Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\mu = \mu_0$	$\mu \neq \mu_0$	$z = \dfrac{\bar{x} - \mu_0}{\sigma / \sqrt{n}}$	$\lvert z \rvert > z_{\alpha/2}$	$2P(Z > \lvert z \rvert)$
$\mu \geq \mu_0$	$\mu < \mu_0$		$z < -z_{\alpha}$	$P(Z < z)$
$\mu \leq \mu_0$	$\mu > \mu_0$		$z > z_{\alpha}$	$P(Z > z)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\mu = \mu_0$	$\mu \neq \mu_0$	$t = \dfrac{\bar{x} - \mu_0}{s / \sqrt{n}}$	$\lvert t \rvert > t_{\alpha/2,n-1}$	$2P(t_{n-1} > \lvert t \rvert)$
$\mu \geq \mu_0$	$\mu < \mu_0$		$t < -t_{\alpha,n-1}$	$P((t_{n-1} < t)$
$\mu \leq \mu_0$	$\mu > \mu_0$		$t > t_{\alpha,n-1}$	$P((t_{n-1} > t)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\pi = \pi_0$	$\pi \neq \pi_0$	$z = \dfrac{p - \pi_0}{\sqrt{\pi_0(1-\pi_0)/n}}$	$\lvert z \rvert > z_{\alpha/2}$	$2P(Z > \lvert z \rvert)$
$\pi \geq \pi_0$	$\pi < \pi_0$		$z < -z_{\alpha}$	$P(Z < z)$
$\pi \leq \pi_0$	$\pi > \pi_0$		$z > z_{\alpha}$	$P(Z > z)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region
$\sigma_1^2 = \sigma_0^2$	$\sigma_1^2 \neq \sigma_0^2$	$\chi^2 = \dfrac{(n-1)S^2}{\sigma^2}$, with $n-1$ degrees of freedom	$\chi^2 < \chi^2_{1-\alpha/2}$ or $\chi^2 > \chi^2_{\alpha/2}$
$\sigma_1^2 \geq \sigma_0^2$	$\sigma_1^2 < \sigma_0^2$		$\chi^2 < \chi^2_{1-\alpha/2}$
$\sigma_1^2 \leq \sigma_0^2$	$\sigma_1^2 > \sigma_0^2$		$\chi^2 > \chi^2_{\alpha/2}$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\mu_1 - \mu_2 = d_0$	$\mu_1 - \mu_2 \neq d_0$	$z = \dfrac{\bar{x}_1 - \bar{x}_2 - d_0}{\sqrt{\dfrac{\sigma_1^2}{n_1} + \dfrac{\sigma_2^2}{n_2}}}$	$\lvert z \rvert > z_{\alpha/2}$	$2P(Z > \lvert z \rvert)$
$\mu_1 - \mu_2 \geq d_0$	$\mu_1 - \mu_2 < d_0$		$z < -z_{\alpha}$	$P(Z < z)$
$\mu_1 - \mu_2 \leq d_0$	$\mu_1 - \mu_2 > d_0$		$z > z_{\alpha}$	$P(Z > z)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\mu_1 - \mu_2 = d_0$	$\mu_1 - \mu_2 \neq d_0$	$z = \dfrac{\bar{x}_1 - \bar{x}_2 - d_0}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}}$	$\lvert z \rvert > z_{\alpha/2}$	$2P(Z > \lvert z \rvert)$
$\mu_1 - \mu_2 \geq d_0$	$\mu_1 - \mu_2 < d_0$		$z < -z_{\alpha}$	$P(Z < z)$
$\mu_1 - \mu_2 \leq d_0$	$\mu_1 - \mu_2 > d_0$		$z > z_{\alpha}$	$P(Z > z)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\mu_1 - \mu_2 = d_0$	$\mu_1 - \mu_2 \neq d_0$	$t = \dfrac{\bar{x}_1 - \bar{x}_2 - d_0}{s_p\sqrt{\dfrac{1}{n_1} + \dfrac{1}{n_2}}}$	$\lvert t \rvert > t_{\alpha/2,f}$	$2P(t_f > \lvert t \rvert)$
$\mu_1 - \mu_2 \geq d_0$	$\mu_1 - \mu_2 < d_0$		$t < -t_{\alpha,f}$	$P((t_f < t)$
$\mu_1 - \mu_2 \leq d_0$	$\mu_1 - \mu_2 > d_0$		$t > t_{\alpha,f}$	$P((t_f > t)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\mu_1 - \mu_2 = d_0$	$\mu_1 - \mu_2 \neq d_0$	$t = \dfrac{\overline{D} - d_0}{s_D / \sqrt{n}}$	$\lvert t\rvert > t_{\alpha/2,n-1}$	$2P(t_{n-1} > \lvert t\rvert)$
$\mu_1 - \mu_2 \geq d_0$	$\mu_1 - \mu_2 < d_0$		$t < -t_{\alpha,n-1}$	$P((t_{n-1} < t)$
$\mu_1 - \mu_2 \leq d_0$	$\mu_1 - \mu_2 > d_0$		$t > t_{\alpha,n-1}$	$P((t_{n-1} > t)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region	p-value
$\pi_1 - \pi_2 = d_0$	$\pi_1 - \pi_2 \neq d_0$	$z = \dfrac{p_1 - p_2 - d_0}{\sqrt{\bar{p}(1-\bar{p})\left(\dfrac{1}{n_1} + \dfrac{1}{n_2}\right)}}$, where	$\lvert z\rvert > z_{\alpha/2}$	$2P(Z > \lvert z\rvert)$
$\pi_1 - \pi_2 < d_0$	$\pi_1 - \pi_2 < d_0$		$z < -z_\alpha$	$P(Z < z)$
$\pi_1 - \pi_2 > d_0$	$\pi_1 - \pi_2 > d_0$	$p_1 = \dfrac{X_1}{n_1}$, $p_2 = \dfrac{X_2}{n_2}$ and $\bar{p} = \dfrac{X_1 + X_2}{n_1 + n_2}$	$z > z_\alpha$	$P(Z > z)$

Null Hypothesis: H_0	Alternative Hypothesis: H_1	Test Statistic	Rejection Region
$\sigma_1^2 = \sigma_2^2$	$\sigma_1^2 \neq \sigma_2^2$	$F = \dfrac{S_1^2}{S_2^2}$, with $n_1 - 1$ and $n_2 - 1$ d.f.	$F > F_{\alpha/2}$
$\sigma_1^2 \leq \sigma_2^2$	$\sigma_1^2 > \sigma_2^2$	and S_1^2 is the larger sample variance	$F > F_\alpha$

The hypothesis of independence or the hypothesis of the equality of population proportions.

Test Statistics $\chi^2 = \sum_{All\ Cells} \dfrac{(O-E)^2}{E}$, has a χ^2 with $(r-1)(c-1)$ degrees of freedom

Reject the null hypothesis when $\chi^2 > \chi_\alpha^2$

Marascuilo Procedure

Compare $\lvert p_j - p_{j'} \rvert$ with $\sqrt{\chi_\alpha^2}\sqrt{\dfrac{p_j(1-p_j)}{n_j} + \dfrac{p_{j'}(1-p_{j'})}{n_{j'}}}$