

Cramer's V Association Test Report

Row variable: school

Column variable: sex

Summary:

row_variable	column_variable	sample_size	rows	columns	chi_square	degrees_of_freedom	p_value	cramers_v
school	sex	649	2	2	4.476302	1	0.03436801	0.08304956
bias_corrected_cramers_v	effect_size_interpretation	decision_alpha_0_05						
0.07322769	Very weak / negligible association	Significant association						
method_note								

Cramer's V = $\sqrt{\text{chi-square} / [N * \min(\text{rows}-1, \text{columns}-1)]}$.

Observed counts:

	F	M
GP	237	186
MS	146	80

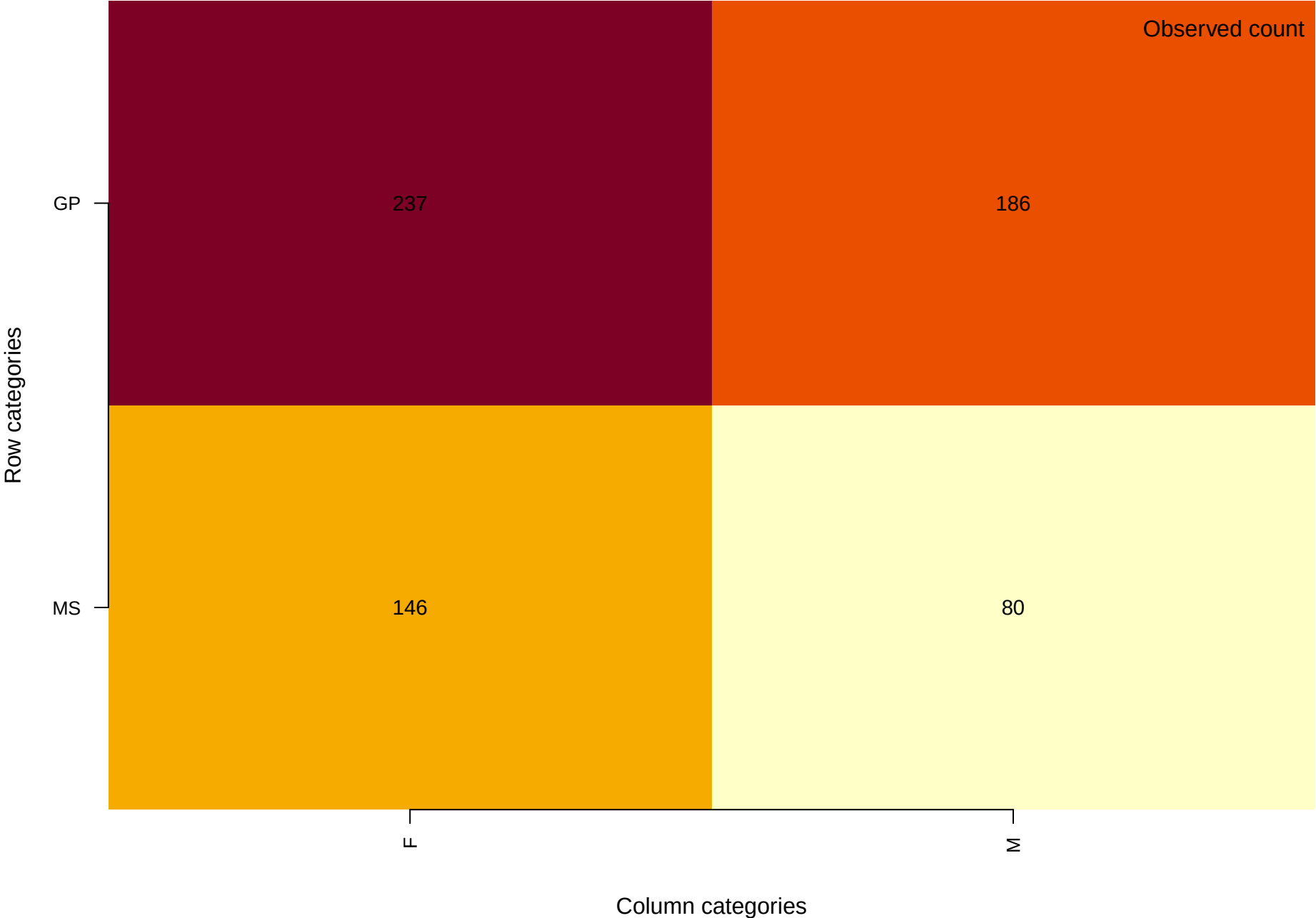
Interpretation:

Cramer's V = 0.083, chi-square = 4.4763, df = 1, p = 0.03437.

Effect size: Very weak / negligible association

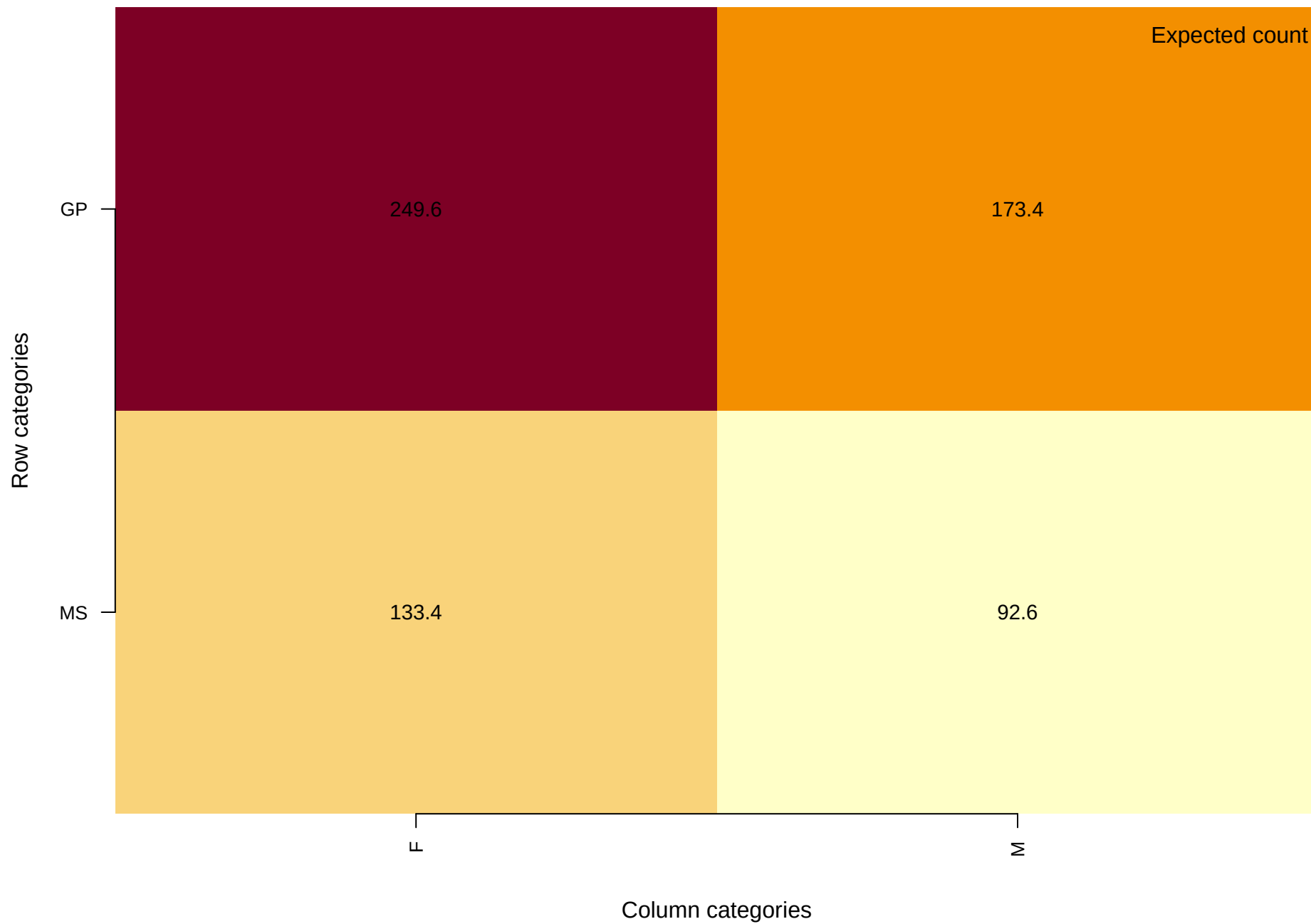
Cramer's V: Observed Count Heatmap

Observed frequency table.



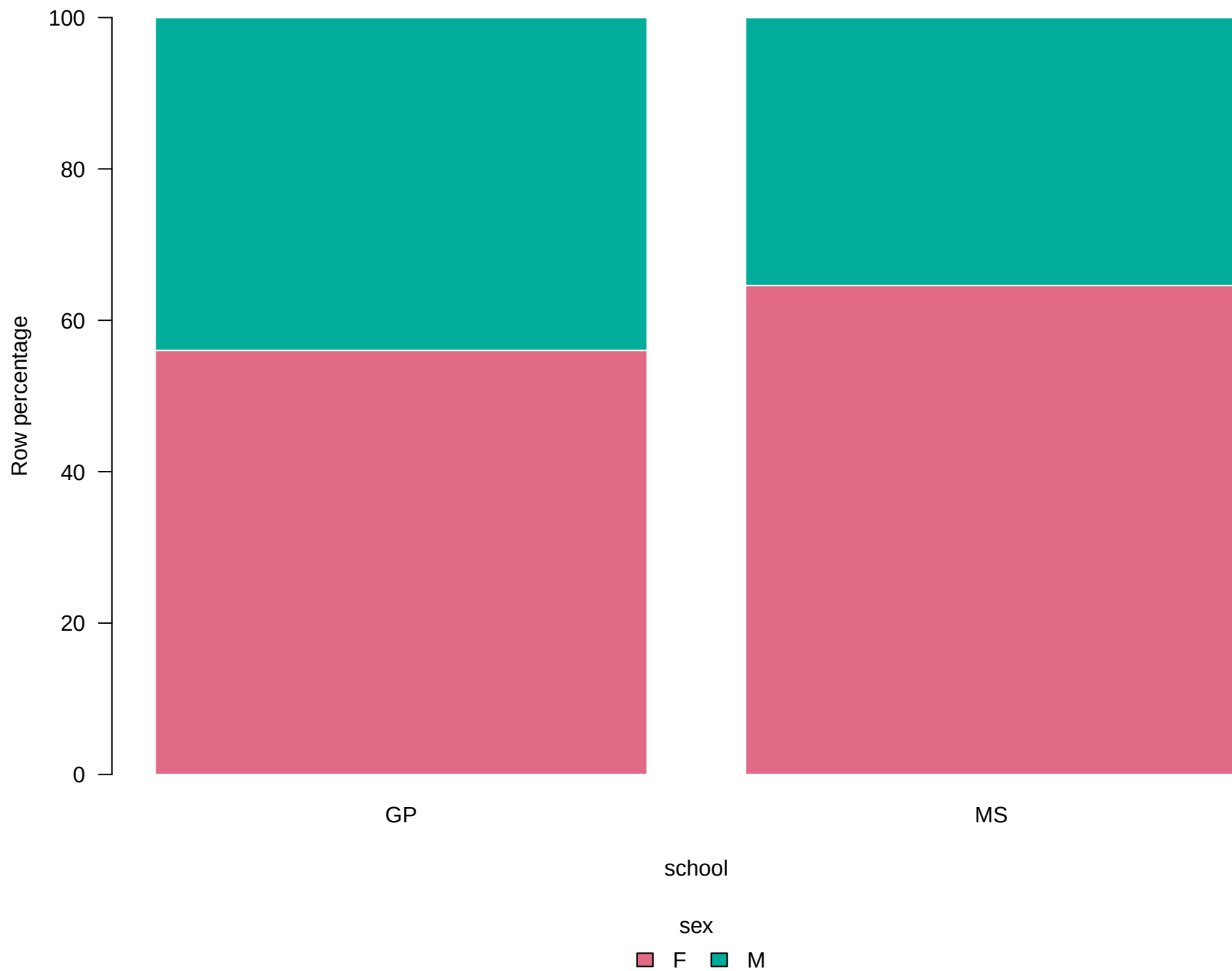
Cramer's V: Expected Count Heatmap

Expected counts under independence.



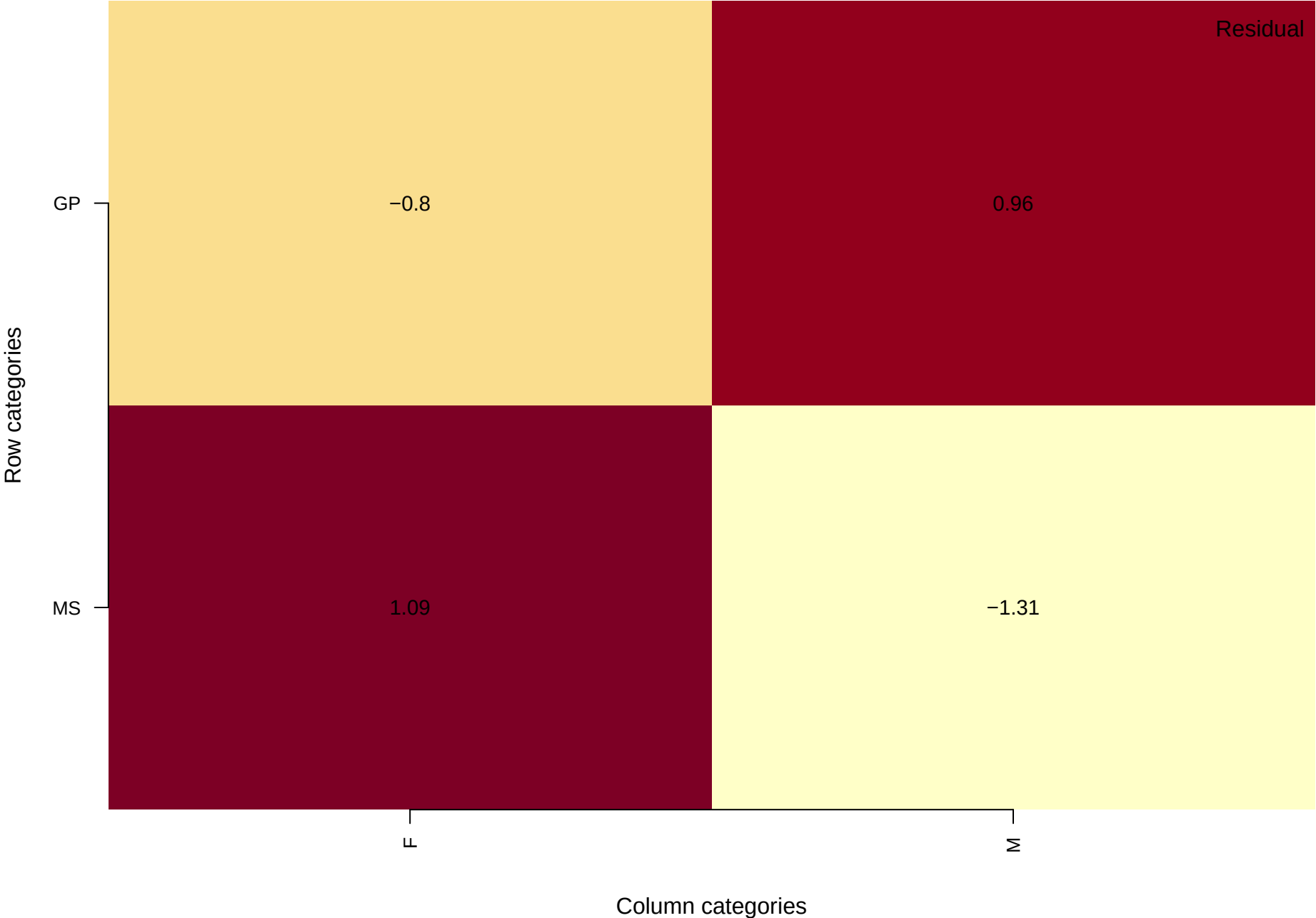
Cramer's V: Colorful Row Percentage Profile

Each row sums to 100%, showing how category patterns differ.



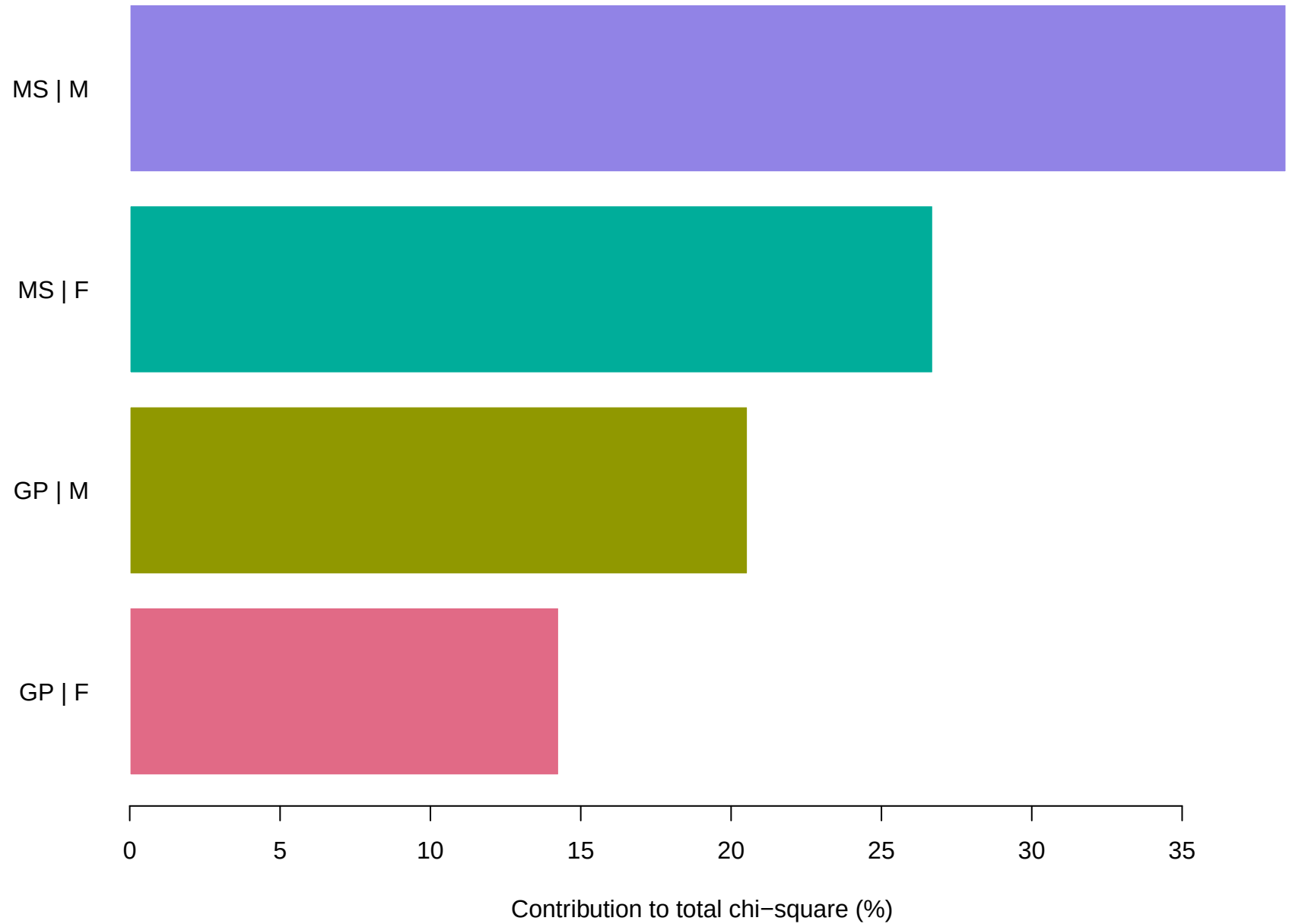
Cramer's V: Standardized Residual Heatmap

Cells far from zero depart most from independence.



Cramer's V: Colorful Chi-square Cell Contributions

Higher bars identify the cells that drive the association.



Cramer's V: Colorful Effect Size Summary

Cramer's V describes association strength after the chi-square independence test.

