

Table 14.6

Effect Sizes for Chi-Square and Guidelines for Interpretation

<i>Statistic</i>	<i>When It Is Used</i>	<i>Formula</i>	<i>Effect Size Guidelines</i>
Phi coefficient (ϕ)	Both variables have two categories.	$\phi = \sqrt{\frac{\chi^2}{n}}$.1 = small
			.3 = medium
			.5 = large
Cramer's phi (ϕ')	At least one variable has three or more categories.	$\phi' = \sqrt{\frac{\chi^2}{n(df^*)}}$ $df^* = (\text{Columns} - 1) \text{ or } (\text{Rows} - 1), \text{ whichever is smaller}$	$df^* = 1$
			.1 = small
			.3 = medium
			.5 = large
			$df^* = 2$
			.07 = small
			.21 = medium
			.35 = large
			$df^* = 3$
			.06 = small
			.17 = medium
			.29 = large