



CSFRI RFP #2

Appendix A: Research Considerations

Prior CSFRI Research

The selected applicant may find a previous study sponsored by CSFRI useful. It can be found [here](#).

Quantitative Data

Student Learning & Improved Attendance

- Utilize known student achievement measures including some component(s) of the California (CA) School Dashboard criteria which is the current accountability system for student achievement in CA schools.

Capital Expenditures

- Funds spent on facilities improvements, new construction, infrastructure upgrades, and technology improvements.
 - Consider analyzing by specific investments such as classrooms, Science, Technology, Engineering and Mathematics (STEAM), Career Technical Education (CTE), health and safety, Heating, Ventilation, and Air Conditioning (HVAC), etc. and the different return on investment for each.

Potential Methodology

- Identify a representative group of CA school districts and the number of districts that offer a large enough sample size to produce results that are internally valid for CA, if possible.
 - Balance sample districts by population size, socioeconomic level, English as a Second Language (ESL), students with disabilities, and baseline achievement levels.
 - Explore correlations at different levels (e.g., school, district, region) to understand variations in how the distribution of capital investments impact student achievement across different schools, districts, regions, or other criteria.
- Measure student achievement using the CA School Dashboard including CTE, graduation rates, and student standardized testing criteria.
- Determine the effect of school facilities funding on attendance rates.
- Consider identifying grade level segments (e.g., Grades PreK-3, 4-8, 9-12).
- Identify time period over which the criteria are applied (e.g., one or more decades).
 - Consider COVID-19 time period and any appropriate adjustments to predict most statistically reliable results.
 - What are the long-term effects of school capital investments on student achievement trajectories?
- Consider a method to determine scope or type of construction design that has the most effect on our measurement (e.g., flexible spaces, HVAC, modernize finishes, etc.).



CSFRI

California School Facilities
Research Institute

- Calculate student achievement growth over the time period selected
 - Account for time lags in data analysis since the effects of capital expenditures may not be immediate.
- Consider other variables and influences on student achievement that would need to be controlled for (e.g., curriculum changes, teacher years of experience).