156project

```
library(haven)
table_A1 <- read_dta("table_A1.dta")
table_5 <- read_dta("table_5.dta")
aej_maindata <- read_dta("aej_maindata.dta")
```

```
library(AER)       # For ivreg
```

```
Warning: package 'AER' was built under R version 4.3.3
```

```
Loading required package: car
```

```
Loading required package: carData
```

```
Loading required package: lmtest
```

```
Loading required package: zoo
```

```

Attaching package: 'zoo'
```

```
The following objects are masked from 'package:base':

    as.Date, as.Date.numeric
```

```
Loading required package: sandwich
```

```
Loading required package: survival
```

```
library(sandwich)  # For robust standard errors

# Define variables
dependent_vars <- c("lngini_w", "lngini_b", "povrate_w", "povrate_b")
control_sets <- list(
  "count1920" = c("lenper", "count1920"),
  "black1920" = c("lenper", "black1920"),
  "ctyliterate1920" = c("lenper", "ctyliterate1920"),
  "ctymanuf_wkrs1920" = c("lenper", "ctymanuf_wkrs1920"),
  "lfp1920" = c("lenper", "lfp1920"),
  "herfscore" = c("lenper", "herfscore")
)

# Instrumental variable
instrument <- "herf"

# Store models
```

```r
models <- list()

for (dep_var in dependent_vars) {
  for (control_name in names(control_sets)) {
    controls <- control_sets[[control_name]]
    control_formula <- paste(controls, collapse = " + ")

    # Define formula
    formula <- as.formula(
      paste(dep_var, "~ dism1990 +", control_formula, "|", control_formula, "+", instrument)
    )


    model <- ivreg(formula, data = aej_maindata)
    model_name <- paste(dep_var, control_name, sep = "_")
    models[[model_name]] <- model

    print(model)
    summary(models[[model_name]])
  }
}
```

```
Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    count1920
 -7.258e-01   -3.742e-01    5.059e+00    1.006e-05


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    black1920
    -0.7192      -0.3643      -1.2617       0.8105


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
    (Intercept)         dism1990           lenper  ctyliterate1920
        -0.5970          -0.3122           5.1907          -0.1514


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
      (Intercept)           dism1990             lenper  ctymanuf_wkrs1920
          -0.7487            -0.4015             4.5046             0.1256


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
```

```
(Intercept)     dism1990       lenper      lfp1920
    -0.5908      -0.3053       3.7767      -0.3674


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    herfscore
   -0.71782     -0.41208      4.46817      0.06585


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    count1920
 -1.333e+00    8.987e-01   -7.799e+00   -5.982e-06


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    black1920
    -1.3381       0.8956      -3.4122      -0.5564


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
    (Intercept)         dism1990           lenper  ctyliterate1920
        -0.4118           1.0292         -10.7723          -1.0478


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
      (Intercept)           dism1990             lenper  ctymanuf_wkrs1920
         -1.32276            0.90361           -7.64998           -0.05353


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper      lfp1920
    -1.4543       0.8491      -6.5075       0.3265


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    herfscore
     -1.356        1.038       -5.785       -0.138
```

```
Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    count1920
  2.071e-01   -2.141e-01    3.629e-01    4.649e-06


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    black1920
     0.2066      -0.1995      -0.2513       0.1011


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
    (Intercept)         dism1990           lenper  ctyliterate1920
        0.39974         -0.16313          0.03772         -0.22167


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
      (Intercept)           dism1990             lenper  ctymanuf_wkrs1920
          0.20031           -0.21340            0.31952            0.03309


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper      lfp1920
    0.24875     -0.18663      0.03902     -0.11491


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    herfscore
   0.204319    -0.189355     0.692985    -0.005425


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    count1920
  1.192e-01    2.812e-01   -4.483e+00   -5.779e-06


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
```

```
(Intercept)     dism1990       lenper    black1920
     0.1084       0.2956       3.7250      -1.0081


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
    (Intercept)         dism1990           lenper  ctyliterate1920
        0.18896          0.26971         -4.97545         -0.07695


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
      (Intercept)           dism1990             lenper  ctymanuf_wkrs1920
          0.13523            0.30701           -4.00222           -0.09117


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper      lfp1920
    0.04954      0.24329     -3.84810      0.19024


Call:
ivreg(formula = formula, data = aej_maindata)

Coefficients:
(Intercept)     dism1990       lenper    herfscore
    0.11448      0.30379     -4.13173     -0.03852
```

```r
library(AER)       # For ivreg
library(sandwich)  # For robust standard errors

# Dependent variable: lngini_w
model_lngini_w_count1920 <- ivreg(
  lngini_w ~ dism1990 + lenper + count1920 | lenper + count1920 + herf,
  data = aej_maindata
)
model_lngini_w_black1920 <- ivreg(
  lngini_w ~ dism1990 + lenper + black1920 | lenper + black1920 + herf,
  data = aej_maindata
)
model_lngini_w_ctyliterate1920 <- ivreg(
  lngini_w ~ dism1990 + lenper + ctyliterate1920 | lenper + ctyliterate1920 + herf,
  data = aej_maindata
)
model_lngini_w_ctymanuf_wkrs1920 <- ivreg(
  lngini_w ~ dism1990 + lenper + ctymanuf_wkrs1920 | lenper + ctymanuf_wkrs1920 + herf,
  data = aej_maindata
)
model_lngini_w_lfp1920 <- ivreg(
  lngini_w ~ dism1990 + lenper + lfp1920 | lenper + lfp1920 + herf,
  data = aej_maindata
)
model_lngini_w_herfscore <- ivreg(
```

```
  lngini_w ~ dism1990 + lenper + herfscore | lenper + herfscore + herf,
  data = aej_maindata
)

# Dependent variable: lngini_b
model_lngini_b_count1920 <- ivreg(
  lngini_b ~ dism1990 + lenper + count1920 | lenper + count1920 + herf,
  data = aej_maindata
)
model_lngini_b_black1920 <- ivreg(
  lngini_b ~ dism1990 + lenper + black1920 | lenper + black1920 + herf,
  data = aej_maindata
)
model_lngini_b_ctyliterate1920 <- ivreg(
  lngini_b ~ dism1990 + lenper + ctyliterate1920 | lenper + ctyliterate1920 + herf,
  data = aej_maindata
)
model_lngini_b_ctymanuf_wkrs1920 <- ivreg(
  lngini_b ~ dism1990 + lenper + ctymanuf_wkrs1920 | lenper + ctymanuf_wkrs1920 + herf,
  data = aej_maindata
)
model_lngini_b_lfp1920 <- ivreg(
  lngini_b ~ dism1990 + lenper + lfp1920 | lenper + lfp1920 + herf,
  data = aej_maindata
)
model_lngini_b_herfscore <- ivreg(
  lngini_b ~ dism1990 + lenper + herfscore | lenper + herfscore + herf,
  data = aej_maindata
)

# Dependent variable: povrate_w
model_povrate_w_count1920 <- ivreg(
  povrate_w ~ dism1990 + lenper + count1920 | lenper + count1920 + herf,
  data = aej_maindata
)
model_povrate_w_black1920 <- ivreg(
  povrate_w ~ dism1990 + lenper + black1920 | lenper + black1920 + herf,
  data = aej_maindata
)
model_povrate_w_ctyliterate1920 <- ivreg(
  povrate_w ~ dism1990 + lenper + ctyliterate1920 | lenper + ctyliterate1920 + herf,
  data = aej_maindata
)
model_povrate_w_ctymanuf_wkrs1920 <- ivreg(
  povrate_w ~ dism1990 + lenper + ctymanuf_wkrs1920 | lenper + ctymanuf_wkrs1920 + herf,
  data = aej_maindata
)
model_povrate_w_lfp1920 <- ivreg(
  povrate_w ~ dism1990 + lenper + lfp1920 | lenper + lfp1920 + herf,
  data = aej_maindata
)
model_povrate_w_herfscore <- ivreg(
  povrate_w ~ dism1990 + lenper + herfscore | lenper + herfscore + herf,
  data = aej_maindata
)

# Dependent variable: povrate_b
model_povrate_b_count1920 <- ivreg(
  povrate_b ~ dism1990 + lenper + count1920 | lenper + count1920 + herf,
```

```
  data = aej_maindata
)
model_povrate_b_black1920 <- ivreg(
  povrate_b ~ dism1990 + lenper + black1920 | lenper + black1920 + herf,
  data = aej_maindata
)
model_povrate_b_ctyliterate1920 <- ivreg(
  povrate_b ~ dism1990 + lenper + ctyliterate1920 | lenper + ctyliterate1920 + herf,
  data = aej_maindata
)
model_povrate_b_ctymanuf_wkrs1920 <- ivreg(
  povrate_b ~ dism1990 + lenper + ctymanuf_wkrs1920 | lenper + ctymanuf_wkrs1920 + herf,
  data = aej_maindata
)
model_povrate_b_lfp1920 <- ivreg(
  povrate_b ~ dism1990 + lenper + lfp1920 | lenper + lfp1920 + herf,
  data = aej_maindata
)
model_povrate_b_herfscore <- ivreg(
  povrate_b ~ dism1990 + lenper + herfscore | lenper + herfscore + herf,
  data = aej_maindata
)
```

```
summary(model_lngini_w_count1920)
```

```
Call:
ivreg(formula = lngini_w ~ dism1990 + lenper + count1920 | lenper +
    count1920 + herf, data = aej_maindata)

Residuals:
      Min        1Q    Median        3Q       Max
-0.155103 -0.036506  0.002892  0.039800  0.240711

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) -7.258e-01  6.100e-02 -11.899  < 2e-16 ***
dism1990    -3.742e-01  1.185e-01  -3.157  0.00203 **
lenper       5.059e+00  5.266e+00   0.961  0.33871
count1920    1.006e-05  3.129e-06   3.215  0.00169 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.05903 on 117 degrees of freedom
Multiple R-Squared: -0.3178,    Adjusted R-squared: -0.3516
Wald test: 4.289 on 3 and 117 DF,  p-value: 0.006546
```

```
summary(model_lngini_b_count1920)
```

```
Call:
ivreg(formula = lngini_b ~ dism1990 + lenper + count1920 | lenper +
    count1920 + herf, data = aej_maindata)

Residuals:
     Min       1Q   Median       3Q      Max
-0.64974 -0.07188  0.01023  0.09361  0.39445
```

```
Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) -1.333e+00  1.684e-01  -7.918 1.54e-12 ***
dism1990     8.987e-01  3.272e-01   2.747  0.00697 **
lenper      -7.799e+00  1.454e+01  -0.537  0.59263
count1920   -5.982e-06  8.637e-06  -0.693  0.48993
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1629 on 117 degrees of freedom
Multiple R-Squared: 0.02494,    Adjusted R-squared: -6.029e-05
Wald test: 4.179 on 3 and 117 DF,  p-value: 0.007521
```

```
summary(model_povrate_w_count1920)
```

```

Call:
ivreg(formula = povrate_w ~ dism1990 + lenper + count1920 | lenper +
    count1920 + herf, data = aej_maindata)

Residuals:
       Min         1Q     Median         3Q        Max
-0.0994692 -0.0232872 -0.0004628  0.0205997  0.1084953

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  2.071e-01  3.821e-02   5.421 3.23e-07 ***
dism1990    -2.141e-01  7.424e-02  -2.884  0.00468 **
lenper       3.629e-01  3.299e+00   0.110  0.91259
count1920    4.649e-06  1.960e-06   2.372  0.01932 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.03697 on 117 degrees of freedom
Multiple R-Squared: -0.119, Adjusted R-squared: -0.1477
Wald test: 4.035 on 3 and 117 DF,  p-value: 0.009022
```

```
summary(model_povrate_b_count1920)
```

```

Call:
ivreg(formula = povrate_b ~ dism1990 + lenper + count1920 | lenper +
    count1920 + herf, data = aej_maindata)

Residuals:
      Min        1Q    Median        3Q       Max
-0.163894 -0.045700 -0.009892  0.037492  0.275884

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  1.192e-01  7.894e-02   1.510   0.1337
dism1990     2.812e-01  1.534e-01   1.833   0.0693 .
lenper      -4.483e+00  6.815e+00  -0.658   0.5120
count1920   -5.779e-06  4.049e-06  -1.427   0.1562
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.07639 on 117 degrees of freedom
Multiple R-Squared: 0.1043, Adjusted R-squared: 0.08138
```

```
Wald test: 1.212 on 3 and 117 DF,  p-value: 0.3086
```

Daisy's Section?

Table 1—Testing RDI as an Instrument

```
library(lmtest)
library(sandwich)

# Assuming your data is stored in a data.frame called 'aej_maindata'

# Table 1, OLS regressions with robust standard errors
reg1 <- lm(dism1990 ~ herf + lenper, data = aej_maindata)
coeftest(reg1, vcov = vcovHC(reg1, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value  Pr(>|t|)
(Intercept)  0.29356    0.06407  4.5818 1.152e-05 ***
herf         0.35731    0.08779  4.0700 8.534e-05 ***
lenper      18.51449   10.73123  1.7253   0.08709 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg2 <- lm(area1910/1000 ~ herf + lenper, data = aej_maindata)
coeftest(reg2, vcov = vcovHC(reg2, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)   18.4096     8.6123  2.1376  0.03701 *
herf          -3.9926    11.9865 -0.3331  0.74033
lenper      -574.4010   553.6690 -1.0374  0.30407
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg3 <- lm(count1910/1000 ~ herf + lenper, data = aej_maindata)
coeftest(reg3, vcov = vcovHC(reg3, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)   0.97688    0.92719  1.0536   0.2942
herf          0.66575    1.36296  0.4885   0.6261
lenper       75.55319  134.81490  0.5604   0.5763
```

```
reg4 <- lm(ethseg10 ~ herf + lenper, data = aej_maindata)
coeftest(reg4, vcov = vcovHC(reg4, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.238493   0.121372  1.9650  0.05547 .
```

```
herf         0.076499   0.185463  0.4125  0.68191
lenper      15.343030  53.248500  0.2881  0.77453
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg5 <- lm(ethiso10 ~ herf + lenper, data = aej_maindata)
coeftest(reg5, vcov = vcovHC(reg5, type = "HC1"))
```

```
t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)   0.048343   0.051346  0.9415   0.3514
herf          0.026653   0.070170  0.3798   0.7058
lenper      -12.438846  17.288261 -0.7195   0.4755
```

```
reg6 <- lm(black1910 ~ herf + lenper, data = aej_maindata)
coeftest(reg6, vcov = vcovHC(reg6, type = "HC1"))
```

```
t test of coefficients:

               Estimate  Std. Error t value Pr(>|t|)
(Intercept)  0.00655580  0.00725493  0.9036   0.3680
herf        -0.00063348  0.00998175 -0.0635   0.9495
lenper       9.23642359  0.64964442 14.2177   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg7 <- lm(passpc/1000 ~ herf + lenper, data = aej_maindata)
coeftest(reg7, vcov = vcovHC(reg7, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.27489    0.13535  2.0310  0.06969 .
herf        -0.13211    0.18321 -0.7210  0.48740
lenper       3.36059   20.50737  0.1639  0.87310
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg8 <- lm(black1920 ~ herf + lenper, data = aej_maindata)
coeftest(reg8, vcov = vcovHC(reg8, type = "HC1"))
```

```
t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.0021728  0.0058688 -0.3702   0.7119
herf         0.0131740  0.0090546  1.4550   0.1483
lenper       9.1187058  0.6153344 14.8191   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg9 <- lm(ctyliterate1920 ~ herf + lenper, data = aej_maindata)
coeftest(reg9, vcov = vcovHC(reg9, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value Pr(>|t|)
(Intercept) 0.920311   0.024335 37.8177  < 2e-16 ***
herf        0.052575   0.030279  1.7363  0.08512 .
lenper      0.179937   0.879880  0.2045  0.83831
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg10 <- lm(lfp1920 ~ herf + lenper, data = aej_maindata)
coeftest(reg10, vcov = vcovHC(reg10, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.401393   0.018348 21.8760  < 2e-16 ***
herf         0.028369   0.023958  1.1841  0.23875
lenper      -3.426924   1.500112 -2.2844  0.02413 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg11 <- lm(ctytrade_wkrs1920 ~ herf + lenper, data = aej_maindata)
coeftest(reg11, vcov = vcovHC(reg11, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.115919   0.066751  1.7366  0.08507 .
herf        -0.080325   0.093662 -0.8576  0.39285
lenper      -0.151642   2.909673 -0.0521  0.95852
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg12 <- lm(ctymanuf_wkrs1920 ~ herf + lenper, data = aej_maindata)
coeftest(reg12, vcov = vcovHC(reg12, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.30747    0.10227  3.0066 0.003229 **
herf         0.19053    0.13699  1.3908 0.166889
lenper      18.40027   10.91114  1.6864 0.094366 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg13 <- lm(ctyrail_wkrs1920 ~ herf + lenper, data = aej_maindata)
coeftest(reg13, vcov = vcovHC(reg13, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.055146   0.050550  1.0909   0.2775
herf        -0.073849   0.068134 -1.0839   0.2806
lenper       1.591711   2.428310  0.6555   0.5134
```

```
reg14 <- lm(incseg ~ herf + lenper, data = aej_maindata)
coeftest(reg14, vcov = vcovHC(reg14, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.195698   0.025116  7.7916 6.25e-11 ***
herf         0.032326   0.032185  1.0044   0.3189
lenper      -2.503764   1.626029 -1.5398   0.1284
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Table 2—The Effects of Segregation on Poverty and Inequality among Blacks and Whites

```
library(AER)
library(lmtest)
library(sandwich)

#Within-race poverty and inequality Gini index (1st row and 1-2 col of the table)
reg_lngini_w <- lm(lngini_w ~ dism1990, data = aej_maindata)
coeftest(reg_lngini_w, vcov = vcovHC(reg_lngini_w, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error  t value Pr(>|t|)
(Intercept) -0.869787   0.020909 -41.5988  < 2e-16 ***
dism1990    -0.079402   0.036977  -2.1473  0.03379 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg_lngini_b <- lm(lngini_b ~ dism1990, data = aej_maindata)
coeftest(reg_lngini_b, vcov = vcovHC(reg_lngini_b, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error  t value  Pr(>|t|)
(Intercept) -1.101809   0.061197 -18.0043 < 2.2e-16 ***
dism1990     0.459484   0.092814   4.9506 2.466e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
#Poverty rate (2nd row, col 1-2)
reg_povrate_w <- lm(povrate_w ~ dism1990, data = aej_maindata)
coeftest(reg_povrate_w, vcov = vcovHC(reg_povrate_w, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value  Pr(>|t|)
(Intercept)  0.135918   0.012327 11.0257 < 2.2e-16 ***
dism1990    -0.072789   0.019492 -3.7344 0.0002903 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg_povrate_b <- lm(povrate_b ~ dism1990, data = aej_maindata)
coeftest(reg_povrate_b, vcov = vcovHC(reg_povrate_b, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value  Pr(>|t|)
(Intercept) 0.160727   0.028792  5.5824 1.519e-07 ***
dism1990    0.181778   0.045335  4.0097 0.0001065 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# Table 2, Panel 1 - IV regressions
ivreg1 <- ivreg(lngini_w ~ dism1990 | herf, data = aej_maindata)
summary(ivreg1, robust = TRUE)
```

```
Call:
ivreg(formula = lngini_w ~ dism1990 | herf, data = aej_maindata)

Residuals:
     Min       1Q   Median       3Q      Max
-0.15407 -0.02944  0.00158  0.03444  0.27167

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.74284    0.05383 -13.799  < 2e-16 ***
dism1990    -0.30263    0.09420  -3.213  0.00169 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.05833 on 119 degrees of freedom
Multiple R-Squared: -0.3088,    Adjusted R-squared: -0.3198
Wald test: 10.32 on 1 and 119 DF,  p-value: 0.001693
```

```r
ivreg2 <- ivreg(lngini_b ~ dism1990 | herf, data = aej_maindata)
summary(ivreg2, robust = TRUE)
```

```
Call:
ivreg(formula = lngini_b ~ dism1990 | herf, data = aej_maindata)

Residuals:
      Min        1Q    Median        3Q       Max
-0.639386 -0.074655  0.004675  0.097568  0.392609

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  -1.3118     0.1471  -8.920  6.7e-15 ***
```

```
dism1990      0.8288     0.2573   3.221  0.00165 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1593 on 119 degrees of freedom
Multiple R-Squared: 0.05149,    Adjusted R-squared: 0.04352
Wald test: 10.37 on 1 and 119 DF,  p-value: 0.00165
```

```r
ivreg3 <- ivreg(povrate_w ~ dism1990 | herf, data = aej_maindata)
summary(ivreg3, robust = TRUE)
```

```

Call:
ivreg(formula = povrate_w ~ dism1990 | herf, data = aej_maindata)

Residuals:
      Min        1Q    Median        3Q       Max
-0.069777 -0.024144 -0.002442  0.023779  0.105029

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.20389    0.03412   5.975 2.45e-08 ***
dism1990    -0.19231    0.05971  -3.221  0.00165 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.03697 on 119 degrees of freedom
Multiple R-Squared: -0.138, Adjusted R-squared: -0.1476
Wald test: 10.37 on 1 and 119 DF,  p-value: 0.001648
```

```r
ivreg4 <- ivreg(povrate_b ~ dism1990 | herf, data = aej_maindata)
summary(ivreg4, robust = TRUE)
```

```

Call:
ivreg(formula = povrate_b ~ dism1990 | herf, data = aej_maindata)

Residuals:
     Min       1Q   Median       3Q      Max
-0.15319 -0.04358 -0.01011  0.04000  0.26335

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.13268    0.07054   1.881   0.0624 .
dism1990     0.23110    0.12343   1.872   0.0636 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.07643 on 119 degrees of freedom
Multiple R-Squared: 0.08813,    Adjusted R-squared: 0.08047
Wald test: 3.505 on 1 and 119 DF,  p-value: 0.06362
```

```r
# Table 2, Panel 1 (Subset)
reg15 <- lm(lngini_w ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg15, vcov = vcovHC(reg15, type = "HC1"))
```

```

t test of coefficients:
```

```
             Estimate Std. Error  t value Pr(>|t|)
(Intercept) -0.833568   0.033741 -24.7052   <2e-16 ***
herf        -0.110421   0.065829  -1.6774   0.1054
lenper       3.630380  28.053791   0.1294   0.8980
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg16 <- lm(lngini_b ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg16, vcov = vcovHC(reg16, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value  Pr(>|t|)
(Intercept)  -1.05955    0.23014 -4.6039 9.562e-05 ***
herf          0.16650    0.42437  0.3924    0.6980
lenper      -20.97796  163.03980 -0.1287    0.8986
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg17 <- lm(povrate_w ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg17, vcov = vcovHC(reg17, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value  Pr(>|t|)
(Intercept)  0.124555   0.016081  7.7457 3.224e-08 ***
herf        -0.036078   0.034974 -1.0316    0.3118
lenper      10.948640  20.104772  0.5446    0.5907
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg18 <- lm(povrate_b ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg18, vcov = vcovHC(reg18, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value  Pr(>|t|)
(Intercept)  0.275441   0.041536  6.6314 4.929e-07 ***
herf        -0.136242   0.093838 -1.4519    0.1585
lenper      80.445959  48.508019  1.6584    0.1093
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# Table 2, Panel 2 - OLS regressions
reg19 <- lm(ln90w90b ~ dism1990, data = aej_maindata)
coeftest(reg19, vcov = vcovHC(reg19, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value  Pr(>|t|)
(Intercept) 0.208678   0.054894  3.8014 0.0002284 ***
dism1990    0.111120   0.086270  1.2880 0.2002289
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg20 <- lm(ln10w10b ~ dism1990, data = aej_maindata)
coeftest(reg20, vcov = vcovHC(reg20, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value  Pr(>|t|)
(Intercept) -0.097944   0.159034 -0.6159    0.5392
dism1990     1.295175   0.249427  5.1926 8.669e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg21 <- lm(ln90w10b ~ dism1990, data = aej_maindata)
coeftest(reg21, vcov = vcovHC(reg21, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value  Pr(>|t|)
(Intercept)  2.12209    0.17968 11.8105 < 2.2e-16 ***
dism1990     1.17185    0.28241  4.1494 6.288e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
reg22 <- lm(ln90b10w ~ dism1990, data = aej_maindata)
coeftest(reg22, vcov = vcovHC(reg22, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)  2.011354   0.077148 26.0715  < 2e-16 ***
dism1990    -0.234441   0.131000 -1.7896  0.07606 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# Table 2, Panel 2 - IV regressions
ivreg5 <- ivreg(ln90w90b ~ dism1990 | herf, data = aej_maindata)
summary(ivreg5, robust = TRUE)
```

```
Call:
ivreg(formula = ln90w90b ~ dism1990 | herf, data = aej_maindata)

Residuals:
      Min        1Q    Median        3Q       Max
-0.504649 -0.083827  0.001965  0.090971  0.442302

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)   0.3350     0.1409   2.378    0.019 *
dism1990     -0.1109     0.2465  -0.450    0.654
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1526 on 119 degrees of freedom
Multiple R-Squared: -0.03014,   Adjusted R-squared: -0.03879
Wald test: 0.2025 on 1 and 119 DF,  p-value: 0.6535
```

```r
ivreg6 <- ivreg(ln10w10b ~ dism1990 | herf, data = aej_maindata)
summary(ivreg6, robust = TRUE)
```

```
Call:
ivreg(formula = ln10w10b ~ dism1990 | herf, data = aej_maindata)

Residuals:
     Min       1Q   Median       3Q      Max
-0.99996 -0.29586 -0.02606  0.22347  1.20237

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  -0.7979     0.4028  -1.981 0.049922 *
dism1990      2.5259     0.7049   3.584 0.000492 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4364 on 119 degrees of freedom
Multiple R-Squared: 0.01551,    Adjusted R-squared: 0.007233
Wald test: 12.84 on 1 and 119 DF,  p-value: 0.0004922
```

```r
ivreg7 <- ivreg(ln90w10b ~ dism1990 | herf, data = aej_maindata)
summary(ivreg7, robust = TRUE)
```

```
Call:
ivreg(formula = ln90w10b ~ dism1990 | herf, data = aej_maindata)

Residuals:
      Min        1Q    Median        3Q       Max
-1.107440 -0.212875  0.001563  0.195718  1.253435

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)   1.8345     0.3957   4.636 9.17e-06 ***
dism1990      1.6775     0.6924   2.423   0.0169 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4287 on 119 degrees of freedom
Multiple R-Squared: 0.1008, Adjusted R-squared: 0.09326
Wald test:  5.87 on 1 and 119 DF,  p-value: 0.01691
```

```r
ivreg8 <- ivreg(ln90b10w ~ dism1990 | herf, data = aej_maindata)
summary(ivreg8, robust = TRUE)
```

```
Call:
ivreg(formula = ln90b10w ~ dism1990 | herf, data = aej_maindata)

Residuals:
     Min       1Q   Median       3Q      Max
-0.52089 -0.12989 -0.01431  0.10856  0.91301

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
```

```
(Intercept)   2.2974     0.1912  12.017   <2e-16 ***
dism1990     -0.7375     0.3345  -2.204   0.0294 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.2071 on 119 degrees of freedom
Multiple R-Squared: -0.09306,   Adjusted R-squared: -0.1022
Wald test:  4.86 on 1 and 119 DF,  p-value: 0.02941
```

```
# Table 2, Panel 2 (Subset condition)
reg23 <- lm(ln90w90b ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg23, vcov = vcovHC(reg23, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value  Pr(>|t|)
(Intercept)  0.55121    0.12330  4.4706 0.0001359 ***
herf        -0.44329    0.21693 -2.0435 0.0512572 .
lenper      39.95233   90.96575  0.4392 0.6641439
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg24 <- lm(ln10w10b ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg24, vcov = vcovHC(reg24, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value Pr(>|t|)
(Intercept)   0.32666    0.32375  1.0090   0.3223
herf         -0.13508    0.53192 -0.2540   0.8015
lenper       97.43497  282.18260  0.3453   0.7327
```

```
reg25 <- lm(ln90w10b ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg25, vcov = vcovHC(reg25, type = "HC1"))
```

```
t test of coefficients:

             Estimate Std. Error t value  Pr(>|t|)
(Intercept)   2.62890    0.33853  7.7656 3.075e-08 ***
herf         -0.44874    0.55760 -0.8048    0.4282
lenper      160.07624  290.06024  0.5519    0.5857
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
reg26 <- lm(ln90b10w ~ herf + lenper, data = aej_maindata, subset = closeness < -400)
coeftest(reg26, vcov = vcovHC(reg26, type = "HC1"))
```

```
t test of coefficients:

            Estimate Std. Error t value  Pr(>|t|)
(Intercept)  1.75103    0.14380 12.1769 3.028e-12 ***
herf         0.12963    0.24849  0.5217    0.6063
lenper      22.68890   95.68759  0.2371    0.8144
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```