How to evaluate the reliability of the Regional Input-Output Data? A case for China

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Accurate statistic data are essential to a credible and cogent empirical analysis. For now, however, there is no mature and specialized methodology on how to evaluate accuracy of any input-output (IO) data. This research constructs a comprehensive yet relatively concise framework for evaluating regional IO data accuracy by including several indicators measuring all three quadrants. The framework examines regional IO data from following perspectives: time consistency and variation, coefficient correlation and whether it matches with national level data. A score indicating the overall accuracy as well as detailed information presenting concrete shortcomings of regional IO data could be offered after evaluating by this framework. As an example, the province-level IO data from 90 provinces IO tables in three consecutive session (2002, 2007, 2012) are being analyzed under the above framework. The main contribution and innovation of the research is building the applicable and exhaustive quality evaluation framework for regional IO data. This framework has meanings for both scholars and governments. It enables researchers realize potential flaws in IO data before utilizing it and government statistic agency improve data qualities by avoiding issues emerged in previous data quality evaluation.