```
 DATASET ACTIVATE DataSet2.
GLM inverseloggrowth BY Family Population Status
/random Family Population
/design Family(Population(Status)) Population(Status) Status.
```

General Linear Model

Notes

Output Created		07-APR-2021 14:50:16
Comments		
Input	Data	\\Client\C$\Users\Carina\Documents\Master's figure dataset\CompiledDonneLarkindata_GROWTH.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	707
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		GLM inverseloggrowth BY Family Population Status /random Family Population /design Family(Population (Status)) Population (Status) Status.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.16

```
[DataSet2] \\Client\C$\Users\Carina\Documents\Master's figure dataset\Compiled
DonneLarkindata_GROWTH.sav
```

Between-Subjects Factors

		N
Family	AI1	4
	AI10	2
	AI12	5
	AI18	3
	AI19	6
	AI3	2
	AI4	3
	AI6	4
	AS21	5
	AS26	5
	AS27	5
	AS32	4
	AS35	5
	AS36	4
	AS39	6
	CW1-146	7
	CW1-147	8
	Gb4	5
	Gb5	5
	GN3-184	6
	GN9-155	4
	GR41	7
	GR44	5
	GR45	3
	GR48	5
	GR49	8
	GR50	6
	GR51	5
	GR54	5
	GR55	4
	GR57	5
	GR59	6
	GR60	8
	HP125	5
	HP126	5

Between-Subjects Factors

		N
	HP129	6
	HR61	11
	HR62	7
	HR64	6
	HR65	4
	HR66	5
	HR67	4
	HR68	7
	HR70	5
	HR72	9
	HR73	6
	HR74	3
	HR75	5
	HR76	3
	HR77	2
	HR78	9
	HR79	2
	HR80	4
	KN141	8
	KN181	7
	Md1	2
	Md2	4
	Md3	2
	Mr1	2
	Mr2	4
	Mr3	5
	Mr4	4
	Mr5	4
	OK1-160	4
	OK2-161	4
	OK5-162	5
	OK8-163	9
	PA1	3
	PA2	5
	PA3	4

Between-Subjects Factors

		N
	PA5	4
	Pc2	3
	Pc3	3
	Pc5	2
	Pc6	3
	PO2-167	7
	PO3-168	5
	PO92-188	6
	PO95-189	6
	RI3-164	3
	RS83	4
	RS88	3
	RS97	7
	RS98	8
	S103	7
	S109	7
	S113	4
	S115	8
	S116	3
	Sn1	5
	Sn2	3
	Sn4	2
	Sn5	4
	TP4-150	6
	Ty4-149	4
	WK1-148	5
Population	AlexIsoe	29
	AlexShal	34
	Clearwat	15
	Gb	10
	Grasmere	67
	Gunn 03	6
	Gunn09	4
	Haupiri	16
	Heron	92

Between-Subjects Factors

		N
	Kaniere0	15
	Md	8
	Mr	19
	Okareka0	22
	PA	16
	Pc	11
	Poerua02	7
	Poerua03	5
	Poerua92	5
	Poerua95	7
	Rotoiti0	3
	RotoroaS	22
	Selfe	29
	Sn	14
	Taupo04	6
	Taylor04	4
	Waikarem	5
Status	Invasive	78
	Native	393

Tests of Between-Subjects Effects

Dependent Variable: inverseloggrowth

Source		Type III Sum of Squares	df	Mean Square	F
Intercept	Hypothesis	13.751	1	13.751	11462.532
	Error	.037	30.968	.001[a]	
Family(Population(Status))	Hypothesis	.037	71	.001	1.018
	Error	.193	374	.001[b]	
Population(Status)	Hypothesis	.035	24	.001	2.780
	Error	.039	74.496	.001[c]	
Status	Hypothesis	.008	1	.008	6.490
	Error	.037	30.878	.001[d]	

Tests of Between-Subjects Effects

Dependent Variable: inverseloggrowth

Source		Sig.
Intercept	Hypothesis	.000
	Error	
Family(Population(Status))	Hypothesis	.444
	Error	
Population(Status)	Hypothesis	.000
	Error	
Status	Hypothesis	.016
	Error	

a. .058 MS(Family(Population(Status))) + .722 MS(Population(Status)) + .220 MS(Error)

b. MS(Error)

c. .976 MS(Family(Population(Status))) + .024 MS(Error)

d. .043 MS(Family(Population(Status))) + .724 MS(Population(Status)) + .232 MS(Error)

Expected Mean Squares[a,b]

Source	Variance Component: Var(Family (Population (Status)))	Var(Population (Status))	Var(Error)	Quadratic Term
Intercept	3.618	11.259	1.000	Intercept, Status
Family(Population(Status))	4.745	.000	1.000	
Population(Status)	4.630	15.590	1.000	
Status	3.560	11.294	1.000	Status
Error	.000	.000	1.000	

a. For each source, the expected mean square equals the sum of the coefficients in the cells times the variance components, plus a quadratic term involving effects in the Quadratic Term cell.

b. Expected Mean Squares are based on the Type III Sums of Squares.

```
DATASET ACTIVATE DataSet3.
GLM inversesqrtage BY Family Population Status WITH growthrate3mm
/random Family Population
/design Family(Population(Status)) Population(Status) Status growthrate3mm
```

General Linear Model

Notes

Output Created		07-APR-2021 14:50:50
Comments		
Input	Data	\\Client\C$\Users\Carina\Documents\Master's figure dataset\CompiledDonneLarkindata_AGE.sav
	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	697
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		GLM inversesqrtage BY Family Population Status WITH growthrate3mm /random Family Population /design Family(Population (Status)) Population (Status) Status growthrate3mm.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.13

```
[DataSet3] \\Client\C$\Users\Carina\Documents\Master's figure dataset\Compiled
DonneLarkindata_AGE.sav
```

Between-Subjects Factors

		N
Family	AI1	4
	AI18	3
	AI19	4
	AI4	3
	AI6	3
	AS21	5
	AS26	4
	AS27	3
	AS32	4
	AS36	2
	AS39	6
	CW1-146	4
	CW1-147	7
	Gb4	5
	Gb5	4
	GN3-184	5
	GN9-155	4
	GR41	5
	GR44	5
	GR48	3
	GR49	4
	GR50	2
	GR51	4
	GR54	5
	GR55	4
	GR57	4
	GR59	5
	GR60	5
	HP126	3
	HP129	3
	HR61	7
	HR62	6
	HR64	6
	HR65	3
	HR66	2

Between-Subjects Factors

		N
	HR67	3
	HR68	2
	HR70	2
	HR72	5
	HR73	5
	HR75	3
	HR79	2
	HR80	4
	KN141	7
	KN181	7
	Md1	2
	Md2	3
	Md3	2
	Mr1	2
	Mr2	3
	Mr3	4
	Mr4	4
	Mr5	4
	OK1-160	4
	OK2-161	2
	OK5-162	2
	OK8-163	3
	PA1	3
	PA2	5
	PA3	4
	PA5	4
	Pc2	3
	Pc3	3
	Pc5	2
	Pc6	3
	PO2-167	3
	PO92-188	6
	PO95-189	6
	RI3-164	3
	RS83	3

Between-Subjects Factors

		N
	RS88	2
	RS97	4
	RS98	2
	S103	6
	S109	7
	S115	5
	Sn1	5
	Sn2	3
	Sn4	2
	Sn5	3
	Ty4-149	3
	WK1-148	4
Population	AlexIsoe	17
	AlexShal	24

Between-Subjects Factors

		N
	Clearwat	11
	Gb	9
	Grasmere	46
	Gunn 03	5
	Gunn09	4
	Haupiri	6
	Heron	50
	Kaniere0	14
	Md	7
	Mr	17
	Okareka0	11
	PA	16
	Pc	11
	Poerua02	3
	Poerua92	5
	Poerua95	7
	Rotoiti0	3
	RotoroaS	11
	Selfe	18
	Sn	13
	Taylor04	3
	Waikarem	4
Status	Invasive	73
	Native	242

Tests of Between-Subjects Effects

Dependent Variable: inversesqrtage

Source		Type III Sum of Squares	df	Mean Square	F
Intercept	Hypothesis	.086	1	.086	1518.711
	Error	.011	189.614	5.641E-5[a]	
Family(Population(Status))	Hypothesis	.005	59	7.897E-5	1.647
	Error	.011	231	4.794E-5[b]	
Population(Status)	Hypothesis	.003	22	.000	1.497
	Error	.005	59.293	7.884E-5[c]	
Status	Hypothesis	.004	1	.004	37.546
	Error	.003	25.895	.000[d]	
growthrate3mm	Hypothesis	.003	1	.003	62.748
	Error	.011	231	4.794E-5[b]	

Tests of Between-Subjects Effects

Dependent Variable: inversesqrtage

Source		Sig.
Intercept	Hypothesis	.000
	Error	
Family(Population(Status))	Hypothesis	.005
	Error	
Population(Status)	Hypothesis	.111
	Error	
Status	Hypothesis	.000
	Error	
growthrate3mm	Hypothesis	.000
	Error	

a. .002 MS(Family(Population(Status))) + .120 MS(Population(Status)) + .878 MS(Error)

b. MS(Error)

c. .996 MS(Family(Population(Status))) + .004 MS(Error)

d. - .002 MS(Family(Population(Status))) + .826 MS(Population(Status)) + .176 MS(Error)

Expected Mean Squares[a,b]

Source	Variance Component: Var(Family (Population (Status)))	Var(Population (Status))	Var(Error)	Quadratic Term
Intercept	.445	1.369	1.000	Intercept, Status
Family(Population(Status))	3.658	.000	1.000	
Population(Status)	3.643	11.412	1.000	
Status	3.002	9.421	1.000	Status
growthrate3mm	.000	.000	1.000	growthrate3mm
Error	.000	.000	1.000	

a. For each source, the expected mean square equals the sum of the coefficients in the cells times the variance components, plus a quadratic term involving effects in the Quadratic Term cell.

b. Expected Mean Squares are based on the Type III Sums of Squares.

```
 DATASET ACTIVATE DataSet4.
GLM Finallength BY Family Population Status WITH growthrate3mm
/random Family Population
/design Family(Population(Status)) Population(Status) Status growthrate3mm.
```

General Linear Model

Notes

Output Created		07-APR-2021 14:51:16
Comments		
Input	Data	\\Client\C$\Users\Carina\Documents\Master's figure dataset\CompiledDonneLarkindata_LENGTH.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	697
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		GLM Finallength BY Family Population Status WITH growthrate3mm /random Family Population /design Family(Population (Status)) Population (Status) Status growthrate3mm.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.16

```
[DataSet4] \\Client\C$\Users\Carina\Documents\Master's figure dataset\Compiled
DonneLarkindata_LENGTH.sav
```

Between-Subjects Factors

		N
Family	AI1	3
	AI18	3
	AI19	4
	AI4	3
	AI6	3
	AS21	5
	AS26	2
	AS27	3
	AS32	3
	AS36	2
	AS39	5
	CW1-146	3
	CW1-147	6
	Gb4	5
	Gb5	4
	GN3-184	5
	GN9-155	4
	GR41	5
	GR44	4
	GR48	2
	GR49	3
	GR50	2
	GR51	4
	GR54	5
	GR55	4
	GR57	4
	GR59	5
	GR60	5
	HP126	3
	HP129	3
	HR61	7
	HR62	5
	HR64	6
	HR65	3
	HR67	3

Between-Subjects Factors

		N
	HR68	2
	HR72	5
	HR73	5
	HR75	2
	HR79	2
	HR80	4
	KN141	7
	KN181	7
	Md1	2
	Md2	3
	Md3	2
	Mr1	2
	Mr2	3
	Mr3	4
	Mr4	4
	Mr5	4
	OK1-160	4
	OK2-161	2
	OK5-162	2
	PA1	3
	PA2	5
	PA3	4
	PA5	4
	Pc2	3
	Pc3	3
	Pc5	2
	Pc6	2
	PO2-167	3
	PO92-188	5
	PO95-189	6
	RI3-164	3
	RS83	3
	RS88	2
	RS97	4
	RS98	2

Between-Subjects Factors

		N
	S103	6
	S109	6
	S115	4
	Sn1	5
	Sn2	3
	Sn5	2
	Ty4-149	3
	WK1-148	2
Population	AlexIsoe	16
	AlexShal	20
	Clearwat	9
	Gb	9
	Grasmere	43
	Gunn 03	5
	Gunn09	4
	Haupiri	6
	Heron	44
	Kaniere0	14
	Md	7
	Mr	17
	Okareka0	8
	PA	16
	Pc	10
	Poerua02	3
	Poerua92	4
	Poerua95	7
	Rotoiti0	3
	RotoroaS	11
	Selfe	16
	Sn	10
	Taylor04	3
	Waikarem	2
Status	Invasive	69
	Native	218

Tests of Between-Subjects Effects

Dependent Variable: Finallength

Source		Type III Sum of Squares	df	Mean Square	F
Intercept	Hypothesis	485.346	1	485.346	1509.140
	Error	26.492	82.375	.322[a]	
Family(Population(Status))	Hypothesis	23.403	55	.426	2.297
	Error	38.350	207	.185[b]	
Population(Status)	Hypothesis	29.154	22	1.325	3.186
	Error	23.710	57.011	.416[c]	
Status	Hypothesis	1.101	1	1.101	.961
	Error	26.678	23.271	1.146[d]	
growthrate3mm	Hypothesis	1.108	1	1.108	5.980
	Error	38.350	207	.185[b]	

Tests of Between-Subjects Effects

Dependent Variable: Finallength

Source		Sig.
Intercept	Hypothesis	.000
	Error	
Family(Population(Status))	Hypothesis	.000
	Error	
Population(Status)	Hypothesis	.000
	Error	
Status	Hypothesis	.337
	Error	
growthrate3mm	Hypothesis	.015
	Error	

a. .004 MS(Family(Population(Status))) + .119 MS(Population(Status)) + .878 MS(Error)

b. MS(Error)

c. .960 MS(Family(Population(Status))) + .040 MS(Error)

d. .010 MS(Family(Population(Status))) + .841 MS(Population(Status)) + .149 MS(Error)

Expected Mean Squares[a,b]

Source	Variance Component: Var(Family (Population (Status)))	Var(Population (Status))	Var(Error)	Quadratic Term
Intercept	.413	1.225	1.000	Intercept, Status
Family(Population(Status))	3.515	.000	1.000	
Population(Status)	3.374	10.305	1.000	
Status	2.872	8.668	1.000	Status
growthrate3mm	.000	.000	1.000	growthrate3mm
Error	.000	.000	1.000	

a. For each source, the expected mean square equals the sum of the coefficients in the cells times the variance components, plus a quadratic term involving effects in the Quadratic Term cell.

b. Expected Mean Squares are based on the Type III Sums of Squares.