Measuring empowerment in agricultural development projects using WEAI and WELI
ANH Academy Week 2018

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Analyzing pro-WEAI data using Stata

I. Download your pro-WEAI files

- ➔ The files for this exercise are available at: cutt.ly/4ofWRF
- ➔ Download the four files onto your computer and put them in one folder.

II. Get to know your pro-WEAI data

- ➔ Set the working directory. The working directory should be the folder where you saved the pro-WEAI files.

```
. cd "[working directory file path]"
```

- ➔ Load your pro-WEAI data set.

```
. use "proweai_anh2019.dta", replace
```

- ➔ Household ID (g1_01) and member ID (g1_02) should uniquely identify the observations. There should be no missing observations for household and member ID.

```
. codebook g1_01 g1_02

. isid g1_01 g1_02
```

- ➔ The data set should contain only dual adult households and female adult only households (household type: g1_04). There should be no missing observations for sex or household type.

```
. tab g1_04 g1_03, mis
```

- ➔ The data set should contain 1-2 observations per household, 1 female and 0-1 males.

```
. egen hhcount=count(g1_03), by(g1_01)

. tab hhcount g1_03, mis
```

III. Run the pro-WEAI do-files

- ➔ "proweai_dataprep_anh2019.do" calculates the 12 pro-WEAI indicators. Run this do-file.

- ➔ Each indicator is a binary variable where 1 means that the respondent is adequate in that area of empowerment. For example, a respondent is adequate in group membership if s/he is an active member of at least one community group. Check the proportion of respondents in your sample that are adequate in group membership.

```
. tab groupmember sex, mis
```

- ➔ "proweai_calculate_anh2019.do" calculates pro-WEAI from the 12 pro-WEAI indicators. Run this do-file.

IV. Make tables and charts

- ➔ "proweai_charts_anh2019.do" creates tables and charts that you could use to describe your pro-WEAI results in a report or paper. Run this do-file.

V. Interpret your results

- ➔ Look at the bar charts created for each indicator ("indicator_[indicator variable name].png"). These charts show the percentage of respondents adequate in each indicator by sex and household type. In which indicators more women than men adequate? In which indicators are more women in female adult households than dual adult households adequate?

- ➔ Open "proweai_charts_anh2019.xlsx."

- ➔ Open the tab "Pro-WEAI Table." This table summarizes the pro-WEAI results for your respondents. What was the pro-WEAI score for your sample? What percentage of women and men in your sample achieved empowerment? What percentage of dual adult household achieved gender parity?

- ➔ Open the tab "Pro-WEAI Charts." From this table, we can create a bar chart to show how much each indicator contributed to disempowerment.

  - Create a stacked column chart using these data.
  - Use the total disempowerment for women and men and the proportional contributions to disempowerment to calculate the contributions to disempowerment for each indicator.
    - In cell B8, enter "=B3*N8"
    - In cell B9, enter "=B4*N9"
    - Highlight cells B8 and B9. Click the bottom right corner of the highlighted cells when a small cross appears. Drag across to column M to copy the formulas.
  - Create a stacked column chart.
    - Highlight cells A7:M9.

        - Click “Insert” and the bar chart icon to insert a stacked column chart.
        - Under “Design,” click “Switch Row/Column.”
        - Change the chart title to “Contributions to disempowerment.”
        - Click the legend and move it to the right side of the chart.
        - Click the y-axis and select “Values in reverse order.”
        - Label the y-axis “Total disempowerment.”
    - Interpret the chart.
        - The two columns represent women and men.
        - The y-axis represents the average total disempowerment score.
        - The 12 sections of each bar represent how much each indicator contributed to total disempowerment.
        - Which indicators contribute the most to disempowerment for women? For men?

Thank you for joining our learning lab! For more information on pro-WEAI or analyzing pro-WEAI data, contact Hazel Malapit (h.malapit@cgiar.org) or Elena Martinez (e.martinez@cgiar.org) or visit the WEAI Resource Center (weai.ifpri.info).