

Minority Recruitment, Retention and Academic Achievement The NCSSSMST – Sloan Foundation Project

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*Editor's Note: NCSSSMST has long been concerned with assisting member schools in meeting the needs of the under-represented populations in their communities. This report was originally published in the NCSSSMST Journal in November 2001 and expanded as a separate publication, **Increasing Diversity**, available at ncsssmst.org > publications > initiative reports. It has been condensed for re-publication in this issue.*

Under a grant from the Sloan Foundation grant, NCSSSMST held two Summer Institutes in 2001 that focused on three issues: recruiting of under-represented students; retention of those populations; and enhancing their academic achievement. Participants in the institutes identified valid strategies that worked for participating schools and created a compilation of programs and staff that member schools can contact for further information or assistance.

Recruitment

The primary area of concern for most participant schools was the need to first recruit under-represented students into the programs. Therefore, our objective was to evaluate current practices and implement new internal/external recruitment strategies. For immediate implementation, these internal strategies were identified as feasible:

1. Specify and/or educate a staff member to specialize in the recruitment effort of students from underrepresented populations.
2. Be sensitive to and address the cultural issues affecting under-represented populations within the school community.
3. Utilize under-represented members of the school community to serve as campus ambassadors when underrepresented students/family visit the campus.
4. Publicize the school's support network for under-represented students.
5. Emphasize the school's commitment to the student by maintaining a connection to home school and community culture (residential programs).
6. Develop strategies to share students' successes with home schools.
7. Sponsor special events that bring under-represented students to campus (math

competitions, science fairs, PowWow, African Dance Festival, Multicultural Weekend, etc.).

8. Determine the attractors and detractors for under-represented students to your program.

Participants also agreed to pursue the following activities:

1. Evaluate current and future publications relative to under-represented populations, including bilingual publications.
2. Develop a publication emphasizing opportunities and successes of under-represented students.
3. Implement a program that acknowledges home school faculty influence on student success (Teacher Recognition Program).
4. Review the applicant process and implement a holistic applicant review process.
5. Be sensitive to the need for a diverse faculty/staff during the hiring process.
6. Make tuition charged outreach programs financially feasible for all students.

Strategies were also identified that could be effective off-campus to enhance recruitment efforts.

1. Utilize underrepresented members of the school family for off-campus visits to feeder schools and other informational sessions (service & civic organizations, state legislator, regional informational sessions).
2. Publicize how the school's support network for under-represented students supplements the family support system.
3. Build relationships with home school principals, teachers, and counselors through programs such as special recognition days, certificates, plaques, etc.
4. Develop and implement programs and events that give under-represented students an

opportunity to come to campus and experience something of the curriculum and excitement of the school (make it fun and challenging).

5. Seek out opportunities to host events sponsored by under-represented organizations.
6. Volunteer services to assist with special events like science fair, Odyssey of the Mind competitions, and math meets.
7. Publicize school-sponsored programs and events in community newsletters.
8. Develop a Community Advisory Panel comprised of professionals from under-represented populations to identify and contact prospective students – such as teachers, preachers, and other youth leaders and stakeholders.

Long-term strategies include these activities:

1. Develop a network for identifying talented math and science students in elementary and middle schools to advocate on behalf of NCSSMST math/science schools.
2. Develop a marketing plan aimed at under-represented students at the middle and junior high level.
3. Develop a marketing plan aimed at parents of under-represented middle and junior high school students.
4. Develop recruitment publications, which focus on multicultural aspects of student life.
5. Make bilingual publications available.
6. Seek out opportunities to partner with college/university to co-sponsor special programs and events of interest to under-represented students. (Math competitions, science fairs, speech and debate, black history month, summer enrichment, Odyssey of the Mind).
7. Seek out opportunities to partner with business and research facilities to co-sponsor special programs and events of interest to under-represented students.
8. Work with service clubs, civic organizations and other groups to assist in making outreach program financially feasible to under-represented students.
9. Work with city/county officials to include the school's summer enrichment program as an option within their summer work program.

Retention

Retention was the second area of concern. Factors identified as impacting student retention were:

1. Lack of proper preparation for a rigorous

academic program.

2. Not having a critical mass of various ethnicities to ensure a feeling of belonging.
3. Lack of comfort in a new setting vastly different from previous experiences.
4. Lack of role models in school community.

For immediate implementation, these strategies were identified:

1. Set up an academic assistance plan with academic advisors to meet regularly with students.
2. Establish a tutoring program focusing on needs of a diverse student body.
3. Provide grade level meetings to discuss student issues.
4. Develop multicultural peer counseling teams that function as liaison between students and the school community.
5. Establish liaisons with local businesses and local churches for assistance and services.
6. Provide diversity training for school community.
7. Provide parent-grandparent-sibling visitation days (particularly good for residential schools).

For long-term implementation, these strategies were delineated:

1. Establish bridge programs or transition programs for entering students.
2. Establish or host multicultural events, clubs, etc.
3. Establish a community advisory panel to develop mentor program through email or personal contact for under-represented students.
4. Provide information sessions on summer and post-secondary opportunities for students beginning early with programs such as the Duke TIP program.

Achievement

The third area of concern was closing the academic achievement gap between majority and under-represented students. Participants agreed that retention is closely aligned with achievement - in order to retain students in a program, students must experience academic success as well as social success.

The following strategies were identified as effective measures to enhance student achievement:

1. Provide study skill training for incoming students.
2. Review alignment of curricula to ensure key concepts are taught in appropriate sequence and context.

3. Provide teacher training in learning styles and pedagogy followed by assessment of student learning styles.
4. Encourage and provide opportunities for independent student research/mentorship for under-represented students.
5. Monitor and review the Academic Assistance Plan established under retention strategies.

action. Suggested were local foundations, national foundations focused on education or minority issues, state and federal grants, and legislative appropriations. This issue is critical to the success of NCSSSMST members, and it will take a concerted effort by all schools and staffs to provide a world-class education for all our students so they become accomplished citizens of our global society.

Participants agreed that NCSSSMST and its member schools need to identify possible sources of funding to fully promulgate effective plans of

Representatives of the following schools and organizations participated in the Sloan Foundation Summer Institutes:

Center for Advanced Technologies, FL
 The College Board
 Florida Institute of Technology
 Illinois Mathematics and Science Academy
 Louisiana School of Math, Science & the Arts
 New Horizons Governor's School for Science and Technology, VA
 North Carolina School of Science and Mathematics
 Siemens Science & Technology Competition
 Alfred P. Sloan Foundation
 South Carolina Governor's School for Science and Mathematics
 State University of West Georgia
 Thomas Jefferson High School for Science and Technology, VA
 University of Maryland Baltimore County Campus
 University of Maryland College Park Campus
 University of Miami, FL
 Worcester Polytechnic Institute, MA