Replicating tables 2 and 3 (and table 5D in appendix)

June 2022

Replicating effect of military base on repression (Table 2)

- DV: shVictims_70 (Victims / 10,000 inh. in 1970 census)
- IV: DMilitaryPresence (Indicator military presence)

The first always corresponds to the results in the main text (which are run without the “outliers” and NA) the second table always correspond to the Table D5 in the robustness checks (and includes all the sample).

```
## OLS estimation, Dep. Var.: shVictims_70
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                     Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence   2.085556   0.406892  5.125572 6.0367e-07 ***
## share_allende70    -0.025779   0.024401 -1.056471 2.9180e-01
## share_alessandri70 -0.040151   0.030268 -1.326530 1.8590e-01
## lnDistStgo         -1.135601   0.297379 -3.818705 1.7019e-04 ***
## lnDistRegCapital   -0.007104   0.122101 -0.058182 9.5365e-01
## Pop70_pthousands   -0.609310   0.269216 -2.263280 2.4498e-02 *
## sh_rural_70        -1.437429   0.621063 -2.314465 2.1473e-02 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 225.4     Adj. R2: 0.509844
##               Within R2: 0.325597
```

```
## OLS estimation, Dep. Var.: shVictims_70
## Observations: 289
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                     Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence   3.343722   0.721621  4.633627 5.7165e-06 ***
## share_allende70     0.010500   0.061275  0.171366 8.6407e-01
## share_alessandri70  0.005151   0.068928  0.074736 9.4048e-01
## lnDistStgo         -1.799090   0.603846 -2.979386 3.1647e-03 **
## lnDistRegCapital    0.045734   0.220994  0.206946 8.3622e-01
## Pop70_pthousands    0.613176   0.415645  1.475240 1.4137e-01
## sh_rural_70         5.129180   2.126619  2.411894 1.6571e-02 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 555.2     Adj. R2: 0.408722
##               Within R2: 0.334371
```

These replicate well.

Same regressions removing the 1970 weights

```
## OLS estimation, Dep. Var.: shVictims_70
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                     Estimate Std. Error   t value  Pr(>|t|)
## DMilitaryPresence   1.668233   0.513553  3.248416 0.0013236 **
## share_allende70    -0.029791   0.019870 -1.499324 0.1350823
## share_alessandri70 -0.021421   0.022561 -0.949472 0.3433199
## lnDistStgo         -0.563313   0.298302 -1.888398 0.0601588 .
## lnDistRegCapital   -0.022119   0.133835 -0.165269 0.8688693
## Pop70_pthousands   -0.471032   0.393010 -1.198524 0.2318758
## sh_rural_70        -1.964430   0.613876 -3.200044 0.0015563 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 1.7244     Adj. R2: 0.274373
##                Within R2: 0.175053
```

```
## OLS estimation, Dep. Var.: shVictims_70
## Observations: 289
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value Pr(>|t|)
## DMilitaryPresence    0.462518   1.404864  0.329226  0.74225
## share_allende70      0.206219   0.227447  0.906666  0.36543
## share_alessandri70   0.198230   0.216023  0.917635  0.35967
## lnDistStgo           0.186472   0.912230  0.204414  0.83819
## lnDistRegCapital    -0.679369   0.797737 -0.851620  0.39522
## Pop70_pthousands     0.707144   0.989009  0.715003  0.47526
## sh_rural_70          5.721236   4.606785  1.241915  0.21540
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 7.64222     Adj. R2: 0.109498
##                 Within R2: 0.034596
```

Once we use the full sample and we remove the 1970 weights we loose significance on military presence on repression.

The paper justifies using weights in the following way: “Because our main outcomes of interest, voter registration and support for “No” in the 1988 plebiscite, correspond to individual behaviors, we weight our estimates by population in 1970. This way we ensure that we give equal importance to all voters, irrespective of the size of the county in which they reside".

However, I am not fully grasping this because: their variables are already a share based on the 1970 population. Victims / 10,000 inh. in 1970 census, share of support for NO (Voter registration (/ pop. 1970)), or the share of registration (Share_reg70_w2). So… this is not an individual behaviour anymore. This is an aggregate share of an individual behaviour.

Replicating effect of military base on voter registration (Table 3)

- DV: Share_reg70_w2 (Voter registration (/ pop. 1970))
- IV: DMilitaryPresence (Indicator military presence)

```
## OLS estimation, Dep. Var.: Share_reg70_w2
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    9.254647   4.377071  2.114347 3.5500e-02 *
## share_allende70     -0.450032   0.379999 -1.184297 2.3745e-01
## share_alessandri70   0.185801   0.405607  0.458082 6.4730e-01
## lnDistStgo           4.906498   3.235163  1.516615 1.3066e-01
## lnDistRegCapital    -3.375665   1.299645 -2.597375 9.9648e-03 **
## Pop70_pthousands   -26.705004   3.397524 -7.860137 1.2294e-13 ***
## sh_rural_70        -47.971217   8.905126 -5.386922 1.6859e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 2,473.7     Adj. R2: 0.624291
##                 Within R2: 0.594228
```

```
## OLS estimation, Dep. Var.: Share_reg70_w2
## Observations: 289
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence   17.431639   4.824832  3.612900 3.6415e-04 ***
## share_allende70     -0.497663   0.385363 -1.291414 1.9772e-01
## share_alessandri70   0.183281   0.416650  0.439892 6.6039e-01
## lnDistStgo          -1.477488   3.810271 -0.387764 6.9851e-01
## lnDistRegCapital    -1.984443   1.403866 -1.413556 1.5870e-01
## Pop70_pthousands   -21.276420   3.553701 -5.987115 7.1566e-09 ***
## sh_rural_70        -30.185286   9.306844 -3.243343 1.3377e-03 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 2,641.4     Adj. R2: 0.614882
##                 Within R2: 0.563786
```

These replicate well.

Same regressions removing the 1970 weights

```
## OLS estimation, Dep. Var.: Share_reg70_w2
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence   10.561560   4.340913  2.433028 1.5692e-02 *
## share_allende70     -0.110298   0.268484 -0.410817 6.8157e-01
## share_alessandri70   0.385524   0.316089  1.219671 2.2377e-01
## lnDistStgo          -0.134540   2.766172 -0.048638 9.6125e-01
## lnDistRegCapital    -4.659867   1.233305 -3.778356 1.9845e-04 ***
## Pop70_pthousands   -27.992974   3.700752 -7.564131 7.9373e-13 ***
## sh_rural_70        -39.511344   6.840750 -5.775879 2.3211e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 18.5     Adj. R2: 0.305678
##              Within R2: 0.268004
```

```
## OLS estimation, Dep. Var.: Share_reg70_w2
## Observations: 289
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence   10.939214   4.288214  2.550995 1.1322e-02 *
## share_allende70     -0.218762   0.268235 -0.815559 4.1551e-01
## share_alessandri70   0.314806   0.318880  0.987224 3.2446e-01
## lnDistStgo          -0.938889   2.740761 -0.342565 7.3221e-01
## lnDistRegCapital    -4.051250   1.240763 -3.265129 1.2428e-03 **
## Pop70_pthousands   -25.263138   3.652141 -6.917349 3.6429e-11 ***
## sh_rural_70        -36.203313   6.697993 -5.405099 1.4785e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 19.2     Adj. R2: 0.284985
##              Within R2: 0.251996
```

These continue to be significant and the effect increases.

Replicating effect of military base on No vote share (Table 3)

- DV: VoteShareNo_pop70 ("NO" vote share (/ pop. 1970))
- IV: DMilitaryPresence (Indicator military presence)

Personally, I find it very weird to calculate the share based on the population of 1970. Surely the population has changed in 18 years. More so if these are areas of high repression, were one could worry that people migrate selectively out of these areas. This is a wider concern: these areas might be comparable in 1970 but if repression did happen so much, the population might have moved endogenously.

```
## OLS estimation, Dep. Var.: VoteShareNo_pop70
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    6.214463   2.969349  2.092870 3.7394e-02 *
## share_allende70     -0.186782   0.218005 -0.856780 3.9241e-01
## share_alessandri70  -0.230856   0.269248 -0.857412 3.9206e-01
## lnDistStgo           1.690979   3.572606  0.473318 6.3641e-01
## lnDistRegCapital    -2.911383   1.291323 -2.254574 2.5047e-02 *
## Pop70_pthousands   -18.116412   5.345796 -3.388908 8.1809e-04 ***
## sh_rural_70        -38.523627   6.591720 -5.844245 1.6215e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 2,258.3     Adj. R2: 0.431994
##                 Within R2: 0.412706
```

```
## OLS estimation, Dep. Var.: VoteShareNo_pop70
## Observations: 289
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence   11.715191   3.321190  3.527408 4.9690e-04 ***
## share_allende70     -0.208303   0.222767 -0.935069 3.5063e-01
## share_alessandri70  -0.223845   0.275594 -0.812227 4.1741e-01
## lnDistStgo          -2.607148   4.490237 -0.580626 5.6200e-01
## lnDistRegCapital    -1.961312   1.181030 -1.660679 9.7997e-02 .
## Pop70_pthousands   -14.512952   5.041026 -2.878968 4.3257e-03 **
## sh_rural_70        -27.257973   6.054570 -4.502050 1.0213e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 2,308.1     Adj. R2: 0.431822
##                 Within R2: 0.398922
```

These replicate well Table 3 column 4. This is not included in Table 5D. But if we run this in the full sample (second table) it continues to be significant.

Removing weights

```
print(tb3.4.nw, type="table")
```

```
## OLS estimation, Dep. Var.: VoteShareNo_pop70
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    5.643375   2.717777  2.076468 3.8898e-02 *
## share_allende70      0.082982   0.153490  0.540633 5.8925e-01
## share_alessandri70  -0.020147   0.181378 -0.111076 9.1165e-01
## lnDistStgo          -1.724672   3.036999 -0.567887 5.7063e-01
## lnDistRegCapital    -3.059600   0.841565 -3.635606 3.3823e-04 ***
## Pop70_pthousands   -16.521637   4.015636 -4.114327 5.3131e-05 ***
## sh_rural_70        -33.368387   6.192989 -5.388091 1.6762e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 14.1     Adj. R2: 0.322461
##              Within R2: 0.254241
```

```
print(tb3.4.full.nw, type="table")
```

```
## OLS estimation, Dep. Var.: VoteShareNo_pop70
## Observations: 289
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    6.058370   2.754520  2.199429 2.8738e-02 *
## share_allende70      0.044403   0.143055  0.310394 7.5651e-01
## share_alessandri70  -0.041168   0.170609 -0.241298 8.0952e-01
## lnDistStgo          -1.897426   3.055091 -0.621070 5.3510e-01
## lnDistRegCapital    -2.937539   0.815138 -3.603731 3.7660e-04 ***
## Pop70_pthousands   -15.312919   3.770628 -4.061106 6.4898e-05 ***
## sh_rural_70        -31.704163   5.991097 -5.291879 2.5954e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 13.1     Adj. R2: 0.32118
##              Within R2: 0.253815
```

Both remain significant without weights.

Replicating effect of military base on No vote share (Table 3)

- DV: VoteShareNo (“NO” vote share (/ votes 1988))
- IV: DMilitaryPresence (Indicator military presence)

Note we are now changing the DV variable to a share computed as NO/votes 1988.

```
## OLS estimation, Dep. Var.: VoteShareNo
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    2.242306   1.014341  2.210604 2.7991e-02 *
## share_allende70      0.182955   0.070933  2.579267 1.0488e-02 *
## share_alessandri70  -0.464839   0.116520 -3.989343 8.7637e-05 ***
## lnDistStgo          -0.013226   0.904479 -0.014623 9.8835e-01
## lnDistRegCapital    -0.108835   0.242795 -0.448257 6.5437e-01
## Pop70_pthousands    -0.185485   0.729740 -0.254180 7.9957e-01
## sh_rural_70        -15.570377   2.069707 -7.522984 1.0252e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 676.1     Adj. R2: 0.801928
##               Within R2: 0.710037
```

```
## OLS estimation, Dep. Var.: VoteShareNo
## Observations: 289
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    2.197729   1.115038  1.970989 4.9798e-02 *
## share_allende70      0.194229   0.070417  2.758262 6.2283e-03 **
## share_alessandri70  -0.452558   0.114370 -3.956972 9.8263e-05 ***
## lnDistStgo           0.194032   0.672970  0.288321 7.7333e-01
## lnDistRegCapital    -0.130177   0.233835 -0.556702 5.7822e-01
## Pop70_pthousands    -0.253822   0.531901 -0.477199 6.3363e-01
## sh_rural_70        -15.746881   1.803489 -8.731341 3.2666e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 675.7     Adj. R2: 0.804279
##               Within R2: 0.710083
```

These results replicate well.

Remove weights

```
## OLS estimation, Dep. Var.: VoteShareNo
## Observations: 276
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    1.896762   1.289493  1.470936 1.4260e-01
## share_allende70      0.176882   0.070591  2.505743 1.2872e-02 *
## share_alessandri70  -0.422598   0.092834 -4.552200 8.3808e-06 ***
## lnDistStgo          -0.583739   0.768939 -0.759148 4.4850e-01
## lnDistRegCapital    -0.091730   0.422374 -0.217176 8.2825e-01
## Pop70_pthousands    -0.064806   0.892743 -0.072592 9.4219e-01
## sh_rural_70        -17.723545   2.449932 -7.234300 6.0317e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 5.7447     Adj. R2: 0.705408
##                Within R2: 0.597703
```

```
## OLS estimation, Dep. Var.: VoteShareNo
## Observations: 290
## Fixed-effects: IDProv: 25
## Standard-errors: Heteroskedasticity-robust
##                      Estimate Std. Error   t value   Pr(>|t|)
## DMilitaryPresence    1.857934   1.319009  1.408583 1.6016e-01
## share_allende70      0.196449   0.064787  3.032231 2.6749e-03 **
## share_alessandri70  -0.394896   0.085219 -4.633880 5.7003e-06 ***
## lnDistStgo          -0.233555   0.741627 -0.314922 7.5308e-01
## lnDistRegCapital    -0.260664   0.428150 -0.608814 5.4318e-01
## Pop70_pthousands    -0.454368   0.714578 -0.635855 5.2543e-01
## sh_rural_70        -17.697755   2.247815 -7.873314 9.5925e-14 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## RMSE: 5.82178     Adj. R2: 0.707611
##                 Within R2: 0.58623
```

When we calculate the share of NO as a proportion of the votes in 1988 and remove the weights of 1970 we get no significant results on the proportion of vote for no.

Zoom into weights

```
  table(d.rep[d.rep$Pop70==0,]$IDProv, useNA="always")
```

```
##
##   23 <NA>
##    1   52
```

We have 53 obs without weights. 52 are counties in the “NA” province and 1 in province “23”. So these nerver enter the regressions. This only bites when they use the full sample of 289.

Zoom into how this 0 population affects other variables

```
table(d.rep[d.rep$Pop70==0,]$VoteShareNo_pop70, useNA="always")
```

```
##
## <NA>
##   53
```

The variable NO vote share is not computed for these 53 obs when is divided by pop 70. This of course happens fot victims and registration share as they are all calculated out of pop 70.

But, these observations do have data for share of NO when calculated out of 1988 votes.

```
table(d.rep[d.rep$Pop70==0,]$VoteShareNo, useNA="always")
```

```
##
## 4.79041957855225 7.97546005249023 15.3526973724365 18.4094257354736
##                1                1                1                1
## 20.1627159118652 22.3756008148193 23.5836620330811 24.4635200500488
##                1                1                1                1
## 26.9014091491699 27.0967750549316 29.9506702423096  30.706033706665
##                1                1                1                1
## 33.0141525268555 34.6506729125977 35.0665588378906 37.1100158691406
##                1                1                1                1
## 37.1323509216309 37.3317222595215  40.826000213623      45.55859375
##                1                1                1                1
## 45.8907318115234 46.3169021606445 47.2273330688477  47.264461517334
##                1                1                1                1
## 58.6193733215332  58.624828338623  58.971363067627 61.5596542358398
##                1                1                1                1
## 61.5798950195312 61.6953735351562  62.471752166748 63.5607643127441
##                1                1                1                1
## 63.9050483703613 64.4086608886719 65.2613525390625  65.489616394043
##                1                1                1                1
## 66.1229553222656 66.2420806884766 66.3595352172852 66.5534057617188
##                1                1                1                1
## 66.7752227783203 67.7113800048828  68.085319519043 68.4522933959961
##                1                1                1                1
##  68.801872253418             <NA>
##                1                8
```

This to me speaks to population shifting in these 18 years.