Examining spatial autocorrelation for obesity in northern new England

The paper will begin with an examination of Spatial Autocorrelation (SA) for obesity in Northern New England. The existing literature mostly ignores the spatial component and correlates obesity with environmental factors using traditional aspatial statistical methods, which could produce biased results if spatial patterns exist. Using data from a three-state transportation survey, the Body Mass Index (BMI, representing obesity) of the respondents will be examined for the existence of SA at different spatial scales. If strong SA is detected, then analysis using spatial regression methods will be performed. Those results will be compared with the results from aspatial regression methods and assessments will be made on the importance of accounting for SA. It is expected that by using both spatial and aspatial regression methods, different relationships between obesity and the built environment will be found, which would reinforce the significance of examining SA before conducting traditional aspatial analysis.