Group work 8 Fall 2019

1. Below we have a file containing family id, father's name and income. We also have a file containing income information for three years. Write a SAS code that merge the files together so we have the dads observation on the same line with the **faminc** observation based on the key variable **famid**.

**data dads;**

**input famid name $ income ;**

**cards;**

**2 Smith 22000**

**1 Bill 30000**

**3 Paul 25000**

**;**

**run;**

**data faminc;**

**input famid faminc12 faminc13 faminc14 ;**

**cards;**

**3 75000 76000 77000**

**1 40000 40500 41000**

**2 45000 45400 45800**

**;**

**run;**

**2. After merging the files together, change the** names of the variables faminc12 , faminc13 and famic14 to totalinc2012, totalinc2013 and totalinc2014, respectively.

Q2 If we had a file with kids where a dad could have more than one kid.  Matching up the "dads" with the "kids" is called a "one-to-many" merge since you are matching one dad observation to possibly many kids records.  The dads and kids records are shown below. Notice here we have variable **fid** in the first data set and **famid** in the second. These are the variables that we want to match. When we merge the two using **proc sql**, we don't have to rename them, since we can use data set name identifier.

**data dads;**

**input famid name $ income ;**

**cards;**

**2 Smith 22000**

**1 Bill 30000**

**3 Paul 25000**

**;**

**run;**

**\* Next we make the "kids" data file ;**

**data kids;**

**input fid kidname $ birth age wt sex $ ;**

**cards;**

**1 Beth 1 9 60 f**

**1 Bob 2 6 40 m**

**1 Barb 3 3 20 f**

**2 Andy 1 8 80 m**

**2 Al 2 6 50 m**

**2 Ann 3 2 20 f**

**3 Pete 1 6 60 m**

**3 Pam 2 4 40 f**

**3 Phil 3 2 20 m**

**; run;**

3. title3 'Use Aliases, Calculated Columns and CASE Expressions';

options pageno=1;

data clinical;

input patient $ gender $ asian $ wtLb htIn;

datalines;

Jack M no 205 66

Jock M yes 198 71

Jane F no 143 68

Joe M no 167 68

Jenny F no 98 65

Jackson M yes 221 65

Horton M no 314 70

Jill F yes 121 63

;

proc sql;

select patient ,

wtLb as Weight\_lb,

htIn 'Height (in.)',

Weight\_lb\*703/htIn\*\*2

as BMI format=4.1,

case asian

when 'yes' then calculated BMI / 23

else calculated BMI / 25

end

as BMIP label='BMI Prime' format=4.2,

case

when calculated bmip LT 0.66 then 'Severely underweight'

when calculated bmip LT 0.74 then 'Underweight'

when calculated bmip LT 1.00 then 'Normal'

when calculated bmip LT 1.21 then 'Overweight'

when calculated bmip LT 1.41 then 'Obese Class I'

when calculated bmip LT 1.60 then 'Obese Class II'

else 'Obese Class III'

end

label='Weight Category',

case

when asian='yes' then 'Asian'

else ''

end

label='Remark'

from clinical;

quit;