

## ABSTRACT

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### The Effect Of School Size, Socioeconomic Status, And Grade-Level Configuration On Academic Achievement In Louisiana Public Schools (Major Professor: David Gullatt)

The national emphasis on continually improving education for all students coupled with accountability requires educators and policymakers to identify and implement effective schooling structures and strategies. In this study, the researcher examined the relationship among school size, socioeconomic status of students, the interaction of school size and socioeconomic status (SES), grade-level configuration, and academic achievement in Louisiana. An extensive data set representing 1362 public PK-12 schools was analyzed at the 4<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade levels. The construct of schooling as a production process was used as a theoretical model wherein the education production function was used to describe the relation between school inputs and student outcomes.

To determine the impact of input variables on student achievement, thirty-six hypotheses were tested. Ordinary Least Squares (OLS) procedures were used to assess the relationships among variables. Moreover, to determine the differential impact of school size, SES, and the interaction of school size and SES on academic achievement across grade-level configurations, a variant of the F-test known as the "Chow test" was utilized. Further, Multivariate Analysis of Variance (MANOVA) was used to determine the effects of school size, SES, and the interaction of school size and SES on academic achievement. Where significant interaction effects were found, a univariate ANOVA was calculated. Post-hoc tests, namely Tukey's HSD, were then conducted on each of the models. The results of this study indicate that there is a relationship among the variables investigated.

The poverty level was found to impact significantly the percentage of students passing the state's high stakes tests across the 4<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade levels. At all grades and across all SES levels within an elementary, middle/junior high, and secondary configuration, the mean percentage of students passing the LEAP 21 increased as enrollment size increased. The level of poverty did not alter the positive impact of school size on academic achievement. The results of this study support the notion that the effectiveness and efficiency of school size may best be represented by a U-shaped curve wherein schools may either be too small or too large to operate at optimal levels.