

SAMPLE SIZE DETERMINATIONS

. sampsi 20 25,p(0.9) r(2) sd1(8) sd2(8)

Estimated sample size for two-sample comparison of means

Test Ho: $m_1 = m_2$, where m_1 is the mean in population 1
and m_2 is the mean in population 2

Assumptions:

alpha = 0.0500 (two-sided)

power = 0.9000

m1 = 20

m2 = 25

sd1 = 8

sd2 = 8

n2/n1 = 2.00

Estimated required sample sizes:

n1 = 41

n2 = 82

. sampsi 20 30,p(0.8) r(1) sd1(8) sd2(8)

Estimated sample size for two-sample comparison of means

Test Ho: $m_1 = m_2$, where m_1 is the mean in population 1
and m_2 is the mean in population 2

Assumptions:

alpha = 0.0500 (two-sided)

power = 0.8000

m1 = 20

m2 = 30

sd1 = 8

sd2 = 8

n2/n1 = 1.00

Estimated required sample sizes:

n1 = 11

n2 = 11

. sampsi 0 0.4,sd(0.5) onesam

Estimated sample size for one-sample comparison of mean to hypothesized value

Test Ho: $m = 0$, where m is the mean in the population

Assumptions: $\alpha = 0.0500$ (two-sided)
 $\text{power} = 0.9000$
 alternative $m = .4$
 $\text{sd} = .5$

Estimated required sample size:

$$n = 17$$

. sampsi 0 0.4,p(0.8) sd(0.5) onesam

Estimated sample size for one-sample comparison of mean to hypothesized value

Test Ho: $m = 0$, where m is the mean in the population

Assumptions:
 $\alpha = 0.0500$ (two-sided)
 $\text{power} = 0.8000$
 alternative $m = .4$
 $\text{sd} = .5$

Estimated required sample size:

$$n = 13$$

. sampsi 0.25 0.448,alpha(0.05) power(0.8)

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
 and p_2 is the proportion in population 2

Assumptions:

$\alpha = 0.0500$ (two-sided)
 $\text{power} = 0.8000$
 $p_1 = 0.2500$
 $p_2 = 0.4480$
 $n_2/n_1 = 1.00$

Estimated required sample sizes:

$$n_1 = 100$$
$$n_2 = 100$$

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