Mexico Poverty and Equity Assessment: Section 1 and Annexes 1, 2 and 3.

First Submission: FR_MEX_2024_256
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2025-01-22

This review verifies the reproducibility of the exhibits included in the paper " *Mexico Poverty and Equity Assessment: Section 1 and Annexes 1, 2 and 3.* ".

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Main findings

- The code was successfully executed on a new computer after:

  1. Change the paths 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 100 minutes to run.

- We conducted our reproducibility analysis based on the paper shared by the authors on January 7th, 2025.

- Every exhibit has been reproduced accurately.

- Note: The reproducibility verification was conducted only for Section 1 and Annexes 1,2 and 3, as these were the only sections completed by the World Bank team. The remaining sections were prepared by external consultants and were not verified.

- **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.

  - **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 used data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The reviewers did not verify if publicly available data matches the data provided by the authors.

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Figure 1** Reproduced.

- **Figure 2** Reproduced.

- **Figure 3** Reproduced.

- **Figure 4** Reproduced.

- **Figure 5** Reproduced.

- **Figure 6** Reproduced.

- **Figure 7** Reproduced.

- **Figure 8** Reproduced.

- **Figure 9** Reproduced.

- **Figure 10** Reproduced.

- **Figure 11** Reproduced, but includes manual changes. All numbers are reproduced, though manual changes in formatting have been applied. These changes do not compromise reproducibility.

- **Figure 12** Reproduced.

- **Figure 13** Reproduced.

- **Figure 14** Reproduced.

- **Table 1** Reproduced.

  Results in the Annex

- **Figure A1** Reproduced. The legend is positioned at the bottom in the reproduced figure, whereas it is on the right in the figure shown in the paper. Additionally, the figure in the paper appears slightly higher. However, these differences do not affect reproducibility. The figure was compared against 'Anexo_FGT_Diff_ppp17' (right panel) and 'Anexo_FGT_ppp17' (left panel).

- **Figure A2** Reproduced. The legend is positioned at the bottom in the reproduced figure, whereas it is on the right in the figure shown in the paper. Additionally, the figure in the paper appears slightly higher. However, these differences do not affect reproducibility. The figure was compared against 'Anexo_FGT_Diff_ppp17_se' (right panel) and 'Anexo_FGT_ppp17_se' (left panel).

- **Figure A3** Reproduced. The legend is positioned at the bottom in the reproduced figure, whereas it is on the right in the figure shown in the paper. Additionally, the figure in the paper appears slightly higher. However, these differences do not affect reproducibility. The figure was compared against 'Anexo_FGT_Diff_ppp17_woir' (right panel) and 'Anexo_FGT_ppp17_woir' (left panel).

- **Figure A4** Reproduced.

- **Figure A5** Reproduced.

- **Table B1** Reproduced.

- **Table B2** Reproduced.

- **Table B3** Reproduced.

Reproduction Environment

- Paper exhibits were reproduced in 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 version 18 MP