# Local GDP Estimates Dataset — Version 2 Release Notes

April 2026

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This document summarizes the key differences between Version 2 and Version 1 of the Local GDP Estimates dataset. Version 2, released in December 2025, estimates cell GDP for the period 2012-2022 using predictors that are updated to 2022.[1] For a detailed description of data sources and model inputs, please refer to the Online Appendix.[2]

- New vintages of population and national GDP data from IMF World Economic Outlook (WEO) are used for the Version 2 update (downloaded on September 15, 2025). The new data may contain revisions to 2012–2021 GDP and population figures for certain countries relative to Version 1.
- Subnational GDP data from OECD Explorer for Japan and Norway are not available for 2022. However, Japan's 2020 subnational data, which was previously unavailable in Version 1, is now included in Version 2. Note that these changes only affect whether specific country–year observations are included in the training sample; GDP predictions remain available for both countries for all years, as predictions are generated for both in-sample and out-of-sample observations alike.
- For subregional GDP data of certain developing countries (see Online Appendix), the DOSE dataset has been updated from Version 2 to Version 9.
- Version 2 reports GDP predictions in Constant 2021 USD, replacing the Constant 2017 USD used in Version 1.
- By substantially extending the parameter search range during training, we achieved significant performance gains for the models in Version 2. The out-of-sample $R^2$ for annual change in log GDP improved from 63.4% to 77.7% at the 1-degree level, from 66.1% to 76.0% at the 0.5-degree level, and from 70.5% to 81.9% at the 0.25-degree level. These improvements enable Version 2 to better capture regional nuances in the yearly evolution of GDP.
- There are no changes to the predictors used or their data sources. Please refer to the Appendix for details.
- Fixed a typo in Version 1 shapefiles where the ISO code for Alaska was incorrectly set to "Ala" instead of "USA".

**April 2026 update.** We extended the released cell-level datasets to include cross-tree uncertainty bounds: each cell now carries 5% and 95% quantiles (*q05*, *q95*) and a cross-tree standard deviation (*tree_sd*) for predicted GCP in each reported currency unit, together with a currency-invariant standard deviation of log GDP (*sd_log_gdp*). The replication package on GitHub now includes all the code that generates the new content.

[1] Output from the previous version can be found in the "Archive" folder under the "Data & Code" section on the website at: `https://bfidatastudio.org/project/local-economies-global-perspective-illuminating-subnational-gdp-worldwide/#data`.

[2] For questions, feedback, or additional information, please contact the research team at: bfiglobalgdp@uchicago.edu. You may also visit the project repository at `https://github.com/jialingzhang0730/Local_GDP_Estimates_Around_the_World`.