

## Constructing the pro-WEAI Using the Stata do files

This document outlines how to use the Stata do files to construct the Index. For a detailed discussion of the WEAI methodology, please refer to [Alkire et al. \(2012\)](#).

Our Stata .do files do all the calculations for you but in order to use them your data must be in the correct format. This includes:

- 1) Standard variable names
- 2) Consistent coding of the values of variables

You can find all the details of the data format in our “variables names and codebook” document (which you can find [here](#)).

### **Data requirements**

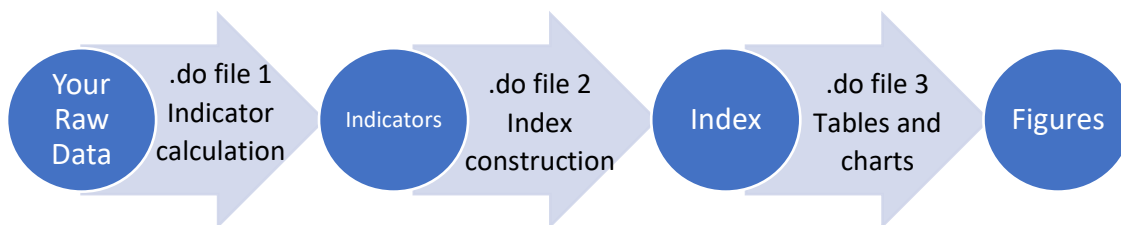
To run the *dataprep* do file, you will need clean individual-level survey data for all respondents. Below are some tips to ensure you have the correct information:

- Data must have already been cleaned and checked for consistency (see section B1 for details)
- Must have all the questions on the pro-WEAI module
- Must have identifiers and variables you need for merging and grouping (IDs, sex, region, individual sampling weights if any)
- If you would like to use sample weights the variable that represents each observation's weight must be named “weight”
- The *dataprep* do file assumes that the time use data has the following structure:
  - Wide format:
    - Primary activities: each individual has 18 variables, one for every activity category (activities A-X) that is the sum of the total number of minutes in each activity category spent as a primary activity (minutes\_A-minutes\_X)
    - Secondary activities: One variable that is the sum of the total minutes spent caring for a child as a secondary activity throughout the day (timeslot\_childcare)
  - Note: If you do not have variables minutes\_A-minutes\_X and timeslot\_childcare you can run the code enclosed these lines in /\* \*/ to calculate these variables. Alternatively, you can write your own code to create these variables.

There are two Stata do files that you will need to construct the Index, the "1 Draft pro-WEAI dataprep.do", referred to as "*dataprep*". This do file constructs the ten indicators. And the "2 Draft pro-WEAI index construction.do". There is another optional .do file that creates useful tables and charts called "3 Draft pro-WEAI tables and charts".

### ***How do the .do files work?***

1. The dataprep file uses your raw data to calculate all 10 indicators\* and creates a dataset called "projectname\_proweai\_dataprep.dta".
2. The index construction file uses the data file created by the dataprep file (called "projectname\_proweai\_dataprep.dta") to calculate the index and create a dataset called "projectname\_proweai\_calculate.dta". This dataset contains all the important scores and measures.
3. The tables and charts file uses the dataset created by the index construction file ("projectname\_proweai\_calculate.dta") to create useful figures and tables summarizing the results.



### ***How do I run the .do files?***

The process for running the do files is the same for all 3.

There are four easy steps:

1. Change the working directory to the file on your computer where your pro-WEAI data is stored
2. Change the project name to your project's name
3. Change the name of the data file to the name of your data file

4. Click Run!

The image shows a Stata script with four blue callout boxes providing instructions:

- 1. Change the working directory to the file on your computer where your pro-WEAI data is stored**: Points to line 33, `cd "C:\IFPRI\ANH Academy learning labs\Stata Tutorial"`.
- 2. Change the project name to your project's name**: Points to line 36, `global projectname "anh2021"`.
- 3. Change the name of the data file to the name of your data file**: Points to line 39, `use "anh2021_proweai_cleaned", clear`.
- 4. Click Run!**: A separate box at the bottom left.

The script code is as follows:

```
28 *****  
29 *** SET DIRECTORY AND OPEN DATA ***  
30 *****  
31  
32 ** Set working directory  
33 cd "C:\IFPRI\ANH Academy learning labs\Stata Tutorial"  
34  
35 ** Store project name  
36 global projectname "anh2021"  
37  
38 ** Open file with pro-WEAI indicators  
39 use "anh2021_proweai_cleaned", clear  
40
```

### ***How to decompose using alternative grouping variables***

One of the most useful features of the pro-WEAI is its decomposability. This feature allows users to understand not only which groups of individuals are empowered or disempowered, but also how each indicator and domain contributes to their disempowerment. This is particularly useful for designing policy interventions that address the most binding constraints to empowerment in agriculture.

The standard *calculation* do file decomposes the 3DE index by gender, but it is also possible to decompose the results using alternative grouping variables. Examples of possible grouping variables include:

- Education, ethnicity, race, class, age group, and other individual characteristics
- Primary agricultural activity, poverty status, income quintile, and other household characteristics
- Strata, region, climate and other location characteristics, but only IF the survey is representative at these levels

To construct decomposed scores using a different grouping variable, simply revise lines 186 and 188 in the *calculation* do file as follows:

- Line 194: `gen group = groupvar`
- Line 196: `local r = "group"`

Where "groupvar" is the categorical variable that corresponds to the new grouping variable, and "group" is the new variable name assigned to the group. Make sure that "groupvar" is coded in integers beginning with "1". The new results data sets will also be assigned new file names based on your grouping variable: *"results\_c\_group.dta"*.

### ***What about using the optional indicators?***

If your project collected responses for the indicators Respect Among Household Members and/or Membership in Influential Groups, you can still use these do files. The code used to construct and calculate these variables has been muted using *"/\* \*/"* or by removing the variables "respect" and "group\_inf" from globals.

- 1) In the dataprep do file (do file 1), removed the *"/\* \*/"* around the sections where the indicators are calculated and at the end where the indicators are ordered and saved. Then run the do file as instructed above
- 2) In the index construction do file (do file 2), follow the Settings instructions if using all 12 indicators to change "global indicators\_12 = 0" to "global indicators\_12 = 1", and remove */\* \*/* from around the optional indicators in lines 60, 562, and 567. Then run the do file as instructed above
- 3) In the tables and charts do file (do file 3), first remove */\* \*/* from around the optional indicators in lines 52, 62, and 117. Next, add the needed indicator variables to the variable lists in lines 119 and 139. Last, remove */\* \*/* around bar 4 (line 151) and lab 4 (line 156) if using Respect Among HH Members, and remove */\* \*/* around bar 12 (line 153) and lab 12 (line 158) if using Membership in Influential Groups. Then run the do file as instructed above.

**Important .do file variables**

<b>Description</b>	<b>Variable name in Stata</b>
Survey sampling weight	weight
Indicator weight	w_[indicator]
Empowerment score	emp_score
Identifies those who are empowered	empowered
Intra-household inequality score	hh_ineq
Identifies households who achieve gender parity	gender_parity
Average Empowerment gap	I_GPI
Inadequacy score for woman is higher than man (binary)	ci_above
Number of dual adult headed households	dahh
3DE	PROWEAI_3DE
GPI	GPI
Pro-WEAI	PROWEAI
Required Indicators	
Autonomy in income	autonomy_inc
Self-efficacy	selfeff
Attitudes towards IPV against women	never_violence
Input in productive decisions	feelinputdecagr
Ownership of land and other assets	assetownership
Access to and decisions on financial services	credit_accdec
Control over use of income	incomecontrol
Work balance	work_balance
Freedom of movement	mobility
Group membership	groupmember
Optional Indicators	
Membership in influential groups	group_inf
Respect among HH members	respect