Volume 12

Washington University
Undergraduate Research Digest

Spring 2017

Geographic Analysis of Weak Educational Institutions and Their Associated Ecological Risk in Missouri

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Goals of secondary educational institutions are to provide students with an education as well as a supportive and engaging environment. However, when they fail to meet the standards to achieve and maintain these goals, students can be at risk for numerous adverse outcomes. To understand individual risk for adverse outcomes, we consider the ecological risk factors associated with schools according to the *Weak Institution* perspective. This perspective holds that the breakdown of social institutions (such as schools, family system, etc.) increases the vulnerability of members in those institutions, thus increasing the probability of adverse behavioral and situational outcomes later in their life course. To understand the ecological risk factors, we empirically examined school system based data and identified the spatial distribution of higher-risk school districts in Missouri. We used performance measures from publicly-available school district data for public school districts (N = 455 school districts). These measures included attendance and rates of dropout, graduation, and discipline as well as free and reduced lunch percentages and student to classroom teacher ratios. Factor analytic techniques were applied to combine these measures to create an aggregated risk score for each school district. Our analysis shows that the variables that carry the most weight for determining the risk scores are attendance, dropout, graduation, and discipline rates. We mapped the risk scores of the school districts in Missouri on a relative scale according to their factor scores. The results are presented in a map format so that law-makers and advocacy groups can more easily identify the districts that may need increased assistance.