

G*Power 3.1.9.7

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Central and noncentral distributions

Protocol of power analyses

F tests – Linear multiple regression: Fixed model, R^2 deviation from zero

Analysis:

A priori: Compute required sample size

Input:

Effect size f^2

= 0.15

α err prob

= 0.05

Power (1- β err prob)

= 0.8

Number of predictors

= 3

Output:

Noncentrality parameter λ

= 11.5500000

Critical F

= 2.7300187

Numerator df

= 3

Denominator df

= 73

Total sample size

= 77

Clear

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Test family

F tests

Statistical test

Linear multiple regression: Fixed model, R^2 deviation from zero

Type of power analysis

A priori: Compute required sample size – given α , power, and effect size

Input Parameters

Determine =>

Effect size f^2

0.15

α err prob

0.05

Power (1- β err prob)

0.8

Number of predictors

3

Output Parameters

Noncentrality parameter λ

11.5500000

Critical F

2.7300187

Numerator df

3

Denominator df

73

Total sample size

77

Actual power

0.8017655

X-Y plot for a range of values

Calculate