ICPSRCDA2018
Assignment 7: count models
Grading guidelines

**Q1**

1. Verify missing data have been removed.

**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.
3. Describe distribution of outcome variable (%ages).

**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 & NBMR are asymptotically equivalent.
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.
6. If unobserved heterogeneity is ignored, we run the risk of assessing variables as significant when they aren't [Type I error].

**Q9 and Q14**

7. The expected count changes not "by .75", but "by a factor of .75".
8. % change in the odds is equal to (b-1)*100, not 100*b.
9. Don't interpret x-standardized coefficients for dummy variables.
10. Do interpret significance.
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.

**Q13**

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

**Q15**

14. Make sure labels in graphs are substantively clear; don't use default labels.
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.
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.

**Various**

17. Show the output associated with your answer and highlight relevant numbers.
18. Use fixed font when reporting output.
19. How large is a standard deviation?