



## *In Tablets We Trust? Validation of the Use of Tablet-Based Tools for Land Area Measurement in Household Surveys*

*First Submission: RR\_UGA\_2026\_610*

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*April 15, 2026*

This review verifies the reproducibility of the exhibits included in the paper “*In Tablets We Trust? Validation of the Use of Tablet-Based Tools for Land Area Measurement in Household Surveys*”.

### **Contents in this review:**

1. Main findings
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### *Main findings*

- **Every exhibit in the main section of the paper and the appendix were reproduced accurately**
- The code was successfully executed on a new computer after:
  1. Updating the working directory in line 52 of the do-file "01\_main\_analysis.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 1 minute to run.
- We conducted our reproducibility analysis based on the paper shared by the authors by email on March 27th, 2026.
- The verification was conducted in two phases:
  1. **Virtual verification:** Reviewers virtually verified the construction of the intermediate dataset from the restricted raw data, and used this intermediate dataset as input to run the code producing the figures. The intermediate dataset generated during this phase is included in the replication package. Results are documented in `comparison_report.csv`, and a time log is included to account for the duration of this phase. The code to produce the intermediate data from raw is also included in the package `00_dataset_creation.do`.
  2. **Output verification:** Using the intermediate dataset from Phase 1, reviewers verified that the outputs produced by the code match those reported in the manuscript.
- **Verification Process and Data Handling:**
  - The reproducibility package relies on 1 type of data: restricted data.

- Reviewers used intermediate data provided directly by the authors to conduct the reproducibility verification, and this is the starting point of the public reproducibility package. The raw 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 acquire the restricted data can use this file to verify that the data has not been altered.

- **Reproducibility Summary:**

- **Data:** Some data is restricted and has not been included in the reproducibility package. For more details, please refer to the README file. Intermediate data is included in the reproducibility package and can be used to fully reproduce the results in the paper.
- **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 Reproduced.** Figure 1 is a screenshot of overlaid (confidential) shapefiles. Virtually verified at a meeting on April 9, 2026.
- **Figure 2 Reproduced.** Verified against Figure2.png in the Outputs folder.
- **Figure 3 Reproduced.** Verified against Figure3.png in the Outputs folder.
- **Figure 4 Reproduced.** Verified against Figure4.png in the Outputs folder.
- **Figure 5 Reproduced.** Verified against Figure5.png in the Outputs folder.
- **Table 1 Reproduced.** Verified against Table1.xlsx in the Outputs folder.
- **Table 2 Reproduced.** Verified against Table2.xlsx in the Outputs folder.
- **Table 3 Reproduced.** Verified against Table3.csv in the Outputs folder.
- **Table 4 Reproduced with manual changes.** Verified against Table4.csv in the Outputs folder. Note that Pseudo R-squared values are reported from the underlying probit models, as the marginal effect estimates themselves do not produce R-squared statistics.
- **Table 5 Reproduced.** Verified against Table5.csv in the Outputs folder.

#### **Results in the Annex**

- **Figure A1 Reproduced.** Verified against FigureA1.png in the Outputs folder.

- **Table A1** *Reproduced*. Verified against TableA1.xlsx in the Outputs folder.
- **Table A2** *Reproduced*. Verified against TableA2.xlsx in the Outputs folder.
- **Table A3** *Reproduced*. Verified against TableA3.csv in the Outputs folder.
- **Table A4** *Reproduced*. Verified against TableA4.csv in the Outputs folder.
- **Table A5** *Reproduced*. Verified against TableA5.csv in the Outputs folder.
- **Table A6** *Reproduced*. Verified against TableA6.csv in the Outputs folder.
- **Table A7** *Reproduced*. Verified against TableA7.csv in the Outputs folder.

### *Reproduction Environment*

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

- OS: Windows 11 Enterprise
- Processor: Intel(R) Xeon(R) Gold 5218 CPU @ 2.30GHz, 2300 Mhz, 4 Core(s), 4 Logical Processor(s)
- Memory available: 8.15 GB
- Software version: Stata 19.5 MP