```
 _____

       name:  <unnamed>
        log:  /hdir/0/jhaber/Projects/charter_data/sorting-schools-2019/logs/multiple_i
  > mputation_100_101019.smcl
   log type:  smcl
  opened on:  11 Oct 2019, 07:09:59

1 .
2 . * Import prepared data (not yet imputed):
3 . use "data/charter_schools_data_no_imputations.dta", clear

4 .
5 . * Drop vars we don't impute directly
6 . drop povertyschoolcount

7 .
8 . * Make original zeros hard-missing (.z), this way they won't be imputed and can be r
  > estored later:
9 . replace lnage = .z if lnage==. & age!=.
  (0 real changes made)

10. replace lnstudents = .z if lnstudents==. & students!=.
  (11 real changes made, 11 to missing)

11. replace lnteachers = .z if lnteachers==. & teachers!=.
  (49 real changes made, 49 to missing)

12.
13.
14. ** -------------------------------------------------------
15. ** PERFORM MULTIPLE IMPUTATION
16. ** -------------------------------------------------------
17.
18. * Look at variables missing cases:
19. *mvpatterns inquiry_seed_log inquiry_narrow_log inquiry_full_log inquiry_full_nohand
  > s_log povertyschool pocschool povertysd pocsd primary middle high otherlevel age stu
  > dents urban cmo titlei readall13 readall14 readall15 mathall13 mathall14 mathall15 e
  > xpulsions suspensions incidents lawreferrals lepratio disabledratio approgram teache
  > rs teacherratio certcount certrate
20.
21. /* List of vars to impute, both those used in models and those that help with multip
  > le imputation:
  > * School students and controls:
  > pocschoolcount lepcount disabledcount students primary middle high otherlevel age ur
  > ban titlei cmo
  > * School quality/discipline:
  > readall13 readall14 readall15 mathall13 mathall14 mathall15 teachers certcount suspe
  > nsions expulsions incidents lawreferrals
  > * School district level (add publicdensity charterdensity ??)
  > povertysd pocsd childpovertysd collegesd popdensity unemployment foreignborn closera
  > te publicdensity
  > */
22.
23. * Declare MI data using memory-efficient style best-suited to modifying variables (r
  > ather than cases):
24. mi set mlong

25.
26. * Register as imputed those variables missing any cases:
27. mi register imputed lnage lnstudents lnteachers readall13 readall14 readall15 mathal
  > l13 mathall14 mathall15 povertyschool povertysd pocsd readlevel13 readlevel14 readle
  > vel15 mathlevel13 mathlevel14 mathlevel15
  (2608 m=0 obs. now marked as incomplete)
```

```
 28.
 29. * Register as regular those vars with complete observations (may be used to help in
   > imputation equations):
 30. mi register regular closerate publicdensity charterdensity urban titlei ///
   > cmo cmonum state statenum geodistrict numwords numpages numpdfs ///
   > inquiry_seed_count inquiry_seed_prop inquiry_seed_log inquiry_narrow_count inquiry_n
   > arrow_prop inquiry_narrow_log ///
   > inquiry_full_count inquiry_full_prop inquiry_full_log inquiry_full_nohands_count inq
   > uiry_full_nohands_prop inquiry_full_nohands_log ///
   > traditional_prop progressive_prop ///
   > pocschool pocschoolcount ///
   > ethnicisolated99 ethnicisolated95 ethnicisolated90 ethnicisolated80 ethnicisolated70

 31.
 32. mi register passive pctpdfs

 33.
 34. * For reproducibility, set random seed:
 35. set seed 43

 36. * Increase maximum variable limit:
 37. set matsize 5000

 38.
 39. * Execute multiple implementation:
 40. mi impute chained ///
   > ///
   > (pmm, knn(5) omit(i.readlevel13 i.readlevel14 i.readlevel15 i.mathlevel13 i.mathleve
   > l14 i.mathlevel15 lnstudents lnteachers readall13 readall14 readall15 mathall13 math
   > all14 mathall15)) ///
   > povertyschool ///
   > ///
   > (pmm, knn(5) omit(lnstudents i.readlevel13 i.readlevel14 i.readlevel15 i.mathlevel13
   >  i.mathlevel14 i.mathlevel15 mathall13 mathall14 mathall15)) ///
   > povertysd ///
   > ///
   > (pmm, knn(5) omit(i.readlevel13 i.readlevel14 i.readlevel15 i.mathlevel13 i.mathleve
   > l14 i.mathlevel15 lnstudents readall13 readall14 readall15 mathall13 mathall14 matha
   > ll15 lnteachers)) ///
   > pocsd ///
   > ///
   > (pmm, knn(5)) lnage ///
   > ///
   > (pmm, knn(5) omit(lnstudents lnteachers)) ///
   > readall13 ///
   > ///
   > (pmm, knn(5) omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 lnt
   > eachers)) ///
   > mathall13 ///
   > ///
   > (pmm, knn(5) omit(lnstudents lnteachers)) ///
   > readall14 ///
   > ///
   > (pmm, knn(5) omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 lnt
   > eachers)) ///
   > mathall14 ///
   > ///
   > (pmm, knn(5) omit(lnstudents lnteachers)) ///
   > readall15 ///
   > ///
   > (pmm, knn(5) omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 lnt
   > eachers)) ///
   > mathall15 ///
   > ///
   > (pmm, knn(5) omit(lnage povertysd pocsd readall13 readall14 readall15 mathall13 math
   > all14 mathall15 lnteachers i.readlevel13 i.readlevel14 i.readlevel15 i.mathlevel13 i
   > .mathlevel14 i.mathlevel15)) ///
   > lnstudents ///
   > ///
   > (pmm, knn(5) omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15)) /
   > //
   > lnteachers ///
```

```
> ///
> (ologit, omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 mathall
> 13 mathall14 mathall15 lnteachers)) ///
> readlevel13 ///
> ///
> (ologit, omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 mathall
> 13 mathall14 mathall15 lnteachers)) ///
> mathlevel13 ///
> ///
> (ologit, omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 mathall
> 13 mathall14 mathall15 lnteachers)) ///
> readlevel14 ///
> ///
> (ologit, omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 mathall
> 13 mathall14 mathall15 lnteachers)) ///
> mathlevel14 ///
> ///
> (ologit, omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 mathall
> 13 mathall14 mathall15 lnteachers)) ///
> readlevel15 ///
> ///
> (ologit, omit(lnage povertysd pocsd lnstudents readall13 readall14 readall15 mathall
> 13 mathall14 mathall15 lnteachers)) ///
> mathlevel15 ///
> ///
> ///
> = numpdfs numwords numpages pocschoolcount ///
> inquiry_full_prop traditional_prop progressive_prop ///
> closerate publicdensity charterdensity ///
> i.urban statenum cmonum geodistrict, ///
> add(100) rseed(43) dots augment
note: variable lnage contains no soft missing (.) values; imputing nothing

Conditional models:
        lnstudents: pmm lnstudents povertyschool numpdfs numwords numpages
                    pocschoolcount inquiry_full_prop traditional_prop
                    progressive_prop closerate publicdensity charterdensity i.urban
                    statenum cmonum geodistrict , knn(5)
          povertysd: pmm povertysd lnage pocsd lnteachers povertyschool readall15
                    readall14 readall13 numpdfs numwords numpages pocschoolcount
                    inquiry_full_prop traditional_prop progressive_prop closerate
                    publicdensity charterdensity i.urban statenum cmonum
                    geodistrict , knn(5)
             pocsd: pmm pocsd lnage povertysd povertyschool numpdfs numwords
                    numpages pocschoolcount inquiry_full_prop traditional_prop
                    progressive_prop closerate publicdensity charterdensity i.urban
                    statenum cmonum geodistrict , knn(5)
        lnteachers: pmm lnteachers povertyschool i.readlevel15 mathall15
                    i.mathlevel15 i.readlevel14 mathall14 i.mathlevel14
                    i.readlevel13 mathall13 i.mathlevel13 numpdfs numwords numpages
                    pocschoolcount inquiry_full_prop traditional_prop
                    progressive_prop closerate publicdensity charterdensity i.urban
                    statenum cmonum geodistrict , knn(5)
      povertyschool: pmm povertyschool lnage povertysd pocsd numpdfs numwords
                    numpages pocschoolcount inquiry_full_prop traditional_prop
                    progressive_prop closerate publicdensity charterdensity i.urban
                    statenum cmonum geodistrict , knn(5)
          readall15: pmm readall15 lnage povertysd pocsd povertyschool i.readlevel15
                    mathall15 i.mathlevel15 readall14 i.readlevel14 mathall14
                    i.mathlevel14 readall13 i.readlevel13 mathall13 i.mathlevel13
                    numpdfs numwords numpages pocschoolcount inquiry_full_prop
                    traditional_prop progressive_prop closerate publicdensity
                    charterdensity i.urban statenum cmonum geodistrict , knn(5)
        readlevel15: ologit readlevel15 povertyschool i.mathlevel15 i.readlevel14
                    i.mathlevel14 i.readlevel13 i.mathlevel13 numpdfs numwords
                    numpages pocschoolcount inquiry_full_prop traditional_prop
                    progressive_prop closerate publicdensity charterdensity i.urban
                    statenum cmonum geodistrict , augment
          mathall15: pmm mathall15 povertyschool i.readlevel15 i.mathlevel15
                    i.readlevel14 mathall14 i.mathlevel14 i.readlevel13 mathall13
                    i.mathlevel13 numpdfs numwords numpages pocschoolcount
                    inquiry_full_prop traditional_prop progressive_prop closerate
```

```
                 publicdensity charterdensity i.urban statenum cmonum
                 geodistrict , knn(5)
   mathlevel15:  ologit mathlevel15 povertyschool i.readlevel15 i.readlevel14
                 i.mathlevel14 i.readlevel13 i.mathlevel13 numpdfs numwords
                 numpages pocschoolcount inquiry_full_prop traditional_prop
                 progressive_prop closerate publicdensity charterdensity i.urban
                 statenum cmonum geodistrict , augment
      readall14: pmm readall14 lnage povertysd pocsd povertyschool readall15
                 i.readlevel15 mathall15 i.mathlevel15 i.readlevel14 mathall14
                 i.mathlevel14 readall13 i.readlevel13 mathall13 i.mathlevel13
                 numpdfs numwords numpages pocschoolcount inquiry_full_prop
                 traditional_prop progressive_prop closerate publicdensity
                 charterdensity i.urban statenum cmonum geodistrict , knn(5)
   readlevel14:  ologit readlevel14 povertyschool i.readlevel15 i.mathlevel15
                 i.mathlevel14 i.readlevel13 i.mathlevel13 numpdfs numwords
                 numpages pocschoolcount inquiry_full_prop traditional_prop
                 progressive_prop closerate publicdensity charterdensity i.urban
                 statenum cmonum geodistrict , augment
      mathall14: pmm mathall14 povertyschool i.readlevel15 mathall15
                 i.mathlevel15 i.readlevel14 i.mathlevel14 i.readlevel13
                 mathall13 i.mathlevel13 numpdfs numwords numpages
                 pocschoolcount inquiry_full_prop traditional_prop
                 progressive_prop closerate publicdensity charterdensity i.urban
                 statenum cmonum geodistrict , knn(5)
   mathlevel14:  ologit mathlevel14 povertyschool i.readlevel15 i.mathlevel15
                 i.readlevel14 i.readlevel13 i.mathlevel13 numpdfs numwords
                 numpages pocschoolcount inquiry_full_prop traditional_prop
                 progressive_prop closerate publicdensity charterdensity i.urban
                 statenum cmonum geodistrict , augment
      readall13: pmm readall13 lnage povertysd pocsd povertyschool readall15
                 i.readlevel15 mathall15 i.mathlevel15 readall14 i.readlevel14
                 mathall14 i.mathlevel14 i.readlevel13 mathall13 i.mathlevel13
                 numpdfs numwords numpages pocschoolcount inquiry_full_prop
                 traditional_prop progressive_prop closerate publicdensity
                 charterdensity i.urban statenum cmonum geodistrict , knn(5)
   readlevel13:  ologit readlevel13 povertyschool i.readlevel15 i.mathlevel15
                 i.readlevel14 i.mathlevel14 i.mathlevel13 numpdfs numwords
                 numpages pocschoolcount inquiry_full_prop traditional_prop
                 progressive_prop closerate publicdensity charterdensity i.urban
                 statenum cmonum geodistrict , augment
      mathall13: pmm mathall13 povertyschool i.readlevel15 mathall15
                 i.mathlevel15 i.readlevel14 mathall14 i.mathlevel14
                 i.readlevel13 i.mathlevel13 numpdfs numwords numpages
                 pocschoolcount inquiry_full_prop traditional_prop
                 progressive_prop closerate publicdensity charterdensity i.urban
                 statenum cmonum geodistrict , knn(5)
   mathlevel13:  ologit mathlevel13 povertyschool i.readlevel15 i.mathlevel15
                 i.readlevel14 i.mathlevel14 i.readlevel13 numpdfs numwords
                 numpages pocschoolcount inquiry_full_prop traditional_prop
                 progressive_prop closerate publicdensity charterdensity i.urban
                 statenum cmonum geodistrict , augment

Performing chained iterations:
  imputing m=1 through m=100 .........10.........20.........30.........40.........50..
> .......60.........70.........80.........90.........100 done
```

Multivariate imputation	Imputations =	**100**
Chained equations	added =	**100**
Imputed: m=1 through m=100	updated =	**0**
Initialization: **monotone**	Iterations =	**1000**
	burn-in =	**10**

povertyschool: predictive mean matching
povertysd: predictive mean matching
pocsd: predictive mean matching
lnage: predictive mean matching
readall13: predictive mean matching
mathall13: predictive mean matching
readall14: predictive mean matching
mathall14: predictive mean matching
readall15: predictive mean matching
mathall15: predictive mean matching
lnstudents: predictive mean matching
lnteachers: predictive mean matching
readlevel13: ordered logistic regression
mathlevel13: ordered logistic regression
readlevel14: augmented ordered logistic regression
mathlevel14: ordered logistic regression
readlevel15: ordered logistic regression
mathlevel15: augmented ordered logistic regression

	Observations per m			
Variable	Complete	Incomplete	Imputed	Total
povertyschool	**5348**	**448**	**448**	**5796**
povertysd	**5768**	**28**	**28**	**5796**
pocsd	**5768**	**28**	**28**	**5796**
lnage	**5796**	**0**	**0**	**5796**
readall13	**4037**	**1759**	**1759**	**5796**
mathall13	**3830**	**1966**	**1966**	**5796**
readall14	**4960**	**836**	**836**	**5796**
mathall14	**4948**	**848**	**848**	**5796**
readall15	**5158**	**638**	**638**	**5796**
mathall15	**5142**	**654**	**654**	**5796**
lnstudents	**5784**	**1**	**1**	**5785**
lnteachers	**5595**	**152**	**152**	**5747**
readlevel13	**4037**	**1759**	**1759**	**5796**
mathlevel13	**3830**	**1966**	**1966**	**5796**
readlevel14	**4960**	**836**	**836**	**5796**
mathlevel14	**4948**	**848**	**848**	**5796**
readlevel15	**5158**	**638**	**638**	**5796**
mathlevel15	**5142**	**654**	**654**	**5796**

(complete + incomplete = total; imputed is the minimum across m
 of the number of filled-in observations.)

Note: Right-hand-side variables (or weights) have missing values;
      model parameters estimated using listwise deletion.

Warning: the sets of predictors of the imputation model <u>vary across
         imputations or iterations</u>

```
41.
42.
43. ** ------------------------------------------------------
44. ** FINALIZE & SAVE DATA
45. ** ------------------------------------------------------
46.
47. * Recover variables using imputed natural-logarithmic versions:
48. replace age = exp(lnage)
    variable age was byte now float
    (38,064 real changes made)
```

```
49. replace students = exp(lnstudents)
    variable students was int now float
    (205,521 real changes made, 1,111 to missing)

50. replace teachers = exp(lnteachers)
    (134,692 real changes made, 3,549 to missing)

51. mi register passive age students teachers

52.
53. * Recreate any original zeros, which were replaced with .z after log transformation:
   >
54. replace age = 0 if lnage==.z & age!=.
    (0 real changes made)

55. replace students = 0 if lnstudents==.z & students!=.
    (0 real changes made)

56. replace teachers = 0 if lnteachers==.z & teachers!=.
    (0 real changes made)

57.
58. * Create new passive variables within MI (can use defaults because using mlong style
   > ):
59. gen povertyschoolprop = povertyschool/100
    (448 missing values generated)

60. gen povertyschoolcount = round(povertyschool/100 * students)
    (1,548 missing values generated)

61. gen teacherratio = students/teachers
    (4,807 missing values generated)

62. gen upperlevel = middle + high + otherlevel

63. gen pocschoolprop = pocschoolcount/students
    (1,112 missing values generated)

64. mi register passive povertyschoolprop povertyschoolcount teacherratio upperlevel poc
   > schoolprop

65.
66. * Drop if still missing key variables:
67. quietly mi xeq 1 / 100: drop if missing(students) | missing(lnstudents) | students==
   > 0 | lnstudents==.z

68. quietly mi xeq 1 / 100: drop if missing(pocschool) | missing(povertyschoolcount)

69.
70. * Double-check all continuous vars are scaled the same across original and imputed d
   > atasets:
71. mi xeq 0 1: tabstat inquiry_full_log readall15 mathall15 readall14 mathall14 readall
   > 13 mathall13 pocschoolprop povertyschoolprop pocsd povertysd pctpdfs, stat(n mean me
   > dian min max sd)

  m=0 data:
  -> tabstat inquiry_full_log readall15 mathall15 readall14 mathall14 readall13 mathall1
  > 3 pocschoolprop povertyschoolprop pocsd povertysd pctpdfs, stat(n mean median min ma
  > x sd)
```

stats	in~l_log	reada~15	matha~15	reada~14	matha~14	reada~13	matha~13	pocs
> ch~p								
N	5796	5158	5142	4960	4948	4037	3830	
> 5784								
mean	.1326029	.4730109	.3976099	.4832056	.4007781	.6051945	.530141	.650
> 3792								
p50	.1294601	.47	.36	.47	.37	.65	.54	.738
> 5253								
min	0	.02	.02	.02	.02	.02	.02	
> 0								

```
    max |   .624036        .99        .99        .99        .99        .99        .99
>     1
     sd |  .1197104  .2347915  .2478774   .231485  .2437192  .2368318  .2469299   .324
> 4263   |
       ─────────────────────────────────────────────────────────────────────────────

    ____


   stats |   povert~p     pocsd  povert~d   pctpdfs
       ──────────────────────────────────────────────
       N |      5348      5768      5768      5796
    mean | .5588811  .3348288  .1472116  .0054762
     p50 | .6018175    .31135     .1409         0
     min |        0         0         0         0
     max |        1      .992     .4495         1
      sd | .3230693  .2004684   .075277  .0473971
```

m=1 data:
-> tabstat inquiry_full_log readall15 mathall15 readall14 mathall14 readall13 mathall1
> 3 pocschoolprop povertyschoolprop pocsd povertysd pctpdfs, stat(n mean median min ma
> x sd)

```
   stats |  in~l_log   reada~15  matha~15  reada~14  matha~14  reada~13  matha~13   pocs
> ch~p   |
       ─────────────────────────────────────────────────────────────────────────────

    ____
       N |      5796      5784      5784      5784      5784      5786      5786
> 5784
    mean | .1326029  .4731587  .4014315  .4826037  .4022614  .6028604  .5368545   .650
> 3792
     p50 | .1294601       .47       .37       .47       .37       .65       .55   .738
> 5253
     min |        0       .02       .02       .02       .02       .02       .02
>    0
     max |  .624036       .99       .99       .99       .99       .99       .99
>    1
      sd | .1197104  .2349245  .2495253  .2314883  .2446586  .2354162   .247266   .324
> 4263   |
       ─────────────────────────────────────────────────────────────────────────────

    ____


   stats |   povert~p     pocsd  povert~d   pctpdfs
       ──────────────────────────────────────────────
       N |      5784      5796      5796      5784
    mean | .5551255  .3349206  .1472726  .0053739
     p50 | .5966306    .31135     .1409         0
     min |        0         0         0         0
     max |        1      .992     .4495         1
      sd | .3249278  .2004833  .0753548  .0466637
```

72.
73. * Make sure original and imputed datasets have same summary stats for key variables:
74. mi xeq 0 1: tabstat inquiry_seed_log inquiry_narrow_log inquiry_full_log inquiry_ful
   > l_nohands_log readall15 mathall15 pocschoolprop povertyschoolprop pocsd povertysd pc
   > tpdfs, stat(n mean median min max sd)

m=0 data:
 -> tabstat inquiry_seed_log inquiry_narrow_log inquiry_full_log inquiry_full_nohands_l
 > og readall15 mathall15 pocschoolprop povertyschoolprop pocsd povertysd pctpdfs, stat
 > (n mean median min max sd)

```
    stats │   in~d_log   in~w_log   in~l_log   in~s_log   reada~15   matha~15   pocsch~p   pove
> rt~p    │
─────────┼───────────────────────────────────────────────────────────────────────────────────
        N │       5796       5796       5796       5796       5158       5142       5784
> 5348
     mean │   .0202511   .0672377   .1326029   .1167381   .4730109   .3976099   .6503792   .558
> 8811
      p50 │          0          0   .1294601    .107191        .47        .36   .7385253   .601
> 8175
      min │          0          0          0          0        .02        .02          0
>    0
      max │   .4908485   .4938436    .624036   .5206454        .99        .99          1
>    1
       sd │   .0487966   .0876619   .1197104   .1135068   .2347915   .2478774   .3244263   .323
> 0693
         │
─────────┴───────────────────────────────────────────────────────────────────────────────────
```

```
    stats │     pocsd   povert~d    pctpdfs
─────────┼─────────────────────────────────
        N │       5768       5768       5796
     mean │   .3348288   .1472116   .0054762
      p50 │     .31135      .1409          0
      min │          0          0          0
      max │       .992      .4495          1
       sd │   .2004684    .075277   .0473971
─────────┴─────────────────────────────────
```

m=1 data:
 -> **tabstat inquiry_seed_log inquiry_narrow_log inquiry_full_log inquiry_full_nohands_l**
> **og readall15 mathall15 pocschoolprop povertyschoolprop pocsd povertysd pctpdfs, stat**
> **(n mean median min max sd)**

```
    stats │   in~d_log   in~w_log   in~l_log   in~s_log   reada~15   matha~15   pocsch~p   pove
> rt~p    │
─────────┼───────────────────────────────────────────────────────────────────────────────────
        N │       5796       5796       5796       5796       5784       5784       5784
> 5784
     mean │   .0202511   .0672377   .1326029   .1167381   .4731587   .4014315   .6503792   .555
> 1255
      p50 │          0          0   .1294601    .107191        .47        .37   .7385253   .596
> 6306
      min │          0          0          0          0        .02        .02          0
>    0
      max │   .4908485   .4938436    .624036   .5206454        .99        .99          1
>    1
       sd │   .0487966   .0876619   .1197104   .1135068   .2349245   .2495253   .3244263   .324
> 9278
         │
─────────┴───────────────────────────────────────────────────────────────────────────────────
```

```
    stats │     pocsd   povert~d    pctpdfs
─────────┼─────────────────────────────────
        N │       5796       5796       5784
     mean │   .3349206   .1472726   .0053739
      p50 │     .31135      .1409          0
      min │          0          0          0
      max │       .992      .4495          1
       sd │   .2004833   .0753548   .0466637
─────────┴─────────────────────────────────
```

```
75.
76. * Label variables:
77. labvars pocschoolprop "% students of color (school)" ///
  > povertyschoolprop "% students in poverty (school)" povertyschoolcount "# students in
  >  poverty" ///
  > upperlevel "middle/high school" teacherratio "student/teacher ratio" ///
  > , alternate

78.
79. * Save data to disk
80. save "data/charter_schools_data_100_imputations.dta", replace
  (note: file data/charter_schools_data_100_imputations.dta not found)
  file data/charter_schools_data_100_imputations.dta saved

81. export delimited using "data/charter_schools_data_100_imputations.csv", replace
  (note: file data/charter_schools_data_100_imputations.csv not found)
  file data/charter_schools_data_100_imputations.csv saved

82.
83. log close
       name:  <unnamed>
        log:  /hdir/0/jhaber/Projects/charter_data/sorting-schools-2019/logs/multiple_i
  > mputation_100_101019.smcl
   log type:  smcl
   closed on:  11 Oct 2019, 08:31:15
  ─────────────────────────────────────────────────────────────────────────────────
```