**SAS Code for Proc hplogistic**

**data** A;

 do drugclass = **1** to **8**;

 do y = **1** to **5**;

 input freq @@;

 output;

 end;

 end;

 label y='Frequency of Use';

 datalines;

16 27 6 9 1

4 1 16 35 3

6 10 20 22 1

25 25 7 1 0

12 22 16 7 2

6 4 14 27 7

8 17 18 13 3

5 5 17 28 3

;

**proc** **hplogistic** data=A;

 freq freq;

 class drugclass(ref='8') / param=ref ;

 model y=drugclass / cl;

 title 'Antimicrobial class preference';

**run**;

**proc** **transpose** data=A out=tran;

 by drugclass; var freq;

 **run**;

 **data** a; set tran;

 const=**0.5**;

 c1=log((sum(of col1-col1)+const)/(sum(of col2-col9)+const));

 c2=log((sum(of col1-col2)+const)/(sum(of col3-col9)+const));

 c3=log((sum(of col1-col3)+const)/(sum(of col4-col9)+const));

 c4=log((sum(of col1-col4)+const)/(sum(of col5-col9)+const));

 **run**;

 **proc** **sgplot**;

 series y=c1 x=drugclass;

 series y=c2 x=drugclass;

 series y=c3 x=drugclass;

 series y=c4 x=drugclass;

 yaxis values=(-**5** to **5**);

 **run**;