

ICPSRCA2017
Assignment 7: count models
Grading guidelines

Q1

1. Verify missing data have been removed. (-5)

Q2 and Q4

2. Tables should be publication-ready. Align by decimal point; center labels at top; be consistent & appropriate with number of decimal digits; use substantive labels. (-1 to -3)
3. Describe distribution of outcome variable (%ages). (-2)

Q5 and Q6

4. The models have the same mean structure. Adding unobserved heterogeneity to the model does not affect the mean structure, so coefficients for the PRM & NBRM are asymptotically equivalent. (-3)
5. Because the NBRM adds in unobserved heterogeneity to account for overdispersion, standard errors in the NBRM are larger than standard errors in the PRM. (-3)
6. If unobserved heterogeneity is ignored, we run the risk of assessing variables as significant when they aren't [Type I error]. (-0 to -2)

Q9 and Q14

7. The expected count changes not "by .75", but "by a factor of .75". (-2)
8. % change in the odds is equal to $(b-1)*100$, not $100*b$. (-2)
9. Don't interpret x-standardized coefficients for dummy variables. (-2)
10. Do interpret significance. (-1 to 2)
11. While you do not need to report every change, do give a sense of the overall story. But be sure to include some indication of the magnitude of change. (-2)

Q13

12. A significant likelihood ratio test provides evidence of overdispersion & provides evidence that the NBRM should be used instead of the PRM. (-3)
13. Chi-square tests are always one-tailed. (-1)

Q15

14. Make sure labels in graphs are substantively clear; don't use default labels. (-2)
15. Discussion of model choice should refer to one or more tests. If BIC statistics are used for model selection, a reference to Raftery's criteria should be used. If the Vuong test is used, the p-value should be reported. (-2 to -5)
16. Model specification tests will not always be consistent. If inconsistent results are given (e.g., one test endorsing NBRM & one endorsing the ZINB) you should be prepared to report why you selected the model you selected. Such rationale could discuss differences in test statistics, theoretical reasons, or even field[subfield] standards. (-1 to -5)

Various

17. Show the output associated with your answer and highlight relevant numbers. (-2 to -10)
18. Use fixed font when reporting output. (-5)
19. How large is a standard deviation? (-1)