



Reproducible Research Repository

A New Global Subnational Poverty And Inequality Database Based On Harmonized Household Surveys

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This review verifies the reproducibility of the exhibits included in the paper “A New Global Subnational Poverty And Inequality Database Based On Harmonized Household Surveys”.

Contents in this review:

1. Main findings
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Main findings

- **Every exhibit of the paper has been reproduced accurately.**
- The code was successfully executed on a new computer after:
 1. Updating the working directory in line 3 of the do-file "SD paper tables.do", and running it.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 10 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors by email on May 18th.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on one type of data: open.
 - Open data is included in the public reproducibility package.
 - *data_hash_report.csv* lists the SHA256 hashes of all files in the Data folder to support data integrity checks. Users who acquire the forthcoming/accessible/limited-access/restricted data can use this file to verify that the data has not been altered.
- **Reproducibility Summary:**
 - **Data:** All data sources are publicly available and included in the reproducibility package.
 - **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.

- **Outputs:** Some outputs are not generated by code (created manually in Tableau) but instructions for producing these outputs are included in the README file.
- **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** Does not show analysis results.
- **Figure 2** Does not show analysis results.
- **Figure 3a Reproduced.** Verified against Fig3a_WLD_ADM0_poor300.png.
- **Figure 3b Reproduced.** Verified against Fig3a_WLD_ADM0_poor300.png.
- **Figure 4a Reproduced.** Verified against Fig4a_WLD_ADM0_gini.png.
- **Figure 4b Reproduced.** Verified against Fig4b_WLD_subnat_gini.png.
- **Figure 5a Reproduced.** Verified against data from 03.intermediate/IDN_subnat_national.csv. The figure was replicated from the CSV data.
- **Figure 5b Reproduced.** Verified against data from 03.intermediate/IDN_subnat_national.csv. The figure was replicated from the CSV data.
- **Figure 6a Reproduced.** Verified against Fig6A_SSA_ADM0_poor_change.png.
- **Figure 6b Reproduced.** Verified against Fig6B_SSA_subnat_poor_change.png.
- **Figure 6c Reproduced.** Verified against Fig6C_SSA_ADM0_gini_change.png.
- **Figure 6d Reproduced.** Verified against Fig6D_SSA_subnat_gini_change.png.
- **Table 1** Does not show analysis results.

Results in the Annex

- **Table A1 Reproduced.** Verified against TableA1_SPID.xlsx.
- **Table A2 Reproduced.** Verified against TableA2a.xlsx, TableA2b.xlsx, TableA2c2023.xlsx, TableA2c2021.xlsx, TableA2c2019.xlsx, and TableA2c2010.xlsx. There are some formatting differences and differences in the order, but numbers are reproducible.
- **Figure A1 Reproduced.** Verified against FigA1_WLD_2023_geo_source.png.
- **Figure A2 Reproduced.** Verified against data from SPID_subnat_count.csv. The figure was replicated from the CSV data.
- **Figure A3a Reproduced.** Verified against FigA3_WLD_subnat_chpoor300.png.
- **Figure A3b Reproduced.** Verified against FigA3_WLD_subnat_chgini.png.

Reproduction Environment

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

- OS: Windows 11 Enterprise
- Processor: Intel(R) Xeon(R) Gold 6226R CPU @ 2.90GHz
- Memory available: 32.0 GB
- Software version: Stata 19.5 MP