name: <unnamed>

log: /Users/avinash_a_patel/Desktop/Econometrics/CPS6.smcl

log type: smcl

opened on: 20 Nov 2024, 10:19:15

1 . regress ahe bachelor female age, robust

Linear regression Number of obs = 7,098 F(3,7094) = 519.11 Prob > F = 0.0000

R-squared = **0.1896** Root MSE = **10.917**

ahe	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
bachelor	9.845644	.2613015	37.68	0.000	9.333415	10.35787
female	-4.143538	.2623546	-15.79	0.000	-4.657831	-3.629245
age	.5312752	.0445561	11.92	0.000	.4439319	.6186186
_cons	2.04481	1.32418	1.54	0.123	5509773	4.640597

2 . use "/Users/avinash_a_patel/Downloads/CPS96_15 (2).dta"

3 . use "/Users/avinash_a_patel/Downloads/Guns.dta"

4 . describe

Contains data from /Users/avinash_a_patel/Downloads/Guns.dta

Observations: 1,173

Variables: 13 21 Nov 2005 17:56

Variable name	Storage type	Display format	Value label	Variable label
year	byte	%9.0g		
vio	float	%9.0g		Violent Crime Rate per 100,000 population (BJS)
mur	float	%9.0g		Murder Crime Rate per 100,000 population (BJS)
rob	float	%9.0g		Robbery Crime Rate per 100,000 population (BJS)
incarc_rate	int	%8.0g		72-99 ONLY - Lagged Rate per 100,000 resident pop of sentenced prisoners in Stat
pb1064	float	%9.0g		
pw1064	float	%9.0g		
pm1029	float	%9.0g		
рор	float	%9.0g		
avginc	float	%9.0g		
density	float	%9.0g		
stateid	byte	%9.0g		
shall	byte	%9.0g		

Sorted by:

5 . summarize

Variable	0bs	Mean	Std. dev.	Min	Max
year	1,173	88	6.636079	77	99
vio	1,173	503.0747	334.2772	47	2921.8
mur	1,173	7.665132	7.52271	.2	80.6
rob	1,173	161.8202	170.51	6.4	1635.1
incarc_rate	1,173	226.5797	178.8881	19	1913
pb1064	1,173	5.336217	4.885688	.2482066	26.97957
pw1064	1,173	62.94543	9.761527	21.78043	76.52575
pm1029	1,173	16.08113	1.732143	12.21368	22.35269
pop	1,173	4.816341	5.252115	. 402753	33.14512
avginc	1,173	13.7248	2.554543	8.554884	23.64671
density	1,173	.3520382	1.355472	.0007071	11.10212
stateid	1,173	28.96078	15.68352	1	56
shall	1,173	.2429668	.4290581	0	1

6 . gen ln_vio = log(vio)



- 7 . gen ln_rob = log(rob)
- 8 . gen ln_mur = log(mur)
- 9 . reg ln_vio shall

Source	SS	df	MS		Number of ob F(1, 1171)	s = =	-,
Model Residual	42.3348289 446.29673	1 1,171	42.334828	19 19	Prob > F R-squared	=	0.0000 0.0866
Total	488.631558	1,172	.41692112		Adj R-square Root MSE	ed = =	
ln_vio	Coefficient	Std. err.	t	P>	t [95%	conf.	interval]
shall _cons	4429646 6.134919	.0420294	-10.54 296.13	0.0			3605032 6.175566

10 . reg ln_vio shall, robust

Number of obs 1,173 Linear regression F(1, 1171) 86.86 Prob > F 0.0000 R-squared 0.0866 Root MSE .61735

ln_vio	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
shall	4429646	.0475283	-9.32	0.000	5362148	3497144
_cons	6.134919	.0193039	317.81	0.000	6.097045	6.172793

11 . reg ln_vio shall incarc_rate density avginc pop pb1064 pw1064 pm1029, robust

Linear regression Number of obs F(8, 1164) 95.67 Prob > F 0.0000 = R-squared 0.5643 Root MSE .42769

ln_vio	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
shall	3683869	.0347879	-10.59	0.000	436641	3001329
incarc_rate	.0016126	.0001807	8.92	0.000	.0012581	.0019672
density	.0266885	.0143494	1.86	0.063	0014651	. 054842
avginc	.0012051	.0072778	0.17	0.869	013074	.0154842
pop	.0427098	.0031466	13.57	0.000	.0365361	.0488836
pb1064	.0808526	.0199924	4.04	0.000	.0416274	.1200778
pw1064	.0312005	.0097271	3.21	0.001	.012116	.0502851
pm1029	.0088709	.0120604	0.74	0.462	0147917	.0325334
_cons	2.981738	.6090198	4.90	0.000	1.786839	4.176638

12 . xtset state year

Panel variable: **stateid** (strongly balanced)

Time variable: year, 77 to 99

Delta: 1 unit

13 . xtreg ln_vio shall incarc_rate density avginc pop pb1064 pw1064 pm1029, fe

1,173 Fixed-effects (within) regression Number of obs = Group variable: stateid Number of groups = 51 Obs per group:

R-squared:

Within = **0.2178** min = Between = **0.0033** avg = 23.0



				5 /0 11	7.4 \	20.77
(u_i, Xb) =	-0.3687			F(8, 11 Prob >		38.77 0.0000
ln_vio (Coefficient	Std. err.	t	P> t	[95% conf.	interval]
shall	0461415	.0188668	-2.45	0.015	08316	009123
arc_rate	000071	.0000936	-0.76	0.448	0002547	.0001126
density	1722901	.0850362	-2.03	0.043	3391392	0054409
avginc	0092037	.0059083	-1.56	0.120	0207963	.0023889
pop	.0115247	.0087239	1.32	0.187	0055924	.0286417
pb1064	.1042804	.0177564	5.87	0.000	.0694407	.1391201
pw1064	.0408611	.0050745	8.05	0.000	.0309044	.0508177
pm1029	0502725	.0064037	-7.85	0.000	0628373	0377078
_cons	3.866017	.3847716	10.05	0.000	3.111058	4.620975
sigma_u	.68024951					
sigma_e	.16072287					
rho	.94712779	(fraction	of varian	nce due t	o u_i)	
st that all	u_i=0: F(50	, 1114) = 1	42.57		Prob >	F = 0.000
reg ln_vio s	shall incarc	_rate densi	ty avgino	pop pb1	064 pw1064 pm	1029 i.yea
d-effects (w	vithin) regr	ession		Number	of obs =	1,173
p variable:	stateid			Number	of groups =	51
uared:				Obs per	group:	
Within = 0	.4180				min =	23
Between = 0	0.0419				avg =	23.0
	0000				may -	22
Overall = 0	0.0009				max =	23
Uverall = 0	0.0009			_/		
Overall = 0 (u_i, Xb) =				F(30, 1 Prob >	092) =	23 26.14 0.0000
(u_i, Xb) =		Std. err.	t		092) =	26.14 0.0000
<pre>(u_i, Xb) = ln_vio</pre>	-0.2929	Std. err.	t -1.63	Prob >	092) = F =	26.14 0.0000 interval]
<pre>(u_i, Xb) =</pre>	-0.2929 Coefficient 0279935 .000076	.0171578	-1.63 0.84	Prob > P> t 0.103 0.400	092) = F = [95% conf06165960001012	26.14 0.0000 interval] .0056725 .0002531
<pre>(u_i, Xb) = ln_vio</pre>	-0.2929 Coefficient 0279935 .000076 091555	.0171578 .0000903 .0762821	-1.63 0.84 -1.20	Prob > P> t 0.103 0.400 0.230	<pre>092) = F = [95% conf061659600010122412312</pre>	26.14 0.0000 interval] .0056725 .0002531 .0581212
<pre>(u_i, Xb) = ln_vio</pre>	-0.2929 Coefficient0279935 .000076091555 .0009587	.0171578 .0000903 .0762821 .0064349	-1.63 0.84 -1.20 0.15	Prob > P> t 0.103 0.400 0.230 0.882	992) = F = [95% conf0616596000101224123120116676	26.14 0.0000 interval] .0056725 .0002531 .0581212
<pre>(u_i, Xb) = ln_vio</pre>	-0.2929 Coefficient0279935 .000076091555 .00095870047544	.0171578 .0000903 .0762821 .0064349	-1.63 0.84 -1.20 0.15 -0.60	Prob > P> t 0.103 0.400 0.230 0.882 0.546	[95% conf. 0616596 0001012 2412312 0116676 0201916	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827
<pre>ln_vio C shall arc_rate density avginc pop pb1064</pre>	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862	.0171578 .0000903 .0762821 .0064349 .0078675	-1.63 0.84 -1.20 0.15 -0.60 1.29	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199	992) = F = [95% conf061659600010122412312011667602019160153387	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111
<pre>(u_i, Xb) = ln_vio</pre>	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501	.0171578 .0000903 .0762821 .0064349 .0078675 .022692	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240	992) = F = [95% conf0616596000101224123120116676020191601533870061756	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111
<pre>ln_vio C shall arc_rate density avginc pop pb1064</pre>	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862	.0171578 .0000903 .0762821 .0064349 .0078675	-1.63 0.84 -1.20 0.15 -0.60 1.29	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199	992) = F = [95% conf061659600010122412312011667602019160153387	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70	P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	[95% conf. 0616596 0001012 2412312 0116676 0201916 0153387 0061756 .0426887	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pm1029 year 78	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.038	[95% conf. 0616596 0001012 2412312 0116676 0201916 0153387 0061756 .0426887	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pm1029 year 78 79	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.038 0.000	992) = F = [95% conf0616596000101224123120116676020191601533870061756 .0426887	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pm1029 year 78 79 80	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.038 0.000 0.000	992) = F = [95% conf. 0616596000101224123120116676020191601533870061756 .0426887	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .103962 .1137354 .2200553
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pm1029 year 78 79 80 81	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.038 0.000 0.000 0.000	992) = F = [95% conf0616596000101224123120116676020191601533870061756 .0426887	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0103962 .1137354 .2200553 .2741517 .2763289
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pw1029 year 78 79 80 81 82	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.038 0.000 0.000 0.000 0.000	992) = F = [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pm1029 year 78 79 80 81	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.038 0.000 0.000 0.000	992) = F = [95% conf0616596000101224123120116676020191601533870061756 .0426887	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .220553 .2741517 .2763289 .2568433 .225284
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624	-1.63 0.84 -1.20 0.15 -0.65 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.038 0.000 0.000 0.000 0.000 0.000	992) = F = [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763288 .2568433 .225284 .2665462
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83 84	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0317055 .0339624 .0374886	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	992) = F = [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .103962 .1137354 .2200553 .2741517 .2763289 .256433 .225284 .2665462 .3248827
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pm1029 year 78 79 80 81 82 83 84 85	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883 .2444764	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	992) = F = [95% conf0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .103962 .1137354 .2200553 .2741517 .2763288 .2568433 .225284 .2665462 .3248827 .4122991
(u_i, Xb) =	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883 .2444764 .3240904 .324365 .3867412	.0171578 .000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	092) = F = [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568443 .225284 .2665462 .3248827 .4122991 .4206432 .4920316
(u_i, Xb) =	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883 .2444764 .3240904 .324365 .3867412 .4422143	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611 .057918	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	092) = F = [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .160001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568433 .225284 .2665462 .3248827 .4122991 .4206432 .4920316 .5558575
(u_i, Xb) =	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .192983 .2444764 .3240904 .324365 .3867412 .4422143 .5430478	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0298886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611 .057918 .070971	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64 7.65	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	992) = F = [[95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568433 .225284 .2665462 .3248827 .4122991 .4206432 .4920316 .5558575 .6823027
(u_i, Xb) =	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883 .2444764 .3240904 .324365 .3867412 .4422143 .5430478	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .057918 .079971 .079971	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64 7.65 8.01	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	092) = F = [[95% conf0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929 .4499176	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .103962 .1137354 .2200553 .2741517 .2763289 .2568433 .225284 .2665462 .3248827 .4122991 .4206432 .4920316 .5558575 .6823027 .7419735
(u_i, Xb) =	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883 .2444764 .3240904 .324365 .3867412 .4422143 .5430478 .5959456	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049968 .0536611 .057918 .079971 .0744228	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64 7.65 8.01 7.98	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	992) = F = [[95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929 .4499176 .4732995	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .103962 .1137354 .2200553 .2741517 .2763288 .2568433 .225284 .2665462 .324827 .4122991 .4206432 .4920316 .5558575 .6823027 .7419735
(u_i, Xb) =	-0.2929 Coefficient 0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883 .2444764 .3240904 .324365 .3867412 .4422143 .5430478 .5959456 .6275171 .6497414	.0171578 .0000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611 .057918 .070971 .0744228 .0785967 .0816603	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.61 7.5.15 5.97 7.21 6.61 7.21 7.64 8.01 7.98 7.96	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	092) = F = [[95% conf.]0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929 .4499176 .4732995	26.14 0.0006 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568443 .225284 .2665462 .3248827 .4122991 .4206432 .4920316 .5558575 .6823027 .7419735 .7817346 .8099703
(u_i, Xb) =	-0.2929 -0.2929 -0.2929 -0.279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .1929883 .2444764 .3240904 .324365 .3867412 .4422143 .5430478 .5959456 .6275171 .6497414 .6354187	.0171578 .000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611 .057918 .077918 .07744228 .0785967 .0816603 .0854516	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64 7.65 8.01 7.98 7.96 7.44	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	992) = F = [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929 .4499176 .4732995 .4895125 .4677508	26.14 0.0006 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568443 .225284 .2665462 .3248827 .4122991 .4206432 .4920316 .5558575 .6823027 .7419735 .7817346 .8099703 .8030866
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95	-0.2929 -0.2929 -0.2929 -0.279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .192983 .2444764 .324365 .3867412 .4422143 .5430478 .5959456 .6275171 .6497414 .6354187	.0171578 .000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611 .057918 .070971 .0744228 .0785967 .0816603 .0854516	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64 7.65 8.01 7.98 7.96 7.44 7.04	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	092) = F = E [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929 .4499176 .4732995 .4895125 .4677508 .4528173	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .010682 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568443 .225284 .265462 .3248827 .4122991 .4206432 .4920316 .5558575 .6823027 .7419735 .7817346 .8099703 .8030866 .8025489
(u_i, Xb) =	-0.2929 Coefficient0279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .192983 .2444764 .3240904 .324365 .3867412 .4422143 .5430478 .5959456 .6275171 .6497414 .6354187 .6276831 .5713423	.0171578 .000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611 .057918 .079971 .0744228 .0785967 .0816603 .0854516 .08912	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64 7.65 8.01 7.96 7.44 7.04 6.17	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	992) = F = E [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929 .4499176 .4732995 .4895125 .4677508 .4528173 .3897256	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568433 .225284 .2665462 .3248827 .4122991 .4206432 .4920316 .5558575 .6823027 .7419735 .8039866 .8025489 .7529589
ln_vio C shall arc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95	-0.2929 -0.2929 -0.2929 -0.279935 .000076091555 .00095870047544 .0291862 .0092501 .0733254 .0585261 .1639486 .2170759 .2172551 .1946328 .158645 .192983 .2444764 .324365 .3867412 .4422143 .5430478 .5959456 .6275171 .6497414 .6354187	.0171578 .000903 .0762821 .0064349 .0078675 .022692 .0078617 .0156139 .0281373 .0285947 .0290886 .0301068 .0317055 .0339624 .0374886 .0409789 .0449554 .049068 .0536611 .057918 .070971 .0744228 .0785967 .0816603 .0854516	-1.63 0.84 -1.20 0.15 -0.60 1.29 1.18 4.70 2.08 5.73 7.46 7.22 6.14 4.67 5.15 5.97 7.21 6.61 7.21 7.64 7.65 8.01 7.98 7.96 7.44 7.04	Prob > P> t 0.103 0.400 0.230 0.882 0.546 0.199 0.240 0.000	092) = F = E [95% conf. 0616596000101224123120116676020191601533870061756 .0426887 .0033169 .1078419 .1600001 .1581814 .1324223 .092006 .1194304 .1640701 .2358817 .2280868 .2814507 .328571 .4037929 .4499176 .4732995 .4895125 .4677508 .4528173	26.14 0.0000 interval] .0056725 .0002531 .0581212 .0135849 .0106827 .0737111 .0246759 .103962 .1137354 .2200553 .2741517 .2763289 .2568443 .225284 .2665462 .3248827 .4122991 .4206432 .4920316



_cons	3.765525	. 4714865	7.99	0.000	2.840404	4.690647
sigma_u sigma_e rho	.6663043 .1400264 .95770338	(fraction	of varia	nce due t	o u_i)	
F test that a	ll u_i=0: F(50	, 1092) = 1	81.42		Prob >	F = 0.0000
reg ln_rob s	shall incarc r	ate densitv	avginc i	oop pb106	4 pw1064 pm10	29. robust
		,	. 5	Number		
Linear regress	21011			F(8, 11		1,173 144.90
				Prob >		0.0000
				R-squar		0.5962
				Root MS	E =	.60869
		Robust				
ln_rob	Coefficient	std. err.	t	P> t	[95% conf.	interval]
shall	5288202	.0510021	-10.37	0.000	6288865	4287539
incarc_rate	.0010057	.0001869	5.38	0.000	.0006391	.0013724
density	.0905048	.0153545	5.89	0.000	.0603792	.1206303
avginc	.0407325	.0092722	4.39	0.000	.0225404	.0589246
pop ph1064	.0778176	.0054853	14.19	0.000	.0670554	.0885799
pb1064 pw1064	.1021881 .0275209	.0265948 .0135419	3.84 2.03	0.000 0.042	.0500091 .0009515	.1543672
pm1029	.0272565	.0149995	1.82	0.069	0021726	.0566856
_cons	.9041383	.8893029	1.02	0.310	8406777	2.648954
R-squared: Within	= 0.0366			Obs per		23
R-squared: Within = Between = Overall =	0.0531			Obs per	group: min = avg = max =	23 23.0 23
Within = Between =	= 0.0531 = 0.0521				group: min = avg = max =	23.0
Within = Between = Overall =	= 0.0531 = 0.0521	Std. err.	t	Obs per	group: min = avg = max =	23.0 23 5.29 0.0000
Within = Between = Overall =	= 0.0531 = 0.0521 = -0.0859	Std. err.	t -0.31	Obs per F(8 , 11 Prob >	group: min = avg = max = 14) = F =	23.0 23 5.29 0.0000
Within = Between = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763	.0252557	-0.31 -0.61	Obs per F(8, 11 Prob > P> t 0.757 0.542	group: min = avg = max = 14) = F = [95% conf. 0573731 0003222	23.0 23 5.29 0.0000 interval] .0417352 .0001695
within = Between = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917	.0252557 .0001253 .1138322	-0.31 -0.61 -1.63	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102	group: min = avg = max = 14) = F = [95% conf. 0573731 0003222 4094413	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258
within = Between = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density avginc	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195	.0252557 .0001253 .1138322 .007909	-0.31 -0.61 -1.63 -2.22	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027	group: min = avg = max = 14) = F = [95% conf. 0573731 0003222 4094413 0330377	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012
within = Between = Overall = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density avginc pop	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332	.0252557 .0001253 .1138322 .007909	-0.31 -0.61 -1.63 -2.22 1.40	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466
within = Between = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density avginc	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195	.0252557 .0001253 .1138322 .007909 .0116781 .0237693	-0.31 -0.61 -1.63 -2.22	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000	group: min = avg = max = 14) = F = [95% conf. 0573731 0003222 4094413 0330377	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012
within = Between = Overall	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .1115421	.0252557 .0001253 .1138322 .007909 .0116781 .0237693	-0.31 -0.61 -1.63 -2.22 1.40 4.69	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796
Within = Between = Overall	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .1115421 .0271807	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.000	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045 .0138525	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509
within = Between = Overall = Overall = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density avginc pop pb1064 pw1064 pm1029cons sigma_u	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .115421 .0271807 .0111817 2.445723 .9174441	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.000 0.192	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045 .01385250056378	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012
Within = Between = Overall	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .115421 .0271807 .0111817 2.445723 .9174441 .21514885	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722 .5150678	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.000 0.192 0.000	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045 .01385250056378 1.435111	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012
within = Between = Overall = Overall = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029cons sigma_u	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .115421 .0271807 .0111817 2.445723 .9174441	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.000 0.192 0.000	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045 .01385250056378 1.435111	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012
Within = Between = Overall	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .1115421 .0271807 .0111817 2.445723 .9174441 .21514885 .94787229	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722 .5150678	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.000 0.192 0.000	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045 .01385250056378 1.435111	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012
within a Between a Overall a Setween a Overall a Setween	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .115421 .0271807 .0111817 2.445723 .9174441 .21514885 .94787229 LL u_i=0: F(50	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722 .5150678	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.192 0.000	group:	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012 3.456335
Within = Between = Overall = Overall = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029cons sigma_u sigma_e rho	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .016332 .115421 .0271807 .0111817 2.445723 .9174441 .21514885 .94787229 Lu_i=0: F(500) o shall incarca	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722 .5150678 (fraction	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.000 0.192 0.000 cree due t	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045 .01385250056378 1.435111 o u_i) Prob >	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012 3.456335
Within = Between = Overall = Overall = Corr(u_i, Xb) ln_rob shall incarc_rate density avginc pop pb1064 pw1064 pm1029cons sigma_u sigma_e rho F test that a . xtreg ln_rob Fixed-effects Group variable	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .016332 .115421 .0271807 .0111817 2.445723 .9174441 .21514885 .94787229 Lu_i=0: F(500) o shall incarca	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722 .5150678 (fraction	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.192 0.000 cce due t pop pb1 Number Number	group:	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012 3.456335
Within = Between = Overall	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .115421 .0271807 .0111817 2.445723 .9174441 .21514885 .94787229 LL u_i=0: F(5000) o shall incarco (within) regree: stateid	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722 .5150678 (fraction	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.000 0.192 0.000 cree due t	group:	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012 3.456335
Within = Between = Overall	= 0.0531 = 0.0521 = -0.0859 Coefficient 0078189 0000763 1860917 0175195 .0163332 .115421 .0271807 .0111817 2.445723 .9174441 .21514885 .94787229 Ll u_i=0: F(500) Do shall incorce (within) regree: stateid	.0252557 .0001253 .1138322 .007909 .0116781 .0237693 .0067929 .0085722 .5150678 (fraction	-0.31 -0.61 -1.63 -2.22 1.40 4.69 4.00 1.30 4.75	Obs per F(8, 11 Prob > P> t 0.757 0.542 0.102 0.027 0.162 0.000 0.192 0.000 cce due t pop pb1 Number Number	group: min = avg = max = 14) = F = [95% conf. 05737310003222409441303303770065803 .0649045 .01385250056378 1.435111 o u_i) Prob > 064 pw1064 pm of obs = of groups = group:	23.0 23 5.29 0.0000 interval] .0417352 .0001695 .037258 0020012 .0392466 .1581796 .040509 .0280012 3.456335 F = 0.0000 1029 i.year



F(30, 1092) = 11.24 Prob > F = 0.0000 $corr(u_i, Xb) = 0.1441$

	,					
ln_rob	Coefficient	Std. err.	t	P> t	[95% conf.	interval]
shall	.0268298	.0237135	1.13	0.258	0196993	.0733589
incarc_rate	.0000314	.0001248	0.25	0.802	0002135	.0002762
density	0447449	.1054279	-0.42	0.671	2516091	.1621193
avginc	.0143569	.0088936	1.61	0.107	0030936	.0318073
pop	.0000164	.0108735	0.00	0.999	021319	.0213518
pb1064	.0141078	.0313622	0.45	0.653	0474292	.0756447
pw1064	0128322	.0108655	-1.18	0.238	0341518	.0084874
pm1029	.1046049	.0215797	4.85	0.000	.0622626	.1469472
year						
78	.0328497	.0388879	0.84	0.398	0434539	.1091532
79	.1375917	.0395201	3.48	0.001	.0600478	.2151356
80	.243408	.0402027	6.05	0.000	. 1645247	.3222912
81	.2737088	.04161	6.58	0.000	.1920643	. 3553534
82	.21599	.0438194	4.93	0.000	.1300102	.3019698
83	.1208158	.0469387	2.57	0.010	.0287155	.2129162
84	.078831	.0518122	1.52	0.128	0228318	.1804938
85	.1131495	.056636	2.00	0.046	.0020217	.2242772
86	.1895678	.0621319	3.05	0.002	.0676564	.3114792
87	.1572151	.0678158	2.32	0.021	.0241511	.2902791
88	.1927596	.0741638	2.60	0.009	.04724	.3382792
89	.2487313	.0800473	3.11	0.002	.0916675	.4057952
90	.3509806	.0980874	3.58	0.000	.1585194	.5434417
91	.4668537	.1028582	4.54	0.000	.2650316	.6686758
92	.4633221	.1086268	4.27	0.000	.2501813	.6764629
93	.4796983	.112861	4.25	0.000	. 2582495	.7011472
94	.4943754	.1181008	4.19	0.000	. 2626452	.7261056
95	.4940171	.1231708	4.01	0.000	. 2523388	.7356954
96	.4341625	.1279259	3.39	0.001	. 1831541	.6851709
97	.3652393	.1325291	2.76	0.006	.1051989	.6252797
98	.2677144	.1379018	1.94	0.052	0028682	.5382969
99	.1894683	.1428138	1.33	0.185	0907521	. 4696887
_cons	3.27912	.6516312	5.03	0.000	2.000529	4.557711
sigma_u	.88484023					
sigma_e	.19352746					
rho	.95434775	(fraction	of varia	nce due t	o u_i)	
	l					

F test that all $u_i=0$: F(50, 1092) = 174.38 Prob > F = 0.0000

21 . reg ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pm1029, robust

Number of obs = 1,173 F(8, 1164) = 176.49 Prob > F = 0.0000 R-squared = 0.6059 Root MSE = .44312 Linear regression

ln_mur	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
shall	3131735	.0357019	-8.77	0.000	3832208	2431262
incarc_rate	.002097	.0001544	13.58	0.000	.0017941	.0023999
density	.0396669	.0117541	3.37	0.001	.0166054	.0627284
avginc	0772578	.0087513	-8.83	0.000	0944278	0600878
рор	.0416175	.0035077	11.86	0.000	.0347355	.0484995
pb1064	.1307641	.018782	6.96	0.000	.0939137	.1676145
pw1064	.0470796	.0090873	5.18	0.000	.0292502	.0649089
pm1029	.0655308	.0136782	4.79	0.000	.0386941	.0923674
_cons	-2.485593	.6149912	-4.04	0.000	-3.692209	-1.278978

22 . xtreg ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pm1029, fe

Fixed-effects (within) regression Number of obs = 1,173



	e: stateid					
R-squared:				Obs per	group:	
Within :	= 0.1528				min =	23
Between :	= 0.2221				avg =	23.0
Overall:	= 0.1846				max =	23
				F(8, 11	.14) =	25.12
corr(u_i, Xb)	= -0.8961			Prob >		0.0000
ln_mur	Coefficient	Std. err.	t	P> t	[95% conf.	interval]
shall	06081	. 0257579	-2.36	0.018	1113495	0102704
incarc_rate	00036	.0001278	-2.82	0.005	0006107	0001093
density	6707132	.1160957	-5.78	0.000	898504	4429224
avginc	.0243114	.0080663	3.01	0.003	.0084846	.0401382
pop	0257054	.0119103	-2.16	0.031	0490745	0023363
pb1064	.0307009	.0242419	1.27	0.206	0168641	.0782658
pw1064	.0103313	.006928	1.49	0.136	003262	.0239246
pm1029	.0392384	.0087427	4.49	0.000	.0220844	.0563923
_cons	.4600088	.5253095	0.88	0.381	5706989	1.490716
sigma_u	1.36035					
sigma_e rho	.21942693 .97464151	(fraction	of varia	nce due t	o u_i)	
F test that a	ll u_i=0: F(50), 1114) = 7	2.66		Prob >	F = 0.0000
. xtreg ln_mu	r shall incard	_rate densi	ty avgin	pop pb1	.064 pw1064 pm	1029 i.year
Fixed-effects	(within) regr	ession		Number	of obs =	1,173
Group variable	e: stateid			Number	of groups =	51
R-squared:				Obs per	aroup:	
					3	
	= 0.2905			·	min =	23
Within : Between :				·		23 23.0
	= 0.1945			·	min =	
Between :	= 0.1945			F(30, 1	min = avg = max =	23.0
Between :	= 0.1945 = 0.1413				min = avg = max =	23.0 23
Between : Overall :	= 0.1945 = 0.1413	Std. err.	t	F(30, 1	min = avg = max =	23.0 23 14.90 0.0000
Between : Overall : corr(u_i, Xb)	= 0.1945 = 0.1413 = -0.8336	Std. err.	t -0.60	F(30, 1 Prob >	min = avg = max = .092) = F =	23.0 23 14.90 0.0000
Between : Overall : corr(u_i, Xb) ln_mur shall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524	.0248521	-0.60	F(30, 1 Prob > P> t	min = avg = max = .092) = F = [95% conf0637157	23.0 23 14.90 0.0000 interval]
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164	.0248521	-0.60 -0.89	F(30, 1 Prob > P> t 0.548 0.374	min = avg = max = .092) = F = .0637157000373	23.0 23 14.90 0.0000 interval]
Between : Overall : corr(u_i, Xb) ln_mur shall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524	.0248521	-0.60	F(30, 1 Prob > P> t	min = avg = max = .092) = F = [95% conf0637157	23.0 23 14.90 0.0000 interval] .0338109 .0001402
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635	.0248521 .0001308 .1104902	-0.60 -0.89 -4.93	F(30, 1 Prob > P> t 0.548 0.374 0.000	min = avg = max = .092) = F = [95% conf0637157003737610606	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492	.0248521 .0001308 .1104902 .0093206	-0.60 -0.89 -4.93 6.08	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.000	min = avg = max =	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 0566492 0320769 .0219833	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681	-0.60 -0.89 -4.93 6.08 -2.81 0.67	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .03836080544367	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769	.0248521 .0001308 .1104902 .0093206 .0113956	-0.60 -0.89 -4.93 6.08 -2.81	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .038360805443670425085	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966	min = avg = max =	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pm1029	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966	min = avg = max =	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695
Between and overall and overal	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002	min = avg = max =	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.033 0.019	min = avg = max = .092) = F = [95% conf0637157003737610606 .0383608054436704250850228326 .024818708068690220192 .0075104 .0165894	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0066492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .0407552 .0414177 .0421331 .043608 .0459235	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.033 0.019 0.626	min = avg = max =	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695
Between a Overall and overall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .0407552 .0414177 .0421331 .043608 .0459235 .0491926	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.033 0.019 0.626 0.523	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0228326 .0248187 08068690220192 .0075104 .016589406769851279612	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .0650842
Between a Overall and overall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385 1359192	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.033 0.019 0.626 0.523 0.012	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .0165894067698512796122424635	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .0650842 0293749
Between a Overall and overall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.65 -2.50 -1.46 -0.19	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.033 0.019 0.620 0.523 0.012 0.145 0.851	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .016589406769851279612242463522307811400404	23.0 23 14.90 0.0000 interval] .0338109 .00014023274665 .07493750097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .06508420293749 .0298494 .11549
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83 84 85 86 87	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0907195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144 0122752 0290338	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50 -1.46 -0.19 -0.41	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.033 0.019 0.626 0.523 0.012 0.851 0.851	min = avg = max = .092) = F = [95% conf0637157003737610606 .0383608054436704250850228326 .024818708068690220192 .0075104 .0165894067698512796122424635203078114004041684871	23.0 23 14.90 0.0000 interval] .0338109 .0001402 -3274665 .0749375 -0097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .0650842 -0.0293749 .0298494 .11549 .1104195
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83 84 85 86 87 88	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0907195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144 0122752 0290338 0174594	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.153 0.033 0.019 0.626 0.523 0.012 0.851 0.683 0.822	min = avg = max = .092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .01658940676985127961224246352030781140040416848711699664	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .0650842 0293749 .0298494 .11549 .11549 .11549 .11549
Between a Overall and overall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144 0122752 0290338 0174594 0145617	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721 .0777249	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50 -1.46 -0.19 -0.41 -0.22 -0.17	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.153 0.033 0.019 0.626 0.523 0.012 0.145 0.822 0.862	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0228187 08068690220192 .0075104 .016589406769851279612242463520307811400404168487116996641791672	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .0650842 0293749 .0298494 .11549 .11549 .11549 .11549 .115496 .1500438
Between a Overall and overall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144 0122752 0290338 0174594 0145617 .059998	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .0407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721 .0777249 .0838909 .1027973	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50 -1.46 -0.11 -0.22 -0.17	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.013 0.626 0.523 0.012 0.145 0.822 0.862 0.862 0.862	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .0165894067698512796122424635203078114004041684871169966417916721417044	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695 .0792479 .1495154 .1728523 .1877191 .112518 .0650842 0293749 .0298494 .11549 .1
Between a Overall and overall	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144 0122752 0290338 0174594 0174594 0145617 .059998 .1053071	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721 .0777249 .0838909 .1027973 .1077971	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50 -1.46 -0.19 -0.41 -0.22 -0.17 0.58 0.98	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.033 0.019 0.626 0.523 0.012 0.145 0.851 0.851 0.820 0.862 0.862 0.862	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .01658940676985127961224246352030781140040416848711699664179167214170441062057	23.0 23 14.90 0.0000 interval] .0338109 .0001402 3274665 .0749375 0097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .0650842 0293749 .0298494 .11549 .1104195 .1350476 .1500438 .2617005 .31682
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144 0122752 0290338 0174594 0145617 .059998 .1053071 .0681002	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721 .0777249 .0838909 .1027973 .1077971 .1138426	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50 -1.46 -0.19 -0.41 -0.22 -0.17 0.58 0.98 0.60	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.013 0.019 0.626 0.523 0.0145 0.851 0.822 0.863 0.329 0.329 0.550	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .016589406769851279612242463520307811400404168487116996641791672141704410620571552749	23.0 23 14.90 0.0000 interval] .0338109 .00014023274665 .07493750097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .06508420293749 .0298494 .11549 .1104195 .1350476 .1500438 .2617005 .31682 .2914752
Between a overall and a second	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 0566492 0320769 .0219833 0004893 0691941 0907195 0592481 0901814 1021543 0224098 0314385 1359192 0866144 0122752 0290338 0174594 0145617 059998 1053071 0681002 1544297	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721 .0777249 .0838909 .1027973 .1077971 .1138426 .1182801	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50 -1.46 -0.19 -0.41 -0.22 -0.17 0.58 0.98 0.60 1.31	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.505 0.966 0.002 0.986 0.153 0.033 0.019 0.626 0.523 0.0145 0.851 0.851 0.851 0.683 0.822 0.560 0.329 0.550 0.192	min = avg = max = .092) = F = [95% conf. 0637157003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .0165894067698512796122424635203078114004041684871169966417916721417044106205715527490776524	23.0 23 14.90 0.0000 interval] .0338109 .0001402 -3274665 .0749375 -0097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .0650842 -0.0293749 .0298494 .11549 .1194195 .1350476 .1500438 .2617005 .31682 .2914752 .3865117
Between : Overall : corr(u_i, Xb) ln_mur shall incarc_rate density avginc pop pb1064 pw1064 pw1064 pm1029 year 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92	= 0.1945 = 0.1413 = -0.8336 Coefficient 0149524 0001164 5442635 .0566492 0320769 .0219833 0004893 .0691941 0007195 .0592481 .0901814 .1021543 .0224098 0314385 1359192 0866144 0122752 0290338 0174594 0145617 .059998 .1053071 .0681002	.0248521 .0001308 .1104902 .0093206 .0113956 .0328681 .0113872 .0226158 .04407552 .0414177 .0421331 .043608 .0459235 .0491926 .0543001 .0593555 .0651153 .0710721 .0777249 .0838909 .1027973 .1077971 .1138426	-0.60 -0.89 -4.93 6.08 -2.81 0.67 -0.04 3.06 -0.02 1.43 2.14 2.34 0.49 -0.64 -2.50 -1.46 -0.19 -0.41 -0.22 -0.17 0.58 0.98 0.60	F(30, 1 Prob > P> t 0.548 0.374 0.000 0.005 0.504 0.966 0.002 0.986 0.153 0.013 0.019 0.626 0.523 0.0145 0.851 0.822 0.863 0.329 0.329 0.550	min = avg = max = 092) = F = [95% conf. 06371570003737610606 .0383608054436704250850228326 .0248187 08068690220192 .0075104 .016589406769851279612242463520307811400404168487116996641791672141704410620571552749	23.0 23 14.90 0.0000 interval] .0338109 .00014023274665 .07493750097171 .086475 .021854 .1135695 .0792479 .1405154 .1728523 .1877191 .112518 .06508420293749 .0298494 .11549 .1104195 .1350476 .1500438 .2617005 .31682 .2914752



```
97
          -.1221824
                      .1388926
                                  -0.88 0.379
                                                   -.394709
                                                                .1503442
          -.1863381
                      .1445234
   98
                                  -1.29
                                          0.198
                                                   -.4699131
                                                                .0972369
                                                                 .038247
          -.2554286
                                                   -.5491042
   99
                      .1496712
                                  -1.71
                                         0.088
            .1882653
                      .6829203
                                   0.28 0.783
                                                   -1.151719
                                                                 1.52825
  _cons
sigma_u
          1.1362086
           .20281999
sigma_e
           .96911961
   rho
                      (fraction of variance due to u_i)
```

F test that all $u_i=0$: F(50, 1092) = 76.86

Prob > F = 0.0000

24 .

25 . log close

name: <unnamed>

log: /Users/avinash_a_patel/Desktop/Econometrics/CPS6.smcl

log type: smcl

closed on: 20 Nov 2024, 10:27:17

name: <unnamed>

log: /Users/avinash_a_patel/Desktop/Econometrics/CPS6.smcl

log type: smcl

opened on: 20 Nov 2024, 14:14:56

26 . save "/Users/avinash_a_patel/Downloads/Guns.dta", replace file /Users/avinash_a_patel/Downloads/Guns.dta saved

27 . use "/Users/avinash_a_patel/Downloads/CPS2015 (2).dta"

28 . ln_ahe c.age#c.age female#bachelor if year = 1996
 command ln_ahe is unrecognized
 r(100):

29 . ln_ahe = c.age#c.age female#bachelor if year = 1996
 command ln_ahe is unrecognized
 r(199);

30 . reg ln_ahe c.age#c.age female#bachelor if year = 1996
 invalid syntax
 r(100).

<u>r(198);</u>

31 . reg ahe female bachelor if year = 1996
 invalid syntax
 r(198);

32 . reg ahe female bachelor if year == 1996, robust
 no observations

<u>r(2000);</u>

33 . reg ahe bachelor female age

Source	SS	df	MS	Number of obs	=	7,098
Madal	107047 07		CE040 0222	F(3, 7094)	=	553.37
Model Residual	197847.07 845437.58	7.094	65949.0233 119.176428	Prob > F R-squared	=	0.0000 0.1896
Residuat	043437.30	7,094	119.1/0420	Adi R-squared	=	0.1893
Total	1043284.65	7,097	147.003614	Root MSE	=	10.917

ahe	Coefficient	Std. err.	t	P> t	[95% conf.	interval]
bachelor female	9.845644 -4.143538	.2624206 .2659006	37.52 -15.58	0.000 0.000	9.331221 -4.664783	10.36007 -3.622294
age	.5312752	.0450694	11.79	0.000	. 4429257	.6196248
_cons	2.04481	1.354651	1.51	0.131	6107109	4.700331

34 . reg ahe bachelor female age, robust

Linear regression Number of obs = 7,098F(3, 7094) = 519.11

Prob > F = 0.0000 R-squared = 0.1896



Root MSE	=	10.917
----------	---	--------

ahe	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
bachelor	9.845644	.2613015	37.68	0.000	9.333415	10.35787
female	-4.143538	.2623546	-15.79	0.000	-4.657831	-3.629245
age	.5312752	.0445561	11.92	0.000	.4439319	.6186186
_cons	2.04481	1.32418	1.54	0.123	5509773	4.640597

35 . reg ahe bachelor#female c.age#c.age, robust

Linear regression	Number of obs	=	7,098
	F(4, 7093)	=	422.51
	Prob > F	=	0.0000
	R-squared	=	0.1904
	Root MSE	=	10.913

ahe	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
bachelor# female 0 1 1 0	-3.306352 10.4612	.2818557 .3758928	-11.73 27.83	0.000 0.000	-3.858873 9.724341	-2.75383 11.19807
1 1	5.635151	.3227284	17.46	0.000	5.002507	6.267795
c.age#c.age	.0088554	.0007593	11.66	0.000	.0073669	.0103439
_cons	9.654819	.6842331	14.11	0.000	8.313518	10.99612

- 36 . reg ahe c.age#c.age female#bachelor if year = 1996, robust
 invalid syntax
 r(198);
- 37 . reg ahe c.age#c.age female#bachelor if year == 1996, robust
 no observations
 r(2000);
- 38 . reg ahe c.age#c.age female#bachelor, robust

Linear regression	Number of obs	=	7,098
	F(4, 7093)	=	422.51
	Prob > F	=	0.0000
	R-squared	=	0.1904
	Root MSE	=	10.913

ahe	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
c.age#c.age	.0088554	.0007593	11.66	0.000	.0073669	.0103439
female# bachelor 0 1 1 0	10.4612 -3.306352	.3758928 .2818557	27.83 -11.73	0.000 0.000	9.724341 -3.858873	11.19807 -2.75383
1 1	5.635151	.3227284	17.46	0.000	5.002507	6.267795
_cons	9.654819	.6842331	14.11	0.000	8.313518	10.99612

- 39 . use "/Users/avinash_a_patel/Downloads/CPS96_15 (2).dta"
- 40 . local cpi_1996 156.9
- 41 . local cpi_2015 = 237.0
- 42 .gen inflation_factor = 'cpi_2015' / 'cpi_1996' 'cpi_2015' invalid name



r(198);

43 . gen inflation_factor = `cpi_2015' / `cpi_1996'

44 \cdot gen ahe_2015 = ahe

45 . replace $ahe_2015 = ahe * inflation_factor if year == 1996 (6,103 real changes made)$

46 . gen $ln_ahe = log(ahe_2015)$

47 . reg ln_ahe c.age##c.age female##bachelor if year == 1996, robust

Linear regression

Number of obs = 6,103
F(5, 6097) = 287.68
Prob > F = 0.0000
R-squared = 0.1865
Root MSE = .44694

ln_ahe	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
age	. 219222	.0472358	4.64	0.000	.1266232	.3118208
c.age#c.age	0032953	.0008004	-4.12	0.000	0048644	0017261
1.female 1.bachelor	242337 .3292203	.0152938 .0161603	-15.85 20.37	0.000 0.000	2723183 .2975404	2123556 .3609002
female# bachelor						
1 1	.1073368	.0232166	4.62	0.000	.0618242	.1528495
_cons	8012037	.6913298	-1.16	0.247	-2.156454	.5540467

48 . log close

name: <unnamed>

log: /Users/avinash_a_patel/Desktop/Econometrics/CPS6.smcl

log type: **smcl**

closed on: 20 Nov 2024, 14:25:22

name: <unnamed>

log: /Users/avinash_a_patel/Desktop/Econometrics/CPS6.smcl

 $\label{eq:log_smcl} \mbox{log type: } \mbox{smcl}$

opened on: 20 Nov 2024, 15:03:48

49 . save "/Users/avinash_a_patel/Downloads/CPS96_15 (2).dta", replace file /Users/avinash_a_patel/Downloads/CPS96_15 (2).dta saved

50 . use "/Users/avinash_a_patel/Downloads/CPS2015 (2).dta"

51 . reg ahe bachelor female age, robust

Linear regression Number of obs = 7,098F(3, 7094) = 519.11Prob > F = 0.0000

R-squared = **0.1896** Root MSE = **10.917**

ahe	Coefficient	Robust std. err.	t	P> t	[95% conf.	interval]
bachelor	9.845644	.2613015	37.68	0.000	9.333415	10.35787
female	-4.143538	.2623546	-15.79	0.000	-4.657831	-3.629245
age	.5312752	.0445561	11.92	0.000	.4439319	.6186186
_cons	2.04481	1.32418	1.54	0.123	5509773	4.640597

52 .

