

Relative Risk

Relative Risk
Import and test-specific preparation

Dataset Name

Notes

Output Created		16-JUL-2026 14:43:08
Comments		
Input	Data	D:\DATA ANALYSIS\Chi Square and Categorical Data Tests\Relative Risk\dataset.csv
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax		DATASET NAME RelativeRiskData.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Warnings

The active dataset will replace the existing dataset named
RelativeRiskData.

school into school_n

Old Value	New Value	Value	Label
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GP	1	GP
MS	2	MS

reason into reason_n

Old Value	New Value	Value	Label
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course	1	course
home	2	home
other	3	other
reputation	4	reputation

guardian into guardian_n

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

Relative risk

Relative risk
MS versus GP school final-pass probabilities

Crosstabs

Notes

Output Created		16-JUL-2026 14:43:09
Comments		
Input	Data	D:\DATA ANALYSIS\Chi Square and Categorical Data Tests\Relative Risk\dataset.csv
	Active Dataset	RelativeRiskData
	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=school_n BY pass3 /FORMAT=AVALUE TABLES /STATISTICS=RISK CHISQ /CELLS=COUNT ROW COLUMN EXPECTED /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02
	Dimensions Requested	2
	Cells Available	524245

[RelativeRiskData]

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Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
school_n * G3 pass status at 10	649	100.0%	0	0.0%	649	100.0%

school_n * G3 pass status at 10 Crosstabulation

			G3 pass status at 10		Total
			No / fail	Yes / pass	
school_n	GP	Count	32	391	423
		Expected Count	65.2	357.8	423.0
		% within school_n	7.6%	92.4%	100.0%
		% within G3 pass status at 10	32.0%	71.2%	65.2%
	MS	Count	68	158	226
		Expected Count	34.8	191.2	226.0
		% within school_n	30.1%	69.9%	100.0%
		% within G3 pass status at 10	68.0%	28.8%	34.8%
Total		Count	100	549	649
		Expected Count	100.0	549.0	649.0
		% within school_n	15.4%	84.6%	100.0%
		% within G3 pass status at 10	100.0%	100.0%	100.0%

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Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	57.331 ^a	1	.000		
Continuity Correction ^b	55.616	1	.000		
Likelihood Ratio	54.596	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	57.243	1	.000		
N of Valid Cases	649				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 34.82.

b. Computed only for a 2x2 table

Risk Estimate

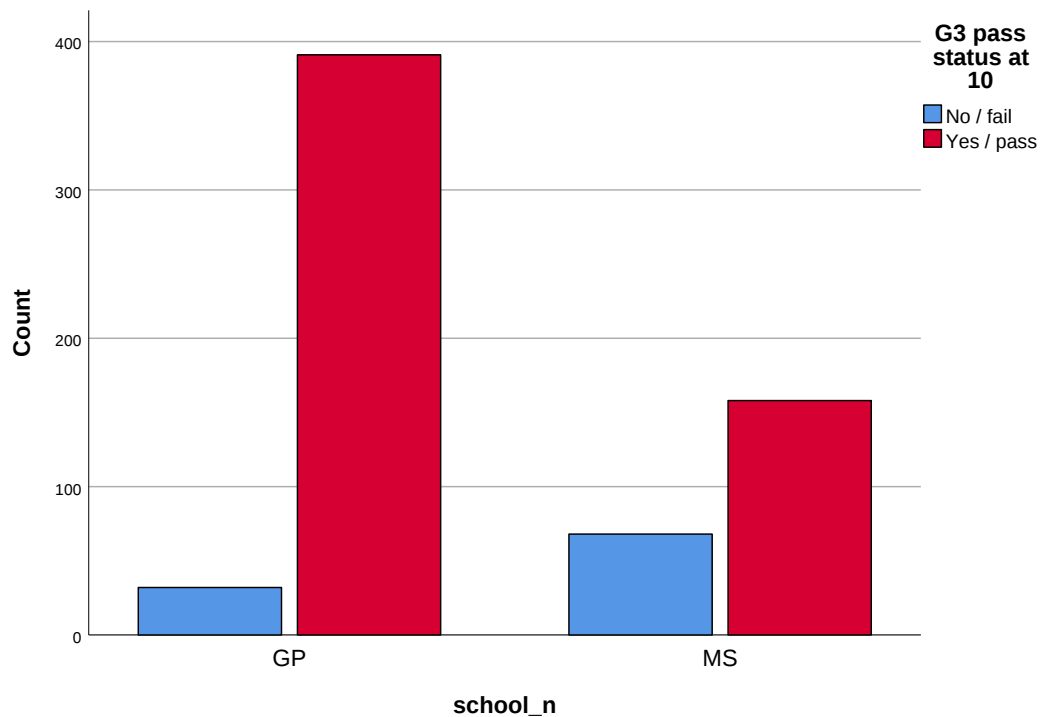
	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for school_n (GP / MS)	.190	.120	.301
For cohort G3 pass status at 10 = No / fail	.251	.171	.371
For cohort G3 pass status at 10 = Yes / pass	1.322	1.209	1.446
N of Valid Cases	649		

Graph

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	Active Dataset	RelativeRiskData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		GRAPH /BAR(GROUPED) =COUNT BY school_n BY pass3.
Resources	Processor Time	00:00:00.52
	Elapsed Time	00:00:00.54



Relative risk
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RELATIVE RISK
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Formula:  $RR = [a/(a+b)]/[c/(c+d)]$ ; Katz CI is calculated on  $\ln(RR)$ 
Variables: school, G3 >= 10
ci_high = 0.8273683487509506
ci_low = 0.6913940102056064
gp_pass_risk = 0.9243498817966903
ms_pass_risk = 0.6991150442477876
relative_risk = 0.7563316207591154
Cross-check status: pass
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```