The NLMIXED Procedure

Specifications	
Data Set	WORK.A
Dependent Variable	y
Distribution for Dependent Variable	Binary
Random Effects	u
Distribution for Random Effects	Normal
Subject Variable	id
Replicate Variable	count
Optimization Technique	Dual Quasi-Newton
Integration Method	Adaptive Gaussian Quadrature

Dimensions	
Observations Used	128
Observations Not Used	0
Total Observations	128
Subjects	537
Max Obs per Subject	4
Parameters	4
Quadrature Points	15

Parameters				
one_	ms_	age_	log_sigma2	NegLogLike
-3	0.4	-0.2	1.5	797.983994

Iteration History						
Iter		Calls	NegLogLike	Diff	MaxGrad	Slope
1		5	797.783954	0.200041	4.813889	-62.7668
2		8	797.735573	0.048381	3.106524	-3.24401
3		11	797.693717	0.041856	3.051708	-1.69172
4		14	797.681289	0.012428	2.245588	-0.1053
5		16	797.667968	0.013322	0.339349	-0.04219
6		19	797.667684	0.000284	0.001032	-0.00057
7		22	797.667684	2.431E-8	0.000037	-4.84E-8

NOTE: GCONV convergence criterion satisfied.

The NLMIXED Procedure

Fit Statistics	
-2 Log Likelihood	1595.3
AIC (smaller is better)	1603.3
AICC (smaller is better)	1603.7
BIC (smaller is better)	1620.5

Parameter Estimates

Parameter	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper	Gradient
one_	-3.0995	0.2184	536	-14.19	<.0001	0.05	-3.5285	-2.6705	-0.00003
ms_	0.3984	0.2728	536	1.46	0.1448	0.05	-0.1376	0.9343	-7.54E-6
age_	-0.1756	0.06767	536	-2.59	0.0097	0.05	-0.3085	-0.04267	-0.00002
log_sigma2	1.5424	0.1703	536	9.06	<.0001	0.05	1.2079	1.8769	-0.00004

The NLMIXED Procedure

Specifications	
Data Set	WORK.A
Dependent Variable	y
Distribution for Dependent Variable	Binary
Random Effects	u
Distribution for Random Effects	Normal
Subject Variable	id
Replicate Variable	count
Optimization Technique	Dual Quasi-Newton
Integration Method	Adaptive Gaussian Quadrature

Dimensions	
Observations Used	128
Observations Not Used	0
Total Observations	128
Subjects	537
Max Obs per Subject	4
Parameters	5
Quadrature Points	15

Parameters					
one_	ms_	age_	gamma0	gamma1	NegLogLike
-3	0.4	-0.2	1.5	0	797.983994

Iteration History						
Iter		Calls	NegLogLike	Diff	MaxGrad	Slope
1		5	797.782677	0.201317	4.807613	-62.7857
2		8	797.707206	0.075472	2.733726	-3.79161
3		11	797.658837	0.048368	2.973863	-3.03393
4		14	797.63753	0.021307	1.353923	-0.07887
5		17	797.63295	0.00458	0.812682	-0.08027
6		20	797.630009	0.002941	0.012586	-0.0092
7		23	797.630006	2.302E-6	0.000131	-4.41E-6

NOTE: GCONV convergence criterion satisfied.

The NLMIXED Procedure

Fit Statistics	
-2 Log Likelihood	1595.3
AIC (smaller is better)	1605.3
AICC (smaller is better)	1605.8
BIC (smaller is better)	1626.7

Parameter Estimates

Parameter	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper	Gradient
one_	-3.0713	0.2379	536	-12.91	<.0001	0.05	-3.5387	-2.6040	5.236E-6
ms_	0.3283	0.3764	536	0.87	0.3835	0.05	-0.4111	1.0678	0.00008
age_	-0.1756	0.06768	536	-2.60	0.0097	0.05	-0.3086	-0.04269	-0.00013
gamma0	1.5060	0.2159	536	6.98	<.0001	0.05	1.0820	1.9300	0.000019
gamma1	0.09596	0.3496	536	0.27	0.7838	0.05	-0.5908	0.7827	0.000086

The NLMIXED Procedure

Specifications	
Data Set	WORK.A
Dependent Variable	y
Distribution for Dependent Variable	Binary
Random Effects	u1 u2
Distribution for Random Effects	Normal
Subject Variable	id
Replicate Variable	count
Optimization Technique	Dual Quasi-Newton
Integration Method	Adaptive Gaussian Quadrature

Dimensions	
Observations Used	128
Observations Not Used	0
Total Observations	128
Subjects	537
Max Obs per Subject	4
Parameters	6
Quadrature Points	15

Parameters						
one_	ms_	age_	sigma11	sigma21	sigma22	NegLogLike
-3	0.4	-0.2	4	0	1	818.515621

Iteration History						
Iter		Calls	NegLogLike	Diff	MaxGrad	Slope
1		5	810.831744	7.683877	18.51495	-311.856
2		18	800.652282	10.17946	11.04254	-111.562
3		21	798.98848	1.663801	16.36035	-47.8069
4		31	798.20769	0.780791	6.813594	-3.49599
5		157	798.122436	0.085254	6.182705	-48.347
6		222	798.037529	0.084907	5.423475	-9.73025
6		243	1.15792E77	-1.16E77	5.423475	-3.33252

ERROR: The gradient of the objective function cannot be computed during the optimization process.

The NLMIXED Procedure

Parameter Estimates		
Parameter	**Estimate**	**Gradient**
one_	-3.0273	11.32228
ms_	0.4135	0
age_	-0.1387	-1.29151
sigma11	4.2815	4.419816
sigma21	-0.1469	-4.21688
sigma22	0.005042	-5.8667