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Materia: Estadística Inferencial

Grado: 4to Cuatrimestre

Grupo: Psicología

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$$I: N = 18000$$

$$P_1 = 65.7\% = 0.657$$

$$q_1 = 1 - p = 1 - 0.657 = 0.343$$

$$B_1 = 2\% = 0.02$$

$$n_1 =$$

$$D = \frac{B^2}{4} = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{(18000)(0.657)(0.343)}{(17999)(0.0001) + (0.657)(0.343)} = 2003$$

$$P_2 = 77\% = 0.77$$

$$q_2 = 1 - p = 1 - 0.77 = 0.23$$

$$B_2 = 4\% = 0.04$$

$$n_2 =$$

$$D = \frac{B^2}{4} = \frac{(0.04)^2}{4} = 0.0004$$

$$n = \frac{(18000)(0.77)(0.23)}{(17999)(0.0004) + (0.77)(0.23)} = 433$$

$$\begin{aligned}
 2: \quad N &= 55000 \\
 P_1 &= 55.8\% = 0.558 \\
 Q_1 &= 1 - P = 1 - 0.558 = 0.442 \\
 B_1 &= 2\% = 0.02 \\
 n_1 &=
 \end{aligned}$$

$$D = \frac{B^2}{4} = \frac{(0.02)^2}{4} = 0.0001$$

2361

$$\frac{n = N P q}{(N-1) D + P q} = \frac{(55000)(0.558)(0.442)}{(54999)(0.0001) + (0.558)(0.442)} =$$

$$P_2 = 62.5\% = 0.625$$

$$Q_2 = 0.375$$

$$B_2 = 3\% = 0.03$$

$$n_2 =$$

$$D = \frac{B^2}{4} = \frac{(0.03)^2}{4} = 0.000225$$

$$\frac{n = N P q}{(N-1) D + P q} = \frac{(55000)(0.625)(0.375)}{(54999)(0.000225) + (0.625)(0.375)} =$$

1023

$$3 = N = 50000$$

$$P_1 = 56.7\% = 0.567$$

$$q_1 = 1 - 0.567 = 0.433$$

$$B_1 = 2\% = 0.02$$

$$n_1 =$$

$$D = \frac{B^2}{4} = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{N P q}{(N-1) D + P q} = \frac{(50000)(0.567)(0.433)}{(49,999)(0.0001) + (0.567)(0.433)} = 2341$$

$$P_2 = 0.5$$

$$q_2 = 1 - 0.5 = 0.5$$

$$B_2 = 4\% = 0.04$$

$$n_2 =$$

$$D = \frac{B^2}{4} = \frac{(0.04)^2}{4} = 0.0004$$

$$n = \frac{N P q}{(N-1) D + P q} = \frac{(50000)(0.5)(0.5)}{(49,999)(0.0004) + (0.5)(0.5)} = 618$$

$$\begin{aligned}
 A: N &= 35200 \\
 p_1 &= 72.5\% = 0.725 \\
 q_1 &= 1 - 0.725 = 0.275 \\
 B_1 &= 21 = 0.02
 \end{aligned}$$

$$D = \frac{B^2}{4} = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{Npq}{(N-1)D + pq} = \frac{(35200)(0.725)(0.275)}{(35199)(0.0001) + (0.725)(0.275)} = 1887$$

$$\begin{aligned}
 p_2 &= 0.5 \\
 q_2 &= 1 - 0.5 = 0.5 \\
 B_2 &= 11 = 0.01 \\
 n_2 &=
 \end{aligned}$$

$$D = \frac{B^2}{4} = \frac{(0.01)^2}{4} = 0.000025$$

$$n = \frac{Npq}{(N-1)D + pq} = \frac{(35200)(0.5)(0.5)}{(35199)(0.000025) + (0.5)(0.5)} = 7788$$

$$S = N = 58000$$

$$p_1 = 0.5$$

$$q_1 = 1 - 0.5 = 0.5$$

$$B_1 = 5\% = 0.05$$

$$n_1 =$$

$$D = \frac{B^2}{4} = \frac{(0.05)^2}{4} = 0.000625$$

$$n = \frac{Npq}{(N-1)D + pq} = \frac{(58000)(0.5)(0.5)}{(57999)(0.000625) + (0.5)(0.5)} = 398$$

$$p_2 = 74\% = 0.74$$

$$q_2 = 1 - 0.74 = 0.26$$

$$B_2 = 2\% = 0.02$$

$$n_2 =$$

$$D = \frac{B^2}{4} = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{Npq}{(N-1)D + pq} = \frac{(58000)(0.74)(0.26)}{(57999)(0.0001) + (0.74)(0.26)} = 1863$$

$$\begin{aligned}
 6: \quad N &= 17000 \\
 p_1 &= 65.71 = 0.657 \\
 q_1 &= 1 - 0.657 = 0.343 \\
 B_1 &= 21 = 0.02 \\
 n_1 &=
 \end{aligned}$$

$$D = \frac{B^2}{A} = \frac{(0.02)^2}{4} = 0.0001$$

$$\frac{n = NPq}{(N-1)D + Pq} = \frac{(17000)(0.657)(0.343)}{(16999)(0.0001) + (0.657)(0.343)} = 1990$$

$$p_2 = 771 = 0.77$$

$$q_2 = 1 - 0.77 = 0.23$$

$$B_2 = 41 = 0.04$$

$$n_2 =$$

$$D = \frac{B^2}{A} = \frac{(0.04)^2}{4} = 0.0004$$

$$\frac{n = NPq}{(N-1)D + Pq} = \frac{(17000)(0.77)(0.23)}{(16999)(0.0004) + (0.77)(0.23)} = 432$$