



Real Time Remote Access

Comparing SAS and SPSS

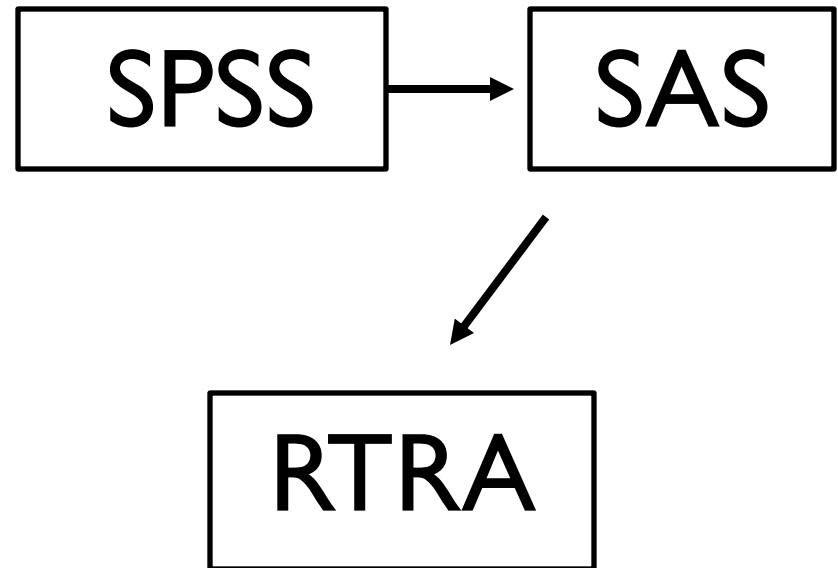
David Price

Quy Do

April 2013

Research and Programming

1. Read in Data
2. Keep Variables
3. Append data files
4. Merge data files
5. Sample Selection
6. Create new variables
7. Labelling and recoding
8. Frequency tables



Reading in Data

SPSS

GET

FILE='Z:\LabourForce\LFS_EPA\LFS_EPA-2008\Revised - 2006 based\Data\SPSS\lfs1208.sav'.

DATASET NAME DataSet1 WINDOW=FRONT.

SAS

```
Libname LFS "Z:\LabourForce\LFS_EPA\LFS_EPA-2008\Revised - 2006 based\Data\SAS";
```

```
Data work.Recession2008;
```

```
Set LFS.lfs1208;
```

```
Run;
```

Keeping Certain Variables

SPSS

```
GET FILE='Z:\LabourForce\LFS_EPA\LFS_EPA-2008\Revised - 2006 based\Data\SPSS\lfs1208.sav'. /KEEP=SEX AGE EDUCLEV.  
DATASET NAME DataSet1 WINDOW=FRONT.
```

SAS

```
libname LFS "Z:\LabourForce\LFS_EPA\LFS_EPA-2008\Revised - 2006 based\Data\SAS";  
Data work.Recession2008;  
Set LFS.lfs1208 (keep = SEX AGE EDUCLEV);
```

Append Data Files

SPSS

```
MATCH FILES /FILE=*  
/FILE='Z:\LabourForce\LFS_EPA\LFS_EPA-2008\Revised - 2006 based\Data\SPSS\lfs1108.sav'  
/BY SMTH.  
EXECUTE.
```

SAS

```
Set LFS.lfs1108 LFS.lfs1208;  
run;
```

Merge Data Files

SPSS

```
MATCH FILES /FILE=*
```

```
/FILE='Z:\LabourForce\LFS_EPA\LFS_EPA-2008\Revised - 2006 based\Data\SPSS\lfs1108.sav'
```

```
/BY PersonID.
```

```
EXECUTE.
```

SAS

```
data work.Recession2008;
```

```
merge LFS.lfs1108 LFS.lfs1208;
```

```
by PersonID;
```

```
run;
```

Sample Selection

SPSS

```
select if (age>17 & age<66).  
execute.
```

SAS

```
If 018<=age<=065;
```

Creating New Variables

SPSS

```
RECODE educlev (00, 01, 02,=1) (03, 04=2) (05, 06=3) (07, 08, 09=4) INTO Education.  
1 "less than highschool"  
2 "highschool graduate"  
3 "non-university postsecondary"  
4 "university graduate".  
execute.
```

SAS

```
If educlev in (0, 1, 2) then Education="Less than highschool";  
    else If educlev in (3, 4) then Education="Highschool graduate";  
    else If educlev in (5, 6) then Education="Non-university postsecondary certificate";  
    else If educlev in (7, 8, 9) then Education="University Graduate";
```

Labelling and Recoding

SPSS

```
value labels Sex  
1 "Male"  
2 "Female".  
execute.
```

SAS

```
If Sex=1 then Gender="Male";  
    else If Sex=2 then Gender="Female";
```

Creating Frequency Tables

SPSS

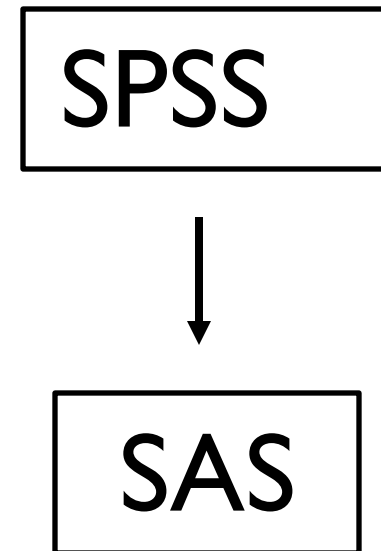
```
WEIGHT BY FINALWT.  
CROSSTABS  
  /TABLES=Sex BY Employment_status BY Education  
  /CELLS=COUNT.
```

SAS

```
Proc freq data= work.Recession_2008;  
  weight Finalwt;  
  table Employment_Status*Education*Gender;  
run;
```

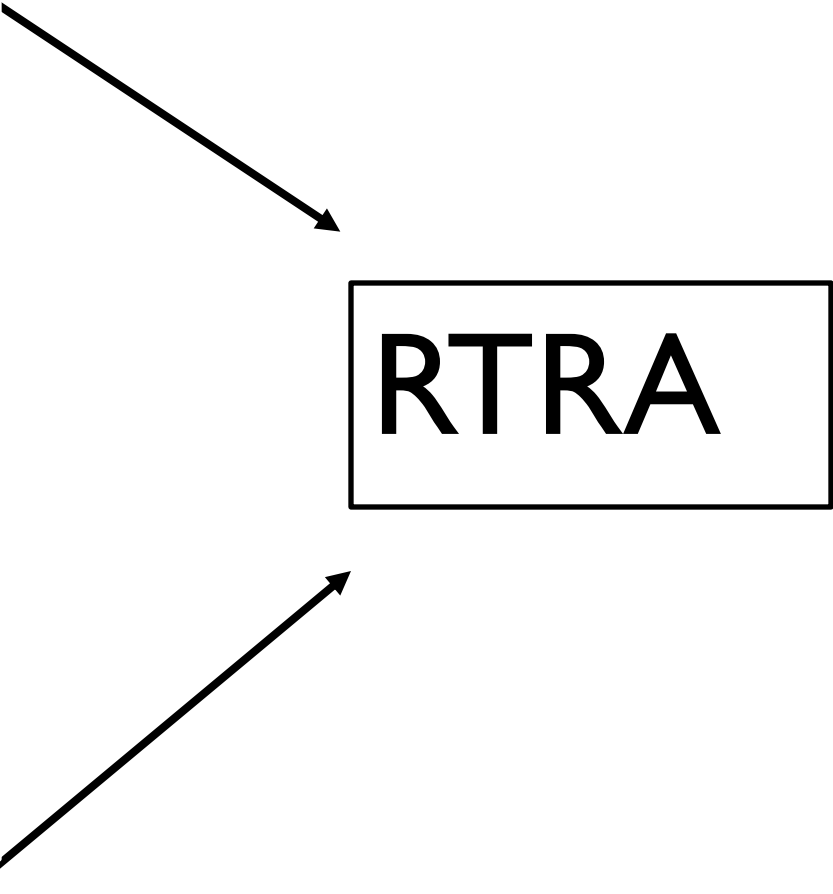
Research and Programming

1. Read in Data
2. Merge data files
3. Sample Selection
4. Create new variables
5. Labelling and recoding
6. Frequency tables



SAS to RTRA

1. Read in Data
2. Keep Variables
3. Append data files
4. Merge data files
5. Sample Selection
6. Create new variables
7. Labelling and recoding
8. Frequency tables



```
graph LR; List[1. Read in Data<br/>2. Keep Variables<br/>3. Append data files<br/>4. Merge data files<br/>5. Sample Selection<br/>6. Create new variables<br/>7. Labelling and recoding<br/>8. Frequency tables] --> RTRA[RTRA]
```

RTRA

Reading in Data

SAS

```
Libname LFS "Z:\LabourForce\LFS_EPA\LFS_EPA-2008\Revised - 2006 based\Data\SAS";  
Data work.Recession2008;  
set LFS.lfs0108;  
run;
```

RTRA

Name of program: LFS20062010_Recession → replaces the directory set by the “libname” statement

```
Data work.Recession2008;  
set RTRAdata.lfs20062010;  
run;
```

SAS Dataset Name

Standard Library Name

Creating Frequency Tables

SAS

```
❑ Proc freq data= work.Recession_2008;  
  table Employment_Status*Education*Gender;  
  weight Finalwt;  
  run;
```

RTRA

```
%RTRAFreq(  
  InputDataset= work.Recession_2008,  
  OutputName= Recession_Employment,  
  ClassVarList= Gender Employment_Status Education,  
  UserWeight= Finalwt);
```

SAS Basics

- Four windows in SAS are available:
 - Program editor,
 - Explorer window,
 - Log window,
 - Output window.
- All SAS statements end with a semicolon (;).
- The “**RUN**” statement tells SAS to process all preceding program statements.
- The icon tells SAS to run the code.



What's new for April!

- A full set of statistics:
 - Frequencies 😊
 - Means 😊
 - Medians
 - Percentiles
 - Ratios
 - Proportions