

How do RPPs measure their effectiveness at affecting CS education and broadening participation?

RPPs in CS affect CS education through implementation, research, and broadening participation efforts. There are stories to share of the ways in which projects approach measurement of success offered through publications, presentations and RPPforCS specific inquiry. Generally, however, RPPforCS was not well equipped to answer this research question systematically across projects. The goals across projects vary, as discussed in our first research question, <u>What are the RPP-specific activities and partnership characteristics that shape the extent to which/ways in which RPPs meet their goals for quality CS education?</u> And we don't systematically collect metrics that can identify the impact on the research, students, teachers, or the systems involved.

Despite these challenges, we can offer some resources, and our <u>Research-Practice Brief: Data Use in CSforALL</u> <u>RPP's</u> provides some rich examples of how teams are collaboratively using data to improve CS education.

<u>CSEdResearch.org</u> is a resource center for K-12 CS Education researchers and evaluators with over 4,000 unique visitors last year. The site offers access to high quality research and a repository of evaluation instruments used across Pre-K through higher education. The ICER workshop held in August 2019 with 32 participants on evaluation and research in K-12 schools gave participants an opportunity to break down and consider the gaps in evaluation across the schools that they evaluate including across various grade levels. This work has produced two papers that outline the needs for evaluation instruments at the K-5 and the teacher levels.

In Spring 2020 we did a rapid-response survey at the request of NSF to better understand the differences between medium and small projects. As part of this effort, we asked about the data projects collected, learning that roughly half the invitees responded to collect information about the districts in which they participate, the teachers they serve, and the students that benefit from the CS interventions. It is still an open question as to how granular this data is and in what ways it can be used to measure broadening participation.

a. (original - supplemental report)

At our 2019 gathering at RESPECT, the Oregon CS for All team provided us with a theoretical framework in their publication <u>Computer Science for Equity: Teacher Education</u>, <u>Agency</u>, <u>and Statewide Reform</u> which was then used by the community to discuss dimensions of school reform for equity and companion supportive policies and practices that supports equity and teacher agency in statewide computer science.