Impact of Schools Human Resource Quality and Learning Physical Environment on Performance

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Rationale and Justifications
The Center supports two of the eight Louisiana's Comprehensive Economic Development Strategy (CEDS) by the Capital Region Planning & Development Commission and North Delta Regional Planning & Development District. The role of the CEDS is to create economic roadmaps that strengthen and diversify regional economies. The main activities include analyzing regional economies and establishing development goals and objective, developing regional investment plans, and identifying investment priorities and funding sources. One of the prioritized activities is improving the completion rates especially among minorities. The study aims to establish the relationship between human resource quality and physical learning environment on school performance.

The assumption is that school quality is a prerequisite to student performance. Louisiana has one of the country's lowest high school graduation rates. In 2012, the National Center for Education Statistics ranked Louisiana as the second-worst state in the country, for public education. On the positive side, current economic indicators show that Louisiana is on the verge of a manufacturing boom driven by the low price of natural gas. The anticipation is that the boom will create over 80,000 jobs; of which, more than 85% of the jobs require workers to have degrees related to the STEM fields. There is a great need to provide a pipeline of workers who will fill the jobs. This necessitates targeted investments in primary and secondary education system to increase graduation rates and to increase enrollment in Louisiana Colleges and Universities.

Objectives of the Study
The general objective is determining the influence of available resources and the general dimensions of school-level physical environments on performance. There are three specific objectives: quantify the impact of (physical) school learning environments and resources on ability of schools to meeting state standards; identify components/elements of school learning environments and resources that make the most difference on performance; and determine the relative balance between the physical environment and quality of human resource availability on school performance.

Materials and Methods
This is a preliminary study focusing on performance of High Schools in 2012/13 school year using data from school report cards and school performance scores. We will use multilevel models that take cognisance of the hierarchical nature of schools grouped in school districts, and school districts nested in parishes. Ignoring this nested structure can give rise to problems of aggregation bias (within-group homogeneity) and imprecision.

Outcome and Impact
Preliminary technical reports can be informative to those involved in the leadership, design, planning, resourcing and management of Louisiana Primary and Secondary Education System to provide innovative and effective learning environments.

Future Research Activities
Expand the study to identify best practices to enhance both students and schools performances.