```
------------------------------------------------------------------------------------------------
-------------------------------------------------------------
      name:  <unnamed>
       log:  M:\Projects\Graham\Steroids\2017Submission\Stata\runlots.log
  log type:  text
 opened on:   3 Oct 2017, 17:19:33

.
. do poissonshell 1280 2.82 0.335 0.69 0.69 105637 10000

. ************************************************************************
. *
. * Program to try out power and sample size for COS project
. *
. * this is the "shell" program for poissonpower
. *
. *
. * Author: Susanne May
. * Date: 09/16/2017
. *
. *
. * this program requires 5 input parameters, NOTE input parameter do not seem to work, directly
code the values instead
. *
. *       1 = number of observations total (to be divided into 2 groups)
. *       2 = exp(beta0) for the SOC group
. *       3 = exp(beta1) for the tx group
. *       4 = percent of observations with zero count/outcome value in SOC group (1)
. *       5 = percent of observations with zero count/outcome value in tx group (2)
. *       6 = random number seed
. *       7 = number of replications
. *       8 = number of log output file
. *
. *       . do poissonshell 1280 3.1 0.31 0.69 0.69 39083 500
. *
. ************************************************************************
.
.     display "Simulation started  $S_DATE   $S_TIME"
Simulation started   3 Oct 2017   17:19:33


.
.     clear

.     use one

.     replace nummer=1 in 1
(0 real changes made)

.     save,replace
file one.dta saved

.     clear

.
.     simulate obs=r(obs) meanSOC1=r(meanSOC1) sdSOC1=r(sdSOC1) n1=r(n1) n1_0s=r(n1_0s)
perc0sSOC1=r(perc0sSOC1) ///
>         meantx2=r(meantx2) sdtx2=r(sdtx2) n2=r(n2) n2_0s=r(n2_0s) perc0stx2=r(perc0stx2) ///
>         meandiff=r(meandiff) realdiff=r(realdiff) ///
>         pvallrtest=r(pvallrtest) chi2lrtest=r(chi2lrtest) reject05lrtest=r(reject05lrtest) ///
>         pvalttestu=r(pvalttestu) tttestu=r(tttestu) reject05tttestu=r(reject05tttestu)
incittu=r(incittu) ///
>         pvaltteste=r(pvaltteste) ttteste=r(ttteste) reject05ttteste=r(reject05ttteste)
incitte=r(incitte) ///
>         b1wo=r(b1wo) b1sewo=r(b1sewo) b1pvalwo=r(b1pvalwo) reject05regrwo=r(reject05regrwo)
b1uciwo=r(b1uciwo) b1lciwo=r(b1lciwo) incilrwo=r(incilrwo) ///
>         b1w=r(b1w) b1sew=r(b1sew) b1pvalw=r(b1pvalw) reject05regrw=r(reject05regrw)
b1uciw=r(b1uciw) b1lciw=r(b1lciw) incilrw=r(incilrw) ///
>             , reps(`7'): simula, nn(`1') beta0(`2') beta1(`3') perc0s1(`4') perc0s2(`5')
seed(`6')
```

```
         command:  simula, nn(1280) beta0(2.82) beta1(0.335) perc0s1(0.69) perc0s2(0.69)
seed(105637)
             obs:  r(obs)
        meanSOC1:  r(meanSOC1)
          sdSOC1:  r(sdSOC1)
              n1:  r(n1)
           n1_0s:  r(n1_0s)
      perc0sSOC1:  r(perc0sSOC1)
         meantx2:  r(meantx2)
           sdtx2:  r(sdtx2)
              n2:  r(n2)
           n2_0s:  r(n2_0s)
       perc0stx2:  r(perc0stx2)
        meandiff:  r(meandiff)
        realdiff:  r(realdiff)
      pvallrtest:  r(pvallrtest)
      chi2lrtest:  r(chi2lrtest)
  reject05lrtest:  r(reject05lrtest)
      pvalttestu:  r(pvalttestu)
         tttestu:  r(tttestu)
 reject05tttestu:  r(reject05tttestu)
         incittu:  r(incittu)
      pvaltteste:  r(pvaltteste)
         ttteste:  r(ttteste)
 reject05ttteste:  r(reject05ttteste)
         incitte:  r(incitte)
            b1wo:  r(b1wo)
          b1sewo:  r(b1sewo)
        b1pvalwo:  r(b1pvalwo)
  reject05regrwo:  r(reject05regrwo)
         b1uciwo:  r(b1uciwo)
         b1lciwo:  r(b1lciwo)
        incilrwo:  r(incilrwo)
             b1w:  r(b1w)
           b1sew:  r(b1sew)
         b1pvalw:  r(b1pvalw)
   reject05regrw:  r(reject05regrw)
          b1uciw:  r(b1uciw)
          b1lciw:  r(b1lciw)
         incilrw:  r(incilrw)

Simulations (10000)
----+--- 1 ---+--- 2 ---+--- 3 ---+--- 4 ---+--- 5
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.
.     display "Program was run as: do poissonshell `*'"
Program was run as: do poissonshell 1280 2.82 0.335 0.69 0.69 105637 10000

.     display "with arguments: n beta0 beta1 perc0s1 perc0s2 seed reps"
with arguments: n beta0 beta1 perc0s1 perc0s2 seed reps

.     sum obs-realdiff

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
         obs |     10,000        1280           0       1280       1280
    meanSOC1 |     10,000    5.202284    .3225202   4.023438   6.503125
      sdSOC1 |     10,000    8.084327    .1998331   7.294434   8.860343
          n1 |     10,000         640           0        640        640
       n1_0s |     10,000    441.5056    11.78825        393        484
-------------+---------------------------------------------------------
  perc0sSOC1 |     10,000    .6898525    .0184191   .6140625     .75625
     meantx2 |     10,000    7.275383    .4381725   5.707812   9.160937
       sdtx2 |     10,000    11.17779    .2484389   10.11804   12.00482
          n2 |     10,000         640           0        640        640
       n2_0s |     10,000    441.4996    11.61818        390        483
-------------+---------------------------------------------------------
   perc0stx2 |     10,000    .6898431    .0181534    .609375   .7546875
    meandiff |     10,000    2.073098     .543374  -.1203125    4.31875
    realdiff |     10,000    2.069618           0   2.069618   2.069618

.     sum pvallrtest-reject05lrtest

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
  pvallrtest |     10,000    .0000465    .0038226          0   .3782551
  chi2lrtest |     10,000    235.9503    116.0975   .7763651   918.0282
reject05lr~t |     10,000       .9998    .0141414          0          1

.     sum pvaltteste-incitte
```

```
    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
  pvaltteste |     10,000    .0063567    .0280951   9.69e-15   .8225604
     ttteste |     10,000   -3.796412    .9760573  -7.836513   .2242992
reject05tt~e |     10,000       .9699     .170871          0          1
     incitte |     10,000       .9509    .2160876          0          1

.     sum pvalttestu-incittu

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
  pvalttestu |     10,000    .0063594    .0280972   1.09e-14   .8225618
     tttestu |     10,000   -3.796412    .9760573  -7.836513   .2242992
reject05tt~u |     10,000       .9698    .1711458          0          1
     incittu |     10,000        .951    .2158788          0          1

.     sum b1wo-incilrwo

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
        b1wo |     10,000    2.073098     .543374  -.1203125    4.31875
      b1sewo |     10,000    .5453593    .0092091   .5071365   .5766491
    b1pvalwo |     10,000    .0063567    .0280951   9.69e-15   .8225604
reject05re~o |     10,000       .9699     .170871          0          1
     b1uciwo |     10,000      1.0032    .5371976  -1.17262   3.237578
-------------+---------------------------------------------------------
     b1lciwo |     10,000    3.142995    .5500746    .931995   5.399922
    incilrwo |     10,000       .9509    .2160876          0          1

.     sum b1w-incilrw

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
         b1w |     10,000    2.073098     .543374  -.1203125    4.31875
       b1sew |     10,000    .5453593    .0092091   .5071365   .5766491
     b1pvalw |     10,000    .0063567    .0280951   9.69e-15   .8225604
reject05re~w |     10,000       .9699     .170871          0          1
      b1uciw |     10,000      1.0032    .5371976  -1.17262   3.237578
-------------+---------------------------------------------------------
      b1lciw |     10,000    3.142995    .5500746    .931995   5.399922
     incilrw |     10,000       .9509    .2160876          0          1

.
.     capture save results.dta, replace

.
.     display "Simulation ended  $S_DATE   $S_TIME"
Simulation ended   3 Oct 2017   17:38:23

.
.
.
.
end of do-file

.
. *do poissonshell 1280 2.82 0.27 0.69 0.67 427433 1000
.
. log close
      name:  <unnamed>
       log:  M:\Projects\Graham\Steroids\2017Submission\Stata\runlots.log
  log type:  text
 closed on:   3 Oct 2017, 17:38:23
-------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------------
```