

Type I and Type II Errors

	H₀ True	H₀ False
Reject H₀	Type I Error	Correct Decision
Fail to Reject H₀	Correct Decision	Type II Error

Power

- Power is the probability that a test (for a fixed level α and particular alternative value) will reject H_0 when it is in fact false.
- The power of a test (for a fixed level α and particular alternative value) is equal to 1 minus the probability of a Type II error.
- Power can be increased by...
 - ...considering an increased α
 - ...considering a particular alternative that is farther away from the hypothesized mean.
 - ...increasing the sample size.
 - ...decreasing σ .