ANEXOS

Anexo 1
SINTAXIS DEL MODELO UTILIZADO EN STATA

```
set mem 500m


**describir archivos
global graficos "C:\Users\adam\Documents\Flacso\tesis santy\gráficos"


**DECLARACIÓN DE VARIABLES
global cindt " escol edad edad2 ninos10m discap dsexo etnia_* civil_* "
global cinde "escol tit enf"
global cviv "idxviv idxviv3 idxviv4 idxviv5"
global cchoq "choque_*"
global cgeor "canton_* region_* area_2"

**CREACIÓN DE VARIABLES
gen horm=horas_m
replace horm=0 if horm==. & pea==1
label variable horm "horas mensuales de trabajo de la PEA"

gen horm2=horas_m
replace horm2=0 if horm==.  | (ingrl==. | ingrl==0)
replace horm2=. if pea!=1
label variable horm2 "horas mensuales de trabajo remuneradas PEA"

****horas mensuales de trabajo remunerado de la PEA de los de edades de 18 a 65


gen horm3=horas_m
replace horm3=0 if edad<18 & edad>65
replace horm3=. if pea!=1
label variable horm3 "horas mensuales de trabajo remuneradas de la pea de 18 a 65
años"

**QUIEN DEBE RECIBIR EL BONO LEGALMENTE
generate T_hat=1 if selben<=50.65
replace T_hat=0 if selben>50.65

**QUIEN ESTÁ RECIBIENDO REALMENTE
*ESTE ES POR PERSONA
generate dbonusper=1 if pa81a==1

***tabla 01
svy: tab T_hat dbonus
```

```
tab1 T_hat
tab1 dbonus

****horas de trabajo de quienes reciben el bono

table horm2 dbonus

***este es por hogar
*el hogar recibe bono =1
generate dbonus=1 if pa81a==1
bys codhogar: egen exper=median(dbonus)
replace dbonus=exper
replace dbonus=0 if exper==.
generate selben2=selben*selben
generate selben3=selben*selben*selben

//par_2 participación del mercado laboral
//par_7 ocupado si trabajo al menos 1 hora en el mes anterior

********ojo con el comando findit discontinuity-----

**DISCONTINUIDAD

//twoway (lowess dbonus selben if T_hat==1, sort) (lowess dbonus selben if T_hat==0, sort), ytitle(prob treatment) xtitle(Selben index) title(Relation between treatment and Selben index) legend(off) xli(50.65)
//twoway (lowess dbonus selben, sort), ytitle(prob treatment) xtitle(Selben index) title(Relation between treatment and Selben index) legend(off) xli(50.65)


twoway (lpolyci dbonus selben if T_hat==1, sort) (lpolyci dbonus selben if T_hat==0, sort), ytitle(probabilidad de tratamiento) xtitle(Índice SELBEN) title(Relación entre tratamiento y el Índice SELBEN) legend(off) xli(50.65)
gr export "$graficos\discontinuidad.emf", replace

**GRAFICO SET OF BINS
histogram selben, xli(50.65) xli(47.65) xli(53.65)freq




**DISCONTINUIDAD DE MANERA GRÁFICA

//twoway (lpoly dbonus selben, sort), ytitle(probabilidad de tratamiento) xtitle(Índice SELBEN) title(Relación entre tratamiento y el Índice SELBEN) legend(off) xli(50.65)


**PRIMERA ETAPA DISCONTINUIDAD PARAMÉTRICA
```

```
qui reg dbonus T_hat selben*  $cindt     , robust
test T_hat
est store dis_1
qui reg dbonus T_hat selben*  $cindt $cinde     , robust
test T_hat
est store dis_2
qui reg dbonus T_hat selben*  $cindt $cinde $cviv $cchoq    , robust
test T_hat
est store dis_3
qui reg dbonus T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   , robust
test T_hat
est store dis_4

est table dis_1 dis_2 dis_3 dis_4, stats(r2) b(%9.3f) se(%9.3f) keep(T_hat) title(Primera
Etapa)
//esttab keep(list)
est tab dis_1 dis_2 dis_3 dis_4, stats(r2) label  keep(T_hat)  csv
//anexo
est tab dis_1 dis_2 dis_3 dis_4, stats(r2) label  drop(canton*) csv

//2 SEBEN LINEAR
qui reg dbonus T_hat selben  $cindt     , robust
test T_hat
est store dis_1
qui reg dbonus T_hat selben  $cindt $cinde     , robust
test T_hat
est store dis_2
qui reg dbonus T_hat selben  $cindt $cinde $cviv $cchoq    , robust
test T_hat
est store dis_3
qui reg dbonus T_hat selben $cindt $cinde $cviv $cchoq $cgeor   , robust
test T_hat
est store dis_4

est table dis_1 dis_2 dis_3 dis_4, stats(r2) b(%9.3f) se(%9.3f) keep(T_hat) title(Primera
Etapa)

//3 SELBEN CUADRADO
qui reg dbonus T_hat selben selben2  $cindt     , robust
test T_hat
est store dis_1
qui reg dbonus T_hat selben selben2 $cindt $cinde     , robust
test T_hat
est store dis_2
qui reg dbonus T_hat selben selben2 $cindt $cinde $cviv $cchoq    , robust
test T_hat
est store dis_3
qui reg dbonus T_hat selben selben2 $cindt $cinde $cviv $cchoq $cgeor   , robust
test T_hat
est store dis_4
```

```
est table dis_1 dis_2 dis_3 dis_4, stats(r2) b(%9.3f) se(%9.3f) keep(T_hat) title(Primera Etapa)

***MÍNIMOS CUADRADOS ORDINARIOS MCO
*HORAS DE TRABAJO REMUNERADAS
qui reg horm2 T_hat selben* $cindt  , robust
test T_hat
est store mco_1
qui reg horm2 T_hat selben*  $cindt $cinde     , robust
test T_hat
est store mco_2
qui reg horm2 T_hat selben*  $cindt $cinde $cviv $cchoq    , robust
test T_hat
est store mco_3
qui reg horm2 T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   , robust
test T_hat
est store mco_4
est table mco_1 mco_2 mco_3 mco_4, stats(N r2) b(%9.3f) se(%9.3f) keep(T_hat) title(Forma Reducida)

**PARTICIPACIÓN EN MERCADO LABORAL Y HORAS TOTALES /REMUNERADAS Y NO REMUNERADAS/
qui reg horm T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   , robust
test T_hat
qui reg par_2 T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   , robust
test T_hat
qui reg par_7 T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   , robust
test T_hat

***VARIABLES INSTRUMENTALES
qui ivreg horm2 (dbonus=T_hat) selben* $cindt  , robust
test dbonus
est store iv_1
qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde     , robust
test dbonus
est store iv_2
qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde $cviv $cchoq    , robust
test dbonus
est store iv_3
qui ivreg horm2 (dbonus=T_hat) selben* $cindt $cinde $cviv $cchoq $cgeor   , robust
test dbonus
est store iv_4
est table iv_1 iv_2 iv_3 iv_4, stats(N r2) b(%9.3f) se(%9.3f) keep(dbonus) title(Variables instrumentales)

***REGRESIÓN DISCONTINUA FUZZY DESIGN CON VARIABLES INSTRUMENTALES
**HORAS DE TRABAJO REMUNERADAS
```

```
qui ivreg horm2 (dbonus=T_hat) selben* $cindt if  selben>=48.65 & selben <= 52.65, robust
test dbonus
est store rd_1
qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde if   selben>=48.65 & selben <= 52.65, robust
test dbonus
est store rd_2
qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde $cviv $cchoq  if selben>=48.65 & selben <= 52.65, robust
test dbonus
est store rd_3
qui ivreg horm2 (dbonus=T_hat) selben* $cindt $cinde $cviv $cchoq $cgeor if selben>=48.65 & selben <= 52.65, robust
test dbonus
est store rd_4
est table rd_1 rd_2 rd_3 rd_4, stats(N r2) b(%9.3f) se(%9.3f) keep(dbonus) title(Variables instrumentales)

**HORAS DE TRABAJO CON IVTOBIT
qui ivtobit horm2 (dbonus=T_hat) selben* $cindt if  selben>=48.65 & selben <= 52.65, robust ll(0)
test dbonus
est store rdt_1
qui ivtobit horm2 (dbonus=T_hat) selben*  $cindt $cinde if   selben>=48.65 & selben <= 52.65, robust ll(0)
test dbonus
est store rdt_2
qui ivtobit horm2 (dbonus=T_hat) selben*  $cindt $cinde $cviv $cchoq  if selben>=48.65 & selben <= 52.65, robust ll(0)
test dbonus
est store rdt_3
qui ivtobit horm2 (dbonus=T_hat) selben* $cindt $cinde $cviv $cchoq $cgeor if selben>=48.65 & selben <= 52.65, robust ll(0)
test dbonus
est store rdt_4
est table rdt_1 rdt_2 rdt_3 rdt_4, stats(N r2) b(%9.3f) se(%9.3f) keep(dbonus) title(Variables instrumentales)



ivreg horm selben* $cindt tit enf $cviv $cchoq $cgeor  (dbonus=T_hat), robust
ivreg horas_m selben* $vlist0 $cindt $cviv $cgeor (dbonus=T_hat)if persona==1 & selben>=48.65 & selben <= 52.65, robust
ivreg horas_m selben* $vlist0 $cindt $cviv $cgeor (dbonus=T_hat)if persona==1 & selben>=50 & selben <= 51, robust
ivreg horas selben* $vlist0 $cindt $cviv $cgeor (dbonus=T_hat)if persona==1 & selben>=49 & selben <= 52, robust
ivreg par_7 selben* $vlist0 $cindt $cviv $cgeor (dbonus=T_hat)if persona==1 & selben>=49 & selben <= 52, robust
```

```
ivreg par_2 selben* $vlist0 $cindt $cviv $cgeor (dbonus=T_hat)if persona==1 &
selben>=49 & selben <= 52, robust
ivreg gasto3 selben* $vlist0 $cindt $cviv $cgeor (dbonus=T_hat) if selben>=49 &
selben <= 52, robust
```

Anexo 2
DESARROLLO DEL MODELO EN STATA

```
do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. global cindt " escol edad edad2 ninos10m discap dsexo etnia_* civi
> l_* "

. global cinde "escol tit enf"

. global cviv "idxviv idxviv3 idxviv4 idxviv5"

. global cchoq "choque_*"

. global cgeor "canton_* region_* area_2"

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. svy: tab T_hat dbonus
(running tabulate on estimation sample)

Number of strata   =        16                 Number of obs      =
>      55654
Number of PSUs     =      1128                 Population size    =
>   13276569
                                  Design df          =
>       1112

------------------------------
        |      dbonus
   T_hat |     0      1  Total
----------+-------------------
       0 | .4187  .0638  .4826
       1 | .2348  .2827  .5174
         |
   Total | .6535  .3465      1
------------------------------
  Key:  cell proportions

  Pearson:
    Uncorrected   chi2(1)         =  1.05e+04
    Design-based  F(1, 1112)      = 1043.3075     P = 0.0000

. tab1 T_hat

-> tabulation of T_hat
```

```
    T_hat |      Freq.     Percent        Cum.
------------+-----------------------------------
        0 |     24,536       44.09       44.09
        1 |     31,118       55.91      100.00
------------+-----------------------------------
    Total |     55,654      100.00

. tab1 dbonus

-> tabulation of dbonus

   dbonus |      Freq.     Percent        Cum.
------------+-----------------------------------
        0 |     35,254       63.34       63.34
        1 |     20,400       36.66      100.00
------------+-----------------------------------
    Total |     55,654      100.00

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. qui reg dbonus T_hat selben*  $cindt     , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 39824) =   16.14
            Prob > F =    0.0001

. est store dis_1

. qui reg dbonus T_hat selben*  $cindt $cinde     , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 37195) =    9.61
            Prob > F =    0.0019

. est store dis_2

. qui reg dbonus T_hat selben*  $cindt $cinde $cviv $cchoq    , robu
> st

. test T_hat
```

```
 ( 1)  T_hat = 0

       F(  1, 37186) =    9.42
            Prob > F =    0.0021

. est store dis_3

. qui reg dbonus T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   ,
>  robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 36983) =   12.55
            Prob > F =    0.0004

. est store dis_4

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. qui reg dbonus T_hat selben  $cindt     , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 39826) =  300.16
            Prob > F =    0.0000

. est store dis_1

. qui reg dbonus T_hat selben  $cindt $cinde     , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 37197) =  279.11
            Prob > F =    0.0000

. est store dis_2

. qui reg dbonus T_hat selben  $cindt $cinde $cviv $cchoq    , robus
> t

. test T_hat
```

```
 ( 1)  T_hat = 0

       F(  1, 37188) =  263.04
           Prob > F =    0.0000

. est store dis_3

. qui reg dbonus T_hat selben $cindt $cinde $cviv $cchoq $cgeor   ,
> robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 36985) =  233.66
           Prob > F =    0.0000

. est store dis_4

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. qui reg dbonus T_hat selben selben2  $cindt     , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 39825) =  311.49
           Prob > F =    0.0000

. est store dis_1

. qui reg dbonus T_hat selben selben2 $cindt $cinde     , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 37196) =  287.56
           Prob > F =    0.0000

. est store dis_2

. qui reg dbonus T_hat selben selben2 $cindt $cinde $cviv $cchoq
> , robust
```

```
. test T_hat

 ( 1)  T_hat = 0

       F(  1, 37187) =  273.46
            Prob > F =    0.0000

. est store dis_3

. qui reg dbonus T_hat selben selben2 $cindt $cinde $cviv $cchoq $cg
> eor   , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 36984) =  239.71
            Prob > F =    0.0000

. est store dis_4

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. qui reg horm2 T_hat selben* $cindt  , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 29320) =    1.43
            Prob > F =    0.2313

. est store mco_1

. qui reg horm2 T_hat selben*  $cindt $cinde     , robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 27521) =    1.08
            Prob > F =    0.2982

. est store mco_2

. qui reg horm2 T_hat selben*  $cindt $cinde $cviv $cchoq    , robus
> t
```

```
. test T_hat

 ( 1)  T_hat = 0

       F(  1, 27512) =    1.15
            Prob > F =    0.2825

. est store mco_3

. qui reg horm2 T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   ,
> robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 27310) =    0.55
            Prob > F =    0.4575

. est store mco_4

. est table mco_1 mco_2 mco_3 mco_4, stats(N r2) b(%9.3f) se(%9.3f)
> keep(T_hat) title(Forma Reducida)


Forma Reducida

----------------------------------------------------------------
    Variable |   mco_1       mco_2       mco_3       mco_4
-------------+--------------------------------------------------
       T_hat |     3.151       2.827       2.919       2.026
             |     2.632       2.717       2.716       2.726
-------------+--------------------------------------------------
           N |     29341       27544       27544       27544
         r2 |     0.180       0.183       0.185       0.201
----------------------------------------------------------------
                                       legend: b/se

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. qui reg horm T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   , r
> obust

. test T_hat

 ( 1)  T_hat = 0
```

```
       F(  1, 27310) =    0.88
            Prob > F =    0.3493

. qui reg par_2 T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   ,
> robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 36983) =    0.43
            Prob > F =    0.5123

. qui reg par_7 T_hat selben* $cindt $cinde $cviv $cchoq $cgeor   ,
> robust

. test T_hat

 ( 1)  T_hat = 0

       F(  1, 27310) =    1.36
            Prob > F =    0.2436

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. qui ivreg horm2 (dbonus=T_hat) selben* $cindt  , robust

. test dbonus

 ( 1)  dbonus = 0

       F(  1, 29320) =    1.24
            Prob > F =    0.2651

. est store iv_1

. qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde     , robust

. test dbonus

 ( 1)  dbonus = 0

       F(  1, 27521) =    0.90
            Prob > F =    0.3415

. est store iv_2
```

```
. qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde $cviv $cchoq
>     , robust

. test dbonus

 ( 1)  dbonus = 0

       F(  1, 27512) =    0.96
            Prob > F =    0.3269

. est store iv_3

. qui ivreg horm2 (dbonus=T_hat) selben* $cindt $cinde $cviv $cchoq
> $cgeor   , robust

. test dbonus

 ( 1)  dbonus = 0

       F(  1, 27310) =    0.52
            Prob > F =    0.4729

. est store iv_4

. est table iv_1 iv_2 iv_3 iv_4, stats(N r2) b(%9.3f) se(%9.3f) keep
> (dbonus) title(Variables instrumentales)

Variables instrumentales

-------------------------------------------------------------
    Variable |   iv_1       iv_2       iv_3       iv_4
-------------+-----------------------------------------------
      dbonus |    86.895     100.320     105.211      63.860
             |    77.967     105.455     107.316      88.967
-------------+-----------------------------------------------
           N |     29341       27544       27544       27544
          r2 |     0.065       0.037       0.033       0.147
-------------------------------------------------------------
                                       legend: b/se

.
end of do-file

. do "C:\DOCUME~1\USUARIO\CONFIG~1\Temp\STD00000000.tmp"

. qui ivreg horm2 (dbonus=T_hat) selben* $cindt if  selben>=48.65 &
> selben <= 52.65, robust

. test dbonus
```

```
 ( 1)  dbonus = 0

       F(  1,  3040) =    0.08
            Prob > F =    0.7823

. est store rd_1

. qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde if   selben>
> =48.65 & selben <= 52.65, robust

. test dbonus

 ( 1)  dbonus = 0

       F(  1,  2935) =    0.11
            Prob > F =    0.7372

. est store rd_2

. qui ivreg horm2 (dbonus=T_hat) selben*  $cindt $cinde $cviv $cchoq
>   if selben>=48.65 & selben <= 52.65, robust

. test dbonus

 ( 1)  dbonus = 0

       F(  1,  2927) =    0.16
            Prob > F =    0.6870

. est store rd_3

. qui ivreg horm2 (dbonus=T_hat) selben* $cindt $cinde $cviv $cchoq
> $cgeor if selben>=48.65 & selben <= 52.65, robust

. test dbonus

 ( 1)  dbonus = 0

       F(  1,  2756) =    0.54
            Prob > F =    0.4633

. est store rd_4

. est table rd_1 rd_2 rd_3 rd_4, stats(N r2) b(%9.3f) se(%9.3f) keep
> (dbonus) title(Variables instrumentales)

Variables instrumentales

-------------------------------------------------------------
```

```
   Variable |   rd_1        rd_2        rd_3        rd_4
------------+----------------------------------------------------
     dbonus |    43.849     106.552      71.404     202.403
            |   158.656     317.564     177.180     275.928
------------+----------------------------------------------------
          N |      3060        2957        2957        2957
         r2 |     0.126           .       0.096           .
------------------------------------------------------------------
                                       legend: b/se

.
end of do-file
```