

SUPER

Sex	Income
M	40.6
M	54.6
M	38.6
M	58.2
M	34.6
M	42.9
M	67.5
M	79.8
M	54.4
M	47.3
M	66.4
M	69.0
M	62.0
M	52.5
M	72.6
M	52.4
M	59.5
M	59.1
M	36.7
M	54.6
M	52.1
M	49.9
M	52.0
M	47.1
M	40.8
M	36.5
M	57.1
M	54.1
M	32.4
M	34.9
M	64.1
M	54.0
M	51.5
M	50.8
M	45.1
M	81.5
M	70.4
M	39.2
M	45.2
M	80.9
M	48.6
M	31.0
M	32.1
M	33.9
M	31.3
M	51.0
M	53.4
M	58.3
M	31.4
M	56.3
M	41.0
M	47.9

F-Test Two-Sample for Variances

	Male	Female
Mean	52.9133	44.2333
Variance	233.1290	190.1758
Observations	60.0000	60.0000
df	59.0000	59.0000
F	1.2259	
P(F<=f) one-tail	0.2182	
F Critical one-tail	1.5400	

two-tailed P-value

(F<=f) one-tail * 2 or "P(>=F)" 0.4365

The F value should always be used along with the p value in deciding whether your results are significant enough to reject the null hypothesis.

I compare F (1.2259) with F-Critical (1.54)

F < F-Critical, therefore do not reject the null hypothesis

all F calculations in Excel are for right tail tests of hypothesis

P-value < 0.05? No

Therefore, it means that the independent variables do not fit the data.

F inside rejection zone? No

Rejection zone is F > **1.674**

1.674 calculated from F-distribution table with df=59

What does this mean?

Do not reject the null hypothesis.

H0: Mean income for males exceeds females

Outcome: Yes

SUPER

M	51.4
M	33.1
M	74.9
M	77.2
M	57.9
M	80.1
M	40.2
M	100.9
F	33.1
F	35.8
F	68.8
F	31.6
F	38.2
F	42.0
F	33.4
F	50.3
F	39.6
F	30.7
F	31.3
F	61.3
F	30.0
F	38.1
F	56.4
F	35.7
F	31.3
F	40.4
F	32.1
F	66.4
F	36.9
F	35.9
F	49.6
F	62.8
F	44.6
F	32.5
F	33.4
F	55.3
F	62.7
F	54.4
F	30.8
F	49.1
F	41.9
F	32.5
F	35.2
F	47.4
F	60.7
F	33.0
F	43.3
F	34.8
F	36.0
F	51.6
F	31.9
F	34.1
F	78.4
F	30.4
F	45.3

SUPER

F	52.6
F	30.3
F	36.6
F	53.1
F	36.5
F	37.8
F	34.0
F	69.3
F	77.2
F	32.6
F	82.9
F	42.3
F	57.8