



**Work in Progress – International
Conference Participation
for Undergraduate Scholars
through the University of
Texas System Louis Stokes
Alliance for Minority
Participation**

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The UT System LSAMP program

Graduating high-quality STEM researchers for the past 18 years!

- National Science Foundation (NSF) funding since 1992
- University of Texas System Alliance
 - Nine universities (UT Arlington, UT Austin, UT Brownsville, UT Dallas, UT El Paso, UT Pan American, UT Permian Basin, UT San Antonio, and UT Tyler)
 - Five community colleges (El Paso Community College, Howard College, Midland College, Odessa College, San Antonio College)
- 18 Years of Active Funding
 - Almost 1,500 students have participated as LSAMP Research Scholars
- The Proven Method: Undergraduate Research



The Importance of International Travel for Undergraduates: An Integral Part of the NSF's Mission

- NSF's strategic goal
 - Diversity, Learning, and Research Infrastructure
- Five General Categories
 - US participation in global-scale projects and research networks
 - Support for international facilities
 - Linkages to research programs of other countries
 - *Support for new scientists and engineers – involves many programs that provide US scientists and engineers with opportunities to gain international professional experience, including approaches for post doctorate & early career researchers, graduate students, and undergraduate students*
 - International science and engineering information
- NSF undertakes or participates in international activities whenever it contributes to accomplishing its overall goals more effectively

The UT System LSAMP Approach

- Conference Selection

- The LSAMP leadership team researches international conference opportunities taking place abroad during each academic year, preferably in October or November
- Conference must have an interdisciplinary theme that includes topics in all STEM disciplines
- Conference must have a focus on international collaboration and benefit to society
- Conference must be an English-speaking conference
- A list of potential conferences is compiled and the LSAMP leadership team meets in March of each year to select which conference to attend

The UT System LSAMP Approach, cont.

- Student Selection

- The student must have participated as an LSAMP Scholar during the previous academic year or the current year's Summer Research Academy (SRA)
- Each campus is allowed to select their preferred method of student selection, most common methods are:
 - **Essay competitions**
 - Importance that UG research has had on their academic career
 - Motivation to attend an international conference
 - How the experience will positively affect their future plans as STEM researchers
 - Poster competitions
 - Faculty mentor nominations

Conferences and Attendees

Conference Location	Conference Name/Date	Number of Students (n=19)	Number of Faculty/Staff
Concepcion, Chile	Pilot / Dec 2007	1	2
Singapore	Futuropolis 2058 / Oct 2008	8	8
Budapest, Hungary	World Science Forum / Nov 2009	10	10
Madrid, Spain	Science in Society/ Nov 2010	9	10

Observations and Lessons Learned

Student Perspective (n=19)

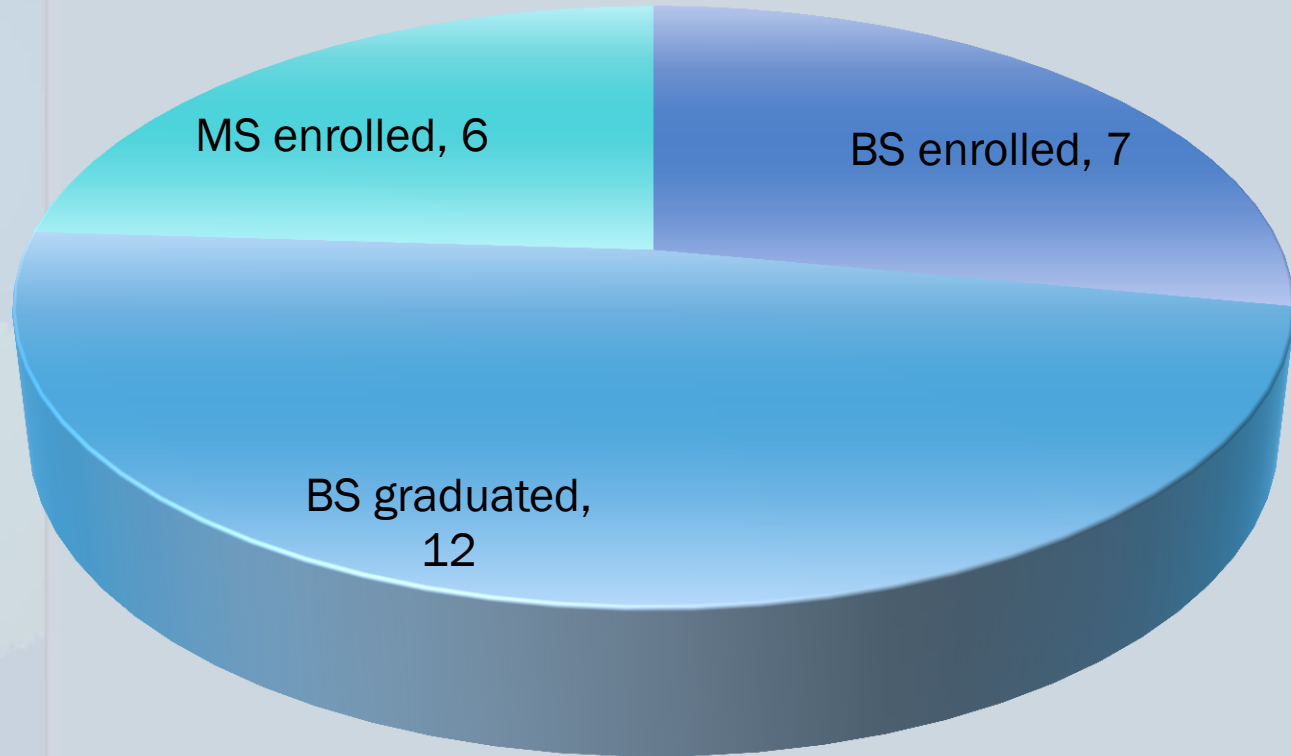
- 77% report that this was their first international trip
- 61% report not having a passport prior to the trip
- 39% report an interest in studying abroad in the future
- 100% reported that they enjoyed touring local universities and cultural sites
- Most eligible students did not want to attend for several reasons, most common are:
 - Missing one week's worth of classes
 - Fear of being in a foreign country and not knowing the language
 - Lack of funds to support personal expenses of the trip
- Each student who participated in the essay competition did an extensive amount of research on the conference itself, i.e. speakers, workshops, and included that information in their essay.

Observations and Lessons Learned

Faculty/Staff Perspective

- Most participants used these conferences as valuable networking opportunities for their research and campus-based programs.
- Each excursion allowed the administrator to mentor their student(s) in a way that could not be achieved through on-campus activities or a laboratory setting.
 - Students were advised on how to socially interact in a conference setting
 - Students were taught how to network with individuals who could provide them future opportunities
 - Students learned how to be culturally sensitive based on their guides' past experience(s) at international conferences
- Extracurricular excursions should take place before the conference start date so students are focused and engaged during sessions.

Student statistics (n=19)



The Future of LSAMP's International Activities

- More conference and group activities are needed to determine the impact these experiences are having on our students.
- To this point, the feedback has been very positive and the students who have participated have changed their mindset to think globally about working and/or studying abroad.
- Organization is key
- Strong team of patient and dedicated guides is essential
- We expect that our Phase IV data will demonstrate the importance of international opportunities for STEM undergraduates.
- Ultimate goal: encourage our students to expand their horizons and to understand that science and engineering are universal themes that have a global impact on our society

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