## ICPSRCDA2018 Assignment 2: the binary regression model-pt. 1 Grading guidelines

## Odds ratios

- 1. The odds change not "by .75", but "by a factor of .75". (-2)
- 2. % change in the odds is equal to (b-1)\*100, not 100\*b. (-2)
- 3. Don't interpret x-standardized coefficients for dummy variables. (-2)
- 4. Remember to include "holding everything else constant" [or similar] in all statements. (-1 each)
- 5. The factor change coefficient remains the same regardless of where you are in the data space; predicted probabilities depend on the levels of the other variables. Need to talk about both odds ratio and predicted probabilities for #7e. (-0 to -4)
- 5a. Only exponentiated logit coefficients can be reported as odds ratios. (-4)
- 5b. The odds ratio reports changes in *odds*, not likelihood or probability. For example, if the probability of an event is .25, the odds are .25/.75 = .33... Double the odds and the odds are now .66... Double the probability of the event and it is now .5, which makes the odds .5/.5 = 1, tripling the odds. (-0)

## <u>Tables</u>

- 6. Always aim for publication-ready tables. Align columns by decimal point; center labels at top; be consistent & appropriate with number of decimal digits; use substantive labels. (-0 to -3)
- 7. Don't include x-standardized coefficients for binary variables. (-2)

# Logit vs. Probit

- 8. Logit coefficients are ~1.8x probit coefficients because of differences in assumed variances of the errors— $\pi^2/3$  for logit, 1 for probit. (-0 to -3)
- 9. The standardized logistic and normal distributions are close but not identical, hence why the ratio between the two is close to—but not exactly—one. (-0 to -2)
- 10. Report standardized unexponentiated logit coefficients. (-5)

### Various

- 11. How large is a standard deviation? (-2)
- 12. C variable is not continuous. (-2)
- 13. Show the output associated with your answer and highlight the numbers used. (-1 to -10)
- 14. Show output to verify cleaning transformations & missing data removal. (-1 to -5)
- 15. Why say "Respondent's education"? Only do this when you also have information from non-respondents. (-0)
- 16. References to significance should include report of actual statistic (t, z, etc.)
- 17. Use fixed font when reporting output (courier new 9 pt font to match Stata). (-5)
- 18. Don't report a p-value of 0.000, as your p-value will never be 0. Instead, report "p<0.001." (-1)
- 19. Do not include long tables, lists of variables or unnecessary summary statistics in your log file—it wastes paper and time. (No penalty...this time)
- 20. Be sure to indicate your units. (-2)
- 21. No log file included (-2)
- 22. Log file is too unorganized/messy to understand; and/or missing necessary output (-1)
- 23. Include a printed copy of the assignment sheet as the cover page for your assignment
- 24. The data from the lab guide (scireveiw3) cannot be used for assignments (-0 to -5)