```
 1 .
 2 .
 3 . ////////////////////////////////////////TABLES 2 AND S3/////////////////////////////////////////////
   >
 4 .
 5 . **********************TABLE 3: LnNFLw1, MODELS 1 AND 2*********************
 6 .
 7 . **ANALYSES A-C, TOTAL POPULATION**
 8 .
 9 . **Model 1**
10 .
11 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

12 .
13 . //ANALYSIS A//
14 . reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ,beta
```

Source	SS	df	MS	Number of obs	=	200
				F(6, 193)	=	27.20
Model	1.3031e+12	6	2.1718e+11	Prob > F	=	0.0000
Residual	1.5408e+12	193	7.9835e+09	R-squared	=	0.4582
				Adj R-squared	=	0.4414
Total	2.8439e+12	199	1.4291e+10	Root MSE	=	89350

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	1211.603	14643.47	0.08	0.934	.0053299
Sex	137502.8	12880.23	10.68	0.000	.5742178
w1Age	-2366.704	836.4747	-2.83	0.005	-.1817564
Race	-66506.7	13518.93	-4.92	0.000	-.2737869
PovStat	-1263.845	14762.73	-0.09	0.932	-.0049837
TIME_V1SCAN	-29.35371	10.55226	-2.78	0.006	-.1583182
_cons	1207226	54247.67	22.25	0.000	.

```
15 . reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ,beta
```

Source	SS	df	MS	Number of obs	=	200
				F(6, 193)	=	30.48
Model	4.3184e+11	6	7.1973e+10	Prob > F	=	0.0000
Residual	4.5580e+11	193	2.3617e+09	R-squared	=	0.4865
				Adj R-squared	=	0.4705
Total	8.8764e+11	199	4.4605e+09	Root MSE	=	48597

GM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-4000.084	7964.51	-0.50	0.616	-.0314966
Sex	71205.62	7005.488	10.16	0.000	.5322487
w1Age	-1961.739	454.9542	-4.31	0.000	-.2696636
Race	-47998.33	7352.875	-6.53	0.000	-.3536784
PovStat	-1826.305	8029.372	-0.23	0.820	-.0128903
TIME_V1SCAN	-14.42918	5.739317	-2.51	0.013	-.1392979
_cons	738912.2	29505.03	25.04	0.000	.

```
16 . reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ,beta
```

Source	SS	df	MS	Number of obs	=	200
				F(6, 193)	=	17.69
Model	1.9909e+11	6	3.3182e+10	Prob > F	=	0.0000
Residual	3.6199e+11	193	1.8756e+09	R-squared	=	0.3548
				Adj R-squared	=	0.3348
Total	5.6108e+11	199	2.8195e+09	Root MSE	=	43308

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	2958.148	7097.716	0.42	0.677	.0292968
Sex	55896.01	6243.067	8.95	0.000	.5255178
w1Age	-797.1235	405.4407	-1.97	0.051	-.1378202
Race	-17026.14	6552.647	-2.60	0.010	-.1577992
PovStat	-2679.841	7155.519	-0.37	0.708	-.0237906
TIME_V1SCAN	-13.9205	5.114696	-2.72	0.007	-.1690302
_cons	463756.4	26293.94	17.64	0.000	.

```
17 .
18 .
19 .
20 . //ANALYSIS B//
21 . reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 ,beta
```

Source	SS	df	MS	Number of obs	=	200
				F(7, 192)	=	21.73
Model	13053030.6	7	1864718.66	Prob > F	=	0.0000
Residual	16472693	192	85795.2762	R-squared	=	0.4421
				Adj R-squared	=	0.4217
Total	29525723.7	199	148370.471	Root MSE	=	292.91

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-22.66151	48.00505	-0.47	0.637	-.0309387
Sex	-37.97558	56.71911	-0.67	0.504	-.0492179
w1Age	-4.639299	2.745386	-1.69	0.093	-.1105737
Race	-71.68415	47.80681	-1.50	0.135	-.0915849
PovStat	-82.41984	48.41398	-1.70	0.090	-.1008651
TIME_V1SCAN	.0031833	.0349849	0.09	0.928	.0053284
ICV_volM2	.0017209	.0002095	8.21	0.000	.6346068
_cons	1754.404	323.3302	5.43	0.000	.

```
22 . reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 ,beta
```

Source	SS	df	MS	Number of obs	=	200
				F(7, 192)	=	26.62
Model	16343450.3	7	2334778.61	Prob > F	=	0.0000
Residual	16841533.9	192	87716.3224	R-squared	=	0.4925
				Adj R-squared	=	0.4740
Total	33184984.2	199	166758.714	Root MSE	=	296.17

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-19.75425	48.53951	-0.41	0.684	-.0254392
Sex	-108.712	57.35059	-1.90	0.060	-.1329002
w1Age	-2.613345	2.775952	-0.94	0.348	-.0587524
Race	-78.42904	48.33907	-1.62	0.106	-.0945164
PovStat	-62.29185	48.953	-1.27	0.205	-.0719068
TIME_V1SCAN	.0299576	.0353744	0.85	0.398	.0472997
ICV_volM2	.0021162	.0002119	9.99	0.000	.7360978
_cons	1449.311	326.93	4.43	0.000	.

```
23 .
24 . //ANALYSIS C//
25 . reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 , beta
```

Source	SS	df	MS		
Model	275.365076	7	39.3378679	Number of obs	= 197
Residual	2394.19909	189	12.6677201	F(7, 189)	= 3.11
				Prob > F	= 0.0040
Total	2669.56417	196	13.6202253	R-squared	= 0.1031
				Adj R-squared	= 0.0699
				Root MSE	= 3.5592

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	1.939663	.5993831	3.24	0.001	.2728343
Sex	.3790618	.6927676	0.55	0.585	.0512944
w1Age	.0148117	.0342145	0.43	0.666	.0366194
Race	1.11818	.5858694	1.91	0.058	.1491751
PovStat	.8652152	.5949191	1.45	0.148	.1105133
TIME_V1SCAN	-.0005516	.0004255	-1.30	0.197	-.0970196
ICV_volM2	2.01e-06	2.55e-06	0.79	0.431	.0777747
_cons	-3.742529	3.942477	-0.95	0.344	.

```
26 .
27 .
28 .
29 . **Model 2: BMI-Adjusted**
30 .
31 . use finaldata_imputed,clear

32 .
33 .
34 . //ANALYSIS A//
35 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        192
DF adjustment:   Small sample                   DF:     min       =     190.03
                                                        avg       =     190.03
                                                        max       =     190.03
Model F test:       Equal FMI                   F(   7,  190.0)   =      23.44
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4668.834	15073.89	0.31	0.757	-25064.81	34402.47
Sex	139490.1	13044.4	10.69	0.000	113759.7	165220.5
w1Age	-2493.451	846.7648	-2.94	0.004	-4163.717	-823.1853
Race	-65957.11	13532.94	-4.87	0.000	-92651.18	-39263.04
PovStat	-1447.421	14766.26	-0.10	0.922	-30574.26	27679.42
TIME_V1SCAN	-28.47307	10.59295	-2.69	0.008	-49.36794	-7.578195
w1BMI	959.1855	989.6389	0.97	0.334	-992.9031	2911.274
_cons	1172957	64759.87	18.11	0.000	1045216	1300697

36 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 192
DF adjustment: Small sample — DF: min = 190.03
avg = 190.03
max = 190.03
Model F test: Equal FMI — F(7, 190.0) = 26.36
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-1766.231	8190.357	-0.22	0.829	-17921.92	14389.46
Sex	72489.71	7087.642	10.23	0.000	58509.15	86470.26
w1Age	-2043.635	460.0873	-4.44	0.000	-2951.17	-1136.101
Race	-47643.22	7353.084	-6.48	0.000	-62147.37	-33139.07
PovStat	-1944.921	8023.208	-0.24	0.809	-17770.91	13881.07
TIME_V1SCAN	-13.86016	5.755651	-2.41	0.017	-25.21333	-2.506989
w1BMI	619.7677	537.7176	1.15	0.251	-440.8944	1680.43
_cons	716769.7	35187.1	20.37	0.000	647362.2	786177.2

37 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 192
DF adjustment: Small sample — DF: min = 190.03
avg = 190.03
max = 190.03
Model F test: Equal FMI — F(7, 190.0) = 15.20
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4183.152	7314.656	0.57	0.568	-10245.2	18611.5
Sex	56600.18	6329.842	8.94	0.000	44114.4	69085.96
w1Age	-842.0337	410.8955	-2.05	0.042	-1652.536	-31.53159
Race	-16831.4	6566.903	-2.56	0.011	-29784.79	-3878.014
PovStat	-2744.888	7165.379	-0.38	0.702	-16878.78	11389.01
TIME_V1SCAN	-13.60846	5.140266	-2.65	0.009	-23.74777	-3.469153
w1BMI	339.8692	480.2257	0.71	0.480	-607.3885	1287.127
_cons	451613.9	31424.95	14.37	0.000	389627.4	513600.4

```
38 .
39 .
40 . //ANALYSIS B//
41 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        200
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =        191
DF adjustment:   Small sample                 DF:     min       =     189.03
                                                      avg       =     189.03
                                                      max       =     189.03
Model F test:       Equal FMI                 F(   8,  189.0)   =      18.92
Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |  -22.69755   49.54018    -0.46   0.647    -120.4202    75.02505
          Sex |  -38.00475   57.65491    -0.66   0.511    -151.7344    75.72492
        w1Age |  -4.637946   2.787593    -1.66   0.098    -10.13673    .8608399
         Race |   -71.6859   47.93519    -1.50   0.136    -166.2425    22.87071
      PovStat |  -82.41762   48.54592    -1.70   0.091     -178.179    13.34372
  TIME_V1SCAN |   .0031752   .0351737     0.09   0.928    -.0662082    .0725587
        w1BMI |  -.0100155   3.260675    -0.00   0.998    -6.442001     6.42197
    ICV_volM2 |   .0017209   .0002106     8.17   0.000     .0013055    .0021364
        _cons |   1754.701   338.3621     5.19   0.000     1087.251    2422.152
------------------------------------------------------------------------------

42 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        200
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =        191
DF adjustment:   Small sample                 DF:     min       =     189.03
                                                      avg       =     189.03
                                                      max       =     189.03
Model F test:       Equal FMI                 F(   8,  189.0)   =      23.20
Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |  -15.60816   50.07572    -0.31   0.756    -114.3872    83.17085
          Sex |  -105.3563   58.27818    -1.81   0.072    -220.3154     9.60284
        w1Age |  -2.769006   2.817727    -0.98   0.327    -8.327235    2.789223
         Race |  -78.22739   48.45338    -1.61   0.108    -173.8062    17.35141
      PovStat |  -62.54678   49.07071    -1.27   0.204    -159.3433    34.24976
  TIME_V1SCAN |   .0308818    .035554     0.87   0.386    -.0392517    .1010153
        w1BMI |   1.152157   3.295924     0.35   0.727     -5.34936    7.653674
    ICV_volM2 |   .0021108   .0002129     9.91   0.000     .0016909    .0025308
        _cons |   1415.054   342.0199     4.14   0.000     740.3876     2089.72
------------------------------------------------------------------------------
```

```
43 .
44 . //ANALYSIS C//
45 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        197
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        188
DF adjustment:   Small sample                   DF:     min       =     186.03
                                                        avg       =     186.03
                                                        max       =     186.03
Model F test:       Equal FMI                   F(   8,  186.0)   =       2.90
Within VCE type:          OLS                   Prob > F          =     0.0045
```

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2.102707	.6142586	3.42	0.001	.8908994	3.314515
Sex	.5196943	.7020658	0.74	0.460	-.8653397	1.904728
w1Age	.0081233	.0346378	0.23	0.815	-.0602101	.0764568
Race	1.128476	.5852968	1.93	0.055	-.0261964	2.283148
PovStat	.8447215	.5945229	1.42	0.157	-.328152	2.017595
TIME_V1SCAN	-.000512	.0004264	-1.20	0.231	-.0013531	.0003292
w1BMI	.0471622	.0396971	1.19	0.236	-.0311521	.1254765
ICV_volM2	1.80e-06	2.55e-06	0.70	0.483	-3.24e-06	6.84e-06
_cons	-5.118416	4.104944	-1.25	0.214	-13.21664	2.979809

```
46 .
47 . save, replace
   file finaldata_imputed.dta saved

48 .
49 . ********************MALES************************************************************
50 .
51 . **Model 1**
52 .
53 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

54 .
55 . //ANALYSIS A//
56 . reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if Sex==2,beta
   note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 91
				F(5, 85)	= 5.65
Model	3.0576e+11	5	6.1152e+10	Prob > F	= 0.0002
Residual	9.2023e+11	85	1.0826e+10	R-squared	= 0.2494
				Adj R-squared	= 0.2052
Total	1.2260e+12	90	1.3622e+10	Root MSE	= 1.0e+05

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-6689.693	23241.6	-0.29	0.774	-.0313953
Sex	0	(omitted)			.
w1Age	-2315.555	1411.966	-1.64	0.105	-.1770199
Race	-85070.36	23506.55	-3.62	0.001	-.3614461
PovStat	20737.13	26027.39	0.80	0.428	.0787276
TIME_V1SCAN	-47.98338	18.14821	-2.64	0.010	-.2617671
_cons	1532117	87171.43	17.58	0.000	.

```
57 . reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if Sex==2,beta
   note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 91
				F(5, 85)	= 9.63
Model	1.4476e+11	5	2.8952e+10	Prob > F	= 0.0000
Residual	2.5558e+11	85	3.0068e+09	R-squared	= 0.3616
				Adj R-squared	= 0.3240
Total	4.0033e+11	90	4.4482e+09	Root MSE	= 54834

GM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-12640.95	12248.35	-1.03	0.305	-.1038173
Sex	0	(omitted)			.
w1Age	-2126.708	744.1081	-2.86	0.005	-.2845162
Race	-61118.43	12387.98	-4.93	0.000	-.4544327
PovStat	7819.878	13716.47	0.57	0.570	.051953
TIME_V1SCAN	-23.32881	9.564131	-2.44	0.017	-.2227148
_cons	931253.8	45939.45	20.27	0.000	.

```
58 . reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if Sex==2,beta
   note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 91
				F(5, 85)	= 3.08
Model	3.9415e+10	5	7.8829e+09	Prob > F	= 0.0134
Residual	2.1790e+11	85	2.5635e+09	R-squared	= 0.1532
				Adj R-squared	= 0.1034
Total	2.5731e+11	90	2.8590e+09	Root MSE	= 50631

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	293.4125	11309.47	0.03	0.979	.0030057
Sex	0	(omitted)			.
w1Age	-674.7338	687.0696	-0.98	0.329	-.1125937
Race	-23823.4	11438.4	-2.08	0.040	-.2209447
PovStat	5314.16	12665.05	0.42	0.676	.044038
TIME_V1SCAN	-23.47109	8.831007	-2.66	0.009	-.2794938
_cons	594019	42418.04	14.00	0.000	.

```
59 .
60 .
61 . //ANALYSIS B//
62 . reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if Sex==2,beta
   note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 91
				F(6, 84)	= 13.16
Model	7955629.4	6	1325938.23	Prob > F	= 0.0000
Residual	8463902.1	84	100760.739	R-squared	= 0.4845
				Adj R-squared	= 0.4477
Total	16419531.5	90	182439.239	Root MSE	= 317.43

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-97.68723	71.02701	-1.38	0.173	-.1252735
Sex	0	(omitted)			.
w1Age	-2.765967	4.307765	-0.64	0.523	-.05778
Race	-1.309759	78.77934	-0.02	0.987	-.0015206
PovStat	-202.8514	79.49934	-2.55	0.013	-.210436
TIME_V1SCAN	.0117335	.0568466	0.21	0.837	.017491
ICV_volM2	.0021729	.0003022	7.19	0.000	.6489135
_cons	1129.897	577.2363	1.96	0.054	.

```
63 . reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if Sex==2,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 91
				F(6, 84)	= 15.18
Model	9261458.67	6	1543576.45	Prob > F	= 0.0000
Residual	8542142.7	84	101692.175	R-squared	= 0.5202
				Adj R-squared	= 0.4859
Total	17803601.4	90	197817.793	Root MSE	= 318.89

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-57.35945	71.35454	-0.80	0.424	-.0706403
Sex	0	(omitted)			.
w1Age	-2.909726	4.327629	-0.67	0.503	-.0583726
Race	1.963725	79.14262	0.02	0.980	.0021895
PovStat	-176.104	79.86594	-2.20	0.030	-.1754436
TIME_V1SCAN	.0461475	.0571087	0.81	0.421	.0660636
ICV_volM2	.0024736	.0003035	8.15	0.000	.7094171
_cons	806.7398	579.8981	1.39	0.168	.

```
64 .
65 . //ANALYSIS C//
66 . reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if Sex==2,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 90
				F(6, 83)	= 1.39
Model	66.4294749	6	11.0715792	Prob > F	= 0.2293
Residual	662.284584	83	7.97933234	R-squared	= 0.0912
				Adj R-squared	= 0.0255
Total	728.714059	89	8.18779842	Root MSE	= 2.8248

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	1.508301	.6602212	2.28	0.025	.283988
Sex	0	(omitted)			.
w1Age	-.0554782	.0397198	-1.40	0.166	-.1726981
Race	1.301032	.7011014	1.86	0.067	.2258301
PovStat	.2409435	.7102773	0.34	0.735	.0374449
TIME_V1SCAN	-.0005015	.0005059	-0.99	0.324	-.1122152
ICV_volM2	3.44e-07	2.69e-06	0.13	0.899	.0153762
_cons	4.058658	5.13785	0.79	0.432	.

```
67 .
68 .
69 . **Model 2**
70 .
71 . use finaldata_imputed,clear

72 .
73 .
74 . //ANALYSIS A//
75 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         91
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         84
DF adjustment:   Small sample                   DF:     min       =      82.07
                                                        avg       =      82.07
                                                        max       =      82.07
Model F test:       Equal FMI                   F(   6,   82.1)   =       4.74
Within VCE type:          OLS                   Prob > F          =     0.0003

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -5589.096   23391.69    -0.24   0.812    -52122.03    40943.84
         Sex |          0  (omitted)
       w1Age |  -2602.347   1489.468    -1.75   0.084    -5565.337    360.6417
        Race |  -85071.55   23591.24    -3.61   0.001    -132001.5   -38141.64
     PovStat |   21855.81   26182.39     0.83   0.406    -30228.64    73940.27
  TIME_V1SCAN |  -47.79599   18.21607    -2.62   0.010     -84.0331   -11.55889
       w1BMI |   1323.111   2116.543     0.63   0.534    -2887.315    5533.536
       _cons |    1504591   97941.51    15.36   0.000      1309757     1699426
------------------------------------------------------------------------------

76 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         91
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         84
DF adjustment:   Small sample                   DF:     min       =      82.07
                                                        avg       =      82.07
                                                        max       =      82.07
Model F test:       Equal FMI                   F(   6,   82.1)   =       8.13
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -11832.97   12300.45    -0.96   0.339    -36302.18    12636.23
         Sex |          0  (omitted)
       w1Age |   -2337.25   783.2324    -2.98   0.004    -3895.329   -779.1707
        Race |  -61119.31   12405.39    -4.93   0.000    -85797.27   -36441.35
     PovStat |   8641.135   13767.93     0.63   0.532    -18747.32    36029.59
  TIME_V1SCAN |  -23.19125   9.578865    -2.42   0.018    -42.24642   -4.136071
       w1BMI |   971.3303   1112.978     0.87   0.385     -1242.71    3185.37
       _cons |   911046.4   51502.25    17.69   0.000     808593.3     1013500
------------------------------------------------------------------------------
```

```
77 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         91
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         84
DF adjustment:   Small sample                   DF:     min       =      82.07
                                                        avg       =      82.07
                                                        max       =      82.07
Model F test:       Equal FMI                   F(   6,   82.1)   =       2.55
Within VCE type:          OLS                   Prob > F          =     0.0257

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   560.7346   11402.37     0.05   0.961    -22121.93     23243.4
         Sex |          0  (omitted)
       w1Age |  -744.3924   726.0471    -1.03   0.308    -2188.713    699.9283
        Race |  -23823.69   11499.65    -2.07   0.041    -46699.86   -947.5175
     PovStat |   5585.876   12762.71     0.44   0.663     -19802.9    30974.65
 TIME_V1SCAN |  -23.42558   8.879493    -2.64   0.010    -41.08949   -5.761657
       w1BMI |   321.3681   1031.717     0.31   0.756     -1731.02    2373.757
       _cons |   587333.3   47741.97    12.30   0.000     492360.5    682306.1
------------------------------------------------------------------------------

78 .
79 .
80 . //ANALYSIS B//
81 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         91
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         83
DF adjustment:   Small sample                   DF:     min       =      81.07
                                                        avg       =      81.07
                                                        max       =      81.07
Model F test:       Equal FMI                   F(   7,   81.1)   =      11.21
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -95.19032   71.53221    -1.33   0.187    -237.5151    47.13449
         Sex |          0  (omitted)
       w1Age |  -3.455564   4.550479    -0.76   0.450    -12.50947    5.598343
        Race |  -2.437017   79.17154    -0.03   0.976    -159.9615    155.0875
     PovStat |  -200.0324   80.06835    -2.50   0.015    -359.3412   -40.72355
 TIME_V1SCAN |   .0117386   .0571055     0.21   0.838    -.1018818    .1253591
       w1BMI |   3.174702   6.479001     0.49   0.625    -9.716308    16.06571
    ICV_volM2 |   .0021625   .0003043     7.11   0.000     .0015571    .0027679
       _cons |   1081.515   588.2114     1.84   0.070    -88.82558    2251.856
------------------------------------------------------------------------------
```

```
82 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         91
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         83
DF adjustment:   Small sample                   DF:     min       =      81.07
                                                        avg       =      81.07
                                                        max       =      81.07
Model F test:       Equal FMI                   F(   7,   81.1)   =      13.19
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-51.94924	71.4815	-0.73	0.469	-194.1731	90.27466
Sex	0	(omitted)				
w1Age	-4.403913	4.547252	-0.97	0.336	-13.4514	4.643575
Race	-.4787683	79.11541	-0.01	0.995	-157.8916	156.934
PovStat	-169.9958	80.01158	-2.12	0.037	-329.1917	-10.79992
TIME_V1SCAN	.0461586	.057065	0.81	0.421	-.0673813	.1596985
w1BMI	6.878806	6.474407	1.06	0.291	-6.003065	19.76068
ICV_volM2	.002451	.0003041	8.06	0.000	.0018461	.003056
_cons	701.9092	587.7944	1.19	0.236	-467.602	1871.42

```
83 .
84 . //ANALYSIS C//
85 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         90
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         82
DF adjustment:   Small sample                   DF:     min       =      80.07
                                                        avg       =      80.07
                                                        max       =      80.07
Model F test:       Equal FMI                   F(   7,   80.1)   =       1.21
Within VCE type:          OLS                   Prob > F          =     0.3059
```

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.490928	.6642472	2.24	0.028	.1690519	2.812804
Sex	0	(omitted)				
w1Age	-.0496452	.041674	-1.19	0.237	-.1325779	.0332876
Race	1.310779	.7046383	1.86	0.067	-.091477	2.713035
PovStat	.21451	.7156453	0.30	0.765	-1.20965	1.63867
TIME_V1SCAN	-.0005018	.0005083	-0.99	0.327	-.0015133	.0005097
w1BMI	-.0280256	.0577335	-0.49	0.629	-.1429173	.0868661
ICV_volM2	4.38e-07	2.71e-06	0.16	0.872	-4.96e-06	5.83e-06
_cons	4.488322	5.237012	0.86	0.394	-5.933523	14.91017

```
 86 .
 87 . save, replace
   file finaldata_imputed.dta saved

 88 .
 89 .
 90 .
 91 .
 92 .
 93 . ********************FEMALES************************************************************
 94 .
 95 . **Model 1**
 96 .
 97 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

 98 .
 99 . //ANALYSIS A//
100 . reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if Sex==1,beta
   note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =       109
-------------+----------------------------------   F(5, 103)       =      4.51
       Model |  1.2386e+11         5  2.4772e+10   Prob > F        =    0.0009
    Residual |  5.6585e+11       103  5.4937e+09   R-squared       =    0.1796
-------------+----------------------------------   Adj R-squared   =    0.1398
       Total |  6.8971e+11       108  6.3862e+09   Root MSE        =     74119

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
     LnNFLw1 |    11755.77   18172.74     0.65   0.519                .0745451
         Sex |           0  (omitted)                                        .
       w1Age |   -2575.222   977.1845    -2.64   0.010               -.3039042
        Race |   -51104.48   15156.32    -3.37   0.001               -.3139928
     PovStat |   -22255.47   16528.68    -1.35   0.181               -.1361612
 TIME_V1SCAN |   -9.586871    12.0801    -0.79   0.429               -.0784962
       _cons |     1301454   56357.63    23.09   0.000                       .
------------------------------------------------------------------------------

101 . reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if Sex==1,beta
   note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =       109
-------------+----------------------------------   F(5, 103)       =      6.99
       Model |  6.1036e+10         5  1.2207e+10   Prob > F        =    0.0000
    Residual |  1.8000e+11       103  1.7476e+09   R-squared       =    0.2532
-------------+----------------------------------   Adj R-squared   =    0.2170
       Total |  2.4104e+11       108  2.2318e+09   Root MSE        =     41804

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
     LnNFLw1 |     6213.53   10249.62     0.61   0.546                .0666495
         Sex |           0  (omitted)                                        .
       w1Age |   -1968.841   551.1425    -3.57   0.001               -.3930278
        Race |   -37084.65   8548.328    -4.34   0.000               -.3854301
     PovStat |   -10798.93   9322.352    -1.16   0.249               -.1117604
 TIME_V1SCAN |   -4.494126   6.813304    -0.66   0.511               -.0622455
       _cons |    767370.4   31786.31    24.14   0.000                       .
------------------------------------------------------------------------------
```

```
102 . reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS	Number of obs	=	109
				F(5, 103)	=	2.04
Model	1.3236e+10	5	2.6473e+09	Prob > F	=	0.0788
Residual	1.3351e+11	103	1.2962e+09	R-squared	=	0.0902
				Adj R-squared	=	0.0460
Total	1.4675e+11	108	1.3588e+09	Root MSE	=	36003

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	7470.129	8827.41	0.85	0.399	.1026927
Sex	0	(omitted)			.
w1Age	-978.9838	474.6676	-2.06	0.042	-.2504615
Race	-11206.71	7362.187	-1.52	0.131	-.1492734
PovStat	-11102.39	8028.811	-1.38	0.170	-.1472572
TIME_V1SCAN	-4.365534	5.86791	-0.74	0.459	-.0774913
_cons	503619	27375.73	18.40	0.000	.

```
103 .
104 .
105 .
106 . //ANALYSIS B//
107 . reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS	Number of obs	=	109
				F(6, 102)	=	6.61
Model	2590341.77	6	431723.628	Prob > F	=	0.0000
Residual	6661276.48	102	65306.6322	R-squared	=	0.2800
				Adj R-squared	=	0.2376
Total	9251618.25	108	85663.132	Root MSE	=	255.55

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	104.9143	62.81607	1.67	0.098	.1816461
Sex	0	(omitted)			.
w1Age	-8.782254	3.388992	-2.59	0.011	-.2829772
Race	-127.8851	55.70994	-2.30	0.024	-.2145379
PovStat	-11.25134	57.44514	-0.20	0.845	-.0187951
TIME_V1SCAN	.0037218	.0416835	0.09	0.929	.0083205
ICV_volM2	.0010857	.0002875	3.78	0.000	.3479086
_cons	2437.733	454.1871	5.37	0.000	.

```
108 . reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS	Number of obs	=	109
				F(6, 102)	=	9.29
Model	4098792.26	6	683132.043	Prob > F	=	0.0000
Residual	7499615.1	102	73525.6383	R-squared	=	0.3534
				Adj R-squared	=	0.3154
Total	11598407.4	108	107392.661	Root MSE	=	271.16

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	**51.78648**	**66.65175**	**0.78**	**0.439**	**.0800788**
Sex	**0**	(omitted)			**.**
w1Age	**-4.022691**	**3.595931**	**-1.12**	**0.266**	**-.1157635**
Race	**-137.0683**	**59.1117**	**-2.32**	**0.022**	**-.2053671**
PovStat	**11.9734**	**60.95285**	**0.20**	**0.845**	**.0178635**
TIME_V1SCAN	**.0180801**	**.0442288**	**0.41**	**0.684**	**.0360999**
ICV_volM2	**.0016863**	**.000305**	**5.53**	**0.000**	**.482592**
_cons	**1809.301**	**481.9207**	**3.75**	**0.000**	**.**

```
109 .
110 . //ANALYSIS C//
111 . reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= **107**
				F(6, 100)	= **2.97**
Model	**288.66923**	**6**	**48.1115384**	Prob > F	= **0.0103**
Residual	**1618.76629**	**100**	**16.1876629**	R-squared	= **0.1513**
				Adj R-squared	= **0.1004**
Total	**1907.43552**	**106**	**17.9946747**	Root MSE	= **4.0234**

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	**2.367044**	**.9974568**	**2.37**	**0.020**	**.2800328**
Sex	**0**	(omitted)			**.**
w1Age	**.0692506**	**.0538848**	**1.29**	**0.202**	**.152542**
Race	**1.070839**	**.8902823**	**1.20**	**0.232**	**.1238479**
PovStat	**1.589621**	**.9213153**	**1.73**	**0.088**	**.1830377**
TIME_V1SCAN	**-.000679**	**.0006577**	**-1.03**	**0.304**	**-.1055719**
ICV_volM2	**5.24e-06**	**4.54e-06**	**1.15**	**0.251**	**.1168302**
_cons	**-11.51064**	**7.215253**	**-1.60**	**0.114**	**.**

```
112 .
113 .
114 . **Model 2**
115 .
116 . use finaldata_imputed,clear

117 .
118 .
119 . //ANALYSIS A//
120 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        102
DF adjustment:   Small sample                   DF:     min       =     100.06
                                                        avg       =     100.06
                                                        max       =     100.06
Model F test:       Equal FMI                   F(   6,  100.1)   =       4.22
Within VCE type:          OLS                   Prob > F          =     0.0008
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	22854.77	19398.21	1.18	0.242	-15630.45	61340
Sex	0	(omitted)				
w1Age	-2761.016	977.7211	-2.82	0.006	-4700.773	-821.2588
Race	-49496.89	15087.01	-3.28	0.001	-79428.88	-19564.89
PovStat	-23858.46	16446.8	-1.45	0.150	-56488.22	8771.307
TIME_V1SCAN	-6.257762	12.18498	-0.51	0.609	-30.43225	17.91672
w1BMI	1633.412	1046.664	1.56	0.122	-443.1256	3709.949
_cons	1231876	71556.08	17.22	0.000	1089912	1373840

121 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if Sex==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 102
DF adjustment: Small sample — DF: min = 100.06
avg = 100.06
max = 100.06
Model F test: Equal FMI — F(6, 100.1) = 6.58
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	13828.93	10877.93	1.27	0.207	-7752.417	35410.28
Sex	0	(omitted)				
w1Age	-2096.321	548.2764	-3.82	0.000	-3184.078	-1008.563
Race	-35981.63	8460.339	-4.25	0.000	-52766.58	-19196.67
PovStat	-11898.8	9222.87	-1.29	0.200	-30196.58	6398.987
TIME_V1SCAN	-2.20991	6.832968	-0.32	0.747	-15.76623	11.34641
w1BMI	1120.74	586.9376	1.91	0.059	-43.71957	2285.199
_cons	719630.9	40126.48	17.93	0.000	640021.6	799240.1

122 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if Sex==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 102
DF adjustment: Small sample — DF: min = 100.06
avg = 100.06
max = 100.06
Model F test: Equal FMI — F(6, 100.1) = 1.98
Within VCE type: OLS — Prob > F = 0.0750

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11895.95	9459.298	1.26	0.211	-6870.896	30662.8
Sex	0	(omitted)				
w1Age	-1053.071	476.7736	-2.21	0.029	-1998.969	-107.172
Race	-10565.67	7356.995	-1.44	0.154	-25161.64	4030.294
PovStat	-11741.6	8020.081	-1.46	0.146	-27653.1	4169.905
TIME_V1SCAN	-3.038023	5.941855	-0.51	0.610	-14.82641	8.750365
w1BMI	651.3368	510.3928	1.28	0.205	-361.2609	1663.935
_cons	475874.4	34893.44	13.64	0.000	406647.3	545101.5

```
123 .
124 .
125 .
126 . //ANALYSIS B//
127 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        101
DF adjustment:   Small sample                   DF:     min       =      99.06
                                                        avg       =      99.06
                                                        max       =      99.06
Model F test:       Equal FMI                   F(   7,   99.1)   =       5.62
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   110.5331   68.13715     1.62   0.108    -24.66485     245.731
          Sex |          0  (omitted)
        w1Age |  -8.885307   3.437351    -2.58   0.011    -15.70571   -2.064906
         Race |  -127.6881   55.97904    -2.28   0.025    -238.7618   -16.61433
      PovStat |  -12.26634   57.90132    -0.21   0.833    -127.1543    102.6216
  TIME_V1SCAN |   .0053143   .0425073     0.13   0.901    -.0790289    .0896574
        w1BMI |    .806563   3.686793     0.22   0.827    -6.508781    8.121907
    ICV_volM2 |   .0010768   .0002917     3.69   0.000     .0004981    .0016556
        _cons |   2416.065   466.9475     5.17   0.000     1489.546    3342.583
------------------------------------------------------------------------------

128 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        101
DF adjustment:   Small sample                   DF:     min       =      99.06
                                                        avg       =      99.06
                                                        max       =      99.06
Model F test:       Equal FMI                   F(   7,   99.1)   =       7.89
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   51.20499    72.3147     0.71   0.481    -92.28204     194.692
          Sex |          0  (omitted)
        w1Age |  -4.012026   3.648098    -1.10   0.274    -11.25059     3.22654
         Race |  -137.0887   59.41116    -2.31   0.023    -254.9725   -19.20491
      PovStat |   12.07845   61.45131     0.20   0.845    -109.8534    134.0103
  TIME_V1SCAN |   .0179153   .0451135     0.40   0.692     -.071599    .1074296
        w1BMI |  -.0834715   3.912833    -0.02   0.983    -7.847326    7.680383
    ICV_volM2 |   .0016872   .0003096     5.45   0.000      .001073    .0023014
        _cons |   1811.543   495.5765     3.66   0.000     828.2192    2794.868
------------------------------------------------------------------------------
```

```
129 .
130 . //ANALYSIS C//
131 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        107
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         99
DF adjustment:   Small sample                   DF:     min       =      97.06
                                                        avg       =      97.06
                                                        max       =      97.06
Model F test:       Equal FMI                   F(   7,   97.1)   =       3.32
Within VCE type:          OLS                   Prob > F          =     0.0033

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   3.204634   1.052125     3.05   0.003     1.116473    5.292795
          Sex |          0  (omitted)
        w1Age |   .0525368   .0534578     0.98   0.328    -.0535613    .1586349
         Race |   1.109154   .8742543     1.27   0.208    -.6259855    2.844294
      PovStat |   1.396595    .908878     1.54   0.128    -.4072627    3.200452
  TIME_V1SCAN |  -.0004274    .000656    -0.65   0.516    -.0017294    .0008747
        w1BMI |   .1241216   .0569972     2.18   0.032     .0109987    .2372445
    ICV_volM2 |   3.87e-06   4.50e-06     0.86   0.392    -5.06e-06    .0000128
        _cons |  -14.73314   7.236829    -2.04   0.044    -29.09613    -.370146
------------------------------------------------------------------------------

132 .
133 . save, replace
    file finaldata_imputed.dta saved

134 .
135 .
136 .
137 . //INTERACTION BY Sex//
138 . use finaldata_imputed,clear

139 .
140 .
141 . //ANALYSIS A//
142 . mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        191
DF adjustment:   Small sample                   DF:     min       =     189.03
                                                        avg       =     189.03
                                                        max       =     189.03
Model F test:       Equal FMI                   F(   8,  189.0)   =      20.59
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	17705.05	21089.28	0.84	0.402	-23895.52	59305.62
Sex						
Men	185689.6	53844.53	3.45	0.001	79476.21	291902.9
Sex#c.LnNFLw1						
Men	-22582.77	25534.83	-0.88	0.378	-72952.6	27787.06
Sex	0	(omitted)				
w1Age	-2625.723	860.3454	-3.05	0.003	-4322.834	-928.6118
Race	-66031.26	13540.88	-4.88	0.000	-92741.9	-39320.61
PovStat	-1051	14781.44	-0.07	0.943	-30208.77	28106.77
TIME_V1SCAN	-27.5786	10.64711	-2.59	0.010	-48.58102	-6.576185
w1BMI	1215.52	1031.749	1.18	0.240	-819.7014	3250.742
_cons	1282813	69411.89	18.48	0.000	1145892	1419735

143 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 200
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 191
DF adjustment:	Small sample	DF: min	= 189.03
		avg	= 189.03
		max	= 189.03
Model F test:	Equal FMI	F(8, 189.0)	= 23.66
Within VCE type:	OLS	Prob > F	= 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11915.14	11394.55	1.05	0.297	-10561.67	34391.96
Sex						
Men	120975.5	29092.24	4.16	0.000	63588.39	178362.7
Sex#c.LnNFLw1						
Men	-23700.38	13796.49	-1.72	0.087	-50915.23	3514.474
Sex	0	(omitted)				
w1Age	-2182.453	464.8452	-4.70	0.000	-3099.404	-1265.503
Race	-47721.03	7316.147	-6.52	0.000	-62152.81	-33289.25
PovStat	-1528.881	7986.425	-0.19	0.848	-17282.85	14225.08
TIME_V1SCAN	-12.92143	5.752642	-2.25	0.026	-24.26905	-1.573808
w1BMI	888.7882	557.4549	1.59	0.113	-210.8435	1988.42
_cons	758159.1	37503.29	20.22	0.000	684180.4	832137.8

```
144 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        191
DF adjustment:   Small sample                   DF:     min       =     189.03
                                                        avg       =     189.03
                                                        max       =     189.03
Model F test:       Equal FMI                   F(   8,  189.0)   =      13.28
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7925.959	10247.25	0.77	0.440	-12287.7	28139.62
Sex						
Men	69864.42	26162.99	2.67	0.008	18255.5	121473.4
Sex#c.LnNFLw1						
Men	-6483.701	12407.34	-0.52	0.602	-30958.34	17990.93
Sex	0	(omitted)				
w1Age	-880.0101	418.0407	-2.11	0.037	-1704.634	-55.38592
Race	-16852.69	6579.496	-2.56	0.011	-29831.36	-3874.023
PovStat	-2631.072	7182.285	-0.37	0.715	-16798.8	11536.65
TIME_V1SCAN	-13.35165	5.173418	-2.58	0.011	-23.5567	-3.146605
w1BMI	413.465	501.3257	0.82	0.411	-575.4466	1402.377
_cons	499706	33727.15	14.82	0.000	433176.1	566235.9

```
145 .
146 .
147 . //ANALYSIS B//
148 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        190
DF adjustment:   Small sample                   DF:     min       =     188.03
                                                        avg       =     188.03
                                                        max       =     188.03
Model F test:       Equal FMI                   F(   9,  188.0)   =      17.30
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippoc~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	59.0976	69.02001	0.86	0.393	-77.05546	195.2506
Sex						
Men	255.6404	182.6575	1.40	0.163	-104.6808	615.9616
Sex#c.LnNFLw1						
Men	-141.5901	83.61616	-1.69	0.092	-306.5364	23.35619
Sex	0	(omitted)				
w1Age	-5.484338	2.818736	-1.95	0.053	-11.04475	.0760714
Race	-73.99846	47.72211	-1.55	0.123	-168.138	20.14106
PovStat	-80.0765	48.33011	-1.66	0.099	-175.4154	15.2624
TIME_V1SCAN	.0082631	.0351317	0.24	0.814	-.0610399	.0775661

w1BMI	1.621411	3.38486	0.48	0.632	-5.05577	8.298591
ICV_volM2	.0016992	.00021	8.09	0.000	.0012849	.0021134
_cons	1562.053	371.3533	4.21	0.000	829.4988	2294.607

```
149 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        200
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =        190
DF adjustment:   Small sample                 DF:     min       =     188.03
                                                      avg       =     188.03
                                                      max       =     188.03
Model F test:       Equal FMI                 F(   9,  188.0)   =      20.87
Within VCE type:          OLS                 Prob > F          =     0.0000
```

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	46.97875	69.99055	0.67	0.503	-91.08885	185.0463
Sex						
Men	119.3311	185.226	0.64	0.520	-246.0568	484.7191
Sex#c.LnNFLw1						
Men	-108.34	84.79195	-1.28	0.203	-275.6057	58.92572
Sex	0	(omitted)				
w1Age	-3.416637	2.858372	-1.20	0.233	-9.055235	2.221962
Race	-79.99688	48.39317	-1.65	0.100	-175.4602	15.46641
PovStat	-60.75544	49.00971	-1.24	0.217	-157.435	35.92409
TIME_V1SCAN	.0347748	.0356258	0.98	0.330	-.0355027	.1050524
w1BMI	2.400469	3.432457	0.70	0.485	-4.370604	9.171543
ICV_volM2	.0020942	.0002129	9.83	0.000	.0016741	.0025143
_cons	1191.369	376.5752	3.16	0.002	448.514	1934.224

```
150 .
151 . //ANALYSIS C//
152 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        197
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =        187
DF adjustment:   Small sample                 DF:     min       =     185.03
                                                      avg       =     185.03
                                                      max       =     185.03
Model F test:       Equal FMI                 F(   9,  185.0)   =       3.33
Within VCE type:          OLS                 Prob > F          =     0.0009
```

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3.52575	.8356576	4.22	0.000	1.877108	5.174392
Sex						
Men	5.731932	2.218231	2.58	0.011	1.355656	10.10821
Sex#c.LnNFLw1						
Men	-2.521854	1.019582	-2.47	0.014	-4.533354	-.5103539
Sex	0	(omitted)				
w1Age	-.0037713	.0345125	-0.11	0.913	-.0718598	.0643173
Race	1.088098	.57772	1.88	0.061	-.0516668	2.227863
PovStat	.918139	.5873428	1.56	0.120	-.2406106	2.076889
TIME_V1SCAN	-.0004271	.0004221	-1.01	0.313	-.0012598	.0004056
w1BMI	.0751006	.0407637	1.84	0.067	-.0053208	.1555221
ICV_volM2	1.40e-06	2.53e-06	0.55	0.580	-3.58e-06	6.38e-06
_cons	-7.414399	4.480523	-1.65	0.100	-16.25388	1.42508

```
153 .
154 . save, replace
    file finaldata_imputed.dta saved

155 .
156 .
157 . **********************TABLE S3: LnNFLw1, MODELS 3-6***************************
158 .
159 . ************MODEL 3: MODEL 2+w1dxDiabetes w1Glucose******
160 .
161 . //Overall//
162 .
163 . use finaldata_imputed,clear

164 .
165 .
166 . //ANALYSIS A//
167 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =        200
                                                    Average RVI       =     0.0059
                                                    Largest FMI       =     0.0573
                                                    Complete DF       =        190
    DF adjustment:   Small sample                   DF:     min       =     156.47
                                                            avg       =     183.67
                                                            max       =     188.02
    Model F test:       Equal FMI                   F(   9,  188.0)   =      17.96
    Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3581.892	15664.78	0.23	0.819	-27319.54	34483.32
Sex	139519.2	13337.35	10.46	0.000	113209.1	165829.4
w1Age	-2423.12	872.6658	-2.78	0.006	-4144.629	-701.6099
Race	-65570.22	13647.66	-4.80	0.000	-92492.47	-38647.96
PovStat	-1338.163	14887.36	-0.09	0.928	-30705.88	28029.56
TIME_V1SCAN	-28.92568	10.79869	-2.68	0.008	-50.228	-7.623369
w1BMI	958.4141	1035.276	0.93	0.356	-1083.844	3000.673
w1dxDiabetes	-4806.637	13796.36	-0.35	0.728	-32057.79	22444.51
w1Glucose	107.1292	333.5364	0.32	0.748	-551.0345	765.2929
_cons	1163159	70184.82	16.57	0.000	1024698	1301619

```
168 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        200
                                              Average RVI       =     0.0019
                                              Largest FMI       =     0.0183
                                              Complete DF       =        190
DF adjustment:   Small sample                 DF:     min       =     182.01
                                                      avg       =     187.12
                                                      max       =     188.02
Model F test:       Equal FMI                 F(   9,  188.0)   =      20.47
Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-3257.601	8489.967	-0.38	0.702	-20005.45	13490.25
Sex	72603.64	7229.977	10.04	0.000	58341.32	86865.97
w1Age	-1939.901	472.6534	-4.10	0.000	-2872.293	-1007.509
Race	-47134.29	7398.573	-6.37	0.000	-61729.2	-32539.37
PovStat	-1730.149	8070.271	-0.21	0.830	-17650.06	14189.76
TIME_V1SCAN	-14.57227	5.851372	-2.49	0.014	-26.11506	-3.029473
w1BMI	627.2826	561.178	1.12	0.265	-479.7355	1734.301
w1dxDiabetes	-7186.094	7335.23	-0.98	0.329	-21659.11	7286.925
w1Glucose	150.3297	179.3413	0.84	0.403	-203.4719	504.1312
_cons	702634.9	37961.5	18.51	0.000	627747.9	777521.9

```
169 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        200
                                              Average RVI       =     0.0095
                                              Largest FMI       =     0.0914
                                              Complete DF       =        190
DF adjustment:   Small sample                 DF:     min       =     129.58
                                                      avg       =     179.85
                                                      max       =     188.00
Model F test:       Equal FMI                 F(   9,  187.8)   =      11.58
Within VCE type:          OLS                 Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4042.008	7605.541	0.53	0.596	-10961.27	19045.28
Sex	56498.37	6474.116	8.73	0.000	43727.09	69269.64
w1Age	-842.3502	423.921	-1.99	0.048	-1678.631	-6.068896
Race	-16780.3	6624.409	-2.53	0.012	-29848.04	-3712.561
PovStat	-2801.887	7226.597	-0.39	0.699	-17057.53	11453.75
TIME_V1SCAN	-13.55503	5.243709	-2.59	0.010	-23.89923	-3.210828
w1BMI	327.8557	502.5402	0.65	0.515	-663.4909	1319.202
w1dxDiabetes	118.6023	6812.24	0.02	0.986	-13359.01	13596.21
w1Glucose	9.416841	163.1225	0.06	0.954	-312.591	331.4247
_cons	451330.6	34130.3	13.22	0.000	383995.3	518665.8

```
170 .
171 .
172 . //ANALYSIS B//
173 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0030
Largest FMI = 0.0295
Complete DF = 189
DF adjustment: Small sample — DF: min = 175.09
avg = 185.55
max = 187.03
Model F test: Equal FMI — F(10, 187.0) = 15.22
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-36.13431	51.27246	-0.70	0.482	-137.2812	65.01262
Sex	-47.24696	58.2034	-0.81	0.418	-162.0665	67.57263
w1Age	-4.662612	2.858967	-1.63	0.105	-10.30263	.9774069
Race	-68.78467	48.09778	-1.43	0.154	-163.6686	26.09925
PovStat	-87.11455	48.75542	-1.79	0.076	-183.2958	9.066714
TIME_V1SCAN	.0076619	.0356973	0.21	0.830	-.0627595	.0780832
w1BMI	-1.191923	3.395397	-0.35	0.726	-7.890129	5.506284
w1dxDiabetes	8.642652	44.54811	0.19	0.846	-79.27773	96.56303
w1Glucose	.9074039	1.085934	0.84	0.404	-1.235117	3.049925
ICV_volM2	.0017163	.0002109	8.14	0.000	.0013003	.0021323
_cons	1736.708	348.2608	4.99	0.000	1049.678	2423.739

```
174 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_vol
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0003
Largest FMI = 0.0031
Complete DF = 189
DF adjustment: Small sample — DF: min = 186.41
avg = 186.94
max = 187.03
Model F test: Equal FMI — F(10, 187.0) = 19.08
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-34.45816	51.54688	-0.67	0.505	-136.1462	67.2299
Sex	-119.6331	58.52373	-2.04	0.042	-235.0846	-4.181606
w1Age	-2.907872	2.873	-1.01	0.313	-8.575527	2.759783
Race	-74.34566	48.36253	-1.54	0.126	-169.7518	21.06051
PovStat	-69.82219	49.02342	-1.42	0.156	-166.5321	26.88774
TIME_V1SCAN	.0383781	.0358846	1.07	0.286	-.0324125	.1091687
w1BMI	-.6458122	3.413821	-0.19	0.850	-7.380356	6.088731
w1dxDiabetes	20.07738	44.21054	0.45	0.650	-67.13993	107.2947
w1Glucose	1.224176	1.085943	1.13	0.261	-.9181137	3.366466
ICV_volM2	.0021047	.000212	9.93	0.000	.0016864	.002523
_cons	1400.864	349.9686	4.00	0.000	710.4696	2091.258

```
175 .
176 . //ANALYSIS C//
177 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM2
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 197
		Average RVI	= 0.0002
		Largest FMI	= 0.0021
		Complete DF	= 186
DF adjustment:	**Small sample**	DF: min	= 183.63
		avg	= 183.98
		max	= 184.03
Model F test:	**Equal FMI**	F(10, 184.0)	= 2.41
Within VCE type:	**OLS**	Prob > F	= 0.0103

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2.221285	.6401565	3.47	0.001	.9582953	3.484274
Sex	.6114094	.7098035	0.86	0.390	-.7889897	2.011808
w1Age	.0092569	.035607	0.26	0.795	-.0609934	.0795073
Race	1.110216	.588488	1.89	0.061	-.0508346	2.271267
PovStat	.8871295	.5975935	1.48	0.139	-.2918856	2.066144
TIME_V1SCAN	-.0005645	.0004333	-1.30	0.194	-.0014194	.0002904
w1BMI	.0588132	.0414287	1.42	0.157	-.022923	.1405495
w1dxDiabetes	-.1731604	.53778	-0.32	0.748	-1.234183	.8878617
w1Glucose	-.0068796	.0132074	-0.52	0.603	-.0329371	.0191779
ICV_volM2	1.84e-06	2.56e-06	0.72	0.473	-3.21e-06	6.90e-06
_cons	-5.119424	4.232315	-1.21	0.228	-13.46952	3.230678

```
178 .
179 . save, replace
    file finaldata_imputed.dta saved

180 .
181 .
182 . //Males//
183 .
184 . use finaldata_imputed,clear

185 .
186 .
187 . //ANALYSIS A//
188 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if Sex==2
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 91
		Average RVI	= 0.0102
		Largest FMI	= 0.0886
		Complete DF	= 82
DF adjustment:	**Small sample**	DF: min	= 65.16
		avg	= 77.83
		max	= 80.02
Model F test:	**Equal FMI**	F(8, 80.0)	= 3.48
Within VCE type:	**OLS**	Prob > F	= 0.0017

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-3646.356	24624.93	-0.15	0.883	-52651.4	45358.69
Sex	0	(omitted)				
w1Age	-2738.846	1535.822	-1.78	0.078	-5795.25	317.5572
Race	-84536.61	23855.13	-3.54	0.001	-132009.7	-37063.56
PovStat	23243.37	26558.17	0.88	0.384	-29608.98	76095.71
TIME_V1SCAN	-46.85972	19.23119	-2.44	0.017	-85.13167	-8.587777
w1BMI	1130.225	2323.684	0.49	0.628	-3494.298	5754.748
w1dxDiabetes	13096.91	23997.85	0.55	0.587	-34827.88	61021.71
w1Glucose	-211.2854	476.235	-0.44	0.659	-1159.763	737.1924
_cons	1524011	106528.7	14.31	0.000	1311994	1736029

189 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if Sex==2

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0032
Largest FMI = 0.0291
Complete DF = 82
DF adjustment: Small sample — DF: min = 76.73
avg = 79.55
max = 80.07
Model F test: Equal FMI — F(8, 80.1) = 5.93
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-11824.77	12974.96	-0.91	0.365	-37645.46	13995.92
Sex	0	(omitted)				
w1Age	-2335.754	809.0996	-2.89	0.005	-3945.901	-725.6073
Race	-61114.55	12569.12	-4.86	0.000	-86127.55	-36101.54
PovStat	8610.324	13994.54	0.62	0.540	-19239.44	36460.09
TIME_V1SCAN	-23.2462	10.12945	-2.29	0.024	-43.40438	-3.088026
w1BMI	985.2996	1223.45	0.81	0.423	-1449.486	3420.085
w1dxDiabetes	-307.6769	12282.48	-0.03	0.980	-24766.61	24151.26
w1Glucose	1.855951	248.2169	0.01	0.994	-492.1889	495.9008
_cons	910660.6	56048.15	16.25	0.000	799118.6	1022203

190 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if Sex==2

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0170
Largest FMI = 0.1407
Complete DF = 82
DF adjustment: Small sample — DF: min = 53.77
avg = 76.05
max = 79.97
Model F test: Equal FMI — F(8, 79.9) = 1.96
Within VCE type: OLS — Prob > F = 0.0626

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1366.131	11966.66	0.11	0.909	-22448.47	25180.73
Sex	0	(omitted)				
w1Age	-825.9001	746.4289	-1.11	0.272	-2311.373	659.5732
Race	-23365.22	11594.12	-2.02	0.047	-46438.53	-291.9139
PovStat	6645.247	12904.66	0.51	0.608	-19035.98	32326.47
TIME_V1SCAN	-22.15432	9.347784	-2.37	0.020	-40.75769	-3.550944
w1BMI	85.80614	1129.705	0.08	0.940	-2162.562	2334.174
w1dxDiabetes	10456.45	11969.18	0.87	0.386	-13542.71	34455.61
w1Glucose	-126.7751	233.8136	-0.54	0.589	-592.8422	339.292
_cons	599977.8	51830.68	11.58	0.000	496816.2	703139.3

```
191 .
192 . //ANALYSIS B//
193 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0071
Largest FMI = 0.0610
Complete DF = 81
DF adjustment: Small sample — DF: min = 70.17
avg = 77.84
max = 79.05
Model F test: Equal FMI — F(9, 79.0) = 8.85
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-115.5648	74.5416	-1.55	0.125	-263.9354	32.80587
Sex	0	(omitted)				
w1Age	-2.961747	4.65084	-0.64	0.526	-12.21903	6.29554
Race	-.4763758	79.25144	-0.01	0.995	-158.2208	157.268
PovStat	-196.376	80.50375	-2.44	0.017	-356.614	-36.13809
TIME_V1SCAN	.0343183	.0594639	0.58	0.565	-.0840413	.1526779
w1BMI	-.5340351	7.029679	-0.08	0.940	-14.52643	13.45836
w1dxDiabetes	50.66607	72.06509	0.70	0.484	-93.05694	194.3891
w1Glucose	.7454559	1.439738	0.52	0.606	-2.121694	3.612606
ICV_volM2	.0021469	.0003066	7.00	0.000	.0015365	.0027572
_cons	1073.518	613.7319	1.75	0.084	-148.1545	2295.19

```
194 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_vol
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0013
Largest FMI = 0.0103
Complete DF = 81
DF adjustment: Small sample — DF: min = 78.18
avg = 78.92
max = 79.07
Model F test: Equal FMI — F(9, 79.1) = 10.84
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-83.8593	73.74013	-1.14	0.259	-230.634	62.91536
Sex	0	(omitted)				
w1Age	-3.46717	4.599647	-0.75	0.453	-12.62244	5.688099
Race	2.573111	78.41255	0.03	0.974	-153.5016	158.6478
PovStat	-167.3326	79.63442	-2.10	0.039	-325.8392	-8.82599
TIME_V1SCAN	.0769895	.0588181	1.31	0.194	-.0400836	.1940627
w1BMI	1.948682	6.949518	0.28	0.780	-11.8838	15.78117
w1dxDiabetes	49.12316	69.54936	0.71	0.482	-89.33391	187.5802
w1Glucose	1.413042	1.411264	1.00	0.320	-1.396159	4.222242
ICV_volM2	.0024416	.0003032	8.05	0.000	.001838	.0030452
_cons	636.7072	606.2627	1.05	0.297	-570.031	1843.445

```
195 .
196 . //ANALYSIS C//
197 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM2
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 90
Average RVI = 0.0014
Largest FMI = 0.0136
Complete DF = 80
DF adjustment: **Small sample** — DF: min = 76.85
avg = 77.90
max = 78.07
Model F test: **Equal FMI** — F(9, 78.1) = 0.98
Within VCE type: **OLS** — Prob > F = 0.4652

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.622111	.7048669	2.30	0.024	.218849	3.025373
Sex	0	(omitted)				
w1Age	-.0542323	.0432424	-1.25	0.214	-.1403202	.0318556
Race	1.300022	.7117589	1.83	0.072	-.1169617	2.717006
PovStat	.2049783	.7255443	0.28	0.778	-1.239453	1.64941
TIME_V1SCAN	-.0006038	.0005345	-1.13	0.262	-.001668	.0004603
w1BMI	-.0124439	.0631145	-0.20	0.844	-.1380948	.113207
w1dxDiabetes	-.1140037	.6353317	-0.18	0.858	-1.379151	1.151143
w1Glucose	-.005551	.0129541	-0.43	0.669	-.0313421	.0202401
ICV_volM2	4.51e-07	2.75e-06	0.16	0.870	-5.03e-06	5.93e-06
_cons	4.84217	5.512923	0.88	0.382	-6.133165	15.81751

```
198 .
199 . save, replace
file finaldata_imputed.dta saved

200 .
201 .
```

```
202 .
203 . //Females//
204 .
205 . use finaldata_imputed,clear

206 .
207 .
208 . //ANALYSIS A//
209 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        100
DF adjustment:   Small sample                   DF:     min       =      98.06
                                                        avg       =      98.06
                                                        max       =      98.06
Model F test:       Equal FMI                   F(   8,   98.1)   =       3.36
Within VCE type:          OLS                   Prob > F          =     0.0019
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	18346.8	20216.63	0.91	0.366	-21772.14	58465.74
Sex	0	(omitted)				
w1Age	-2429.86	1013.602	-2.40	0.018	-4441.305	-418.4144
Race	-46352.83	15432.21	-3.00	0.003	-76977.32	-15728.33
PovStat	-20052.98	16788.06	-1.19	0.235	-53368.09	13262.14
TIME_V1SCAN	-10.47535	12.73539	-0.82	0.413	-35.74814	14.79743
w1BMI	1570.854	1095.632	1.43	0.155	-603.3764	3745.084
w1dxDiabetes	-21575.41	16831.17	-1.28	0.203	-54976.06	11825.25
w1Glucose	434.5454	523.5963	0.83	0.409	-604.5067	1473.598
_cons	1190672	79954.61	14.89	0.000	1032006	1349338

```
210 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose  if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        100
DF adjustment:   Small sample                   DF:     min       =      98.06
                                                        avg       =      98.06
                                                        max       =      98.06
Model F test:       Equal FMI                   F(   8,   98.1)   =       5.27
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10753.81	11289.26	0.95	0.343	-11649.19	33156.8
Sex	0	(omitted)				
w1Age	-1868.294	566.01	-3.30	0.001	-2991.514	-745.0735
Race	-33830.67	8617.571	-3.93	0.000	-50931.83	-16729.5
PovStat	-9274.017	9374.697	-0.99	0.325	-27877.66	9329.626
TIME_V1SCAN	-5.101314	7.111628	-0.72	0.475	-19.214	9.011375
w1BMI	1079.535	611.8168	1.76	0.081	-134.587	2293.656
w1dxDiabetes	-14827.67	9398.767	-1.58	0.118	-33479.08	3823.737
w1Glucose	296.5359	292.3838	1.01	0.313	-283.6859	876.7577
_cons	691381.9	44647.81	15.49	0.000	602780.5	779983.4

```
211 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        100
DF adjustment:   Small sample                   DF:     min       =      98.06
                                                        avg       =      98.06
                                                        max       =      98.06
Model F test:       Equal FMI                   F(   8,   98.1)   =       1.62
Within VCE type:          OLS                   Prob > F          =     0.1278

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |    10755.8   9881.847     1.09   0.279    -8854.253    30365.86
         Sex |          0  (omitted)
       w1Age |   -914.942   495.4466    -1.85   0.068    -1898.132    68.24828
        Race |  -9611.196   7543.234    -1.27   0.206    -24580.39    5357.995
     PovStat |  -10041.49    8205.97    -1.22   0.224    -26325.85    6242.867
 TIME_V1SCAN |  -4.471756   6.225034    -0.72   0.474    -16.82504     7.88153
       w1BMI |   673.0638   535.5427     1.26   0.212    -389.6954    1735.823
w1dxDiabetes |  -8266.666   8227.039    -1.00   0.317    -24592.84    8059.504
   w1Glucose |   112.6969   255.9328     0.44   0.661    -395.1897    620.5835
       _cons |   461835.6   39081.65    11.82   0.000     384279.9    539391.2
------------------------------------------------------------------------------

212 .
213 .
214 . //ANALYSIS B//
215 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         99
DF adjustment:   Small sample                   DF:     min       =      97.06
                                                        avg       =      97.06
                                                        max       =      97.06
Model F test:       Equal FMI                   F(   9,   97.1)   =       4.58
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   89.85103   70.62444     1.27   0.206    -50.31787    230.0199
         Sex |          0  (omitted)
       w1Age |  -7.844106   3.543916    -2.21   0.029    -14.87774   -.8104681
        Race |  -117.9373   56.57008    -2.08   0.040    -230.2124   -5.662194
     PovStat |  -2.051591   58.85131    -0.03   0.972    -118.8543    114.7511
 TIME_V1SCAN |  -.0124664   .0444504    -0.28   0.780    -.1006874    .0757547
       w1BMI |   .2577812   3.840686     0.07   0.947    -7.364859    7.880421
w1dxDiabetes |   -81.3477   59.41193    -1.37   0.174     -199.263    36.56763
   w1Glucose |   2.148557    1.84353     1.17   0.247    -1.510312    5.807426
   ICV_volM2 |   .0010084   .0002959     3.41   0.001     .0004212    .0015957
       _cons |   2336.678   470.8148     4.96   0.000     1402.248    3271.108
------------------------------------------------------------------------------
```

```
216 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_vol

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         99
DF adjustment:   Small sample                   DF:     min       =      97.06
                                                        avg       =      97.06
                                                        max       =      97.06
Model F test:       Equal FMI                   F(   9,   97.1)   =       6.09
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   38.63543   75.51826     0.51   0.610    -111.2463    188.5171
         Sex |          0  (omitted)
       w1Age |  -3.629614   3.789486    -0.96   0.341    -11.15064    3.891409
        Race |  -131.4894   60.49002    -2.17   0.032    -251.5444   -11.43438
     PovStat |   14.98405   62.92933     0.24   0.812    -109.9123    139.8804
 TIME_V1SCAN |   .0090052   .0475305     0.19   0.850    -.0853289    .1033394
       w1BMI |  -.5984013   4.106821    -0.15   0.884    -8.749241    7.552439
w1dxDiabetes |  -35.62181    63.5288    -0.56   0.576    -161.7079     90.4643
   w1Glucose |   1.270629   1.971275     0.64   0.521    -2.641776    5.183034
   ICV_volM2 |   .0016541   .0003164     5.23   0.000     .0010262    .0022821
       _cons |   1770.282   503.4392     3.52   0.001     771.1019    2769.462
------------------------------------------------------------------------------

217 .
218 . //ANALYSIS C//
219 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        107
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         97
DF adjustment:   Small sample                   DF:     min       =      95.06
                                                        avg       =      95.06
                                                        max       =      95.06
Model F test:       Equal FMI                   F(   9,   95.1)   =       2.66
Within VCE type:          OLS                   Prob > F          =     0.0086

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   3.439868   1.098624     3.13   0.002     1.258843    5.620894
         Sex |          0  (omitted)
       w1Age |   .0550855   .0553469     1.00   0.322     -.054791    .1649621
        Race |   1.024351   .8882341     1.15   0.252     -.739002    2.787704
     PovStat |    1.46897   .9253473     1.59   0.116    -.3680619    3.306002
 TIME_V1SCAN |  -.0003348   .0006884    -0.49   0.628    -.0017013    .0010318
       w1BMI |   .1399283   .0595976     2.35   0.021     .0216131    .2582434
w1dxDiabetes |   .1603035   .9266159     0.17   0.863    -1.679247    1.999854
   w1Glucose |  -.0222248   .0286843    -0.77   0.440    -.0791698    .0347202
   ICV_volM2 |   4.20e-06   4.59e-06     0.91   0.363    -4.92e-06    .0000133
       _cons |  -14.28658   7.328744    -1.95   0.054    -28.83586    .2626946
------------------------------------------------------------------------------
```

```
220 .
221 . save, replace
    file finaldata_imputed.dta saved

222 .
223 .
224 . //INTERACTION BY Sex//
225 .
226 .
227 .
228 . //ANALYSIS A//
229 . mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        200
                                                  Average RVI       =     0.0054
                                                  Largest FMI       =     0.0584
                                                  Complete DF       =        189
    DF adjustment:   Small sample                 DF:     min       =     154.88
                                                          avg       =     183.05
                                                          max       =     187.03
    Model F test:       Equal FMI                 F(  10,  187.0)   =      16.23
    Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   16617.52   21626.68     0.77   0.443    -26046.16    59281.21
             |
         Sex |
         Men |      185485   54206.85     3.42   0.001     78549.57    292420.4
             |
Sex#c.LnNFLw1|
         Men |  -22453.44   25664.26    -0.87   0.383    -73082.07    28175.18
             |
         Sex |           0  (omitted)
       w1Age |  -2556.635   886.4764    -2.88   0.004     -4305.45   -807.8205
        Race |  -65664.67   13656.52    -4.81   0.000    -92605.34   -38723.99
     PovStat |  -932.8436   14903.77    -0.06   0.950    -30333.96    28468.27
  TIME_V1SCAN |  -28.03703   10.85319    -2.58   0.011    -49.44761   -6.62644
       w1BMI |   1217.102   1077.276     1.13   0.260    -908.0812    3342.286
 w1dxDiabetes |  -4689.898   13813.57    -0.34   0.735    -31977.21    22597.42
    w1Glucose |   101.0927   333.8996     0.30   0.762    -557.8178    760.0032
        _cons |    1273607   74395.09    17.12   0.000      1126837     1420376
------------------------------------------------------------------------------

230 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        200
                                                  Average RVI       =     0.0019
                                                  Largest FMI       =     0.0197
                                                  Complete DF       =        189
    DF adjustment:   Small sample                 DF:     min       =     180.39
                                                          avg       =     186.14
                                                          max       =     187.02
    Model F test:       Equal FMI                 F(  10,  187.0)   =      18.90
    Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10389.88	11656.95	0.89	0.374	-12606.14	33385.89
Sex						
Men	120727	29223.22	4.13	0.000	63077.5	178376.5
Sex#c.LnNFLw1						
Men	-23507.38	13835.78	-1.70	0.091	-50801.63	3786.868
Sex	0	(omitted)				
w1Age	-2079.68	477.4806	-4.36	0.000	-3021.628	-1137.733
Race	-47233.16	7362.345	-6.42	0.000	-61757.11	-32709.21
PovStat	-1305.793	8034.403	-0.16	0.871	-17155.5	14543.91
TIME_V1SCAN	-13.64192	5.848288	-2.33	0.021	-25.17903	-2.104814
w1BMI	898.1146	580.7267	1.55	0.124	-247.5061	2043.735
w1dxDiabetes	-7064.116	7304.777	-0.97	0.335	-21477.92	7349.684
w1Glucose	144.0136	178.5555	0.81	0.421	-208.2526	496.2798
_cons	744802	40036.88	18.60	0.000	665818.4	823785.7

231 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 200
		Average RVI	= 0.0087
		Largest FMI	= 0.0921
		Complete DF	= 189
DF adjustment:	Small sample	DF: min	= 128.46
		avg	= 179.67
		max	= 187.03
Model F test:	Equal FMI	F(10, 186.9)	= 10.42
Within VCE type:	OLS	Prob > F	= 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7802.044	10513.11	0.74	0.459	-12937.57	28541.66
Sex						
Men	69756.79	26346.18	2.65	0.009	17782.91	121730.7
Sex#c.LnNFLw1						
Men	-6476.506	12473.73	-0.52	0.604	-31083.8	18130.79
Sex	0	(omitted)				
w1Age	-880.8637	431.1913	-2.04	0.042	-1731.517	-30.21057
Race	-16807.55	6637.391	-2.53	0.012	-29901.35	-3713.749
PovStat	-2684.983	7244.024	-0.37	0.711	-16975.49	11605.53
TIME_V1SCAN	-13.29869	5.277099	-2.52	0.013	-23.70912	-2.888253
w1BMI	402.4714	523.6026	0.77	0.443	-630.4594	1435.402
w1dxDiabetes	152.4311	6828.579	0.02	0.982	-13358.61	13663.48
w1Glucose	7.673202	163.503	0.05	0.963	-315.1008	330.4472
_cons	499443.7	36210.21	13.79	0.000	428004.6	570882.8

```
232 .
233 .
234 . //ANALYSIS B//
235 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose I

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0030
                                                Largest FMI       =     0.0329
                                                Complete DF       =        188
DF adjustment:   Small sample                   DF:     min       =     172.17
                                                        avg       =     184.47
                                                        max       =     186.03
Model F test:       Equal FMI                   F(  11,  186.0)   =      14.22
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |   45.14528   70.49135     0.64   0.523    -93.92018    184.2107
              |
          Sex |
          Men |   243.1377   183.1269     1.33   0.186    -118.1347    604.4101
              |
Sex#c.LnNFLw1 |
          Men |  -139.9417   83.72127    -1.67   0.096    -305.1069    25.22343
              |
          Sex |          0  (omitted)
        w1Age |  -5.510906   2.890655    -1.91   0.058    -11.21364    .1918302
         Race |  -71.18099   47.89275    -1.49   0.139    -165.6637    23.30176
      PovStat |  -84.73452   48.54666    -1.75   0.083    -180.5073    11.03828
  TIME_V1SCAN |   .0126903   .0356578     0.36   0.722    -.0576556    .0830363
        w1BMI |   .4428805   3.518062     0.13   0.900    -6.497553    7.383314
 w1dxDiabetes |   9.336284    44.4153     0.21   0.834    -78.33234    97.00491
    w1Glucose |    .871753   1.081794     0.81   0.421    -1.262719    3.006225
     ICV_volM2 |   .0016949   .0002103     8.06   0.000     .0012802    .0021097
        _cons |   1538.751   380.0707     4.05   0.000      788.942    2288.559
------------------------------------------------------------------------------

236 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0004
                                                Largest FMI       =     0.0040
                                                Complete DF       =        188
DF adjustment:   Small sample                   DF:     min       =     185.19
                                                        avg       =     185.92
                                                        max       =     186.03
Model F test:       Equal FMI                   F(  11,  186.0)   =      17.54
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |   27.07194   71.09981     0.38   0.704    -113.1937    167.3375
              |
          Sex |
          Men |    100.193   184.7309     0.54   0.588    -264.2438    464.6299
              |
Sex#c.LnNFLw1 |
          Men |  -105.9383   84.45426    -1.25   0.211    -272.5495    60.67293
              |
          Sex |          0  (omitted)
        w1Age |  -3.550052   2.914036    -1.22   0.225    -9.298862    2.198759
```

Race	-76.15973	48.311	-1.58	0.117	-171.4676	19.14813
PovStat	-68.02049	48.9703	-1.39	0.166	-164.629	28.58803
TIME_V1SCAN	.0421848	.0359591	1.17	0.242	-.0287552	.1131248
w1BMI	.5917589	3.54856	0.17	0.868	-6.408833	7.592351
w1dxDiabetes	20.603	44.16696	0.47	0.641	-66.53207	107.7381
w1Glucose	1.197179	1.08472	1.10	0.271	-.9427782	3.337137
ICV_volM2	.0020885	.0002121	9.85	0.000	.0016701	.002507
_cons	1167.141	383.209	3.05	0.003	411.1459	1923.136

```
237 .
238 . //ANALYSIS C//
239 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose IC
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 197
Average RVI = 0.0002
Largest FMI = 0.0020
Complete DF = 185
DF adjustment: Small sample — DF: min = 182.65
avg = 182.98
max = 183.03
Model F test: Equal FMI — F(11, 183.0) = 2.81
Within VCE type: OLS — Prob > F = 0.0021

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3.650784	.8565927	4.26	0.000	1.960719	5.34085
Sex						
Men	5.830625	2.225884	2.62	0.010	1.438934	10.22232
Sex#c.LnNFLw1						
Men	-2.525059	1.022206	-2.47	0.014	-4.541881	-.508237
Sex	0	(omitted)				
w1Age	-.002878	.0354703	-0.08	0.935	-.0728612	.0671053
Race	1.068465	.5808246	1.84	0.067	-.0775082	2.214437
PovStat	.9607072	.5903142	1.63	0.105	-.2039885	2.125403
TIME_V1SCAN	-.0004784	.0004289	-1.12	0.266	-.0013246	.0003678
w1BMI	.0868567	.0424191	2.05	0.042	.0031633	.1705501
w1dxDiabetes	-.1590088	.5305589	-0.30	0.765	-1.205821	.8878036
w1Glucose	-.0072638	.0130306	-0.56	0.578	-.0329734	.0184458
ICV_volM2	1.45e-06	2.53e-06	0.57	0.569	-3.55e-06	6.44e-06
_cons	-7.297379	4.592383	-1.59	0.114	-16.3582	1.76344

```
240 .
241 . save, replace
    file finaldata_imputed.dta saved

242 .
```

```
. 
. 
. 
. ***********MODEL 4: MODEL 2+liver/kidney disease******
. 
. //Overall//
. 
. use finaldata_imputed,clear

. 
. 
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0277
                                                Largest FMI       =     0.2869
                                                Complete DF       =        187
DF adjustment:   Small sample                   DF:     min       =      41.10
                                                        avg       =     170.29
                                                        max       =     184.94
Model F test:       Equal FMI                   F(  12,  184.2)   =      14.32
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   2365.602   15260.25     0.16   0.877    -27741.22    32472.43
         Sex |   159206.2   16380.49     9.72   0.000     126856.6    191555.8
       w1Age |  -1993.358   883.0172    -2.26   0.025    -3735.464   -251.2517
        Race |   -61259.5   14290.93    -4.29   0.000    -89456.15   -33062.84
     PovStat |   457.5914   14755.48     0.03   0.975    -28653.52     29568.7
 TIME_V1SCAN |  -30.51276   10.61191    -2.88   0.005    -51.44966   -9.575869
       w1BMI |    2051.08   1058.531     1.94   0.054    -37.26856    4139.428
w1Creatinine |   932.2128   38487.91     0.02   0.981    -76789.75    78654.18
 w1USpecGrav |  -125647.2    1056948    -0.12   0.906     -2210890     1959595
       w1BUN |   518.3901   1891.351     0.27   0.784    -3215.156    4251.936
       w1ALP |   245.5551   310.0559     0.79   0.429    -366.1602    857.2704
  w1UricAcid |  -15134.1    5447.991    -2.78   0.006    -25882.76   -4385.452
       _cons |    1273748    1068571     1.19   0.235    -834426.4    3381923
------------------------------------------------------------------------------

. mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0207
                                                Largest FMI       =     0.2203
                                                Complete DF       =        187
DF adjustment:   Small sample                   DF:     min       =      58.67
                                                        avg       =     172.68
                                                        max       =     184.75
Model F test:       Equal FMI                   F(  12,  184.5)   =      15.78
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-4133.553	8342.878	-0.50	0.621	-20593.28	12326.18
Sex	80145.46	8904.02	9.00	0.000	62566.91	97724.02
w1Age	-1863.661	483.1657	-3.86	0.000	-2816.923	-910.3998
Race	-44812.79	7792.995	-5.75	0.000	-60188.02	-29437.56
PovStat	-730.2637	8059.111	-0.09	0.928	-16629.98	15169.45
TIME_V1SCAN	-15.08895	5.799801	-2.60	0.010	-26.53179	-3.64612
w1BMI	1129.446	579.0366	1.95	0.053	-12.93899	2271.83
w1Creatinine	9203.449	20246.56	0.45	0.651	-31314.62	49721.52
w1USpecGrav	-229338.6	578055.9	-0.40	0.692	-1369796	911118.8
w1BUN	654.5124	1027.067	0.64	0.525	-1372.34	2681.365
w1ALP	185.507	169.5418	1.09	0.275	-148.9896	520.0036
w1UricAcid	-7186.731	2975.839	-2.42	0.017	-13057.89	-1315.571
_cons	926128	584540.1	1.58	0.115	-227127.6	2079384

256 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0445
Largest FMI = 0.4037
Complete DF = 187
DF adjustment: **Small sample** — DF: min = 24.14
avg = 164.10
max = 184.92
Model F test: **Equal FMI** — F(12, 183.0) = 9.36
Within VCE type: **OLS** — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3872.549	7405.028	0.52	0.602	-10736.76	18481.86
Sex	67338.32	8097.901	8.32	0.000	51319.68	83356.95
w1Age	-614.7976	429.3068	-1.43	0.154	-1461.807	232.2116
Race	-14888.75	6964.318	-2.14	0.034	-28631.39	-1146.106
PovStat	-2080.677	7162.85	-0.29	0.772	-16212.36	12051
TIME_V1SCAN	-14.27512	5.153134	-2.77	0.006	-24.4422	-4.108038
w1BMI	856.9631	513.7077	1.67	0.097	-156.5184	1870.445
w1Creatinine	-7377.307	20119.93	-0.37	0.717	-48890.3	34135.69
w1USpecGrav	-73890.43	514497.2	-0.14	0.886	-1088997	941215.9
w1BUN	42.32328	934.6451	0.05	0.964	-1805.126	1889.772
w1ALP	104.5701	150.3746	0.70	0.488	-192.104	401.2442
w1UricAcid	-6707.748	2645.623	-2.54	0.012	-11927.52	-1487.972
_cons	519146	520385.5	1.00	0.320	-507589.6	1545882

257 .
258 .
259 . //ANALYSIS B//
260 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0333
Largest FMI = 0.3094
Complete DF = 186
DF: min = 36.74
avg = 166.80
DF adjustment: **Small sample** — max = 183.97
F(12, .) = .
Within VCE type: **OLS** — Prob > F = .

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-37.25832	50.88558	-0.73	0.465	-137.6533	63.1367
Sex	-43.57278	70.24163	-0.62	0.536	-182.245	95.09944
w1Age	-5.060419	2.949241	-1.72	0.088	-10.87934	.7584995
Race	-47.71295	51.06917	-0.93	0.351	-148.4815	53.05563
PovStat	-79.51262	49.20706	-1.62	0.108	-176.5964	17.57113
TIME_V1SCAN	.0020168	.0357846	0.06	0.955	-.0685856	.0726193
w1BMI	.0910275	3.562295	0.03	0.980	-6.937188	7.119243
w1Creatinine	-19.32324	130.2101	-0.15	0.883	-283.2165	244.57
w1USpecGrav	-2302.201	3598.888	-0.64	0.523	-9408.514	4804.112
w1BUN	10.13172	6.37474	1.59	0.114	-2.460543	22.72398
w1ALP	-.6707219	1.034622	-0.65	0.518	-2.712003	1.370559
w1UricAcid	-4.39417	18.4413	-0.24	0.812	-40.77925	31.99091
ICV_volM2	.0017535	.0002162	8.11	0.000	.0013269	.00218
_cons	4028.771	3647.103	1.10	0.271	-3172.847	11230.39

261 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0144
Largest FMI = 0.1379
Complete DF = 186
DF: min = 95.90
avg = 174.17
DF adjustment: **Small sample** max = 183.99
F(12, .) = .
Within VCE type: **OLS** Prob > F = .

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-36.25761	51.24757	-0.71	0.480	-137.3664	64.8512
Sex	-119.2986	69.98962	-1.70	0.090	-257.4069	18.80963
w1Age	-3.263323	2.965383	-1.10	0.273	-9.113898	2.587253
Race	-49.09547	51.25277	-0.96	0.339	-150.2175	52.02658
PovStat	-62.7007	49.54821	-1.27	0.207	-160.4569	35.05548
TIME_V1SCAN	.029086	.0360391	0.81	0.421	-.0420182	.1001902
w1BMI	1.027243	3.588663	0.29	0.775	-6.052998	8.107483
w1Creatinine	11.48583	119.2375	0.10	0.923	-225.2017	248.1734
w1USpecGrav	149.8604	3617.669	0.04	0.967	-6992.603	7292.324
w1BUN	12.10546	6.314764	1.92	0.057	-.3564548	24.56737
w1ALP	-.0762213	1.041921	-0.07	0.942	-2.131892	1.979449
w1UricAcid	-7.78575	18.55129	-0.42	0.675	-44.38693	28.81543
ICV_volM2	.0021403	.0002178	9.83	0.000	.0017106	.0025699
_cons	1145.604	3665.283	0.31	0.755	-6090.861	8382.068

262 .
263 . //ANALYSIS C//

```
. 
. mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w
```

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **197**
Average RVI = **0.0012**
Largest FMI = **0.0122**
Complete DF = **183**
DF adjustment: **Small sample** — DF: min = **177.77**
avg = **180.68**
max = **181.02**
F(12, .) = **.**
Within VCE type: **OLS** — Prob > F = **.**

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**2.072196**	**.62909**	**3.29**	**0.001**	**.8309037**	**3.313489**
Sex	**.1699732**	**.8703758**	**0.20**	**0.845**	**-1.547427**	**1.887373**
w1Age	**.0048196**	**.0371251**	**0.13**	**0.897**	**-.0684342**	**.0780735**
Race	**1.238204**	**.6245621**	**1.98**	**0.049**	**.0058438**	**2.470564**
PovStat	**.815802**	**.6055982**	**1.35**	**0.180**	**-.3791381**	**2.010742**
TIME_V1SCAN	**-.0005111**	**.0004357**	**-1.17**	**0.242**	**-.0013707**	**.0003486**
w1BMI	**.0351251**	**.0441332**	**0.80**	**0.427**	**-.0519567**	**.1222069**
w1Creatinine	**.2674628**	**1.377196**	**0.19**	**0.846**	**-2.450293**	**2.985219**
w1USpecGrav	**26.0112**	**43.42633**	**0.60**	**0.550**	**-59.67694**	**111.6993**
w1BUN	**.0457958**	**.0776599**	**0.59**	**0.556**	**-.1074404**	**.1990321**
w1ALP	**-.0041418**	**.0126438**	**-0.33**	**0.744**	**-.02909**	**.0208065**
w1UricAcid	**.0548518**	**.2341912**	**0.23**	**0.815**	**-.4072445**	**.5169482**
ICV_volM2	**2.19e-06**	**2.67e-06**	**0.82**	**0.411**	**-3.06e-06**	**7.45e-06**
_cons	**-32.05637**	**43.9169**	**-0.73**	**0.466**	**-118.7125**	**54.59981**

```
. 
. save, replace
file finaldata_imputed.dta saved

. 
. //Males//
. 
. use finaldata_imputed,clear

. 
. 
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP
```

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **91**
Average RVI = **0.0721**
Largest FMI = **0.5149**
Complete DF = **79**
DF adjustment: **Small sample** — DF: min = **13.03**
avg = **68.45**
max = **76.85**
Model F test: **Equal FMI** — F(**11**, **75.8**) = **2.85**
Within VCE type: **OLS** — Prob > F = **0.0036**

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-14231.17	24837.61	-0.57	0.568	-63702.19	35239.85
Sex	0	(omitted)				
w1Age	-2319.775	1614.38	-1.44	0.155	-5536.594	897.0442
Race	-87443.43	26029.34	-3.36	0.001	-139351.6	-35535.26
PovStat	22199.67	26435.2	0.84	0.404	-30447.89	74847.22
TIME_V1SCAN	-49.5576	18.37356	-2.70	0.009	-86.14871	-12.96649
w1BMI	2970.176	2254.945	1.32	0.192	-1520.519	7460.87
w1Creatinine	15460.17	83728.44	0.18	0.856	-165379.2	196299.6
w1USpecGrav	-1615978	1756038	-0.92	0.360	-5112958	1881002
w1BUN	-229.0857	3348.258	-0.07	0.946	-6943.38	6485.208
w1ALP	473.7893	586.4248	0.81	0.422	-693.968	1641.547
w1UricAcid	-15951.73	10344.04	-1.54	0.127	-36554.75	4651.288
_cons	3169225	1800337	1.76	0.082	-416104.5	6754555

276 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0708
Largest FMI = 0.5067
Complete DF = 79
DF adjustment: Small sample — DF: min = 13.38
avg = 68.45
max = 76.84
Model F test: Equal FMI — F(11, 75.9) = 4.62
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-18027.16	13041.22	-1.38	0.171	-44002.49	7948.183
Sex	0	(omitted)				
w1Age	-2135.823	850.1377	-2.51	0.014	-3830.172	-441.4742
Race	-62206.91	13610.89	-4.57	0.000	-89340.64	-35073.18
PovStat	9477.285	13862.21	0.68	0.496	-18128.87	37083.44
TIME_V1SCAN	-24.23219	9.649183	-2.51	0.014	-43.44887	-5.015523
w1BMI	1778.752	1184.536	1.50	0.137	-580.29	4137.793
w1Creatinine	21177.55	43639.48	0.49	0.635	-72825.38	115180.5
w1USpecGrav	-950328	924388.4	-1.03	0.307	-2791361	890704.9
w1BUN	20.9263	1756.02	0.01	0.991	-3499.815	3541.668
w1ALP	313.1519	307.9089	1.02	0.312	-299.994	926.2978
w1UricAcid	-8167.464	5429.311	-1.50	0.137	-18981.3	2646.368
_cons	1869331	948547.2	1.97	0.052	-19979.1	3758642

277 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0674
Largest FMI = 0.4981
Complete DF = 79
DF adjustment: Small sample — DF: min = 13.77
avg = 68.31
max = 76.78
Model F test: Equal FMI — F(11, 76.0) = 1.80
Within VCE type: OLS — Prob > F = 0.0695

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-1705.846	12060.9	-0.14	0.888	-25726.95	22315.26
Sex	0	(omitted)				
w1Age	-798.4947	783.6602	-1.02	0.312	-2359.844	762.855
Race	-25901.7	12647.34	-2.05	0.044	-51121.6	-681.8043
PovStat	5441.186	12844.5	0.42	0.673	-20138.73	31021.1
TIME_V1SCAN	-24.35372	8.92699	-2.73	0.008	-42.13134	-6.576113
w1BMI	1151.56	1097.79	1.05	0.298	-1034.788	3337.907
w1Creatinine	-1086.692	40174.01	-0.03	0.979	-87386.46	85213.07
w1USpecGrav	-1018001	858569.6	-1.19	0.239	-2728180	692178.3
w1BUN	-598.1406	1633.556	-0.37	0.716	-3875.823	2679.542
w1ALP	286.9515	285.2578	1.01	0.318	-281.0951	854.9981
w1UricAcid	-5418.711	5019.203	-1.08	0.284	-15414.86	4577.439
_cons	1637169	881115.6	1.86	0.067	-118104.3	3392442

```
278 .
279 .
280 . //ANALYSIS B//
281 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0552
Largest FMI = 0.4230
Complete DF = 78
DF adjustment: Small sample — DF: min = 17.66
avg = 68.20
max = 76.01
Model F test: Equal FMI — F(11, 75.3) = 6.46
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-113.1835	77.88823	-1.45	0.150	-268.3247	41.95773
Sex	0	(omitted)				
w1Age	-2.613489	5.050412	-0.52	0.606	-12.67679	7.449814
Race	12.69409	89.30205	0.14	0.887	-165.3162	190.7043
PovStat	-196.8001	82.98137	-2.37	0.020	-362.0868	-31.51341
TIME_V1SCAN	.0163922	.0593725	0.28	0.783	-.101863	.1346473
w1BMI	2.740481	7.152097	0.38	0.703	-11.50515	16.98611
w1Creatinine	80.08657	245.6618	0.33	0.748	-436.7331	596.9062
w1USpecGrav	204.03	5679.544	0.04	0.971	-11128.84	11536.9
w1BUN	5.625648	10.41553	0.54	0.591	-15.22915	26.48045
w1ALP	.1584765	1.843147	0.09	0.932	-3.512462	3.829415
w1UricAcid	-5.9897	32.97151	-0.18	0.856	-71.67425	59.69485
ICV_volM2	.0021849	.0003238	6.75	0.000	.00154	.0028298
_cons	677.5798	5900.378	0.11	0.909	-11096.85	12452.01

```
282 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0419
Largest FMI = 0.3425
Complete DF = 78
DF adjustment: **Small sample** — DF: min = 23.56
avg = 69.35
max = 76.04
Model F test: **Equal FMI** — F(11, 75.6) = 8.52
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-99.69831	75.72629	-1.32	0.192	-250.5297	51.13304
Sex	0	(omitted)				
w1Age	-2.225226	4.901707	-0.45	0.651	-11.99097	7.540517
Race	44.57415	86.52544	0.52	0.608	-127.8543	217.0026
PovStat	-169.862	80.67227	-2.11	0.039	-330.5449	-9.179087
TIME_V1SCAN	.0565981	.0577409	0.98	0.330	-.0584059	.171602
w1BMI	6.953234	6.951025	1.00	0.320	-6.891382	20.79785
w1Creatinine	86.13361	226.5009	0.38	0.707	-381.8049	554.0722
w1USpecGrav	2484.588	5523.605	0.45	0.654	-8536.778	13505.95
w1BUN	15.11694	9.980735	1.51	0.135	-4.825527	35.0594
w1ALP	.8772586	1.792786	0.49	0.626	-2.693355	4.447872
w1UricAcid	-27.75836	32.04095	-0.87	0.389	-91.58575	36.06903
ICV_volM2	.0024713	.000315	7.85	0.000	.001844	.0030987
_cons	-2155.293	5735.379	-0.38	0.708	-13599.51	9288.929

```
283 .
284 . //ANALYSIS C//
285 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 90
Average RVI = 0.0025
Largest FMI = 0.0288
Complete DF = 77
DF adjustment: **Small sample** — DF: min = 72.07
avg = 74.77
max = 75.07
Model F test: **Equal FMI** — F(11, 75.1) = 1.06
Within VCE type: **OLS** — Prob > F = 0.4026

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.84598	.7067401	2.61	0.011	.4381034	3.253857
Sex	0	(omitted)				
w1Age	-.0568114	.0452456	-1.26	0.213	-.1469443	.0333214
Race	1.210252	.7740725	1.56	0.122	-.3317752	2.752279
PovStat	.2374418	.7289952	0.33	0.746	-1.214771	1.689655
TIME_V1SCAN	-.0004897	.000521	-0.94	0.350	-.0015275	.0005482
w1BMI	-.0607004	.0637239	-0.95	0.344	-.1876465	.0662458
w1Creatinine	.3039382	1.793865	0.17	0.866	-3.272009	3.879886
w1USpecGrav	11.50948	48.66262	0.24	0.814	-85.43189	108.4509
w1BUN	-.0534934	.0877434	-0.61	0.544	-.2283008	.121314
w1ALP	-.018709	.0162033	-1.15	0.252	-.0509871	.0135692
w1UricAcid	.2898958	.2962659	0.98	0.331	-.3002876	.8800792
ICV_volM2	1.46e-06	2.88e-06	0.51	0.614	-4.27e-06	7.18e-06
_cons	-8.045484	50.44909	-0.16	0.874	-108.5463	92.45536

```
286 .
287 . save, replace
    file finaldata_imputed.dta saved

288 .
289 .
290 .
291 . //Females//
292 .
293 . use finaldata_imputed,clear

294 .
295 .
296 . //ANALYSIS A//
297 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP
```

Multiple-imputation estimates		Imputations	= **5**
Linear regression		Number of obs	= **109**
		Average RVI	= **0.0221**
		Largest FMI	= **0.2257**
		Complete DF	= **97**
DF adjustment: **Small sample**		DF: min	= **41.95**
		avg	= **90.34**
		max	= **95.05**
Model F test: **Equal FMI**		F(**11**, **94.8**)	= **3.05**
Within VCE type: **OLS**		Prob > F	= **0.0016**

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**27919.12**	**19434.94**	**1.44**	**0.154**	**-10664.37**	**66502.61**
Sex	**0**	(omitted)				
w1Age	**-1887.478**	**1075.882**	**-1.75**	**0.083**	**-4023.359**	**248.4037**
Race	**-43981.03**	**15853.24**	**-2.77**	**0.007**	**-75454.98**	**-12507.07**
PovStat	**-21273.57**	**16438.69**	**-1.29**	**0.199**	**-53908.43**	**11361.29**
TIME_V1SCAN	**-8.373036**	**12.26826**	**-0.68**	**0.497**	**-32.72908**	**15.98301**
w1BMI	**2750.463**	**1162.251**	**2.37**	**0.020**	**442.9878**	**5057.938**
w1Creatinine	**2539.821**	**41838.84**	**0.06**	**0.952**	**-81897.1**	**86976.74**
w1USpecGrav	**1306286**	**1263260**	**1.03**	**0.304**	**-1201618**	**3814190**
w1BUN	**-834.47**	**2374.079**	**-0.35**	**0.726**	**-5548.594**	**3879.654**
w1ALP	**-16.87646**	**355.4753**	**-0.05**	**0.962**	**-722.5914**	**688.8385**
w1UricAcid	**-14397.1**	**6218.409**	**-2.32**	**0.023**	**-26742.86**	**-2051.344**
_cons	**-107346.9**	**1277376**	**-0.08**	**0.933**	**-2643280**	**2428586**

```
298 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc
```

Multiple-imputation estimates		Imputations	= **5**
Linear regression		Number of obs	= **109**
		Average RVI	= **0.0379**
		Largest FMI	= **0.3433**
		Complete DF	= **97**
DF adjustment: **Small sample**		DF: min	= **25.68**
		avg	= **88.69**
		max	= **95.05**
Model F test: **Equal FMI**		F(**11**, **94.5**)	= **3.86**
Within VCE type: **OLS**		Prob > F	= **0.0001**

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	15874.21	11083.14	1.43	0.155	-6129.191	37877.61
Sex	0	(omitted)				
w1Age	-1824.7	613.1155	-2.98	0.004	-3041.88	-607.5192
Race	-32890.45	9044.906	-3.64	0.000	-50848.28	-14932.63
PovStat	-10343.82	9367.715	-1.10	0.272	-28941.04	8253.393
TIME_V1SCAN	-3.676299	6.99005	-0.53	0.600	-17.55349	10.2009
w1BMI	1652.42	663.3419	2.49	0.014	335.3888	2969.452
w1Creatinine	8361.061	25539.03	0.33	0.746	-44167.11	60889.23
w1USpecGrav	396407.2	719852.8	0.55	0.583	-1032688	1825503
w1BUN	52.69607	1362.754	0.04	0.969	-2654.269	2759.661
w1ALP	54.02884	202.5519	0.27	0.790	-348.0902	456.1479
w1UricAcid	-7024.386	3547.938	-1.98	0.051	-14068.58	19.81229
_cons	303401.9	727899.1	0.42	0.678	-1141671	1748475

299 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0045
Largest FMI = 0.0365
Complete DF = 97
DF adjustment: Small sample — DF: min = 89.26
avg = 94.46
max = 95.03
Model F test: Equal FMI — F(11, 95.0) = 2.08
Within VCE type: OLS — Prob > F = 0.0290

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	13966.2	9385.038	1.49	0.140	-4665.629	32598.03
Sex	0	(omitted)				
w1Age	-580.0187	519.5416	-1.12	0.267	-1611.435	451.3976
Race	-7433.789	7645.236	-0.97	0.333	-22611.59	7744.009
PovStat	-10921.92	7936.956	-1.38	0.172	-26678.71	4834.873
TIME_V1SCAN	-4.016339	5.923616	-0.68	0.499	-15.77642	7.743746
w1BMI	1155.653	560.7801	2.06	0.042	42.33334	2268.973
w1Creatinine	-7434.597	18327.85	-0.41	0.686	-43850.19	28981
w1USpecGrav	890706.3	609881.9	1.46	0.147	-320065.2	2101478
w1BUN	-268.5182	1139.39	-0.24	0.814	-2530.494	1993.458
w1ALP	-59.628	171.6616	-0.35	0.729	-400.424	281.168
w1UricAcid	-7026.711	3000.034	-2.34	0.021	-12982.7	-1070.723
_cons	-426766.3	616660.7	-0.69	0.491	-1650996	797463.8

300 .
301 .
302 . //ANALYSIS B//
303 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0028
Largest FMI = 0.0236
Complete DF = 96
DF adjustment: Small sample — DF: min = 90.88
avg = 93.72
max = 94.04
Model F test: Equal FMI — F(12, 94.0) = 3.74
Within VCE type: OLS — Prob > F = 0.0001

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	84.55447	69.48644	1.22	0.227	-53.41333	222.5223
Sex	0	(omitted)				
w1Age	-10.9686	3.808492	-2.88	0.005	-18.53043	-3.406778
Race	-88.39841	59.0994	-1.50	0.138	-205.7415	28.94467
PovStat	-3.716823	58.60115	-0.06	0.950	-120.0701	112.6365
TIME_V1SCAN	-.0068457	.0434015	-0.16	0.875	-.0930217	.0793304
w1BMI	.5239186	4.193182	0.12	0.901	-7.801819	8.849656
w1Creatinine	-57.6796	133.5539	-0.43	0.667	-322.9727	207.6135
w1USpecGrav	-4743.085	4490.482	-1.06	0.294	-13659.05	4172.875
w1BUN	18.18004	8.383729	2.17	0.033	1.533223	34.82686
w1ALP	-.8117524	1.257427	-0.65	0.520	-3.308435	1.684931
w1UricAcid	-8.968901	22.30874	-0.40	0.689	-53.26362	35.32582
ICV_volM2	.0011392	.0002997	3.80	0.000	.0005441	.0017343
_cons	7194.967	4517.183	1.59	0.115	-1774.009	16163.94

304 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0097
Largest FMI = 0.0971
Complete DF = 96
DF adjustment: **Small sample** — DF: min = 72.57
avg = 92.15
max = 94.06
Model F test: **Equal FMI** — F(12, 94.0) = 4.63
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	28.67927	74.91578	0.38	0.703	-120.0698	177.4284
Sex	0	(omitted)				
w1Age	-5.678454	4.104266	-1.38	0.170	-13.82751	2.4706
Race	-117.9368	63.78659	-1.85	0.068	-244.5914	8.717685
PovStat	11.39365	63.15789	0.18	0.857	-114.0069	136.7942
TIME_V1SCAN	.0134531	.0467628	0.29	0.774	-.0793959	.1063022
w1BMI	-1.896462	4.524579	-0.42	0.676	-10.8805	7.087571
w1Creatinine	-60.60933	149.3224	-0.41	0.686	-358.2383	237.0197
w1USpecGrav	-1489.583	4849.869	-0.31	0.759	-11119.69	8140.527
w1BUN	11.11109	9.061207	1.23	0.223	-6.882618	29.1048
w1ALP	-.7939245	1.355937	-0.59	0.560	-3.48624	1.898391
w1UricAcid	10.45186	24.04207	0.43	0.665	-37.28425	58.18798
ICV_volM2	.001763	.0003231	5.46	0.000	.0011215	.0024046
_cons	3302.994	4879.16	0.68	0.500	-6385.308	12991.3

305 .
306 . //ANALYSIS C//

```
307 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        107
                                                Average RVI       =     0.0049
                                                Largest FMI       =     0.0480
                                                Complete DF       =         94
DF adjustment:   Small sample                   DF:     min       =      84.00
                                                        avg       =      91.36
                                                        max       =      92.06
Model F test:       Equal FMI                   F(  12,   92.0)   =       2.11
Within VCE type:          OLS                   Prob > F          =     0.0238

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   3.260441   1.089626     2.99   0.004     1.096352     5.42453
          Sex |          0  (omitted)
        w1Age |   .0395246   .0594386     0.66   0.508    -.0785253    .1575746
         Race |   1.225217   .9366736     1.31   0.194    -.6351074    3.085542
      PovStat |   1.417895   .9338139     1.52   0.132    -.4367333    3.272524
  TIME_V1SCAN |  -.0005558   .0006803    -0.82   0.416    -.0019071    .0007954
        w1BMI |   .1463324   .0674943     2.17   0.033     .0122817    .2803831
 w1Creatinine |   .6833962   2.111157     0.32   0.747    -3.514873    4.881666
  w1USpecGrav |   38.93297   71.37024     0.55   0.587    -102.8136    180.6796
        w1BUN |   .0960677   .1341931     0.72   0.476    -.1704537     .362589
        w1ALP |   .0151207   .0200648     0.75   0.453    -.0247306     .054972
   w1UricAcid |  -.4016419   .3769429    -1.07   0.289    -1.150293     .347009
    ICV_volM2 |   2.70e-06   4.78e-06     0.56   0.574    -6.80e-06    .0000122
        _cons |  -53.98056   71.54512    -0.75   0.452    -196.0744    88.11328
------------------------------------------------------------------------------

308 .
309 . save, replace
    file finaldata_imputed.dta saved

310 .
311 . **INTERACTION BY Sex**
312 .
313 .
314 . //ANALYSIS A//
315 . mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0230
                                                Largest FMI       =     0.2614
                                                Complete DF       =        186
DF adjustment:   Small sample                   DF:     min       =      46.79
                                                        avg       =     172.81
                                                        max       =     183.93
Model F test:       Equal FMI                   F(  13,  183.5)   =      13.45
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	21088.83	21172.01	1.00	0.321	-20682.52	62860.18
Sex						
Men	226512.8	55284.81	4.10	0.000	117436.9	335588.6
Sex#c.LnNFLw1						
Men	-32463.78	25497.59	-1.27	0.205	-82769.14	17841.57
Sex	0	(omitted)				
w1Age	-2165.532	891.7052	-2.43	0.016	-3924.836	-406.2277
Race	-61429.66	14260.09	-4.31	0.000	-89566.11	-33293.22
PovStat	1149.199	14739.63	0.08	0.938	-27931.65	30230.05
TIME_V1SCAN	-29.30256	10.63267	-2.76	0.006	-50.281	-8.324124
w1BMI	2475.565	1108.174	2.23	0.027	289.1974	4661.933
w1Creatinine	2238.409	37895.03	0.06	0.953	-74005.79	78482.61
w1USpecGrav	-162809.9	1055925	-0.15	0.878	-2246119	1920499
w1BUN	426.4005	1885.535	0.23	0.821	-3295.379	4148.18
w1ALP	282.4518	310.865	0.91	0.365	-330.8806	895.7843
w1UricAcid	-15767.27	5460.964	-2.89	0.004	-26541.87	-4992.665
_cons	1426272	1070645	1.33	0.184	-686077.5	3538622

316 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 200
		Average RVI	= 0.0158
		Largest FMI	= 0.1825
		Complete DF	= 186
DF adjustment:	Small sample	DF: min	= 72.99
		avg	= 175.15
		max	= 183.85
Model F test:	Equal FMI	F(13, 183.7)	= 15.23
Within VCE type:	OLS	Prob > F	= 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	12465.62	11494.47	1.08	0.280	-10212.66	35143.89
Sex						
Men	139815.6	30010.57	4.66	0.000	80604.79	199026.5
Sex#c.LnNFLw1						
Men	-28781.23	13835.91	-2.08	0.039	-56078.8	-1483.663
Sex	0	(omitted)				
w1Age	-2016.284	484.5736	-4.16	0.000	-2972.359	-1060.209
Race	-44964.18	7719.397	-5.82	0.000	-60194.54	-29733.82
PovStat	-116.8468	7992.825	-0.01	0.988	-15886.33	15652.63
TIME_V1SCAN	-14.01637	5.769568	-2.43	0.016	-25.39986	-2.63287
w1BMI	1505.768	601.709	2.50	0.013	318.6138	2692.922
w1Creatinine	10368.26	19680.24	0.53	0.600	-28854.52	49591.04
w1USpecGrav	-262217.7	572906.7	-0.46	0.648	-1392547	868111.4
w1BUN	572.8057	1015.825	0.56	0.574	-1431.72	2577.331
w1ALP	218.2193	168.7271	1.29	0.198	-114.6797	551.1182
w1UricAcid	-7748.185	2961.727	-2.62	0.010	-13591.7	-1904.671
_cons	1000278	581046.2	1.72	0.087	-146114.6	2146670

```
317 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0384
Largest FMI = 0.3852
Complete DF = 186
DF adjustment: Small sample — DF: min = 26.06
avg = 168.96
max = 183.95
Model F test: Equal FMI — F(13, 182.6) = 8.75
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10204.13	10294.65	0.99	0.323	-10106.65	30514.9
Sex						
Men	90099.54	26901.45	3.35	0.001	37023.08	143176
Sex#c.LnNFLw1						
Men	-10977.82	12401.84	-0.89	0.377	-35446	13490.36
Sex	0	(omitted)				
w1Age	-673.0413	434.344	-1.55	0.123	-1530.01	183.9271
Race	-14945.94	6964.998	-2.15	0.033	-28690.17	-1201.712
PovStat	-1847.043	7171.303	-0.26	0.797	-15995.89	12301.8
TIME_V1SCAN	-13.86562	5.174415	-2.68	0.008	-24.07495	-3.656288
w1BMI	1000.515	538.9484	1.86	0.065	-62.8007	2063.83
w1Creatinine	-6941.553	19897.96	-0.35	0.730	-47837.71	33954.6
w1USpecGrav	-86481.19	514674.6	-0.17	0.867	-1101960	928997.4
w1BUN	11.32222	933.9322	0.01	0.990	-1834.432	1857.076
w1ALP	117.0445	151.1187	0.77	0.440	-181.1083	415.1972
w1UricAcid	-6921.72	2657.79	-2.60	0.010	-12165.67	-1677.768
_cons	584251.5	522319.3	1.12	0.265	-446330.3	1614833

```
318 .
319 .
320 . //ANALYSIS B//
321 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0285
Largest FMI = 0.2911
Complete DF = 185
DF adjustment: Small sample — DF: min = 40.12
avg = 169.00
max = 182.97
Model F test: Equal FMI — F(13, 182.2) = 11.71
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippoc~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	38.59256	70.63473	0.55	0.585	-100.771	177.9562
Sex						
Men	234.8499	193.3772	1.21	0.226	-146.6909	616.3908
Sex#c.LnNFLw1						
Men	-131.3637	85.2202	-1.54	0.125	-299.505	36.77753
Sex	0	(omitted)				
w1Age	-5.762157	2.971509	-1.94	0.054	-11.62515	.1008328
Race	-50.91239	50.91964	-1.00	0.319	-151.3893	49.56457
PovStat	-76.85785	49.05094	-1.57	0.119	-173.6369	19.92124
TIME_V1SCAN	.0061391	.0357399	0.17	0.864	-.0643773	.0766555
w1BMI	1.874812	3.733421	0.50	0.616	-5.491304	9.240928
w1Creatinine	-13.89093	128.4401	-0.11	0.914	-273.4531	245.6713
w1USpecGrav	-2448.37	3577.555	-0.68	0.495	-9511.698	4614.958
w1BUN	9.728621	6.346552	1.53	0.127	-2.806895	22.26414
w1ALP	-.5146624	1.035991	-0.50	0.620	-2.558725	1.5294
w1UricAcid	-7.394392	18.47101	-0.40	0.689	-43.83919	29.0504
ICV_volM2	.0017235	.0002163	7.97	0.000	.0012968	.0021502
_cons	3996.922	3640.682	1.10	0.274	-3191.264	11185.11

322 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGra

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 200
		Average RVI	= 0.0116
		Largest FMI	= 0.1193
		Complete DF	= 185
DF adjustment:	Small sample	DF: min	= 107.24
		avg	= 175.39
		max	= 183.00
Model F test:	Equal FMI	F(13, 182.9)	= 14.58
Within VCE type:	OLS	Prob > F	= 0.0000

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	21.20209	71.35143	0.30	0.767	-119.5755	161.9797
Sex						
Men	91.61407	195.308	0.47	0.640	-293.7351	476.9632
Sex#c.LnNFLw1						
Men	-99.51372	86.06499	-1.16	0.249	-269.3211	70.29367
Sex	0	(omitted)				
w1Age	-3.794839	2.997813	-1.27	0.207	-9.709599	2.119921
Race	-51.52036	51.23856	-1.01	0.316	-152.6176	49.57692
PovStat	-60.68878	49.5308	-1.23	0.222	-158.414	37.03649
TIME_V1SCAN	.0322078	.0361004	0.89	0.373	-.0390197	.1034353
w1BMI	2.378469	3.771442	0.63	0.529	-5.062663	9.819602
w1Creatinine	15.62125	118.1072	0.13	0.895	-218.5066	249.7491
w1USpecGrav	39.33996	3608.744	0.01	0.991	-7084.985	7163.665
w1BUN	11.79967	6.30657	1.87	0.063	-.6459347	24.24527
w1ALP	.0419988	1.045944	0.04	0.968	-2.021682	2.10568
w1UricAcid	-10.05895	18.63483	-0.54	0.590	-46.82615	26.70825
ICV_volM2	.0021175	.0002185	9.69	0.000	.0016865	.0025486
_cons	1034.966	3670.563	0.28	0.778	-6211.415	8281.346

```
323 .
324 . //ANALYSIS C//
325 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav
```

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **197**
Average RVI = **0.0007**
Largest FMI = **0.0071**
Complete DF = **182**
DF adjustment: **Small sample** — DF: min = **178.43**
avg = **179.88**
max = **180.02**
Model F test: **Equal FMI** — F(**13**, **180.0**) = **2.32**
Within VCE type: **OLS** — Prob > F = **0.0072**

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**3.444429**	**.8569548**	**4.02**	**0.000**	**1.75346**	**5.135398**
Sex						
Men	**5.403483**	**2.408306**	**2.24**	**0.026**	**.651342**	**10.15562**
Sex#c.LnNFLw1						
Men	**-2.446769**	**1.051709**	**-2.33**	**0.021**	**-4.522033**	**-.3715059**
Sex	**0**	(omitted)				
w1Age	**-.0037845**	**.0368732**	**-0.10**	**0.918**	**-.0765442**	**.0689751**
Race	**1.16388**	**.6179686**	**1.88**	**0.061**	**-.0555145**	**2.383275**
PovStat	**.8936468**	**.5993655**	**1.49**	**0.138**	**-.2890396**	**2.076333**
TIME_V1SCAN	**-.0004372**	**.0004316**	**-1.01**	**0.312**	**-.0012889**	**.0004144**
w1BMI	**.0689754**	**.0459747**	**1.50**	**0.135**	**-.0217433**	**.1596941**
w1Creatinine	**.2677027**	**1.358315**	**0.20**	**0.844**	**-2.412727**	**2.948132**
w1USpecGrav	**25.20823**	**42.88663**	**0.59**	**0.557**	**-59.41731**	**109.8338**
w1BUN	**.0332318**	**.076912**	**0.43**	**0.666**	**-.1185338**	**.1849974**
w1ALP	**-.0013232**	**.0125515**	**-0.11**	**0.916**	**-.0260901**	**.0234438**
w1UricAcid	**-.0166574**	**.2334476**	**-0.07**	**0.943**	**-.4773035**	**.4439888**
ICV_volM2	**1.53e-06**	**2.65e-06**	**0.58**	**0.564**	**-3.70e-06**	**6.76e-06**
_cons	**-33.41633**	**43.52532**	**-0.77**	**0.444**	**-119.3022**	**52.46952**

```
326 .
327 . save, replace
    file finaldata_imputed.dta saved

328 .
329 . ***********MODEL 5: MODEL 2+oxidative stress******
330 .
331 . //Overall//
332 .
333 . use finaldata_imputed,clear

334 .
```

```
335 .
336 . //ANALYSIS A//
337 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0116
                                                Largest FMI       =     0.0939
                                                Complete DF       =        189
DF adjustment:   Small sample                   DF:     min       =     127.12
                                                        avg       =     179.91
                                                        max       =     186.96
Model F test:       Equal FMI                   F(  10,  186.8)   =      16.19
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	394.9795	15589.15	0.03	0.980	-30359.6	31149.56
Sex	141094.8	13537.45	10.42	0.000	114387.8	167801.8
w1Age	-2467.509	852.189	-2.90	0.004	-4148.67	-786.3486
Race	-59293.55	15644.34	-3.79	0.000	-90165.59	-28421.51
PovStat	991.2708	14969.98	0.07	0.947	-28541.34	30523.88
TIME_V1SCAN	-27.09674	10.97427	-2.47	0.014	-48.74691	-5.44657
w1BMI	940.4324	1060.867	0.89	0.377	-1152.39	3033.254
w1TotalD	830.4604	777.0032	1.07	0.287	-707.0753	2367.996
w1Albumin	-10399.82	25905.26	-0.40	0.689	-61503.99	40704.36
w1EosinPct	-1868.55	3433.601	-0.54	0.587	-8642.944	4905.844
_cons	1195142	144033.6	8.30	0.000	910995.8	1479288

```
338 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0093
                                                Largest FMI       =     0.0806
                                                Complete DF       =        189
DF adjustment:   Small sample                   DF:     min       =     137.46
                                                        avg       =     181.28
                                                        max       =     186.97
Model F test:       Equal FMI                   F(  10,  186.9)   =      18.05
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-2854.27	8480.489	-0.34	0.737	-19584.42	13875.88
Sex	72305.58	7366.055	9.82	0.000	57773.89	86837.28
w1Age	-2048.363	463.9021	-4.42	0.000	-2963.523	-1133.203
Race	-44015.4	8506.935	-5.17	0.000	-60801.73	-27229.07
PovStat	-1206.195	8149.172	-0.15	0.882	-17282.68	14870.29
TIME_V1SCAN	-12.89248	5.973152	-2.16	0.032	-24.67627	-1.10869
w1BMI	689.7475	577.7514	1.19	0.234	-450.0107	1829.506
w1TotalD	356.3371	420.3014	0.85	0.398	-474.7552	1187.429
w1Albumin	-1339.977	14107.08	-0.09	0.924	-29169.48	26489.52
w1EosinPct	434.8014	1865.76	0.23	0.816	-3246.087	4115.69
_cons	706174.6	78429.13	9.00	0.000	551451.8	860897.4

```
339 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        200
                                              Average RVI       =     0.0122
                                              Largest FMI       =     0.0930
                                              Complete DF       =        189
DF adjustment:   Small sample                 DF:     min       =     127.77
                                                      avg       =     179.88
                                                      max       =     186.94
Model F test:       Equal FMI                 F(  10,  186.8)   =      10.72
Within VCE type:          OLS                 Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1818.889	7553.306	0.24	0.810	-13082.88	16720.66
Sex	57377.56	6553.12	8.76	0.000	44449.28	70305.84
w1Age	-821.5382	412.4499	-1.99	0.048	-1635.205	-7.871307
Race	-13313.7	7562.833	-1.76	0.080	-28237.43	1610.03
PovStat	-1333.729	7241.232	-0.18	0.854	-15619.08	12951.63
TIME_V1SCAN	-12.68453	5.31019	-2.39	0.018	-23.16055	-2.208502
w1BMI	356.2164	513.1986	0.69	0.488	-656.1918	1368.625
w1TotalD	465.8146	375.7863	1.24	0.217	-277.7556	1209.385
w1Albumin	-2169.455	12534.83	-0.17	0.863	-26897.35	22558.44
w1EosinPct	-1688.636	1662.987	-1.02	0.311	-4969.755	1592.483
_cons	448858.7	69671.92	6.44	0.000	311412.2	586305.2

```
340 .
341 . //ANALYSIS B//
342 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        200
                                              Average RVI       =     0.0251
                                              Largest FMI       =     0.2160
                                              Complete DF       =        188
DF adjustment:   Small sample                 DF:     min       =      60.25
                                                      avg       =     172.77
                                                      max       =     186.01
Model F test:       Equal FMI                 F(  11,  185.3)   =      13.73
Within VCE type:          OLS                 Prob > F          =     0.0000
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-10.44487	51.06166	-0.20	0.838	-111.1859	90.29614
Sex	-57.76651	59.01171	-0.98	0.329	-174.1851	58.65211
w1Age	-4.713805	2.790786	-1.69	0.093	-10.21947	.7918557
Race	-64.11306	54.22329	-1.18	0.239	-171.1562	42.93004
PovStat	-85.70069	49.0034	-1.75	0.082	-182.3778	10.97639
TIME_V1SCAN	.0136668	.0362872	0.38	0.707	-.0579256	.0852593
w1BMI	1.940107	3.482217	0.56	0.578	-4.929799	8.810013
w1TotalD	.0611717	2.718035	0.02	0.982	-5.375241	5.497584
w1Albumin	150.775	84.91512	1.78	0.077	-16.74718	318.2972
w1EosinPct	.9927283	11.30739	0.09	0.930	-21.32214	23.3076
ICV_volM2	.0017375	.0002113	8.22	0.000	.0013206	.0021545
_cons	996.3869	546.4961	1.82	0.070	-81.7578	2074.532

```
343 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 200
		Average RVI	= 0.0124
		Largest FMI	= 0.0897
		Complete DF	= 188
DF adjustment:	**Small sample**	DF: min	= 129.81
		avg	= 179.24
		max	= 185.98
Model F test:	**Equal FMI**	F(11, 185.8)	= 16.86
Within VCE type:	**OLS**	Prob > F	= 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2.856278	51.57016	0.06	0.956	-98.88309	104.5956
Sex	-125.2132	59.74849	-2.10	0.037	-243.0853	-7.341075
w1Age	-2.874739	2.826981	-1.02	0.311	-8.451842	2.702364
Race	-87.85923	54.40606	-1.61	0.108	-195.2177	19.49922
PovStat	-70.38172	49.56716	-1.42	0.157	-168.1694	27.40596
TIME_V1SCAN	.0344808	.0366683	0.94	0.348	-.0378605	.1068221
w1BMI	2.394997	3.521519	0.68	0.497	-4.552313	9.342307
w1TotalD	-1.995353	2.57562	-0.77	0.440	-7.090981	3.100275
w1Albumin	116.6744	85.92002	1.36	0.176	-52.82874	286.1775
w1EosinPct	6.352512	11.50895	0.55	0.582	-16.3659	29.07092
ICV_volM2	.0021371	.0002139	9.99	0.000	.001715	.0025591
_cons	876.6766	552.9863	1.59	0.115	-214.2621	1967.615

```
344 .
345 . //ANALYSIS C//
346 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct I
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 197
		Average RVI	= 0.0092
		Largest FMI	= 0.0946
		Complete DF	= 185
DF adjustment:	**Small sample**	DF: min	= 124.57
		avg	= 177.64
		max	= 183.02
Model F test:	**Equal FMI**	F(11, 182.9)	= 2.27
Within VCE type:	**OLS**	Prob > F	= 0.0128

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2.25989	.6323637	3.57	0.000	1.012184	3.507596
Sex	.2908509	.7231243	0.40	0.688	-1.135887	1.717589
w1Age	.0068639	.0347706	0.20	0.844	-.0617389	.0754666
Race	1.188798	.6567674	1.81	0.072	-.1071812	2.484778
PovStat	.762744	.601777	1.27	0.207	-.4245753	1.950063
TIME_V1SCAN	-.0004432	.0004405	-1.01	0.316	-.0013124	.000426
w1BMI	.0642139	.042727	1.50	0.135	-.0200875	.1485152
w1TotalD	-.0094912	.0310784	-0.31	0.761	-.0710013	.0520189
w1Albumin	1.131533	1.051314	1.08	0.283	-.9427338	3.2058
w1EosinPct	.1304913	.1363308	0.96	0.340	-.1384916	.3994742
ICV_volM2	2.03e-06	2.57e-06	0.79	0.430	-3.04e-06	7.11e-06
_cons	-11.03543	6.74955	-1.63	0.104	-24.35241	2.281548

```
347 .
348 . save, replace
    file finaldata_imputed.dta saved

349 .
350 .
351 . //Males//
352 .
353 .
354 . use finaldata_imputed,clear

355 .
356 .
357 . //ANALYSIS A//
358 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  Se

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =         91
                                                    Average RVI       =     0.0261
                                                    Largest FMI       =     0.1419
                                                    Complete DF       =         81
    DF adjustment:   Small sample                   DF:     min       =      53.01
                                                            avg       =      74.92
                                                            max       =      78.72
    Model F test:       Equal FMI                   F(   9,   78.8)   =       3.33
    Within VCE type:          OLS                   Prob > F          =     0.0017

  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
       LnNFLw1 |  -10704.74   25126.71    -0.43   0.671    -60751.25    39341.77
           Sex |          0  (omitted)
         w1Age |  -2560.316   1518.163    -1.69   0.096    -5582.615    461.9826
          Race |  -63601.13   28381.23    -2.24   0.028      -120115   -7087.227
       PovStat |   26926.37   27072.52     0.99   0.323    -26999.53    80852.27
    TIME_V1SCAN |  -42.09914   18.88465    -2.23   0.029    -79.69046   -4.507815
          w1BMI |   1767.681   2339.295     0.76   0.452    -2889.283    6424.644
       w1TotalD |   2221.436   1523.138     1.46   0.151    -833.5811    5276.453
      w1Albumin |  -8602.976   51183.66    -0.17   0.867    -110525.2    93319.25
     w1EosinPct |  -610.9718   6532.442    -0.09   0.926    -13614.19    12392.25
          _cons |    1442131   305403.1     4.72   0.000     834015.4     2050246

359 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  Sex==2

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =         91
                                                    Average RVI       =     0.0212
                                                    Largest FMI       =     0.1276
                                                    Complete DF       =         81
    DF adjustment:   Small sample                   DF:     min       =      56.00
                                                            avg       =      75.60
                                                            max       =      78.82
    Model F test:       Equal FMI                   F(   9,   78.9)   =       5.41
    Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-13033.8	13209.43	-0.99	0.327	-39336.97	13269.38
Sex	0	(omitted)				
w1Age	-2314.102	800.3672	-2.89	0.005	-3907.34	-720.863
Race	-51102.74	14989.58	-3.41	0.001	-80951.19	-21254.28
PovStat	10821.42	14260.34	0.76	0.450	-17579.44	39222.28
TIME_V1SCAN	-20.22585	9.963863	-2.03	0.046	-40.05914	-.3925642
w1BMI	1346.216	1234.632	1.09	0.279	-1111.59	3804.022
w1TotalD	964.3276	798.4304	1.21	0.232	-635.121	2563.776
w1Albumin	6421.858	26939.77	0.24	0.812	-47214.47	60058.19
w1EosinPct	-550.5058	3447.547	-0.16	0.874	-7412.937	6311.925
_cons	830539.4	160913.2	5.16	0.000	510165	1150914

360 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct if Sex==2

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0275
Largest FMI = 0.1233
Complete DF = 81
DF adjustment: Small sample — DF: min = 56.93
avg = 75.07
max = 78.65
Model F test: Equal FMI — F(9, 78.8) = 2.03
Within VCE type: OLS — Prob > F = 0.0460

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-2799.73	12246.33	-0.23	0.820	-27201.03	21601.57
Sex	0	(omitted)				
w1Age	-716.6023	737.4814	-0.97	0.334	-2184.89	751.6856
Race	-12002.05	13697.75	-0.88	0.384	-39271.61	15267.52
PovStat	8386.434	13099.76	0.64	0.524	-17703.86	34476.73
TIME_V1SCAN	-20.44488	9.162933	-2.23	0.029	-38.68506	-2.204706
w1BMI	480.9417	1132.913	0.42	0.672	-1774.32	2736.204
w1TotalD	1252.732	731.3682	1.71	0.092	-211.8488	2717.313
w1Albumin	-9837.175	24912.8	-0.39	0.694	-59458.52	39784.17
w1EosinPct	-134.7189	3167.794	-0.04	0.966	-6440.491	6171.053
_cons	577774.4	148345.3	3.89	0.000	282358.2	873190.6

361 .
362 .
363 . //ANALYSIS B//
364 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0155
Largest FMI = 0.1255
Complete DF = 80
DF adjustment: Small sample — DF: min = 55.88
avg = 75.17
max = 78.05
Model F test: Equal FMI — F(10, 78.0) = 7.67
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-92.077	76.58911	-1.20	0.233	-244.5638	60.4098
Sex	0	(omitted)				
w1Age	-3.382263	4.662914	-0.73	0.470	-12.666	5.901472
Race	26.95851	92.90535	0.29	0.773	-158.2502	212.1672
PovStat	-198.4341	82.37892	-2.41	0.018	-362.4397	-34.42862
TIME_V1SCAN	.0249514	.0593663	0.42	0.675	-.0932486	.1431514
w1BMI	5.890316	7.213166	0.82	0.417	-8.471269	20.2519
w1TotalD	2.391349	4.693126	0.51	0.612	-7.01055	11.79325
w1Albumin	113.7301	156.2228	0.73	0.469	-197.2984	424.7586
w1EosinPct	-9.447048	20.07858	-0.47	0.639	-49.42001	30.52592
ICV_volM2	.0021465	.0003109	6.90	0.000	.0015274	.0027655
_cons	419.714	1058.659	0.40	0.693	-1688.405	2527.833

```
365 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct
```

```
Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         91
                                              Average RVI       =     0.0076
                                              Largest FMI       =     0.0693
                                              Complete DF       =         80
DF adjustment:   Small sample                 DF:     min       =      67.72
                                                      avg       =      76.89
                                                      max       =      78.04
Model F test:       Equal FMI                 F(  10,   78.0)   =       8.94
Within VCE type:          OLS                 Prob > F          =     0.0000
```

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-57.02625	76.73315	-0.74	0.460	-209.7904	95.73792
Sex	0	(omitted)				
w1Age	-4.753404	4.67066	-1.02	0.312	-14.05192	4.54511
Race	-19.4458	91.78066	-0.21	0.833	-202.2162	163.3246
PovStat	-180.1233	82.84909	-2.17	0.033	-345.0774	-15.16922
TIME_V1SCAN	.0452934	.0594521	0.76	0.448	-.0730679	.1636548
w1BMI	6.312304	7.228917	0.87	0.385	-8.079868	20.70448
w1TotalD	-1.665821	4.578295	-0.36	0.717	-10.80236	7.470714
w1Albumin	-6.664999	156.5617	-0.04	0.966	-318.3528	305.0228
w1EosinPct	-11.60204	20.1536	-0.58	0.566	-51.72449	28.52042
ICV_volM2	.0024742	.000312	7.93	0.000	.0018531	.0030953
_cons	853.8443	1056.688	0.81	0.422	-1249.881	2957.569

```
366 .
367 . //ANALYSIS C//
368 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct I
```

```
Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         90
                                              Average RVI       =     0.0160
                                              Largest FMI       =     0.1379
                                              Complete DF       =         79
DF adjustment:   Small sample                 DF:     min       =      52.77
                                                      avg       =      74.29
                                                      max       =      77.05
Model F test:       Equal FMI                 F(  10,   77.0)   =       0.85
Within VCE type:          OLS                 Prob > F          =     0.5861
```

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**1.48636**	**.7033571**	**2.11**	**0.038**	**.085805**	**2.886915**
Sex	**0**	(omitted)				
w1Age	**-.0479352**	**.0431467**	**-1.11**	**0.270**	**-.1338519**	**.0379815**
Race	**1.535434**	**.8281815**	**1.85**	**0.068**	**-.1150214**	**3.18589**
PovStat	**.2825008**	**.7446882**	**0.38**	**0.705**	**-1.200583**	**1.765585**
TIME_V1SCAN	**-.0004441**	**.0005312**	**-0.84**	**0.406**	**-.0015019**	**.0006138**
w1BMI	**-.0165657**	**.0650841**	**-0.25**	**0.800**	**-.1461769**	**.1130455**
w1TotalD	**.0205619**	**.0424011**	**0.48**	**0.630**	**-.0644926**	**.1056164**
w1Albumin	**.2872463**	**1.417717**	**0.20**	**0.840**	**-2.53576**	**3.110253**
w1EosinPct	**.0050534**	**.1805122**	**0.03**	**0.978**	**-.3543947**	**.3645016**
ICV_volM2	**2.47e-07**	**2.79e-06**	**0.09**	**0.930**	**-5.30e-06**	**5.80e-06**
_cons	**2.096422**	**9.588163**	**0.22**	**0.828**	**-16.99716**	**21.19001**

```
369 .
370 . save, replace
    file finaldata_imputed.dta saved

371 .
372 .
373 .
374 . //Females//
375 .
376 . use finaldata_imputed,clear

377 .
378 .
379 . //ANALYSIS A//
380 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  Se
```

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **109**
Average RVI = **0.0286**
Largest FMI = **0.2255**
Complete DF = **99**
DF adjustment: **Small sample** — DF: min = **42.46**
avg = **90.07**
max = **96.98**
Model F test: **Equal FMI** — F(**9**, **96.6**) = **2.71**
Within VCE type: **OLS** — Prob > F = **0.0074**

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**23181.71**	**20264.76**	**1.14**	**0.255**	**-17044.46**	**63407.89**
Sex	**0**	(omitted)				
w1Age	**-2642.264**	**1002.901**	**-2.63**	**0.010**	**-4632.769**	**-651.7592**
Race	**-52609.34**	**17539.75**	**-3.00**	**0.004**	**-87461.98**	**-17756.71**
PovStat	**-21921.25**	**17079.29**	**-1.28**	**0.202**	**-55819.07**	**11976.57**
TIME_V1SCAN	**-8.914443**	**12.85931**	**-0.69**	**0.490**	**-34.4395**	**16.61061**
w1BMI	**1407.683**	**1097.497**	**1.28**	**0.203**	**-770.5971**	**3585.964**
w1TotalD	**-234.088**	**896.5168**	**-0.26**	**0.795**	**-2042.753**	**1574.577**
w1Albumin	**-15551.79**	**27584.32**	**-0.56**	**0.574**	**-70299.16**	**39195.58**
w1EosinPct	**-1712.958**	**3844.797**	**-0.45**	**0.657**	**-9347.531**	**5921.615**
_cons	**1315525**	**147680.4**	**8.91**	**0.000**	**1022401**	**1608649**

```
381 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0256
                                                Largest FMI       =     0.2119
                                                Complete DF       =         99
DF adjustment:   Small sample                   DF:     min       =      45.10
                                                        avg       =      90.65
                                                        max       =      97.01
Model F test:       Equal FMI                   F(   9,   96.7)   =       4.30
Within VCE type:          OLS                   Prob > F          =     0.0001
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	14700.84	11320.85	1.30	0.197	-7770.727	37172.4
Sex	0	(omitted)				
w1Age	-2108.01	560.892	-3.76	0.000	-3221.249	-994.7717
Race	-36510.95	9790.379	-3.73	0.000	-55962.62	-17059.28
PovStat	-12765.98	9546.794	-1.34	0.184	-31713.7	6181.741
TIME_V1SCAN	-2.772524	7.184911	-0.39	0.700	-17.03387	11.48882
w1BMI	1053.77	613.507	1.72	0.089	-163.895	2271.435
w1TotalD	-173.0797	497.5108	-0.35	0.730	-1175.055	828.8952
w1Albumin	-11350.59	15422.57	-0.74	0.464	-41960.21	19259.03
w1EosinPct	1370.061	2138.838	0.64	0.523	-2875.964	5616.086
_cons	772503.5	82514.9	9.36	0.000	608726.5	936280.5

```
382 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0206
                                                Largest FMI       =     0.1613
                                                Complete DF       =         99
DF adjustment:   Small sample                   DF:     min       =      56.59
                                                        avg       =      91.97
                                                        max       =      97.01
Model F test:       Equal FMI                   F(   9,   96.8)   =       1.44
Within VCE type:          OLS                   Prob > F          =     0.1827
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11995.86	9818.916	1.22	0.225	-7493.832	31485.55
Sex	0	(omitted)				
w1Age	-965.4147	486.6732	-1.98	0.050	-1931.334	.5045956
Race	-13096.59	8442.52	-1.55	0.124	-29862.83	3669.659
PovStat	-9958.638	8288.543	-1.20	0.232	-26409.14	6491.861
TIME_V1SCAN	-4.382197	6.232421	-0.70	0.484	-16.75264	7.98825
w1BMI	568.4593	532.489	1.07	0.288	-488.3996	1625.318
w1TotalD	-109.2996	420.4132	-0.26	0.796	-951.2947	732.6954
w1Albumin	1814.019	13386.17	0.14	0.892	-24753.79	28381.83
w1EosinPct	-2312.348	1866.783	-1.24	0.219	-6019.278	1394.583
_cons	478238.5	71603.62	6.68	0.000	336119.9	620357.1

```
383 .
384 . //ANALYSIS B//
385 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0229
Largest FMI = 0.1475
Complete DF = 98
DF adjustment: Small sample — DF: min = 59.73
avg = 91.17
max = 95.98
Model F test: Equal FMI — F(10, 95.8) = 4.18
Within VCE type: OLS — Prob > F = 0.0001

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	126.6215	70.1352	1.81	0.074	-12.61197	265.8549
Sex	0	(omitted)				
w1Age	-9.133153	3.476521	-2.63	0.010	-16.03412	-2.232188
Race	-146.1234	62.97306	-2.32	0.023	-271.1903	-21.05656
PovStat	-21.50926	59.61205	-0.36	0.719	-139.8637	96.84515
TIME_V1SCAN	.0115508	.0442396	0.26	0.795	-.0762697	.0993713
w1BMI	1.831149	3.799571	0.48	0.631	-5.710966	9.373264
w1TotalD	-2.200376	2.962886	-0.74	0.461	-8.127589	3.726838
w1Albumin	158.0542	95.4633	1.66	0.101	-31.4403	347.5486
w1EosinPct	-1.179684	13.42359	-0.09	0.930	-27.86395	25.50458
ICV_volM2	.0011246	.0002929	3.84	0.000	.0005432	.0017061
_cons	1703.605	672.3068	2.53	0.013	369.0727	3038.137

```
386 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0153
Largest FMI = 0.0780
Complete DF = 98
DF adjustment: Small sample — DF: min = 79.38
avg = 92.71
max = 96.01
Model F test: Equal FMI — F(10, 95.9) = 5.94
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	72.4654	73.92493	0.98	0.329	-74.28278	219.2136
Sex	0	(omitted)				
w1Age	-4.638801	3.672459	-1.26	0.210	-11.9288	2.651196
Race	-152.6891	66.34573	-2.30	0.024	-284.4384	-20.9399
PovStat	-5.843601	62.78233	-0.09	0.926	-130.4798	118.7926
TIME_V1SCAN	.0294966	.0467484	0.63	0.530	-.0633064	.1222996
w1BMI	1.407164	4.013468	0.35	0.727	-6.559614	9.373943
w1TotalD	-2.610841	3.006649	-0.87	0.388	-8.592111	3.37043
w1Albumin	181.1094	100.7677	1.80	0.075	-18.91259	381.1313
w1EosinPct	7.886872	14.35102	0.55	0.584	-20.676	36.44974
ICV_volM2	.0017442	.0003093	5.64	0.000	.0011301	.0023582
_cons	966.0099	710.1052	1.36	0.177	-443.564	2375.584

```
. 
. //ANALYSIS C//
. mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct I

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        107
                                                Average RVI       =     0.0057
                                                Largest FMI       =     0.0339
                                                Complete DF       =         96
DF adjustment:   Small sample                   DF:     min       =      88.90
                                                        avg       =      93.33
                                                        max       =      94.02
Model F test:       Equal FMI                   F(  10,   94.0)   =       2.44
Within VCE type:          OLS                   Prob > F          =     0.0125

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   3.489845   1.088846     3.21   0.002     1.327874    5.651816
         Sex |           0  (omitted)
       w1Age |    .049118   .0545919     0.90   0.371    -.0592772    .1575132
        Race |   .7873939    .982064     0.80   0.425    -1.162643    2.737431
     PovStat |   1.177789   .9486944     1.24   0.218    -.7060935    3.061671
  TIME_V1SCAN |  -.0004384   .0006904    -0.63   0.527    -.0018092    .0009324
       w1BMI |   .1294146   .0596749     2.17   0.033     .0109289    .2479003
     w1TotalD |   -.046044   .0435704    -1.06   0.293    -.1326187    .0405308
    w1Albumin |   .7732781   1.518892     0.51   0.612    -2.242508    3.789064
   w1EosinPct |   .0799508   .2057692     0.39   0.698    -.3286194     .488521
    ICV_volM2 |   4.15e-06   4.57e-06     0.91   0.366    -4.93e-06    .0000132
        _cons |  -17.39931   10.66593    -1.63   0.106    -38.57704     3.77843
------------------------------------------------------------------------------

. 
. save, replace
file finaldata_imputed.dta saved

. 
. 
. **********INTERACTION BY Sex***************
. 
. 
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0109
                                                Largest FMI       =     0.1014
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     110.95
                                                        avg       =     159.19
                                                        max       =     164.95
Model F test:       Equal FMI                   F(  11,  164.9)   =      12.74
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5983.846	24157.32	0.25	0.805	-41716.39	53684.08
Sex						
Men	169230.4	58823.49	2.88	0.005	53083.1	285377.8
Sex#c.LnNFLw1						
Men	-14358.94	27711.53	-0.52	0.605	-69074.94	40357.05
Sex	0	(omitted)				
w1Age	-2390.455	961.5268	-2.49	0.014	-4288.952	-491.9579
Race	-65762.6	16637.44	-3.95	0.000	-98625.08	-32900.11
PovStat	-1269.422	16160.28	-0.08	0.937	-33177.31	30638.47
TIME_V1SCAN	-19.67493	11.81711	-1.66	0.098	-43.00775	3.657895
w1BMI	807.6459	1193.782	0.68	0.500	-1549.423	3164.714
w1TotalD	736.2364	822.4552	0.90	0.373	-893.5216	2365.994
w1Albumin	-6204.261	27615.36	-0.22	0.823	-60729.39	48320.87
w1EosinPct	-2674.155	3572.765	-0.75	0.455	-9729.479	4381.169
_cons	1310269	156754.6	8.36	0.000	1000760	1619779

399 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct if sam

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0056
Largest FMI = 0.0548
Complete DF = 167
DF adjustment: Small sample — DF: min = 141.00
avg = 162.46
max = 165.00
Model F test: Equal FMI — F(11, 165.0) = 14.56
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5377.697	12920.87	0.42	0.678	-20134.49	30889.88
Sex						
Men	104467.9	31484.17	3.32	0.001	42303.41	166632.4
Sex#c.LnNFLw1						
Men	-16067.85	14837.01	-1.08	0.280	-45362.95	13227.25
Sex	0	(omitted)				
w1Age	-2065.231	514.9603	-4.01	0.000	-3081.994	-1048.469
Race	-48042.17	8856.667	-5.42	0.000	-65531.68	-30552.66
PovStat	-2023.356	8654.856	-0.23	0.815	-19111.95	15065.23
TIME_V1SCAN	-6.901832	6.326436	-1.09	0.277	-19.39317	5.589508
w1BMI	750.0071	639.4418	1.17	0.243	-512.537	2012.551
w1TotalD	209.2729	430.4642	0.49	0.628	-641.7255	1060.271
w1Albumin	1939.899	14793.96	0.13	0.896	-27269.97	31149.77
w1EosinPct	132.0177	1909.079	0.07	0.945	-3637.655	3901.691
_cons	747059.6	83928.1	8.90	0.000	581346.8	912772.4

```
400 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  sam

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0129
                                                Largest FMI       =     0.1124
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     104.20
                                                        avg       =     158.14
                                                        max       =     164.91
Model F test:       Equal FMI                   F(  11,  164.8)   =       8.62
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   2473.744   11728.92     0.21   0.833    -20686.27    25633.75
              |
          Sex |
          Men |   65308.22   28558.11     2.29   0.023     8919.154    121697.3
              |
Sex#c.LnNFLw1 |
          Men |  -3982.632   13449.39    -0.30   0.768    -30538.49    22573.22
              |
          Sex |          0  (omitted)
        w1Age |  -762.4078   466.6793    -1.63   0.104    -1683.855    159.0399
         Race |  -15092.15   8097.241    -1.86   0.064    -31088.48    904.1728
      PovStat |  -3706.974   7841.821    -0.47   0.637    -19190.44     11776.5
  TIME_V1SCAN |  -10.54386   5.734287    -1.84   0.068    -21.86625    .7785187
        w1BMI |   223.4108   579.3129     0.39   0.700    -920.4229    1367.245
     w1TotalD |   486.4975   401.2176     1.21   0.228     -309.114    1282.109
    w1Albumin |  -537.8788   13398.34    -0.04   0.968    -26992.28    25916.52
   w1EosinPct |  -2128.305    1735.73    -1.23   0.222    -5556.106    1299.497
        _cons |   500993.5   76074.94     6.59   0.000     350783.5    651203.5
------------------------------------------------------------------------------

401 .
402 .
403 . //ANALYSIS B//
404 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1Eo

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0255
                                                Largest FMI       =     0.2364
                                                Complete DF       =        187
DF adjustment:   Small sample                   DF:     min       =      53.62
                                                        avg       =     171.91
                                                        max       =     185.02
Model F test:       Equal FMI                   F(  12,  184.4)   =      12.87
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   65.3527   70.80924     0.92   0.357    -74.35792    205.0633
              |
          Sex |
          Men |   218.2868   187.9657     1.16   0.247    -152.5524     589.126
              |
Sex#c.LnNFLw1 |
          Men |  -132.0338   85.40744    -1.55   0.124    -300.5357    36.46821
              |
          Sex |          0  (omitted)
        w1Age |  -5.467093   2.822654    -1.94   0.054    -11.03582    .1016322
```

Race	-71.96528	54.43343	-1.32	0.188	-179.4466	35.51599
PovStat	-83.77713	48.85832	-1.71	0.088	-180.1722	12.61792
TIME_V1SCAN	.0161992	.0361992	0.45	0.655	-.0552224	.0876208
w1BMI	3.157036	3.555064	0.89	0.376	-3.856754	10.17083
w1TotalD	-.3663457	2.756849	-0.13	0.895	-5.894387	5.161695
w1Albumin	139.5219	84.90088	1.64	0.102	-27.97782	307.0215
w1EosinPct	-1.314057	11.36887	-0.12	0.908	-23.75129	21.12317
ICV_volM2	.0017181	.0002109	8.15	0.000	.001302	.0021342
_cons	877.8349	569.0939	1.54	0.125	-244.9268	2000.597

405 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1E

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0130
Largest FMI = 0.1024
Complete DF = 187
DF adjustment: Small sample — DF: min = 119.84
avg = 177.62
max = 185.01
Model F test: Equal FMI — F(12, 184.8) = 15.60
Within VCE type: OLS — Prob > F = 0.0000

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	62.40469	71.76364	0.87	0.386	-79.18384	203.9932
Sex						
Men	91.63209	190.8545	0.48	0.632	-284.9085	468.1727
Sex#c.LnNFLw1						
Men	-103.7181	86.72242	-1.20	0.233	-274.8154	67.37923
Sex	0	(omitted)				
w1Age	-3.466672	2.867346	-1.21	0.228	-9.123629	2.190286
Race	-94.03539	54.70749	-1.72	0.087	-202.0014	13.93063
PovStat	-68.86769	49.54031	-1.39	0.166	-166.6063	28.87093
TIME_V1SCAN	.0364681	.0366688	0.99	0.321	-.0358769	.1088131
w1BMI	3.350859	3.605484	0.93	0.354	-3.762312	10.46403
w1TotalD	-2.33179	2.606313	-0.89	0.373	-7.492178	2.828598
w1Albumin	107.8351	86.13163	1.25	0.212	-62.09136	277.7616
w1EosinPct	4.540004	11.60974	0.39	0.696	-18.37945	27.45945
ICV_volM2	.0021218	.0002141	9.91	0.000	.0016994	.0025441
_cons	703.732	577.3921	1.22	0.224	-435.3931	1842.857

406 .
407 . //ANALYSIS C//
408 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1Eos

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 197
Average RVI = 0.0073
Largest FMI = 0.0789
Complete DF = 184
DF adjustment: Small sample — DF: min = 135.78
avg = 178.09
max = 181.99
Model F test: Equal FMI — F(12, 182.0) = 2.58
Within VCE type: OLS — Prob > F = 0.0035

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3.617812	.8583546	4.21	0.000	1.924154	5.31147
Sex						
Men	5.324619	2.29185	2.32	0.021	.8025966	9.846642
Sex#c.LnNFLw1						
Men	-2.413582	1.044145	-2.31	0.022	-4.473774	-.3533908
Sex	0	(omitted)				
w1Age	-.0041552	.0347031	-0.12	0.905	-.0726274	.064317
Race	1.044751	.6513196	1.60	0.110	-.2404765	2.329978
PovStat	.83256	.5955879	1.40	0.164	-.3425907	2.007711
TIME_V1SCAN	-.000402	.0004358	-0.92	0.358	-.0012619	.0004579
w1BMI	.0851324	.0431791	1.97	0.050	-.0000637	.1703285
w1TotalD	-.0168211	.0306642	-0.55	0.584	-.0774623	.0438201
w1Albumin	.9136872	1.043402	0.88	0.382	-1.145043	2.972418
w1EosinPct	.0876568	.1360427	0.64	0.520	-.1807679	.3560815
ICV_volM2	1.66e-06	2.55e-06	0.65	0.516	-3.37e-06	6.68e-06
_cons	-11.85267	6.978319	-1.70	0.091	-25.62149	1.916144

```
409 .
410 . save, replace
    file finaldata_imputed.dta saved

411 .
412 . ***********MODEL 6: MODEL 2+lifestyle/health-related factors*******
413 .
414 .
415 . //Overall//
416 .
417 . use finaldata_imputed,clear

418 .
419 .
420 . //ANALYSIS A//
421 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =        200
                                                    Average RVI       =     0.0017
                                                    Largest FMI       =     0.0173
                                                    Complete DF       =        190
    DF adjustment:   Small sample                   DF:     min       =     182.47
                                                            avg       =     187.45
                                                            max       =     188.02
    Model F test:       Equal FMI                   F(   9,  188.0)   =      18.73
    Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10452.07	15491.43	0.67	0.501	-20107.31	41011.45
Sex	137538.5	13062.17	10.53	0.000	111771.3	163305.8
w1Age	-2628.838	855.7072	-3.07	0.002	-4316.86	-940.8166
Race	-64530.84	13705.46	-4.71	0.000	-91567.15	-37494.54
PovStat	4538.239	15066.43	0.30	0.764	-25182.73	34259.2
TIME_V1SCAN	-31.40891	10.6726	-2.94	0.004	-52.46234	-10.35548
w1BMI	1075.099	997.4789	1.08	0.282	-892.5922	3042.789
w1currdrugs	1629.213	16442.37	0.10	0.921	-30812.41	34070.84
w1SRH	16074.69	8563.91	1.88	0.062	-819.0029	32968.38
_cons	1127703	69159.69	16.31	0.000	991273.8	1264131

```
422 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0035
                                                Largest FMI       =     0.0335
                                                Complete DF       =        190
DF adjustment:   Small sample                   DF:     min       =     173.54
                                                        avg       =     186.47
                                                        max       =     188.02
Model F test:       Equal FMI                   F(   9,  188.0)   =      21.29
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2522.062	8388.166	0.30	0.764	-14025.05	19069.18
Sex	71014.54	7069.853	10.04	0.000	57068.11	84960.97
w1Age	-2166.548	463.3589	-4.68	0.000	-3080.604	-1252.491
Race	-46018.23	7421.367	-6.20	0.000	-60658.21	-31378.26
PovStat	1580.896	8155.375	0.19	0.847	-14506.91	17668.7
TIME_V1SCAN	-15.67299	5.778159	-2.71	0.007	-27.07138	-4.274605
w1BMI	648.5945	540.0495	1.20	0.231	-416.7459	1713.935
w1currdrugs	-4090.032	8971.541	-0.46	0.649	-21797.42	13617.35
w1SRH	10183.8	4635.555	2.20	0.029	1039.41	19328.18
_cons	690544.9	37440.85	18.44	0.000	616686.5	764403.2

```
423 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0017
                                                Largest FMI       =     0.0098
                                                Complete DF       =        190
DF adjustment:   Small sample                   DF:     min       =     185.46
                                                        avg       =     187.64
                                                        max       =     187.98
Model F test:       Equal FMI                   F(   9,  188.0)   =      12.06
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4939.814	7546.122	0.65	0.514	-9946.233	19825.86
Sex	56388.29	6360.83	8.86	0.000	43840.5	68936.08
w1Age	-827.2511	416.7034	-1.99	0.049	-1649.268	-5.234118
Race	-17466.76	6673.664	-2.62	0.010	-30631.69	-4301.829
PovStat	-639.1881	7337.05	-0.09	0.931	-15112.73	13834.36
TIME_V1SCAN	-14.52493	5.201716	-2.79	0.006	-24.7863	-4.263559
w1BMI	437.7452	485.6638	0.90	0.369	-520.3062	1395.797
w1currdrugs	7898.218	7976.059	0.99	0.323	-7837.251	23633.69
w1SRH	4619.652	4172.089	1.11	0.270	-3610.53	12849.83
_cons	435077.5	33678.25	12.92	0.000	368641.5	501513.4

```
. 
. //ANALYSIS B//
. mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0039
                                                Largest FMI       =     0.0376
                                                Complete DF       =        189
DF adjustment:   Small sample                   DF:     min       =     170.03
                                                        avg       =     185.42
                                                        max       =     187.03
Model F test:       Equal FMI                   F(  10,  187.0)   =      15.09
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-30.25603	51.27658	-0.59	0.556	-131.4109	70.89882
Sex	-40.3177	57.89583	-0.70	0.487	-154.5306	73.89519
w1Age	-4.52134	2.837841	-1.59	0.113	-10.11965	1.076967
Race	-69.24859	48.71115	-1.42	0.157	-165.3433	26.84611
PovStat	-92.87239	49.83837	-1.86	0.064	-191.19	5.445219
TIME_V1SCAN	.0086041	.0357743	0.24	0.810	-.061969	.0791772
w1BMI	-.3885538	3.311313	-0.12	0.907	-6.920922	6.143814
w1currdrugs	-20.68458	54.94349	-0.38	0.707	-129.1438	87.77466
w1SRH	-26.34542	28.55972	-0.92	0.357	-82.68607	29.99523
ICV_volM2	.0017464	.0002129	8.20	0.000	.0013264	.0021664
_cons	1805.98	343.1528	5.26	0.000	1129.031	2482.929

```
. mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0061
                                                Largest FMI       =     0.0576
                                                Complete DF       =        189
DF adjustment:   Small sample                   DF:     min       =     155.47
                                                        avg       =     184.06
                                                        max       =     187.02
Model F test:       Equal FMI                   F(  10,  187.0)   =      18.53
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-23.84706	51.77293	-0.46	0.646	-125.9811	78.28699
Sex	-108.361	58.46128	-1.85	0.065	-223.6895	6.967577
w1Age	-2.664894	2.865228	-0.93	0.354	-8.317228	2.98744
Race	-74.67876	49.19778	-1.52	0.131	-171.7339	22.37643
PovStat	-74.97614	50.31956	-1.49	0.138	-174.243	24.29074
TIME_V1SCAN	.0373035	.0361255	1.03	0.303	-.0339625	.1085696
w1BMI	.6701589	3.343782	0.20	0.841	-5.926277	7.266594
w1currdrugs	-29.03557	56.03123	-0.52	0.605	-139.7163	81.64519
w1SRH	-30.75944	28.83859	-1.07	0.288	-87.65031	26.13142
ICV_volM2	.0021408	.0002149	9.96	0.000	.0017167	.0025648
_cons	1476.731	346.4779	4.26	0.000	793.2215	2160.24

```
428 .
429 . //ANALYSIS C//
430 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        197
                                                Average RVI       =     0.0005
                                                Largest FMI       =     0.0047
                                                Complete DF       =        186
DF adjustment:   Small sample                   DF:     min       =     183.02
                                                        avg       =     183.93
                                                        max       =     184.03
Model F test:       Equal FMI                   F(  10,  184.0)   =       2.35
Within VCE type:          OLS                   Prob > F          =     0.0125

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   2.014065   .6401779     3.15   0.002     .7510335    3.277097
          Sex |   .5010848   .7063346     0.71   0.479    -.8924698    1.894639
        w1Age |   .0106925   .0354438     0.30   0.763     -.059236     .080621
         Race |   1.133568   .5955281     1.90   0.059    -.0413728     2.30851
      PovStat |   .7622327   .6093484     1.25   0.213    -.4399742     1.96444
    TIME_V1SCAN |  -.0004652    .000434    -1.07   0.285    -.0013215    .0003911
        w1BMI |   .0445992   .0404042     1.10   0.271    -.0351158    .1243142
   w1currdrugs |  -.0629091   .6588116    -0.10   0.924    -1.362751    1.236933
        w1SRH |  -.2378032    .349315    -0.68   0.497    -.9269801    .4513737
     ICV_volM2 |   2.02e-06   2.59e-06     0.78   0.435    -3.08e-06    7.12e-06
         _cons |  -4.722325   4.166152    -1.13   0.258    -12.94189    3.497237
------------------------------------------------------------------------------

431 .
432 . save, replace
    file finaldata_imputed.dta saved

433 .
434 .
435 . //Males//
436 .
437 .
438 . use finaldata_imputed,clear

439 .
440 .
441 . //ANALYSIS A//
442 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         91
                                                Average RVI       =     0.0018
                                                Largest FMI       =     0.0137
                                                Complete DF       =         82
DF adjustment:   Small sample                   DF:     min       =      78.80
                                                        avg       =      79.89
                                                        max       =      80.07
Model F test:       Equal FMI                   F(   8,   80.1)   =       3.58
Within VCE type:          OLS                   Prob > F          =     0.0013
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-2494.182	24328.78	-0.10	0.919	-50910.66	45922.3
Sex	0	(omitted)				
w1Age	-2617.748	1505.013	-1.74	0.086	-5612.818	377.3223
Race	-87688.55	24785.96	-3.54	0.001	-137014.1	-38363.03
PovStat	22855.9	26461.06	0.86	0.390	-29802.79	75514.58
TIME_V1SCAN	-50.55286	18.83373	-2.68	0.009	-88.03316	-13.07257
w1BMI	1369.83	2137.082	0.64	0.523	-2883.044	5622.703
w1currdrugs	13451.41	29127.03	0.46	0.645	-44526.78	71429.6
w1SRH	10593.72	15358.72	0.69	0.492	-19970.75	41158.19
_cons	1478903	105820.8	13.98	0.000	1268315	1689490

443 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if Sex==2

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0044
Largest FMI = 0.0385
Complete DF = 82
DF adjustment: Small sample — DF: min = 75.22
avg = 79.48
max = 80.07
Model F test: Equal FMI — F(8, 80.0) = 6.27
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-8425.292	12709.64	-0.66	0.509	-33718.52	16867.93
Sex	0	(omitted)				
w1Age	-2366.877	786.2811	-3.01	0.003	-3931.621	-802.1333
Race	-61700.33	12962.78	-4.76	0.000	-87497.83	-35902.83
PovStat	9751.432	13824.83	0.71	0.483	-17760.54	37263.41
TIME_V1SCAN	-25.92743	9.838474	-2.64	0.010	-45.50649	-6.348374
w1BMI	980.0508	1116.648	0.88	0.383	-1242.122	3202.224
w1currdrugs	4812.213	15405.09	0.31	0.756	-25874.82	35499.24
w1SRH	10266.02	8024.56	1.28	0.204	-5703.165	26235.2
_cons	885871.1	55289.17	16.02	0.000	775843.5	995898.8

444 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if Sex==2

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0010
Largest FMI = 0.0034
Complete DF = 82
DF adjustment: Small sample — DF: min = 79.84
avg = 79.99
max = 80.07
Model F test: Equal FMI — F(8, 80.1) = 1.95
Within VCE type: OLS — Prob > F = 0.0644

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-36.71864	11877.33	-0.00	0.998	-23674.1	23600.67
Sex	0	(omitted)				
w1Age	-725.2871	734.5879	-0.99	0.326	-2187.177	736.6028
Race	-26295.89	12090.81	-2.17	0.033	-50357.11	-2234.665
PovStat	5376.586	12913.92	0.42	0.678	-20322.83	31076
TIME_V1SCAN	-23.27718	9.195148	-2.53	0.013	-41.57645	-4.97792
w1BMI	367.614	1042.789	0.35	0.725	-1707.575	2442.803
w1currdrugs	10344.32	14128.87	0.73	0.466	-17773.1	38461.74
w1SRH	-244.0313	7494.904	-0.03	0.974	-15159.23	14671.17
_cons	588301	51638.7	11.39	0.000	485537.6	691064.3

```
445 .
446 .
447 .
448 . //ANALYSIS B//
449 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0025
Largest FMI = 0.0078
Complete DF = 81
DF adjustment: Small sample — DF: min = 78.44
avg = 78.88
max = 79.06
Model F test: Equal FMI — F(9, 79.1) = 9.58
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-58.22169	72.70689	-0.80	0.426	-202.9571	86.51374
Sex	0	(omitted)				
w1Age	-3.975299	4.487051	-0.89	0.378	-12.90696	4.956359
Race	29.65872	81.45659	0.36	0.717	-132.477	191.7945
PovStat	-188.8436	78.92144	-2.39	0.019	-345.9348	-31.75234
TIME_V1SCAN	-.0110139	.0576709	-0.19	0.849	-.1258151	.1037873
w1BMI	2.574889	6.379133	0.40	0.688	-10.12231	15.27209
w1currdrugs	-103.5965	86.66618	-1.20	0.236	-276.1035	68.91049
w1SRH	86.77822	45.73139	1.90	0.061	-4.247585	177.804
ICV_volM2	.0021886	.0003006	7.28	0.000	.0015903	.0027869
_cons	819.7566	589.748	1.39	0.168	-354.1018	1993.615

```
450 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 91
Average RVI = 0.0043
Largest FMI = 0.0154
Complete DF = 81
DF adjustment: Small sample — DF: min = 77.62
avg = 78.71
max = 79.05
Model F test: Equal FMI — F(9, 79.1) = 10.80
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-23.86816	73.31034	-0.33	0.746	-169.8062	122.0698
Sex	0	(omitted)				
w1Age	-4.830927	4.524049	-1.07	0.289	-13.83629	4.174433
Race	34.23915	82.19612	0.42	0.678	-129.3742	197.8525
PovStat	-161.452	79.57132	-2.03	0.046	-319.8377	-3.06632
TIME_V1SCAN	.0302055	.058166	0.52	0.605	-.0855836	.1459945
w1BMI	6.236413	6.431195	0.97	0.335	-6.564446	19.03727
w1currdrugs	-116.5313	87.9243	-1.33	0.189	-291.5887	58.52611
w1SRH	61.07707	46.1041	1.32	0.189	-30.69083	152.845
ICV_volM2	.0024847	.000303	8.20	0.000	.0018817	.0030878
_cons	491.0337	594.442	0.83	0.411	-692.1635	1674.231

```
451 .
452 . //ANALYSIS C//
453 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if S
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 90
Average RVI = 0.0035
Largest FMI = 0.0259
Complete DF = 80
DF adjustment: **Small sample** — DF: min = 75.31
avg = 77.74
max = 78.07
Model F test: **Equal FMI** — F(9, 78.1) = 0.97
Within VCE type: **OLS** — Prob > F = 0.4680

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.409417	.7008772	2.01	0.048	.0140471	2.804788
Sex	0	(omitted)				
w1Age	-.0476919	.0423257	-1.13	0.263	-.1319565	.0365727
Race	1.169835	.7451019	1.57	0.120	-.3135531	2.653224
PovStat	.1998049	.7238943	0.28	0.783	-1.241352	1.640962
TIME_V1SCAN	-.0004747	.000527	-0.90	0.371	-.0015239	.0005745
w1BMI	-.0251983	.0584351	-0.43	0.667	-.141532	.0911354
w1currdrugs	.5004777	.8035861	0.62	0.535	-1.10024	2.101196
w1SRH	-.1113911	.4249785	-0.26	0.794	-.9574515	.7346693
ICV_volM2	2.66e-07	2.75e-06	0.10	0.923	-5.21e-06	5.74e-06
_cons	5.044912	5.393519	0.94	0.352	-5.692661	15.78249

```
454 .
455 . save, replace
    file finaldata_imputed.dta saved

456 .
457 .
```

```
458 .
459 . //Females//
460 .
461 . use finaldata_imputed,clear

462 .
463 .
464 . //ANALYSIS A//
465 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0042
                                                Largest FMI       =     0.0370
                                                Complete DF       =        100
DF adjustment:   Small sample                   DF:     min       =      91.87
                                                        avg       =      97.25
                                                        max       =      98.03
Model F test:       Equal FMI                   F(   8,   98.0)   =       3.93
Within VCE type:          OLS                   Prob > F          =     0.0005

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   34282.94   20011.17     1.71   0.090    -5429.622     73995.5
         Sex |          0  (omitted)
       w1Age |  -3167.608   1007.855    -3.14   0.002    -5167.742   -1167.474
        Race |  -45454.74   14956.02    -3.04   0.003    -75134.34   -15775.13
     PovStat |  -13231.39   17084.28    -0.77   0.441    -47134.62    20671.84
  TIME_V1SCAN |  -8.86549   12.09036    -0.73   0.465    -32.85837    15.12738
       w1BMI |   1722.428   1047.944     1.64   0.103    -357.2038    3802.06
  w1currdrugs |  -8607.05   18855.03    -0.46   0.649    -46055.49    28841.39
       w1SRH |   21768.55   9540.733     2.28   0.025      2835.35    40701.76
       _cons |    1166523   78333.04    14.89   0.000      1011072     1321973
------------------------------------------------------------------------------

466 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH  if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0081
                                                Largest FMI       =     0.0638
                                                Complete DF       =        100
DF adjustment:   Small sample                   DF:     min       =      84.93
                                                        avg       =      96.28
                                                        max       =      97.96
Model F test:       Equal FMI                   F(   8,   98.0)   =       5.72
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |    21215.3   11244.43     1.89   0.062    -1100.713    43531.31
         Sex |          0  (omitted)
       w1Age |  -2405.825   566.4426    -4.25   0.000    -3530.028   -1281.623
        Race |   -33619.6   8392.137    -4.01   0.000    -50273.61   -16965.58
     PovStat |  -7412.308    9587.76    -0.77   0.441    -26439.19    11614.57
  TIME_V1SCAN |  -3.203798   6.787328    -0.47   0.638    -16.67331    10.26571
       w1BMI |   1095.661   588.3979     1.86   0.066    -72.04081    2263.362
  w1currdrugs |  -11629.49   10716.74    -1.09   0.281    -32937.51    9678.531
       w1SRH |   10828.67   5355.801     2.02   0.046     200.0767    21457.27
       _cons |   692467.4   43975.77    15.75   0.000     605196.2    779738.6
------------------------------------------------------------------------------
```

```
467 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0017
                                                Largest FMI       =     0.0117
                                                Complete DF       =        100
DF adjustment:   Small sample                   DF:     min       =      96.69
                                                        avg       =      97.84
                                                        max       =      98.03
Model F test:       Equal FMI                   F(   8,   98.0)   =       2.11
Within VCE type:          OLS                   Prob > F          =     0.0420
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	14644.75	9782.572	1.50	0.138	-4768.373	34057.88
Sex	0	(omitted)				
w1Age	-1087.556	492.4844	-2.21	0.030	-2064.872	-110.2392
Race	-9255.921	7319.776	-1.26	0.209	-23781.74	5269.895
PovStat	-5966.812	8360.363	-0.71	0.477	-22557.67	10624.04
TIME_V1SCAN	-4.601649	5.918586	-0.78	0.439	-16.34695	7.143656
w1BMI	784.6285	512.7426	1.53	0.129	-232.8969	1802.154
w1currdrugs	6149.155	9113.327	0.67	0.501	-11939	24237.32
w1SRH	9607.98	4670.588	2.06	0.042	339.3131	18876.65
_cons	439782.6	38340.55	11.47	0.000	363696.2	515868.9

```
468 .
469 .
470 . //ANALYSIS B//
471 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        109
                                                Average RVI       =     0.0199
                                                Largest FMI       =     0.1639
                                                Complete DF       =         99
DF adjustment:   Small sample                   DF:     min       =      55.93
                                                        avg       =      92.47
                                                        max       =      97.05
Model F test:       Equal FMI                   F(   9,   96.8)   =       5.26
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	64.67733	70.83232	0.91	0.363	-75.92367	205.2783
Sex	0	(omitted)				
w1Age	-7.356188	3.568486	-2.06	0.042	-14.4403	-.2720772
Race	-129.0491	54.6593	-2.36	0.020	-237.5319	-20.56628
PovStat	-54.06687	59.3268	-0.91	0.364	-171.8183	63.68454
TIME_V1SCAN	.017742	.0418823	0.42	0.673	-.0653831	.100867
w1BMI	-.2337967	3.67111	-0.06	0.949	-7.520346	7.052753
w1currdrugs	3.412251	69.98943	0.05	0.961	-136.7973	143.6218
w1SRH	-90.51201	34.25846	-2.64	0.010	-158.5053	-22.51875
ICV_volM2	.0012859	.0002973	4.33	0.000	.0006959	.0018759
_cons	2428.128	465.6638	5.21	0.000	1503.828	3352.427

```
472 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 109
Average RVI = 0.0152
Largest FMI = 0.1287
Complete DF = 99
DF adjustment: **Small sample** — DF: min = 65.32
avg = 93.52
max = 97.05
Model F test: **Equal FMI** — F(9, 96.9) = 7.00
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2.431188	75.36314	0.03	0.974	-147.1603	152.0227
Sex	0	(omitted)				
w1Age	-2.31034	3.793149	-0.61	0.544	-9.839977	5.219298
Race	-138.6587	58.19042	-2.38	0.019	-254.1498	-23.1676
PovStat	-29.22969	63.14124	-0.46	0.644	-154.551	96.0916
TIME_V1SCAN	.0303023	.0445895	0.68	0.498	-.0581958	.1188004
w1BMI	-1.047492	3.905302	-0.27	0.789	-8.798701	6.703717
w1currdrugs	13.24899	73.16495	0.18	0.857	-132.8577	159.3557
w1SRH	-91.83329	36.47134	-2.52	0.013	-164.2185	-19.44809
ICV_volM2	.001904	.0003164	6.02	0.000	.001276	.002532
_cons	1809.624	495.251	3.65	0.000	826.6278	2792.62

```
473 .
474 . //ANALYSIS C//
475 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if S
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 107
Average RVI = 0.0032
Largest FMI = 0.0277
Complete DF = 97
DF adjustment: **Small sample** — DF: min = 91.07
avg = 94.60
max = 95.05
Model F test: **Equal FMI** — F(9, 95.0) = 2.65
Within VCE type: **OLS** — Prob > F = 0.0087

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3.066545	1.121515	2.73	0.007	.8400172	5.293073
Sex	0	(omitted)				
w1Age	.0556442	.0567515	0.98	0.329	-.0570229	.1683113
Race	1.114374	.8794929	1.27	0.208	-.6316306	2.860379
PovStat	1.143351	.9513239	1.20	0.232	-.7452591	3.031961
TIME_V1SCAN	-.0003494	.000665	-0.53	0.601	-.0016697	.0009709
w1BMI	.1146068	.0584648	1.96	0.053	-.00146	.2306736
w1currdrugs	-.3788629	1.037965	-0.37	0.716	-2.440633	1.682908
w1SRH	-.486625	.5466709	-0.89	0.376	-1.571901	.5986513
ICV_volM2	4.84e-06	4.73e-06	1.02	0.308	-4.54e-06	.0000142
_cons	-14.24151	7.400121	-1.92	0.057	-28.93255	.4495344

```
476 .
477 . save, replace
    file finaldata_imputed.dta saved

478 .
479 . ******************INTERACTION BY Sex**********************
480 .
481 .
482 . //ANALYSIS A//
483 . mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        200
                                                  Average RVI       =     0.0014
                                                  Largest FMI       =     0.0159
                                                  Complete DF       =        189
    DF adjustment:   Small sample                 DF:     min       =     182.10
                                                          avg       =     186.55
                                                          max       =     187.03
    Model F test:       Equal FMI                 F(  10,  187.0)   =      16.90
    Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   22512.86   21432.76     1.05   0.295    -19768.28       64794
             |
         Sex |
         Men |     180132   53854.98     3.34   0.001     73890.68    286373.4
             |
Sex#c.LnNFLw1|
         Men |  -20830.75   25551.42    -0.82   0.416    -71236.84    29575.33
             |
         Sex |          0  (omitted)
       w1Age |  -2756.187   870.6394    -3.17   0.002    -4473.725   -1038.648
        Race |  -64470.88   13717.81    -4.70   0.000    -91532.48   -37409.28
     PovStat |   4761.067   15082.18     0.32   0.753       -24992    34514.13
  TIME_V1SCAN |  -30.52971   10.73637    -2.84   0.005    -51.70967   -9.349748
       w1BMI |   1300.65   1035.929     1.26   0.211    -742.9588    3344.258
  w1currdrugs |   548.6607   16505.42     0.03   0.974    -32017.81    33115.13
       w1SRH |   15826.54   8576.832     1.85   0.067    -1093.224    32746.31
       _cons |   1239078   73231.55    16.92   0.000      1094612     1383544
------------------------------------------------------------------------------

484 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        200
                                                  Average RVI       =     0.0032
                                                  Largest FMI       =     0.0324
                                                  Complete DF       =        189
    DF adjustment:   Small sample                 DF:     min       =     173.32
                                                          avg       =     185.66
                                                          max       =     187.00
    Model F test:       Equal FMI                 F(  10,  187.0)   =      19.65
    Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	16028.78	11537.43	1.39	0.166	-6731.608	38789.17
Sex						
Men	118713.3	28985.71	4.10	0.000	61532.21	175894.5
Sex#c.LnNFLw1						
Men	-23327.72	13752.68	-1.70	0.092	-50458.15	3802.705
Sex	0	(omitted)				
w1Age	-2309.171	468.7554	-4.93	0.000	-3233.906	-1384.435
Race	-45950.41	7385.915	-6.22	0.000	-60520.97	-31379.84
PovStat	1830.391	8116.736	0.23	0.822	-14181.75	17842.53
TIME_V1SCAN	-14.68832	5.779773	-2.54	0.012	-26.09031	-3.286332
w1BMI	901.1516	557.5927	1.62	0.108	-198.8323	2001.136
w1currdrugs	-5304.631	8954.969	-0.59	0.554	-22979.46	12370.2
w1SRH	9905.684	4616.076	2.15	0.033	799.4004	19011.97
_cons	732261.7	39413.53	18.58	0.000	654509.3	810014.1

485 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 200
Average RVI = 0.0015
Largest FMI = 0.0089
Complete DF = 189
DF adjustment: Small sample — DF: min = 184.77
avg = 186.69
max = 186.98
Model F test: Equal FMI — F(10, 187.0) = 10.82
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7847.349	10449.94	0.75	0.454	-12767.61	28462.31
Sex						
Men	66657.81	26266.52	2.54	0.012	14840.79	118474.8
Sex#c.LnNFLw1						
Men	-5022.219	12463.74	-0.40	0.687	-29610	19565.56
Sex	0	(omitted)				
w1Age	-857.9386	424.4686	-2.02	0.045	-1695.301	-20.57571
Race	-17453.1	6688.3	-2.61	0.010	-30647.35	-4258.844
PovStat	-585.4348	7354.496	-0.08	0.937	-15093.9	13923.03
TIME_V1SCAN	-14.31295	5.239305	-2.73	0.007	-24.64882	-3.977082
w1BMI	492.1619	505.0853	0.97	0.331	-504.2361	1488.56
w1currdrugs	7642.721	8019.034	0.95	0.342	-8177.92	23463.36
w1SRH	4560.001	4183.927	1.09	0.277	-3693.819	12813.82
_cons	485156.2	35712.67	13.58	0.000	414704.5	555607.9

```
. 
. 
. //ANALYSIS B//
. mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_vo

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0049
                                                Largest FMI       =     0.0506
                                                Complete DF       =        188
DF adjustment:   Small sample                   DF:     min       =     160.07
                                                        avg       =     183.76
                                                        max       =     186.03
Model F test:       Equal FMI                   F(  11,  186.0)   =      14.14
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |   55.45368   70.61277     0.79   0.433    -83.85173    194.7591
              |
          Sex |
          Men |   265.5286   183.4833     1.45   0.150    -96.44817    627.5054
              |
Sex#c.LnNFLw1 |
          Men |  -147.7089   84.14844    -1.76   0.081    -313.7177    18.29995
              |
          Sex |          0  (omitted)
        w1Age |  -5.443941   2.871124    -1.90   0.059    -11.10811    .2202311
         Race |  -70.58027   48.46255    -1.46   0.147    -166.1882     25.0277
      PovStat |  -91.29926   49.57382    -1.84   0.067    -189.0984    6.499877
  TIME_V1SCAN |   .0142691     .03573     0.40   0.690    -.0562193    .0847576
        w1BMI |   1.236702   3.420677     0.36   0.718    -5.511642    7.985047
  w1currdrugs |  -28.34765   55.19407    -0.51   0.608    -137.3502    80.65487
        w1SRH |  -27.74931   28.41768    -0.98   0.330    -83.81178    28.31316
    ICV_volM2 |   .0017253   .0002121     8.14   0.000     .0013069    .0021436
        _cons |   1609.351   374.7051     4.29   0.000     870.1322     2348.57
------------------------------------------------------------------------------

. mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_v

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        200
                                                Average RVI       =     0.0072
                                                Largest FMI       =     0.0732
                                                Complete DF       =        188
DF adjustment:   Small sample                   DF:     min       =     142.61
                                                        avg       =     182.25
                                                        max       =     186.02
Model F test:       Equal FMI                   F(  11,  186.0)   =      17.07
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |   43.32402   71.54827     0.61   0.546    -97.82758    184.4756
              |
          Sex |
          Men |   131.3279   185.8928     0.71   0.481    -235.4033    498.0591
              |
Sex#c.LnNFLw1 |
          Men |  -115.7589   85.26528    -1.36   0.176    -283.9719    52.45402
              |
          Sex |          0  (omitted)
        w1Age |  -3.387962   2.908391    -1.16   0.246    -9.125658    2.349734
```

Race	-75.71964	49.10684	-1.54	0.125	-172.5992	21.15994
PovStat	-73.74341	50.21541	-1.47	0.144	-172.8083	25.32147
TIME_V1SCAN	.0417435	.0361991	1.15	0.250	-.0296705	.1131575
w1BMI	1.943749	3.46511	0.56	0.576	-4.892259	8.779756
w1currdrugs	-35.05811	56.54599	-0.62	0.536	-146.8347	76.71851
w1SRH	-31.86056	28.7891	-1.11	0.270	-88.65587	24.93474
ICV_volM2	.0021242	.0002148	9.89	0.000	.0017004	.002548
_cons	1245.872	379.5612	3.28	0.001	497.0723	1994.671

```
491 .
492 . //ANALYSIS C//
493 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_vol
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 197
Average RVI = 0.0015
Largest FMI = 0.0161
Complete DF = 185
DF adjustment: Small sample — DF: min = 178.19
avg = 182.59
max = 183.03
Model F test: Equal FMI — F(11, 183.0) = 2.77
Within VCE type: OLS — Prob > F = 0.0024

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3.474742	.8568789	4.06	0.000	1.784107	5.165376
Sex						
Men	5.846293	2.231715	2.62	0.010	1.443092	10.24949
Sex#c.LnNFLw1						
Men	-2.591284	1.027938	-2.52	0.013	-4.61942	-.5631482
Sex	0	(omitted)				
w1Age	-.0018693	.0353	-0.05	0.958	-.0715166	.0677779
Race	1.109883	.5873349	1.89	0.060	-.0489389	2.268705
PovStat	.8166585	.6011454	1.36	0.176	-.3694071	2.002724
TIME_V1SCAN	-.0003681	.0004297	-0.86	0.393	-.0012158	.0004797
w1BMI	.0718015	.0412723	1.74	0.084	-.0096292	.1532323
w1currdrugs	-.188901	.6553488	-0.29	0.773	-1.482144	1.104342
w1SRH	-.2832758	.344885	-0.82	0.413	-.9637378	.3971863
ICV_volM2	1.66e-06	2.55e-06	0.65	0.516	-3.37e-06	6.70e-06
_cons	-7.003317	4.521071	-1.55	0.123	-15.92344	1.916805

```
494 .
495 . save, replace
    file finaldata_imputed.dta saved

496 .
497 .
498 .
499 . capture log close
```