Moore et al. raise a concern about collinearity in our study, a concern that we shared when conducting this analysis. There are 2 distinct issues that merit discussion in relation to collinearity. First, when independent variables are strongly correlated, standard errors may be inflated and one of the independent variables may wash out the effect of the other. To examine whether these were problems in our analysis we calculated the bootstrap confidence intervals for the final models and found only minimal inflation of the confidence intervals and no change in inference for any of the models. Both mean education and the education Gini coefficient remained significantly negatively associated with the population health indicators we reported in our research. In addition, the variance inflation factor was 3.5, suggesting that the standard errors were inflated by a factor of 1.9 (\sqrt{3.5}). Typically the variance inflation factor is considered a problem when it is 10 or greater. Although there is clearly some collinearity between our independent variables, as we reported in our research, variance inflation and instability of estimates are not plausible explanations for our findings.

As a second concern, strong collinearity also raises the issue of residual confounding. With only 59 data points, we could not adjust for mean education nonparametrically and thus we cannot be certain that we have completely adjusted for the influence of mean education in our examination of the education Gini coefficient. Allowing nonlinearity in the effect of mean education with squared terms and restricting the analysis to the range of mean education, which removed all potential outlying values of education Gini coefficients, did not change the results for any of the final models. However, further research on this topic, ideally with more observations, will have to explore the potential role of residual confounding as an explanation for the associations we have documented.

As a final note, this study was one study, in one unique city, with one conceptualization of neighborhood. It was our goal to engender further inquiry into the potential role of neighborhood education distribution in different contexts. The work reported by Moore et al. in their letter is a good step toward that goal. We look forward to further work in this area, whether it supports or contradicts the findings we reported. Our results suggest a nuanced role of absolute levels and distributions of the fundamental determinants of population health. We hope that our work stimulates research that improves our understanding of the complex (and not necessarily intuitive or anticipated) role that different contextual factors play in shaping the health of populations.

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