Reviewer's report

Title: A Nearly Continuous Measure of Birth Weight for Gestational Age Using a United States National Reference

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Reviewer: John H. Himes

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Reject

The authors have improved the manuscript. Nevertheless, to this reviewer, they still have paid insufficient attention to the limitations of the sample sizes within each cell in light of the inferences to be made when applying the new percentile levels. The authors should provide at least in the text a calculation of the 95% confidence of a single percentile estimate in terms of plus or minus percentile levels for the smaller sample sizes at the extremes of GA. I think they will see that the confidence intervals far exceed the level of apparent precision (+/- 1 percentile) that are presented in the tables. How do users interpret results then?

Although the authors have chosen to present unsmoothed data, a close examination of the progression across adjacent percentile levels within GA's at times shows the exact same weight in grams for 4-5 percentile estimates followed by a bump of several grams. Do the authors suggest that this is physiological? A sampling problem seems much more likely, and if so the individual lines could be improved by some sort of smoothing.

Competing interests:

None declared.