

SABRE

EXERCISE 1 Pooled (Cross-Sectional) Logit Answers

5. Note the deviance and the degrees of freedom of this model.

$$\text{Deviance} = 1970; \text{df} = 1579$$

6. Compute a simple Z score for the variable mune.

$$-1.8518 / 0.22117 = -8.37$$

7. Compute a Wald test for the variable mune.

$$(-1.8518 / 0.22117)^2 = 70.06$$

8. Construct a 95% confidence interval for the estimate of mune.

$$-1.8518 \pm (1.96 * 0.22117) = -2.29, -1.42$$

9. Estimate the probability of a wife being employed (y=1) if her husband is employed (mune=0).

$$0.74174$$

$$\text{antilog}(0.74174) = 2.10$$

$$2.10 / 3.10 = .677$$

10. Estimate the probability of a wife being employed (y=1) if her husband is unemployed (mune=1).

$$0.74174 + -1.8518 = -1.11006;$$

$$\text{antilog}(-1.11006) = 0.33$$

$$.33 / 1.33 = .248$$

11. What does this suggest about the effects of husband's employment status on a wife's labour market participation?

A woman with an unemployed husband has a lower probability of being employed.

13. Which variables are significant?

mune, und1 and und5;

14. Which model is most appropriate?

The model with mune, und1 and und5 included. Deviance = 1741, df = 1576.