



Natural disasters and perceived returns to education

Fourth Submission: RR_MOZ_2025_390

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This review verifies the reproducibility of the exhibits included in the paper “*Natural disasters and perceived returns to education*”.

Contents in this review:

1. Main findings
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Main findings

- **Every exhibit has been reproduced accurately.**
- The code was successfully executed on a new computer after:
 1. Changing the path in the main do file.
- 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 in the authors’ reproducibility package shared with the replicators on September 8.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on two types of data: open, forthcoming data.
 - Open data is included in the public reproducibility package.
 - Reviewers used 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. Once data becomes available users who acquire the data can use this file to verify that the data has not been altered.
- **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.
- **Reproducibility verification:** Reviewers had access to the same materials in the public reproducibility package. The reviewers did not verify if publicly available data matches the data 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** Does not apply. The exhibit does not show analysis results.
- **Table 1** Reproduced, requires manual edits. The exhibit includes manual edits, and values were taken from different files documented below. Columns 2 and 5 were verified against `ongoing.log`. Columns 3 and 4 were verified against `results/placebo1_control1,2,3_Any.tex`.

In particular:

- Coefficients from *age baseline* to *other occupation* are in `placebo1_control1_Any`.
- Coefficients from *poor* to *other language* are in `placebo1_control2_Any` (variable `AfterAny_destruction&`). For this set all values match.
- The third set of variables, *catholic* to *other religion*, are in `placebo1_control3_Any` (variable `AfterAny_destruction&`); all values match.

Columns 6 and 7 were verified against `results/placebo1_control1,2,3_Major.tex`.

In particular:

- Coefficients from *age baseline* to *other occupation* are in `placebo1_control1_Major`.
- Coefficients from *poor* to *other language* are in `placebo1_control2_Major` (variable `AfterMajor_shock_2&`).
- The third set of variables, *catholic* to *other religion*, are in `placebo1_control3_Major` (variable `AfterMajor_shock_2&`); all values match.

- **Figure 2** Reproduced.
- **Table 2** Reproduced, requires manual edits.

The control means used in this exhibit are calculated in the code and shown in the terminal (lines 858, 859)

Results in the Annex

- **Figure A1** Reproduced with manual steps. The README includes detailed instructions on how to reproduce this figure using QGIS.
- **Figure A2** Reproduced with manual steps. The README includes detailed instructions on how to reproduce this figure using QGIS.

- **Figure A3.a Reproduced.** This exhibit was verified against *FigureA1_left.png*
- **Figure A3.b Reproduced.** This exhibit was verified against *FigureA1_right.png*
- **Figure A4.a Reproduced.** This exhibit was verified against *FigureA2_right.png*
- **Figure A4.b Reproduced.** This exhibit was verified against *FigureA2_left.png*
- **Table B1 Reproduced, requires manual edits.**
The control means used in this exhibit are calculated in the code and shown in the terminal (lines 887-888, 894-895, 901-902, and 908-909)
- **Table B2 Reproduced, requires manual edits.**
The control means used in this exhibit are calculated in the code and shown in the terminal (lines 922-923, 929-930, 935-936, and 941-942)
- **Table C1** Does not show analysis results.
- **Table C2** Does not show analysis results.

Reproduction Environment

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

- OS: Mac OS Sequoia 15.5
- Processor: Apple M4 Pro
- Memory available: 24 GB
- Software version: Stata 18.0