

The GENMOD Procedure

Model Information

Data Set	WORK.E
Distribution	Poisson
Link Function	Log
Dependent Variable	matings

← Log is default link function for Poisson Regression

Number of Observations Read	41
Number of Observations Used	41

Criteria For Assessing Goodness Of Fit

Criterion	DF	Value	Value/DF
Deviance	39	51.0116	1.3080
Scaled Deviance	39	51.0116	1.3080
Pearson Chi-Square	39	45.1360	1.1573
Scaled Pearson X2	39	45.1360	1.1573
Log Likelihood		10.7400	
Full Log Likelihood		-76.2289	
AIC (smaller is better)		156.4578	
AICC (smaller is better)		156.7736	
BIC (smaller is better)		159.8849	

← Diff than line above if $\psi \neq 1$

Need to multiply by -2 for LRTs

Algorithm converged.

Analysis Of Maximum Likelihood Parameter Estimates

Parameter	DF	Estimate	Standard Error	Wald 95% Confidence Limits	Wald Chi-Square	Pr > ChiSq
Intercept	1	-1.5820	0.5446	-2.6494 -0.5146	8.44	0.0037
age	1	0.0687	0.0137	0.0418 0.0956	24.97	<.0001
Scale	0	1.0000	0.0000	1.0000 1.0000		

← From Chi-square (1)

NOTE: The scale parameter was held fixed.

Dispersion parameter (ψ) for extra-Poisson variation

$$\left(\frac{0.0687}{0.0137} \right)^2$$

$$-1.5820 - 1.96 (-.5446)$$