Statistics/Data analysis

```
      name:  <unnamed>
       log:  C:\Dropbox\Alecia\Stability of Political Attitudes\Replication Prep\GSS\d
> ata\comparisons.smcl
  log type:  smcl
 opened on:  10 Dec 2025, 19:20:48

1 .
2 . use "GSS_2006_2020RecodedAppendedPanels.dta"

3 .
4 . generate wavefe = yearintv

5 .
6 . xtset panel_id yearintv, delta(2)

  Panel variable: panel_id (unbalanced)
   Time variable: yearintv, 2006 to 2020, but with gaps
           Delta: 2 units

7 .
8 .
9 .
10.
11.
12.
13.
14. /**Interclass correlation coefficients*/
15.
16.         /*Ideological Identification*/
17.
18. icc polviews panel_id yearintv if panel== 1,mixed absolute
  (766 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =      1205
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
             polviews |        ICC       [95% conf. interval]
----------------------+-------------------------------------------------------
           Individual |   .5989584        .5698018    .6272814
              Average |   .8175356        .7989356    .8346825
------------------------------------------------------------------------------

  F test that
    ICC=0.00: F(1204.0, 2408.0) =  5.49          Prob > F = 0.000

19.
20. icc polviews panel_id yearintv if panel== 2,mixed absolute
  (791 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =      1196
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
             polviews |        ICC       [95% conf. interval]
----------------------+-------------------------------------------------------
           Individual |   .6173874         .588966    .6449274
              Average |   .8287915        .8112733    .8449366
------------------------------------------------------------------------------

  F test that
    ICC=0.00: F(1195.0, 2390.0) =  5.85          Prob > F = 0.000
```

```
21.
22. icc polviews panel_id yearintv if panel== 3,mixed absolute
  (784 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =      1228
   Fixed effects: yearintv          Number of raters  =         3
```

| polviews | ICC | [95% conf. | interval] |
|---|---|---|---|
| Individual | .6526789 | .6263573 | .6780788 |
| Average | .8493418 | .8341367 | .8633703 |

```
  F test that
    ICC=0.00: F(1227.0, 2454.0) =  6.64          Prob > F = 0.000

23.
24. /* cannot compute because no case (individual) observed in all waves of panel 4
  > icc polviews panel_id yearintv if panel== 4,mixed absolute
  > */
25.
26.
27.
28.
29.         /*Government spending too much, too little, or about the right amount on mil
  > itary, armaments and defense.*/
30.
31. icc rec_natarms panel_id yearintv if panel== 1,mixed absolute
  (382 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       605
   Fixed effects: yearintv          Number of raters  =         3
```

| rec_natarms | ICC | [95% conf. | interval] |
|---|---|---|---|
| Individual | .4790221 | .4314579 | .5256586 |
| Average | .7339294 | .6948107 | .7687625 |

```
  F test that
    ICC=0.00: F(604.0, 1208.0) =  3.79           Prob > F = 0.000

32.
33. icc rec_natarms panel_id yearintv if panel== 2,mixed absolute
  (418 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       574
   Fixed effects: yearintv          Number of raters  =         3
```

| rec_natarms | ICC | [95% conf. | interval] |
|---|---|---|---|
| Individual | .5108626 | .4629005 | .5574915 |
| Average | .7580594 | .7211033 | .7907745 |

```
  F test that
    ICC=0.00: F(573.0, 1146.0) =  4.19           Prob > F = 0.000
```

```
34.
35. icc rec_natarms panel_id yearintv if panel== 3,mixed absolute
  (390 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       613
   Fixed effects: yearintv          Number of raters  =         3
```

| rec_natarms | ICC | [95% conf. | interval] |
|---|---|---|---|
| Individual | .517361 | .4717177 | .5618077 |
| Average | .7627985 | .7281709 | .7936574 |

```
  F test that
    ICC=0.00: F(612.0, 1224.0) =  4.25           Prob > F = 0.000

36.
37. /* cannot compute because no case (individual) observed in all waves of panel 4
  >
  > icc rec_natarms panel_id yearintv if panel== 4,mixed absolute
  > */
38.
39.
40.
41.         /*Government spending too much, too little, or about the right amount on wel
  > fare.*/
42. icc rec_natfare panel_id yearintv if panel== 1,mixed absolute
  (396 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       592
   Fixed effects: yearintv          Number of raters  =         3
```

| rec_natfare | ICC | [95% conf. | interval] |
|---|---|---|---|
| Individual | .5140938 | .4676797 | .5593349 |
| Average | .7604234 | .7249502 | .7920086 |

```
  F test that
    ICC=0.00: F(591.0, 1182.0) =  4.19           Prob > F = 0.000

43.
44. icc rec_natfare panel_id yearintv if panel== 2,mixed absolute
  (439 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       552
   Fixed effects: yearintv          Number of raters  =         3
```

| rec_natfare | ICC | [95% conf. | interval] |
|---|---|---|---|
| Individual | .5345422 | .4874031 | .5802571 |
| Average | .7750417 | .7404318 | .8057208 |

```
  F test that
    ICC=0.00: F(551.0, 1102.0) =  4.47           Prob > F = 0.000
```

```
45.
46. icc rec_natfare panel_id yearintv if panel== 3,mixed absolute
  (397 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       604
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
  rec_natfare |        ICC       [95% conf. interval]
--------------+---------------------------------------------------------------
   Individual |   .4875922        .440483    .5337392
      Average |   .7405773       .7025374    .7744785
------------------------------------------------------------------------------

  F test that
    ICC=0.00: F(603.0, 1206.0) =  3.88           Prob > F = 0.000

47.
48. /* cannot compute because no case (individual) observed in all waves of panel 4
  >
  > icc rec_natfare panel_id yearintv if panel== 4,mixed absolute
  > */
49.
50.
51.
52.         /*Government spending too much, too little, or about the right amount on imp
  > roving and protecting the environment.*/
53. icc rec_natenvir panel_id yearintv if panel== 1,mixed absolute
  (384 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       604
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
  rec_natenvir |        ICC       [95% conf. interval]
--------------+---------------------------------------------------------------
   Individual |   .4777689       .4250829    .5284759
      Average |   .7329476       .6892618    .7707656
------------------------------------------------------------------------------

  F test that
    ICC=0.00: F(603.0, 1206.0) =  3.88           Prob > F = 0.000

54.
55. icc rec_natenvir panel_id yearintv if panel== 2,mixed absolute
  (395 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       596
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
  rec_natenvir |        ICC       [95% conf. interval]
--------------+---------------------------------------------------------------
   Individual |   .4376115       .3873172    .4871257
      Average |   .7000951       .6547555    .7402184
------------------------------------------------------------------------------

  F test that
    ICC=0.00: F(595.0, 1190.0) =  3.39           Prob > F = 0.000
```

```
56.
57. icc rec_natenvir panel_id yearintv if panel== 3,mixed absolute
  (383 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       616
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
          rec_natenvir |        ICC       [95% conf. interval]
-----------------------+------------------------------------------------------
            Individual |   .5492393       .5054425    .5916806
               Average |   .7851964       .7540598    .8129858
------------------------------------------------------------------------------
  F test that
    ICC=0.00: F(615.0, 1230.0) =  4.66           Prob > F = 0.000

58.
59. /* cannot compute because no case (individual) observed in all waves of panel 4
  >
  > icc rec_rec_natenvir panel_id yearintv if panel== 4,mixed absolute
  > */
60.
61.
62.
63.
64.         /*The number of immigrants to America nowadays should be reduced a lot, redu
  > ced a little, remain the same as it is, increased a little, or increased a lot*/
65. icc rec_letin1a panel_id yearintv if panel== 1,mixed absolute
  (200 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       794
   Fixed effects: yearintv          Number of raters  =         2

------------------------------------------------------------------------------
           rec_letin1a |        ICC       [95% conf. interval]
-----------------------+------------------------------------------------------
            Individual |   .5749665       .5264611    .6197393
               Average |   .7301317       .6897799    .7652334
------------------------------------------------------------------------------
  F test that
    ICC=0.00: F(793.0, 793.0) =  3.70            Prob > F = 0.000

66.
67. icc rec_letin1a panel_id yearintv if panel== 2,mixed absolute
  (500 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       811
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
           rec_letin1a |        ICC       [95% conf. interval]
-----------------------+------------------------------------------------------
            Individual |   .4907021       .4502286    .5304448
               Average |   .7429611       .7107162     .772159
------------------------------------------------------------------------------
  F test that
    ICC=0.00: F(810.0, 1620.0) =  3.91           Prob > F = 0.000
```

```
68.
69. icc rec_letin1a panel_id yearintv if panel== 3,mixed absolute
  (557 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =       860
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
     rec_letin1a |        ICC       [95% conf. interval]
-----------------+------------------------------------------------------------
      Individual |   .5033326       .4645172    .5413987
         Average |   .7524912       .7224089    .7798147
------------------------------------------------------------------------------
  F test that
    ICC=0.00: F(859.0, 1718.0) = 4.04           Prob > F = 0.000

70.
71. /* cannot compute because no case (individual) observed in all waves of panel 4
  >
  > icc rec_letin1a panel_id yearintv if panel== 4,mixed absolute
  > */
72.
73.
74.
75.         /* Party Identification*/
76. icc rec_partyid panel_id yearintv if panel== 1,mixed absolute
  (736 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =      1260
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
     rec_partyid |        ICC       [95% conf. interval]
-----------------+------------------------------------------------------------
      Individual |   .8149932       .7988858    .8302003
         Average |   .9296549        .922582    .9361752
------------------------------------------------------------------------------
  F test that
    ICC=0.00: F(1259.0, 2518.0) = 14.31         Prob > F = 0.000

77.
78. icc rec_partyid panel_id yearintv if panel== 2,mixed absolute
  (742 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =      1277
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
     rec_partyid |        ICC       [95% conf. interval]
-----------------+------------------------------------------------------------
      Individual |   .8365014       .8222419    .8499529
         Average |   .9388334       .9327815    .9444251
------------------------------------------------------------------------------
  F test that
    ICC=0.00: F(1276.0, 2552.0) = 16.38         Prob > F = 0.000
```

```
79.
80. icc rec_partyid panel_id yearintv if panel== 3,mixed absolute
  (749 targets omitted from computation because not rated by all raters)

  Intraclass correlations
  Two-way mixed-effects model
  Absolute agreement

  Random effects: panel_id          Number of targets =      1286
   Fixed effects: yearintv          Number of raters  =         3

------------------------------------------------------------------------------
           rec_partyid |        ICC       [95% conf. interval]
-----------------------+------------------------------------------------------
            Individual |   .8164503       .8007671    .8312866
               Average |   .9302861       .9234172    .9366352
------------------------------------------------------------------------------

  F test that
    ICC=0.00: F(1285.0, 2570.0) = 14.34          Prob > F = 0.000

81.
82. /* cannot compute because no case (individual) observed in all waves of panel 4
  >
  > icc rec_partyid panel_id yearintv if panel== 4,mixed absolute
  >
  > */
83.
84.
85.
86.
87.
88.
89. /**AR1 approach**/
90.
91.         /*Party Identification*/
92. eststo:  xtregar rec_partyid age ib3.degree ib1.race ib1.sex ib1.rec_income ib1.pane
  > l i.wavefe, re
  note: 2018.wavefe omitted because of collinearity.

  RE GLS regression with AR(1) disturbances       Number of obs     =     18,754
  Group variable: panel_id                        Number of groups  =     10,406

  R-squared:                                      Obs per group:
       Within  = 0.0000                                         min =          1
       Between = 0.1153                                         avg =        1.8
       Overall = 0.1122                                         max =          3

                                                  Wald chi2(20)     =    1156.51
  corr(u_i, Xb) = 0 (assumed)                     Prob > chi2       =     0.0000

------------------------------ theta -------------------------------
       min        5%        median        95%        max
    0.5228     0.5228        0.6876     0.6876     0.6876

------------------------------------------------------------------------------
    rec_partyid | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
----------------+-------------------------------------------------------------
            age |  -.0000179   .0009988    -0.02   0.986    -.0019755    .0019396
                |
         degree |
lt high school |  -.0100533   .0535401    -0.19   0.851    -.1149899    .0948834
   high school |   .0377166   .0387462     0.97   0.330    -.0382246    .1136578
junior college |   .0378265   .0519373     0.73   0.466    -.0639688    .1396218
      graduate |  -.3228235   .0512114    -6.30   0.000    -.4231959   -.2224511
                |
          race |
         black |  -1.419295   .0462612   -30.68   0.000    -1.509966   -1.328625
         other |  -.4184889   .0452934    -9.24   0.000    -.5072623   -.3297156
                |
           sex |
        female |   -.226572   .0339851    -6.67   0.000    -.2931816   -.1599625
```

| | | | | | | |
|---|---|---|---|---|---|---|
| rec_income | | | | | | |
| $1000 to 2999 | .000212 | .0377862 | 0.01 | 0.996 | -.0738476 | .0742715 |
| $3000 to 3999 | .1242609 | .0336536 | 3.69 | 0.000 | .0583011 | .1902208 |
| 888 | .1350407 | .0444632 | 3.04 | 0.002 | .0478945 | .2221869 |
| panel | | | | | | |
| 2 | -.0420853 | .0566853 | -0.74 | 0.458 | -.1531865 | .0690159 |
| 3 | -.0393082 | .0583764 | -0.67 | 0.501 | -.1537239 | .0751074 |
| 4 | -.0641588 | .0587307 | -1.09 | 0.275 | -.1792688 | .0509512 |
| wavefe | | | | | | |
| 2008 | -.1535497 | .0287862 | -5.33 | 0.000 | -.2099696 | -.0971298 |
| 2010 | -.105137 | .0305441 | -3.44 | 0.001 | -.1650024 | -.0452717 |
| 2012 | -.0979403 | .0360334 | -2.72 | 0.007 | -.1685646 | -.0273161 |
| 2014 | -.0946584 | .0437135 | -2.17 | 0.030 | -.1803353 | -.0089815 |
| 2016 | -.070452 | .0558675 | -1.26 | 0.207 | -.1799503 | .0390463 |
| 2018 | 0 | (omitted) | | | | |
| _cons | 3.10659 | .0791988 | 39.23 | 0.000 | 2.951363 | 3.261817 |
| rho_ar | .07343041 | (estimated autocorrelation coefficient) | | | | |
| sigma_u | 1.6211957 | | | | | |
| sigma_e | .87807201 | | | | | |
| rho_fov | .77318458 | (fraction of variance due to u_i) | | | | |

(**est1** stored)

93. estimates store rec_partyidar1

94.
95.
96. /*Ideological Identification*/
97. eststo: xtregar polviews age ib3.degree ib1.race ib1.sex ib1.rec_income ib1.panel i
> .wavefe, re
note: **2018.wavefe** omitted because of collinearity.

RE GLS regression with AR(1) disturbances — Number of obs = **18,278**
Group variable: **panel_id** — Number of groups = **10,222**

R-squared:
Within = **0.0010**
Between = **0.0390**
Overall = **0.0345**

Obs per group:
min = **1**
avg = **1.8**
max = **3**

Wald chi2(**20**) = **403.80**
corr(u_i, Xb) = **0** (assumed) — Prob > chi2 = **0.0000**

theta

| min | 5% | median | 95% | max |
|---|---|---|---|---|
| **0.3582** | **0.3582** | **0.5563** | **0.5563** | **0.5563** |

| polviews | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| age | .0084096 | .0007671 | 10.96 | 0.000 | .006906 | .0099131 |
| degree | | | | | | |
| lt high school | .1538976 | .0454969 | 3.38 | 0.001 | .0647253 | .2430698 |
| high school | .1784685 | .0323787 | 5.51 | 0.000 | .1150074 | .2419296 |
| junior college | .1858271 | .0458476 | 4.05 | 0.000 | .0959674 | .2756869 |
| graduate | -.3229501 | .0442441 | -7.30 | 0.000 | -.4096669 | -.2362333 |
| race | | | | | | |
| black | -.275123 | .0365822 | -7.52 | 0.000 | -.3468227 | -.2034232 |
| other | -.1400487 | .0401855 | -3.49 | 0.000 | -.2188108 | -.0612866 |
| sex | | | | | | |
| female | -.0893465 | .0262462 | -3.40 | 0.001 | -.1407881 | -.0379049 |
| rec_income | | | | | | |
| $1000 to 2999 | .1297928 | .0370192 | 3.51 | 0.000 | .0572366 | .2023491 |
| $3000 to 3999 | .1888016 | .0315056 | 5.99 | 0.000 | .1270518 | .2505514 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 888 | .2103337 | .0445815 | 4.72 | 0.000 | .1229556 | .2977118 |
| panel | | | | | | |
| 2 | .0572592 | .0431848 | 1.33 | 0.185 | -.0273815 | .1418999 |
| 3 | .0157217 | .0456336 | 0.34 | 0.730 | -.0737184 | .1051619 |
| 4 | -.0802264 | .0463539 | -1.73 | 0.083 | -.1710784 | .0106256 |
| wavefe | | | | | | |
| 2008 | -.0769016 | .0305827 | -2.51 | 0.012 | -.1368426 | -.0169607 |
| 2010 | -.0470699 | .0320164 | -1.47 | 0.142 | -.1098209 | .0156811 |
| 2012 | -.0339988 | .0378057 | -0.90 | 0.368 | -.1080967 | .040099 |
| 2014 | -.096107 | .045663 | -2.10 | 0.035 | -.1856047 | -.0066092 |
| 2016 | .0098932 | .0440016 | 0.22 | 0.822 | -.0763484 | .0961348 |
| 2018 | 0 | (omitted) | | | | |
| _cons | 3.573294 | .0645982 | 55.32 | 0.000 | 3.446684 | 3.699904 |

| | | |
|---|---|---|
| rho_ar | .03704198 | (estimated autocorrelation coefficient) |
| sigma_u | 1.0935738 | |
| sigma_e | .91465165 | |
| rho_fov | .58839301 | (fraction of variance due to u_i) |

(**est2** stored)

98. estimates store polviewsar1

99.
100 /*Government spending too much, too little, or about the right amount on mil
> itary, armaments and defense.*/
101 eststo: xtregar rec_natarms age ib3.degree ib1.race ib1.sex ib1.rec_income ib1.pane
> l i.wavefe, re
note: **2018.wavefe** omitted because of collinearity.

RE GLS regression with AR(1) disturbances
Group variable: **panel_id**

R-squared:
Within = **0.0091**
Between = **0.0960**
Overall = **0.0800**

corr(u_i, Xb) = **0** (assumed)

| Number of obs | = | **9,117** |
|---|---|---|
| Number of groups | = | **5,127** |

Obs per group:

| | | |
|---|---|---|
| min | = | **1** |
| avg | = | **1.8** |
| max | = | **3** |

| | | |
|---|---|---|
| Wald chi2(**20**) | = | **584.42** |
| Prob > chi2 | = | **0.0000** |

theta

| min | 5% | median | 95% | max |
|---|---|---|---|---|
| **0.2554** | **0.2554** | **0.4476** | **0.4476** | **0.4476** |

| rec_natarms | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| age | .0070221 | .0005619 | 12.50 | 0.000 | .0059207 | .0081235 |
| degree | | | | | | |
| lt high school | .1999715 | .0345796 | 5.78 | 0.000 | .1321967 | .2677464 |
| high school | .2310746 | .0245944 | 9.40 | 0.000 | .1828705 | .2792787 |
| junior college | .2484976 | .0356854 | 6.96 | 0.000 | .1785554 | .3184398 |
| graduate | -.1173789 | .0333812 | -3.52 | 0.000 | -.1828048 | -.0519529 |
| race | | | | | | |
| black | -.1253832 | .027118 | -4.62 | 0.000 | -.1785335 | -.072233 |
| other | -.1674497 | .0304788 | -5.49 | 0.000 | -.2271872 | -.1077123 |
| sex | | | | | | |
| female | .1095409 | .0193692 | 5.66 | 0.000 | .0715779 | .1475039 |
| rec_income | | | | | | |
| $1000 to 2999 | -.0005436 | .0299037 | -0.02 | 0.985 | -.0591538 | .0580666 |
| $3000 to 3999 | .0757208 | .0246262 | 3.07 | 0.002 | .0274543 | .1239874 |
| 888 | .0604918 | .0359096 | 1.68 | 0.092 | -.0098897 | .1308733 |
| panel | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | -.0001042 | .0317148 | -0.00 | 0.997 | -.062264 | .0620556 |
| 3 | .0428547 | .0342759 | 1.25 | 0.211 | -.0243248 | .1100343 |
| 4 | .183605 | .0349207 | 5.26 | 0.000 | .1151616 | .2520484 |
| wavefe | | | | | | |
| 2008 | -.0671777 | .0262229 | -2.56 | 0.010 | -.1185737 | -.0157818 |
| 2010 | .0345857 | .0275283 | 1.26 | 0.209 | -.0193687 | .0885402 |
| 2012 | .0257249 | .0326037 | 0.79 | 0.430 | -.0381771 | .089627 |
| 2014 | .1201542 | .0394098 | 3.05 | 0.002 | .0429125 | .197396 |
| 2016 | .0640926 | .0330558 | 1.94 | 0.053 | -.0006956 | .1288808 |
| 2018 | 0 | (omitted) | | | | |
| _cons | 1.2988 | .0486678 | 26.69 | 0.000 | 1.203413 | 1.394187 |
| rho_ar | .04350047 | (estimated autocorrelation coefficient) | | | | |
| sigma_u | .50737986 | | | | | |
| sigma_e | .56535801 | | | | | |
| rho_fov | .44611052 | (fraction of variance due to u_i) | | | | |

(**est3** stored)

```
102 estimates store rec_natarmsar1

103
104         /*Government spending too much, too little, or about the right amount on wel
  > fare.*/
105 eststo:  xtregar rec_natfare age ib3.degree ib1.race ib1.sex ib1.rec_income ib1.pane
  > l i.wavefe, re
  note: 2018.wavefe omitted because of collinearity.

  RE GLS regression with AR(1) disturbances       Number of obs     =      9,056
  Group variable: panel_id                        Number of groups  =      5,107

  R-squared:                                      Obs per group:
       Within  = 0.0051                                         min =          1
       Between = 0.0679                                         avg =        1.8
       Overall = 0.0610                                         max =          3

                                                  Wald chi2(20)     =     378.47
  corr(u_i, Xb) = 0 (assumed)                     Prob > chi2       =     0.0000

  ------------------- theta -------------------
    min      5%       median        95%       max
  0.2634   0.2634     0.4544     0.4544    0.4544
```

| rec_natfare | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| age | -.0001668 | .0005642 | -0.30 | 0.768 | -.0012726 | .0009391 |
| degree | | | | | | |
| lt high school | -.0125921 | .0345198 | -0.36 | 0.715 | -.0802497 | .0550654 |
| high school | -.0940552 | .0245912 | -3.82 | 0.000 | -.1422531 | -.0458572 |
| junior college | -.1064523 | .0354865 | -3.00 | 0.003 | -.1760047 | -.0369 |
| graduate | .0789776 | .033336 | 2.37 | 0.018 | .0136403 | .144315 |
| race | | | | | | |
| black | .2774966 | .0271054 | 10.24 | 0.000 | .2243711 | .3306222 |
| other | .1305608 | .0303731 | 4.30 | 0.000 | .0710306 | .1900911 |
| sex | | | | | | |
| female | .0130802 | .0194232 | 0.67 | 0.501 | -.0249885 | .0511489 |
| rec_income | | | | | | |
| $1000 to 2999 | -.1088068 | .0296207 | -3.67 | 0.000 | -.1668623 | -.0507514 |
| $3000 to 3999 | -.271761 | .0245281 | -11.08 | 0.000 | -.3198353 | -.2236868 |
| 888 | -.164673 | .0355292 | -4.63 | 0.000 | -.234309 | -.0950369 |
| panel | | | | | | |
| 2 | .0008206 | .031743 | 0.03 | 0.979 | -.0613946 | .0630357 |
| 3 | -.0060726 | .0342269 | -0.18 | 0.859 | -.073156 | .0610108 |
| 4 | -.032043 | .0348611 | -0.92 | 0.358 | -.1003694 | .0362834 |

```
         wavefe |
          2008  |  -.0078991   .0259093    -0.30   0.760    -.0586803    .0428821
          2010  |  -.0858682   .0271954    -3.16   0.002    -.1391701   -.0325663
          2012  |  -.1351554   .0322394    -4.19   0.000    -.1983434   -.0719674
          2014  |  -.1514859   .0389421    -3.89   0.000    -.2278109   -.0751608
          2016  |  -.0778014   .0330643    -2.35   0.019    -.1426061   -.0129966
          2018  |          0  (omitted)
                |
          _cons |   2.099243   .0486747    43.13   0.000     2.003842    2.194643
-------------------------------------------------------------------------------
         rho_ar |  .05343744   (estimated autocorrelation coefficient)
        sigma_u |  .51111166
        sigma_e |  .55578472
        rho_fov |   .4582013   (fraction of variance due to u_i)
------------------------------------------------------------------------------
(est4 stored)

106 estimates store rec_natfarear1

107
108         /*Government spending too much, too little, or about the right amount on imp
  > roving and protecting the environment.*/
109 eststo:  xtregar rec_natenvir age ib3.degree ib1.race ib1.sex ib1.rec_income ib1.pan
  > el i.wavefe, re
  note: 2018.wavefe omitted because of collinearity.

  RE GLS regression with AR(1) disturbances       Number of obs     =      9,146
  Group variable: panel_id                        Number of groups  =      5,133

  R-squared:                                      Obs per group:
       Within  = 0.0241                                         min =          1
       Between = 0.0489                                         avg =        1.8
       Overall = 0.0430                                         max =          3

                                                  Wald chi2(20)     =     360.63
  corr(u_i, Xb) = 0 (assumed)                     Prob > chi2       =     0.0000

  ------------------- theta -------------------
    min      5%       median        95%      max
  0.2626   0.2626     0.4524     0.4524   0.4524

  ------------------------------------------------------------------------------
     rec_natenvir | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
  ------------------------------------------------------------------------------
              age |  -.0052431   .0004701   -11.15   0.000    -.0061645   -.0043218
                  |
           degree |
  lt high school  |  -.0857138   .0287915    -2.98   0.003    -.1421441   -.0292836
     high school  |  -.0362669   .0204314    -1.78   0.076    -.0763117    .0037778
  junior college  |  -.0259508   .0295265    -0.88   0.379    -.0838216      .03192
        graduate  |   .0566119   .0277889     2.04   0.042     .0021467    .1110772
                  |
             race |
           black  |   .0669144   .0225321     2.97   0.003     .0227523    .1110766
           other  |  -.0482015    .025221    -1.91   0.056    -.0976339    .0012308
                  |
              sex |
          female  |   .0994786   .0161764     6.15   0.000     .0677734    .1311838
                  |
       rec_income |
   $1000 to 2999  |  -.0205728   .0246516    -0.83   0.404    -.0688891    .0277434
   $3000 to 3999  |   -.006668   .0203797    -0.33   0.744    -.0466114    .0332755
             888  |  -.0675294   .0297164    -2.27   0.023    -.1257724   -.0092864
                  |
            panel |
               2  |  -.0078254   .0264592    -0.30   0.767    -.0596844    .0440336
               3  |  -.0218768   .0285798    -0.77   0.444    -.0778922    .0341385
               4  |  -.0263904   .0290002    -0.91   0.363    -.0832297    .0304489
                  |
           wavefe |
            2008  |  -.0288634   .0215913    -1.34   0.181    -.0711816    .0134547
```

| | | | | | | |
|---|---|---|---|---|---|---|
| 2010 | **-.1567149** | **.0226615** | **-6.92** | **0.000** | **-.2011307** | **-.1122991** |
| 2012 | **-.1476643** | **.026809** | **-5.51** | **0.000** | **-.2002089** | **-.0951197** |
| 2014 | **-.108028** | **.0324416** | **-3.33** | **0.001** | **-.1716124** | **-.0444436** |
| 2016 | **-.0828766** | **.0274168** | **-3.02** | **0.003** | **-.1366125** | **-.0291407** |
| 2018 | **0** | (omitted) | | | | |
| _cons | **2.866609** | **.0405261** | **70.73** | **0.000** | **2.787179** | **2.946039** |
| rho_ar | **.05723183** | (estimated autocorrelation coefficient) | | | | |
| sigma_u | **.42853135** | | | | | |
| sigma_e | **.46712008** | | | | | |
| rho_fov | **.45699529** | (fraction of variance due to u_i) | | | | |

(**est5** stored)

```
110 estimates store rec_natenvirar1

111
112         /*The number of immigrants to America nowadays should be reduced a lot, redu
  > ced a little, remain the same as it is, increased a little, or increased a lot*/
113 eststo:  xtregar rec_letin1a  age ib3.degree ib1.race ib1.sex ib1.rec_income ib1.pan
  > el i.wavefe, re
  note: 2018.wavefe omitted because of collinearity.

  RE GLS regression with AR(1) disturbances       Number of obs     =     11,025
  Group variable: panel_id                        Number of groups  =      6,571

  R-squared:                                      Obs per group:
       Within  = 0.0023                                         min =          1
       Between = 0.1051                                         avg =        1.7
       Overall = 0.0899                                         max =          3

                                                  Wald chi2(19)     =     782.33
  corr(u_i, Xb) = 0 (assumed)                     Prob > chi2       =     0.0000

  ------------------- theta -------------------
    min      5%       median        95%      max
  0.2697   0.2697     0.3949     0.4720   0.4720
```

| rec_letin1a | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| age | **-.0064484** | **.0006939** | **-9.29** | **0.000** | **-.0078084** | **-.0050884** |
| degree | | | | | | |
| lt high school | **-.2998564** | **.0431324** | **-6.95** | **0.000** | **-.3843944** | **-.2153185** |
| high school | **-.3893987** | **.0307554** | **-12.66** | **0.000** | **-.4496782** | **-.3291192** |
| junior college | **-.3491928** | **.0449794** | **-7.76** | **0.000** | **-.4373507** | **-.2610349** |
| graduate | **.1593923** | **.0430282** | **3.70** | **0.000** | **.0750586** | **.2437261** |
| race | | | | | | |
| black | **.3133047** | **.0332593** | **9.42** | **0.000** | **.2481176** | **.3784918** |
| other | **.46962** | **.0398882** | **11.77** | **0.000** | **.3914406** | **.5477994** |
| sex | | | | | | |
| female | **-.0160527** | **.0238703** | **-0.67** | **0.501** | **-.0628377** | **.0307323** |
| rec_income | | | | | | |
| $1000 to 2999 | **-.0929898** | **.0380375** | **-2.44** | **0.014** | **-.167542** | **-.0184376** |
| $3000 to 3999 | **-.0680954** | **.0314047** | **-2.17** | **0.030** | **-.1296476** | **-.0065432** |
| 888 | **-.1226487** | **.0457381** | **-2.68** | **0.007** | **-.2122937** | **-.0330036** |
| panel | | | | | | |
| 2 | **-.0054919** | **.0391204** | **-0.14** | **0.888** | **-.0821665** | **.0711826** |
| 3 | **.0090046** | **.0415188** | **0.22** | **0.828** | **-.0723709** | **.09038** |
| 4 | **.4299805** | **.0432191** | **9.95** | **0.000** | **.3452726** | **.5146884** |
| wavefe | | | | | | |
| 2010 | **.0572006** | **.0241142** | **2.37** | **0.018** | **.0099377** | **.1044635** |
| 2012 | **.0985565** | **.0291687** | **3.38** | **0.001** | **.041387** | **.155726** |
| 2014 | **.1598349** | **.0394695** | **4.05** | **0.000** | **.0824762** | **.2371937** |
| 2016 | **-.1571917** | **.0395943** | **-3.97** | **0.000** | **-.2347951** | **-.0795883** |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2018 | **0** | (omitted) | | | | |
| _cons | **2.89662** | **.0616848** | **46.96** | **0.000** | **2.77572** | **3.01752** |
| rho_ar | **.01086591** | (estimated autocorrelation coefficient) | | | | |
| sigma_u | **.71735519** | | | | | |
| sigma_e | **.7668692** | | | | | |
| rho_fov | **.46667689** | (fraction of variance due to u_i) | | | | |

(**est6** stored)

```
114 estimates store rec_letin1aar1

115
116 /*combine estimates from six models into one table for paper*/
117 esttab rec_partyidar1 polviewsar1 rec_natarmsar1 rec_natfarear1 rec_natenvirar1 rec_
  > letin1aar1  using gssar1.csv, replace se stat(rho_ar sigma_u sigma_e rho_fov N N_g)
  > star(* 0.10 ** 0.05 *** 0.01) t(3) b(3)
  (file gssar1.csv not found)
  (output written to gssar1.csv)

118
119
120
121
122
123
124 /*Arellano-Bond linear dynamic panel-data estimation approach*/
125
126 /*cannot compute because artests() exceed the number of time periods*/
127 //Error: Equation not identified. Regessors outnumber instruments.
128
129 /* Dropping singleton observations did not fix the issue.
  > //bysort panel_id (yearintv): drop if _N==1
  > */
130
131
132 /* Commented out because we could not estimate the Arellano-Bond linear dynamic pane
  > l-data estimates due to the error discribed above.
  >
  >
  > char degree[omit] 3
  >
  > char race[omit] 1
  > char sex[omit] 1
  > char rec_income[omit] 1
  > char panel[omit] 1
  > char wavefe[omit] 2006
  >
  >
  >         /*Ideological Identification*/
  > eststo: xi:  xtabond polviews age i.degree i.race i.sex i.rec_income i.panel i.wavef
  > e, lags(1) artests(2)
  > estimates store polviewsdynamic
  >
  >         /*Party Identification*/
  > eststo: xi:  xtabond rec_partyid age i.degree i.race i.sex i.rec_income i.panel i.wa
  > vefe, lags(1) artests(2)
  > estimates store rec_partyiddynamic
  >
  >         /*Government spending too much, too little, or about the right amount on mil
  > itary, armaments and defense.*/
  > eststo: xi:  xtabond rec_natarms age i.degree i.race i.sex i.rec_income i.panel i.wa
  > vefe, lags(1) artests(2)
  > estimates store rec_natarmsdynamic
  >
  >
  >         /*Government spending too much, too little, or about the right amount on wel
  > fare.*/
  > eststo: xi:  xtabond rec_natfare age i.degree i.race i.sex i.rec_income i.panel i.wa
  > vefe, lags(1) artests(2)
  > estimates store rec_natfaredynamic
```

```
  >
  >         /*Government spending too much, too little, or about the right amount on imp
  > roving and protecting the environment.*/
  > eststo: xi:  xtabond rec_natenvir age i.degree i.race i.sex i.rec_income i.panel i.w
  > avefe, lags(1) artests(2)
  > estimates store rec_natenvirdynamic
  >
  >         /*The number of immigrants to America nowadays should be reduced a lot, redu
  > ced a little, remain the same as it is, increased a little, or increased a lot*/
  > eststo: xi:  xtabond rec_letin1a age i.degree i.race i.sex i.rec_income i.panel i.wa
  > vefe, lags(1) artests(2)
  > estimates store rec_letin1adynamic
  >
  >         /*combine estimates from six models into one table for paper*/
  > esttab   polviewsdynamic rec_partyiddynamic rec_natarmsdynamic rec_natfaredynamic re
  > c_natenvirdynamic rec_letin1adynamic using gssdynamic.csv, replace se
  >
  > */
133
134
135
136
137
138
139 /*Rolling correlation*/
140
141 /*removing explanatory variables from dataset and reshaping dataset to wide*/
142
143 keep panel_id yearintv polviews rec_natarms rec_natfare rec_natenvir rec_letin1a rec
  > _partyid

144
145 reshape wide polviews rec_natarms rec_natfare rec_natenvir rec_letin1a rec_partyid,
  > i(panel_id ) j(yearintv)
  (j = 2006 2008 2010 2012 2014 2016 2018 2020)

  Data                               Long   ->   Wide
  -----------------------------------------------------------------------------
  Number of observations           21,648   ->   11,282
  Number of variables                   8   ->   49
  j variable (8 values)          yearintv   ->   (dropped)
  xij variables:
                                   polviews   ->   polviews2006 polviews2008 ... polviews2
  > 020
                                rec_natarms   ->   rec_natarms2006 rec_natarms2008 ... rec
  > _natarms2020
                                rec_natfare   ->   rec_natfare2006 rec_natfare2008 ... rec
  > _natfare2020
                               rec_natenvir   ->   rec_natenvir2006 rec_natenvir2008 ... r
  > ec_natenvir2020
                                rec_letin1a   ->   rec_letin1a2006 rec_letin1a2008 ... rec
  > _letin1a2020
                                rec_partyid   ->   rec_partyid2006 rec_partyid2008 ... rec
  > _partyid2020
  -----------------------------------------------------------------------------

146
147 save "gss_correlations.dta", replace
  (file gss_correlations.dta not found)
  file gss_correlations.dta saved
```

```
148
149
150
151         /*Ideological Identification*/
152 asdoc pwcorr polviews*, replace save(polviews_corr.doc)
```

| | pol~2006 | pol~2008 | pol~2010 | pol~2012 | pol~2014 | pol~2016 | pol~2018 | pol~2020 |
|---|---|---|---|---|---|---|---|---|
| polviews2006 | **1.0000** | | | | | | | |
| polviews2008 | **0.5766** | **1.0000** | | | | | | |
| polviews2010 | **0.5699** | **0.6130** | **1.0000** | | | | | |
| polviews2012 | . | **0.5952** | **0.6390** | **1.0000** | | | | |
| polviews2014 | . | . | **0.6325** | **0.6446** | **1.0000** | | | |
| polviews2016 | . | . | . | . | . | **1.0000** | | |
| polviews2018 | . | . | . | . | . | . | **1.0000** | |
| polviews2020 | . | . | . | . | . | **0.6030** | **0.6842** | **1.0000** |

```
>
```
**Click to Open File:** polviews_corr.doc

```
153
154         /*Government spending too much, too little, or about the right amount on mil
  > itary, armaments and defense.*/
155 asdoc pwcorr rec_natarms*, replace save(rec_natarms_corr.doc)
```

| | re~s2006 | re~s2008 | re~s2010 | re~s2012 | re~s2014 | re~s2016 | re~s2018 | re~s2020 |
|---|---|---|---|---|---|---|---|---|
| rec_natar~06 | **1.0000** | | | | | | | |
| rec_natar~08 | **0.4694** | **1.0000** | | | | | | |
| rec_natar~10 | **0.4412** | **0.5100** | **1.0000** | | | | | |
| rec_natarm~2 | . | **0.4836** | **0.5558** | **1.0000** | | | | |
| rec_natarm~4 | . | . | **0.4951** | **0.5168** | **1.0000** | | | |
| rec_natar~16 | . | . | . | . | . | **1.0000** | | |
| rec_natar~18 | . | . | . | . | . | . | **1.0000** | |
| rec_natar~20 | . | . | . | . | . | **0.5537** | **0.5767** | **1.0000** |

```
>
```
**Click to Open File:** rec_natarms_corr.doc

```
156
157         /*Government spending too much, too little, or about the right amount on wel
  > fare.*/
158 asdoc pwcorr rec_natfare*, replace save(rec_natfare_corr.doc)
```

| | re~e2006 | re~e2008 | re~e2010 | re~e2012 | re~e2014 | re~e2016 | re~e2018 | re~e2020 |
|---|---|---|---|---|---|---|---|---|
| rec_natfa~06 | **1.0000** | | | | | | | |
| rec_natfa~08 | **0.5047** | **1.0000** | | | | | | |
| rec_natfa~10 | **0.4543** | **0.5333** | **1.0000** | | | | | |
| rec_natfar~2 | . | **0.4755** | **0.5329** | **1.0000** | | | | |
| rec_natfar~4 | . | . | **0.4818** | **0.5160** | **1.0000** | | | |
| rec_natfa~16 | . | . | . | . | . | **1.0000** | | |
| rec_natfa~18 | . | . | . | . | . | . | **1.0000** | |
| rec_natfa~20 | . | . | . | . | . | **0.4617** | **0.5616** | **1.0000** |

```
>
```
**Click to Open File:** rec_natfare_corr.doc

```
159
160         /*Government spending too much, too little, or about the right amount on imp
  > roving and protecting the environment.*/
161 asdoc pwcorr rec_natenvir*, replace save(rec_natenvir_corr.doc)
```

| | re~r2006 | re~r2008 | re~r2010 | re~r2012 | re~r2014 | re~r2016 | re~r2018 | re~r2020 |
|---|---|---|---|---|---|---|---|---|
| rec_naten~06 | **1.0000** | | | | | | | |
| rec_naten~08 | **0.4638** | **1.0000** | | | | | | |
| rec_naten~10 | **0.4596** | **0.4883** | **1.0000** | | | | | |
| rec_natenv~2 | . | **0.3708** | **0.5461** | **1.0000** | | | | |
| rec_natenv~4 | . | . | **0.5142** | **0.5784** | **1.0000** | | | |
| rec_naten~16 | . | . | . | . | . | **1.0000** | | |
| rec_naten~18 | . | . | . | . | . | . | **1.0000** | |
| rec_naten~20 | . | . | . | . | . | **0.4938** | **0.5117** | **1.0000** |

```
>
```
**Click to Open File:** rec_natenvir_corr.doc

```
162
163         /*The number of immigrants to America nowadays should be reduced a lot, redu
  > ced a little, remain the same as it is, increased a little, or increased a lot*/
164 asdoc pwcorr rec_letin1a*, replace save(rec_letin1a_corr.doc)
```

| | rec_l~06 | rec_l~08 | rec_l~10 | rec_le~2 | rec_le~4 | rec_l~16 | rec_l~18 | rec_l~20 |
|---|---|---|---|---|---|---|---|---|
| rec_let~2006 | . | | | | | | | |
| rec_let~2008 | . | **1.0000** | | | | | | |
| rec_let~2010 | . | **0.5063** | **1.0000** | | | | | |
| rec_let~2012 | . | **0.5093** | **0.4943** | **1.0000** | | | | |
| rec_let~2014 | . | . | **0.4865** | **0.5199** | **1.0000** | | | |
| rec_let~2016 | . | . | . | . | . | **1.0000** | | |
| rec_let~2018 | . | . | . | . | . | . | **1.0000** | |
| rec_let~2020 | . | . | . | . | . | **0.4936** | **0.5456** | **1.0000** |

```
  >
  Click to Open File:  rec_letin1a_corr.doc

165
166         /*Party Identification*/
167 asdoc pwcorr rec_partyid*, replace save(rec_partyid_corr.doc)
```

| | rec_p~06 | rec_p~08 | rec_p~10 | rec_pa~2 | rec_pa~4 | rec_p~16 | rec_p~18 | rec_p~20 |
|---|---|---|---|---|---|---|---|---|
| rec_par~2006 | **1.0000** | | | | | | | |
| rec_par~2008 | **0.8265** | **1.0000** | | | | | | |
| rec_par~2010 | **0.7764** | **0.8316** | **1.0000** | | | | | |
| rec_par~2012 | . | **0.8153** | **0.8412** | **1.0000** | | | | |
| rec_par~2014 | . | . | **0.7896** | **0.8283** | **1.0000** | | | |
| rec_par~2016 | . | . | . | . | . | **1.0000** | | |
| rec_par~2018 | . | . | . | . | . | . | **1.0000** | |
| rec_par~2020 | . | . | . | . | . | **0.7312** | **0.8129** | **1.0000** |

```
  >
  Click to Open File:  rec_partyid_corr.doc

168
169
170 log close
       name:  <unnamed>
        log:  C:\Dropbox\Alecia\Stability of Political Attitudes\Replication Prep\GSS\d
  > ata\comparisons.smcl
   log type:  smcl
  closed on:  10 Dec 2025, 19:20:51
```