

The Mathematics and Science Partnership [CUNY] (NSF)

Funding agency:

National Science Foundation (NSF)

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Evaluation:

5 Years

\$599,550

Ohio's Evaluation and Assessment Center for Mathematics and Science (E & A Center) is working with the City University of New York (CUNY) in collecting and analyzing data for The Mathematics Science Partnership in New York City (MSPinNYC). The project's overarching goal is to forge a partnership between institutions of higher education and K-12 schools while developing academic student support programs, research-based teacher education programs, and programs to recruit mathematics and science teachers to New York City schools.

The E & A Center's evaluation focus is on the quantitative data and is working closely with CUNY staff, who are focused on the qualitative data. The E & A Center is using questionnaires to collect and analyze data on the following: (a) teaching practices (grades 9-12 and in undergraduate science and mathematics courses); (b) high school students' attitudes and interest in career plans in science and math; (c) high school teacher retention; (d) undergraduate students' career choices (especially teaching); and (e) improved 9-12 student learning, as evidenced by passage rates on New York Regent's examination in mathematics (or other appropriate tests of content knowledge).

Qualitative and quantitative findings will be examined together in order to guide the project and to interpret findings across its multiple dimensions. The case studies will continue throughout the five years, while the use of questionnaires will escalate as the MSPinNYC scales up to additional campuses and more school districts (NYC schools are divided into multiple districts). Because the quantitative data will cover five years, various sites, and different groups of teachers and students, sophisticated statistical analyses will be used, specifically Item Response Theory (Rasch model) and Hierarchical Linear Modeling.

This project builds upon the E & A Center's expertise in urban science and mathematics education as well as its experience in evaluating partnerships between K-12 schools and institutions of higher education.