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A Quantitative Study on the Influence of Poverty on School and Teacher Pennsylvania Value-Added Assessment Scores

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STUDENT HAS RESTRICTED ACCESS TO FULL TEXT OF THE DISSERTATION. ONLY COVER PAGES AND ABSTRACT ARE AVAILABLE AT THIS TIME

A QUANTITATIVE STUDY ON THE INFLUENCE OF POVERTY ON SCHOOL AND TEACHER PENNSYLVANIA VALUE-ADDED ASSESSMENT SCORES

A Dissertation

Submitted to the School of Graduate Studies and Research in Partial Fulfillment of the Requirement for the Degree

Doctor of Education

Donald Warren Wagner
Indiana University of Pennsylvania
December 2014

Indiana University of Pennsylvania School of Graduate Studies and Research Department of Professional Studies in Education

We hereby approve the dissertation of

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Title: A Quantitative Study on the Influence of Poverty on School and Teacher Pennsylvania Value-Added Assessment Scores

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The purpose of this study was to examine the impact of poverty on Pennsylvania Value-Added Asssessment Scores (PVAAS) in mathematics, reading, and science. Due to the perceived under-performance of public schools in the United States of America, many reform efforts have been enacted. One such effort was the No Child Left Behind Act (NCLB) of 2002, which held school districts and individual schools accountable for student performance as measured by arbitrary achievement goals on state mandated assessments.

Many critics of NCLB believed the accountability measure to be unfair as students enter school with varying educational experiences and intellectual ability levels. In response to this criticism, many states, including Pennsylvania, shifted to an accountability model that measures student growth from year to year. This model purports to eliminate variables beyond the control of schools and teachers, such as student poverty, intellectual ability, and prior educational experience. In Pennsylvania, the system used to measure student growth is known as PVAAS.

This study examined the PVAAS scores of 1,688 public schools in mathematics and reading and 1,659 schools in science to determine if the scores were influenced by poverty, as determined by student participation in the Free and Reduced Lunch program. Correlation coefficients were conducted utilizing

schools PVAAS scores in mathematics, reading, and science and the percentage of students identified as economically disadvantaged within the schools.

Additionally, analysis of variance (ANOVA) were conducted in each subject after grouping schools based on the percentage of students who were economically disadvantaged.

The findings and conclusions of this study show that PVAAS scores may be influenced by poverty. Correlation coefficients suggest a small, negative relationship between poverty and PVAAS scores in math and a large, negative relationship in science. Additionally, ANOVA results indicate that statistically significant differences exist between groups based on concentration of poverty in all subjects studied. In total, the results suggest that as poverty within a school increases, PVAAS scores decline. Recommendations are based on how the relationship between the two might be further explored and how it can be shared with those skeptical of the value-added measure.