Appendix 9.1. Wording for substantive interpretation of logit and probit results

Type of model	Measure of effect size	Units	Example sentence
Logit	Log-odds (β)	Multiples of log-odds that the dependent variable=1 for a one unit increase in the independent variable.[a,b]	Not recommended for conveying substantive significance.
	Odds ratio[c]	Multiples of odds that the dependent variable=1 for a one unit increase in the independent variable.[a,b]	"Infants born to mothers who smoked during pregnancy had 1.4 times the odds of low birthweight as those with non-smoking mothers (table 9.2)."
	Percentage difference	Percentage difference in the odds that the dependent variable=1 for a one unit increase in the independent variable.[a,b]	"Infants born to mothers who smoked during pregnancy had 40 percent higher odds of low birthweight as those with non-smoking mothers (table 9.2)."
Probit	Probit coefficient	Change in the cumulative normal probability of the dependent variable, expressed in Z-scores (multiples of the standard deviation) for a one-unit increase in the independent variable.[a,b]	Not recommended for conveying substantive significance.
	Marginal probability[e]	Change in the probability that the dependent variable = 1 for a one-unit increase in the independent variable[a,b]	"The probability of employment was 0.029 lower for married than unmarried women ($p < 0.01$; not shown), when all variables are set at their means."

Notes

[a] For categorical independent variables, the comparison is between the group specified and the reference (omitted) category of the independent variable.

[b] Logit and probit models can also include independent variables in logarithmic form. In such cases, the measure of effect size would be interpreted for a 1 percent increase in the independent variable.

[c] The odds ratio is calculated $OR = e^{ß} = e^{\text{log-odds}}$.

[d] See table 8.3 in *The Chicago Guide to Writing about Numbers* for how to calculate a percentage difference from a ratio.

[e] The marginal probability is calculated as $\phi(\beta' x)\beta$ where ϕ(t) is the standard normal density. See William H. Greene (2002) for more discussion.