

Replication of Hansford and Gomez (2010)

```
. set mem 500m
(512000k)

. use "C:\HansfordGomez_Data.dta", clear

. xtreg GOPIT DemVoteShare2_3MA Yr52 Yr56 Yr60 Yr64 Yr68 Yr72 Yr76 Yr80 Yr84 Yr
> 88 Yr96 Yr92 Yr2000 DNormPrpcp_KRIG RainGOPI Rain_DVS23MA, fe robust
```

```
Fixed-effects (within) regression      Number of obs   =   27401
Group variable: FIPS_County           Number of groups =   1964

R-sq:  within = 0.9770                Obs per group:  min =    3
      between = 0.0459                  avg   =   14.0
      overall = 0.9632                  max   =   14

corr(u_i, Xb) = -0.0000                F(17,1963)     = 11124.51
                                          Prob > F       =  0.0000
```

(Std. Err. adjusted for 1964 clusters in FIPS_County)

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
DemVoteSha-A	-.022697	.008421	-2.70	0.007	-.039212	-.006182
Yr52	-.4620444	.0412109	-11.21	0.000	-.5428662	-.3812226
Yr56	70.93852	.2155231	329.15	0.000	70.51584	71.3612
Yr60	75.32296	.2244483	335.59	0.000	74.88278	75.76314
Yr64	-.6320223	.0996672	-6.34	0.000	-.8274869	-.4365577
Yr68	-.4378495	.0450415	-9.72	0.000	-.5261837	-.3495153
Yr72	66.96524	.2320891	288.53	0.000	66.51008	67.42041
Yr76	64.69028	.2334399	277.12	0.000	64.23246	65.1481
Yr80	-.5916791	.0855146	-6.92	0.000	-.759388	-.4239702
Yr84	62.08182	.2147914	289.03	0.000	61.66058	62.50306
Yr88	59.89981	.2208596	271.21	0.000	59.46666	60.33295
Yr96	-.4444288	.0739598	-6.01	0.000	-.5894767	-.2993809
Yr92	62.84683	.2246711	279.73	0.000	62.40621	63.28745
Yr2000	.2259877	.0617522	3.66	0.000	.104881	.3470945
DNormPrpcp_G	-.3602065	.8782826	-0.41	0.682	-2.082671	1.362258
RainGOPI	1.053644	.4209819	2.50	0.012	.2280256	1.879262
Rain_DVS23MA	-.0470096	.0167063	-2.81	0.005	-.0797736	-.0142457
_cons	1.373483	.4407248	3.12	0.002	.5091456	2.237821
sigma_u	4.0649159					
sigma_e	5.3195705					
rho	.36865319	(fraction of variance due to u_i)				

```
. predict yhat5
(option xb assumed; fitted values)
```

```
. sum yhat5
```

Variable	Obs	Mean	Std. Dev.	Min	Max
yhat5	27401	33.28233	33.43278	-8.286623	76.39679

```
. use "C:\HansfordGomez_MeanbyGroup.dta", clear
```

```
. truncreg gopit demvoteshare2_3ma yr52 yr56 yr60 yr64 yr68 yr72 yr76 yr80 yr84
> yr88 yr96 yr92 yr2000 dnormprcp_krig raingopi rain_dvs23ma, robust ll(-100)
> ul(100)
(note: 0 obs. truncated)
```

Fitting full model:

```
Iteration 0: log pseudolikelihood = -83650.036
Iteration 1: log pseudolikelihood = -83650.033
```

Truncated regression

```
Limit:      lower =   -100                Number of obs = 27401
           upper =    100                Wald chi2(17) = 1.2e+06
Log pseudolikelihood = -83650.033        Prob > chi2   = 0.0000
```

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gopit	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
demvotesha-a	-.022697	.0075701	-3.00	0.003	-.0375342	-.0078598
yr52	-.4620444	.1350428	-3.42	0.001	-.7267234	-.1973654
yr56	70.93852	.1857214	381.96	0.000	70.57452	71.30253
yr60	75.32296	.1848442	407.49	0.000	74.96067	75.68525
yr64	-.6320223	.1560736	-4.05	0.000	-.937921	-.3261236
yr68	-.4378495	.1338867	-3.27	0.001	-.7002627	-.1754364
yr72	66.96525	.1788449	374.43	0.000	66.61472	67.31578
yr76	64.69028	.1736512	372.53	0.000	64.34993	65.03063
yr80	-.5916791	.146012	-4.05	0.000	-.8778574	-.3055008
yr84	62.08182	.1632695	380.24	0.000	61.76182	62.40182
yr88	59.89981	.1682806	355.95	0.000	59.56998	60.22963
yr96	-.4444288	.1390072	-3.20	0.001	-.7168779	-.1719798
yr92	62.84683	.1818609	345.58	0.000	62.49039	63.20327
yr2000	.2259877	.1379375	1.64	0.101	-.0443649	.4963403
dnormprcp_g	-.3602064	.9124589	-0.39	0.693	-2.148593	1.42818
raingopi	1.053644	.4080434	2.58	0.010	.2538937	1.853394
rain_dvs23ma	-.0470096	.0184327	-2.55	0.011	-.083137	-.0108823
_cons	2.18e-06	.0309532	0.00	1.000	-.060665	.0606694
/sigma	5.123669	.0307165	166.81	0.000	5.063465	5.183872

```
. predict yhat6
(option xb assumed; fitted values)

. gen origin_gopit=yhat6+mean_gopit

. sum origin_gopit
```

Variable	Obs	Mean	Std. Dev.	Min	Max
origin_gopit	27401	33.28233	33.67805	-24.27665	90.50682