```
. 
. ////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
> 
. **********************TABLE 4: bayes1LnNFL, MODELS 1 AND 2*********************
. 
. **ANALYSES A-C, TOTAL POPULATION**
. 
. **Model 1**
. 
. use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

. 
. //ANALYSIS A//
. reg TOTALBRAIN bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1,beta
```

Source	SS	df	MS		
Model	1.1257e+12	7	1.6082e+11	Number of obs	= 179
Residual	1.3572e+12	171	7.9368e+09	F(7, 171)	= 20.26
				Prob > F	= 0.0000
Total	2.4829e+12	178	1.3949e+10	R-squared	= 0.4534
				Adj R-squared	= 0.4310
				Root MSE	= 89089

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-33685.97	96825.84	-0.35	0.728	-.0212047
LnNFLw1	-3136.559	17005.39	-0.18	0.854	-.0140163
Sex	137799.9	13639.76	10.10	0.000	.5817062
w1Age	-2153.816	930.2199	-2.32	0.022	-.1660571
Race	-71268.24	14344.94	-4.97	0.000	-.297988
PovStat	-3116.942	15963.17	-0.20	0.845	-.0122706
TIME_V1SCAN	-21.70245	11.37013	-1.91	0.058	-.1164321
_cons	1201692	57437.92	20.92	0.000	.

```
. reg GM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1,beta
```

Source	SS	df	MS		
Model	3.6783e+11	7	5.2547e+10	Number of obs	= 179
Residual	3.8941e+11	171	2.2773e+09	F(7, 171)	= 23.07
				Prob > F	= 0.0000
Total	7.5724e+11	178	4.2542e+09	R-squared	= 0.4858
				Adj R-squared	= 0.4647
				Root MSE	= 47721

GM	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-31770.53	51865.21	-0.61	0.541	-.0362135
LnNFLw1	-7738.55	9109.017	-0.85	0.397	-.0626183
Sex	71788.22	7306.201	9.83	0.000	.548746
w1Age	-1828.012	498.2766	-3.67	0.000	-.2552062
Race	-50935.22	7683.934	-6.63	0.000	-.385642
PovStat	-2535.302	8550.748	-0.30	0.767	-.0180731
TIME_V1SCAN	-8.388294	6.090461	-1.38	0.170	-.0814893
_cons	734516.3	30766.89	23.87	0.000	.

```
14 . reg WM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1,beta
```

Source	SS	df	MS		
				Number of obs	= 179
				F(7, 171)	= 13.34
Model	1.7577e+11	7	2.5110e+10	Prob > F	= 0.0000
Residual	3.2187e+11	171	1.8823e+09	R-squared	= 0.3532
				Adj R-squared	= 0.3267
Total	4.9764e+11	178	2.7958e+09	Root MSE	= 43385

WM	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-16424.03	47153.45	-0.35	0.728	-.0230932
LnNFLw1	1185.819	8281.496	0.14	0.886	.0118364
Sex	56353.33	6642.46	8.48	0.000	.5313689
w1Age	-701.5875	453.01	-1.55	0.123	-.1208238
Race	-18372.46	6985.877	-2.63	0.009	-.1715899
PovStat	-4844.275	7773.944	-0.62	0.534	-.042598
TIME_V1SCAN	-11.77304	5.537165	-2.13	0.035	-.1410829
_cons	463084.6	27971.83	16.56	0.000	.

```
15 .
16 . //ANALYSIS B//
17 . reg Left_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1,beta
```

Source	SS	df	MS		
				Number of obs	= 179
				F(8, 170)	= 19.31
Model	12603299.9	8	1575412.48	Prob > F	= 0.0000
Residual	13866784	170	81569.3177	R-squared	= 0.4761
				Adj R-squared	= 0.4515
Total	26470083.9	178	148708.336	Root MSE	= 285.6

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-894.0536	310.4257	-2.88	0.004	-.1723653
LnNFLw1	-104.8599	54.51701	-1.92	0.056	-.1435131
Sex	-13.24759	58.47753	-0.23	0.821	-.0171275
w1Age	-3.998253	2.983837	-1.34	0.182	-.094411
Race	-102.2841	50.07386	-2.04	0.043	-.1309828
PovStat	-126.98	51.18928	-2.48	0.014	-.1531009
TIME_V1SCAN	.0152404	.0366713	0.42	0.678	.0250417
ICV_volM2	.0016595	.0002159	7.69	0.000	.611484
_cons	2050.363	331.5064	6.18	0.000	.

```
18 . reg Right_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1,beta
```

Source	SS	df	MS		
				Number of obs	= 179
				F(8, 170)	= 21.59
Model	15327989.3	8	1915998.67	Prob > F	= 0.0000
Residual	15083238	170	88724.9293	R-squared	= 0.5040
				Adj R-squared	= 0.4807
Total	30411227.3	178	170849.592	Root MSE	= 297.87

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-724.9613	323.7555	-2.24	0.026	-.1303952
LnNFLw1	-84.48767	56.85798	-1.49	0.139	-.1078788
Sex	-93.07535	60.98857	-1.53	0.129	-.1122674
w1Age	-2.581855	3.111964	-0.83	0.408	-.0568781
Race	-98.90267	52.22405	-1.89	0.060	-.1181612
PovStat	-101.4898	53.38735	-1.90	0.059	-.114163
TIME_V1SCAN	.0485013	.038246	1.27	0.206	.07435
ICV_volM2	.0020904	.0002252	9.28	0.000	.7186003
_cons	1660.579	345.7413	4.80	0.000	.

```
19 .
20 . //ANALYSIS C//
21 . reg LnLesion_Volume bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1,beta
```

Source	SS	df	MS		
				Number of obs	= 179
				F(8, 170)	= 2.64
Model	290.567914	8	36.3209892	Prob > F	= 0.0093
Residual	2334.54342	170	13.7326084	R-squared	= 0.1107
				Adj R-squared	= 0.0688
Total	2625.11134	178	14.7478165	Root MSE	= 3.7058

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-2.549486	4.027827	-0.63	0.528	-.0493563
LnNFLw1	1.972885	.7073676	2.79	0.006	.2711364
Sex	.2447912	.758756	0.32	0.747	.0317803
w1Age	.0149697	.0387158	0.39	0.699	.0354952
Race	1.334314	.649717	2.05	0.042	.1715806
PovStat	.8746417	.6641896	1.32	0.190	.1058952
TIME_V1SCAN	-.0006925	.0004758	-1.46	0.147	-.1142655
ICV_volM2	2.40e-06	2.80e-06	0.86	0.393	.0888318
_cons	-4.172077	4.301352	-0.97	0.333	.

```
22 .
23 .
24 . **Model 2**
25 .
26 . use finaldata_imputed,clear

27 .
28 .
29 . //ANALYSIS A//
30 . mi estimate: reg TOTALBRAIN bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 179
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 169
DF adjustment:	Small sample	DF: min	= 167.03
		avg	= 167.03
		max	= 167.03
Model F test:	Equal FMI	F(9, 167.0)	= 319.44
Within VCE type:	OLS	Prob > F	= 0.0000

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-46622.42	31050.29	-1.50	0.135	-107924	14679.18
LnNFLw1	-2144.926	5628.383	-0.38	0.704	-13256.86	8967.01
Sex	-12272.52	5901.192	-2.08	0.039	-23923.06	-621.9877
w1Age	-1767.206	303.3488	-5.83	0.000	-2366.098	-1168.314
Race	5337.894	5007.912	1.07	0.288	-4549.067	15224.85
PovStat	1494.951	5120.779	0.29	0.771	-8614.84	11604.74
TIME_V1SCAN	-6.161073	3.674654	-1.68	0.095	-13.41582	1.093678
w1BMI	21.14185	351.8118	0.06	0.952	-673.429	715.7127
ICV_volM2	.8346976	.0216186	38.61	0.000	.7920166	.8773785
_cons	135255.6	34791.99	3.89	0.000	66566.92	203944.3

31 . mi estimate: reg GM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final==1

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 179
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 169
DF adjustment:	Small sample	DF: min	= 167.03
		avg	= 167.03
		max	= 167.03
Model F test:	Equal FMI	F(9, 167.0)	= 120.42
Within VCE type:	OLS	Prob > F	= 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-38370.39	26728.49	-1.44	0.153	-91139.6	14398.81
LnNFLw1	-6602.641	4844.985	-1.36	0.175	-16167.94	2962.658
Sex	-657.1581	5079.822	-0.13	0.897	-10686.09	9371.771
w1Age	-1666.005	261.1266	-6.38	0.000	-2181.539	-1150.471
Race	-13731.7	4310.875	-3.19	0.002	-22242.52	-5220.875
PovStat	-361.8821	4408.033	-0.08	0.935	-9064.52	8340.756
TIME_V1SCAN	-.7375907	3.163189	-0.23	0.816	-6.982574	5.507393
w1BMI	174.8985	302.8441	0.58	0.564	-422.997	772.794
ICV_volM2	.4044869	.0186096	21.74	0.000	.3677466	.4412272
_cons	212132.1	29949.39	7.08	0.000	153004	271260.2

32 . mi estimate: reg WM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final==1

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 179
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 169
DF adjustment:	Small sample	DF: min	= 167.03
		avg	= 167.03
		max	= 167.03
Model F test:	Equal FMI	F(9, 167.0)	= 110.13
Within VCE type:	OLS	Prob > F	= 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-22022.71	22516.6	-0.98	0.329	-66476.52	22431.1
LnNFLw1	1126.128	4081.51	0.28	0.783	-6931.866	9184.122
Sex	-11790.85	4279.341	-2.76	0.007	-20239.42	-3342.289
w1Age	-506.9313	219.9781	-2.30	0.022	-941.2271	-72.63548
Race	16239.48	3631.566	4.47	0.000	9069.797	23409.16
PovStat	-2709.074	3713.413	-0.73	0.467	-10040.35	4622.198
TIME_V1SCAN	-4.831177	2.664733	-1.81	0.072	-10.09207	.429719
w1BMI	-118.1939	255.1218	-0.46	0.644	-621.8728	385.4849
ICV_volM2	.3778143	.0156771	24.10	0.000	.3468635	.408765
_cons	-15278.81	25229.95	-0.61	0.546	-65089.5	34531.87

```
33 .
34 . //ANALYSIS B//
35 . mi estimate: reg Left_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 169
DF adjustment: Small sample — DF: min = 167.03
avg = 167.03
max = 167.03
Model F test: Equal FMI — F(9, 167.0) = 17.18
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-899.0093	310.9472	-2.89	0.004	-1512.902	-285.1161
LnNFLw1	-94.81446	56.36437	-1.68	0.094	-206.0928	16.46391
Sex	-7.559046	59.09636	-0.13	0.898	-124.2311	109.113
w1Age	-4.390678	3.037829	-1.45	0.150	-10.38817	1.606811
Race	-101.767	50.15078	-2.03	0.044	-200.778	-2.755882
PovStat	-127.9666	51.28107	-2.50	0.014	-229.2091	-26.72401
TIME_V1SCAN	.0169268	.0367991	0.46	0.646	-.0557245	.0895782
w1BMI	2.525923	3.523152	0.72	0.474	-4.429723	9.48157
ICV_volM2	.0016516	.0002165	7.63	0.000	.0012242	.002079
_cons	1974.544	348.4177	5.67	0.000	1286.675	2662.414

```
36 . mi estimate: reg Right_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sampl
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 169
DF adjustment: Small sample — DF: min = 167.03
avg = 167.03
max = 167.03
Model F test: Equal FMI — F(9, 167.0) = 19.22
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-730.5927	324.207	-2.25	0.026	-1370.664	-90.52109
LnNFLw1	-73.07245	58.76793	-1.24	0.215	-189.0961	42.9512
Sex	-86.61111	61.61642	-1.41	0.162	-208.2584	35.03622
w1Age	-3.027792	3.167372	-0.96	0.340	-9.281033	3.22545
Race	-98.31507	52.28937	-1.88	0.062	-201.5483	4.918169
PovStat	-102.6108	53.46786	-1.92	0.057	-208.1707	2.949035
TIME_V1SCAN	.0504176	.0383684	1.31	0.191	-.0253318	.1261671
w1BMI	2.870365	3.673391	0.78	0.436	-4.381893	10.12262
ICV_volM2	.0020814	.0002257	9.22	0.000	.0016358	.002527
_cons	1574.421	363.2754	4.33	0.000	857.2184	2291.624

```
37 .
38 . //ANALYSIS C//
39 . mi estimate: reg LnLesion_Volume bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 169
DF adjustment: **Small sample** — DF: min = 167.03
avg = 167.03
max = 167.03
Model F test: **Equal FMI** — F(9, 167.0) = 2.56
Within VCE type: **OLS** — Prob > F = 0.0089

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-2.667706	4.019962	-0.66	0.508	-10.60419	5.268776
LnNFLw1	2.212526	.7286852	3.04	0.003	.773906	3.651146
Sex	.3804954	.7640046	0.50	0.619	-1.127854	1.888845
w1Age	.0056082	.0392734	0.14	0.887	-.0719281	.0831444
Race	1.34665	.6483551	2.08	0.039	.0666233	2.626677
PovStat	.8511072	.6629676	1.28	0.201	-.4577685	2.159983
TIME_V1SCAN	-.0006523	.0004757	-1.37	0.172	-.0015916	.0002869
w1BMI	.0602577	.0455477	1.32	0.188	-.0296657	.1501811
ICV_volM2	2.21e-06	2.80e-06	0.79	0.430	-3.31e-06	7.74e-06
_cons	-5.980781	4.504385	-1.33	0.186	-14.87364	2.912082

```
40 .
41 . save, replace
   file finaldata_imputed.dta saved

42 .
43 . ********************MALES************************************************************
44 .
45 . **Model 1**
```

```
46 .
47 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

48 .
49 . //ANALYSIS A//
50 . reg TOTALBRAIN bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1 & Sex==2,beta
   note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
Model	2.5065e+11	6	4.1775e+10	Number of obs	80
Residual	7.7537e+11	73	1.0621e+10	F(6, 73)	3.93
Total	1.0260e+12	79	1.2988e+10	Prob > F	0.0018
				R-squared	0.2443
				Adj R-squared	0.1822
				Root MSE	1.0e+05

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-122181.5	147157.9	-0.83	0.409	-.098207
LnNFLw1	-17415.45	27199.68	-0.64	0.524	-.0850754
Sex	0	(omitted)			.
w1Age	-1968.932	1579.814	-1.25	0.217	-.1508132
Race	-93163.42	24710.86	-3.77	0.000	-.4066691
PovStat	22738.22	29179.07	0.78	0.438	.086941
TIME_V1SCAN	-40.11295	19.62159	-2.04	0.045	-.2154101
_cons	1536624	96311.78	15.95	0.000	.

```
51 . reg GM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1 & Sex==2,beta
   note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
Model	1.1383e+11	6	1.8972e+10	Number of obs	80
Residual	2.1013e+11	73	2.8784e+09	F(6, 73)	6.59
Total	3.2396e+11	79	4.1007e+09	Prob > F	0.0000
				R-squared	0.3514
				Adj R-squared	0.2981
				Root MSE	53651

GM	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-62722.37	76607.38	-0.82	0.416	-.0897206
LnNFLw1	-16166.96	14159.59	-1.14	0.257	-.1405498
Sex	0	(omitted)			.
w1Age	-2126.253	822.4187	-2.59	0.012	-.2898388
Race	-64672.41	12863.97	-5.03	0.000	-.5023976
PovStat	7292.922	15190.03	0.48	0.633	.0496252
TIME_V1SCAN	-15.72276	10.21459	-1.54	0.128	-.1502599
_cons	932826.6	50137.93	18.61	0.000	.

```
52 . reg WM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1 & Sex==2,beta
   note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
Model	3.4585e+10	6	5.7641e+09	Number of obs	80
Residual	1.8408e+11	73	2.5216e+09	F(6, 73)	2.29
Total	2.1866e+11	79	2.7679e+09	Prob > F	0.0446
				R-squared	0.1582
				Adj R-squared	0.0890
				Root MSE	50216

WM	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-62608.01	71702.08	-0.87	0.385	-.1090075
LnNFLw1	-6555.695	13252.93	-0.49	0.622	-.0693709
Sex	0	(omitted)			.
w1Age	-365.1603	769.7579	-0.47	0.637	-.0605873
Race	-27184.84	12040.27	-2.26	0.027	-.2570467
PovStat	6134	14217.38	0.43	0.667	.0508044
TIME_V1SCAN	-22.1668	9.560538	-2.32	0.023	-.257854
_cons	596753.5	46927.52	12.72	0.000	.

```
53 .
54 . //ANALYSIS B//
55 . reg Left_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1 & Sex==2,
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 80
				F(7, 72)	= 10.80
Model	7478353.9	7	1068336.27	Prob > F	= 0.0000
Residual	7120977.63	72	98902.4671	R-squared	= 0.5122
				Adj R-squared	= 0.4648
Total	14599331.5	79	184801.665	Root MSE	= 314.49

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-882.2169	449.9708	-1.96	0.054	-.1879851
LnNFLw1	-164.8617	83.23634	-1.98	0.051	-.2135011
Sex	0	(omitted)			.
w1Age	-2.426291	4.821531	-0.50	0.616	-.0492677
Race	-24.4942	84.39423	-0.29	0.772	-.0283446
PovStat	-216.0532	89.22989	-2.42	0.018	-.2189979
TIME_V1SCAN	.0073059	.061093	0.12	0.905	.0104008
ICV_volM2	.0020705	.0003238	6.39	0.000	.6110381
_cons	1496.062	620.3137	2.41	0.018	.

```
56 . reg Right_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1 & Sex==2
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 80
				F(7, 72)	= 11.26
Model	8400336.73	7	1200048.1	Prob > F	= 0.0000
Residual	7671221.69	72	106544.746	R-squared	= 0.5227
				Adj R-squared	= 0.4763
Total	16071558.4	79	203437.448	Root MSE	= 326.41

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-768.0578	467.0321	-1.64	0.104	-.1559837
LnNFLw1	-126.3153	86.39238	-1.46	0.148	-.1559099
Sex	0	(omitted)			.
w1Age	-2.520121	5.004347	-0.50	0.616	-.0487729
Race	-20.19539	87.59417	-0.23	0.818	-.0222739
PovStat	-188.7048	92.61318	-2.04	0.045	-.1823054
TIME_V1SCAN	.0515029	.0634094	0.81	0.419	.0698815
ICV_volM2	.0023795	.0003361	7.08	0.000	.6692772
_cons	1134.656	643.8339	1.76	0.082	.

```
57 .
58 . //ANALYSIS C//
59 . reg LnLesion_Volume bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1 & Sex==2,b
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
Model	80.9917021	7	11.5702432	Number of obs	= 80
Residual	633.349637	72	8.79652274	F(7, 72)	= 1.32
				Prob > F	= 0.2556
Total	714.341339	79	9.04229543	R-squared	= 0.1134
				Adj R-squared	= 0.0272
				Root MSE	= 2.9659

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-5.447142	4.243618	-1.28	0.203	-.165932
LnNFLw1	1.029952	.7849915	1.31	0.194	.1906826
Sex	0	(omitted)			.
w1Age	-.0467774	.0454713	-1.03	0.307	-.1357906
Race	1.233484	.7959113	1.55	0.126	.2040581
PovStat	.5713892	.8415159	0.68	0.499	.0827989
TIME_V1SCAN	-.0005836	.0005762	-1.01	0.314	-.1187815
ICV_volM2	2.85e-07	3.05e-06	0.09	0.926	.0120187
_cons	4.71307	5.8501	0.81	0.423	.

```
60 .
61 .
62 . **Model 2**
63 .
64 . use finaldata_imputed,clear

65 .
66 .
67 . //ANALYSIS A//
68 . mi estimate: reg TOTALBRAIN bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final==1 & Sex=
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 80
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 72
DF adjustment: Small sample		DF: min	= 70.08
		avg	= 70.08
		max	= 70.08
Model F test: Equal FMI		F(7, 70.1)	= 3.35
Within VCE type: OLS		Prob > F	= 0.0039

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-128517.5	148917	-0.86	0.391	-425517.3	168482.2
LnNFLw1	-16577.75	27444.09	-0.60	0.548	-71312.18	38156.67
Sex	0	(omitted)				
w1Age	-2188.452	1686.559	-1.30	0.199	-5552.12	1175.215
Race	-93548.27	24875.57	-3.76	0.000	-143160	-43936.51
PovStat	23474.29	29411.36	0.80	0.427	-35183.63	82132.22
TIME_V1SCAN	-40.10078	19.73673	-2.03	0.046	-79.46366	-.7379103
w1BMI	979.4486	2521.183	0.39	0.699	-4048.791	6007.688
_cons	1517663	108477.3	13.99	0.000	1301316	1734010

```
69 . mi estimate: reg GM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if sample_final==1 & Sex==2

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         80
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =         72
DF adjustment:   Small sample                 DF:     min       =      70.08
                                                      avg       =      70.08
                                                      max       =      70.08
Model F test:       Equal FMI                 F(   7,   70.1)   =       5.67
Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
bayes1LnNFL |  -68243.87   77376.58    -0.88   0.381    -222563.5    86075.76
    LnNFLw1 |  -15436.95   14259.82    -1.08   0.283    -43876.69    13002.79
        Sex |          0  (omitted)
      w1Age |  -2317.554   876.3277    -2.64   0.010    -4065.299   -569.8083
       Race |  -65007.79   12925.23    -5.03   0.000    -90785.83   -39229.76
    PovStat |   7934.372      15282     0.52   0.605       -22544    38412.75
TIME_V1SCAN |  -15.71216   10.25511    -1.53   0.130    -36.16492    4.740599
      w1BMI |   853.5394   1309.995     0.65   0.517     -1759.11    3466.189
      _cons |   916302.9   56364.28    16.26   0.000     803890.1     1028716
------------------------------------------------------------------------------

70 . mi estimate: reg WM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final==1 & Sex==2

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         80
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =         72
DF adjustment:   Small sample                 DF:     min       =      70.08
                                                      avg       =      70.08
                                                      max       =      70.08
Model F test:       Equal FMI                 F(   7,   70.1)   =       1.93
Within VCE type:          OLS                 Prob > F          =     0.0772

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
bayes1LnNFL |  -62453.34   72635.04    -0.86   0.393    -207316.4    82409.77
    LnNFLw1 |  -6576.145      13386    -0.49   0.625    -33273.13    20120.84
        Sex |          0  (omitted)
      w1Age |  -359.8014   822.6274    -0.44   0.663    -2000.447    1280.844
       Race |  -27175.45   12133.18    -2.24   0.028    -51373.84   -2977.06
    PovStat |   6116.031   14345.54     0.43   0.671    -22494.67    34726.73
TIME_V1SCAN |  -22.16709   9.626688    -2.30   0.024    -41.36653   -2.967653
      w1BMI |  -23.91037    1229.72    -0.02   0.985     -2476.46    2428.639
      _cons |   597216.4   52910.34    11.29   0.000     491692.1    702740.6
------------------------------------------------------------------------------
```

```
71 .
72 . //ANALYSIS B//
73 . mi estimate: reg Left_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 80
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 71
DF adjustment: **Small sample** — DF: min = 69.08
avg = 69.08
max = 69.08
Model F test: **Equal FMI** — F(8, 69.1) = 9.54
Within VCE type: **OLS** — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-929.0205	453.2566	-2.05	0.044	-1833.224	-24.81717
LnNFLw1	-159.0118	83.55972	-1.90	0.061	-325.7054	7.681843
Sex	0	(omitted)				
w1Age	-4.011589	5.121688	-0.78	0.436	-14.22886	6.205684
Race	-28.54974	84.59277	-0.34	0.737	-197.3042	140.2047
PovStat	-210.5326	89.51879	-2.35	0.022	-389.114	-31.95124
TIME_V1SCAN	.0069868	.0611554	0.11	0.909	-.1150123	.1289859
w1BMI	7.085968	7.661193	0.92	0.358	-8.197374	22.36931
ICV_volM2	.0020596	.0003243	6.35	0.000	.0014127	.0027066
_cons	1377.207	634.0948	2.17	0.033	112.2491	2642.165

```
74 . mi estimate: reg Right_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sampl
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 80
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 71
DF adjustment: **Small sample** — DF: min = 69.08
avg = 69.08
max = 69.08
Model F test: **Equal FMI** — F(8, 69.1) = 10.37
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-849.836	465.2158	-1.83	0.072	-1777.897	78.22474
LnNFLw1	-116.0939	85.76445	-1.35	0.180	-287.1857	54.99793
Sex	0	(omitted)				
w1Age	-5.290059	5.256824	-1.01	0.318	-15.77692	5.196798
Race	-27.28149	86.82476	-0.31	0.754	-200.4885	145.9255
PovStat	-179.0588	91.88075	-1.95	0.055	-362.3521	4.234402
TIME_V1SCAN	.0509453	.062769	0.81	0.420	-.0742727	.1761634
w1BMI	12.38107	7.863334	1.57	0.120	-3.305526	28.06766
ICV_volM2	.0023605	.0003329	7.09	0.000	.0016964	.0030245
_cons	926.9845	650.8254	1.42	0.159	-371.3495	2225.318

```
75 .
76 . //ANALYSIS C//
77 . mi estimate: reg LnLesion_Volume bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 80
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 71
DF adjustment:	Small sample	DF: min	= 69.08
		avg	= 69.08
		max	= 69.08
Model F test:	Equal FMI	F(8, 69.1)	= 1.15
Within VCE type:	OLS	Prob > F	= 0.3446

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-5.313928	4.297949	-1.24	0.221	-13.88792	3.260067
LnNFLw1	1.013302	.7923446	1.28	0.205	-.5673491	2.593953
Sex	0	(omitted)				
w1Age	-.0422653	.0485658	-0.87	0.387	-.1391493	.0546188
Race	1.245027	.8021404	1.55	0.125	-.355166	2.845219
PovStat	.5556761	.8488507	0.65	0.515	-1.137699	2.249051
TIME_V1SCAN	-.0005827	.0005799	-1.00	0.318	-.0017396	.0005741
w1BMI	-.0201684	.0726463	-0.28	0.782	-.1650908	.124754
ICV_volM2	3.16e-07	3.08e-06	0.10	0.919	-5.82e-06	6.45e-06
_cons	5.051361	6.012724	0.84	0.404	-6.943445	17.04617

```
78 .
79 . save, replace
file finaldata_imputed.dta saved

80 .
81 .
82 . ********************FEMALES*****************************************************
83 .
84 . **Model 1**
85 .
86 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

87 .
88 . //ANALYSIS A//
89 . reg TOTALBRAIN bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1 & Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 99
				F(6, 92)	= 3.43
Model	1.1835e+11	6	1.9724e+10	Prob > F	= 0.0043
Residual	5.2973e+11	92	5.7580e+09	R-squared	= 0.1826
				Adj R-squared	= 0.1293
Total	6.4808e+11	98	6.6131e+09	Root MSE	= 75881

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	60611.37	143543.8	0.42	0.674	.0422836
LnNFLw1	10429.26	22045.14	0.47	0.637	.0644827
Sex	0	(omitted)			.
w1Age	-2585.233	1110.913	-2.33	0.022	-.2997987
Race	-54861.73	16618.59	-3.30	0.001	-.3327315
PovStat	-21718.7	18768.61	-1.16	0.250	-.129129
TIME_V1SCAN	-3.675402	13.33475	-0.28	0.783	-.0295244
_cons	1296461	62080.68	20.88	0.000	.

90 . reg GM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1 & Sex==1,beta
note: **Sex** omitted because of collinearity.

Source	SS	df	MS		
Model	5.7845e+10	6	9.6409e+09	Number of obs	= 99
Residual	1.6512e+11	92	1.7948e+09	F(6, 92)	= 5.37
Total	2.2297e+11	98	2.2752e+09	Prob > F	= 0.0001
				R-squared	= 0.2594
				Adj R-squared	= 0.2111
				Root MSE	= 42365

GM	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-18368.56	80141.43	-0.23	0.819	-.0218468
LnNFLw1	51.14537	12307.94	0.00	0.997	.0005391
Sex	0	(omitted)			.
w1Age	-1765.889	620.2299	-2.85	0.005	-.3491305
Race	-40716.33	9278.266	-4.39	0.000	-.4210052
PovStat	-9423.247	10478.64	-0.90	0.371	-.0955179
TIME_V1SCAN	-1.180273	7.444875	-0.16	0.874	-.0161642
_cons	768217.4	34660.04	22.16	0.000	.

91 . reg WM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final==1 & Sex==1,beta
note: **Sex** omitted because of collinearity.

Source	SS	df	MS		
Model	1.4185e+10	6	2.3642e+09	Number of obs	= 99
Residual	1.2435e+11	92	1.3516e+09	F(6, 92)	= 1.75
Total	1.3854e+11	98	1.4136e+09	Prob > F	= 0.1185
				R-squared	= 0.1024
				Adj R-squared	= 0.0439
				Root MSE	= 36765

WM	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	50149.05	69547.45	0.72	0.473	.0756681
LnNFLw1	10552.19	10680.94	0.99	0.326	.1411121
Sex	0	(omitted)			.
w1Age	-1149.859	538.241	-2.14	0.035	-.2884076
Race	-11291.82	8051.762	-1.40	0.164	-.1481222
PovStat	-12603.34	9093.454	-1.39	0.169	-.1620718
TIME_V1SCAN	-2.137384	6.460729	-0.33	0.742	-.0371356
_cons	501447.3	30078.3	16.67	0.000	.

```
92 .
93 .
94 . //ANALYSIS B//
95 . reg Left_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1 & Sex==1,
note: Sex omitted because of collinearity.
```

Source	SS	df	MS	Number of obs	=	99
				F(7, 91)	=	6.06
Model	2722560.14	7	388937.163	Prob > F	=	0.0000
Residual	5837991.2	91	64153.7494	R-squared	=	0.3180
				Adj R-squared	=	0.2656
Total	8560551.34	98	87352.5647	Root MSE	=	253.29

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-534.5664	481.6566	-1.11	0.270	-.1026084
LnNFLw1	30.615	73.83806	0.41	0.679	.0520819
Sex	0	(omitted)			.
w1Age	-8.276695	3.732758	-2.22	0.029	-.2640889
Race	-151.8617	59.27795	-2.56	0.012	-.2534171
PovStat	-64.80294	62.9347	-1.03	0.306	-.1060102
TIME_V1SCAN	.0235662	.0445114	0.53	0.598	.052087
ICV_volM2	.0011119	.0002941	3.78	0.000	.3616412
_cons	2618.729	463.9685	5.64	0.000	.

```
96 . reg Right_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1 & Sex==1
note: Sex omitted because of collinearity.
```

Source	SS	df	MS	Number of obs	=	99
				F(7, 91)	=	8.06
Model	4241831.79	7	605975.97	Prob > F	=	0.0000
Residual	6837441.14	91	75136.7158	R-squared	=	0.3829
				Adj R-squared	=	0.3354
Total	11079272.9	98	113053.805	Root MSE	=	274.11

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-335.8026	521.2579	-0.64	0.521	-.0566579
LnNFLw1	12.25564	79.90894	0.15	0.878	.0183267
Sex	0	(omitted)			.
w1Age	-4.760906	4.03966	-1.18	0.242	-.1335298
Race	-148.796	64.15171	-2.32	0.023	-.2182599
PovStat	-30.24663	68.10912	-0.44	0.658	-.0434936
TIME_V1SCAN	.0446171	.0481711	0.93	0.357	.0866834
ICV_volM2	.0017513	.0003183	5.50	0.000	.5006964
_cons	1874.788	502.1154	3.73	0.000	.

```
97 .
98 . //ANALYSIS C//
```

```
. reg LnLesion_Volume bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final==1 & Sex==1,b
note: Sex omitted because of collinearity.
```

Source	SS	df	MS	Number of obs	=	99
				F(7, 91)	=	2.47
Model	300.464182	7	42.9234545	Prob > F	=	0.0231
Residual	1583.48769	91	17.4009636	R-squared	=	0.1595
				Adj R-squared	=	0.0948
Total	1883.95187	98	19.2239987	Root MSE	=	4.1714

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
bayes1LnNFL	-1.149315	7.932556	-0.14	0.885	-.0148709
LnNFLw1	2.839808	1.216063	2.34	0.022	.3256549
Sex	0	(omitted)			.
w1Age	.0524912	.061476	0.85	0.395	.1129005
Race	1.411867	.9762674	1.45	0.152	.1588172
PovStat	1.577286	1.036492	1.52	0.132	.173932
TIME_V1SCAN	-.0008332	.0007331	-1.14	0.259	-.1241328
ICV_volM2	5.58e-06	4.84e-06	1.15	0.253	.1222422
_cons	-12.24804	7.641244	-1.60	0.112	.

```
. .
. .
. **Model 2**
. .
. use finaldata_imputed,clear

. .
. .
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final==1 & Sex=
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 99
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 91
DF adjustment: Small sample		DF: min	= 89.06
		avg	= 89.06
		max	= 89.06
Model F test: Equal FMI		F(7, 89.1)	= 3.13
Within VCE type: OLS		Prob > F	= 0.0053

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	50843.87	143549.2	0.35	0.724	-234382.5	336070.2
LnNFLw1	19998.28	23533.27	0.85	0.398	-26761.37	66757.93
Sex	0	(omitted)				
w1Age	-2787.725	1122.944	-2.48	0.015	-5018.97	-556.4804
Race	-53472.46	16634.08	-3.21	0.002	-86523.69	-20421.23
PovStat	-22850.14	18762.22	-1.22	0.226	-60129.9	14429.62
TIME_V1SCAN	-1.515366	13.44415	-0.11	0.911	-28.22834	25.19761
w1BMI	1331.156	1159.709	1.15	0.254	-973.1375	3635.45
_cons	1242594	77737.58	15.98	0.000	1088132	1397055

```
109 . mi estimate: reg GM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if sample_final==1 & Sex==1

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         99
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =         91
DF adjustment:   Small sample                 DF:     min       =      89.06
                                                      avg       =      89.06
                                                      max       =      89.06
Model F test:       Equal FMI                 F(   7,   89.1)   =       4.97
Within VCE type:          OLS                 Prob > F          =     0.0001

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
bayes1LnNFL |  -25319.97   79781.03    -0.32   0.752    -183841.6    133201.7
    LnNFLw1 |   6861.303    13079.2     0.52   0.601    -19126.54    32849.15
        Sex |           0  (omitted)
      w1Age |      -1910   624.1044    -3.06   0.003     -3150.07   -669.9299
       Race |  -39727.61   9244.804    -4.30   0.000    -58096.65   -21358.56
    PovStat |  -10228.48   10427.57    -0.98   0.329    -30947.64    10490.67
TIME_V1SCAN |   .3569985   7.471922     0.05   0.962     -14.4894     15.2034
      w1BMI |   947.3676    644.537     1.47   0.145    -333.3011    2228.036
      _cons |   729880.6    43204.6    16.89   0.000     644034.8    815726.4
------------------------------------------------------------------------------

110 . mi estimate: reg WM bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final==1 & Sex==1

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         99
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =         91
DF adjustment:   Small sample                 DF:     min       =      89.06
                                                      avg       =      89.06
                                                      max       =      89.06
Model F test:       Equal FMI                 F(   7,   89.1)   =       1.64
Within VCE type:          OLS                 Prob > F          =     0.1358

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
bayes1LnNFL |   46107.69   69686.22     0.66   0.510    -92355.98    184571.4
    LnNFLw1 |   14511.43   11424.27     1.27   0.207    -8188.132    37210.99
        Sex |           0  (omitted)
      w1Age |  -1233.641   545.1355    -2.26   0.026    -2316.803   -150.4794
       Race |      -10717   8075.045    -1.33   0.188    -26761.78    5327.787
    PovStat |  -13071.48   9108.154    -1.44   0.155    -31169.01     5026.05
TIME_V1SCAN |  -1.243657   6.526489    -0.19   0.849    -14.21152    11.72421
      w1BMI |   550.7732   562.9828     0.98   0.331    -567.8505    1669.397
      _cons |   479159.4   37737.86    12.70   0.000     404175.8    554142.9
------------------------------------------------------------------------------
```

```
111 .
112 . //ANALYSIS B//
113 . mi estimate: reg Left_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 99
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 90
DF adjustment: Small sample — DF: min = 88.06
avg = 88.06
max = 88.06
Model F test: Equal FMI — F(8, 88.1) = 5.40
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-555.8414	482.6407	-1.15	0.253	-1514.979	403.2958
LnNFLw1	56.95118	79.29602	0.72	0.475	-100.6314	214.5338
Sex	0	(omitted)				
w1Age	-8.864223	3.790681	-2.34	0.022	-16.39733	-1.331118
Race	-150.2423	59.3566	-2.53	0.013	-268.1999	-32.28476
PovStat	-68.45074	63.11595	-1.08	0.281	-193.8791	56.97767
TIME_V1SCAN	.0293408	.0449943	0.65	0.516	-.0600749	.1187566
w1BMI	3.577684	3.904665	0.92	0.362	-4.181938	11.33731
ICV_volM2	.0010821	.0002961	3.65	0.000	.0004936	.0016706
_cons	2515.952	477.7334	5.27	0.000	1566.567	3465.337

```
114 . mi estimate: reg Right_Hippocampus bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sampl
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 99
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 90
DF adjustment: Small sample — DF: min = 88.06
avg = 88.06
max = 88.06
Model F test: Equal FMI — F(8, 88.1) = 7.00
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-342.8751	524.5245	-0.65	0.515	-1385.247	699.4965
LnNFLw1	21.01061	86.17737	0.24	0.808	-150.2471	192.2683
Sex	0	(omitted)				
w1Age	-4.956219	4.119638	-1.20	0.232	-13.14305	3.230612
Race	-148.2576	64.50759	-2.30	0.024	-276.4516	-20.06366
PovStat	-31.45928	68.59318	-0.46	0.648	-167.7724	104.8539
TIME_V1SCAN	.0465368	.0488989	0.95	0.344	-.0506386	.1437121
w1BMI	1.189334	4.243514	0.28	0.780	-7.243672	9.62234
ICV_volM2	.0017414	.0003218	5.41	0.000	.0011018	.002381
_cons	1840.621	519.1913	3.55	0.001	808.8483	2872.394

```
115 .
116 . //ANALYSIS C//
117 . mi estimate: reg LnLesion_Volume bayes1LnNFL LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 99
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 90
DF adjustment:	Small sample	DF: min	= 88.06
		avg	= 88.06
		max	= 88.06
Model F test:	Equal FMI	F(8, 88.1)	= 2.94
Within VCE type:	OLS	Prob > F	= 0.0059

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-2.015238	7.757097	-0.26	0.796	-17.43068	13.4002
LnNFLw1	3.911729	1.274461	3.07	0.003	1.37903	6.444427
Sex	0	(omitted)				
w1Age	.028578	.0609246	0.47	0.640	-.0924955	.1496516
Race	1.47778	.953991	1.55	0.125	-.4180576	3.373617
PovStat	1.428815	1.014412	1.41	0.162	-.5870953	3.444725
TIME_V1SCAN	-.0005981	.0007232	-0.83	0.410	-.0020352	.000839
w1BMI	.145617	.0627566	2.32	0.023	.0209028	.2703312
ICV_volM2	4.36e-06	4.76e-06	0.92	0.362	-5.09e-06	.0000138
_cons	-16.43121	7.678225	-2.14	0.035	-31.68992	-1.172509

```
118 .
119 . save, replace
    file finaldata_imputed.dta saved

120 .
121 .
122 .
123 . //INTERACTION BY Sex//
124 .
125 .
126 . //ANALYSIS A//
127 . mi estimate: reg TOTALBRAIN c.bayes1LnNFL##Sex LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if sample_final==
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 179
		Average RVI	= 0.0000
		Largest FMI	= 0.0000
		Complete DF	= 169
DF adjustment:	Small sample	DF: min	= 167.03
		avg	= 167.03
		max	= 167.03
Model F test:	Equal FMI	F(9, 167.0)	= 15.71
Within VCE type:	OLS	Prob > F	= 0.0000

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	32734.65	164042.8	0.20	0.842	-291129.9	356599.2
Sex						
Men	142789.1	15662.62	9.12	0.000	111866.9	173711.3
Sex#c.bayes1LnNFL						
Men	-101484.9	197621.1	-0.51	0.608	-491641.9	288672
LnNFLw1	-648.2281	17636.76	-0.04	0.971	-35467.92	34171.46
Sex	0	(omitted)				
w1Age	-2255.04	949.1901	-2.38	0.019	-4128.996	-381.0847
Race	-70862.53	14411.11	-4.92	0.000	-99313.92	-42411.14
PovStat	-2011.622	16251.08	-0.12	0.902	-34095.6	30072.36
TIME_V1SCAN	-21.26732	11.44319	-1.86	0.065	-43.85925	1.324606
w1BMI	656.3685	1105.45	0.59	0.553	-1526.086	2838.823
_cons	1314433	65375.29	20.11	0.000	1185364	1443501

128 . mi estimate: reg GM c.bayes1LnNFL##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 170
DF adjustment: Small sample — DF: min = 168.03
avg = 168.03
max = 168.03
Model F test: Equal FMI — F(8, 168.0) = 20.17
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-29878.3	86422.63	-0.35	0.730	-200492.3	140735.7
Sex						
Men	71898.07	8343.784	8.62	0.000	55425.92	88370.22
Sex#c.bayes1LnNFL						
Men	11419.56	105559.1	0.11	0.914	-196973.4	219812.5
Sex	0	(omitted)				
w1Age	-2083.249	414.7372	-5.02	0.000	-2902.016	-1264.482
Race	-49694.43	7523.95	-6.60	0.000	-64548.08	-34840.78
PovStat	-2838.278	8686.73	-0.33	0.744	-19987.46	14310.91
TIME_V1SCAN	-8.153427	6.112225	-1.33	0.184	-20.22007	3.913219
w1BMI	603.5874	572.0123	1.06	0.293	-525.6691	1732.844
_cons	783053.5	32972.44	23.75	0.000	717959.9	848147.2

```
129 . mi estimate: reg WM c.bayes1LnNFL##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if sample_final==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        170
DF adjustment:   Small sample                   DF:     min       =     168.03
                                                        avg       =     168.03
                                                        max       =     168.03
Model F test:       Equal FMI                   F(   8,  168.0)   =      11.73
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	29198.54	78508.33	0.37	0.710	-125791.2	184188.3
Sex						
Men	59525.14	7579.687	7.85	0.000	44561.46	74488.83
Sex#c.bayes1LnNFL						
Men	-73579.82	95892.35	-0.77	0.444	-262888.8	115729.2
Sex	0	(omitted)				
w1Age	-672.4594	376.7569	-1.78	0.076	-1416.246	71.32736
Race	-18536.8	6834.931	-2.71	0.007	-32030.2	-5043.402
PovStat	-3935.345	7891.227	-0.50	0.619	-19514.06	11643.37
TIME_V1SCAN	-11.64752	5.552487	-2.10	0.037	-22.60914	-.6859028
w1BMI	127.8096	519.6292	0.25	0.806	-898.0332	1153.652
_cons	513776.8	29952.93	17.15	0.000	454644.3	572909.4

```
130 .
131 .
132 .
133 . //ANALYSIS B//
134 . mi estimate: reg Left_Hippocampus c.bayes1LnNFL##Sex  LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 i

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        168
DF adjustment:   Small sample                   DF:     min       =     166.04
                                                        avg       =     166.04
                                                        max       =     166.04
Model F test:       Equal FMI                   F(  10,  166.0)   =      15.37
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippocampus	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-976.2149	526.7481	-1.85	0.066	-2016.202	63.77266
Sex						
Men	-12.2493	64.63427	-0.19	0.850	-139.8603	115.3617
Sex#c.bayes1LnNFL						
Men	115.4336	634.7221	0.18	0.856	-1137.733	1368.6
LnNFLw1	-94.42858	56.56612	-1.67	0.097	-206.1102	17.253
Sex	0	(omitted)				
w1Age	-4.39882	3.046886	-1.44	0.151	-10.41445	1.616813
Race	-101.6377	50.29988	-2.02	0.045	-200.9475	-2.32791

PovStat	-129.5135	52.12708	-2.48	0.014	-232.4309	-26.59617
TIME_V1SCAN	.0170572	.0369118	0.46	0.645	-.0558198	.0899342
w1BMI	2.586793	3.549091	0.73	0.467	-4.420373	9.593958
ICV_volM2	.0016537	.0002174	7.61	0.000	.0012245	.002083
_cons	1966.318	374.4193	5.25	0.000	1227.082	2705.555

```
135 . mi estimate: reg Right_Hippocampus c.bayes1LnNFL##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 169
DF adjustment: Small sample — DF: min = 167.03
avg = 167.03
max = 167.03
Model F test: Equal FMI — F(9, 167.0) = 18.88
Within VCE type: OLS — Prob > F = 0.0000

Right_Hippocampus	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-555.3238	542.1849	-1.02	0.307	-1625.742	515.0945
Sex						
Men	-88.0126	67.38127	-1.31	0.193	-221.0413	45.01609
Sex#c.bayes1LnNFL						
Men	-58.25372	662.4227	-0.09	0.930	-1366.054	1249.546
Sex	0	(omitted)				
w1Age	-5.297094	2.601649	-2.04	0.043	-10.43345	-.1607419
Race	-85.72279	51.52844	-1.66	0.098	-187.4537	16.00816
PovStat	-101.309	54.44026	-1.86	0.065	-208.7887	6.170669
TIME_V1SCAN	.0484497	.0385205	1.26	0.210	-.0276001	.1244995
w1BMI	3.978088	3.588085	1.11	0.269	-3.105753	11.06193
ICV_volM2	.002078	.0002271	9.15	0.000	.0016296	.0025263
_cons	1400.834	384.6371	3.64	0.000	641.4576	2160.211

```
136 .
137 . //ANALYSIS C//
138 . mi estimate: reg LnLesion_Volume c.bayes1LnNFL##Sex LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 168
DF adjustment: Small sample — DF: min = 166.04
avg = 166.04
max = 166.04
Model F test: Equal FMI — F(10, 166.0) = 2.29
Within VCE type: OLS — Prob > F = 0.0153

LnLesion_Volume	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
bayes1LnNFL	-3.650852	6.809881	-0.54	0.593	-17.09597	9.794268
Sex						
Men	.3207692	.8356018	0.38	0.702	-1.329005	1.970544
Sex#c.bayes1LnNFL						
Men	1.469946	8.205786	0.18	0.858	-14.73119	17.67108
LnNFLw1	2.21744	.7312955	3.03	0.003	.7736029	3.661276
Sex	0	(omitted)				
w1Age	.0055045	.0393906	0.14	0.889	-.0722666	.0832755
Race	1.348296	.6502847	2.07	0.040	.0644031	2.632188
PovStat	.8314082	.673907	1.23	0.219	-.4991232	2.16194
TIME_V1SCAN	-.0006506	.0004772	-1.36	0.175	-.0015928	.0002915
w1BMI	.0610329	.0458832	1.33	0.185	-.0295569	.1516226
ICV_volM2	2.24e-06	2.81e-06	0.80	0.427	-3.31e-06	7.79e-06
_cons	-5.608782	4.840551	-1.16	0.248	-15.16575	3.948182

```
139 .
140 . save, replace
    file finaldata_imputed.dta saved

141 .
142 .
143 .
144 .
145 . capture log close
```