



Research *Evaluation* *Strategy*

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Case Study

Rhode Island Physics First

Physics First is an educational movement wherein the secondary science curriculum is adapted to accommodate the increasingly technology-oriented world. The program re-organizes the order of science classes, moving physics to the 9th grade level. This change allows for the scaffolding of skills and knowledge across the disciplines of physics, chemistry and biology, resulting in higher-order scientific understanding and thinking skills in students who take the sequence. Rhode Island Physics First is one of the first in the educational movement to supplement the altered curriculum with a rigorous evaluation of the program implementation in six pilot sites.

With a grant from the National Governors Association, the Rhode Island Economic Development Corporation planned on careful and insightful assessment of the Physics First Pilot study. RIEDC looked to further the study through collection and analysis of longitudinal data on the program, and guidance as to what the results suggest about the future of Physics First. RIEDC engaged Hezel Associates to conduct this research, analysis, and consulting. The firm provided meaningful results both for formative program improvement as well as ultimate assessment of program effectiveness that reflected the information needs of state education leaders, as well as federal, state, and local policy-makers, and fulfill the National Governors Association reporting requirements.

Hezel Associates laid out a three year plan incorporating a series of both qualitative and quantitative research methods to evaluate the Physics First Pilot program. Research includes key stakeholder interviews, an expert review panel, student and teacher surveys, an analysis of EBEC student assessments and resultant data, observation of professional development, and a review of extant school-level data. Through this complex integration of multiple data sources, Hezel Associates will provide a rich understanding of the experiences and potential benefits of the Physics First program, promoting the advancement of effective educational innovations.