Informed by existing bodies of work on the subjects of livability and school segregation, this research explores the relationship between residential desirability and racial segregation within Brooklyn’s public school system.

**RESEARCH QUESTION**

Do features in the built environment which lend themselves to residential desirability affect school segregation measures?

**FINDINGS**

Through regression analysis, two models were created to explore potential correlations between racial representativeness, the built environment, and socio-demographic indicators. For the majority non-white public school zone, regression analysis revealed that access to green space and percentage of white per school zone are the most significant variables that predict racial representativeness. A non-spatial OLS model produced an R²-adjusted value of 0.87, and including green space and percent white in a geographically weighted regression (GWR) produced an R²-adjusted of 0.92, indicating an even stronger model when the geographic proximity of elements is taken into account. The map on the upper left displays the residuals produced by a GWR model. While the residuals are consistently low, they skew positive, indicating that the model has a tendency to overpredict racial representativeness.

For the majority white public school zone, the most significant correlation was found between access to green space and poverty measures. A non-spatial OLS model produced an R²-adjusted value of 0.73, and including green space and percent poverty in a GWR did not considerably improve the model’s performance, though also produced an R²-adjusted of 0.73. The map on the lower left displays the residuals produced by a GWR model. The residuals are consistently low, although they range higher and lower than those of the non-white school zone model, indicating a less significant fit.

Further analysis on built environment and socio-demographic factors could improve these models and better explain discrepancies between racial representativeness. Continued research could also test these models in other areas of the city and country. Yet, from this preliminary research, we can conclude that access to green space in a school zone contributes significantly to the racial representativeness of public schools in Brooklyn.

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