



Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads

COMMITTEE ON UNDERREPRESENTED GROUPS AND THE EXPANSION OF THE SCIENCE AND ENGINEERING WORKFORCE PIPELINE; COMMITTEE ON SCIENCE, ENGINEERING, AND PUBLIC POLICY; POLICY AND GLOBAL AFFAIRS; NATIONAL ACADEMY OF SCIENCES, NATIONAL ACADEMY OF ENGINEERING, AND INSTITUTE OF MEDICINE
ISBN: 0-309-15969-5, 286 PAGES, (2010)

This free PDF was downloaded from:
<http://www.nap.edu/catalog/12984.html>

Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads

[Note: NSF's Louis Stokes Alliances for Minority Participation (LSAMP) Program is referenced multiple times in the NAS Report as follows:]

Figures: Pg. XI: 5-4 Graduate Coursework, Degrees Pursued, and Degrees Completed, LSAMP Participants Compared to National Underrepresented Minorities and National White and Asian American Graduates, (see page 100).

Pg. 79: Postsecondary institutions have a role in outreach as well. In their evaluation of the

NSF's Louis Stokes Alliances for Minority Participation (LSAMP) program, Clewell et al describe the kinds of high school outreach activities undertaken by institutions with LSAMP funding.

Pg. 80: More than half of the Alliances also offer high school outreach activities.

This includes LSAMP students visiting local high schools to give a science demonstration, tutoring high school students in STEM subjects, helping out at high school science fairs, and disseminating LSAMP recruitment material to high school staff members and students. In some instances LSAMP collaborates in the outreach efforts of other STEM intervention programs that specifically target high school students. Examples include female LSAMP students visiting high schools to talk to girls about math. LSAMP students participating in a precollege initiative where high school students are invited onto the college campus to learn about science disciplines, and science faculty visiting high schools on Saturdays to expose students to science professions and activities.

Pg. 83: STEM Outreach to Underrepresented Minorities: Programs such as the LSAMP high school outreach activities and the TRIO Upward Bound program that specifically target underrepresented minorities in mathematics, science, and engineering are critical means for reaching these groups and providing a pathway forward in STEM.

Pg. 99: One such model is provided by the NSF's Louis Stokes Alliances for Minority Participation (LSAMP) program. As shown in Figure 5-4, graduates of LSAMP programs have a higher propensity for additional coursework, graduate enrollment, and graduate degree completion, both in STEM and overall, compared to both white and Asian American students and other underrepresented minority students not in an LSAMP program.

continued on reverse

Pg. 100; Figure 5-4 Graduate Coursework, Degrees Pursued, and Degrees Completed, LSAMP Participants compared to National Underrepresented Minorities and National White and Asian American Graduates.

Source: Clewell et al, Final Report of the Evaluation of the Louis Stokes Alliances for Minority Participation Program, Washington, DC: Urban Institute, 2005.

Pg. 100-101: Undergraduate

• National Science Foundation, Louis Stokes Alliances for Minority Participation (LSAMP). This program is aimed at increasing the quality and quantity of students successfully completing science, technology, engineering and mathematics (STEM) baccalaureate degree programs, and increasing the number of students interested in, academically qualified for and matriculated into programs of graduate study. LSAMP supports sustained and comprehensive approaches that facilitate achievement of the longterm goal of increasing the number of students who earn doctorates in STEM fields, particularly those from populations underrepresented in STEM fields.

Pg. 103: While independent evaluations have shown the effectiveness of federal programs such as the NSF Louis Stokes Alliances for Minority Participation (LSAMP) and the NIH minority research training programs, to tackle the scale of change necessary in order to increase underrepresented minority participation in STEM, these and other programs like them must be scaled up to meet the national challenge and achieve the national goal of increasing participation in a transformative way.

Pg. 109: The LSAMP model utilizes the Tinto model, adapts it to the goal of retaining minority students in STEM majors (by providing supportive, integrative services specific to STEM), and encourages these students to continue on to graduate programs in STEM by providing professionalization opportunities (that is, opportunities to engage in the doing of science as professionals).

Pg. 115: STEM Fields/Underrepresented Minorities: NSF Louis Stokes Alliance for Minority Participation (LSAMP), Alliance for Graduate Education and the Professoriate (AGEP), HBCU-UP, TCU-UP, NIH Minority Access to Research Careers.

Pg. 118: Indeed, the number of rigorous evaluations of programs designed to increase the participation of underrepresented minorities in STEM is small, even including three large efforts undertaken since the publication of *A Bridge for All*: an assessment of NIH minority research training programs by the National Research Council and evaluations by the Urban Institute of the Louis Stokes Alliances for Minority Participation (LSAMP) and Historically Black College and University Undergraduate Program (HBCU-UP) programs at the NSF.

Pg. 133: Louis Stokes Alliances for Minority Participation (LSAMP)

Established by the National Science Foundation, the LSAMP program aims to develop strategies to increase the quality and quantity of minority students who successfully complete degrees in STEM through multi-institution alliances across the nation.

Pg. 134: Louis Stokes Alliances for Minority Participation (LSAMP) Bridge to the Doctorate.

The NSF LSAMP Bridge to the Doctorate provides two years of fellowship support for graduate students in STEM disciplines. Awards include student stipends and a cost-of-education allowance to the institution for tuition, health insurance, and other normal fees.

Pg. 135: Footnote: Source: Clewell, et al, Final report of the Evaluation of the Louis Stokes Alliances for Minority Progress Program, pp. 38-39.

Pg. 168: Dr. Clewell has been the principal investigator (PI) for several formal evaluations of major NSF intervention programs to increase the participation of women and minorities in STEM, including the Louis Stokes Alliance for Minority Participation (LSAMP), the Program for Women and Girls, and HBCU-UP.