/\* BIOSTAT 719 \*/

/\* Example: car preferences \*/

/\* Table 8.1 (Textbook page 153) \*/

data cars;

input sex $ age $ response $ count;

cards;

women 18-23 1:no/little 26

women 18-23 2:important 12

women 18-23 3:very-important 7

women 24-40 1:no/little 9

women 24-40 2:important 21

women 24-40 3:very-important 15

women >40 1:no/little 5

women >40 2:important 14

women >40 3:very-important 41

men 18-23 1:no/little 40

men 18-23 2:important 17

men 18-23 3:very-important 8

men 24-40 1:no/little 17

men 24-40 2:important 15

men 24-40 3:very-important 12

men >40 1:no/little 8

men >40 2:important 15

men >40 3:very-important 18

;

proc print data=cars; run;

/\* Nominal logistic regression \*/

proc logistic data=cars;

class sex (param=ref ref='women');

model response (ref='1:no/lit') = sex / link=glogit;

weight count;

run;

/\* Ordinal logistic regression \*/

/\* Cumulative logistic regression \*/

proc logistic data=cars;

class sex (param=ref ref='women');

model response = sex / unequalslopes = sex;

weight count;

run;

/\* Proportional odds regression \*/

proc logistic data=cars;

class sex (param=ref ref='women');

model response = sex;

weight count;

run;

proc logistic data=cars;

class sex (param=ref ref='women') age (param=ref ref='24-40');

model response = sex age;

weight count;

run;