

```
*****
* SAS commands
*****;
```

```
libname in "f:\family workshop\";
```

```
*****
* 1. The size of a family
*****;
```

```
Proc SQL;
create table in.family_workshop2 as
select *,
count(epppnum) as family_N /* use the variable, family_N, to indicate the total number of people in family */
from in.family_workshop
group by family_id;
quit;
```

```
Proc print data =in.family_workshop2;
var family_id epppnum person_id family_N;
run;
```

```
*****
* Question 2: The number of kids in the family
*****;
```

```
DATA in.family_workshop2;
set in.family_workshop;
kid =0;
if age < 18 & age ~=. then kid =1; /* Note: the variable, kid, indicates whether a family member is a kid or not */
run;
```

```
Proc SQL;
create table in.family_workshop3 as
select *,
sum(kid) as t_kid /* Note: the variable, t_kid, indicates the total number of kids within the family */
from in.family_workshop2
group by family_id;
quit;
```

```
proc print data = in.family_workshop3;
var family_id epppnum person_id age epnmom etypmom epndad etypdad kid t_kid;
run;
```

```
*****
* The total family income
*****;
```

```
Proc SQL;
create table in.family_workshop2 as
select *,
sum(income) as t_income /* Note: the variable, t_income, indicates the total income of the family */
from in.family_workshop
group by family_id;
quit;
```

```
proc print data = in.family_workshop2;
var family_id eppnum person_id income t_income;
run;
```

```
*****
* 4. The ID of the respondent's spouse?
*****;
```

```
DATA in.family_workshop2;
set in.family_workshop;
keep family_id eppnum person_id sex epnspous epnwife epnhus;
```

```
*****
* Generate the indicator for husbands and wives within the family
*****;
```

```
if sex =1 & epnspous ~=. then epnwife = epnspous ;
if sex =2 & epnspous ~=. then epnhus = epnspous;
run;
```

```
*****
* Expand the indicators to the whole family
*****;
```

```
Proc SQL;
create table in.family_workshop3 as
select *,
max(epnwife) as epnwife2,
max(epnhus) as epnhus2
from in.family_workshop2
group by family_id;
quit;
```

```
*****
* Extract the IDs for husband and wife in the family
*****;
```

```
DATA in.family_workshop4;
set in.family_workshop3;
if sex =2 & eppnum = epnwife2 then id_wife = person_id;
if sex =1 & eppnum = epnhus2 then id_hus = person_id;
```

```
run;

*****
* Expand the IDs for husband and wife to the whole family
*****;
```

```
Proc SQL;
create table in.family_workshop5 as
select *,
max(id_wife) as id_wife2,
max(id_hus) as id_hus2
from in.family_workshop4
group by family_id;
quit;
```

```
*****
* Remove unnecessary information
*****;
```

```
DATA in.family_workshop6;
set in.family_workshop5;
if epnspous =. then id_wife2 =.;
else if epnspous ~= . & sex =2 then id_wife2 =.;

if epnspous =. then id_hus2 =.;
else if epnspous ~= . & sex =1 then id_hus2 =.;
```

```
run;

proc print data =in.family_workshop6;
var family_id eppnum person_id sex epnspous id_wife2 id_hus2;
run;
```

```
*****
* 5. How many biological kids do respondents have?
*****
```

```
*****
* Count the possible number of biological kids for a ther in the family
*****;
```

```
data in.family_workshop2;
set in.family_workshop;
if etypdad =1 then bio_kid =1;
run;
```

```
Proc SQL;
create table in.family_workshop3 as
select *,
count(bio_kid) as t_bio_kid
from in.family_workshop2
```

```
group by family_id;
quit;
```

```
proc print data =in.family_workshop3;
var family_id epppnum person_id sex epndad etypdad bio_kid t_bio_kid;
run;
```

```
*****
* Extract the ID of biological father's from the kid's report
*****;
```

```
data in.family_workshop4;
set in.family_workshop3;
if bio_kid =1 then bio_dad_epn = epndad;
run;
```

```
proc print data =in.family_workshop4;
var family_id epppnum person_id sex epndad etypdad bio_kid t_bio_kid bio_dad_epn;
run;
```

```
*****
* Expand the ID of biological father's to the whole family
*****;
```

```
Proc SQL;
create table in.family_workshop5 as
select *,
max(bio_dad_epn) as m_bio_dad_epn
from in.family_workshop4
group by family_id;
quit;
```

```
proc print data =in.family_workshop5;
var family_id epppnum person_id sex epndad etypdad bio_kid t_bio_kid bio_dad_epn m_bio_dad_epn;
run;
```

```
*****
* Create an indicator of whether adult's epppnum corresponds to the
* ID number that children reported for their biological father.
*****;
```

```
data in.family_workshop6;
set in.family_workshop5;
nbio_kid = 0;
if epppnum = m_bio_dad_epn & sex = 1 then nbio_kid = 1;
run;
```

```
Proc print data =in.family_workshop6;
var family_id epppnum person_id sex epndad etypdad bio_kid t_bio_kid bio_dad_epn m_bio_dad_epn nbio_kid;
run;
```