ITEST PORTFOLIO OVERVIEW

SPRING 2022

Introduction

This report provides an overview of the ITEST portfolio's current projects. The information below was curated with new ITEST proposal writers in mind so that you can become more familiar with the program and current project trends. We used several data sources to compile this information; NSF's Award Search database, and project survey data collected by STELAR (the New Project Survey and Annual ITEST Survey).

"The overarching vision of the ITEST program is to support applied research and development that provides pre-kindergarten to high school students with equitable and inclusive access to robust, rigorous, and effective learning opportunities using technology integral to a high-quality education in science, technology, engineering, and mathematics."

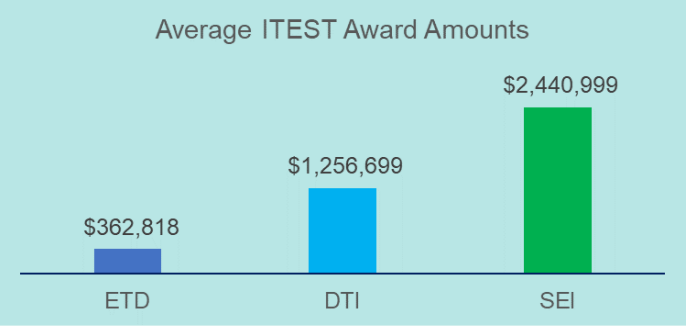
--NSF ITEST Solicitation 22-585

Project Types

ITEST funds three main types of projects: Exploring Theory and Design Principles for Innovations (**ETD**), Developing and Testing Innovations (**DTI**), and Scaling, Expanding, and Iterating Innovations (**SE**I). ITEST also funds workshops, conferences, and a resource center.

Funding Amounts

Average award amounts of ETD, DTI, SEI projects funded since 2020*



*Projects included in this analysis had the following maximum award amounts; ETD $400K, DTI $1.5M, SEI $3M. As of the 2022 solicitation these amounts have been revised

stelar

STEM LEARNING AND RESEARCH CENTER

Who is served

Projects most commonly serve:

- Students 86%
- Teachers 77%
- Community 19%

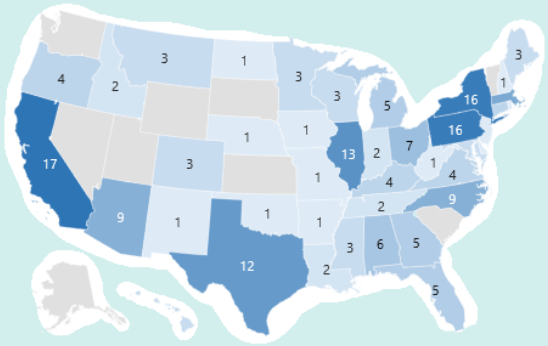
Student Demographics

Projects reported the breakdown of student demographics for students directly served in 2020-2021. There were 52 projects who reported student-level data on a total of 10,933 students.

- Gender: 54% female (n = 5,863)
- Black: 40% (n = 3,892)
- Hispanic/Latino: 22% (n = 2,176)
- Free and Reduced Price Lunch: 38% (n = 3,686)
- English Language Learners: 14% (n = 1,340)
- Youth with Disabilities: 3% (n = 325)

Regions

1. South (44%)
2. Northeast (36%)
3. Midwest (30%)
4. Pacific (12%)



Locale

1. Urban (82%)
2. Suburban (56%)
3. Rural (55%)
4. Tribal (8%)
5. Frontier (4%)

STEM Disciplines

The most common ITEST disciplines are:

1. Computer and Informational Technology (53%)
2. Engineering (48%)
3. Life Sciences (34%)
4. Mathematics (30%)
5. Environmental Sciences (30%)
6. Chemistry (17%)
7. Geosciences (11%)

Partner Organization Types

ITEST projects partner with many types of organizations:

- College/University (57%)
- Business and industry members or organizations (40%)
- Career Technical Education (14%)
- Community College (11%)

38% of college/university partners are Minority Serving Institutions

Intersection of Underrepresented & Underserved Groups

In order to capture the intersectionality of the groups served by ITEST we asked PIs to describe the groups they serve, "One of the goals of the ITEST program is to broaden participation of students from underrepresented groups and underserved populations in STEM fields. Please describe the group(s) your project is designed to serve." The different types of groups identified by projects are listed below.

BIPOC | Black | Black and Latinx | Black and Latinx girls | Black boys | Black girls | English Language Learners | Girls | Immigrants and refugees | Latina girls | Latinx | Low SES | Native American | Native Hawaiian | Neurodiverse learners | Rural | Rural Alaska Native or Indigenous | Rural Black and Latinx | Rural girls | Students with disabilities | Tribal Communities | Urban girls

Dissemination - Top Conferences

ITEST projects disseminate their findings in many different ways, including conference presentations. The list below outlines the national conferences where five or more ITEST projects presented in 2020-2021.

1. American Educational Research Association (AERA)
2. American Society for Engineering Education (ASEE)
3. National Association for Research in Teaching (NARST)
4. International Council of the Learning Sciences (ICLS)
5. National Science Teachers Association (NSTA)
6. Association for Science Teacher Education (ASTE)
7. ACM Special Interest Group on Computer Science Education (SIGCSE)
8. Society for Information Technology and Teacher Education (SITE)

STELAR

STEM Learning and Resource Center

stelar.edc.org | stelar@edc.org

This material is based upon work supported by the National Science Foundation under Grant Nos. DRL-1312022, 1614697 and 1949200. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.