



Connecting To Compete 2025. The New Logistics Performance Indicators 2.0

Second Submission: FR_WLD_2026_592

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This review verifies the reproducibility of the exhibits included in the paper “*Connecting To Compete 2025. The New Logistics Performance Indicators 2.0*”.

Contents in this review:

1. Main findings
2. List of file, exhibits and reproducibility status
3. Reproduction Environment

Main findings

- **Every exhibit of the methodological note and report has been reproduced accurately.**
- As the package relies on restricted data, the replicators did not have direct access to it. The verification was therefore conducted through virtual verification on February 19, 2026, following the Virtual Reproducibility Verification Protocol. Because the restricted data could not be copied or moved outside the secure high-performance server environment, part of the code was run by the authors on that server. The process was executed in a clean environment, including the creation of `lpi_server_env.yml` and `lpienv.yml` to manage dependencies. The verification steps were as follows:
 - (a) The authors executed the server-side workflow by running `runall.py` on the secure server, the desktop workflow by running `gendata.py` on the local machine, and the final consolidation by running `run_all_database.py`.
 - (b) The authors then shared the outputs generated from two consecutive runs.
 - (c) The replicators checked whether the outputs from both runs matched and then verified each output against the exhibits in the paper.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 1 hours to run.
- We conducted our reproducibility analysis based on the paper shared by authors in the reproducibility package.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on 2 types of data: open, and restricted data (not available).
 - Open data is included in the public reproducibility package.

- *data_hash_report.csv* lists the SHA256 hashes of all files in the Data folder to support data integrity checks.
- **Reproducibility Summary:**
 - **Data:** Some data is restricted and has not been 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 file, exhibits and reproducibility status

Data360 data

- *stacked LPI 2.0 for Data360 (2022-2024).csv* Reproduced.
- *stacked LPI 2.0 - group averages (2023-2024).csv* Reproduced.

Methodological Note

- **Table 1** Does not show analysis results.
- **Figure 1** Does not show analysis results.
- **Figure 2** Does not show analysis results.
- **Figure 3** Does not show analysis results.
- **Table 2** Does not show analysis results.
- **Figure 4** Does not show analysis results.
- **Figure 5** Does not show analysis results.
- **Table 3** Does not show analysis results.
- **Figure 6** Does not show analysis results.
- **Figure 7** Reproduced. Verified against file “Connect indicators for Egypt and groups.jpg”
- **Figure 8** Reproduced. Verified against file “Delay indicators for Egypt and groups.jpg”

Report

- **Table 1.1** Does not show analysis results.
- **Table 1.2** Does not show analysis results.
- **Figure 2.1a** Reproduced. Verified against file “MAR_CONN INCAGG.jpg”

- **Figure 2.1b Reproduced.** Verified against file "MAR_CONN REGAGG.jpg"
- **Figure 2.1c Reproduced.** Verified against file "AVIA_CONN INCAGG.jpg"
- **Figure 2.1d Reproduced.** Verified against file "AVIA_CONN REGAGG.jpg"
- **Figure 2.1e Reproduced.** Verified against file "B2B_CONN INCAGG.jpg"
- **Figure 2.1f Reproduced.** Verified against file "B2B_CONN REGAGG.jpg"
- **Figure 2.2a Reproduced.** Verified against file "maritime_Market access with labels gnipp.png"
- **Figure 2.2b Reproduced.** Verified against file "B2B_postal-Market access with labels gnipp.png"
- **Figure 2.3a Reproduced.** Verified against file "piechart_trs number.png"
- **Figure 2.3b Reproduced.** Verified against file "scatterplot_leadtime vs trs number 2024.jpg"
- **Figure 2.4a Reproduced.** Verified against file "scatterplot GNI PPP vs imp dwell 2024.jpg" Missing "2024" in the axis titles.
- **Figure 2.4b Reproduced.** Verified against file "scatterplot GNI PPP vs avia dwell 2024.jpg" Missing "2024" in the axis titles.
- **Figure 2.5 Reproduced.** Verified against file "LLDC horiz bar chart.jpg".
- **Figure 2.6 Reproduced.** Verified against file "DEHAM-BRSSZ distribution of processes.png"
- **Figure 2.7 Reproduced.** Verified against file "IQR vs median dwell times with o-intercept lines.png"
- **Figure 2.8a Reproduced.** Verified against file "FRLEH-histogram-2024.jpg"
- **Figure 2.8b Reproduced.** Verified against file "NGAPP-histogram-2024.jpg"
- **Figure 2.8c Reproduced.** Verified against file "DZALG-histogram-2024.jpg"
- **Figure 2.9a Reproduced.** Verified against file "scatterplot with labels GNI PPP vs weighted trnt 2024.jpg"
- **Figure 2.9b Reproduce.** Verified against file "scatterplot with labels imp dwell vs wtrnt 2024.png"
- **Figure 2.10 Reproduced.** Verified against file "scatterplot b2c vs b2b delivery time 2024.jpg"
- **Table 3.1** Does not show analysis results.

Reproduction Environment

Data and exhibits were reproduced on a computer with the following specifications:

Server:

64-bit, Intel Xeon Platinum 8462Y+ @ 2.80 GHz (4 processors)

64 GB RAM

Desktop:

Windows 11, 64-bit

Intel Core Ultra 7 165U @ 2.10 GHz

32 GB RAM