

Supplementary Material

Variable	Coefficient	SE	<i>t</i>	<i>p</i>
Memory				
<i>F</i> (6, 4,302)=284.80, <i>R</i> ² =0.284				
Intercept	5.882	0.210	27.973	<0.001
Sex				
Male	-	-	-	-
Female	0.413	0.025	16.603	<0.001
Education				
Primary	-	-	-	-
Secondary	0.258	0.030	8.619	<0.001
College	0.494	0.038	12.905	<0.001
University	0.673	0.044	15.183	<0.001
Age	-0.084	0.003	30.992	<0.001
BAG	-0.047	0.003	13.557	<0.001
Processing Speed				
<i>F</i> (6, 4,324)=371.40, <i>R</i> ² =0.340				
Intercept	5.518	0.168	32.763	<0.001
Sex				
Male	-	-	-	-
Female	0.152	0.020	7.661	<0.001
Education				
Primary	-	-	-	-
Secondary	0.315	0.024	13.101	<0.001
College	0.624	0.031	20.436	<0.001
University	0.797	0.035	22.599	<0.001
Age	-0.078	0.002	35.797	<0.001
BAG	-0.044	0.003	15.743	<0.001
Executive Function				
<i>F</i> (6, 4,247)=196.09, <i>R</i> ² =0.218				
Intercept	4.323	0.167	25.905	<0.001
Sex				
Male	-	-	-	-
Female	-0.042	0.020	2.127	0.034
Education				
Primary	-	-	-	-
Secondary	0.188	0.024	7.868	<0.001
College	0.436	0.030	14.437	<0.001
University	0.528	0.035	15.115	<0.001
Age	-0.060	0.002	27.634	<0.001
BAG	-0.037	0.003	13.480	<0.001

Supplementary Table 1. General linear models predicting standardized cognitive scores at baseline (N = 4,606).

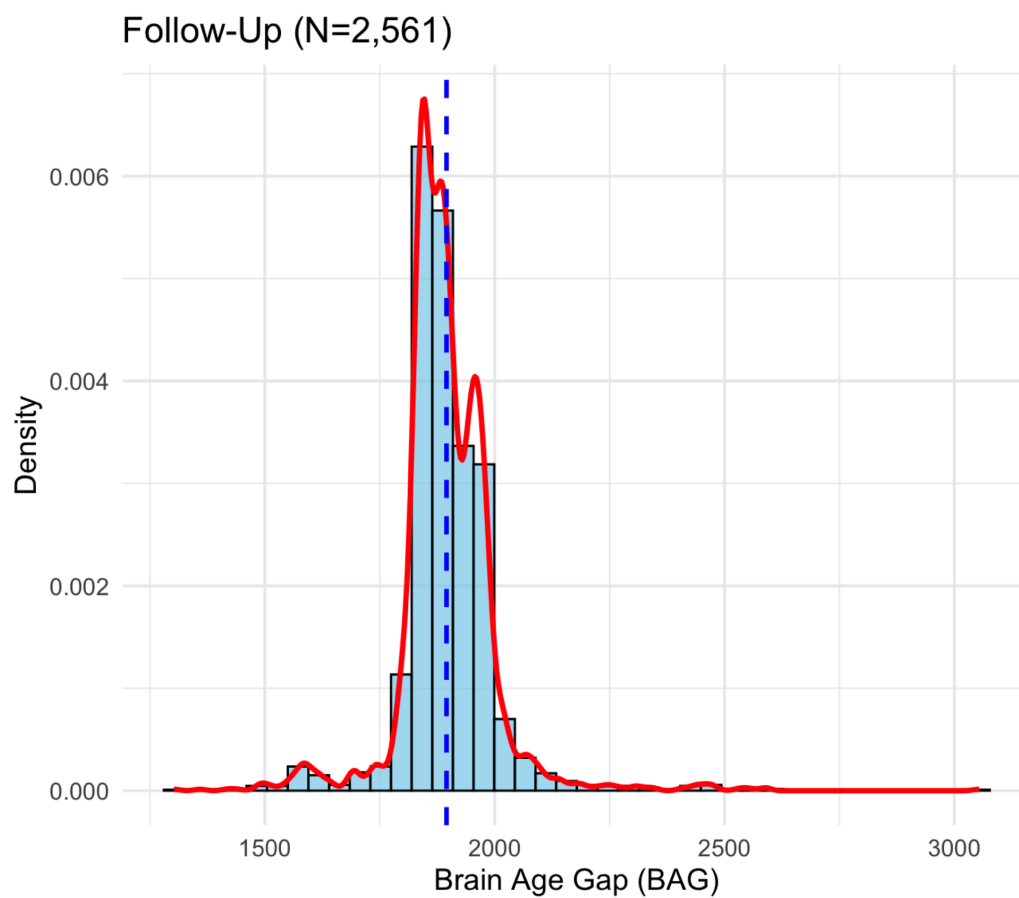
Fixed Effect	Estimate	SE	<i>t</i>	<i>p</i>
Memory				
Intercept	5.357	0.290	18.488	<0.001
Assessment (follow-up vs. baseline)	-0.249	0.016	15.820	<0.001
Sex				
Male	-	-	-	-
Female	0.482	0.033	14.611	<0.001
Education				
Primary	-	-	-	-
Secondary	0.233	0.041	5.648	<0.001
College	0.535	0.052	10.274	<0.001
University	0.634	0.059	10.832	<0.001
Age	-0.080	0.004	20.789	<0.001
BAG	-0.039	0.005	8.145	<0.001
BAG *	-0.007	0.004	1.993	0.046
Assessment				
Processing Speed				
Intercept	5.703	0.272	20.929	<0.001
Assessment (follow-up vs. baseline)	-0.322	0.013	24.009	<0.001
Sex				
Male	-	-	-	-
Female	0.236	0.031	7.669	<0.001
Education				
Primary	-	-	-	-
Secondary	0.336	0.039	8.679	<0.001
College	0.757	0.049	15.582	<0.001
University	0.829	0.055	15.166	<0.001
Age	-0.084	0.004	23.316	<0.001
BAG	-0.044	0.004	9.936	<0.001
BAG *	-0.003	0.003	0.839	0.402
Assessment				
Executive Function				
Intercept	3.503	0.257	13.634	<0.001
Assessment (follow-up vs. baseline)	-0.240	0.016	15.354	<0.001
Sex				
Male	-	-	-	-
Female	0.139	0.029	4.799	<0.001
Education				
Primary	-	-	-	-
Secondary	0.231	0.037	6.332	<0.001
College	0.600	0.046	13.130	<0.001
University	0.717	0.052	13.883	<0.001
Age	-0.052	0.003	15.395	<0.001
BAG	-0.028	0.004	6.506	<0.001

BAG *	-0.005	0.004	1.420	0.156
Assessment				

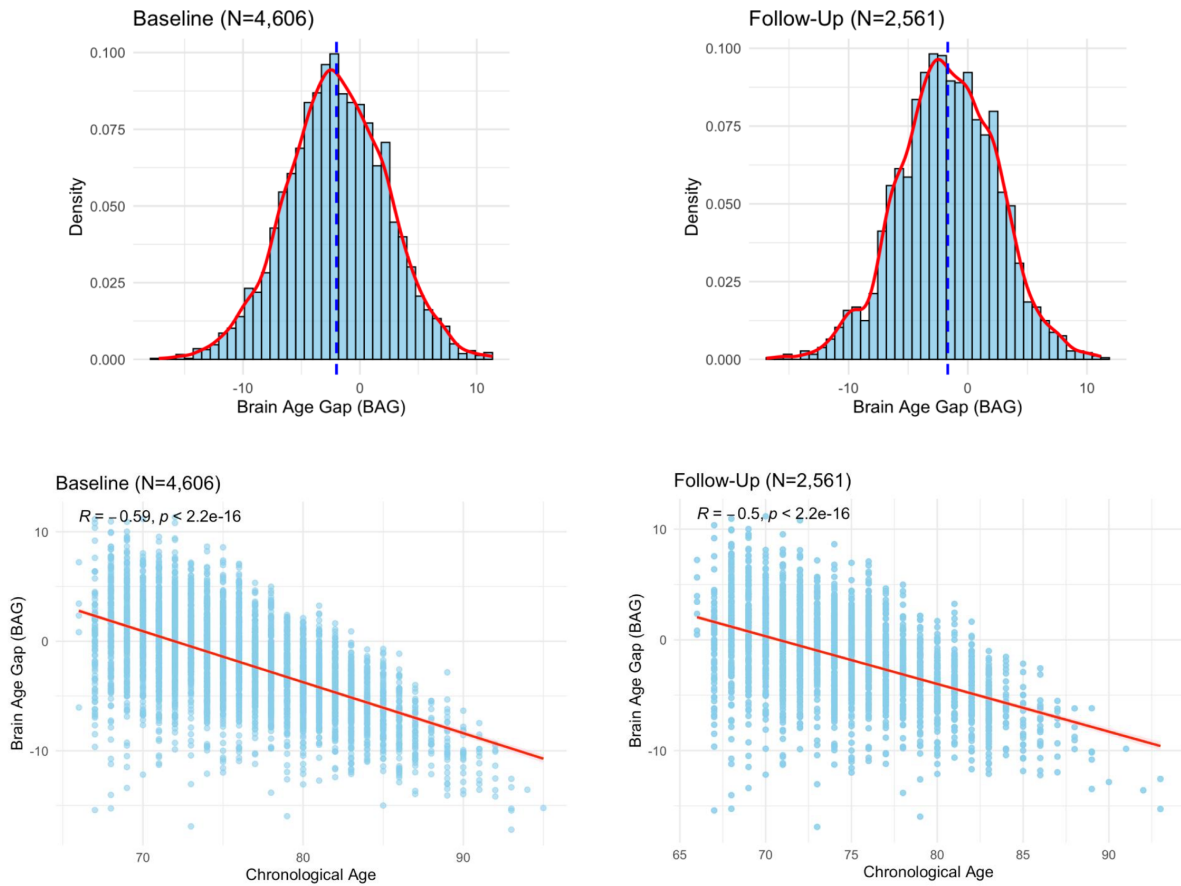
Supplementary Table 2. Linear mixed-effects models predicting standardized cognitive scores at baseline and follow-up (N = 2,561).

BAG group	Estimate [$\pm$ SE]	
	Baseline	Follow-up
	Memory	
$\leq$ -10 years	0.2733 [0.0495, 0.4971]	0.0519 [-0.1719, 0.2757]
-10 to -5 years	0.2641 [0.1766, 0.3515]	0.0532 [-0.0343, 0.1407]
-5 to 0 years	0.1232 [0.0698, 0.1767]	-0.0975 [-0.1509, -0.0440]
0 to 5 years	-0.0314 [-0.0975, 0.0347]	-0.3083 [-0.3744, -0.2422]
5 to 10 years	-0.3871 [-0.5520, -0.2223]	-0.6201 [-0.7849, -0.4552]
	Processing Speed	
	Baseline	Follow-up
	Memory	
$\leq$ -10 years	0.4154 [0.2105, 0.6200]	0.0842 [-0.1207, 0.2890]
-10 to -5 years	0.3288 [0.2480, 0.4100]	0.0525 [-0.0283, 0.1330]
-5 to 0 years	0.1661 [0.1166, 0.2160]	-0.1662 [-0.2156, -0.1170]
0 to 5 years	-0.0134 [-0.0738, 0.0470]	-0.3383 [-0.3987, -0.2780]
5 to 10 years	-0.4542 [-0.6030, -0.3050]	-0.7446 [-0.8934, -0.5960]
	Executive Function	
	Baseline	Follow-up
	Memory	
$\leq$ -10 years	0.2349 [0.0362, 0.4336]	0.0292 [-0.1695, 0.2279]
-10 to -5 years	0.2251 [0.1465, 0.3036]	0.0364 [-0.0421, 0.1150]
-5 to 0 years	0.1509 [0.1024, 0.1993]	-0.0862 [-0.1347, -0.0378]
0 to 5 years	0.0247 [-0.0341, 0.0835]	-0.2153 [-0.2741, -0.1565]
5 to 10 years	-0.1960 [-0.3411, -0.0509]	-0.5088 [-0.6539, -0.3637]

Supplementary Table 3. Tukey-adjusted pairwise group comparisons of estimated marginal mean cognitive scores.



Supplementary Figure 1. Distribution of Days Between Baseline & Follow-Up Assessments.



Supplementary Figure 2. Distribution of Baseline BAG Values & Association with Age. Top panel: Histogram of baseline BAG values in the Baseline (N=4,606) and Follow-Up (N=2,561) cohorts. Bottom panel: Scatterplot showing the relationship between chronological age and BAG values in the Baseline and Follow-Up cohorts.