



NSF EHR Indirect Support to Community Colleges

MSP

(Math & Science Partnership)

Both *MSP-Start Partnerships* and *Phase II partnerships* strongly encourage the participation of minority-serving institutions, including community colleges, to broaden the spectrum of institutions involved in the national MSP effort. At present, community colleges (CC) are partners with at least nine MSP awardee institutions in eight states:

Lead Partner	# of CC Partners
University of Kentucky Research Foundation	4
University of Texas at EL Paso	1
University of Wisconsin-Milwaukee	1
University of System of Georgia	2
Texas Engineering Experiment Station	1
La Salle University	2
Western Washington University	3
Arizona State University	5
Oregon State University	4



Student technicians from The South Carolina Advanced Technological Education Center of Excellence (SCATE) use a robot for material testing. Credit: Tress Gardner



A photonics technician calibrates a tunable dye laser. Credit: atecenters.org

ATE

(Advanced Technology Education)

Two-year colleges play prominent roles as both grantees and beneficiaries of ATE projects. During 2006-08, 75% of ATE grants were awarded to two-year colleges, 15% to four-year colleges/universities, and 4% to non-profit organizations. Nearly 91% of the projects allocated an average of 61% of their budgets to two-year colleges.

During 2006-08, ATE-supported programs:

- Reached 83,400 students, with 58% from two-year colleges;
- Provided professional development to 49,100 participants, 36% of whom are from two-year colleges;
- Produced 811 education and activity materials at two-year colleges.



Sabine Estrada from Rockland Community College tending to her tissue culture cells during 2007 Summer Research Program. Credit: NSF Research and Science Visions (RSVP) Program

LSAMP (Louis Stoke Alliances for Minority Participation)

LSAMP encourages formation of alliances with community colleges and institutionalization of community college interventions at senior-level alliances.

Among the projects from 27 LSAMP alliances:

- 74% have articulation agreements with community colleges.
- 59% reach out to community colleges.
- 26% provide research experiences for students.

Selected EHR Projects with Significant Community Colleges Involvement

Division of the Undergraduate Education (DUE)

Science, Technology, Engineering and Mathematics Talent Expansion Program (STEP)

The University of Nebraska at Omaha (UNO) and Metropolitan Community College (MCC) have developed a collaborative effort to simultaneously boost STEM enrollments and degrees awarded in six departments in two different UNO colleges, as well as two MCC departments.

Math and Science Partnership (MSP)

Oregon State University (OSU) is developing the Oregon Mathematics Leadership Institute with five community colleges as supporting partners. The goals are 1) to create a sustainable and generative leadership capacity within all core partner K-20 institutions to provide support for systematic mathematics reform; and 2) to increase mathematics achievement of all students in core partner schools.

Course, Curriculum and Laboratory Improvement (CCLI)

Faculty at California State University at Long Beach are partnering with the faculty at Cerritos and Orange Coast Community Colleges to adapt the WebWork homework assessment system for use in several pre-service teacher preparation courses. Concurrent with this effort are professional development workshops for faculty at participating institutions.

Robert Noyce Scholarship Program (NOYCE)

California State University at Long Beach (CSULB) is strengthening their partnership with two area community colleges that both have a commitment to teacher preparation and routinely transfer a significant number of mathematics and science undergraduate majors and/or pre-service teachers to CSULB.

Research on Learning in Formal and Informal Settings (DRL)

Innovative Technology Experiences for Students and Teachers (ITEST)

The Oregon Museum of Science and Industry is implementing a three-year, youth-based ITEST project targeting 180 college-bound middle and high school students who represent the Native American community. Partners include the Northwest Center for Sustainable Resources at Chemeketa Community College and the Integrated Natural Resource Technology program at Mt. Hood Community college.

Discovery Research K-12 (DRK-12)

“The Professional Learning Community Model for Alternative Pathways in Teaching Science and Mathematics (PLC-MAP)” is a partnership of the North Harris Montgomery Community College District, Texas A&M University and ten public school districts in the Greater Houston area. This project is creating a Professional Learning Community Model for engaging university science researchers with community college faculty in preparing well-qualified teachers through a community college-based alternative certification program.

Human Resource Development (HRD)

Research in Disabilities Education (RDE)

Tennessee Technological University is conducting research involving students with disabilities in post-secondary STEM courses. Researchers are studying the effects of the use of Tablet PCs and asynchronous student access to all course content. The participating faculty and students include those recruited from its partnering institutions, Nashville State Community College and Roane State Community College.

Louis Stoke Alliances for Minority Participation (LSAMP)

The Texas A&M University System LSAMP Phase IV is developing strong ties with five community colleges to broaden the participation of underrepresented minorities in STEM disciplines to the successful completion of a bachelor’s degree. The community colleges are Palo Alto College, North Harris Montgomery College (North Harris and Cy Fair campuses), Houston Community College-Northeast campus, and Del Mar College.

Historically Black Colleges and Universities-Undergraduate Program (HBCU-UP)

The Summer Bridge Program at Miles College-a Historically Black liberal arts institution-targets students from Lawson State Community College, also an HBCU. The program provides scholarships and research training to the students. The institutions have articulation agreements, and this program serves to strengthen the relationship.

Tribal Colleges and Universities Program (TCUP)

Maui Community College, with the sponsorship of the University of Hawaii, is implementing an institution-wide effort to restructure and strengthen introductory mathematics and science courses. The goal is to significantly increase the number of students entering and completing studies in STEM programs, with a particular focus on Hawaiian students.