Statistics/Data Analysis

```
      name:  <unnamed>
       log:  /hdir/0/jhaber/Projects/charter_data/sorting-schools-2019/logs/robust_fil
> tstudents_mi5_linear_101019.smcl
  log type:  smcl
 opened on:  18 Oct 2019, 12:11:08

1 . *
2 . * 3D. RE-RUN LINEAR MIXED MODELS USING FILTERED DATA: SCHOOL SIZE (# STUDENTS)
3 . *
4 .
5 . mi xeq: drop if students < 10

  m=0 data:
  -> drop if students < 10
  (24 observations deleted)

  m=1 data:
  -> drop if students < 10
  (24 observations deleted)

  m=2 data:
  -> drop if students < 10
  (24 observations deleted)

  m=3 data:
  -> drop if students < 10
  (24 observations deleted)

  m=4 data:
  -> drop if students < 10
  (24 observations deleted)

  m=5 data:
  -> drop if students < 10
  (24 observations deleted)

6 .
7 . * PT 1:
8 . * 0. controls only
9 . mi est, dots: mixed inquiry_full_log primary middle high lnage lnstudents urban pctp
  > dfs || cmoname: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                 Imputations       =          5
  Mixed-effects ML regression                   Number of obs     =      5,760

  Group variable: cmoname                       Number of groups  =        377
                                                Obs per group:
                                                              min =          1
                                                              avg =       15.3
                                                              max =      3,717
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
  DF adjustment:   Large sample                 DF:     min       =   9.95e+61
                                                        avg       =   9.95e+61
                                                        max       =          .
  Model F test:       Equal FMI                 F(   7, 9.3e+63)  =      10.72
                                                Prob > F          =     0.0000
```

inquiry_full_log	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
primary	.000682	.003952	0.17	0.863	-.0070639	.0084278
middle	-.0179174	.0059109	-3.03	0.002	-.0295025	-.0063323
high	-.0142102	.0047445	-3.00	0.003	-.0235093	-.004911
lnage	-.0039005	.0016311	-2.39	0.017	-.0070974	-.0007037
lnstudents	.0089747	.001783	5.03	0.000	.0054801	.0124693
urban	.0005463	.0030932	0.18	0.860	-.0055164	.0066089
pctpdfs	.1143596	.0318291	3.59	0.000	.0519758	.1767435
_cons	.0673343	.0120876	5.57	0.000	.0436432	.0910255

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
cmoname: Identity				
sd(_cons)	.0764941	.0043123	.0684923	.0854307
sd(Residual)	.107843	.0010356	.1058322	.1098919

```
10. * 1. school poverty
11. mi est, dots: mixed inquiry_full_log povertyschool primary middle high lnage lnstude
  > nts urban pctpdfs || cmoname: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                     Imputations       =          5
  Mixed-effects ML regression                       Number of obs     =      5,760

  Group variable: cmoname                           Number of groups  =        377
                                                    Obs per group:
                                                                  min =          1
                                                                  avg =       15.3
                                                                  max =      3,717
                                                    Average RVI       =     0.0087
                                                    Largest FMI       =     0.0708
  DF adjustment:   Large sample                     DF:     min       =     849.53
                                                            avg       = 1304236.92
                                                            max       = 7508050.97
  Model F test:       Equal FMI                     F(   8,197893.0)  =      29.43
                                                    Prob > F          =     0.0000
```

inquiry_full_log	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
povertyschool	-.0006203	.0000507	-12.24	0.000	-.0007197	-.0005208
primary	-9.65e-06	.0039035	-0.00	0.998	-.0076604	.0076411
middle	-.0158244	.005837	-2.71	0.007	-.0272647	-.0043842
high	-.0145059	.0046872	-3.09	0.002	-.0236926	-.0053191
lnage	-.0035992	.0016099	-2.24	0.025	-.0067546	-.0004438
lnstudents	.0076211	.0017629	4.32	0.000	.0041658	.0110765
urban	.0085855	.0031273	2.75	0.006	.002456	.0147151
pctpdfs	.1113297	.0314542	3.54	0.000	.0496802	.1729791
_cons	.1084841	.0123921	8.75	0.000	.0841961	.1327722

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
cmoname: Identity				
sd(_cons)	.0770593	.004297	.0690812	.0859587
sd(Residual)	.1062731	.0010229	.1042871	.1082969

```
12. * 2. school race
13. mi est, dots: mixed inquiry_full_log pocschoolprop primary middle high lnage lnstude
  > nts urban pctpdfs || cmoname: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations       =          5
  Mixed-effects ML regression                     Number of obs     =      5,760

  Group variable: cmoname                         Number of groups  =        377
                                                  Obs per group:
                                                               min =          1
                                                               avg =       15.3
                                                               max =      3,717
                                                  Average RVI       =     0.0000
                                                  Largest FMI       =     0.0000
  DF adjustment:   Large sample                   DF:     min       =   4.62e+61
                                                          avg       =   4.62e+61
                                                          max       =          .
  Model F test:       Equal FMI                   F(   8, 1.8e+64)  =      32.86
                                                  Prob > F          =     0.0000
```

inquiry_full_log	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
pocschoolprop	-.073485	.0053966	-13.62	0.000	-.0840622	-.0629079
primary	.0059126	.0039086	1.51	0.130	-.0017481	.0135733
middle	-.0092371	.0058524	-1.58	0.114	-.0207076	.0022334
high	-.0086459	.0046876	-1.84	0.065	-.0178335	.0005417
lnage	-.0060321	.001613	-3.74	0.000	-.0091935	-.0028707
lnstudents	.0122175	.001771	6.90	0.000	.0087464	.0156887
urban	.0188045	.0033266	5.65	0.000	.0122846	.0253245
pctpdfs	.1131427	.0313273	3.61	0.000	.0517423	.174543
_cons	.0923118	.0120437	7.66	0.000	.0687067	.115917

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
cmoname: Identity				
sd(_cons)	.0756349	.00426	.0677298	.0844627
sd(Residual)	.1061279	.0010193	.1041488	.1081445

```
14. * 3. school district poverty
15. mi est, dots: mixed inquiry_full_log povertysd primary middle high lnage lnstudents
  > urban pctpdfs || cmoname: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations       =          5
  Mixed-effects ML regression                     Number of obs     =      5,760

  Group variable: cmoname                         Number of groups  =        377
                                                  Obs per group:
                                                               min =          1
                                                               avg =       15.3
                                                               max =      3,717
                                                  Average RVI       =     0.0005
                                                  Largest FMI       =     0.0041
  DF adjustment:   Large sample                   DF:     min       = 242,536.35
                                                          avg       =   1.32e+09
                                                          max       =   6.39e+09
  Model F test:       Equal FMI                   F(   8, 7.5e+07)  =      21.17
                                                  Prob > F          =     0.0000
```

inquiry_full_log	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
povertysd	-.2127251	.022074	-9.64	0.000	-.2559896	-.1694606
primary	.0001869	.0039202	0.05	0.962	-.0074966	.0078705
middle	-.0186103	.0058632	-3.17	0.002	-.0301019	-.0071186
high	-.0133972	.0047068	-2.85	0.004	-.0226224	-.004172
lnage	-.0037	.0016181	-2.29	0.022	-.0068715	-.0005285
lnstudents	.0092059	.0017688	5.20	0.000	.0057391	.0126727
urban	.0118113	.0032829	3.60	0.000	.005377	.0182457
pctpdfs	.112226	.03157	3.55	0.000	.0503499	.1741022
_cons	.0926876	.0122952	7.54	0.000	.0685895	.1167857

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
cmoname: Identity				
sd(_cons)	.077053	.004292	.0690838	.0859415
sd(Residual)	.1069123	.0010266	.104919	.1089435

```
16. * 4. school district race
17. mi est, dots: mixed inquiry_full_log pocsd primary middle high lnage lnstudents urba
  > n pctpdfs || cmoname: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                     Imputations       =          5
  Mixed-effects ML regression                       Number of obs     =      5,760

  Group variable: cmoname                           Number of groups  =        377
                                                    Obs per group:
                                                                  min =          1
                                                                  avg =       15.3
                                                                  max =      3,717
                                                    Average RVI       =     0.0003
                                                    Largest FMI       =     0.0031
  DF adjustment:   Large sample                     DF:     min       = 430,157.64
                                                            avg       =   1.91e+10
                                                            max       =   7.75e+10
  Model F test:       Equal FMI                     F(   8, 1.6e+08)  =      11.11
                                                    Prob > F          =     0.0000
```

inquiry_full_log	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
pocsd	-.0320571	.0086763	-3.69	0.000	-.0490624	-.0150518
primary	.0015058	.0039537	0.38	0.703	-.0062433	.0092549
middle	-.0164451	.0059174	-2.78	0.005	-.028043	-.0048471
high	-.0136753	.0047412	-2.88	0.004	-.022968	-.0043827
lnage	-.0043746	.0016342	-2.68	0.007	-.0075776	-.0011716
lnstudents	.0100493	.0018045	5.57	0.000	.0065125	.0135861
urban	.0052889	.0033458	1.58	0.114	-.0012687	.0118465
pctpdfs	.1129223	.0317944	3.55	0.000	.0506065	.1752382
_cons	.0705404	.0121028	5.83	0.000	.0468193	.0942616

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
cmoname: Identity				
sd(_cons)	.076311	.0043114	.0683118	.0852468
sd(Residual)	.1077204	.0010345	.1057118	.1097672

```
18.
19. * PT 2:
20. * 0. controls only
21. mi est, dots: mixed povertyschoolprop primary middle high lnage lnstudents urban ||
  > geodistrict: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations       =          5
  Mixed-effects ML regression                     Number of obs     =      5,760

  Group variable: geodistrict                     Number of groups  =      1,475
                                                  Obs per group:
                                                               min =          1
                                                               avg =        3.9
                                                               max =        251
                                                  Average RVI       =     0.0539
                                                  Largest FMI       =     0.1054
  DF adjustment:   Large sample                   DF:     min       =     393.35
                                                          avg       =   4,351.66
                                                          max       =  24,668.62
  Model F test:       Equal FMI                   F(   6, 4962.1)   =      11.22
                                                  Prob > F          =     0.0000
```

povertyschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
primary	-.0054792	.0097066	-0.56	0.573	-.0245582	.0135999
middle	.0305353	.0141154	2.16	0.031	.0028382	.0582324
high	-.0106649	.0115256	-0.93	0.355	-.0333148	.011985
lnage	.0017329	.0039645	0.44	0.662	-.0060439	.0095098
lnstudents	-.0188747	.0045398	-4.16	0.000	-.0278001	-.0099493
urban	.069037	.0109038	6.33	0.000	.0476628	.0904111
_cons	.5816134	.0271249	21.44	0.000	.5283551	.6348717

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
geodistrict: Identity sd(_cons)	.1907806	.006408	.1786251	.2037634
sd(Residual)	.2387371	.0025978	.2336959	.243887

```
22. * 1. IBL
23. mi est, dots: mixed povertyschoolprop inquiry_full_log primary middle high lnage lns
  > tudents urban pctpdfs || geodistrict: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations       =          5
  Mixed-effects ML regression                     Number of obs     =      5,760

  Group variable: geodistrict                     Number of groups  =      1,475
                                                  Obs per group:
                                                               min =          1
                                                               avg =        3.9
                                                               max =        251
                                                  Average RVI       =     0.0682
                                                  Largest FMI       =     0.1862
  DF adjustment:   Large sample                   DF:     min       =     132.21
                                                          avg       =   3,529.64
                                                          max       =  22,976.60
  Model F test:       Equal FMI                   F(   8, 4481.6)   =      20.32
                                                  Prob > F          =     0.0000
```

povertyschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
inquiry_full_log	-.2996595	.0307098	-9.76	0.000	-.359922	-.239397
primary	-.0043213	.0096355	-0.45	0.654	-.0232614	.0146188
middle	.0266171	.0140561	1.89	0.059	-.0009686	.0542028
high	-.0133516	.0114477	-1.17	0.244	-.03585	.0091469
lnage	.0007997	.0039399	0.20	0.839	-.0069297	.0085291
lnstudents	-.015475	.004531	-3.42	0.001	-.0243868	-.0065633
urban	.0713304	.0107797	6.62	0.000	.0501994	.0924613
pctpdfs	.0659512	.0836306	0.79	0.432	-.0994758	.2313782
_cons	.6053498	.0269032	22.50	0.000	.5525422	.6581574

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
geodistrict: Identity sd(_cons)	.1861846	.0063407	.1741621	.199037
sd(Residual)	.2372417	.0025698	.2322556	.2423349

```
24. * 2. academic performance
25. mi est, dots: mixed povertyschoolprop readall14 mathall14 primary middle high lnage
  > lnstudents urban readlevel14 mathlevel14 || geodistrict: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                     Imputations       =          5
  Mixed-effects ML regression                       Number of obs     =      5,760

  Group variable: geodistrict                       Number of groups  =      1,475
                                                    Obs per group:
                                                                  min =          1
                                                                  avg =        3.9
                                                                  max =        251
                                                    Average RVI       =     0.2041
                                                    Largest FMI       =     0.3706
  DF adjustment:   Large sample                     DF:     min       =      35.43
                                                            avg       =     929.01
                                                            max       =   7,159.82
  Model F test:       Equal FMI                     F(  10,  889.8)   =      91.81
                                                    Prob > F          =     0.0000
```

povertyschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
readall14	-.4410372	.0286301	-15.40	0.000	-.4980888	-.3839856
mathall14	-.0678373	.0304223	-2.23	0.032	-.1295714	-.0061033
primary	.0029474	.0088947	0.33	0.740	-.0145132	.020408
middle	.0387959	.0131151	2.96	0.003	.0130709	.0645209
high	.003478	.011559	0.30	0.764	-.0194853	.0264413
lnage	.0085392	.0039181	2.18	0.031	.0007893	.0162891
lnstudents	-.0004753	.0053686	-0.09	0.930	-.0111661	.0102155
urban	.0635774	.0102244	6.22	0.000	.043515	.0836398
readlevel14	-.0006301	.0008619	-0.73	0.465	-.0023249	.0010646
mathlevel14	.0002577	.0008303	0.31	0.756	-.0013733	.0018887
_cons	.7140196	.036257	19.69	0.000	.6406564	.7873827

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
geodistrict: Identity sd(_cons)	.1740609	.0057902	.1630726	.1857896
sd(Residual)	.2197574	.0025271	.2148231	.224805

```
26. * 3. fully specified
27. mi est, dots: mixed povertyschoolprop inquiry_full_log readall14 mathall14 primary m
  > iddle high lnage lnstudents urban pctpdfs readlevel14 mathlevel14 || geodistrict: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations       =          5
  Mixed-effects ML regression                     Number of obs     =      5,760

  Group variable: geodistrict                     Number of groups  =      1,475
                                                  Obs per group:
                                                               min =          1
                                                               avg =        3.9
                                                               max =        251
                                                  Average RVI       =     0.1992
                                                  Largest FMI       =     0.3783
  DF adjustment:   Large sample                   DF:     min       =      34.04
                                                          avg       =     870.10
                                                          max       =   7,646.62
  Model F test:       Equal FMI                   F(  12, 1179.1)   =      81.83
                                                  Prob > F          =     0.0000
```

povertyschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
inquiry_full_log	-.2081827	.0293351	-7.10	0.000	-.2658893	-.150476
readall14	-.4210113	.0289403	-14.55	0.000	-.4788002	-.3632224
mathall14	-.0772266	.0304836	-2.53	0.016	-.1391742	-.015279
primary	.0038541	.0088732	0.43	0.664	-.0135667	.0212748
middle	.0357378	.0130826	2.73	0.006	.010076	.0613995
high	.0014964	.0115165	0.13	0.897	-.0213827	.0243756
lnage	.0076103	.0039055	1.95	0.053	-.0001154	.0153361
lnstudents	.0010932	.0053839	0.20	0.840	-.0096434	.0118298
urban	.0654746	.0101502	6.45	0.000	.0455576	.0853915
pctpdfs	.0535075	.0785912	0.68	0.498	-.1024675	.2094825
readlevel14	-.0004885	.000863	-0.57	0.572	-.0021864	.0012094
mathlevel14	.0000628	.0008217	0.08	0.939	-.0015504	.0016759
_cons	.7294338	.0358451	20.35	0.000	.6570849	.8017826

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
geodistrict: Identity sd(_cons)	.1708352	.0057511	.1599254	.1824891
sd(Residual)	.2191556	.0024927	.2142958	.2241256

```
28.
29. * PT 3:
30. * 0. controls only
31. mi est, dots: mixed pocschoolprop primary middle high lnage lnstudents urban || stat
  > e: || geodistrict: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations       =          5
  Mixed-effects ML regression                     Number of obs     =      5,760
```

Group Variable	No. of Groups	Observations per Group Minimum	Average	Maximum
state	43	2	134.0	1,051
geodistrict	1,486	1	3.9	251

```
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
DF adjustment:   Large sample                   DF:     min       =   9.97e+54
                                                        avg       =   1.53e+59
                                                        max       =          .
Model F test:       Equal FMI                   F(   6,      .)   =     38.76
                                                Prob > F          =     0.0000
```

pocschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
primary	.0451687	.0072678	6.21	0.000	.0309242	.0594133
middle	.0708455	.0106939	6.62	0.000	.0498858	.0918053
high	.0573464	.0086445	6.63	0.000	.0404034	.0742893
lnage	-.015952	.0030647	-5.21	0.000	-.0219587	-.0099454
lnstudents	.0040306	.0035073	1.15	0.250	-.0028435	.0109047
urban	.1062233	.0091999	11.55	0.000	.0881918	.1242548
_cons	.4363635	.0357337	12.21	0.000	.3663267	.5064003

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
state: Identity sd(_cons)	.1743979	.0227666	.1350273	.2252478
geodistrict: Identity sd(_cons)	.2005512	.0056552	.1897679	.2119473
sd(Residual)	.1820934	.0019675	.1782778	.1859908

```
32. * 1. IBL
33. mi est, dots: mixed pocschoolprop inquiry_full_log primary middle high lnage lnstude
  > nts urban pctpdfs || state: || geodistrict: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations       =          5
  Mixed-effects ML regression                     Number of obs     =      5,760
```

Group Variable	No. of Groups	Observations per Group Minimum	Average	Maximum
state	43	2	134.0	1,051
geodistrict	1,486	1	3.9	251

```
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
DF adjustment:   Large sample                   DF:     min       =   1.00e+55
                                                        avg       =   1.26e+59
                                                        max       =          .
Model F test:       Equal FMI                   F(   8,      .)   =     49.59
                                                Prob > F          =     0.0000
```

pocschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
inquiry_full_log	-.2940151	.0233049	-12.62	0.000	-.3396919	-.2483384
primary	.0459319	.0071621	6.41	0.000	.0318944	.0599694
middle	.0666335	.0105428	6.32	0.000	.04597	.087297
high	.0547571	.0085203	6.43	0.000	.0380576	.0714567
lnage	-.0167047	.0030208	-5.53	0.000	-.0226254	-.010784
lnstudents	.0071828	.0034673	2.07	0.038	.0003871	.0139785
urban	.1084682	.0090876	11.94	0.000	.0906569	.1262795
pctpdfs	.1046668	.0600945	1.74	0.082	-.0131162	.2224498
_cons	.4618551	.0353192	13.08	0.000	.3926308	.5310794

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
state: Identity				
sd(_cons)	**.172054**	**.0224874**	**.133172**	**.2222882**
geodistrict: Identity				
sd(_cons)	**.1997032**	**.0056125**	**.1890004**	**.2110122**
sd(Residual)	**.1792678**	**.0019392**	**.1755072**	**.1831091**

```
34. * 2. academic performance
35. mi est, dots: mixed pocschoolprop readall14 mathall14 primary middle high lnage lnst
  > udents urban readlevel14 mathlevel14 || state: || geodistrict: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                     Imputations      =          5
  Mixed-effects ML regression                       Number of obs    =      5,760
```

Group Variable	No. of Groups	Observations per Group Minimum	Average	Maximum
state	**43**	**2**	**134.0**	**1,051**
geodistrict	**1,486**	**1**	**3.9**	**251**

```
                                                    Average RVI       =     0.1114
                                                    Largest FMI       =     0.3542
  DF adjustment:   Large sample                     DF:     min       =      38.67
                                                            avg       =  43,879.41
                                                            max       = 267,045.98
  Model F test:       Equal FMI                     F(  10, 1856.0)   =     105.11
                                                    Prob > F          =     0.0000
```

pocschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
readall14	**-.3407837**	**.0206106**	**-16.53**	**0.000**	**-.3812238**	**-.3003435**
mathall14	**-.0523194**	**.0220772**	**-2.37**	**0.019**	**-.0960055**	**-.0086333**
primary	**.0527231**	**.0068012**	**7.75**	**0.000**	**.0393928**	**.0660534**
middle	**.0805199**	**.0100959**	**7.98**	**0.000**	**.0607316**	**.1003081**
high	**.0665568**	**.0082539**	**8.06**	**0.000**	**.0503758**	**.0827378**
lnage	**-.0092502**	**.0029546**	**-3.13**	**0.002**	**-.0150501**	**-.0034504**
lnstudents	**.0236779**	**.0039245**	**6.03**	**0.000**	**.0159805**	**.0313754**
urban	**.0981423**	**.0086085**	**11.40**	**0.000**	**.0812689**	**.1150158**
readlevel14	**.0008482**	**.0007853**	**1.08**	**0.287**	**-.0007407**	**.0024371**
mathlevel14	**-.0004206**	**.0006952**	**-0.60**	**0.546**	**-.0017978**	**.0009566**
_cons	**.4988604**	**.0379331**	**13.15**	**0.000**	**.4244385**	**.5732823**

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
state: Identity				
sd(_cons)	**.1697276**	**.021742**	**.1320421**	**.2181687**
geodistrict: Identity				
sd(_cons)	**.1888057**	**.0053632**	**.1785813**	**.1996154**
sd(Residual)	**.1681303**	**.0018339**	**.1645739**	**.1717635**

```
36. * 3. fully specified
37. mi est, dots: mixed pocschoolprop inquiry_full_log readall14 mathall14 primary middl
  > e high lnage lnstudents urban pctpdfs readlevel14 mathlevel14 || state: || geodistri
  > ct: ,

  Imputations (5):
    ..... done

  Multiple-imputation estimates                   Imputations      =          5
  Mixed-effects ML regression                     Number of obs    =      5,760
```

Group Variable	No. of Groups	Observations per Group Minimum	Average	Maximum
state	**43**	**2**	**134.0**	**1,051**
geodistrict	**1,486**	**1**	**3.9**	**251**

```
                                                  Average RVI      =     0.0993
                                                  Largest FMI      =     0.3707
  DF adjustment:   Large sample                   DF:     min      =      35.40
                                                          avg      =  58,050.46
                                                          max      = 360,534.62
  Model F test:       Equal FMI                   F(  12, 3051.2)  =      98.30
                                                  Prob > F         =     0.0000
```

pocschoolprop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
inquiry_full_log	-.2188304	.0219262	-9.98	0.000	-.2618054	-.1758554
readall14	-.3193011	.0206703	-15.45	0.000	-.3598795	-.2787228
mathall14	-.0603943	.0220186	-2.74	0.007	-.1040143	-.0167744
primary	.053151	.0067323	7.89	0.000	.0399559	.0663461
middle	.0766877	.0100021	7.67	0.000	.0570832	.0962922
high	.0643483	.0081632	7.88	0.000	.0483458	.0803509
lnage	-.0100985	.002925	-3.45	0.001	-.0158399	-.0043572
lnstudents	.0249581	.0038905	6.42	0.000	.0173275	.0325888
urban	.099929	.0085404	11.70	0.000	.0831891	.1166689
pctpdfs	.0998544	.0563184	1.77	0.076	-.0105353	.210244
readlevel14	.000945	.0007862	1.20	0.237	-.0006505	.0025405
mathlevel14	-.0005819	.0006892	-0.84	0.400	-.0019474	.0007836
_cons	.5172913	.0376211	13.75	0.000	.4434846	.591098

Random-effects Parameters	Estimate	Std. Err.	[95% Conf.	Interval]
state: Identity sd(_cons)	**.168154**	**.021576**	**.1307637**	**.2162357**
geodistrict: Identity sd(_cons)	**.1888632**	**.005338**	**.1786854**	**.1996208**
sd(Residual)	**.1663552**	**.001815**	**.1628356**	**.1699509**

```
38.
39. log close
       name:  <unnamed>
        log:  /hdir/0/jhaber/Projects/charter_data/sorting-schools-2019/logs/robust_fil
  > tstudents_mi5_linear_101019.smcl
    log type:  smcl
   closed on:  18 Oct 2019, 12:14:25
```