

# Likelihood ratio tests

stats545.5 545.5 Extending the linear model

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# The LRT

The **likelihood ratio test** of  $H_0 : \beta = \beta_0$  vs  $H_a : \beta \neq \beta_0$

$$\lambda = \frac{L(\hat{\beta}_0)}{L(\hat{\beta})}.$$

The test rejects for large values of  $\lambda$ .

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