

DATE

例 8

設 P_1 為男±比例, P_2 為女±比例.

$P_1 - P_2$ 的 $100(1-\alpha)\%$ 信賴區間 =

$$(P_1 - P_2) \pm Z_{\frac{\alpha}{2}} \sqrt{\frac{\hat{P}_1(1-\hat{P}_1)}{n_1} + \frac{\hat{P}_2(1-\hat{P}_2)}{n_2}}$$

$$P_1 = \frac{55}{100} = 0.55$$

$$P_2 = \frac{60}{100} = 0.6$$

$$\text{代入} = (0.55 - 0.6) \pm Z_{0.025} \sqrt{\frac{0.55 \times 0.45}{100} + \frac{0.6 \times 0.4}{100}}$$

$$= -0.05 \pm 1.96 \times 0.07$$

$$= -0.05 \pm 0.14$$

$$= (-0.19, 0.09) \#$$