

How do I reshape the data file based on a household roster?

This example reformats the data based on a household roster, creating a file with separate records for each child.

The data look like this

ma1	ma7	ma8	numberhh	mb4p01	****	mb5p01
Resp ID	Resp Sex	Resp Age	More in HH	Sex person #1		Age person #1
3	1	56	5	2		58
11	2	85	0	9		99
29	2	62	2	2		6
37	2	76	0	9		99

So, you can see that the main respondent (ma1=3) is 56 and has 5 more people living in his household. The variables mb4p01-mb4p16 list out the sex for each additional person living in the household. (The same for mb5p01-mb5p16 for age).

To flip this file around and select out only those who are between the ages of 0 and 17 you need the following code:

```
data kids (keep=age sex ma1 ma7 ma8 numberhh);
set kel.nsfh2;
array asex ( 16 ) mb4p01-mb4p16;
array aage ( 16 ) mb5p01-mb5p16;
do i= 1 to numberhh;
sex=asex(i);
age=aage(i);
if age ge 0 and age le 17 then output ;
end ;
run ;
```

- Keep= tells SAS to create a new dataset with only those variables.
- Arrays are referencing the age and sex of up to 16 household members
- Do loop is processed for each person until the index (i) is equal to the variable 'numberhh'. Then SAS goes on to the next respondent.
- If age. tells SAS to output only those records that are for kids aged 0 to 17.

Now the data look like this >

MA1	MA7	MA8	numberhh	sex	age
3	1	56	5	1	9
3	1	56	5	1	10
29	2	62	2	2	6
29	2	62	2	2	5
45	1	34	5	2	4
45	1	34	5	2	3
45	1	34	5	2	2
45	1	34	5	2	0