




---

```

name: <unnamed>
log:  \\wsl.localhost\Debian\home\lsys\gusto\scripts\tf-pfas\logs\tf-pfas.smcl
log type: smcl
opened on:  5 Jan 2026, 18:31:01

```

```

1 .
2 . * =====
3 . * Program Setup
4 . * =====
5 . cls                                // Clear results window

6 . clear all                          // Start with a clean slate

7 . set more off                       // Disable partitioned output

8 . macro drop _all                   // Clear all macros to avoid namespace conflicts

9 . set linesize 150                  // Line size limit to make output more readable, affects log
> s

10. set varabbrev off

11.
12. // Still on version 13
13. version 13

14. local stata_version : display c(version)

15.
16. // Add path to ados
17. adopath ++ ./ado
    [1]
    [2] (BASE)      "C:\Program Files (x86)\Stata13\ado\base/"
    [3] (SITE)      "C:\Program Files (x86)\Stata13\ado\site/"
    [4]
    [5] (PERSONAL)  "c:\ado\personal/"
    [6] (PLUS)      "c:\ado\plus/"
    [7] (OLDPLACE)  "c:\ado/"

18.
19. global figsavedir ./figures

20. global tabsavedir ./tables

21. global graphformats png pdf eps

22.
23. tictoc tic

```

---

```

----- Time log -----
Start time:  5 Jan 2026 18:31:01

```

---

```

24.
25. do ./analyses/preamble

26. use ./data/edc-gusto.dta, clear

27.

```

```

28. * Scale
29. #delimit;
    delimiter now ;
30. local tf
    >         buff100m_area_transport_faciliti
    >         buff500m_area_transport_faciliti
    >         buff1000m_area_transport_facilit
    >         buff1500m_area_transport_facilit;

31. #delimit cr
    delimiter now cr
32. foreach x of varlist `tf' {
    2.     replace `x' = `x' / 1000 if !missing(`x')
    3. }
    (68 real changes made)
    (848 real changes made)
    (1366 real changes made)
    (1465 real changes made)

33.
34. global pfas pfbs pfna pfoa pfos pfhxs pfba pfunda pfda

35.
36. * =====
    > ===
37. * Maternal characteristics
38. * =====
    > ===
39. global mat_x      c.mother_age_delivery##c.mother_age_delivery

40. global mat_x_group mother_ethnicity mother_place_of_birth mother_highest_education m
    > other_occupation marital_status hdb_gusto parity

41. global mat_x_inc  mother_income household_income

42.
43. foreach x of varlist mother_ethnicity mother_place_of_birth mother_highest_education
    > mother_occupation marital_status {
    2.     rename `x' `x'_str
    3.     encode `x'_str, gen(`x')
    4. }

44.
45. foreach x of global mat_x_inc {
    2.     rename `x' `x'_str
    3.     encode `x'_str, gen(`x')
    4. }

46.
47. replace mover = 0 if missing(mover)
    (787 real changes made)

48.
    end of do-file

49.
50. * -----
51. // Tabulate PFAS
52. * -----
53. * Tabulate PFBS results

```

```

54. do ./analyses/tabulate-estimates

55. assert_macros tabsavedir, strict
    Checking tabsavedir:
    tabsavedir contains: ./tables

56.
57. local y pfbs

58. runregs `y' buff100m_area_transport_faciliti, ///
    > xlabel(Transport facilities (area) within 100m buffer) savepath($tabsavedir/pfbs
    > -100m-transportfacilities-fragment.tex)
    ./tables/pfbs-100m-transportfacilities-fragment.tex
    (dropped 10 singleton observations)
    (MWFE_estimator converged in 10 iterations)

HDFE Linear regression                                Number of obs   =       740
Absorbing 8 HDFE groups                               F(   3,   28) =       0.56
Statistics robust to heteroskedasticity               Prob > F        =     0.6483
                                                    R-squared       =     0.0944
                                                    Adj R-squared   =     0.0100
                                                    Within R-sq.    =     0.0015
Number of clusters (planning_area2008) =             29 Root MSE   =     15.8750

                                                    (Std. Err. adjusted for 29 cluster)

> s in planning_area2008)

```

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Conf. Interval]					
buff100m_area_transport_faciliti		-1.455839	1.418412	-1.03	0.313
-4.361324					
1.449647					
mother_age_delivery		.6627007	1.121079	0.59	0.559
-1.633726					
2.959128					
c.mother_age_delivery#c.mother_age_delivery		-.0105365	.0172519	-0.61	0.546
-.0458754					
.0248025					
_cons		14.10294	17.88199	0.79	0.437
-22.52667					
50.73254					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	29	29	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation

(est1 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	740	24.13147	15.95455	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff100m~iti	740	.0613986	.3631269	0	4.547503

added macro:

e(xsd) : " 0.4"

34

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{34\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{740\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes}}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{{Yes}}"

(dropped 31 singleton observations)

(MWFE\_estimator converged in 11 iterations)

HDFE Linear regression

Absorbing 8 HDFE groups

Statistics robust to heteroskedasticity

Number of obs = 719

F( 3, 28) = 0.37

Prob > F = 0.7777

R-squared = 0.1910

Adj R-squared = -0.0085

Within R-sq. = 0.0017

Number of clusters (planning\_area2008) =

29Root MSE = 15.8008

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

		Coef.	Robust Std. Err.	t	P> t
> [95% Con	pfbs				
> f. Interval]					
> buff100m_area_transport_faciliti		-1.60531	1.650268	-0.97	0.339
> -4.98573					
> 1.77511					
> mother_age_delivery		.1042923	1.4316	0.07	0.942
> -2.828207					
> 3.036791					
> c.mother_age_delivery#c.mother_age_delivery		-.0028613	.0218944	-0.13	0.897
> -.0477099					
> .0419874					
> _cons		23.65787	22.85897	1.03	0.310
> -23.16661					
> 70.48235					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	719	24.00177	15.73443	6.9	97.06

added macro:

e(ymean) : " 24.0"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff100m~iti	719	.0628816	.368204	0	4.547503

added macro:

e(xsd) : " 0.4"

33

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{33\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{719\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes\$}}"

(dropped 31 singleton observations)

(MWFE\_estimator converged in 14 iterations)

HDFE Linear regression  
Absorbing 10 HDFE groups  
Statistics robust to heteroskedasticity

Number of obs = 669  
F( 3, 27) = 1.38  
Prob > F = 0.2692  
R-squared = 0.2156  
Adj R-squared = -0.0018  
Within R-sq. = 0.0044  
Root MSE = 15.6089

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 28 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff100m_area_transport_faciliti		-2.924383	1.616063	-1.81	0.082
-6.240271					
.3915045					
mother_age_delivery		.3768506	1.79749	0.21	0.836
-3.311295					
4.064996					

```

c.mother_age_delivery#c.mother_age_delivery | -.0060137 .0277132 -0.22 0.830
> -.0628766
> .0508491
                                     _cons | 18.17932 28.4662 0.64 0.528
> -40.22849
> 76.58713

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
mother_income	5	1	4 ?
household_income	5	1	4 ?
subzone2008	104	1	103 ?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	669	23.73363	15.59477	6.9	97.06

added macro:

e(ymean) : " 23.7"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff100m~iti	669	.0625526	.3669121	0	4.547503

added macro:

e(xsd) : " 0.4"

30

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{\\$30\\$}"

added macro:

e(nobs) : "\multicolumn{1}{c}{\\$ 669\\$}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{\\$28\\$}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(szFE) : "\multicolumn{1}{c}{Yes}"

added macro:

e(income) : "\multicolumn{1}{c}{Yes}"

(output written to ./tables/pfbs-100m-transportfacilities-fragment.tex)

```

59.
60. runregs `y' buff500m_area_transport_faciliti, ///
> xlabel(Transport facilities (area) within 500m buffer) savepath($tabssavedir/pfbs
> -500m-transportfacilities-fragment.tex)
./tables/pfbs-500m-transportfacilities-fragment.tex
(dropped 10 singleton observations)
(MWFE_estimator converged in 10 iterations)

```

```

HDFE Linear regression          Number of obs   =       740
Absorbing 8 HDFE groups        F(   3,   28) =       2.42
Statistics robust to heteroskedasticity  Prob > F      =     0.0874
                                   R-squared       =     0.0989
                                   Adj R-squared    =     0.0149
                                   Within R-sq.     =     0.0065
Number of clusters (planning_area2008) = 29 Root MSE   =    15.8350

```

(Std. Err. adjusted for 29 cluster)

```
> s in planning_area2008)
```

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff500m_area_transport_faciliti		.1282116	.0586395	2.19	0.037
.0080942					
.2483291					
mother_age_delivery		.7192412	1.114101	0.65	0.524
-1.562892					
3.001374					
c.mother_age_delivery#c.mother_age_delivery		-.0115331	.0171673	-0.67	0.507
-.0466987					
.0236324					
_cons		12.77862	17.66659	0.72	0.475
-23.40975					
48.967					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	29	29	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(est1 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	740	24.13147	15.95455	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~iti	740	3.629218	10.25486	0	111.7032

added macro:

e(xsd) : " 10.3"  
438

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{\\$438\\$}"

added macro:

e(nobs) : "\multicolumn{1}{c}{\\$ 740\\$}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{\\$29\\$}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{Yes}"  
(dropped 31 singleton observations)  
(MWFE estimator converged in 11 iterations)

HDFE Linear regression

Absorbing 8 HDFE groups

Statistics robust to heteroskedasticity

Number of obs = 719

F( 3, 28) = 3.54

Prob &gt; F = 0.0273

R-squared = 0.1952

Adj R-squared = -0.0032

Within R-sq. = 0.0068

29Root MSE = 15.7600

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff500m_area_transport_faciliti		.1495662	.0545391	2.74	0.011
.0378478					
.2612845					
mother_age_delivery		.0596491	1.431591	0.04	0.967
-2.872832					
2.99213					
c.mother_age_delivery#c.mother_age_delivery		-.0021945	.0219642	-0.10	0.921
-.0471862					
.0427972					
_cons		23.73793	22.68089	1.05	0.304
-22.72177					
70.19763					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

? = number of redundant parameters may be higher  
(est2 stored)



Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	719	24.00177	15.73443	6.9	97.06

added macro:

e(ymean) : " 24.0"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~iti	719	3.622373	10.29724	0	111.7032

added macro:

e(xsd) : " 10.3"

425

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{\$425\$}"

added macro:

e(nobs) : "\multicolumn{1}{c}{\$ 719\$}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{\$29\$}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(szFE) : "\multicolumn{1}{c}{Yes}"

(dropped 31 singleton observations)

(MWFE estimator converged in 14 iterations)

HDFE Linear regression

Absorbing 10 HDFE groups

Statistics robust to heteroskedasticity

Number of obs = 669

F( 3, 27) = 3.00

Prob &gt; F = 0.0482

R-squared = 0.2173

Adj R-squared = 0.0003

Within R-sq. = 0.0064

Number of clusters (planning\_area2008) =

28Root MSE = 15.5926

(Std. Err. adjusted for 28 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_area_transport_faciliti		.1424181	.0556968	2.56	0.016
.0281376					
.2566985					
mother_age_delivery		.2671578	1.831005	0.15	0.885
-3.489754					
4.02407					
c.mother_age_delivery#c.mother_age_delivery		-.0042731	.0282826	-0.15	0.881
-.0623042					
.053758					
_cons		19.14328	28.80527	0.66	0.512
-39.96026					
78.24682					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
mother_income	5	1	4	?
household_income	5	1	4	?
subzone2008	104	1	103	?

? = number of redundant parameters may be higher  
(**est3** stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	669	23.73363	15.59477	6.9	97.06

added macro:

e(ymean) : " 23.7"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~iti	669	3.738737	10.62835	0	111.7032

added macro:

398 e(xsd) : " 10.6"

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{398\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{669\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(income) : "\multicolumn{1}{c}{{Yes\$}}"

(output written to ./tables/pfbs-500m-transportfacilities-fragment.tex)

61.

```
62. runregs `y' buff1000m_area_transport_facilit, ///
> xlabel(Transport facilities (area) within 1000m buffer) savepath($tabsavedir/pfb
> s-1000m-transportfacilities-fragment.tex)
./tables/pfbs-1000m-transportfacilities-fragment.tex
(dropped 10 singleton observations)
(MWFE_estimator converged in 10 iterations)
```

HDFE Linear regression	Number of obs	=	740
Absorbing 8 HDFE groups	F( 3, 28)	=	2.85
Statistics robust to heteroskedasticity	Prob > F	=	0.0553
	R-squared	=	0.0986
	Adj R-squared	=	0.0146
	Within R-sq.	=	0.0062
Number of clusters ( <b>planning_area2008</b> ) =	29Root MSE	=	15.8373

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buffl000m_area_transport_facilit		.0448811	.0185814	2.42	0.022
.0068188					
.0829434					
mother_age_delivery		.5678045	1.13924	0.50	0.622
-1.765822					
2.901431					
c.mother_age_delivery#c.mother_age_delivery		-.0090351	.0175696	-0.51	0.611
-.0450247					
.0269546					
_cons		14.66362	17.96423	0.82	0.421
-22.13444					
51.46168					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	29	29	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation

(est1 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	740	24.13147	15.95455	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buffl000~lit	740	17.95514	31.80288	0	291.4669

added macro:

e(xsd) : " 31.8"

693

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{693\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{740\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

```
e(areaFE) : "\multicolumn{1}{c}{Yes}"
(dropped 31 singleton observations)
(MWFE estimator converged in 11 iterations)
```

```
HDFE Linear regression      Number of obs   =      719
Absorbing 8 HDFE groups     F(   3,   28)   =      3.53
Statistics robust to heteroskedasticity
                               Prob > F             =      0.0276
                               R-squared              =      0.1986
                               Adj R-squared          =      0.0010
                               Within R-sq.          =      0.0110
Number of clusters (planning_area2008) = 29 Root MSE      =      15.7267
```

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff1000m_area_transport_facilit		.0760745	.0270756	2.81	0.009
.0206126					
.1315364					
mother_age_delivery		-.2176255	1.473873	-0.15	0.884
-3.236718					
2.801467					
c.mother_age_delivery#c.mother_age_delivery		.0023216	.0226268	0.10	0.919
-.0440273					
.0486704					
_cons		27.03028	23.15364	1.17	0.253
-20.3978					
74.45836					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	719	24.00177	15.73443	6.9	97.06

added macro:

```
e(ymean) : " 24.0"
```

Variable	Obs	Mean	Std. Dev.	Min	Max
buff1000~lit	719	18.15101	32.08282	0	291.4669

added macro:

```
e(xsd) : " 32.1"
```

677

added macro:  
 e(x\_coverage) : "\multicolumn{1}{c}{{\$677\$}}"

added macro:  
 e(nobs) : "\multicolumn{1}{c}{{\$ 719\$}}"

added macro:  
 e(Nclusters) : "\multicolumn{1}{c}{{\$29\$}}"

added macro:  
 e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:  
 e(szFE) : "\multicolumn{1}{c}{Yes}"

(dropped 31 singleton observations)  
 (MWFE estimator converged in 14 iterations)

HDFE Linear regression	Number of obs	=	669
Absorbing 10 HDFE groups	F( 3, 27)	=	3.37
Statistics robust to heteroskedasticity	Prob > F	=	0.0328
	R-squared	=	0.2206
	Adj R-squared	=	0.0045
	Within R-sq.	=	0.0106
Number of clusters (planning_area2008) =	28Root MSE	=	15.5598

(Std. Err. adjusted for 28 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff1000m_area_transport_facilit		.0727277	.0248623	2.93	0.007
.0217145					
.1237408					
mother_age_delivery		-.0089814	1.85009	-0.00	0.996
-3.805053					
3.78709					
c.mother_age_delivery#c.mother_age_delivery		.0002866	.0285502	0.01	0.992
-.0582937					
.0588668					
_cons		22.38545	29.06038	0.77	0.448
-37.24151					
82.01242					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
mother_income	5	1	4	?
household_income	5	1	4	?
subzone2008	104	1	103	?

? = number of redundant parameters may be higher  
 (est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	669	23.73363	15.59477	6.9	97.06

added macro:

e(ymean) : " 23.7"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff1000~lit	669	18.5364	32.73403	0	291.4669

added macro:

e(xsd) : " 32.7"

630

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{\$630\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{\$ 669\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{\$28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(szFE) : "\multicolumn{1}{c}{Yes}"

added macro:

e(income) : "\multicolumn{1}{c}{Yes}"

(output written to ./tables/pfbs-1000m-transportfacilities-fragment.tex)

63.

```
64. runregs `y' buff1500m_area_transport_facilit, ///
> xlabel(Transport facilities (area) within 1500m buffer) savepath($tabsavedir/pfb
> s-1500m-transportfacilities-fragment.tex)
./tables/pfbs-1500m-transportfacilities-fragment.tex
(dropped 10 singleton observations)
(MWFE estimator converged in 10 iterations)
```

HDFE Linear regression	Number of obs	=	740
Absorbing 8 HDFE groups	F( 3, 28)	=	0.84
Statistics robust to heteroskedasticity	Prob > F	=	0.4841
	R-squared	=	0.0955
	Adj R-squared	=	0.0112
	Within R-sq.	=	0.0028
Number of clusters (planning_area2008) =	29Root MSE	=	15.8648

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff1500m_area_transport_facilit		.0181738	.016251	1.12	0.273
-.0151149					
.0514624					
mother_age_delivery		.6011671	1.131893	0.53	0.600
-1.717411					
2.919745					
c.mother_age_delivery#c.mother_age_delivery		-.0094592	.0174421	-0.54	0.592
-.0451877					
.0262694					
_cons		14.08631	17.70905	0.80	0.433

```
> -22.18903
> 50.36166
```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
planning_area2008	29	29	0	*

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(**est1** stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	740	24.13147	15.95455	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff1500~lit	740	42.47447	54.78278	0	420.6851

added macro:

e(xsd) : " 54.8"

739

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{739\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{740\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{{Yes\$}}"

(dropped 31 singleton observations)

(MWFE\_estimator converged in 11 iterations)

HDFE Linear regression  
Absorbing 8 HDFE groups  
Statistics robust to heteroskedasticity

Number of obs = 719  
F( 3, 28) = 0.74  
Prob > F = 0.5346  
R-squared = 0.1927  
Adj R-squared = -0.0063  
Within R-sq. = 0.0038  
Root MSE = 15.7837

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff1500m_area_transport_facilit		.0332465	.0259914	1.28	0.211
-0.0199945					
.0864875					
mother_age_delivery		-.1292836	1.484814	-0.09	0.931
-3.170786					
2.912219					
c.mother_age_delivery#c.mother_age_delivery		.000993	.0227528	0.04	0.965
-.045614					
.0476001					
_cons		25.5664	23.01305	1.11	0.276
-21.57369					
72.70649					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	719	24.00177	15.73443	6.9	97.06

added macro:

e(ymean) : " 24.0"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff1500~lit	719	42.80592	55.18559	1.364857	420.6851

added macro:

e(xsd) : " 55.2"  
719

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{719\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{719\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes}}"



added macro:

```
e(szFE) : "\multicolumn{1}{c}{Yes}"
(dropped 31 singleton observations)
(MWFE estimator converged in 15 iterations)
```

```
HDFE Linear regression      Number of obs   =      669
Absorbing 10 HDFE groups    F(   3,   27)   =      0.65
Statistics robust to heteroskedasticity  Prob > F        =     0.5892
                                R-squared         =     0.2145
                                Adj R-squared      =    -0.0033
                                Within R-sq.      =     0.0029
                                Root MSE       =    15.6202
```

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for **28** cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff1500m_area_transport_facilit		.0292943	.0259831	1.13	0.269
> -.0240185					
> .0826072					
mother_age_delivery		.0888652	1.85177	0.05	0.962
> -3.710653					
> 3.888383					
c.mother_age_delivery#c.mother_age_delivery		-.0012926	.0285948	-0.05	0.964
> -.0599643					
> .0573792					
_cons		20.99858	28.64158	0.73	0.470
> -37.76909					
> 79.76624					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
mother_income	5	1	4	?
household_income	5	1	4	?
subzone2008	104	1	103	?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	669	23.73363	15.59477	6.9	97.06

added macro:

```
e(ymean) : " 23.7"
```

Variable	Obs	Mean	Std. Dev.	Min	Max
buff1500~lit	669	43.08921	55.16429	1.364857	420.6851

```

added macro:
    e(xsd) : "      55.2"
669
added macro:
    e(x_coverage) : "\multicolumn{1}{c}{\$669\$}"
added macro:
    e(nobs) : "\multicolumn{1}{c}{\$      669\$}"
added macro:
    e(Nclusters) : "\multicolumn{1}{c}{\$28\$}"
added macro:
    e(demo) : "\multicolumn{1}{c}{Yes}"
added macro:
    e(szFE) : "\multicolumn{1}{c}{Yes}"
added macro:
    e(income) : "\multicolumn{1}{c}{Yes}"
(output written to ./tables/pfbs-1500m-transportfacilities-fragment.tex)

65.
end of do-file

66.
67. * all PFAS coefficients for forestplot
68. do ./analyses/standardized-estimates

69. assert_macros pfas mat_x mat_x_group, strict
Checking pfas:
pfas contains: pfbs pfna pfoa pfos pfhxs pfba pfunda pfda
Checking mat_x:
mat_x contains: c.mother_age_delivery##c.mother_age_delivery
Checking mat_x_group:
mat_x_group contains: mother_ethnicity mother_place_of_birth mother_highest_education
> mother_occupation marital_status hdb_gusto parity

70.
71. // =====
72. preserve

73. * Scale variables by std dev
74. foreach x of varlist $pfas buff500m_area_transport_faciliti {
    2.     qui summ `x'
    3.     replace `x' = `x' / r(sd) if !missing(`x')
    4. }
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(848 real changes made)

75.
76. local cb_file ./data/pfas-tf-model5-cordblood

```

```

77. cap erase `cb_file'.dta

78.
79. local spec_sz $mat_x, absorb($mat_x_group subzone2008) cluster(planning_area2008)

80. local x buff500m_area_transport_faciliti

81.
82. foreach pfas of varlist $pfas {
    2.         reghdfe `pfas' `x' `spec_sz'
    3.         storespecs `x', spec_name(`pfas') file(`cb_file')
    4. }
(dropped 31 singleton observations)
(MWFE estimator converged in 11 iterations)

HDFE Linear regression                Number of obs   =       719
Absorbing 8 HDFE groups              F(   3,   28) =       3.54
Statistics robust to heteroskedasticity Prob > F       =       0.0273
                                      R-squared        =       0.1952
                                      Adj R-squared     =      -0.0032
                                      Within R-sq.      =       0.0068
Number of clusters (planning_area2008) = 29 Root MSE    =       0.9894

                                      (Std. Err. adjusted for 29 cluster
> s in planning_area2008)

```

	pfbs	Coef.	Robust Std. Err.	t	P> t
> [95% Con					
> f. Interval]					
> buff500m_area_transport_faciliti		.109248	.0398372	2.74	0.011
> .0276453					
> .1908508					
> mother_age_delivery		.0037446	.0898718	0.04	0.967
> -.1803495					
> .1878387					
> c.mother_age_delivery#c.mother_age_delivery		-.0001378	.0013789	-0.10	0.921
> -.0029622					
> .0026867					
> _cons		1.49021	1.423852	1.05	0.304
> -1.426418					
> 4.406838					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher  
(note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
obs was 0, now 1  
(1 real change made)  
(1 real change made)  
(1 real change made)  
(1 real change made)  
(1 real change made)

```
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
(note: file ./data/pfas-tf-model5-cordblood.dta not found)
file ./data/pfas-tf-model5-cordblood.dta saved
(dropped 31 singleton observations)
(MWFE estimator converged in 11 iterations)
```

```
HDFE Linear regression      Number of obs   =      719
Absorbing 8 HDFE groups    F(   3,   28) =      5.47
Statistics robust to heteroskedasticity  Prob > F       =      0.0043
                                   R-squared      =      0.2771
                                   Adj R-squared   =      0.0988
                                   Within R-sq.    =      0.0092
                                   Root MSE     =      0.9287
```

```
Number of clusters (planning_area2008) = 29
                                   (Std. Err. adjusted for 29 cluster)
```

```
> s in planning_area2008)
```

	pfna	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff500m_area_transport_faciliti		.1076389	.0394654	2.73	0.011
.0267977					
.1884801					
mother_age_delivery		.0187497	.1147573	0.16	0.871
-.2163201					
.2538194					
c.mother_age_delivery#c.mother_age_delivery		-.0004571	.0017803	-0.26	0.799
-.0041039					
.0031897					
_cons		1.624932	1.796103	0.90	0.373
-2.054217					
5.304082					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

```
? = number of redundant parameters may be higher
(note: file C:\Users\Admin\AppData\Local\Temp\ST_1o000002.tmp not found)
file C:\Users\Admin\AppData\Local\Temp\ST_1o000002.tmp saved
obs was 1, now 2
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
(1 real change made)
file ./data/pfas-tf-model5-cordblood.dta saved
(dropped 31 singleton observations)
```

(MWFE\_estimator converged in 11 iterations)

HDFE Linear regression  
Absorbing 8 HDFE groups  
Statistics robust to heteroskedasticity

Number of obs = 719  
F( 3, 28) = 0.21  
Prob > F = 0.8889  
R-squared = 0.2373  
Adj R-squared = 0.0493  
Within R-sq. = 0.0025  
29Root MSE = 0.9761

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfoa	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_area_transport_faciliti		.0630158	.0850155	0.74	0.465
-1.111305					
.2371622					
mother_age_delivery		.0016927	.0858933	0.02	0.984
-1.742517					
.1776371					
c.mother_age_delivery#c.mother_age_delivery		.0000345	.0012767	0.03	0.979
-1.0025807					
.0026496					
_cons		1.176753	1.408563	0.84	0.411
-1.708557					
4.062064					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

(note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)

file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved

obs was 2, now 3

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

file ./data/pfas-tf-model5-cordblood.dta saved

(dropped 31 singleton observations)

(MWFE\_estimator converged in 11 iterations)

HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 3, 28) = 2.19  
 Prob > F = 0.1111  
 R-squared = 0.3621  
 Adj R-squared = 0.2049  
 Within R-sq. = 0.0103  
 Root MSE = 0.9159

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfos	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_area_transport_faciliti		.0969904	.058849	1.65	0.111
- .0235562					
.2175371					
mother_age_delivery		-.0339493	.0900471	-0.38	0.709
- .2184023					
.1505038					
c.mother_age_delivery#c.mother_age_delivery		.0007468	.0014269	0.52	0.605
- .0021762					
.0036697					
_cons		1.649109	1.384851	1.19	0.244
-1.187629					
4.485847					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

(note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)

file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved

obs was 3, now 4

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

file ./data/pfas-tf-model5-cordblood.dta saved

(dropped 31 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 3, 28) = 5.01  
 Prob > F = 0.0066  
 R-squared = 0.3093  
 Adj R-squared = 0.1390  
 Within R-sq. = 0.0092  
 Root MSE = 0.9268

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfhxs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_area_transport_faciliti		.0326638	.027232	1.20	0.240
- .0231184					
.0884461					
mother_age_delivery		-.0497624	.0784031	-0.63	0.531
- .2103638					
.110839					
c.mother_age_delivery#c.mother_age_delivery		.0010882	.0013042	0.83	0.411
- .0015833					
.0037597					
_cons		2.051695	1.162139	1.77	0.088
- .32884					
4.432229					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

(note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)

file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved

obs was 4, now 5

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

file ./data/pfas-tf-model5-cordblood.dta saved

(dropped 31 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 3, 28) = 10.64  
 Prob > F = 0.0001  
 R-squared = 0.2880  
 Adj R-squared = 0.1125  
 Within R-sq. = 0.0254  
 Root MSE = 0.9737

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfba	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_area_transport_faciliti		.1637267	.0450364	3.64	0.001
.0714738					
.2559795					
mother_age_delivery		-.1987616	.1396391	-1.42	0.166
-.4847993					
.0872762					
c.mother_age_delivery#c.mother_age_delivery		.0030183	.0022997	1.31	0.200
-.0016925					
.0077291					
_cons		3.594223	2.057834	1.75	0.092
-.6210581					
7.809504					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

(note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)

file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved

obs was 5, now 6

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

file ./data/pfas-tf-model5-cordblood.dta saved

(dropped 31 singleton observations)

(MWFE estimator converged in 11 iterations)



HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 3, 28) = 0.45  
 Prob > F = 0.7188  
 R-squared = 0.2924  
 Adj R-squared = 0.1180  
 Within R-sq. = 0.0014  
 Root MSE = 0.9426

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfunda	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_area_transport_faciliti		.018851	.0244236	0.77	0.447
> -.0311785					
> .0688806					
mother_age_delivery		-.0675594	.0845206	-0.80	0.431
> -.2406919					
> .1055731					
c.mother_age_delivery#c.mother_age_delivery		.0010495	.0013143	0.80	0.431
> -.0016428					
> .0037419					
_cons		2.182339	1.328962	1.64	0.112
> -.5399157					
> 4.904595					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

(note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)

file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved

obs was 6, now 7

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

file ./data/pfas-tf-model5-cordblood.dta saved

(dropped 31 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 3, 28) = 0.53  
 Prob > F = 0.6671  
 R-squared = 0.3150  
 Adj R-squared = 0.1461  
 Within R-sq. = 0.0040  
 Root MSE = 0.9082

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfda	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_area_transport_faciliti		.0615715	.0567208	1.09	0.287
> -.0546159					
> .1777588					
mother_age_delivery		-.0472194	.0956843	-0.49	0.626
> -.2432198					
> .1487811					
c.mother_age_delivery#c.mother_age_delivery		.0006443	.0014916	0.43	0.669
> -.002411					
> .0036996					
_cons		2.386755	1.497868	1.59	0.122
> -.6814891					
> 5.454999					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

(note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)

file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved

obs was 7, now 8

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

(1 real change made)

file ./data/pfas-tf-model5-cordblood.dta saved

```

83. restore

84.
    end of do-file

85.
86. * -----
87. // dfbetas for influential points
88. * -----
89. do ./analyses/dfbetas

90. assert_macros mat_x mat_x_group mat_x_inc figsavedir graphformats, strict
    Checking mat_x:
    mat_x contains: c.mother_age_delivery##c.mother_age_delivery
    Checking mat_x_group:
    mat_x_group contains: mother_ethnicity mother_place_of_birth mother_highest_education
    > mother_occupation marital_status hdb_gusto parity
    Checking mat_x_inc:
    mat_x_inc contains: mother_income household_income
    Checking figsavedir:
    figsavedir contains: ./figures
    Checking graphformats:
    graphformats contains: png pdf eps

91.
92. * Drop to prevent obsolete indices when plotting the x-axis
93. preserve

94. local y pfbs

95. drop if missing(`y')
    (707 observations deleted)

96.
97. // =====
    > ===
98. * Dfbetas for pfbs - buff500m_area_transport_faciliti
99. qui reghdfe `y' $mat_x, absorb($mat_x_group $mat_x_inc subzone2008) residuals(residu
    > alized_y)

100 qui reghdfe buff500m_area_transport_faciliti $mat_x, absorb($mat_x_group $mat_x_inc
    > subzone2008) residuals(residualized_x)

101
102 reg residualized_y residualized_x

```

Source	SS	df	MS	Number of obs = 669		
Model	818.706912	1	818.706912	F( 1, 667) = 4.29		
Residual	127156.762	667	190.639823	Prob > F = 0.0386		
				R-squared = 0.0064		
				Adj R-squared = 0.0049		
Total	127975.469	668	191.580044	Root MSE = 13.807		

  

residualized_y	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
residualized_x	.1424181	.0687239	2.07	0.039	.0074769	.2773593
_cons	2.09e-13	.5338187	0.00	1.000	-1.048167	1.048167

```

103 dfbeta
    (115 missing values generated)
        _dfbeta_1: dfbeta(residualized_x)

104 rename _dfbeta_1 dfbeta

105 local n_sample = `e(N)'

106 dis `n_sample'
669

107 gen id = _n

108
109 local threshold = 2/sqrt(`n_sample')

110 dis `threshold'
.07732447

111 gen dfbeta_round = round(dfbeta, 0.01)
    (115 missing values generated)

112 gen mlab = string(dfbeta_round)

113 gen mlab2 = " (" + string(id) + ")"

114
115 grstyle init

116 grstyle set plain, noextend compact

117
118 local threshold_line_opts lpattern(solid) lcolor(navy) lwidth(medium)

119 #delimit;
    delimiter now ;
120 local outlier_opts
>         msize(*.8)
>         mcolor(gs5)
>         mlabsize(vsmall)
>         mlabcolor(gs4)
>         lwidth(medthin)
>         lcolor(gs10)
>         lpattern(shortdash)
>         legend(off)
> ;

121 local outlier_opts2
>         msize(*.8)
>         mcolor(gs5)
>         mlabsize(vsmall)
>         mlabcolor(gs4)
>         lwidth(medthin)
>         lcolor(gs10)
>         lpattern(shortdash)
>         legend(off)
> ;

122 twoway (dropline dfbeta id if dfbeta <`threshold' & dfbeta > 0-`threshold',
>         vertical
>         mcolor(gs5)
>         msize(*.4)
>         lcolor(gs10)
>         lwidth(thin)
>         yline(`threshold', `threshold_line_opts')
>         yline(-`threshold', `threshold_line_opts')
>         ytitle("dfbetas")
>         xtitle(Observation index)
>         graphregion(margin(0 0 0 3))
>         )
>         // Annotate those above threshold
>         (dropline dfbeta id if dfbeta > `threshold',

```

125 restore

```
131 drop if missing(`y')
      (707 observations deleted)
```

```
134 global spec reghdfe `y' x $mat_x, abs($mat_x_group subzone2008)
```

```
135 jackknife _b _se, cluster(subzone2008) keep: $spec
      (running reqhdfe on estimation sample)
```

```

Jackknife replications (109)
-----|----- 1 -----|----- 2 -----|----- 3 -----|----- 4 -----|----- 5
.....n.....n.....
.....n.....n.....
.....

```

```
Jackknife results
```

	Number of obs	=	<b>719</b>
	Replications	=	<b>105</b>

(Replications based on 109 c

&gt; lusters in subzone2008)

		Coef.	Jackknife Std. Err.	t	P> t
[95% Conf. Interval]					
<b>b</b>					
	x	.1495662	.0747238	2.00	0.048
> .001386					
> .2977463					
	mother_age_delivery	.0596491	1.240788	0.05	0.962
> -2.40088					
> 2.520178					
c.mother_age_delivery#c.mother_age_delivery		-.0021945	.0189723	-0.12	0.908
> -.0398172					
> .0354282					
	_cons	23.73793	19.85347	1.20	0.235
> -15.63224					
> 63.1081					
<b>se</b>					
	x	.0774761	.0362362	2.14	0.035
> .0056184					
> .1493339					
	mother_age_delivery	1.356658	.1158647	11.71	0.000
> 1.126894					
> 1.586422					
c.mother_age_delivery#c.mother_age_delivery		.0215662	.0018556	11.62	0.000
> .0178863					
> .025246					
	_cons	20.9895	1.781675	11.78	0.000
> 17.45637					
> 24.52263					

Note: One or more parameters could not be estimated in 4 jackknife replicates;  
standard-error estimates include only complete replications.

136

137 //entire sample

138 \$spec

(dropped 31 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression  
Absorbing 8 HDFE groups

Number of obs = 719  
F( 3, 576) = 1.32  
Prob > F = 0.2666  
R-squared = 0.1952  
Adj R-squared = -0.0032  
Within R-sq. = 0.0068  
Root MSE = 15.7600

		pfbfs	Coef.	Std. Err.	t	P> t
>	[95% Con					
>	f. Interval]					
		x	.1495662	.0774761	1.93	0.054
>	-.002604					
>	.3017364					
		mother_age_delivery	.0596491	1.356658	0.04	0.965
>	-2.60495					
>	2.724248					
c.mother_age_delivery#c.mother_age_delivery			-.0021945	.0215662	-0.10	0.919
>	-.0445524					
>	.0401634					
		_cons	23.73793	20.9895	1.13	0.259
>	-17.48736					
>	64.96322					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	<b>3</b>
mother_place_of_birth	7	1	<b>6</b>
mother_highest_education	6	1	<b>5</b> ?
mother_occupation	10	1	<b>9</b> ?
marital_status	4	1	<b>3</b> ?
hdb_gusto	2	1	<b>1</b> ?
parity	6	1	<b>5</b> ?
subzone2008	109	1	<b>108</b> ?

? = number of redundant parameters may be higher

139 local n e(N)

```
140 dis "Sample: " `n'
      Sample: 719
```

141

```
142 local x x
```

```
143 local b _b['x']
```

```
144 dis "Full sampe coeff: " `b'
    Full sampe coeff: .14956618
```

145

```
146 local se _se[ `x' ]
```

```
147 dis "Full sample SE of coeff: " `se'
    Full sample SE of coeff: .07747614
```

148

```
149 * Compute dfbetas
```

```

150 gen double b_`x' = (`n'*`b' - _b_`x')/(`n' -1)
    (679 missing values generated)

151 gen double se_`x' = (`n'*`se' - _se_`x')/(`n'-1)
    (679 missing values generated)

152 gen double dfbetas_`x' = (_b[`x']-b_`x')/se_`x'
    (679 missing values generated)

153
154 * Compute pvalue
155 gen double tstat = _b_`x'/_se_`x'
    (679 missing values generated)

156 gen double pval = 2*ttail(`n'-1, abs(tstat))
    (679 missing values generated)

157
158 gen dfbeta_round = round(dfbetas_x, .01)
    (679 missing values generated)

159 gen pval_round = round(pval, .01)
    (679 missing values generated)

160 gen mlab = " (" + string(pval_round) + ")"

161
162 grstyle init

163 grstyle set plain, noextend compact

164
165 local threshold_line_opts lpattern(solid) lcolor(navy) lwidth(medium)

166 local threshold = 2/sqrt(`n')

167 dis `threshold'
.07458741

168
169 drop if missing(dfbetas_x)
    (679 observations deleted)

170 gen id = _n

171 #delimit;
    delimiter now ;
172 twoway (dropline dfbetas_x id if dfbetas_x < `threshold' & dfbetas_x > 0-`threshold',
>         vertical
>         mcolor(gs5)
>         msize(*.6)
>         lcolor(gs10)
>         lwidth(thin)
>         ytitle("dfbetas")
>         yline(`threshold', `threshold_line_opts')
>         yline(-`threshold', `threshold_line_opts')
>         ylabel(-.2 -.1 0 .1 , ang(h))
>         xtitle(Subzone index)
>         )
>         (dropline dfbetas_x id if dfbetas_x >= `threshold',
>         `outlier_opts'
>         mlab(subzone2008)
>         mlabpos(12)
>         )
>         // Annotate Subzone
>         (dropline dfbetas_x id if dfbetas_x <= -`threshold',
>         `outlier_opts'
>         mlab(subzone2008)
>         mlabpos(6)
>         )
> ;

```



```

173 #delimit cr
    delimiter now cr
174 savefig, path($figsavedir/dfbetas-subzones-pfbs-buff500m-transportfacilities) format
    > ($graphformats) override(width(1000))
Graph saved as ./figures/dfbetas-subzones-pfbs-buff500m-transportfacilities.png
(file ./figures/dfbetas-subzones-pfbs-buff500m-transportfacilities.pdf written in PDF
> format)
Graph saved as ./figures/dfbetas-subzones-pfbs-buff500m-transportfacilities.pdf
Override ption not allowed - ignoring override option
(file ./figures/dfbetas-subzones-pfbs-buff500m-transportfacilities.eps written in EPS
> format)
Graph saved as ./figures/dfbetas-subzones-pfbs-buff500m-transportfacilities.eps

```

```
175 restore
```

```
176
```

```
177
```

```
178 // =====
> ===
```

```
179 preserve
```

```
180 drop if missing(`y`)
    (707 observations deleted)
```

```
181
```

```
182 gen x = buff500m_area_transport_faciliti
    (13 missing values generated)
```

```
183 global spec reghdfe `y' x $mat_x, abs($mat_x_group subzone2008)
```

```
184 jackknife _b _se, cluster(planning_area2008) keep: $spec
    (running reghdfe on estimation sample)
```

```
Jackknife replications (29)
```

```

_____ 1 _____ 2 _____ 3 _____ 4 _____ 5
.....n.....n..n.n.n.

```

```
Jackknife results
```

```

Number of obs      =      719
Replications       =      24

```

```
(Replications based on 29 cluster
```

```
> s in planning_area2008)
```

		Coef.	Jackknife Std. Err.	t	P> t
<hr/>					
> [95% Con					
> f. Interval]					
<hr/>					
<b>b</b>					
	x	.1495662	.0383654	3.90	0.001
> .0702013					
> .2289311					
	mother_age_delivery	.0596491	1.242677	0.05	0.962
> -2.511024					
> 2.630323					
c.mother_age_delivery#c.mother_age_delivery		-.0021945	.0188061	-0.12	0.908
> -.0410978					
> .0367088					
	_cons	23.73793	20.06654	1.18	0.249
> -17.77287					
> 65.24873					
<hr/>					
<b>se</b>					
	x	.0774761	.0083457	9.28	0.000
> .0602118					
> .0947404					

```

> mother_age_delivery | 1.356658 .134477 10.09 0.000
> 1.078471
> 1.634844
c.mother_age_delivery#c.mother_age_delivery | .0215662 .002103 10.25 0.000
> .0172157
> .0259166
> _cons | 20.9895 2.117512 9.91 0.000
> 16.60909
> 25.36991

```

Note: One or more parameters could not be estimated in 5 jackknife replicates;  
standard-error estimates include only complete replications.

```

185
186 //entire sample
187 $spec
(dropped 31 singleton observations)
(MWFE_estimator converged in 11 iterations)

```

```

HDFE Linear regression
Absorbing 8 HDFE groups
Number of obs   =      719
F(   3,   576) =      1.32
Prob > F        =      0.2666
R-squared       =      0.1952
Adj R-squared   =     -0.0032
Within R-sq.    =      0.0068
Root MSE       =     15.7600

```

```

> [95% Con
> f. Interval]
> pfbs | Coef. Std. Err. t P>|t|
> x | .1495662 .0774761 1.93 0.054
> -.002604 .3017364
> mother_age_delivery | .0596491 1.356658 0.04 0.965
> -2.60495 2.724248
c.mother_age_delivery#c.mother_age_delivery | -.0021945 .0215662 -0.10 0.919
> -.0445524 .0401634
> _cons | 23.73793 20.9895 1.13 0.259
> -17.48736
> 64.96322

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

```

188 local n e(N)
189 dis "Sample: " `n'
    Sample: 719
190
191 local x x
192 local b _b[`x']
193 dis "Full sampe coeff: " `b'
    Full sampe coeff: .14956618
194
195 local se _se[`x']
196 dis "Full sample SE of coeff: " `se'
    Full sample SE of coeff: .07747614
197
198 * Compute dfbetas
199 gen double b_`x' = (`n'*`b' - _b_`x')/(`n' -1)
    (760 missing values generated)
200 gen double se_`x' = (`n'*`se' - _se_`x')/(`n'-1)
    (760 missing values generated)
201 gen double dfbetas_`x' = (_b[`x']-b_`x')/se_`x'
    (760 missing values generated)
202
203 * Compute pvalue
204 gen double tstat = _b_`x'/_se_`x'
    (760 missing values generated)
205 gen double pval = 2*ttail(`n'-1, abs(tstat))
    (760 missing values generated)
206
207 gen dfbeta_round = round(dfbetas_x, .01)
    (760 missing values generated)
208
209 grstyle init
210 grstyle set plain, noextend compact
211
212 local threshold_line_opts lpattern(solid) lcolor(navy) lwidth(medium)
213 local threshold = 2/sqrt(`n')
214 dis `threshold'
    .07458741
215
216 drop if missing(dfbetas_x)
    (760 observations deleted)
217 gen id = _n

```

```

218 #delimit;
    delimiter now ;
219 local outlier_opts
>         msize(*1.0)
>         mcolor(gs5)
>         mlabel(subzone2008)
>         mlabsize(vsmall)
>         mlabcolor(gs4)
>         lwidth(medthin)
>         lcolor(gs10)
>         lpattern(shortdash)
>         legend(off)
> ;

220 twoway (dropline dfbetas_x id if dfbetas_x < `threshold' & dfbetas_x > 0-`threshold',
>         vertical
>         mcolor(gs5)
>         msize(*1.1)
>         lcolor(gs10)
>         lwidth(thin)
>         ytitle("dfbetas")
>         yline(`threshold', `threshold_line_opts')
>         yline(-`threshold', `threshold_line_opts')
>         ylabel(-.2 -.1 0 .1 , ang(h))
>         xtitle(Planning area index)
>         )
>         (dropline dfbetas_x id if dfbetas_x >= `threshold',
>         `outlier_opts'
>         mlabpos(12)
>         )
>         (dropline dfbetas_x id if dfbetas_x <= -`threshold',
>         `outlier_opts'
>         mlabpos(6)
>         )
> ;

221 #delimit cr
    delimiter now cr
222 savefig, path($figsavedir/dfbetas-planningarea-pfbs-buff500m-transportfacilities) fo
> rmat($graphformats) override(width(1000))
Graph saved as ./figures/dfbetas-planningarea-pfbs-buff500m-transportfacilities.png
(file ./figures/dfbetas-planningarea-pfbs-buff500m-transportfacilities.pdf written in
> PDF format)
Graph saved as ./figures/dfbetas-planningarea-pfbs-buff500m-transportfacilities.pdf
Override ption not allowed - ignoring override option
(file ./figures/dfbetas-planningarea-pfbs-buff500m-transportfacilities.eps written in
> EPS format)
Graph saved as ./figures/dfbetas-planningarea-pfbs-buff500m-transportfacilities.eps

223
224 restore

225
    end of do-file

226
227 // * -----
228 * Make the plot for dummies based on different thresholds
229 *         using area of transport facilities in 500m radius

```

```

230 // * -----
231 do ./analyses/coefplot-threshold-dose-response

232 assert_macros pfas mat_x mat_x_group figsavedir graphformats, strict
Checking pfas:
pfas contains: pfbs pfna pfoa pfos pfhxs pfba pfunda pfda
Checking mat_x:
mat_x contains: c.mother_age_delivery##c.mother_age_delivery
Checking mat_x_group:
mat_x_group contains: mother_ethnicity mother_place_of_birth mother_highest_education
> mother_occupation marital_status hdb_gusto parity
Checking figsavedir:
figsavedir contains: ./figures
Checking graphformats:
graphformats contains: png pdf eps

233
234 preserve

235 * standardized
236 foreach chem of varlist $pfas {
2.     qui su `chem'
3.     replace `chem' = `chem'/r(sd) if !missing(`chem')
4.
237     eststo clear
5.     #delimit;
delimiter now ;
238     bcplot_thresholds `chem' buff500m_area_transport_faciliti,
>         cutoffs(0(2)20)
>         controls($mat_x)
>         absorb($mat_x_group subzone2008)
>         cluster(planning_area2008)
>         yscale(range(-.6 1.4))
>         ylabel(-.5 0 .5 1)
>         coeflabels(
>             dd0 = "0"
>             dd2 = "2"
>             dd4 = "4"
>             dd6 = "6"
>             dd8 = "8"
>             dd10 = "10"
>             dd12 = "12"
>             dd14 = "14"
>             dd16 = "16"
>             dd18 = "18"
>             dd20 = "20"
>             dd22 = "22"
>             dd24 = "24"
>             dd26 = "26"
>             dd28 = "28"
>             dd30 = "30"
>         )
>         name(`chem')
>     ;
6.     #delimit cr
delimiter now cr
239     savefig, path($figsavedir/coefplot-`chem'-binary-cutoff) format($graphformats) o
>     verride(width(1000))
7. }
(784 real changes made)
N above cutoff:
871
N above cutoff:
573
N above cutoff:
249
N above cutoff:
173
N above cutoff:
144
N above cutoff:
129

```

```

N above cutoff:
121
N above cutoff:
117
N above cutoff:
110
N above cutoff:
108
N above cutoff:
102
Graph saved as ./figures/coefplot-pfbs-binary-cutoff.png
(file ./figures/coefplot-pfbs-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfbs-binary-cutoff.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-pfbs-binary-cutoff.eps written in EPS format)
Graph saved as ./figures/coefplot-pfbs-binary-cutoff.eps
(784 real changes made)
N above cutoff:
871
N above cutoff:
573
N above cutoff:
249
N above cutoff:
173
N above cutoff:
144
N above cutoff:
129
N above cutoff:
121
N above cutoff:
117
N above cutoff:
110
N above cutoff:
108
N above cutoff:
102
Graph saved as ./figures/coefplot-pfna-binary-cutoff.png
(file ./figures/coefplot-pfna-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfna-binary-cutoff.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-pfna-binary-cutoff.eps written in EPS format)
Graph saved as ./figures/coefplot-pfna-binary-cutoff.eps
(784 real changes made)
N above cutoff:
871
N above cutoff:
573
N above cutoff:
249
N above cutoff:
173
N above cutoff:
144
N above cutoff:
129
N above cutoff:
121
N above cutoff:
117
N above cutoff:
110
N above cutoff:
108
N above cutoff:
102
Graph saved as ./figures/coefplot-pfoa-binary-cutoff.png
(file ./figures/coefplot-pfoa-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfoa-binary-cutoff.pdf
Override ption not allowed - ignoring override option

```

```

(file ./figures/coefplot-pfoa-binary-cutoff.eps written in EPS format)
Graph saved as ./figures/coefplot-pfoa-binary-cutoff.eps
(784 real changes made)
N above cutoff:
  871
N above cutoff:
  573
N above cutoff:
  249
N above cutoff:
  173
N above cutoff:
  144
N above cutoff:
  129
N above cutoff:
  121
N above cutoff:
  117
N above cutoff:
  110
N above cutoff:
  108
N above cutoff:
  102
Graph saved as ./figures/coefplot-pfos-binary-cutoff.png
(file ./figures/coefplot-pfos-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfos-binary-cutoff.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-pfos-binary-cutoff.eps written in EPS format)
Graph saved as ./figures/coefplot-pfos-binary-cutoff.eps
(784 real changes made)
N above cutoff:
  871
N above cutoff:
  573
N above cutoff:
  249
N above cutoff:
  173
N above cutoff:
  144
N above cutoff:
  129
N above cutoff:
  121
N above cutoff:
  117
N above cutoff:
  110
N above cutoff:
  108
N above cutoff:
  102
Graph saved as ./figures/coefplot-pfhxs-binary-cutoff.png
(file ./figures/coefplot-pfhxs-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfhxs-binary-cutoff.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-pfhxs-binary-cutoff.eps written in EPS format)
Graph saved as ./figures/coefplot-pfhxs-binary-cutoff.eps
(784 real changes made)
N above cutoff:
  871
N above cutoff:
  573
N above cutoff:
  249
N above cutoff:
  173
N above cutoff:
  144
N above cutoff:

```

```

129
N above cutoff:
121
N above cutoff:
117
N above cutoff:
110
N above cutoff:
108
N above cutoff:
102
Graph saved as ./figures/coefplot-pfba-binary-cutoff.png
(file ./figures/coefplot-pfba-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfba-binary-cutoff.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-pfba-binary-cutoff.eps written in EPS format)
Graph saved as ./figures/coefplot-pfba-binary-cutoff.eps
(784 real changes made)
N above cutoff:
871
N above cutoff:
573
N above cutoff:
249
N above cutoff:
173
N above cutoff:
144
N above cutoff:
129
N above cutoff:
121
N above cutoff:
117
N above cutoff:
110
N above cutoff:
108
N above cutoff:
102
Graph saved as ./figures/coefplot-pfunda-binary-cutoff.png
(file ./figures/coefplot-pfunda-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfunda-binary-cutoff.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-pfunda-binary-cutoff.eps written in EPS format)
Graph saved as ./figures/coefplot-pfunda-binary-cutoff.eps
(784 real changes made)
N above cutoff:
871
N above cutoff:
573
N above cutoff:
249
N above cutoff:
173
N above cutoff:
144
N above cutoff:
129
N above cutoff:
121
N above cutoff:
117
N above cutoff:
110
N above cutoff:
108
N above cutoff:
102
Graph saved as ./figures/coefplot-pfda-binary-cutoff.png
(file ./figures/coefplot-pfda-binary-cutoff.pdf written in PDF format)
Graph saved as ./figures/coefplot-pfda-binary-cutoff.pdf

```



**Override ption not allowed - ignoring override option**  
 (file ./figures/coefplot-pfda-binary-cutoff.eps written in EPS format)  
**Graph saved as ./figures/coefplot-pfda-binary-cutoff.eps**

```

240 restore

241
242 * Unstandardize for PFBS
243 eststo clear

244 #delimit;
    delimiter now ;
245     bcplot_thresholds pfbs buff500m_area_transport_faciliti,
>         cutoffs(0(2)20)
>         controls($mat_x)
>         absorb($mat_x_group subzone2008)
>         cluster(planning_area2008)
>         // yscale(range(-6 18))
>         // ylabel(-4(4)16)
>         coeflabels(
>             dd0 = "0"
>             dd2 = "2"
>             dd4 = "4"
>             dd6 = "6"
>             dd8 = "8"
>             dd10 = "10"
>             dd12 = "12"
>             dd14 = "14"
>             dd16 = "16"
>             dd18 = "18"
>             dd20 = "20"
>             dd22 = "22"
>             dd24 = "24"
>             dd26 = "26"
>             dd28 = "28"
>             dd30 = "30"
>         )
>         name(pfbs_unstandardized)
>         ytitle(pfbs unstandardized)
>     ;
N above cutoff:
871
N above cutoff:
573
N above cutoff:
249
N above cutoff:
173
N above cutoff:
144
N above cutoff:
129
N above cutoff:
121
N above cutoff:
117
N above cutoff:
110
N above cutoff:
108
N above cutoff:
102

```

```

246 #delimit cr
    delimiter now cr
247 savefig, path($figsavedir/coefplot-unstandardized-pfbs-binary-cutoff-buff500m_transp
> ort_facilities) format($graphformats) override(width(1000))
Graph saved as ./figures/coefplot-unstandardized-pfbs-binary-cutoff-buff500m_transport
> _facilities.png
(file ./figures/coefplot-unstandardized-pfbs-binary-cutoff-buff500m_transport_faciliti
> es.pdf written in PDF format)
Graph saved as ./figures/coefplot-unstandardized-pfbs-binary-cutoff-buff500m_transport
> _facilities.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-unstandardized-pfbs-binary-cutoff-buff500m_transport_faciliti
> es.eps written in EPS format)
Graph saved as ./figures/coefplot-unstandardized-pfbs-binary-cutoff-buff500m_transport
> _facilities.eps

248
249
    end of do-file

250
251 // * -----
252 // // Add built and social environmental covariates
253 // * -----
254 do ./analyses/env-covariates-coefplot

255 assert_macros mat_x mat_x_group figsavedir graphformats, strict
    Checking mat_x:
    mat_x contains: c.mother_age_delivery##c.mother_age_delivery
    Checking mat_x_group:
    mat_x_group contains: mother_ethnicity mother_place_of_birth mother_highest_education
    > mother_occupation marital_status hdb_gusto parity
    Checking figsavedir:
    figsavedir contains: ./figures
    Checking graphformats:
    graphformats contains: png pdf eps

256
257 local y pfbs

258 local x buff500m_area_transport_faciliti

259 eststo clear

260
261 // Standardize main variable
262 egen stf = std(`x')
    (23 missing values generated)

263
264 // Standardize each control variable
265 egen sroad = std(buff500m_area_road)
    (23 missing values generated)

266 egen smrt = std(buff500m_area_mass_rapid_transit)
    (23 missing values generated)

267 egen slrt = std(buff500m_area_light_rapid_transi)
    (23 missing values generated)

```

268 egen sbusiness = std(buff500m\_area\_business\_2\_white)  
(23 missing values generated)

269 egen spsm = std(psm\_mean)  
(28 missing values generated)

270 egen sresiddensity = std(pop2010\_int\_e)  
(23 missing values generated)

271 su pings\_median\_int\_b, d

pings_median_int_b				
Percentiles		Smallest		
1%	0	0		
5%	300.9281	0		
10%	509.5873	0	Obs	1468
25%	861.826	0	Sum of Wgt.	1468
50%	1121.156		Mean	1132.859
		Largest	Std. Dev.	1099.926
75%	1333.144	2864.49		
90%	1654.117	2977.655	Variance	1209837
95%	1942.058	4300.357	Skewness	28.0677
99%	2489.511	39101.02	Kurtosis	968.6621

272 replace pings\_median\_int\_b = r(p99) if pings\_median\_int\_b > r(p99) & !missing(pings\_  
> median\_int\_b)  
(13 real changes made)

273 egen sdensity = std(pings\_median\_int\_b)  
(23 missing values generated)

274

275 eststo m0: reghdfe `y' stf \$mat\_x i.parity, absorb(\$mat\_x\_group subzone2008) cl  
> uster(planning\_area2008)  
(dropped 31 singleton observations)  
note: **1bn.parity** is probably collinear with the fixed effects (all partialled-out valu  
> es are close to zero; tol = 1.0e-09)  
note: **2bn.parity** is probably collinear with the fixed effects (all partialled-out valu  
> es are close to zero; tol = 1.0e-09)  
note: **3bn.parity** is probably collinear with the fixed effects (all partialled-out valu  
> es are close to zero; tol = 1.0e-09)  
note: **4bn.parity** is probably collinear with the fixed effects (all partialled-out valu  
> es are close to zero; tol = 1.0e-09)  
note: **5bn.parity** is probably collinear with the fixed effects (all partialled-out valu  
> es are close to zero; tol = 1.0e-09)  
(MWFE estimator converged in 12 iterations)  
note: 1.parity omitted because of collinearity  
note: 2.parity omitted because of collinearity  
note: 3.parity omitted because of collinearity  
note: 4.parity omitted because of collinearity  
note: 5.parity omitted because of collinearity

HDFE Linear regression  
Absorbing 8 HDFE groups  
Statistics robust to heteroskedasticity

Number of obs	=	719
F( 3, 28)	=	3.54
Prob > F	=	0.0273
R-squared	=	0.1952
Adj R-squared	=	-0.0032
Within R-sq.	=	0.0068
Root MSE	=	15.7600

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster  
> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
stf		1.74024	.6345762	2.74	0.011
.4403691					
3.04011					
mother_age_delivery		.0596491	1.431591	0.04	0.967
-2.872832					
2.99213					
c.mother_age_delivery#c.mother_age_delivery		-.0021945	.0219642	-0.10	0.921
-.0471862					
.0427972					
parity					
1		0	(omitted)		
2		0	(omitted)		
3		0	(omitted)		
4		0	(omitted)		
5		0	(omitted)		
_cons		24.33135	22.77956	1.07	0.295
-22.33047					
70.99317					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

```
276 eststo m1: reghdfe `y' stf $mat_x sroad i.parity, absorb($mat_x_group subzone200
> 8) cluster(planning_area2008)
(dropped 31 singleton observations)
note: 1bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 2bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 3bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 4bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 5bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
(MWFE estimator converged in 12 iterations)
note: 1.parity omitted because of collinearity
note: 2.parity omitted because of collinearity
note: 3.parity omitted because of collinearity
note: 4.parity omitted because of collinearity
note: 5.parity omitted because of collinearity
```

HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 4, 28) = 2.62  
 Prob > F = 0.0559  
 R-squared = 0.1953  
 Adj R-squared = -0.0048  
 Within R-sq. = 0.0070  
 Root MSE = 15.7724

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
	stf	1.725483	.6401997	2.70	0.012
.4140934					
3.036873					
	mother_age_delivery	.0781529	1.423301	0.05	0.957
-2.837346					
2.993652					
c.mother_age_delivery#c.mother_age_delivery		-.0025062	.0218174	-0.11	0.909
-.0471972					
.0421849					
	sroad	-.3443041	1.127682	-0.31	0.762
-2.654256					
1.965648					
	parity				
	1	0	(omitted)		
	2	0	(omitted)		
	3	0	(omitted)		
	4	0	(omitted)		
	5	0	(omitted)		
	_cons	24.05579	22.66611	1.06	0.298
-22.37364					
70.48521					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

? = number of redundant parameters may be higher

```

277 eststo m2: reghdfe `y' stf $mat_x smrt      i.parity, absorb($mat_x_group subzone200
> 8) cluster(planning_area2008)
(dropped 31 singleton observations)
note: 1bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 2bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 3bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 4bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 5bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
(MWFE estimator converged in 12 iterations)
note: 1.parity omitted because of collinearity
note: 2.parity omitted because of collinearity
note: 3.parity omitted because of collinearity
note: 4.parity omitted because of collinearity
note: 5.parity omitted because of collinearity

```

HDFE Linear regression  
Absorbing 8 HDFE groups  
Statistics robust to heteroskedasticity

```

Number of obs      =           719
F(    4,    28)    =           2.58
Prob > F           =           0.0592
R-squared          =           0.1976
Adj R-squared      =          -0.0019
Within R-sq.       =           0.0099
Root MSE          =          15.7495

```

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
stf		1.666967	.6748066	2.47	0.020
mother_age_delivery		.0526751	1.417836	0.04	0.971
c.mother_age_delivery#c.mother_age_delivery		-.0021129	.0216791	-0.10	0.923
smrt		-1.042565	.6851995	-1.52	0.139
parity					
1		0	(omitted)		
2		0	(omitted)		
3		0	(omitted)		
4		0	(omitted)		
5		0	(omitted)		
_cons		24.447	22.63008	1.08	0.289

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

? = number of redundant parameters may be higher

```
278 eststo m3: reghdfe `y' stf $mat_x slrt      i.parity, absorb($mat_x_group subzone200
> 8) cluster(planning_area2008)
(dropped 31 singleton observations)
note: 1bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 2bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 3bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 4bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 5bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
(MWFE estimator converged in 12 iterations)
note: 1.parity omitted because of collinearity
note: 2.parity omitted because of collinearity
note: 3.parity omitted because of collinearity
note: 4.parity omitted because of collinearity
note: 5.parity omitted because of collinearity
```

HDFE Linear regression  
Absorbing 8 HDFE groups  
Statistics robust to heteroskedasticity

Number of obs = 719  
F( 4, 28) = 4.88  
Prob > F = 0.0041  
R-squared = 0.1965  
Adj R-squared = -0.0034  
Within R-sq. = 0.0084  
29Root MSE = 15.7610

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
stf		1.740833	.6338005	2.75	0.010
.4425518					
3.039115					
mother_age_delivery		.1274279	1.41839	0.09	0.929
-2.778013					
3.032869					
c.mother_age_delivery#c.mother_age_delivery		-.0033653	.0217117	-0.15	0.878
-.0478396					
.0411091					
slrt		1.769779	.5371027	3.30	0.003
.6695738					
2.869984					
parity					
1		0	(omitted)		
2		0	(omitted)		
3		0	(omitted)		

```

              4      0 (omitted)
              5      0 (omitted)
              _cons    23.36791    22.5935    1.03    0.310
> -22.91277
> 69.64859

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

```

279 eststo m4: reghdfe `y' stf $mat_x sbusiness i.parity, absorb($mat_x_group subzone200
> 8) cluster(planning_area2008)
(dropped 31 singleton observations)
note: 1bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 2bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 3bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 4bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 5bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
(MWFE estimator converged in 12 iterations)
note: 1.parity omitted because of collinearity
note: 2.parity omitted because of collinearity
note: 3.parity omitted because of collinearity
note: 4.parity omitted because of collinearity
note: 5.parity omitted because of collinearity

```

```

HDFE Linear regression          Number of obs   =       719
Absorbing 8 HDFE groups        F(   4,   28) =       7.46
Statistics robust to heteroskedasticity  Prob > F      =     0.0003
                                      R-squared     =     0.1989
                                      Adj R-squared  =    -0.0003
                                      Within R-sq.   =     0.0114
Number of clusters (planning_area2008) = 29 Root MSE   =    15.7370

```

(Std. Err. adjusted for 29 cluster

```
> s in planning_area2008)
```

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
stf		1.733138	.6361901	2.72	0.011
.4299615					
3.036314					
mother_age_delivery		.0642587	1.423423	0.05	0.964
-2.85149					
2.980008					
c.mother_age_delivery#c.mother_age_delivery		-.0023753	.0218332	-0.11	0.914
-.0470986					
.0423481					



```

>      .3949675      1.131015      sbusiness      .7629913      .1796634      4.25      0.000
>
>      parity
>      1      0      (omitted)
>      2      0      (omitted)
>      3      0      (omitted)
>      4      0      (omitted)
>      5      0      (omitted)
>      _cons      24.34254      22.65503      1.07      0.292
>      -22.06418
>      70.74926

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

? = number of redundant parameters may be higher

```

280 eststo m5: reghdfe `y' stf $mat_x spsm i.parity, absorb($mat_x_group subzone2008) c1
> uster(planning_area2008)
(dropped 30 singleton observations)
note: 1bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 2bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 3bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 4bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 5bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
(MWFE estimator converged in 12 iterations)
note: 1.parity omitted because of collinearity
note: 2.parity omitted because of collinearity
note: 3.parity omitted because of collinearity
note: 4.parity omitted because of collinearity
note: 5.parity omitted because of collinearity

```

HDFE Linear regression  
Absorbing 8 HDFE groups  
Statistics robust to heteroskedasticity

```

Number of obs      =      716
F(      4,      28) =      2.66
Prob > F            =      0.0536
R-squared           =      0.1994
Adj R-squared       =      0.0010
Within R-sq.        =      0.0077
29Root MSE         =      15.7037

```

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
stf		1.673685	.6106807	2.74	0.011
mother_age_delivery		-.1221743	1.450188	-0.08	0.933
c.mother_age_delivery#c.mother_age_delivery		.0009456	.022239	0.04	0.966
spsm		-.8761617	1.032482	-0.85	0.403
parity					
1		0	(omitted)		
2		0	(omitted)		
3		0	(omitted)		
4		0	(omitted)		
5		0	(omitted)		
_cons		26.68843	23.01627	1.16	0.256

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	108	1	107 ?

? = number of redundant parameters may be higher

```

281 eststo m6: reghdfe `y' stf $mat_x sresiddensity i.parity, absorb($mat_x_group subzon
> e2008) cluster(planning_area2008)
(dropped 31 singleton observations)
note: 1bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 2bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 3bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 4bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 5bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
(MWFE estimator converged in 12 iterations)
note: 1.parity omitted because of collinearity
note: 2.parity omitted because of collinearity
note: 3.parity omitted because of collinearity
note: 4.parity omitted because of collinearity
note: 5.parity omitted because of collinearity

```

HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 4, 28) = 2.50  
 Prob > F = 0.0650  
 R-squared = 0.1964  
 Adj R-squared = -0.0034  
 Within R-sq. = 0.0084  
 29Root MSE = 15.7611

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
stf		1.756897	.6646653	2.64	0.013
.3953924					
3.118403					
mother_age_delivery		.0675846	1.425218	0.05	0.963
-2.851842					
2.987011					
c.mother_age_delivery#c.mother_age_delivery		-.0021828	.0218521	-0.10	0.921
-.0469447					
.0425792					
sresiddensity		.8989299	1.052415	0.85	0.400
-1.256845					
3.054705					
parity					
1		0	(omitted)		
2		0	(omitted)		
3		0	(omitted)		
4		0	(omitted)		
5		0	(omitted)		
_cons		23.99287	22.66872	1.06	0.299
-22.4419					
70.42764					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher

```

282 eststo m7: reghdfe `y' stf $mat_x sdensity i.parity, absorb($mat_x_group subzone2008
> ) cluster(planning_area2008)
(dropped 31 singleton observations)
note: 1bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 2bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 3bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 4bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
note: 5bn.parity is probably collinear with the fixed effects (all partialled-out valu
> es are close to zero; tol = 1.0e-09)
(MWFE estimator converged in 12 iterations)
note: 1.parity omitted because of collinearity
note: 2.parity omitted because of collinearity
note: 3.parity omitted because of collinearity
note: 4.parity omitted because of collinearity
note: 5.parity omitted because of collinearity

```

HDFE Linear regression  
Absorbing 8 HDFE groups  
Statistics robust to heteroskedasticity

```

Number of obs   =      719
F(    4,    28) =      2.85
Prob > F        =      0.0424
R-squared       =      0.1963
Adj R-squared   =     -0.0036
Within R-sq.    =      0.0082
Root MSE       =     15.7626

```

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
stf		1.766975	.6587172	2.68	0.012
.4176539					
3.116296					
mother_age_delivery		.0756201	1.434938	0.05	0.958
-2.863717					
3.014957					
c.mother_age_delivery#c.mother_age_delivery		-.0024686	.0220288	-0.11	0.912
-.0475925					
.0426553					
sdensity		1.299596	1.150382	1.13	0.268
-1.056854					
3.656046					
parity					
1		0	(omitted)		
2		0	(omitted)		
3		0	(omitted)		
4		0	(omitted)		
5		0	(omitted)		
_cons		23.99036	22.8305	1.05	0.302
-22.7758					
70.75653					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	<b>3</b>	
mother_place_of_birth	7	1	<b>6</b>	
mother_highest_education	6	1	<b>5</b>	?
mother_occupation	10	1	<b>9</b>	?
marital_status	4	1	<b>3</b>	?
hdb_gusto	2	1	<b>1</b>	?
parity	6	1	<b>5</b>	?
subzone2008	109	1	<b>108</b>	?

? = number of redundant parameters may be higher

```

283
284 *=====
285 * Styling macros
286 *=====
287 grstyle init

288 grstyle set plain, horizontal

289 grstyle color background white

290 grstyle set color #ae2b6c #44AA99

291 grstyle set symbol

292
293 local xmin -4
294 local xmax 4

295
296 local baseopts ///
> drop(_cons) ///
> xline(0, lcolor(gs10) lpattern(dash)) ///
> ylabel(, labsize(medlarge) noticks) ///
> legend(off) ///
> graphregion(color(white)) ///
> plotregion(margin(zero)) ///
> yscale(noline) ///
> xscale(range(`xmin' `xmax')) ///
> xlabel(`xmin'(2)`xmax', labsize(medlarge))

297
298 local mat_opts msymbol(T) msize(large)

299 local ctrl_opts msymbol(S) msize(large)

300
301 local tstyle size(medlarge) justification(left) margin(small)

302
303 * Panel title strings
304 local t0 "{bf:Baseline model}"
305 local t1 "{bf:Baseline + Road}"

```

```

306 local t2 "{bf:Baseline + Mass Rapid Transit (MRT)}"
307 local t3 "{bf:Baseline + Light Rail Transit (LRT)}"
308 local t4 "{bf:Baseline + Business 2/White}"
309 local t5 "{bf:Baseline + Neighborhood affluence (house price, 0.1km2)}"
310 local t6 "{bf:Baseline + Residential population density (0.1km2)}"
311 local t7 "{bf:Baseline + Urban pedestrian density (0.1km2)}"

312
313 *=====
314 * One coefplot per model (created but not drawn)
315 *=====
316 * Baseline only
317 coefplot ///
> (m0, keep(stf) `mat_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> ) ///
> order(stf) ///
> title("`t0'", `tstyle') ///
> name(g0, replace) nodraw

318
319 * m1: baseline + Road
320 coefplot ///
> (m1, keep(stf) `mat_opts') ///
> (m1, keep(sroad) `ctrl_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> sroad = "Road" ///
> ) ///
> order(stf sroad) ///
> title("`t1'", `tstyle') ///
> name(g1, replace) nodraw

321
322 * m2: baseline + MRT
323 coefplot ///
> (m2, keep(stf) `mat_opts') ///
> (m2, keep(smrt) `ctrl_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> smrt = "MRT" ///
> ) ///
> order(stf smrt) ///
> title("`t2'", `tstyle') ///
> name(g2, replace) nodraw

324
325 * m3: baseline + LRT
326 coefplot ///
> (m3, keep(stf) `mat_opts') ///
> (m3, keep(slrt) `ctrl_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> slrt = "LRT" ///
> ) ///
> order(stf slrt) ///
> title("`t3'", `tstyle') ///
> name(g3, replace) nodraw

```

```

327
328 * m4: baseline + Business
329 coefplot ///
> (m4, keep(stf) `mat_opts') ///
> (m4, keep(sbusiness) `ctrl_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> sbusiness = "Business 2/White" ///
> ) ///
> order(stf sbusiness) ///
> title("`t4'", `tstyle') ///
> name(g4, replace) nodraw

330
331 * m5: baseline + PSM / neighborhood price
332 coefplot ///
> (m5, keep(stf) `mat_opts') ///
> (m5, keep(spsm) `ctrl_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> spsm = "Housing prices" ///
> ) ///
> order(stf spsm) ///
> title("`t5'", `tstyle') ///
> name(g5, replace) nodraw

333
334 * m6: baseline + residential density
335 coefplot ///
> (m6, keep(stf) `mat_opts') ///
> (m6, keep(sresiddensity) `ctrl_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> sresiddensity = "Residential density" ///
> ) ///
> order(stf sresiddensity) ///
> title("`t6'", `tstyle') ///
> name(g6, replace) nodraw

336
337 * m7: baseline + urban pedestrian density
338 coefplot ///
> (m7, keep(stf) `mat_opts') ///
> (m7, keep(sdensity) `ctrl_opts'), ///
> `baseopts' ///
> coeflabels( ///
> stf = "Transport facilities" ///
> sdensity = "Urban density" ///
> ) ///
> order(stf sdensity) ///
> title("`t7'", `tstyle') ///
> name(g7, replace) nodraw

339
340 *=====
341 * Final combined plot
342 *=====

```

```

343 graph combine g0 g1 g2 g3 g4 g5 g6 g7, ///
>     cols(1) xcommon imargin(0 0 0 0) ///
>     graphregion(color(white)) ///
>     ysize(5) xsize(4)

344
345 savefig, path($figsavedir/env-covariates-coefplot) format($graphformats) override(wi
> dth(1000))
Graph saved as ./figures/env-covariates-coefplot.png
(file ./figures/env-covariates-coefplot.pdf written in PDF format)
Graph saved as ./figures/env-covariates-coefplot.pdf
Override ption not allowed - ignoring override option
(file ./figures/env-covariates-coefplot.eps written in EPS format)
Graph saved as ./figures/env-covariates-coefplot.eps

346
347     end of do-file

348
349 * -----
350 * Movers and future addresses
351 * -----
352 do ./analyses/movers-future-exposure

353 assert_macros tabsavedir, strict
Checking tabsavedir:
tabsavedir contains: ./tables

354
355 * Movers only
356 runregs pfbs buff500m_area_transport_faciliti if mover==1, ///
>         xlabel(Transport facilities (area) within 500m buffer) ///
>         savepath($tabsavedir/pfbs-500m-transportfacilities-moversonly-fragme
> nt.tex)
./tables/pfbs-500m-transportfacilities-moversonly-fragment.tex
(dropped 9 singleton observations)
(MWFE estimator converged in 11 iterations)

HDFE Linear regression                                Number of obs   =       435
Absorbing 8 HDFE groups                             F(   3,   27) =       5.69
Statistics robust to heteroskedasticity              Prob > F        =       0.0037
                                                    R-squared       =       0.1346
                                                    Adj R-squared   =      -0.0016
                                                    Within R-sq.    =       0.0143
Number of clusters (planning_area2008) =          28Root MSE      =      16.2424

                                                    (Std. Err. adjusted for 28 cluster

> s in planning_area2008)

```

	pfbs	Coef.	Robust Std. Err.	t	P> t
> [95% Con					
> f. Interval]					
> buff500m_area_transport_faciliti		.1971298	.0496741	3.97	0.000
> .095207					
> .2990526					
> mother_age_delivery		1.655041	1.357131	1.22	0.233
> -1.129561					
> 4.439643					
> c.mother_age_delivery#c.mother_age_delivery		-.0264834	.0213679	-1.24	0.226
> -.0703268					
> .0173601					
> _cons		-1.712437	21.18959	-0.08	0.936
> -45.18989					
> 41.76501					



Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	5	1	4	?
mother_occupation	10	1	9	?
marital_status	3	1	2	?
hdb_gusto	2	1	1	?
parity	5	1	4	?
planning_area2008	28	28	0	*

? = number of redundant parameters may be higher  
\* = FE nested within cluster; treated as redundant for DoF computation  
(est1 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	435	24.10457	16.22932	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~iti	435	3.694503	9.93152	0	96.25027

added macro:

258 e(xsd) : " 9.9"

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{258\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{435\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{{Yes\$}}"

(dropped 43 singleton observations)  
(MWFE estimator converged in 12 iterations)

HDFE Linear regression	Number of obs	=	401
Absorbing 8 HDFE groups	F( 3, 26)	=	2.04
Statistics robust to heteroskedasticity	Prob > F	=	0.1334
	R-squared	=	0.2895
	Adj R-squared	=	0.0028
	Within R-sq.	=	0.0101
Number of clusters (planning_area2008) =	27Root MSE	=	15.9231

(Std. Err. adjusted for 27 cluster  
> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
> [95% Con					
> f. Interval]					
> buff500m_area_transport_faciliti		.173387	.0739503	2.34	0.027
> .0213799					
> .3253941					

```

              mother_age_delivery |    1.432592    1.725798    0.83    0.414
>    -2.114836
>              4.98002
c.mother_age_delivery#c.mother_age_delivery |    -0.0254584    .0279066    -0.91    0.370
>    -0.0828213
>              .0319045
              _cons |    3.989165    26.23557    0.15    0.880
>    -49.93882
>              57.91716

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	5	1	4 ?
mother_occupation	10	1	9 ?
marital_status	3	1	2 ?
hdb_gusto	2	1	1 ?
parity	5	1	4 ?
subzone2008	85	1	84 ?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	401	24.0805	15.94528	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~iti	401	3.631549	9.877575	0	96.25027

added macro:

e(xsd) : " 9.9"

238

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{238\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{401\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{27\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes\$}}"

(dropped 42 singleton observations)

(MWFE\_estimator converged in 16 iterations)

HDFE Linear regression	Number of obs	=	367
Absorbing 10 HDFE groups	F( 3, 24)	=	1.37
Statistics robust to heteroskedasticity	Prob > F	=	0.2752
	R-squared	=	0.3191
	Adj R-squared	=	-0.0009
	Within R-sq.	=	0.0099
Number of clusters (planning_area2008) =	25Root MSE	=	15.5720

(Std. Err. adjusted for 25 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff500m_area_transport_faciliti		.1742891	.0961595	1.81	0.082
-0.0241744					
.3727526					
mother_age_delivery		.9054663	2.200786	0.41	0.684
-3.636733					
5.447665					
c.mother_age_delivery#c.mother_age_delivery		-.0167946	.0337948	-0.50	0.624
-0.0865436					
.0529543					
_cons		11.30304	34.99854	0.32	0.750
-60.9304					
83.53649					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	5	1	4 ?
mother_occupation	10	1	9 ?
marital_status	3	1	2 ?
hdb_gusto	2	1	1 ?
parity	5	1	4 ?
mother_income	5	1	4 ?
household_income	5	1	4 ?
subzone2008	79	1	78 ?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	367	23.59959	15.56497	6.9	97.06

added macro:

e(ymean) : " 23.6"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~iti	367	3.595896	9.965878	0	96.25027

added macro:

e(xsd) : " 10.0"

219

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{219\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{367\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{25\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

```
e(szFE) : "\multicolumn{1}{c}{Yes}"
```

added macro:

```
e(income) : "\multicolumn{1}{c}{Yes}"
```

(output written to ./tables/pfbs-500m-transportfacilities-moversonly-fragment.tex)

357

358 \* Future residence

359 preserve

360 use ./data/edc-gusto-2019features.dta, clear

361 merge 1:1 sid using "./data/edc-gusto.dta", keepusing(parity)

Result	# of obs.	
not matched	20	
from master	20	( _merge==1)
from using	0	( _merge==2)
matched	1,491	( _merge==3)

362 replace buff500m\_transport\_facilities = buff500m\_transport\_facilities / 1000  
(824 real changes made)

363

364 runregs\_future pfbs buff500m\_transport\_facilities if mover==1, ///  
>           xlabel(Transport facilities (area) within 500m buffer) ///  
>           savepath(\$tabsavedir/pfbs-500m-transportfacilities-movedaddress-frag  
> ment.tex)  
./tables/pfbs-500m-transportfacilities-movedaddress-fragment.tex  
(dropped 13 singleton observations)  
(MWFE estimator converged in 11 iterations)

HDFE Linear regression	Number of obs	=	443
Absorbing 8 HDFE groups	F( 3, 25)	=	0.81
Statistics robust to heteroskedasticity	Prob > F	=	0.5003
	R-squared	=	0.0928
	Adj R-squared	=	-0.0415
	Within R-sq.	=	0.0038
Number of clusters ( <b>planning_area2019</b> ) =	26	Root MSE	= 16.6110

(Std. Err. adjusted for 26 cluster

> s in planning\_area2019)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff500m_transport_facilities		-.1083619	.0778741	-1.39	0.176
-.2687465					
.0520228					
mother_age_delivery		.892518	1.50565	0.59	0.559
-2.208426					
3.993463					
c.mother_age_delivery#c.mother_age_delivery		-.0166744	.0239512	-0.70	0.493
-.0660029					
.032654					
_cons		13.00313	23.2369	0.56	0.581
-34.85417					
60.86042					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	5	1	4	?
mother_occupation	10	1	9	?
marital_status	3	1	2	?
hdb_gusto	2	1	1	?
parity	5	1	4	?
planning_area2019	26	26	0	*

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(**est1** stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	443	24.11652	16.27701	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m_t~s	443	2.365395	6.546302	0	57.31284

added macro:

e(xsd) : " 6.5"

added macro:

e(nobs) : " 443"

added macro:

e(Nclusters) : "26"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{Yes}"

(dropped 61 singleton observations)

(MWFE estimator converged in 12 iterations)

HDFE Linear regression	Number of obs	=	395
Absorbing 8 HDFE groups	F( 3, 24)	=	1.93
Statistics robust to heteroskedasticity	Prob > F	=	0.1519
	R-squared	=	0.2848
	Adj R-squared	=	0.0043
	Within R-sq.	=	0.0116
Number of clusters ( <b>planning_area2019</b> ) =	25Root MSE	=	16.1071

(Std. Err. adjusted for 25 cluster

> s in planning\_area2019)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_transport_facilities		-.0583087	.1132831	-0.51	0.611
-.2921135					
.1754961					
mother_age_delivery		2.823622	1.828429	1.54	0.136
-.9500696					
6.597314					
c.mother_age_delivery#c.mother_age_delivery		-.0498462	.0289689	-1.72	0.098
-.1096351					

```

> .0099427
> -72.65213
> 43.56028

```

		_cons	-14.54593	28.15362	-0.52	0.610
--	--	-------	-----------	----------	-------	-------

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	5	1	4	?
mother_occupation	9	1	8	?
marital_status	3	1	2	?
hdb_gusto	2	1	1	?
parity	5	1	4	?
subzone2019	81	81	0	*

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	395	23.97253	16.1421	6.9	97.06

added macro:

e(ymean) : " 24.0"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m_t~s	395	2.20274	6.450488	0	57.31284

added macro:

e(xsd) : " 6.5"

added macro:

e(nobs) : " 395"

added macro:

e(Nclusters) : "25"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(szFE) : "\multicolumn{1}{c}{Yes}"

(dropped 55 singleton observations)

(MWFE estimator converged in 16 iterations)

HDFE Linear regression	Number of obs	=	364
Absorbing 10 HDFE groups	F( 3, 24)	=	3.02
Statistics robust to heteroskedasticity	Prob > F	=	0.0495
	R-squared	=	0.3422
	Adj R-squared	=	0.0253
	Within R-sq.	=	0.0282
Number of clusters (planning_area2019) =	25Root MSE	=	15.8582

(Std. Err. adjusted for 25 cluster

&gt; s in planning\_area2019)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff500m_transport_facilities		<b>-.0782106</b>	<b>.1299815</b>	<b>-0.60</b>	<b>0.553</b>
<b>-.3464793</b>					
<b>.190058</b>					
mother_age_delivery		<b>4.294086</b>	<b>2.382363</b>	<b>1.80</b>	<b>0.084</b>
<b>-.6228702</b>					
<b>9.211043</b>					
c.mother_age_delivery#c.mother_age_delivery		<b>-.0767802</b>	<b>.0380204</b>	<b>-2.02</b>	<b>0.055</b>
<b>-.1552505</b>					
<b>.00169</b>					
_cons		<b>-33.95552</b>	<b>36.4555</b>	<b>-0.93</b>	<b>0.361</b>
<b>-109.196</b>					
<b>41.28495</b>					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	<b>3</b>
mother_place_of_birth	6	1	<b>5</b>
mother_highest_education	5	1	<b>4</b> ?
mother_occupation	9	1	<b>8</b> ?
marital_status	3	1	<b>2</b> ?
hdb_gusto	2	1	<b>1</b> ?
parity	5	1	<b>4</b> ?
mother_income	5	1	<b>4</b> ?
household_income	5	1	<b>4</b> ?
subzone2019	81	81	<b>0</b> *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	<b>364</b>	<b>23.7658</b>	<b>16.06295</b>	<b>6.9</b>	<b>97.06</b>

added macro:

e(ymean) : " **23.8**"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m_t~s	<b>364</b>	<b>2.214912</b>	<b>6.622768</b>	<b>0</b>	<b>57.31284</b>

added macro:

e(xsd) : " **6.6**"

added macro:

e(nobs) : " **364**"

added macro:

e(Nclusters) : "25"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(szFE) : "\multicolumn{1}{c}{Yes}"

added macro:

```
e(income) : "\multicolumn{1}{c}{Yes}"
(output written to ./tables/pfbs-500m-transportfacilities-movedaddress-fragment.tex)
```

365 restore

366  
end of do-file

```
367
368 // * -----
369 // Negatives w/ spatial instruments
370 // that should not affect PFBS measures
371 // * -----
372 do ./analyses/negatives-spatial-instruments
```

```
373 assert_macros tabsavedir, strict
Checking tabsavedir:
tabsavedir contains: ./tables
```

```
374
375 foreach x of varlist tt10min_area_transport_facilitie tt15min_area_transport_facilit
> ie tt20min_area_transport_facilitie {
2.      replace `x' = 0 if missing(`x') & ~missing(tt20min_area_transport_facilit
> ie)
3.      replace `x' = `x' / 1000
4. }
(221 real changes made)
(538 real changes made)
(4 real changes made)
(1136 real changes made)
(0 real changes made)
(1359 real changes made)
```

376  
377 local x transport\_facilities\_dist\_pc2edg

```
378 runregs pfbs `x', ///
>      xlabel(Distance to nearest transport facility's edge) ///
>      savepath($tabsavedir/pfbs-`x'-fragment.tex)
./tables/pfbs-transport_facilities_dist_pc2edg-fragment.tex
(dropped 10 singleton observations)
(MWFE_estimator converged in 10 iterations)
```

HDFE Linear regression	Number of obs	=	740
Absorbing 8 HDFE groups	F( 3, 28)	=	0.44
Statistics robust to heteroskedasticity	Prob > F	=	0.7262
	R-squared	=	0.0938
	Adj R-squared	=	0.0093
	Within R-sq.	=	0.0009
Number of clusters (planning_area2008) =	29	Root MSE	= 15.8798

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
transport_facilities_dist_pc2edg		-.0012973	.0020091	-0.65	0.524
-.0054128					
.0028183					
mother_age_delivery		.5861232	1.155816	0.51	0.616
-1.781459					
2.953705					
c.mother_age_delivery#c.mother_age_delivery		-.0093914	.0177707	-0.53	0.601
-.045793					
.0270101					



```

>      -22.72862      _cons      15.88211      18.84914      0.84      0.407
>      54.49283

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	29	29	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(**est1** stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	740	24.13147	15.95455	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
transport_~g	740	485.5714	298.3307	17.89174	1573.315

added macro:

e(xsd) : " 298.3"

740

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{740\$}"

added macro:

e(nobs) : "\multicolumn{1}{c}{740\$}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{29\$}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{Yes}"

(dropped 31 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression	Number of obs	=	719
Absorbing 8 HDFE groups	F( 3, 28)	=	0.15
Statistics robust to heteroskedasticity	Prob > F	=	0.9297
	R-squared	=	0.1900
	Adj R-squared	=	-0.0097
	Within R-sq.	=	0.0005
Number of clusters ( <b>planning_area2008</b> ) =	29Root MSE	=	15.8103

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
transport_facilities_dist_pc2edg		-.0006393	.0034369	-0.19	0.854
-0.0076794					
.0064009					
mother_age_delivery		.0109889	1.50776	0.01	0.994
-3.077517					
3.099495					
c.mother_age_delivery#c.mother_age_delivery		-.0013583	.0231097	-0.06	0.954
-0.0486965					
.0459798					
_cons		25.27175	24.87689	1.02	0.318
-25.68625					
76.22976					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	719	24.00177	15.73443	6.9	97.06

added macro:

e(ymean) : " 24.0"

Variable	Obs	Mean	Std. Dev.	Min	Max
transport_~g	719	482.7735	293.4584	17.89174	1477.297

added macro:

e(xsd) : " 293.5"  
719

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{719\$}"

added macro:

e(nobs) : "\multicolumn{1}{c}{719\$}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{29\$}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

```
e(szFE) : "\multicolumn{1}{c}{Yes}"
(dropped 31 singleton observations)
(MWFE estimator converged in 14 iterations)
```

```
HDFE Linear regression      Number of obs   =      669
Absorbing 10 HDFE groups    F(   3,   27)   =      0.05
Statistics robust to heteroskedasticity  Prob > F       =     0.9853
                                   R-squared        =     0.2125
                                   Adj R-squared     =    -0.0059
                                   Within R-sq.      =     0.0003
                                   Root MSE       =    15.6405
```

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 28 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
transport_facilities_dist_pc2edg		.0012478	.0033454	0.37	0.712
- .0056165					
.008112					
mother_age_delivery		.2501115	1.870233	0.13	0.895
-3.58729					
4.087513					
c.mother_age_delivery#c.mother_age_delivery		-.0039572	.0288365	-0.14	0.892
- .0631247					
.0552104					
_cons		19.29062	30.41194	0.63	0.531
-43.10953					
81.69077					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
mother_income	5	1	4	?
household_income	5	1	4	?
subzone2008	104	1	103	?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	669	23.73363	15.59477	6.9	97.06

added macro:

```
e(ymean) : " 23.7"
```

Variable	Obs	Mean	Std. Dev.	Min	Max
transport_~g	669	483.0318	293.0632	17.89174	1477.297

```

added macro:
    e(xsd) : "    293.1"
669
added macro:
    e(x_coverage) : "\multicolumn{1}{c}{\$669\$}"
added macro:
    e(nobs) : "\multicolumn{1}{c}{\$    669\$}"
added macro:
    e(Nclusters) : "\multicolumn{1}{c}{\$28\$}"
added macro:
    e(demo) : "\multicolumn{1}{c}{Yes}"
added macro:
    e(szFE) : "\multicolumn{1}{c}{Yes}"
added macro:
    e(income) : "\multicolumn{1}{c}{Yes}"
(output written to ./tables/pfbs-transport_facilities_dist_pc2edg-fragment.tex)

```

379

380 local x transport\_facilities\_dist\_pc2cen

381 runregs pfbs `x', ///

&gt; xlabel(Distance to nearest transport facility's centroid) ///

&gt; savepath(\$tabsavedir/pfbs-`x'-fragment.tex)

./tables/pfbs-transport\_facilities\_dist\_pc2cen-fragment.tex

(dropped 10 singleton observations)

(MWFE estimator converged in 10 iterations)

HDFE Linear regression	Number of obs	=	740
Absorbing 8 HDFE groups	F( 3, 28)	=	0.44
Statistics robust to heteroskedasticity	Prob > F	=	0.7262
	R-squared	=	0.0938
	Adj R-squared	=	0.0093
	Within R-sq.	=	0.0009
Number of clusters (planning_area2008) =	29Root MSE	=	15.8798

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
transport_facilities_dist_pc2cen		-.0012973	.0020091	-0.65	0.524
- .0054128					
.0028183					
mother_age_delivery		.5861232	1.155816	0.51	0.616
-1.781459					
2.953705					
c.mother_age_delivery#c.mother_age_delivery		-.0093914	.0177707	-0.53	0.601
- .045793					
.0270101					
_cons		15.88211	18.84914	0.84	0.407
-22.72862					
54.49283					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
planning_area2008	29	29	0	*

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(**est1** stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	740	24.13147	15.95455	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
transport_~n	740	485.5714	298.3307	17.89174	1573.315

added macro:

e(xsd) : " 298.3"

740

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{740\$}"

added macro:

e(nobs) : "\multicolumn{1}{c}{740\$}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{29\$}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{Yes}"

(dropped 31 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression	Number of obs	=	719
Absorbing 8 HDFE groups	F( 3, 28)	=	0.15
Statistics robust to heteroskedasticity	Prob > F	=	0.9297
	R-squared	=	0.1900
	Adj R-squared	=	-0.0097
	Within R-sq.	=	0.0005
Number of clusters ( <b>planning_area2008</b> ) =	29Root MSE	=	15.8103

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
transport_facilities_dist_pc2cen		-.0006393	.0034369	-0.19	0.854
- .0076794					
.0064009					
mother_age_delivery		.0109889	1.50776	0.01	0.994
-3.077517					

```

> 3.099495
c.mother_age_delivery#c.mother_age_delivery | -.0013583 .0231097 -0.06 0.954
> -.0486965
> .0459798
> _cons | 25.27175 24.87689 1.02 0.318
> -25.68625
> 76.22976

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	109	1	108 ?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	719	24.00177	15.73443	6.9	97.06

added macro:

e(ymean) : " 24.0"

Variable	Obs	Mean	Std. Dev.	Min	Max
transport~n	719	482.7735	293.4584	17.89174	1477.297

added macro:

e(xsd) : " 293.5"

719

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{719\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{719\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes}}"

(dropped 31 singleton observations)

(MWFE\_estimator converged in 14 iterations)

HDFE Linear regression	Number of obs	=	669
Absorbing 10 HDFE groups	F( 3, 27)	=	0.05
Statistics robust to heteroskedasticity	Prob > F	=	0.9853
	R-squared	=	0.2125
	Adj R-squared	=	-0.0059
	Within R-sq.	=	0.0003
Number of clusters (planning_area2008) =	28Root MSE	=	15.6405

(Std. Err. adjusted for 28 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
transport_facilities_dist_pc2cen		.0012478	.0033454	0.37	0.712
-0.0056165					
.008112					
mother_age_delivery		.2501115	1.870233	0.13	0.895
-3.58729					
4.087513					
c.mother_age_delivery#c.mother_age_delivery		-.0039572	.0288365	-0.14	0.892
-0.0631247					
.0552104					
_cons		19.29062	30.41194	0.63	0.531
-43.10953					
81.69077					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
mother_income	5	1	4 ?
household_income	5	1	4 ?
subzone2008	104	1	103 ?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	669	23.73363	15.59477	6.9	97.06

added macro:

e(ymean) : " 23.7"

Variable	Obs	Mean	Std. Dev.	Min	Max
transport_~n	669	483.0318	293.0632	17.89174	1477.297

added macro:

e(xsd) : " 293.1"  
669

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{669\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{669\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

```
e(szFE) : "\multicolumn{1}{c}{Yes}"
```

added macro:

```
e(income) : "\multicolumn{1}{c}{Yes}"
```

(output written to ./tables/pfbs-transport\_facilities\_dist\_pc2cen-fragment.tex)

382

383 local x buff500m\_count\_transport\_facilit

384 runregs pfbs `x', ///

```
> xlabel(Transport facilities within 500m) ///
```

```
> savepath($stabsavedir/pfbs-`x'-fragment.tex)
```

```
./tables/pfbs-buff500m_count_transport_facilit-fragment.tex
```

```
(dropped 10 singleton observations)
```

```
(MWFE estimator converged in 10 iterations)
```

HDFE Linear regression

Absorbing 8 HDFE groups

Statistics robust to heteroskedasticity

Number of obs = 740

F( 3, 28) = 1.59

Prob > F = 0.2135

R-squared = 0.0976

Adj R-squared = 0.0135

Within R-sq. = 0.0050

Root MSE = 15.8468

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
buff500m_count_transport_facilit		.8309627	.4983223	1.67	0.107
-1.1898043					
1.85173					
mother_age_delivery		.5968127	1.170353	0.51	0.614
-1.800547					
2.994172					
c.mother_age_delivery#c.mother_age_delivery		-.0098094	.0179578	-0.55	0.589
-.0465944					
.0269756					
_cons		14.46863	18.47211	0.78	0.440
-23.36977					
52.30703					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	29	29	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation

(est1 stored)



Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	740	24.13147	15.95455	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~lit	740	1.032432	1.387759	0	13

added macro:

e(xsd) : " 1.4"

438

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{\$438\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{\$ 740\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{\$29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{Yes}"

(dropped 31 singleton observations)

(MWFE\_estimator converged in 11 iterations)

HDFE Linear regression  
 Absorbing 8 HDFE groups  
 Statistics robust to heteroskedasticity

Number of obs = 719  
 F( 3, 28) = 1.09  
 Prob > F = 0.3711  
 R-squared = 0.1925  
 Adj R-squared = -0.0065  
 Within R-sq. = 0.0036  
 Root MSE = 15.7856

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 29 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_count_transport_facilit		.9235833	.6345003	1.46	0.157
- .3761316					
2.223298					
mother_age_delivery		-.0307903	1.494662	-0.02	0.984
-3.092467					
3.030886					
c.mother_age_delivery#c.mother_age_delivery		-.0009303	.0228002	-0.04	0.968
- .0476345					
.0457738					
_cons		24.88109	23.55682	1.06	0.300
-23.37287					
73.13505					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	6	1	5	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
subzone2008	109	1	108	?

? = number of redundant parameters may be higher  
(**est2** stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	719	24.00177	15.73443	6.9	97.06

added macro:

e(ymean) : " 24.0"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~lit	719	1.023644	1.387669	0	13

added macro:

e(xsd) : " 1.4"

425

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{425\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{719\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{29\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes\$}}"

(dropped 31 singleton observations)

(MWFE estimator converged in 15 iterations)

HDFE Linear regression	Number of obs	=	669
Absorbing 10 HDFE groups	F( 3, 27)	=	0.18
Statistics robust to heteroskedasticity	Prob > F	=	0.9097
	R-squared	=	0.2127
	Adj R-squared	=	-0.0056
	Within R-sq.	=	0.0006
Number of clusters ( <b>planning_area2008</b> ) =	28	Root MSE	= 15.6382

(Std. Err. adjusted for 28 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_count_transport_facilit		.3936993	.6865514	0.57	0.571
-1.014988					
1.802386					
mother_age_delivery		.1921277	1.858919	0.10	0.918
-3.62206					
4.006315					

```

c.mother_age_delivery#c.mother_age_delivery | -.0031955 .0285262 -0.11 0.912
> -.0617264
> .0553354
                                     _cons | 20.5287 29.18145 0.70 0.488
> -39.34668
> 80.40408

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	6	1	5 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
mother_income	5	1	4 ?
household_income	5	1	4 ?
subzone2008	104	1	103 ?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	669	23.73363	15.59477	6.9	97.06

added macro:

e(ymean) : " 23.7"

Variable	Obs	Mean	Std. Dev.	Min	Max
buff500m~lit	669	1.025411	1.395334	0	13

added macro:

e(xsd) : " 1.4"

398

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{\\$398\\$}"

added macro:

e(nobs) : "\multicolumn{1}{c}{\\$ 669\\$}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{\\$28\\$}"

added macro:

e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:

e(szFE) : "\multicolumn{1}{c}{Yes}"

added macro:

e(income) : "\multicolumn{1}{c}{Yes}"

(output written to ./tables/pfbs-buff500m\_count\_transport\_facilit-fragment.tex)

```

385
386 local x ttl0min_area_transport_facilitie
387 runregs pfbs `x', ///
>       xlabel(Transport facilities (area) within 10min) ///
>       savepath($stabsavedir/pfbs-`x'-fragment.tex)
./tables/pfbs-ttl0min_area_transport_facilitie-fragment.tex
(dropped 10 singleton observations)
(MWFE_estimator converged in 10 iterations)

HDFE Linear regression                               Number of obs   =       714
Absorbing 8 HDFE groups                             F(   3,   27)   =       0.26
Statistics robust to heteroskedasticity              Prob > F        =     0.8569
                                                    R-squared       =     0.0885
                                                    Adj R-squared   =     0.0032
                                                    Within R-sq.    =     0.0008
Number of clusters (planning_area2008) =          28 Root MSE   =     15.9569

                                                    (Std. Err. adjusted for 28 cluster
> s in planning_area2008)

```

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
ttl0min_area_transport_facilitie		-.1055214	.2164129	-0.49	0.630
-.549564					
.3385212					
mother_age_delivery		.7032528	1.140744	0.62	0.543
-1.637361					
3.043866					
c.mother_age_delivery#c.mother_age_delivery		-.0109916	.0176594	-0.62	0.539
-.0472257					
.0252426					
_cons		13.34528	18.1317	0.74	0.468
-23.8579					
50.54846					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	5	1	4 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	28	28	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(est1 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	714	24.12634	15.98239	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
ttl0min_a~ie	<b>714</b>	<b>1.256379</b>	<b>2.93716</b>	<b>0</b>	<b>39.29169</b>

added macro:

**279** e(xsd) : " **2.9**"

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{**\$279\$**}"

added macro:

e(nobs) : "\multicolumn{1}{c}{**\$714\$**}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{**\$28\$**}"

added macro:

e(demo) : "\multicolumn{1}{c}{**Yes**}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{**Yes**}"

(dropped 30 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression

Absorbing 8 HDFE groups

Statistics robust to heteroskedasticity

Number of obs = **694**

F( **3**, **27**) = **0.24**

Prob > F = **0.8667**

R-squared = **0.1898**

Adj R-squared = **-0.0135**

Within R-sq. = **0.0011**

Root MSE = **15.8678**

Number of clusters (**planning\_area2008**) =

(Std. Err. adjusted for **28** cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
ttl0min_area_transport_facilitie		<b>-.1607601</b>	<b>.2494382</b>	<b>-0.64</b>	<b>0.525</b>
<b>-.6725649</b>					
<b>.3510447</b>					
mother_age_delivery		<b>.0565251</b>	<b>1.464812</b>	<b>0.04</b>	<b>0.970</b>
<b>-2.94902</b>					
<b>3.06207</b>					
c.mother_age_delivery#c.mother_age_delivery		<b>-.0021378</b>	<b>.0224983</b>	<b>-0.10</b>	<b>0.925</b>
<b>-.0483004</b>					
<b>.0440249</b>					
_cons		<b>24.47181</b>	<b>23.36426</b>	<b>1.05</b>	<b>0.304</b>
<b>-23.4677</b>					
<b>72.41131</b>					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	<b>3</b>	
mother_place_of_birth	7	1	<b>6</b>	
mother_highest_education	5	1	<b>4</b>	?
mother_occupation	10	1	<b>9</b>	?
marital_status	4	1	<b>3</b>	?
hdb_gusto	2	1	<b>1</b>	?
parity	6	1	<b>5</b>	?
subzone2008	107	1	<b>106</b>	?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	694	23.94899	15.76203	6.9	97.06

added macro:

e(ymean) : " 23.9"

Variable	Obs	Mean	Std. Dev.	Min	Max
ttl0min_a~ie	694	1.249523	2.954335	0	39.29169

added macro:

e(xsd) : " 3.0"

269

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{269\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{694\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes\$}}"

(dropped 31 singleton observations)

(MWFE\_estimator converged in 14 iterations)

HDFE Linear regression	Number of obs	=	645
Absorbing 10 HDFE groups	F( 3, 26)	=	0.15
Statistics robust to heteroskedasticity	Prob > F	=	0.9270
	R-squared	=	0.2151
	Adj R-squared	=	-0.0069
	Within R-sq.	=	0.0008
Number of clusters (planning_area2008) =	27	Root MSE	= 15.6606

(Std. Err. adjusted for 27 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
ttl0min_area_transport_facilitie		-.153272	.2308276	-0.66	0.513
- .6277449					
.3212008					
mother_age_delivery		.2934068	1.776431	0.17	0.870
-3.3581					
3.944914					
c.mother_age_delivery#c.mother_age_delivery		-.0048057	.0275509	-0.17	0.863
- .0614373					
.051826					
_cons		19.51513	28.03516	0.70	0.493
-38.11196					
77.14223					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	5	1	4	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
mother_income	5	1	4	?
household_income	5	1	4	?
subzone2008	102	1	101	?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	645	23.67157	15.60666	6.9	97.06

added macro:

e(ymean) : " 23.7"

Variable	Obs	Mean	Std. Dev.	Min	Max
ttl0min_a~ie	645	1.237307	3.002127	0	39.29169

added macro:

246 e(xsd) : " 3.0"

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{246\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{645\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{27\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(income) : "\multicolumn{1}{c}{{Yes\$}}"

(output written to ./tables/pfbs-ttl0min\_area\_transport\_facilitie-fragment.tex)

388

389 local x ttl15min\_area\_transport\_facilitie

390 runregs pfbs `x', ///

> xlabel(Transport facilities (area) within 15min) ///

> savepath(\$stabsavedir/pfbs-`x'-fragment.tex)

./tables/pfbs-ttl15min\_area\_transport\_facilitie-fragment.tex

(dropped 10 singleton observations)

(MWFE estimator converged in 10 iterations)

HDFE Linear regression

Absorbing 8 HDFE groups

Statistics robust to heteroskedasticity

Number of obs = 714

F( 3, 27) = 0.25

Prob > F = 0.8629

R-squared = 0.0890

Adj R-squared = 0.0038

Within R-sq. = 0.0014

28Root MSE = 15.9523

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 28 cluster

&gt; s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
ttl5min_area_transport_facilitie		.0389566	.0582326	0.67	0.509
-0.0805267					
.15844					
mother_age_delivery		.7045165	1.151033	0.61	0.546
-1.657208					
3.066241					
c.mother_age_delivery#c.mother_age_delivery		-.0110567	.0178524	-0.62	0.541
-0.0476868					
.0255734					
_cons		12.9335	18.28097	0.71	0.485
-24.57596					
50.44296					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	5	1	4 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	28	28	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation

(est1 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	714	24.12634	15.98239	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
ttl5min_a~ie	714	7.781489	13.67475	0	123.89

added macro:

e(xsd) : " 13.7"

571

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{571\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{714\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"



added macro:

```
e(areaFE) : "\multicolumn{1}{c}{Yes}"
(dropped 30 singleton observations)
(MWFE estimator converged in 11 iterations)
```

```
HDFE Linear regression      Number of obs   =      694
Absorbing 8 HDFE groups    F(   3,   27)   =      0.08
Statistics robust to heteroskedasticity
                             Prob > F               =      0.9688
                             R-squared                 =      0.1894
                             Adj R-squared             =     -0.0139
                             Within R-sq.             =      0.0006
                             Root MSE               =     15.8715
```

Number of clusters (planning\_area2008) =

(Std. Err. adjusted for 28 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
ttl5min_area_transport_facilitie		.0207813	.081982	0.25	0.802
-0.1474319					
.1889945					
mother_age_delivery		.0414912	1.470492	0.03	0.978
-2.975709					
3.058691					
c.mother_age_delivery#c.mother_age_delivery		-.0018632	.0226319	-0.08	0.935
-.0483					
.0445735					
_cons		24.30727	23.48036	1.04	0.310
-23.87044					
72.48499					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	5	1	4 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	107	1	106 ?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	694	23.94899	15.76203	6.9	97.06

added macro:

```
e(ymean) : "      23.9"
```

Variable	Obs	Mean	Std. Dev.	Min	Max
ttl5min_a~ie	694	7.658754	13.49512	0	123.89

added macro:

```
e(xsd) : "      13.5"
```

554

added macro:  
 e(x\_coverage) : "\multicolumn{1}{c}{\\$554\\$}"

added macro:  
 e(nobs) : "\multicolumn{1}{c}{\\$ 694\\$}"

added macro:  
 e(Nclusters) : "\multicolumn{1}{c}{\\$28\\$}"

added macro:  
 e(demo) : "\multicolumn{1}{c}{Yes}"

added macro:  
 e(szFE) : "\multicolumn{1}{c}{Yes}"

(dropped 31 singleton observations)  
 (MWFE estimator converged in 14 iterations)

HDFE Linear regression	Number of obs	=	645
Absorbing 10 HDFE groups	F( 3, 26)	=	0.10
Statistics robust to heteroskedasticity	Prob > F	=	0.9589
	R-squared	=	0.2153
	Adj R-squared	=	-0.0067
	Within R-sq.	=	0.0010
Number of clusters (planning_area2008) =	27Root MSE	=	15.6589

(Std. Err. adjusted for 27 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
> [95% Con					
> f. Interval]					
>                   ttl15min_area_transport_facilitie		.0404017	.076514	0.53	0.602
>   -1.168751					
>                   .1976785					
>                   mother_age_delivery		.2998766	1.784437	0.17	0.868
>   -3.368086					
>                   3.967839					
> c.mother_age_delivery#c.mother_age_delivery		-.0048649	.0277287	-0.18	0.862
>   -.061862					
>                   .0521323					
>                   _cons		18.87582	28.13225	0.67	0.508
>   -38.95085					
>                   76.70248					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	5	1	4	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
mother_income	5	1	4	?
household_income	5	1	4	?
subzone2008	102	1	101	?

? = number of redundant parameters may be higher  
 (est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	645	23.67157	15.60666	6.9	97.06

added macro:

e(ymean) : " 23.7"

Variable	Obs	Mean	Std. Dev.	Min	Max
tt15min_a~ie	645	7.649334	13.74131	0	123.89

added macro:

e(xsd) : " 13.7"

516

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{516\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{645\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{27\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(szFE) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

e(income) : "\multicolumn{1}{c}{{Yes\$}}"

(output written to ./tables/pfbs-tt15min\_area\_transport\_facilitie-fragment.tex)

391

392 local x tt20min\_area\_transport\_facilitie

393 runregs pfbs `x', ///

> xlabel(Transport facilities (area) within 20min) ///

> savepath(\$absavedir/pfbs-`x'-fragment.tex)

./tables/pfbs-tt20min\_area\_transport\_facilitie-fragment.tex

(dropped 10 singleton observations)

(MWFE\_estimator converged in 10 iterations)

HDFE Linear regression

Absorbing 8 HDFE groups

Statistics robust to heteroskedasticity

Number of obs = 714

F( 3, 27) = 0.14

Prob > F = 0.9364

R-squared = 0.0882

Adj R-squared = 0.0029

Within R-sq. = 0.0005

Number of clusters (**planning\_area2008**) =

28Root MSE = 15.9592

(Std. Err. adjusted for 28 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
tt20min_area_transport_facilitie		-.005227	.0279197	-0.19	0.853
-.0625135					
.0520594					
mother_age_delivery		.6930302	1.142742	0.61	0.549
-1.651682					
3.037743					
c.mother_age_delivery#c.mother_age_delivery		-.0108421	.0177228	-0.61	0.546
-.0472063					
.0255221					

```

>      -23.65165      _cons      13.5021      18.10761      0.75      0.462
>      50.65584

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	5	1	4 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
planning_area2008	28	28	0 *

? = number of redundant parameters may be higher

\* = FE nested within cluster; treated as redundant for DoF computation  
(**est1** stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	714	24.12634	15.98239	6.9	97.06

added macro:

e(ymean) : " 24.1"

Variable	Obs	Mean	Std. Dev.	Min	Max
tt20min_a~ie	714	23.12753	31.23849	0	238.6755

added macro:

e(xsd) : " 31.2"

**679**

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{679\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{714\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes}}"

added macro:

e(areaFE) : "\multicolumn{1}{c}{{Yes}}"

(dropped 30 singleton observations)

(MWFE estimator converged in 11 iterations)

HDFE Linear regression	Number of obs	=	694
Absorbing 8 HDFE groups	F( 3, 27)	=	0.32
Statistics robust to heteroskedasticity	Prob > F	=	0.8139
	R-squared	=	0.1913
	Adj R-squared	=	-0.0116
	Within R-sq.	=	0.0029
Number of clusters ( <b>planning_area2008</b> ) =	28Root MSE	=	15.8534

(Std. Err. adjusted for 28 cluster  
> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con f. Interval]					
tt20min_area_transport_facilitie		-.0385411	.0485505	-0.79	0.434
-.1381586					
.0610763					
mother_age_delivery		.0084396	1.456206	0.01	0.995
-2.979448					
2.996327					
c.mother_age_delivery#c.mother_age_delivery		-.0013771	.0224061	-0.06	0.951
-.0473505					
.0445963					
_cons		25.87943	23.32804	1.11	0.277
-21.98574					
73.74461					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
mother_ethnicity	3	0	3
mother_place_of_birth	7	1	6
mother_highest_education	5	1	4 ?
mother_occupation	10	1	9 ?
marital_status	4	1	3 ?
hdb_gusto	2	1	1 ?
parity	6	1	5 ?
subzone2008	107	1	106 ?

? = number of redundant parameters may be higher  
(est2 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	694	23.94899	15.76203	6.9	97.06

added macro:

e(ymean) : " 23.9"

Variable	Obs	Mean	Std. Dev.	Min	Max
tt20min_a~ie	694	22.59651	30.96472	0	238.6755

added macro:

e(xsd) : " 31.0"

660

added macro:

e(x\_coverage) : "\multicolumn{1}{c}{{660\$}}"

added macro:

e(nobs) : "\multicolumn{1}{c}{{694\$}}"

added macro:

e(Nclusters) : "\multicolumn{1}{c}{{28\$}}"

added macro:

e(demo) : "\multicolumn{1}{c}{{Yes\$}}"

added macro:

```
e(szFE) : "\multicolumn{1}{c}{Yes}"
(dropped 31 singleton observations)
(MWFE estimator converged in 14 iterations)
```

```
HDFE Linear regression      Number of obs   =      645
Absorbing 10 HDFE groups    F(   3,   26)   =      0.14
Statistics robust to heteroskedasticity  Prob > F       =     0.9362
                                   R-squared      =     0.2156
                                   Adj R-squared   =    -0.0063
                                   Within R-sq.    =     0.0013
Number of clusters (planning_area2008) = 27Root MSE     =    15.6560
```

(Std. Err. adjusted for 27 cluster

> s in planning\_area2008)

	pfbs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
tt20min_area_transport_facilitie		-.0267388	.0463688	-0.58	0.569
-.1220513					
.0685737					
mother_age_delivery		.2285478	1.775677	0.13	0.899
-3.421408					
3.878503					
c.mother_age_delivery#c.mother_age_delivery		-.0037758	.0275859	-0.14	0.892
-.0604794					
.0529277					
_cons		20.91643	28.08766	0.74	0.463
-36.81859					
78.65145					

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs	
mother_ethnicity	3	0	3	
mother_place_of_birth	7	1	6	
mother_highest_education	5	1	4	?
mother_occupation	10	1	9	?
marital_status	4	1	3	?
hdb_gusto	2	1	1	?
parity	6	1	5	?
mother_income	5	1	4	?
household_income	5	1	4	?
subzone2008	102	1	101	?

? = number of redundant parameters may be higher  
(est3 stored)

Variable	Obs	Mean	Std. Dev.	Min	Max
pfbs	645	23.67157	15.60666	6.9	97.06

added macro:

```
e(ymean) : " 23.7"
```

Variable	Obs	Mean	Std. Dev.	Min	Max
tt20min_a~ie	645	22.40522	31.13924	0	238.6755

[illegible]

```
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
(784 real changes made)
```

410

411 // =====

412 \* Correlates of pfbs

413 eststo clear

```
414 foreach pfas of varlist `pfas_cb' {
      2.      eststo: reghdfe pfbs `pfas', absorb(subzone2008) cluster(planning_area200
      > 8)
      3. }
(dropped 23 singleton observations)
(MWFE estimator converged in 1 iterations)
```

```
HDFE Linear regression      Number of obs   =      748
Absorbing 1 HDFE group      F(   1,   28) =      0.21
Statistics robust to heteroskedasticity  Prob > F       =      0.6485
                                      R-squared        =      0.1340
                                      Adj R-squared     =     -0.0156
                                      Within R-sq.      =      0.0002
Number of clusters (planning_area2008) = 29 Root MSE   =      0.9882
```

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
bpa	-.0127568	.0276871	-0.46	0.649	-.0694713	.0439577
_cons	1.511146	.0116573	129.63	0.000	1.487267	1.535025

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

```
(est1 stored)
(dropped 23 singleton observations)
(MWFE estimator converged in 1 iterations)
```

```
HDFE Linear regression      Number of obs   =      748
Absorbing 1 HDFE group      F(   1,   28) =      0.73
Statistics robust to heteroskedasticity  Prob > F       =      0.3987
                                      R-squared        =      0.1348
                                      Adj R-squared     =     -0.0147
                                      Within R-sq.      =      0.0011
Number of clusters (planning_area2008) = 29 Root MSE   =      0.9878
```

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
bps	.0324767	.037893	0.86	0.399	-.0451435	.1100969
_cons	1.488561	.025408	58.59	0.000	1.436515	1.540607



Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est2** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	26.32
Statistics robust to heteroskedasticity	Prob > F	=	0.0000
	R-squared	=	0.1719
	Adj R-squared	=	0.0289
	Within R-sq.	=	0.0439
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9663

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
benzophe	<b>-.2036439</b>	<b>.0396908</b>	<b>-5.13</b>	<b>0.000</b>	<b>-.2849468</b>	<b>-.122341</b>
_cons	<b>1.583113</b>	<b>.0163797</b>	<b>96.65</b>	<b>0.000</b>	<b>1.54956</b>	<b>1.616665</b>

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est3** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	7.52
Statistics robust to heteroskedasticity	Prob > F	=	0.0105
	R-squared	=	0.1374
	Adj R-squared	=	-0.0115
	Within R-sq.	=	0.0041
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9863

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
butylp	<b>-.061059</b>	<b>.022272</b>	<b>-2.74</b>	<b>0.011</b>	<b>-.1066811</b>	<b>-.015437</b>
_cons	<b>1.547879</b>	<b>.0200703</b>	<b>77.12</b>	<b>0.000</b>	<b>1.506767</b>	<b>1.588991</b>

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est4** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	11.20
Statistics robust to heteroskedasticity	Prob > F	=	0.0023
	R-squared	=	0.1608
	Adj R-squared	=	0.0159
	Within R-sq.	=	0.0312
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9728

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
ethylp	.1823237	.0544722	3.35	0.002	.0707424	.293905
_cons	1.396412	.0372525	37.49	0.000	1.320104	1.47272

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est5 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	13.41
Statistics robust to heteroskedasticity	Prob > F	=	0.0010
	R-squared	=	0.1755
	Adj R-squared	=	0.0331
	Within R-sq.	=	0.0481
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9642

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mbp	.2129183	.0581331	3.66	0.001	.0938381	.3319986
_cons	1.148369	.1008708	11.38	0.000	.9417442	1.354993

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est6 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	2.88
Statistics robust to heteroskedasticity	Prob > F	=	0.1008
	R-squared	=	0.1447
	Adj R-squared	=	-0.0030
	Within R-sq.	=	0.0125
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9821

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mbzp	.11266	.066383	1.70	0.101	-.0233194	.2486394
_cons	1.475783	.0210791	70.01	0.000	1.432605	1.518962

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est7** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	6.81
Statistics robust to heteroskedasticity	Prob > F	=	0.0144
	R-squared	=	0.1551
	Adj R-squared	=	0.0092
	Within R-sq.	=	0.0246
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9761

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mcinp	.1628871	.0624159	2.61	0.014	.035034	.2907402
_cons	1.392061	.048399	28.76	0.000	1.29292	1.491202

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est8** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	11.09
Statistics robust to heteroskedasticity	Prob > F	=	0.0024
	R-squared	=	0.1525
	Adj R-squared	=	0.0062
	Within R-sq.	=	0.0216
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9776

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mcpp	-.1459567	.0438197	-3.33	0.002	-.2357172	-.0561961
_cons	1.573366	.0243791	64.54	0.000	1.523428	1.623304

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est9** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	13.05
Statistics robust to heteroskedasticity	Prob > F	=	0.0012
	R-squared	=	0.1701
	Adj R-squared	=	0.0268
	Within R-sq.	=	0.0418
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9674

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mecpp	.2071294	.0573432	3.61	0.001	.0896673	.3245916
_cons	1.334282	.0544542	24.50	0.000	1.222738	1.445827

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est10 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	9.59
Statistics robust to heteroskedasticity	Prob > F	=	0.0044
	R-squared	=	0.1525
	Adj R-squared	=	0.0062
	Within R-sq.	=	0.0216
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9776

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mehp	.1460546	.047165	3.10	0.004	.0494414	.2426678
_cons	1.30335	.0733201	17.78	0.000	1.153161	1.45354

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est11 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	0.09
Statistics robust to heteroskedasticity	Prob > F	=	0.7712
	R-squared	=	0.1339
	Adj R-squared	=	-0.0157
	Within R-sq.	=	0.0001
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9883

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mep	-.0087576	.0298294	-0.29	0.771	-.0698604	.0523451
_cons	1.512287	.0212209	71.26	0.000	1.468818	1.555756

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est12** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	1.90
Statistics robust to heteroskedasticity	Prob > F	=	0.1785
	R-squared	=	0.1373
	Adj R-squared	=	-0.0117
	Within R-sq.	=	0.0040
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9863

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mmp	.0676888	.0490446	1.38	0.178	-.0327744	.1681521
_cons	1.466444	.0336483	43.58	0.000	1.397518	1.535369

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est13** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	3.93
Statistics robust to heteroskedasticity	Prob > F	=	0.0574
	R-squared	=	0.1624
	Adj R-squared	=	0.0178
	Within R-sq.	=	0.0330
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9718

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
methylnp	.1771688	.0894136	1.98	0.057	-.0059867	.3603244
_cons	1.361429	.0742675	18.33	0.000	1.209299	1.513559

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est14** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	11.78
Statistics robust to heteroskedasticity	Prob > F	=	0.0019
	R-squared	=	0.1600
	Adj R-squared	=	0.0149
	Within R-sq.	=	0.0302
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9733

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
oxyben	.1684621	.0490758	3.43	0.002	.0679348	.2689893
_cons	1.02147	.1451124	7.04	0.000	.724221	1.318719

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est15 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	1.50
Statistics robust to heteroskedasticity	Prob > F	=	0.2309
	R-squared	=	0.1374
	Adj R-squared	=	-0.0116
	Within R-sq.	=	0.0041
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9863

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfba	.059957	.0489575	1.22	0.231	-.0403279	.1602418
_cons	1.479356	.0336388	43.98	0.000	1.41045	1.548262

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est16 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
> s

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	.
Statistics robust to heteroskedasticity	Prob > F	=	.
	R-squared	=	1.0000
	Adj R-squared	=	1.0000
	Within R-sq.	=	1.0000
Number of clusters (planning_area2008) =	29	Root MSE	= 0.0000

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfbs	1	5.72e-16	1.7e+15	0.000	1	1
_cons	3.05e-15	8.58e-16	3.55	0.001	1.29e-15	4.81e-15

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est17** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	9.27
Statistics robust to heteroskedasticity	Prob > F	=	0.0050
	R-squared	=	0.1859
	Adj R-squared	=	0.0453
	Within R-sq.	=	0.0601
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9581

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfda	.2545485	.0836138	3.04	0.005	.0832734	.4258235
_cons	1.106197	.1349802	8.20	0.000	.8297031	1.382692

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est18** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	0.79
Statistics robust to heteroskedasticity	Prob > F	=	0.3819
	R-squared	=	0.1376
	Adj R-squared	=	-0.0114
	Within R-sq.	=	0.0043
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9862

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfdoda	.0629879	.0709045	0.89	0.382	-.0822533	.2082292
_cons	1.410548	.1118023	12.62	0.000	1.181532	1.639565

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(**est19** stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	14.79
Statistics robust to heteroskedasticity	Prob > F	=	0.0006
	R-squared	=	0.1731
	Adj R-squared	=	0.0303
	Within R-sq.	=	0.0453
Number of clusters ( <b>planning_area2008</b> ) =	29	Root MSE	= 0.9657

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfhpa	<b>.2361443</b>	<b>.0613996</b>	<b>3.85</b>	<b>0.001</b>	<b>.110373</b>	<b>.3619156</b>
_cons	<b>1.281124</b>	<b>.066643</b>	<b>19.22</b>	<b>0.000</b>	<b>1.144612</b>	<b>1.417636</b>

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	<b>110</b>

(est20 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	<b>748</b>
Absorbing 1 HDFE group	F( 1, 28)	=	<b>7.79</b>
Statistics robust to heteroskedasticity	Prob > F	=	<b>0.0094</b>
	R-squared	=	<b>0.1487</b>
	Adj R-squared	=	<b>0.0017</b>
	Within R-sq.	=	<b>0.0171</b>
Number of clusters ( <b>planning_area2008</b> ) =	<b>29</b> Root MSE	=	<b>0.9798</b>

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfhxa	<b>.161644</b>	<b>.0579332</b>	<b>2.79</b>	<b>0.009</b>	<b>.0429733</b>	<b>.2803147</b>
_cons	<b>1.343057</b>	<b>.0699978</b>	<b>19.19</b>	<b>0.000</b>	<b>1.199673</b>	<b>1.486441</b>

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	<b>110</b>

(est21 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	<b>748</b>
Absorbing 1 HDFE group	F( 1, 28)	=	<b>7.45</b>
Statistics robust to heteroskedasticity	Prob > F	=	<b>0.0109</b>
	R-squared	=	<b>0.1838</b>
	Adj R-squared	=	<b>0.0428</b>
	Within R-sq.	=	<b>0.0577</b>
Number of clusters ( <b>planning_area2008</b> ) =	<b>29</b> Root MSE	=	<b>0.9594</b>

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfhxs	<b>.2543289</b>	<b>.0932067</b>	<b>2.73</b>	<b>0.011</b>	<b>.0634035</b>	<b>.4452542</b>
_cons	<b>1.105506</b>	<b>.152017</b>	<b>7.27</b>	<b>0.000</b>	<b>.7941138</b>	<b>1.416899</b>



Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est22 stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	0.91
Statistics robust to heteroskedasticity	Prob > F	=	0.3487
	R-squared	=	0.1370
	Adj R-squared	=	-0.0120
	Within R-sq.	=	0.0037
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9865

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfna	-.0627444	.0658303	-0.95	0.349	-.1975917	.072103
_cons	1.620421	.1242909	13.04	0.000	1.365823	1.87502

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est23 stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	0.87
Statistics robust to heteroskedasticity	Prob > F	=	0.3595
	R-squared	=	0.1354
	Adj R-squared	=	-0.0139
	Within R-sq.	=	0.0018
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9874

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfoa	-.0422238	.0453211	-0.93	0.359	-.1350598	.0506123
_cons	1.562124	.062427	25.02	0.000	1.434248	1.69

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est24 stored)  
 (dropped 23 singleton observations)  
 (MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	2.98
Statistics robust to heteroskedasticity	Prob > F	=	0.0951
	R-squared	=	0.1477
	Adj R-squared	=	0.0005
	Within R-sq.	=	0.0160
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9804

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfos	.126117	.0730037	1.73	0.095	-.0234243	.2756584
_cons	1.337894	.1008302	13.27	0.000	1.131353	1.544435

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est25 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	21.94
Statistics robust to heteroskedasticity	Prob > F	=	0.0001
	R-squared	=	0.1673
	Adj R-squared	=	0.0235
	Within R-sq.	=	0.0387
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9690

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfpea	.211078	.0450685	4.68	0.000	.1187592	.3033967
_cons	1.236463	.0660714	18.71	0.000	1.101122	1.371804

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	110

(est26 stored)

(dropped 23 singleton observations)

(MWFE estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	748
Absorbing 1 HDFE group	F( 1, 28)	=	11.14
Statistics robust to heteroskedasticity	Prob > F	=	0.0024
	R-squared	=	0.1636
	Adj R-squared	=	0.0192
	Within R-sq.	=	0.0344
Number of clusters (planning_area2008) =	29	Root MSE	= 0.9711

(Std. Err. adjusted for 29 clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
pfunda	.1887904	.0565582	3.34	0.002	.0729362	.3046447
_cons	1.29502	.0687517	18.84	0.000	1.154188	1.435852

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	<b>110</b>

(**est27** stored)  
 (dropped 23 singleton observations)  
 (MWFE\_estimator converged in 1 iterations)

HDFE Linear regression	Number of obs	=	<b>748</b>
Absorbing 1 HDFE group	F( 1, 28)	=	<b>0.78</b>
Statistics robust to heteroskedasticity	Prob > F	=	<b>0.3854</b>
	R-squared	=	<b>0.1377</b>
	Adj R-squared	=	<b>-0.0112</b>
	Within R-sq.	=	<b>0.0044</b>
Number of clusters ( <b>planning_area2008</b> ) =	<b>29</b> Root MSE	=	<b>0.9861</b>

(Std. Err. adjusted for **29** clusters in planning\_area2008)

pfbs	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
propylp	<b>.0640484</b>	<b>.0726299</b>	<b>0.88</b>	<b>0.385</b>	<b>-.0847273</b>	<b>.212824</b>
_cons	<b>1.468751</b>	<b>.0474127</b>	<b>30.98</b>	<b>0.000</b>	<b>1.37163</b>	<b>1.565872</b>

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2008	110	0	<b>110</b>

(**est28** stored)

415 restore

```

416
417 #delimit;
    delimiter now ;
418 local graph_opts
>     nooffset
>     legend(off)
>     // Axis labels settings (nogextend prevents gridlines from extending; glcolor =
> gridline color)
>     // https://www.statalist.org/forums/forum/general-stata-discussion/general/14100
> 98-twoway-graph-grid-lines-lie-on-top-of-frame-around-plot-region-how-to-avoid-that
>     ylabel(, lsize(small) notick grid nogextend glcolor(gs15))
>     xlabel(, lsize(small) notick grid nogextend glcolor(gs15))
>     // Set to none (needed to prevent coefplot from adding its own grid)
>     // which is harder to tweak (see xlabel and ylabel nogextend glcolor)
>     grid( none )
>     xline(0, lpattern(dash) lcolor(gs7) lwidth(medthin))
>     // Graph and plot region settings
>     graphregion(color(white) margin(0 0 0 0))
>     // margin(tiny) needed to prevent gridlines going into borders but still hav
> e small margins
>     plotregion(lcolor(black) margin(tiny))
>     // Drop other variables
>     drop(pfbs _cons)
>     // Coefficient labels
>     coeplabel(
>         mbp = "MBP"
>         pfoa = "PFOA"
>         pfna = "PFNA"
>         mehpa = "MEHP"
>         oxyben = "Oxyben"
>         pfos = "PFOS"
>         pfhxs = "PFHxS"
>         benzophe = "Benzophe"
>         pfba = "PFBA"
>         pfunda = "PFUnDA"

```

```

>         methylp = "Methylp"
>         pfda = "PFDA"
>         mecpp = "MECPP"
>         mep = "MEP"
>         pfhpa = "PFHpA"
>         mmmp = "MMP"
>         mcinp = "MCINP"
>         propylp = "Propylp"
>         bps = "BPS"
>         ethylp = "Ethylp"
>         pfpea = "PFPeA"
>         pfdoda = "PFDoDA"
>         butylp = "Butylp"
>         mcpp = "MCP"
>         mbzp = "MBzP"
>         pfhxa = "PFHxA"
>         mnop = "MNOP"
>         bpa = "BPA"
>     )
> ;

419 #delimit cr
delimter now cr
420
421 // grstyle init
422 // grstyle set plain,
423
424 #delimit;
delimter now ;
425 coefplot
>     (*, pstyle(p1) mfcolor(white) mlwidth(thin) mcolor(gs8) ciopts(lcolor(gs10))
> )
>     (*, pstyle(p1) mfcolor(gs5) mlwidth(thin) mcolor(gs3) if(@ll>0 | @ul<0) ci
> opts(lcolor(gs8))),
>     sort `graph_opts' xscale(range(-.2 .4)) xlabel(-.2 0 .2 .4)
> ;
(estl7: no coefficients found, all dropped, or none kept)
(estl7: no coefficients found, all dropped, or none kept)

426 #delimit cr
delimter now cr
427 savefig, path($figsavedir/coefplot-correlates-of-pfbs-cordblood) format($graphformat
> s) override(width(1000))
Graph saved as ./figures/coefplot-correlates-of-pfbs-cordblood.png
(file ./figures/coefplot-correlates-of-pfbs-cordblood.pdf written in PDF format)
Graph saved as ./figures/coefplot-correlates-of-pfbs-cordblood.pdf
Override ption not allowed - ignoring override option
(file ./figures/coefplot-correlates-of-pfbs-cordblood.eps written in EPS format)
Graph saved as ./figures/coefplot-correlates-of-pfbs-cordblood.eps

428
end of do-file

429
430 * -----
431 * Make the binscatterhist plots
432 * -----
433 if `c(version)' >= 15 {
434     do ./analyses/binscatter
435 }

```

```

436
437 * -----
438 * S-PRESTO
439 * -----
440 do ./analyses/spresto

441 use ./data/edc-spresto.dta, clear

442 // =====
443 * PFAS
444 local pfas_spresto pfhxs pfos_linear pfos_branched pfoa_linear pfna pfhps pfda pfhpa
>

445
446 * Prep basic family demo
447 encode pcvl_working_status, gen(employed)

448 encode pcvl_highest_education_completed, gen(educ)

449 encode pcvl_marital_status, gen(marital)

450 encode ethnic_group, gen(ethnic)

451 encode hhincome_txt, gen(hhincome)

452
453 local baselines c.age_at_recruitment##c.age_at_recruitment i.employed i.educ i.marit
> al i.ethnic i.hhincome

454
455 // =====
456 local storespecs_file ./data/pfas-tf-spresto

457
458 cap erase `storespecs_file'.dta

459 local x buff500m_transport_facilities

460 preserve

461 qui su `x'

462 replace `x' = `x' / r(sd) if !missing(`x')
(531 real changes made)

463
464 foreach pfas of varlist `pfas_spresto' {
2.     qui su `pfas'
3.     replace `pfas' = `pfas' / r(sd) if !missing(`pfas')
4.     reghdfe `pfas' `x' `baselines', abs(subzone2014) cluster(planning_area201
> 4) keepings
5.     storespecs `x', spec_name(`pfas') file(`storespecs_file')
6. }
(384 real changes made)
WARNING: Singleton observations not dropped; statistical significance is biased (link)
(MWFE estimator converged in 1 iterations)
warning: missing F statistic; dropped variables due to collinearity or too few cluster
> s

```

HDFE Linear regression	Number of obs	=	313
Absorbing 1 HDFE group	F( 25, 26)	=	.
Statistics robust to heteroskedasticity	Prob > F	=	.
	R-squared	=	0.7742
	Adj R-squared	=	0.5832
	Within R-sq.	=	0.2572
Number of clusters ( <b>planning_area2014</b> ) =	27Root MSE	=	0.7013

(Std. Err. adjusted for 27 clust					
> ers in planning_area2014)					
	pfhxs	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_transport_facilities		.0376407	.0287351	1.31	0.202
> -.0214252					
> .0967066					
age_at_recruitment		.1823725	.3082483	0.59	0.559
> -.4512409					
> .8159858					
c.age_at_recruitment#c.age_at_recruitment		-.0028081	.0049402	-0.57	0.575
> -.0129629					
> .0073468					
employed					
Working		.2581198	.1120604	2.30	0.030
> .0277764					
> .4884632					
educ					
Institute of Technical Education ITE/NTC, ..		.6377905	.349373	1.83	0.079
> -.0803561					
> 1.355937					
Junior College/Centralised Institute GCE '..		.3692983	.1715651	2.15	0.041
> .0166411					
> .7219554					
Postgraduate Masters degree/Doctorate		.2128909	.2403967	0.89	0.384
> -.2812515					
> .7070334					
Secondary GCE 'O'/'N' Level		-.4162745	.548011	-0.76	0.454
> -1.542727					
> .7101782					
Trade or work qualification not from Unive..		-1.22306	.2791256	-4.38	0.000
> -1.796811					
> -.6493092					
University Bachelor's Degree/Postgrad Dipl..		-.01238	.137819	-0.09	0.929
> -.295671					
> .2709109					
marital					
Married/civil partnership/civil union		.1319542	.2055076	0.64	0.526
> -.2904728					
> .5543811					
Never married		-.0118303	.340816	-0.03	0.973
> -.7123876					
> .688727					
Separated		.7084292	.3179481	2.23	0.035
> .0548775					
> 1.361981					
ethnic					
Indian		-.3240837	.1854227	-1.75	0.092
> -.7052254					
> .0570581					
Malay		.2957507	.1564391	1.89	0.070
> -.0258144					
> .6173158					
Mix		.4400099	.3739358	1.18	0.250
> -.3286261					
> 1.208646					
hhincome					
1,622 - 3,273/month		2.509124	1.821819	1.38	0.180
> -1.235679					
> 6.253927					

>	-1.297907	10,694 - 13,188/month	2.626927	1.909403	1.38	0.181
>		6.551762				
>	-1.263085	13,189 - 16,601/month	2.64543	1.901464	1.39	0.176
>		6.553945				
>	-0.7272698	16,601 and above	3.018504	1.822292	1.66	0.110
>		6.764278				
>	-1.466357	3,274 - 4,676/month	2.565353	1.961397	1.31	0.202
>		6.597063				
>	-1.132003	4,677 - 6,144/month	2.879868	1.951746	1.48	0.152
>		6.891739				
>	-1.462437	6,145 - 7,423/month	2.599617	1.976159	1.32	0.200
>		6.661671				
>	-1.643372	7,424 - 9,082/month	2.421553	1.977557	1.22	0.232
>		6.486479				
>	-1.322347	9,083 - 10,693/month	2.745775	1.979111	1.39	0.177
>		6.813896				
>	-17.35319	_cons	-4.742555	6.134979	-0.77	0.446
>		7.868075				

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
 obs was 0, now 1

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

(note: file ./data/pfas-tf-sprest0.dta not found)  
 file ./data/pfas-tf-sprest0.dta saved  
 (384 real changes made)

**WARNING: Singleton observations not dropped; statistical significance is biased ([link](#))**  
 (MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
 > s

HDFE Linear regression  
 Absorbing 1 HDFE group  
 Statistics robust to heteroskedasticity

Number of obs = 313  
 F( 25, 26) = .  
 Prob > F = .  
 R-squared = 0.5092  
 Adj R-squared = 0.0940  
 Within R-sq. = 0.1861  
 Root MSE = 0.9986

Number of clusters (planning\_area2014) = 27

(Std. Err. adjusted for 27 clust					
> ers in planning_area2014)					
	pfos_linear	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_transport_facilities		.1004377	.0362602	2.77	0.010
.0259037					
.1749717					
age_at_recruitment		-.1747194	.3113376	-0.56	0.579
-.8146831					
.4652443					
c.age_at_recruitment#c.age_at_recruitment		.0026519	.004923	0.54	0.595
-.0074675					
.0127713					
employed					
Working		.4587959	.1664593	2.76	0.011
.116634					
.8009579					
educ					
Institute of Technical Education ITE/NTC, ..		.4823922	.3706548	1.30	0.205
-.2794997					
1.244284					
Junior College/Centralised Institute GCE '..		-.395345	.4761576	-0.83	0.414
-1.374101					
.5834109					
Postgraduate Masters degree/Doctorate		-.0030203	.2303659	-0.01	0.990
-.4765441					
.4705035					
Secondary GCE 'O'/'N' Level		-.0564205	.3911015	-0.14	0.886
-.8603412					
.7475001					
Trade or work qualification not from Unive..		-1.645428	.2872103	-5.73	0.000
-2.235798					
-1.055059					
University Bachelor's Degree/Postgrad Dipl..		-.018921	.2264767	-0.08	0.934
-.4844506					
.4466085					
marital					
Married/civil partnership/civil union		-.7514109	.330784	-2.27	0.032
-1.431347					
-.0714746					
Never married		-1.208579	.6194988	-1.95	0.062
-2.481977					
.0648191					
Separated		-.6926042	.663915	-1.04	0.306
-2.057301					
.6720926					
ethnic					
Indian		-1.400036	.3800403	-3.68	0.001
-2.18122					
-.6188519					
Malay		.1596157	.2526792	0.63	0.533
-.3597739					
.6790053					
Mix		-.0150611	.2362114	-0.06	0.950
-.5006006					
.4704783					
hhincome					
1,622 - 3,273/month		-.5881246	.718065	-0.82	0.420
-2.064128					
.8878791					



```

>      10,694 - 13,188/month | -.4602625 .8037647 -0.57 0.572
> -2.112424
>      1.1919
>      13,189 - 16,601/month | -.7413634 .8512425 -0.87 0.392
> -2.491117
>      1.008391
>      16,601 and above | -.0545417 .7600454 -0.07 0.943
> -1.616837
>      1.507754
>      3,274 - 4,676/month | -.316723 .8278715 -0.38 0.705
> -2.018437
>      1.384991
>      4,677 - 6,144/month | -.3961499 .8406386 -0.47 0.641
> -2.124107
>      1.331807
>      6,145 - 7,423/month | -.5980991 .8047039 -0.74 0.464
> -2.252192
>      1.055993
>      7,424 - 9,082/month | -.4529519 .874969 -0.52 0.609
> -2.251476
>      1.345573
>      9,083 - 10,693/month | -.6228902 .7372703 -0.84 0.406
> -2.138371
>      .8925906
>
>      _cons | 5.412545 5.216024 1.04 0.309
> -5.309147
>      16.13424

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
 obs was 1, now 2

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

file ./data/pfas-tf-sprest0.dta saved  
 (384 real changes made)

**WARNING: Singleton observations not dropped; statistical significance is biased ([link](#))**  
 (MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
 > s

HDFE Linear regression  
 Absorbing 1 HDFE group  
 Statistics robust to heteroskedasticity

Number of obs = 313  
 F( 25, 26) = .  
 Prob > F = .  
 R-squared = 0.5023  
 Adj R-squared = 0.0812  
 Within R-sq. = 0.1476  
 Root MSE = 1.0190

Number of clusters (planning\_area2014) =

(Std. Err. adjusted for **27** clust

```
> ers in planning_area2014)
```

		pfos_branched	Coef.	Robust Std. Err.	t	P> t
>	[95% Con					
>	f. Interval]					
>		buff500m_transport_facilities	.0608093	.0480536	1.27	0.217
>	-.0379663					
>		.159585				
>		age_at_recruitment	-.0969608	.3450017	-0.28	0.781
>	-.8061219					
>		.6122003				
>		c.age_at_recruitment#c.age_at_recruitment	.0015148	.0055727	0.27	0.788
>	-.0099401					
>		.0129697				
>		employed				
>		Working	.4818575	.1458318	3.30	0.003
>	.1820959					
>		.7816192				
>		educ				
>	Institute of Technical Education ITE/NTC, ..		.5741739	.4295833	1.34	0.193
>	-.3088473					
>		1.457195				
>	Junior College/Centralised Institute GCE '..		.0582311	.4518865	0.13	0.898
>	-.8706349					
>		.9870972				
>	Postgraduate Masters degree/Doctorate		.1683954	.4198843	0.40	0.692
>	-.6946892					
>		1.03148				
>	Secondary GCE 'O'/'N' Level		.4973447	.5327111	0.93	0.359
>	-.5976587					
>		1.592348				
>	Trade or work qualification not from Unive..		-1.597208	.5609492	-2.85	0.008
>	-2.750256					
>		-.4441606				
>	University Bachelor's Degree/Postgrad Dipl..		.10348	.2963161	0.35	0.730
>	-.5056065					
>		.7125665				
>		marital				
>	Married/civil partnership/civil union		-.2620949	.3108429	-0.84	0.407
>	-.9010417					
>		.3768518				
>		Never married	-.8183818	.6894232	-1.19	0.246
>	-2.235511					
>		.5987479				
>		Separated	.2542793	.562118	0.45	0.655
>	-.9011707					
>		1.409729				
>		ethnic				
>		Indian	-.8242353	.2443375	-3.37	0.002
>	-1.326478					
>		-.3219923				
>		Malay	.2239552	.1691561	1.32	0.197
>	-.1237501					
>		.5716606				
>		Mix	.4870767	.3294019	1.48	0.151
>	-.1900186					
>		1.164172				
>		hhincome				
>		1,622 - 3,273/month	.3411176	1.090461	0.31	0.757
>	-1.900357					
>		2.582592				

```

>      10,694 - 13,188/month | .5052839  1.218942  0.41  0.682
>      -2.000288      3.010856
>      13,189 - 16,601/month | -.074035  1.247193 -0.06  0.953
>      -2.637676      2.489606
>      16,601 and above | .7502336  1.164887  0.64  0.525
>      -1.644225      3.144692
>      3,274 - 4,676/month | .6251209  1.284249  0.49  0.631
>      -2.014691      3.264933
>      4,677 - 6,144/month | .4224881  1.265909  0.33  0.741
>      -2.179625      3.024601
>      6,145 - 7,423/month | .043466  1.217209  0.04  0.972
>      -2.458543      2.545475
>      7,424 - 9,082/month | .1215377  1.264658  0.10  0.924
>      -2.478003      2.721079
>      9,083 - 10,693/month | .063855  1.210478  0.05  0.958
>      -2.424319      2.552029
>      _cons | 2.783688  5.957118  0.47  0.644
>      -9.461343      15.02872
>

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
 obs was 2, now 3

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

file ./data/pfas-tf-sprest0.dta saved  
 (384 real changes made)

**WARNING: Singleton observations not dropped; statistical significance is biased ([link](#))**  
 (MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
 > s

HDFE Linear regression  
 Absorbing 1 HDFE group  
 Statistics robust to heteroskedasticity

```

Number of obs   =      313
F( 25, 26)     =      .
Prob > F        =      .
R-squared       =     0.3241
Adj R-squared   =    -0.2478
Within R-sq.    =     0.0973
Root MSE       =     1.1426

```

Number of clusters (planning\_area2014) =

		(Std. Err. adjusted for 27 clust			
> ers in planning_area2014)					
		pfoa_linear	Coef.	Robust Std. Err.	t P> t
> [95% Con					
> f. Interval]					
buff500m_transport_facilities			.0280335	.0381116	0.74 0.469
> -.050306	.106373				
age_at_recruitment			-.9411302	.8745694	-1.08 0.292
> -2.738833	.8565729				
c.age_at_recruitment#c.age_at_recruitment			.0142936	.01338	1.07 0.295
> -.0132093	.0417966				
employed Working			-.7424534	.8386541	-0.89 0.384
> -2.466332	.9814247				
educ					
Institute of Technical Education ITE/NTC, ..			-.0455448	.3871601	-0.12 0.907
> -.8413638	.7502742				
Junior College/Centralised Institute GCE '..			-.6362236	.2972831	-2.14 0.042
> -1.247298	-.0251494				
Postgraduate Masters degree/Doctorate			-.2910872	.1508396	-1.93 0.065
> -.6011423	.018968				
Secondary GCE 'O'/'N' Level			-.1428075	.243671	-0.59 0.563
> -.6436804	.3580654				
Trade or work qualification not from Unive..			.0793813	.3727456	0.21 0.833
> -.6868082	.8455708				
University Bachelor's Degree/Postgrad Dipl..			-.0338961	.1243577	-0.27 0.787
> -.2895169	.2217248				
marital					
Married/civil partnership/civil union			-.9826594	.3218057	-3.05 0.005
> -1.64414	-.3211783				
Never married			-.97234	.3722626	-2.61 0.015
> -1.737537	-.2071433				
Separated			-1.657727	.6938031	-2.39 0.024
> -3.08386	-.2315946				
ethnic					
Indian			-.2888704	.2184454	-1.32 0.198
> -.7378912	.1601505				
Malay			-.2429515	.2485367	-0.98 0.337
> -.753826	.267923				
Mix			.0050802	.3090204	0.02 0.987
> -.6301204	.6402808				
hhincome					
1,622 - 3,273/month			.4683648	.5111306	0.92 0.368
> -.5822791	1.519009				

```

      10,694 - 13,188/month | .9512803 .7135826 1.33 0.194
> -.5155097
>      2.41807
      13,189 - 16,601/month | .7291348 .6196922 1.18 0.250
> -.5446608
>      2.00293
      16,601 and above | 1.026602 .7256753 1.41 0.169
> -.4650444
>      2.518249
      3,274 - 4,676/month | .5005873 .5961651 0.84 0.409
> -.7248476
>      1.726022
      4,677 - 6,144/month | .5830525 .5298574 1.10 0.281
> -.5060849
>      1.67219
      6,145 - 7,423/month | .463296 .6897244 0.67 0.508
> -.9544529
>      1.881045
      7,424 - 9,082/month | .8438829 .7176749 1.18 0.250
> -.6313191
>      2.319085
      9,083 - 10,693/month | .6564056 .6428544 1.02 0.317
> -.6650006
>      1.977812
      _cons | 17.39278 14.67414 1.19 0.247
> -12.77034
>      47.5559

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
 obs was 3, now 4

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

file ./data/pfas-tf-sprest0.dta saved  
 (358 real changes made)

**WARNING: Singleton observations not dropped; statistical significance is biased ([link](#))**  
 (MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
 > s

HDFE Linear regression  
 Absorbing 1 HDFE group  
 Statistics robust to heteroskedasticity

```

Number of obs   =      313
F( 25, 26)     =      .
Prob > F        =      .
R-squared       =     0.4594
Adj R-squared   =     0.0019
Within R-sq.    =     0.1210
Root MSE       =     0.9935

```

Number of clusters (planning\_area2014) =

(Std. Err. adjusted for 27 clust					
> ers in planning_area2014)					
	pfna	Coef.	Robust Std. Err.	t	P> t
[95% Con					
f. Interval]					
buff500m_transport_facilities		.1122647	.0483486	2.32	0.028
.0128828					
.2116466					
age_at_recruitment		-.2285194	.3441945	-0.66	0.513
-.9360213					
.4789825					
c.age_at_recruitment#c.age_at_recruitment		.0031291	.0054792	0.57	0.573
-.0081336					
.0143918					
employed					
Working		.4557845	.1960773	2.32	0.028
.0527418					
.8588272					
educ					
Institute of Technical Education ITE/NTC, ..		.1546007	.2370864	0.65	0.520
-.3327373					
.6419387					
Junior College/Centralised Institute GCE '..		.3291351	.2924729	1.13	0.271
-.2720516					
.9303218					
Postgraduate Masters degree/Doctorate		-.043132	.2341987	-0.18	0.855
-.5245344					
.4382704					
Secondary GCE 'O'/'N' Level		-.2472896	.4185989	-0.59	0.560
-1.107732					
.6131527					
Trade or work qualification not from Unive..		1.141939	.2609903	4.38	0.000
.6054657					
1.678412					
University Bachelor's Degree/Postgrad Dipl..		-.0237371	.1757219	-0.14	0.894
-.3849386					
.3374645					
marital					
Married/civil partnership/civil union		-.5098428	.262809	-1.94	0.063
-1.050054					
.0303689					
Never married		.5693419	.9205225	0.62	0.542
-1.322819					
2.461503					
Separated		.2531918	.4584917	0.55	0.586
-.6892514					
1.195635					
ethnic					
Indian		-.2453735	.2675666	-0.92	0.368
-.7953645					
.3046176					
Malay		-.1990544	.1754155	-1.13	0.267
-.5596262					
.1615174					
Mix		-.0062645	.344198	-0.02	0.986
-.7137737					
.7012447					
hhincome					
1,622 - 3,273/month		.2664156	.2670649	1.00	0.328
-.2825443					
.8153754					

```

>      10,694 - 13,188/month | .3313978 .3541418 0.94 0.358
>      -.3965511
>      1.059347
>      13,189 - 16,601/month | .1703613 .249594 0.68 0.501
>      -.3426865
>      .6834091
>      16,601 and above | .4656135 .4977136 0.94 0.358
>      -.5574515
>      1.488678
>      3,274 - 4,676/month | .1749424 .2380646 0.73 0.469
>      -.3144064
>      .6642911
>      4,677 - 6,144/month | .2359064 .2671721 0.88 0.385
>      -.3132736
>      .7850864
>      6,145 - 7,423/month | -.1851507 .305532 -0.61 0.550
>      -.8131806
>      .4428793
>      7,424 - 9,082/month | -.069331 .2630948 -0.26 0.794
>      -.6101301
>      .4714681
>      9,083 - 10,693/month | .054263 .302586 0.18 0.859
>      -.5677113
>      .6762374
>      _cons | 5.140083 5.426258 0.95 0.352
>      -6.013749
>      16.29391

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
 obs was 4, now 5

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

file ./data/pfas-tf-sprest0.dta saved  
 (384 real changes made)

**WARNING: Singleton observations not dropped; statistical significance is biased ([link](#))**  
 (MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
 > s

```

HDFE Linear regression      Number of obs   =      313
Absorbing 1 HDFE group     F( 25, 26)     =      .
Statistics robust to heteroskedasticity  Prob > F       =      .
                                   R-squared        =     0.5477
                                   Adj R-squared     =     0.1649
                                   Within R-sq.      =     0.1945
Number of clusters (planning_area2014) = 27 Root MSE    =     0.9445

```

		(Std. Err. adjusted for 27 clust			
> ers in planning_area2014)					
		pfhps	Coef.	Robust Std. Err.	t P> t
> [95% Con					
> f. Interval]					
buff500m_transport_facilities			.0969932	.0406147	2.39 0.024
> .0135085					
> .180478					
age_at_recruitment			.062008	.3025847	0.20 0.839
> -.5599636					
> .6839797					
c.age_at_recruitment#c.age_at_recruitment			-.0010681	.0047996	-0.22 0.826
> -.0109339					
> .0087977					
employed Working			.5278219	.1444754	3.65 0.001
> .2308483					
> .8247954					
educ					
Institute of Technical Education ITE/NTC, ..			.6554129	.3704914	1.77 0.089
> -.1061431					
> 1.416969					
Junior College/Centralised Institute GCE '..			.1265449	.7151753	0.18 0.861
> -1.343519					
> 1.596609					
Postgraduate Masters degree/Doctorate			.0901534	.3234839	0.28 0.783
> -.5747772					
> .755084					
Secondary GCE 'O'/'N' Level			-.3201941	.4821074	-0.66 0.512
> -1.31118					
> .6707918					
Trade or work qualification not from Unive..			-1.376733	.3381339	-4.07 0.000
> -2.071777					
> -.681689					
University Bachelor's Degree/Postgrad Dipl..			-.0367224	.239717	-0.15 0.879
> -.5294677					
> .4560229					
marital					
Married/civil partnership/civil union			-.532839	.2588333	-2.06 0.050
> -1.064879					
> -.0007994					
Never married			-1.319216	.5574191	-2.37 0.026
> -2.465008					
> -.1734251					
Separated			.0682692	.55942	0.12 0.904
> -1.081635					
> 1.218173					
ethnic					
Indian			-.9308332	.1693277	-5.50 0.000
> -1.278891					
> -.5827751					
Malay			.0440945	.1863622	0.24 0.815
> -.3389785					
> .4271674					
Mix			.556569	.2619445	2.12 0.043
> .0181344					
> 1.095004					
hhincome					
1,622 - 3,273/month			1.366959	.9153509	1.49 0.147
> -.5145719					
> 3.24849					



```

      10,694 - 13,188/month | 1.047716 .9833978 1.07 0.296
> - .9736875
> 3.069119
      13,189 - 16,601/month | .8732468 .9747702 0.90 0.379
> -1.130422
> 2.876916
      16,601 and above | 1.510867 .989933 1.53 0.139
> - .5239689
> 3.545704
      3,274 - 4,676/month | 1.311183 .9706473 1.35 0.188
> - .6840111
> 3.306377
      4,677 - 6,144/month | 1.135832 .9721237 1.17 0.253
> - .8623968
> 3.134061
      6,145 - 7,423/month | .7696029 .9775355 0.79 0.438
> -1.23975
> 2.778956
      7,424 - 9,082/month | .6896741 1.019311 0.68 0.505
> -1.405549
> 2.784897
      9,083 - 10,693/month | .7277396 .9342663 0.78 0.443
> -1.192672
> 2.648152
      _cons | 4.52808 5.227429 0.87 0.394
> -6.217054
> 15.27321

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
 obs was 5, now 6

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

file ./data/pfas-tf-sprest0.dta saved  
 (383 real changes made)

**WARNING: Singleton observations not dropped; statistical significance is biased ([link](#))**  
 (MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
 > s

HDFE Linear regression  
 Absorbing 1 HDFE group  
 Statistics robust to heteroskedasticity

Number of obs = 313  
 F( 25, 26) = .  
 Prob > F = .  
 R-squared = 0.3727  
 Adj R-squared = -0.1581  
 Within R-sq. = 0.1364  
 Root MSE = 0.7500

Number of clusters (planning\_area2014) =

(Std. Err. adjusted for 27 clusters in planning\_area2014)

	pfda	Coef.	Robust Std. Err.	t	P> t
[95% Conf. Interval]					
buff500m_transport_facilities		.0311462	.0218596	1.42	0.166
- .0137868					
.0760793					
age_at_recruitment		-.0583047	.3012139	-0.19	0.848
- .6774587					
.5608492					
c.age_at_recruitment#c.age_at_recruitment		.0006425	.0047213	0.14	0.893
- .0090623					
.0103472					
employed Working		.0899211	.0979037	0.92	0.367
- .1113229					
.2911651					
educ					
Institute of Technical Education ITE/NTC, ..		-.3378504	.2304043	-1.47	0.155
- .8114532					
.1357525					
Junior College/Centralised Institute GCE '...		-.0575796	.1939329	-0.30	0.769
- .4562144					
.3410552					
Postgraduate Masters degree/Doctorate		.0258584	.1172071	0.22	0.827
- .2150642					
.266781					
Secondary GCE 'O'/'N' Level		.2280744	.2670937	0.85	0.401
- .3209445					
.7770934					
Trade or work qualification not from Unive..		-.8917413	.3658318	-2.44	0.022
-1.643719					
-.1397633					
University Bachelor's Degree/Postgrad Dipl..		.0526619	.1354587	0.39	0.701
- .2257774					
.3311012					
marital					
Married/civil partnership/civil union		.0207129	.190691	0.11	0.914
- .3712581					
.4126839					
Never married		.8625207	.8065465	1.07	0.295
- .7953594					
2.520401					
Separated		.1626317	.2858274	0.57	0.574
- .4248949					
.7501584					
ethnic					
Indian		-.1143002	.1430805	-0.80	0.432
- .4084065					
.179806					
Malay		.3042679	.1807772	1.68	0.104
- .067325					
.6758608					
Mix		-.4105918	.2891623	-1.42	0.168
-1.004973					
.1837898					
hhincome					
1,622 - 3,273/month		-.0872397	.3558598	-0.25	0.808
- .81872					
.6442406					

```

>      10,694 - 13,188/month | .2320233 .308971 0.75 0.459
>      -.4030757
>      .8671224
>      13,189 - 16,601/month | -.1106932 .3781767 -0.29 0.772
>      -.8880466
>      .6666601
>      16,601 and above | .7534687 .3248374 2.32 0.028
>      .0857558
>      1.421181
>      3,274 - 4,676/month | -.0425383 .3193273 -0.13 0.895
>      -.698925
>      .6138484
>      4,677 - 6,144/month | .0710829 .2522998 0.28 0.780
>      -.4475268
>      .5896925
>      6,145 - 7,423/month | -.0480516 .3436864 -0.14 0.890
>      -.7545092
>      .658406
>      7,424 - 9,082/month | .2647812 .2976716 0.89 0.382
>      -.3470914
>      .8766539
>      9,083 - 10,693/month | .4781817 .2812867 1.70 0.101
>      -.1000113
>      1.056375
>      _cons | 1.78277 4.979751 0.36 0.723
>      -8.453254
>      12.01879

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved  
 obs was 6, now 7

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

file ./data/pfas-tf-sprest0.dta saved  
 (384 real changes made)

**WARNING: Singleton observations not dropped; statistical significance is biased ([link](#))**  
 (MWFE estimator converged in 1 iterations)

warning: missing F statistic; dropped variables due to collinearity or too few cluster  
 > s

HDFE Linear regression  
 Absorbing 1 HDFE group  
 Statistics robust to heteroskedasticity

Number of obs = 313  
 F( 25, 26) = .  
 Prob > F = .  
 R-squared = 0.4709  
 Adj R-squared = 0.0231  
 Within R-sq. = 0.1218  
 Root MSE = 1.0168

Number of clusters (planning\_area2014) =

		(Std. Err. adjusted for 27 clust			
> ers in planning_area2014)					
		pfhpa	Coef.	Robust Std. Err.	t P> t
> [95% Con					
> f. Interval]					
buff500m_transport_facilities			.1237955	.0390253	3.17 0.004
> .0435779					
> .2040132					
age_at_recruitment			.1976435	.323973	0.61 0.547
> -.4682926					
> .8635795					
c.age_at_recruitment#c.age_at_recruitment			-.0034311	.0053324	-0.64 0.526
> -.014392					
> .0075299					
employed Working			-.1101721	.1928928	-0.57 0.573
> -.5066689					
> .2863248					
educ					
Institute of Technical Education ITE/NTC, ..			-.3272055	.1980072	-1.65 0.110
> -.734215					
> .0798041					
Junior College/Centralised Institute GCE '..			.6392033	.3306618	1.93 0.064
> -.0404818					
> 1.318888					
Postgraduate Masters degree/Doctorate			-.0884468	.2108764	-0.42 0.678
> -.5219095					
> .3450159					
Secondary GCE 'O'/'N' Level			.5785457	.5907783	0.98 0.336
> -.6358164					
> 1.792908					
Trade or work qualification not from Unive..			-.4737362	.2935502	-1.61 0.119
> -1.077137					
> .1296648					
University Bachelor's Degree/Postgrad Dipl..			.0686831	.2032917	0.34 0.738
> -.3491891					
> .4865552					
marital					
Married/civil partnership/civil union			.9888064	.2733858	3.62 0.001
> .4268539					
> 1.550759					
Never married			1.578179	.5218382	3.02 0.006
> .5055256					
> 2.650833					
Separated			.8825871	.5305981	1.66 0.108
> -.2080729					
> 1.973247					
ethnic					
Indian			-.1934835	.2673238	-0.72 0.476
> -.7429756					
> .3560085					
Malay			.6411691	.3737353	1.72 0.098
> -.1270549					
> 1.409393					
Mix			-.3178772	.2993621	-1.06 0.298
> -.9332249					
> .2974704					
hhincome					
1,622 - 3,273/month			.9951784	.2460876	4.04 0.000
> .4893381					
> 1.501019					

```

>      10,694 - 13,188/month | 1.184288 .2691948 4.40 0.000
>      .63095
>      1.737625
>      13,189 - 16,601/month | .9773143 .3294718 2.97 0.006
>      .3000752
>      1.654553
>      16,601 and above | 1.097496 .4109856 2.67 0.013
>      .2527032
>      1.942289
>      3,274 - 4,676/month | .4694578 .2713331 1.73 0.095
>      -.0882753
>      1.027191
>      4,677 - 6,144/month | .6649111 .2575027 2.58 0.016
>      .1356067
>      1.194216
>      6,145 - 7,423/month | 1.008506 .4080825 2.47 0.020
>      .16968
>      1.847331
>      7,424 - 9,082/month | .9097052 .2519547 3.61 0.001
>      .391805
>      1.427605
>      9,083 - 10,693/month | 1.052497 .2579007 4.08 0.000
>      .5223748
>      1.58262
>      _cons | -2.956209 4.920471 -0.60 0.553
>      -13.07038
>      7.157964

```

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
subzone2014	119	119	0 *

\* = FE nested within cluster; treated as redundant for DoF computation  
 (note: file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp not found)  
 file C:\Users\Admin\AppData\Local\Temp\ST\_1o000002.tmp saved

obs was 7, now 8

(1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)  
 (1 real change made)

file ./data/pfas-tf-sprest0.dta saved

465

end of do-file

466

467 // =====

468 \* -----

469 tictoc toc

```

----- Time log -----
Start time: 5 Jan 2026 18:31:00
End time: 5 Jan 2026 18:32:00
Elapsed seconds: 59
Elapsed minutes: 1
Elapsed hours: .02

```

```
470 log close
    name: <unnamed>
    log:  \\wsl.localhost\Debian\home\lsys\gusto\scripts\tfpfas\logs\tf-pfas.smcl
    log type: smcl
    closed on: 5 Jan 2026, 18:32:00
```

---