



Household vulnerability to and preparedness for disasters in Haiti

Fifth Submission: RR_HTI_2024_83

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This review verifies the reproducibility of the exhibits included in the paper “*Household vulnerability to and preparedness for disasters in Haiti*”.

Contents in this review:

1. Main findings
2. List of exhibits and reproducibility status
3. Reproduction Environment

Main findings

- The code was successfully executed on a new computer after:
 1. Updating the directory.
 2. Commenting-out path global re-definitions in lines 883, 883, 887, 1814, 1816, 1818, and 223.
 3. Installing the packages `coefplot` and `tabout`.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 30 minutes to run.
- We conducted our reproducibility analysis based on the updated paper shared by the authors via email on May 20, 2024.
- All the exhibits reproduced. A few of them show minor manual edits in the paper with respect of the code results. These edits are mentioned in the next section.
- **Reproducibility Summary:**
 - **Data:** Some data is confidential and has not been included in the reproducibility package. For more details, please refer to the README file.
 - **Code:** All code files are included in the package but some of them operate from intermediate data, not raw data.
 - **Outputs:** Some outputs are not generated by code and are created manually in Excel using code outputs. Instructions for producing these outputs are included in the README.
 - **Reproducibility verification:** Reviewers conducted the reproducibility verification using data provided by the authors (files: *HAITI_HFS21_W1_Q.dta*, *imputed_all_2.dta*, and *imputed_all_2_W4.dta*) and downloading publicly available data using the instructions of the README (files in the folder *_data/raw*).

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Figure 1** Results reproduced, but figures include manual changes from the code output. The numeric values in the figures were compared against the values in rows 4-6 of Excel files tables_w2_drm, tables_w3_drm, and tables_w4_drm. The figures were manually created using these values and were not generated directly from the code output.
- **Figure 2** Results reproduced, but figures include manual changes from the code output. The numeric values in the figures were compared against the values in column C for the respective hazard of Excel files tables_w2_drm, tables_w3_drm, and tables_w4_drm. The figures were manually created using these values and were not generated directly from the code output.
- **Table 1** Results reproduced, but the exhibit includes manual changes from the code output. The exhibit was compared against code output in sheet table_1_incometotal of Excel files Tables_DRM_w2, Tables_DRM_w3, and Tables_DRM_w4. Please note that the numbers in the "Difference" columns have the opposite sign than the code outputs.
- **Figure 3** Reproduced. The exhibits were compared against code outputs named graph1_w2, graph1_w3, and graph1_w4.
- **Figure 4** Results reproduced, but figures include manual changes from the code output. The figures were manually created using these values and were not generated directly from the code output. The numeric values in the figures were compared against the following:

Values for	Location	Excel file
2021	Row 220-222, Column C	tables_w2_drm
2022	Row 215-217, Column C	tables_w3_drm
2023	Row 217-219, Column B	tables_w4_drm

- **Figure 5** Results reproduced, but figures include manual changes from the code output. The figures were manually created using these values and were not generated directly from the code output. The numeric values in the figures were compared against the following:

Values for	Location	Excel file
2021	Row 214-215	tables_w2_drm
2022	Row 209-210	tables_w3_drm
2023	Row 196-197	tables_w4_drm

- **Figure 6** Results reproduced, but figures include manual changes from the code output. The numeric values in the figures were compared against the values in column C for the respective hazard of Excel files tables_w2_drm, tables_w3_drm, and tables_w4_drm. The figures were manually created using these values and were not generated directly from the code output.
- **Figure 7** Results reproduced, but figures include manual changes from the code output. The numeric values in the figures were compared against the values in column C for the respective hazard of Excel files tables_w2_drm, tables_w3_drm, and tables_w4_drm. The figures were manually created using these values and were not generated directly from the code output.

- **Table 2 Reproduced.** The exhibits were compared against code outputs in sheets table_2_female and table_2_paper in Excel file Table_DRM_w4.
- **Table 3**
 - By Quintile groups: **Results reproduced, but figures include manual changes from the code output.** The numbers in the "Difference" columns have the opposite sign that the code outputs.
 - By residence Area: **Reproduced.** The exhibit was compared against the values in sheet table_4 in Excel files Tables_DRM_w2, Tables_DRM_w3, and Tables_DRM_w3.
- **Figure 8 Reproduced.** The exhibits were compared against code outputs named graph2_w2, graph2_w3, and graph2_w4.
- **Figure 9: Reproduced.** The exhibit was compared against graph3ur_w4.png.

Results in the Annex

- **Table 4 Reproduced.** The exhibits were compared against code outputs in Excel files tablesw2_ss, tablesw3_ss, and tablesw4_ss.
- **Table 5 Reproduced.** The exhibit was compared against the code output in sheets table_1_incomerural and table_1_incomeurban in Excel files Tables_DRM_w2, Tables_DRM_w4, and Tables_DRM_w3.
- **Table 6 Reproduced.** The exhibit was compared against values in sheet table_2_educationtotal of Excel file Tables_DRM_w4. Please note that the numbers in the "Difference" columns have the opposite sign compared to the code output.

Reproduction Environment

Paper exhibits were reproduced in a computer with the following specifications:

- OS: Windows 11
- Processor: 11th Gen Intel(R) Core(TM) i5-1145G7 @ 2.60GHz 1.50 GHz
- Memory available: 15.7 GB
- Software version: Stata 18 MP