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**Transparency and UNECE Metadata Standards**Daniel Gillman, US Bureau of Labor Statistics, [gillman.daniel@bls.gov](mailto:gillman.daniel@bls.gov)**Abstract**

In November 2021 the CNSTAT (Committee on National Statistics) Panel on Transparency and Reproducibility in Federal Statistics in the US released a report called Transparency in Statistical Information for the National Center for Science and Engineering Statistics and All Federal Statistical Agencies. In this report, the case was made that conformance to metadata standards is part of the requirements to achieve transparency of data, processes, and designs in statistics. Descriptions of all the published metadata standards from the UNECE were included.

This paper expands the ideas in the report. Conformance (as the report shows), metadata quality, and a usable system interface are all separately shown to be necessary considerations. Together, they form a set of sufficient conditions to achieve transparency, as will be demonstrated. How these criteria are interrelated is also mentioned. As part of the discussion on metadata quality, a framework for metadata quality is presented. Though frameworks for data quality are broadly applicable, the descriptive aspect of metadata means a framework based on syntactics, semantics, and pragmatics is specifically applicable. We describe how this works.