



Nudging at scale: evidence from a government text messaging campaign during school shutdowns in Punjab, Pakistan

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This review verifies the reproducibility of the exhibits included in the paper “*Nudging at scale: evidence from a government text messaging campaign during school shutdowns in Punjab, Pakistan*”.

Contents in this review:

1. Main findings
2. List of exhibits and reproducibility status
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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. Changing the global path in the do-file *replication_file_oo_master_sms_girl.do*.
- 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 paper shared by the authors via OneDrive on November 3, 2025.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on one type of data: forthcoming data.
 - Reviewers used forthcoming data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The 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 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:** 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

- **Table 1** Does not apply. The exhibit does not show analysis results.
- **Table 2** Does not apply. The exhibit does not show analysis results.
- **Table 3** Does not apply.
- **Table 4** Reproduced.
- **Table 5** Reproduced.
- **Table 6** Reproduced.
- **Table 7** Reproduced.
- **Table 8** Reproduced.
- **Table 9** Reproduced.
- **Table 10** Reproduced.
- **Table 11** Reproduced.

Results in the Annex

- **Table A1** Reproduced.
- **Table A2** Reproduced.
- **Table A3** Reproduced.
- **Table A4** Reproduced.
- **Table A5** Reproduced.

Reproduction Environment

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

- OS: Windows 11 Enterprise, version 24H2
- Processor: Intel(R) Core(TM) Ultra 7 165U (2.10 GHz)
- Memory available: 32 GB
- Software version: Stata 18.5 MP