Reviewer's report

Title: Environmental justice and drinking water quality: Are there socioeconomic disparities in nitrate levels in U.S. drinking water?

Version: 1 Date: 01 Oct 2018

Reviewer: Kirsten Almberg

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The manuscript is greatly improved after revisions. While I understand that the goal of the analysis was not finding the most parsimonious model, I still think the lack of a model-building process is disappointing, if for no other reason than the fact that the authors may have had more support for their claims about what is driving the association between socio-economic factors, water system size, and nitrate concentration. In its current form, we have no sense of how model estimates change in the face of each additional variable. The authors assumed region to be a modifying variable and therefore stratified analyses by region, before testing for this interaction in the models with water system or county demographic factors. If all variables were significant in the final model, the final covariate list should have been preserved in the model building process.

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