



## *WB-UNHCR Refugee Welfare Report*

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This review verifies the reproducibility of the exhibits included in the paper “WB-UNHCR Refugee Welfare Report”.

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### *Main findings*

- **Every exhibit in the paper has been reproduced accurately.**
- The code was successfully executed on a new computer after:
  1. Opening the main do file, changing the path, and running the code.
  2. Manually creating the figures in Excel.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 5 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors by email on January 20th.
- **Note:** The code is organized into two parts: (1) harmonization of the dataset, and (2) construction of the analytical datasets used to generate the figures in the paper. The replicators ran both parts and verified that the dataset produced in Part 1 is the input used to generate the figures in Part 2. The dataset produced in Part 1 will be made available through the Microdata Library; therefore, future users will only need to run Part 2 to reproduce the figures.
- **Verification Process and Data Handling:**
  - The reproducibility package relies on 1 type of data: limited-access data.
  - Reviewers used data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The harmonized data is forthcoming on the World Bank Microdata Library.

- *data\_hash\_report.csv* lists the SHA256 hashes of all files in the Data folder to support data integrity checks. Users who obtain access to the limited-access data can use this file to verify that the data have not been altered. **Note:** The hash report includes all datasets used in both Part 1 and Part 2.
- **Reproducibility Summary:**
  - **Data:** All data is not yet publicly available, but is expected to be made available through the World Bank Microdata Library in the future.
  - **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.
  - **Outputs:** All outputs are generated by code included in the reproducibility package.
  - **Dependencies environment:** The reviewers created a new environment using the latest versions of dependencies available at the moment of the review.

### *List of exhibits and reproducibility status*

#### **Results in the Main Section of the Paper**

- **Figure 1 a.b Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 2 Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 3 Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 4 a.b Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 5 Reproduced with manual changes.** The code exports an Excel file and requires manual changes to the table format to exactly match the graph.
- **Figure 6 Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 7 a.b Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 8 Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 9 Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 10 Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 11 Reproduced with manual changes.** The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.

- **Figure 12 a.b** Reproduced with manual changes. The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 13 a.b** Reproduced with manual changes. The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 14** Reproduced with manual changes. The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Figure 15** Reproduced with manual changes. The code exports an Excel file that is used to generate the figure manually in Excel and requires minor modifications to exactly match the graph.
- **Table 1** Does not show analysis results.
- **Table 2** Does not show analysis results.
- **Table 3** Does not show analysis results.

### Results in the Annex

- **Table 3** Does not show analysis results.

### *Reproduction Environment*

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

- OS: Windows 11 Enterprise
- Processor: Intel(R) Core(TM) i5-1145G7 CPU @ 2.60GHz
- Memory available: 15.7 GB
- Software version: Stata 18.0 MP