

Chi-Square Test of Independence

Chi-Square Test of Independence Import and test-specific preparation

Dataset Name

Notes

Output Created		16-JUL-2026 14:41:04
Comments		
Input	Data	D:\DATA ANALYSIS\Chi Square and Categorical Data Tests\Chi Square Test of Independence\dataset.csv
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax		DATASET NAME ChiSquareTestofIndependenceData.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Warnings

The active dataset will replace the existing dataset named ChiSquareTestofIndependenceData.

school into school_n

Old Value	New Value	Value	Label
-----------	-----------	-------	-------

GP	1	GP
MS	2	MS

reason into reason_n

Old Value	New Value	Value	Label
-----------	-----------	-------	-------

course	1	course
home	2	home
other	3	other
reputation	4	reputation

Chi-Square Test of Independence
Import and test-specific preparation

guardian into guardian_n

Old Value	New Value	Value Label
father	1	father
mother	2	mother
other	3	other

Chi-square test of independence

Chi-square test of independence
Internet access by higher-education intention in one sample

Crosstabs

Notes

Output Created		16-JUL-2026 14:41:06
Comments		
Input	Data	D:\DATA ANALYSIS\Chi Square and Categorical Data Tests\Chi Square Test of Independence\dataset.csv
	Active Dataset	ChiSquareTestofIndependenceData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=internet_bin BY higher_bin /FORMAT=AVALUE TABLES /STATISTICS=CHISQ PHI /CELLS=COUNT ROW COLUMN EXPECTED RESID SRESID /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.03
	Dimensions Requested	2
	Cells Available	524245

[ChiSquareTestofIndependenceData]

Chi-square test of independence
Internet access by higher-education intention in one sample

Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Internet access: 0 no, 1 yes * Higher education intention: 0 no, 1 yes	649	100.0%	0	0.0%	649	100.0%

Internet access: 0 no, 1 yes * Higher education intention: 0 no, 1 yes Crosstabulation

			Higher education intention: 0 no, 1 yes	
			No / fail	Yes / pass
Internet access: 0 no, 1 yes	No / fail	Count	22	129
		Expected Count	16.1	134.9
		% within Internet access: 0 no, 1 yes	14.6%	85.4%
		% within Higher education intention: 0 no, 1 yes	31.9%	22.2%
		Residual	5.9	-5.9
		Standardized Residual	1.5	-.5
	Yes / pass	Count	47	451
		Expected Count	52.9	445.1
		% within Internet access: 0 no, 1 yes	9.4%	90.6%
		% within Higher education intention: 0 no, 1 yes	68.1%	77.8%
		Residual	-5.9	5.9
		Standardized Residual	-.8	.3
Total	Count		69	580
	Expected Count		69.0	580.0
	% within Internet access: 0 no, 1 yes		10.6%	89.4%
	% within Higher education intention: 0 no, 1 yes		100.0%	100.0%

Chi-square test of independence
Internet access by higher-education intention in one sample

Internet access: 0 no, 1 yes * Higher education intention: 0 no, 1 yes Crosstabulation

			Total
Internet access: 0 no, 1 yes	No / fail	Count	151
		Expected Count	151.0
		% within Internet access: 0 no, 1 yes	100.0%
		% within Higher education intention: 0 no, 1 yes	23.3%
		Residual	
		Standardized Residual	
	Yes / pass	Count	498
		Expected Count	498.0
		% within Internet access: 0 no, 1 yes	100.0%
		% within Higher education intention: 0 no, 1 yes	76.7%
		Residual	
		Standardized Residual	
Total	Count		649
	Expected Count		649.0
	% within Internet access: 0 no, 1 yes		100.0%
	% within Higher education intention: 0 no, 1 yes		100.0%

Chi-square test of independence
Internet access by higher-education intention in one sample

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	3.212 ^a	1	.073		
Continuity Correction ^b	2.694	1	.101		
Likelihood Ratio	3.011	1	.083		
Fisher's Exact Test				.096	.053
Linear-by-Linear Association	3.207	1	.073		
N of Valid Cases	649				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.05.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.070	.073
	Cramer's V	.070	.073
N of Valid Cases		649	

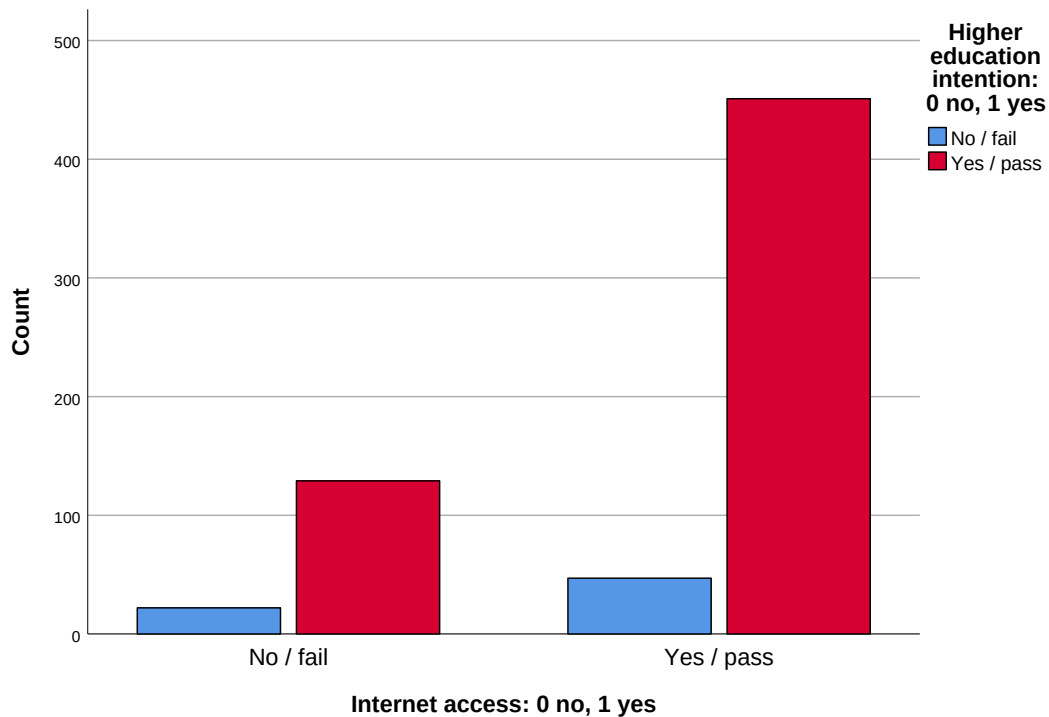
Graph

Chi-square test of independence
Internet access by higher-education intention in one sample

Notes

Output Created		16-JUL-2026 14:41:06
Comments		
Input	Data	D:\DATA ANALYSIS\I Chi Square and Categorical Data Tests\Chi Square Test of Independence\dataset.csv
	Active Dataset	ChiSquareTestofIndependenceData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		GRAPH /BAR(GROUPED) =COUNT BY internet_bin BY higher_bin.
Resources	Processor Time	00:00:00.39
	Elapsed Time	00:00:00.48

Chi-square test of independence
Internet access by higher-education intention in one sample



```
=====
=====
CHI-SQUARE TEST OF INDEPENDENCE
=====
=====
Formula:  $X^2 = \sum_{ij} (O_{ij} - E_{ij})^2 / E_{ij}$ ;  $E_{ij} = \text{row}_i * \text{column}_j / N$ 
Variables: internet, higher
cells_expected_below_5 = 0
cramers_v = 0.07034497690587595
degrees_of_freedom = 1
minimum_expected_count = 16.053929121725734
p_value = 0.0731214429965458
statistic = 3.2115218385514543
yates_chi_square = 2.6941222240584533
yates_p_value = 0.10071894310832907
Cross-check status: pass
=====
=====
```