering
##   \caption{Party Unity and Legislature Size: New Jersey and Vermont, 1957-1974 \vspace{-0.75em}}
##   \label{njvttab}
```

```
## \begin{tabular}{@{\extracolsep{5pt}}lcccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
## \\[-1.8ex] & \multicolumn{4}{c}{Party Unity Score} \\
## \hline \\[-1.8ex]
##  Chamber Size & $-$0.001$^{**}$ & $-$0.0003 & $-$0.001$^{**}$ & 0.0005$^{**}$ \\
##   & (0.0002) & (0.0002) & (0.0002) & (0.0002) \\
##   Size $\times$ In Maj. &  & $-$0.001$^{**}$ &  & $-$0.001$^{**}$ \\
##   &  & (0.0001) &  & (0.0002) \\
##   In Majority & $-$0.041$^{**}$ & 0.042$^{**}$ & 0.032$^{**}$ & 0.127$^{**}$ \\
##   & (0.010) & (0.018) & (0.012) & (0.020) \\
##   Majority Seat Share & $-$0.147$^{**}$ & $-$0.167$^{**}$ & $-$0.050 & $-$0.052 \\
##   & (0.049) & (0.049) & (0.050) & (0.050) \\
##   Incumbent & 0.019$^{**}$ & 0.021$^{**}$ & 0.018$^{**}$ & 0.018$^{**}$ \\
##   & (0.007) & (0.007) & (0.009) & (0.009) \\
##  \hline \\[-1.8ex]
## Fixed Effects & \multicolumn{2}{c}{State + Year} & \multicolumn{2}{c}{Leg. + Year} \\ % &  &  \\
## Observations & 2,539 & 2,539 & 2,539 & 2,539 \\
## \hline
## \hline \\[-1.8ex]
## \multicolumn{5}{r}{\parbox[t]{0.75\textwidth}{\footnotesize \textit{Note}: Entries are linear regression coeffi
##                       standard errors clustered by legislator in parentheses. Observations are at the legislat
##               $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\
## \end{tabular}
## \end{table}
```

```
star_panel(njvtsg,njvtsg_cont,panel.label.fontface="bold",
           panel.names = c("Binary Independent Variable",
                           "Continuous Independent Variable"),
                          same.lhs.vars = F,same.summary.stats = T)
```

```
##  [1] ""
##  [2] "% Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gma
##  [3] "% Date and time: Fri, Aug 09, 2024 - 10:57:05"
##  [4] "\\begin{table}[!ht] \\centering "
##  [5] "  \\caption{Party Unity and Legislature Size: New Jersey and Vermont, 1957-1974 \\vspace{-0.75em}} "
##  [6] "  \\label{njvttab} "
##  [7] "\\begin{tabular}{@{\\extracolsep{5pt}}lcccc} "
##  [8] "\\\\[-1.8ex]\\hline "
##  [9] "\\hline \\\\[-1.8ex] "
## [10] "\\\\[-1.8ex] & \\multicolumn{4}{c}{Party Unity Score} \\\\ "
## [11] "\\hline \\\\[-1.8ex] "
## [12] "\\\\[-2.0ex] \\multicolumn{5}{@{} l}{\\textbf{Panel A: Binary Independent Variable}}\n \\\\\n \\\\[-1.5ex]
## [13] " Chamber Larger & $-$0.052$^{**}$ & $-$0.057$^{**}$ & $-$0.051$^{**}$ & 0.016 \\\\ "
## [14] "  & (0.011) & (0.016) & (0.014) & (0.016) \\\\ "
## [15] "  Larger $\\times$ In Maj. &  & 0.006 &  & $-$0.090$^{**}$ \\\\ "
## [16] "  &  & (0.018) &  & (0.017) \\\\ "
## [17] "  In Majority & $-$0.042$^{**}$ & $-$0.045$^{**}$ & 0.029$^{**}$ & 0.069$^{**}$ \\\\ "
## [18] "  & (0.010) & (0.014) & (0.012) & (0.014) \\\\ "
## [19] "  Majority Seat Share & $-$0.074 & $-$0.074 & $-$0.003 & $-$0.0005 \\\\ "
## [20] "  & (0.057) & (0.057) & (0.053) & (0.053) \\\\ "
## [21] "  Incumbent & 0.018$^{**}$ & 0.018$^{**}$ & 0.018$^{**}$ & 0.018$^{**}$ \\\\ "
## [22] "  & (0.007) & (0.007) & (0.009) & (0.009) \\\\ "
## [23] "\\\\[-1.83ex] \n \\hline \\\\[-1.83ex]"
## [24] "\\\\[-2.0ex] \\multicolumn{5}{@{} l}{\\textbf{Panel B: Continuous Independent Variable}}\n \\\\\n \\\\[-1
## [25] " Chamber Size & $-$0.001$^{**}$ & $-$0.0003 & $-$0.001$^{**}$ & 0.0005$^{**}$ \\\\ "
## [26] "  & (0.0002) & (0.0002) & (0.0002) & (0.0002) \\\\ "
## [27] "  Size $\\times$ In Maj. &  & $-$0.001$^{**}$ &  & $-$0.001$^{**}$ \\\\ "
## [28] "  &  & (0.0001) &  & (0.0002) \\\\ "
## [29] "  In Majority & $-$0.041$^{**}$ & 0.042$^{**}$ & 0.032$^{**}$ & 0.127$^{**}$ \\\\ "
## [30] "  & (0.010) & (0.018) & (0.012) & (0.020) \\\\ "
## [31] "  Majority Seat Share & $-$0.147$^{**}$ & $-$0.167$^{**}$ & $-$0.050 & $-$0.052 \\\\ "
## [32] "  & (0.049) & (0.049) & (0.050) & (0.050) \\\\ "
## [33] "  Incumbent & 0.019$^{**}$ & 0.021$^{**}$ & 0.018$^{**}$ & 0.018$^{**}$ \\\\ "
```

```
## [34] "  & (0.007) & (0.007) & (0.009) & (0.009) \\\\ "
## [35] " \\hline \\\\[-1.8ex] "
## [36] "Fixed Effects & \\multicolumn{2}{c}{State + Year} & \\multicolumn{2}{c}{Leg. + Year} \\\\ % &  &  \\\\ "
## [37] "Observations & 2,539 & 2,539 & 2,539 & 2,539 \\\\ "
## [38] "\\hline "
## [39] "\\hline \\\\[-1.8ex] "
## [40] "\\multicolumn{5}{r}{\\parbox[t]{0.75\\textwidth}{\\footnotesize \\textit{Note}: Entries are linear regress
## [41] "                        standard errors clustered by legislator in parentheses. Observations are at the leg
## [42] "              $^{**}$p$<$0.05, $^{*}$p$<$0.10 (two-tailed).}} \\\\ "
## [43] "\\end{tabular} "
## [44] "\\end{table} "
```