



Kansas City Area
Education Research Consortium

KC STEM Alliance January, 2011

KC-AERC Kansas City Area Education Research Consortium



Overview of Kansas City Area Education Research Consortium

Schools and School Districts

Over thirty public school districts, two Catholic school systems, as well as additional private, parochial and charter schools, spread over the five-county Kansas City metropolitan area

Collaborating Universities



KC-AERC has early-stage funding from the Kauffman Foundation.

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Mission Statement

Our shared goal is to improve P-20 education for all students in the Kansas City metropolitan area by providing powerful tools for data-driven educational research, evaluation and implementation.

Leading Community Organizations

Collaborative efforts are ongoing with local education agencies, foundations, chambers and economic development entities, as well as the state education departments of Kansas and Missouri.

KC-AERC Research Projects

- Value Added Analyses Using Longitudinal Student Test Scores
- KC Region's Teacher and Educator Labor Market
- Transitions to Higher Education and Attainment
- Algebra Achievement and Instruction
- P20 Educational Asset Mapping

KC STEM Alliance

Develop methodologies to:

- (1) examine the impact of Project Lead The Way (PLTW), First Robotics and other STEM programs on high school and college outcomes
- (2) Identify Process Variables that might be contributing to variability in the overall impact of these programs such as barriers to student participation and variability in the quality of program implementation.

KC STEM Research Questions

1. What are the effects of PLTW, FIRST Robotics and other STEM programs on the high school
 - a. Grade Point Average (GPA)
 - b. Number and type of mathematics courses
 - c. ACT Math and Science scores
 - d. Graduation
2. What are the effects of PLTW, FIRST Robotics and other STEM programs influence on the following post-secondary educational outcomes:
 - a. College Enrollment
 - b. Persistence in college
 - c. Graduation from college in a STEM Field
3. For students who have expressed an interested in STEM related fields but chose not to participate in any of these STEM initiatives, why not? If they participated at one point and chose to discontinue participation, what were the factors that led them to make this decision?
4. How much between-class variability is there in the implementation of Project Lead the Way as measured by scores on the exit exams? How much of this variability can be explained by differences in students' academic backgrounds (other math course taken, grades earned etc.)?

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