Replication: Covert Assignments: Undercover Infiltration and the Repression of Protests

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```r
# load libraries
library(here)
library(tidyverse)
library(fixest)
library(glmmTMB)
library(texreg)

utils:::print.sessionInfo(sessionInfo()[-8],locale = FALSE)
```

```
R version 4.4.1 (2024-06-14)
Platform: aarch64-apple-darwin20
Running under: macOS 15.6.1

Matrix products: default
BLAS:   /Library/Frameworks/R.framework/Versions/4.4-arm64/Resources/lib/libRblas.0.dylib
LAPACK: /Library/Frameworks/R.framework/Versions/4.4-arm64/Resources/lib/libRlapack.dylib;

attached base packages:
NULL

other attached packages:
 [1] texreg_1.39.4   glmmTMB_1.1.9   fixest_0.12.1   lubridate_1.9.3
 [5] forcats_1.0.0   stringr_1.5.2   dplyr_1.1.4     purrr_1.1.0
 [9] readr_2.1.5     tidyr_1.3.1     tibble_3.3.0    ggplot2_4.0.0
[13] tidyverse_2.0.0 here_1.0.1

loaded via a namespace (and not attached):
 [1] gtable_0.3.6        TMB_1.9.15          xfun_0.49
 [4] lattice_0.22-6      tzdb_0.4.0          numDeriv_2016.8-1.1
 [7] vctrs_0.6.5         tools_4.4.1         generics_0.1.4
```

```
[10] sandwich_3.1-1      pkgconfig_2.0.3     Matrix_1.7-0
[13] RColorBrewer_1.1-3  S7_0.2.0            stringmagic_1.1.2
[16] lifecycle_1.0.4     compiler_4.4.1      farver_2.1.2
[19] codetools_0.2-20    htmltools_0.5.8.1   yaml_2.3.10
[22] Formula_1.2-5       nloptr_2.1.1        pillar_1.11.1
[25] MASS_7.3-60.2       boot_1.3-30         multcomp_1.4-26
[28] nlme_3.1-164        tidyselect_1.2.1    digest_0.6.37
[31] mvtnorm_1.3-3       stringi_1.8.7       splines_4.4.1
[34] rprojroot_2.1.1     fastmap_1.2.0       grid_4.4.1
[37] cli_3.6.5           magrittr_2.0.4      survival_3.6-4
[40] TH.data_1.1-2       withr_3.0.2         dreamerr_1.4.0
[43] scales_1.4.0        timechange_0.3.0    estimability_1.5.1
[46] httr_1.4.7          rmarkdown_2.29      emmeans_1.10.1
[49] lme4_1.1-35.5       zoo_1.8-14          hms_1.1.3
[52] coda_0.19-4.1       evaluate_1.0.1      knitr_1.49
[55] mgcv_1.9-1          rlang_1.1.6         Rcpp_1.1.0
[58] xtable_1.8-4        glue_1.8.0          minqa_1.2.8
[61] rstudioapi_0.16.0   jsonlite_1.8.9      R6_2.6.1
```

Load data

```
load(here("data","panel_dat.rda"))
```

Table 1. Effects on Undercover Policing

```
# model 1
model_vio_feols <- feols(policeUC_arrest_bin
                         ~ cl_quart_sw + cl_quarter + policeUC_count_bin
                         + policeUni_car_count_bin + pArrest_count_sw
                         + violence_escalation
                         | CACODE,
                         data=panel_dat, panel.id = ~ CACODE)

# model 2
model_vio_feols.t <- feols(policeUC_arrest_bin
                           ~ cl_quart_sw + cl_quarter + policeUC_count_bin
                           + policeUni_car_count_bin + pArrest_count_sw
```

```
                            + violence_escalation
                            + time +time2 + time3
                            | CACODE,
                            data=panel_dat, panel.id = ~ CACODE)

# model 3
model_vio_feols_iv <- feols(policeUC_arrest_bin
                             ~ policeUC_count_bin + policeUni_car_count_bin
                             + pArrest_count_sw + violence_escalation
                             | CACODE | cl_quart_sw + cl_quarter ~ weekend + day,
                             data=panel_dat, panel.id = ~ CACODE)

# model 4
model_vio_feols_iv.t <- feols(policeUC_arrest_bin ~ policeUC_count_bin
                               + policeUni_car_count_bin + pArrest_count_sw
                               + violence_escalation
                               + time +time2 + time3
                               | CACODE | cl_quart_sw + cl_quarter ~ weekend + day ,
                               data=panel_dat, panel.id = ~ CACODE)

# model 5
re_vio.mod <- glmmTMB(policeUC_arrest_bin ~ cl_quart_sw + cl_quarter
                      + policeUC_count_bin + policeUni_car_count_bin
                      + pArrest_count_sw
                      + violence_escalation
                      + indoorSp_protests + legCo  + (1 | CACODE), data = panel_dat, family="

# model 6
re_vio.mod.t <- glmmTMB(policeUC_arrest_bin ~ cl_quart_sw + cl_quarter
                        + policeUC_count_bin + policeUni_car_count_bin
                        + pArrest_count_sw
                        + violence_escalation
                        + indoorSp_protests + legCo
                        + time +time2 + time3 + (1 | CACODE), data = panel_dat, family="gaus


# main result (Table 1)--------------------------------
idvs = c("Closeness to protest zone",  "Protest zone",
         "Undercover Police", "Uniformed Police",
         "Arrests nearby", "Protest violence",
          "time", "time2", "time3",
         "Predicted closeness to protest zone",
```

```
           "Predicted protest zone",
            "Intercept",
            "Indoor spaces", "LegCo"
)
```

```
screenreg(list(model_vio_feols, model_vio_feols.t,
               model_vio_feols_iv,model_vio_feols_iv.t,
               re_vio.mod, re_vio.mod.t),
          include.variance=F, include.intercept = F,
          include.rsquared = F, include.loglik = F,
          include.aic = F, include.adjr = F,
          digits = 4,
          stars = c(0.01, 0.05, 0.10),
          custom.model.names = c(
            "OLS", "OLS",
            "2SLS","2SLS",
            "OLS", "OLS"),
          custom.coef.names = idvs,
          custom.gof.rows =
            list(Model = c("FE", "FE", "FE", "FE", "RE", "RE"),
                           TimePoly = c("N", "Y", "N", "Y","N", "Y")),
          omit.coef = "(time|time2|time3|(Intercept))"
          )
```

```
=============================================================================================================================
                                  OLS             OLS             2SLS            2SLS            OLS             OLS
-----------------------------------------------------------------------------------------------------------------------------
Closeness to protest zone      -0.0640 ***     -0.0649 ***                                     -0.0649 ***     -0.0658 ***
                               (0.0130)        (0.0131)                                        (0.0029)        (0.0029)
Protest zone                    0.0571 ***      0.0571 ***                                      0.0576 ***      0.0576 ***
                               (0.0068)        (0.0068)                                        (0.0007)        (0.0007)
Undercover Police               0.1818 ***      0.1818 ***      0.1378 ***      0.1376 ***      0.1824 ***      0.1824 ***
                               (0.0115)        (0.0115)        (0.0183)        (0.0183)        (0.0007)        (0.0007)
Uniformed Police               -0.0029 ***     -0.0029 ***     -0.0100 ***     -0.0100 ***     -0.0027 ***     -0.0027 ***
                               (0.0005)        (0.0005)        (0.0025)        (0.0025)        (0.0002)        (0.0002)
Arrests nearby                  0.0523 ***      0.0525 ***      0.0439 ***      0.0441 ***      0.0520 ***      0.0522 ***
                               (0.0113)        (0.0113)        (0.0121)        (0.0120)        (0.0015)        (0.0015)
Protest violence                0.0128          0.0129          0.0038          0.0038          0.0124 ***      0.0125 ***
                               (0.0123)        (0.0123)        (0.0073)        (0.0073)        (0.0012)        (0.0012)
Predicted closeness to protest zone                            -0.2456 ***     -0.2473 ***
                                                               (0.0612)        (0.0613)
Predicted protest zone                                          0.3407 ***      0.3424 ***
                                                               (0.0902)        (0.0907)
Indoor spaces                                                                                   0.0004 **       0.0004 **
                                                                                               (0.0002)        (0.0002)
LegCo                                                                                           0.0039 **       0.0038 **
                                                                                               (0.0016)        (0.0016)
-----------------------------------------------------------------------------------------------------------------------------
Model                                FE              FE              FE              FE              RE              RE
TimePoly                              N               Y               N               Y               N               Y
Num. obs.                        327248          327248          327248          327248          327248          327248
Num. groups: CACODE                 452             452             452             452             452             452
=============================================================================================================================
*** p < 0.01; ** p < 0.05; * p < 0.1
```

Compiling this file will take roughly 1 minute due to the convergence time needed for the `glmmTMB` package.