

# Evaluating Alternative Models

Estimating **AIC**

- Smaller (even more negative) AIC better

$$AIC = -2\ln(L) + 2k$$

- If  $n/k < 40$ , use  $AIC_c$

$$AIC_c = AIC + \frac{2k(k+1)}{N-k-1}$$

# Evaluating Alternative Models

Delta AIC

$$\Delta_{AIC} = AIC_i - \min(AIC)$$

$\Delta AIC$	Model Consideration
0-2	Likely
3-7	Weak
7+	Unlikely

Likelihood of model

$$L(g|X) = \exp\left(-\frac{\Delta_{AIC}}{2}\right)$$