The Worldwide Bureaucracy Indicators – Version 3.0
Subsample for Brazil - 2015 and Wage Bill Indicators

First Submission: FR_WLD_2024_44
Luis Eduardo San Martin
reproducibility@worldbank.org
June 18, 2024

This review verifies the reproducibility of the results of *"The Worldwide Bureaucracy Indicators – Version 3.0"*. Due to the extensive computation required to run the code that produces the results, the verification was performed on a subsample for the indicators for Brazil-2015 and the Wage Bill Indicators.

Contents in this review:

1. Main findings

2. List of indicators and reproducibility status

3. Reproduction Environment

Main findings

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

  1. Changing the global containing the file 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 90 minutes to run.

- We conducted our reproducibility analysis based on the published dataset of the WWBI, from which the results for Brazil - 2015 and the wage bill indicators were obtained for a direct comparison against the code results. The official WWBI dataset was downloaded on January 28, 2024 from https://datacatalog.worldbank.org/int/search/dataset/0038132. The file compared against the code results was the CSV file *WWBIData.csv*.

- All indicators reproduced as in the official WWBI dataset.

- **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 results 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 for dependencies using the latest versions available for each dependency at the moment of the review.

List of indicators and reproducibility status

- **Wage Bill Indicators** All indicators reproduced.

- **Indicators for Brazil - 2015** All indicators reproduced.

Reproduction Environment

Results were reproduced on a computer with the following specifications:

- OS: Windows 10 Enterprise

- Processor: Intel(R) Xeon(R) Gold 6132 CPU @ 2.60GHz 2.60 GHz (2 processors)

- Memory available: 128 GB

- Software version: Stata 18 MP