How to Save the Binary Class Variable and Predicted Probability of Group Membership from Logistic Regression Analysis to an ASCII Space-Delimited File in *SPSS 17 For Windows*

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This note explains the steps involved and provides the SPSS syntax needed to run two-group logistic regression analysis using SPSS 17 for Windows, and output to an ASCII space-delimited data file the binary class variable and predicted probability of group membership (i.e., "Y-hat") from an SPSS logistic regression analysis.

1. Obtain an SPSS data set containing a binary class variable (e.g., sex), along with categorical (e.g., city1, city2, city3, colorA, colorB, colorC) and continuous (e.g., age) attributes. Missing data should be indicated with a value (e.g., -9) in the SPSS data set.

2. Open the SPSS data set, and run the following syntax file, which saves predicted probability of group membership as a variable named PRED_1 in the active SPSS data file.

```
LOGISTIC REGRESSION VARIABLES sex
 /METHOD=ENTER age raceA raceH city2 city3
 /CONTRAST (city3)=Indicator
 /CONTRAST (city2)=Indicator
 /CONTRAST (colorA)=Indicator
 /CONTRAST (colorC)=Indicator
 /SAVE=PRED
 /CLASSPLOT
 /PRINT=GOODFIT
 /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20)
   CUT(0.5).
```

3. If desired, in Variable View, edit the SPSS data file to rename PRE_1 as "lryhat," for example, to reflect "logistic regression y-hat."

4. From the drop-down SPSS Windows menu, select Transform, Recode into Same Variable, and change the value of "system missing" (blank) to -9 (or value used) for the PRE_1 (lryhat) variable. Then resave the SPSS data set.

5. Run the following SPSS syntax to write a space-delimited ASCII data file which is named "lryhat.dat" and which contains a code for the

class variable (e.g., sex) and the predicted probability of group membership (e.g., lryhat):

```
FORMATS sex (f4.0).
FORMATS lryhat (f13.8).
write outfile='c:\lryhat.dat' records=1
  /1 sex lryhat.
execute.
```

6. Locate the file "lryhat.dat" in the root folder for the c:\ drive, and move this file to the ODA directory for analysis.

Author Notes

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