

The MAA-NSF Undergraduate Student Conferences Program

J. Douglas Faires

The Mathematical Association of America was awarded the National Science Foundation grant DMS-0241090 in the Spring of 2003. The purpose of the grant was to provide a simple procedure for awarding small amounts of funding to conferences in mathematics whose aim was encouraging presentations on mathematical subjects by undergraduates. The primary objective of the grant was to give undergraduate students an opportunity to see how exciting our discipline is by providing a nurturing environment in which to present and listen to a broad range of talks on mathematical subjects. The expectation was that this experience would encourage more students to continue their education in mathematics at the graduate level. The awards were expected to be quite modest, in the range of \$1000 to \$4000, and were open to both new endeavors and to established conferences that wanted to expand their programs but were limited because of funding considerations.

The first call for proposals was announced in March of 2003 with a deadline date of 1 June 2003 for the academic year 2003–2004. A committee consisting of the co-PIs of the grant, Colin Adams, Doug Faires, Joe Gallian, Michael Pearson, and Dan Schaal, reviewed the 11 proposals that were received that year and awarded a total of \$21,000 to 10 institutions. In total, the grants were expected to fund conferences in which there would be a total of 260 undergraduate speakers and 965 undergraduate attendees from approximately 160 institutions. The institutions receiving the initial grants were Arizona State University, Colorado State University-Pueblo, University of Dayton, Embry-Riddle Aeronautical University, University of Nebraska-Lincoln, Rose-Hulman Institute, Rowan University (for the MAA New Jersey Section), St. Norbert College, Western Kentucky University, and Youngstown State University.

A major goal of the grant was to eventually support enough conferences so that every interested student in the United States would have the opportunity to talk to their peers formally, and informally, about mathematics within their geographic region.

A second round of proposals was solicited in August of 2003 primarily to encourage people to propose new conferences for the Spring of 2004. This resulted in the awarding of an additional 5 grants to conferences totaling \$11,900. These grants were awarded to conferences at Mount Holyoke (for the Hudson River Conference),

Received by the editor 15 December 2006.

Morehouse University, Boston University, Furman University, and Dordt College. These five conferences expected to attract 190 undergraduate speakers and 500 undergraduate attendees from approximately 115 institutions.

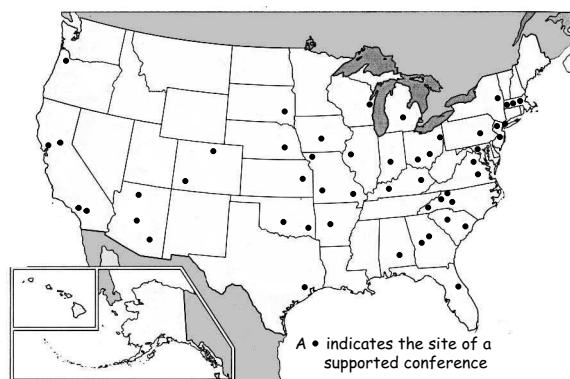
The total funding for the first year to the grant was \$32,900 to support 15 conferences, at which nearly 1500 undergraduates were expected to attend and 450 undergraduates were expected to give presentations. It was expected that about 275 institutions would send students to one or more of the conferences. The results from surveys received from the conferences indicated that these expectations were met in nearly each instance. In total there were approximately 1332 students from approximately 250 institutions attending the conferences, of whom 463 were speakers.

During this second academic year of the three-year grant, the academic year 2004–2005, support was provided to 27 conferences. Eleven of these were conferences that were supported in the initial year, and the remainder were new. By that time we were supporting 14 conferences that were not in existence before the NSF grant was awarded to the MAA. More detailed information regarding the conferences supported during the first granting period can be found in [1].

The NSF renewed the grant last Spring to extend the period to the academic years 2006–07, 2007–08, and 2008–09, so our current approved proposals are for the first year of this extended grant. Through the 2006-07 academic year we will have supported 96 conferences for a total amount exceeding \$150,000. You can obtain information about the supported conferences for the Spring of 2007 at

<http://www.maa.org/rumc/upcoming.html>

Contact information for the Conference Directors is listed on this site so that you can contact them if you would like information about their conferences or if you would like advice on starting your own program. There have also been articles written about a number of the conferences and published various issues of the MAA Focus (See, for example, [2], [3], and [4].). A review of these experience should excite you with the possibilities.



The map gives an indication of the locations in the country that have held conferences and received grants from our program since its inception. As you can see, most regions east of the Mississippi river have had a sponsored conference within

reasonable driving distance. However, we have been less successful in promoting our program in the Western part of the country.

We are hoping to expand the number of conferences for the final two years of the extended grant in order to meet our goal of giving every undergraduate an opportunity to attend and present a mathematical talk at a regional conference. If you are in an area that does not have a history of this type of activity, we encourage you to take the initiative and organize a conference. Those who have done so will tell you that it is not only personally rewarding, but makes a very positive impression on their administrators with regard to their interest in undergraduate students and in promoting the institution. This is something administrators can tell trustees and alumni about the mathematics department that can be appreciated by those not in the discipline. Be prepared, however, to have a possible professional life-changing experience. You may find that your students are much better and more interested in mathematics than you thought they were.

The review deadline for conference proposals for the academic year 2007–2008 is 1 May 2007. Proposals will be considered later than this date if funds are available, and a second call for proposals for conferences being held in the Spring of 2008 will go out later in the summer. The proposal process is quite simple; we need to know how you are planning to attract students to give and listen to talks with mathematical content. Let me emphasize that these are not expected to be original research talks. Talks on standard subject matter are not generally appropriate, but many of the most well-received talks by undergraduates often involved relatively elementary mathematics involving some mathematical topic that the student did outside the classroom. The student speakers need not be mathematics majors, but all the talks should be accessible and interesting to an undergraduate mathematics audience.

When preparing a proposal, keep in mind that our objective is to provide an opportunity for undergraduate students to give talks with mathematical content. Our program is not designed to support faculty presentations, although these could be a portion of the conference program. If you have questions about anything regarding our program, please contact me. I can provide sample proposals from conferences that were awarded grants, programs from conferences that have been successful, and contact sources that can give you alternative perspectives about this exciting program.

Bibliography

1. Faires, Doug, *The MAA-NSF Undergraduate Student Conferences Program*, MAA Focus, January 2005, pages 18-19.
2. Jones, Julie C. and Jacqueline A. Jensen, *Starting an Undergraduate Research Program*, MAA Focus, November 2003, pages 6-7.
3. Soto-Johnson, Hortensia and Mike Brilleslyper, *First Annual Pikes Peak Regional Undergraduate Mathematics Research Conference*, MAA Focus, August/September 2004, page 25.
4. Spalsbury, Angela *The Youngstown State University Undergraduate Mathematics Conference*, MAA Focus, January 2005, page 12.

DEPARTMENT OF MATHEMATICS YOUNGSTOWN STATE UNIVERSITY, YOUNGSTOWN, OH 44555
E-mail address: fares@math.ysu.edu