

# **The Hydrographic Society of America Student Outreach Program: Reaching Across Borders**

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## **SUMMARY**

The Hydrographic Society of America (THSOA) Student Outreach Program began as an idea ten years ago. The goal of the program was to provide university students with an opportunity to learn about the field of hydrography and the possibilities for further education and employment.

The first program consisted of three students, who attended the US Hydro Conference in Biloxi, Mississippi in 2003. Since that time, the program has developed and grown substantially, as a result of participant feedback and support from THSOA and the hydrographic community. At the most recent US Hydro Conference in Tampa, Florida, twenty-five students from sixteen different colleges and universities participated in the program. Not only was it the largest program to date, but it was also unique because two Canadian students were selected to take part in the program.

The Student Outreach Program includes activities such as an “Intro to Hydro” day, a mentor program, and a special student luncheon. The students also participate in workshops and on-the-water demonstrations. They attend presentations and social events, and use their networking skills to search for jobs and internship opportunities.

Overall, sixty-four students have participated in the THSOA Student Outreach Program. This paper presents the growth and development of the program, feedback from the students who have participated, a discussion of the “results” of THSOA’s outreach effort and a look toward the future of the outreach program.

**Key words:** Outreach, Students

## **1. Program History**

The Student Outreach Program began in 2003 with three students attending the US Hydrographic conference in Biloxi (DaSilva Lage 2004).

Participating students have come from twenty-seven different colleges and universities (see Figure 1) with a wide variety of majors (see Figure 2). While the majority of the students were male, one-third of them were female. The number of participants has increased by 830% since inception (see Figure 3).

## Participating Universities - 27

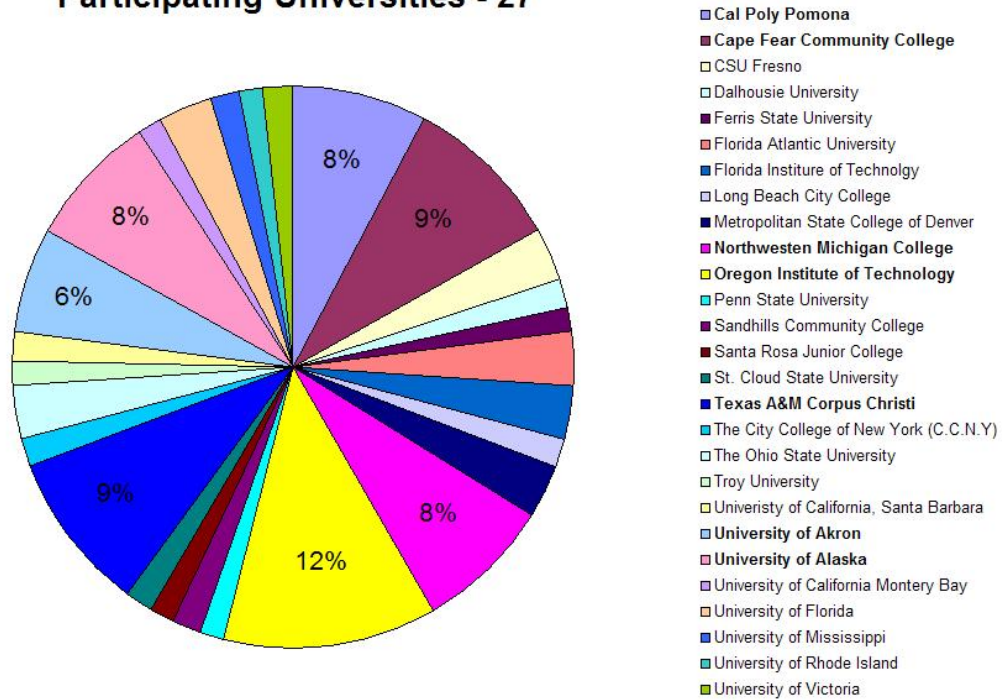


Figure 1. Students from 27 different colleges and universities have participated in the program.

## Student Majors -17

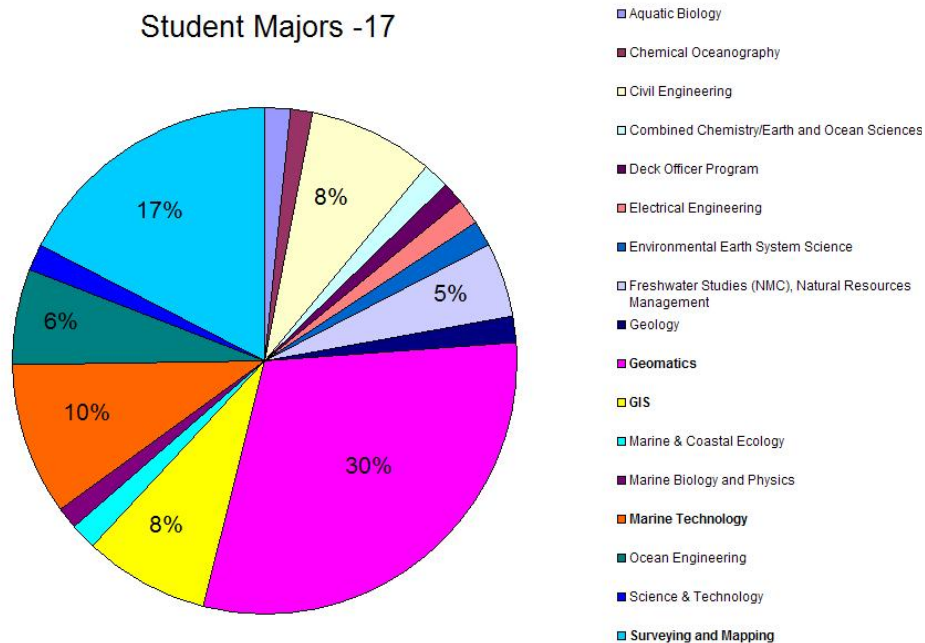


Figure 2. The majority of the students who have participated in the outreach program were Geomatics or Surveying and Mapping majors.

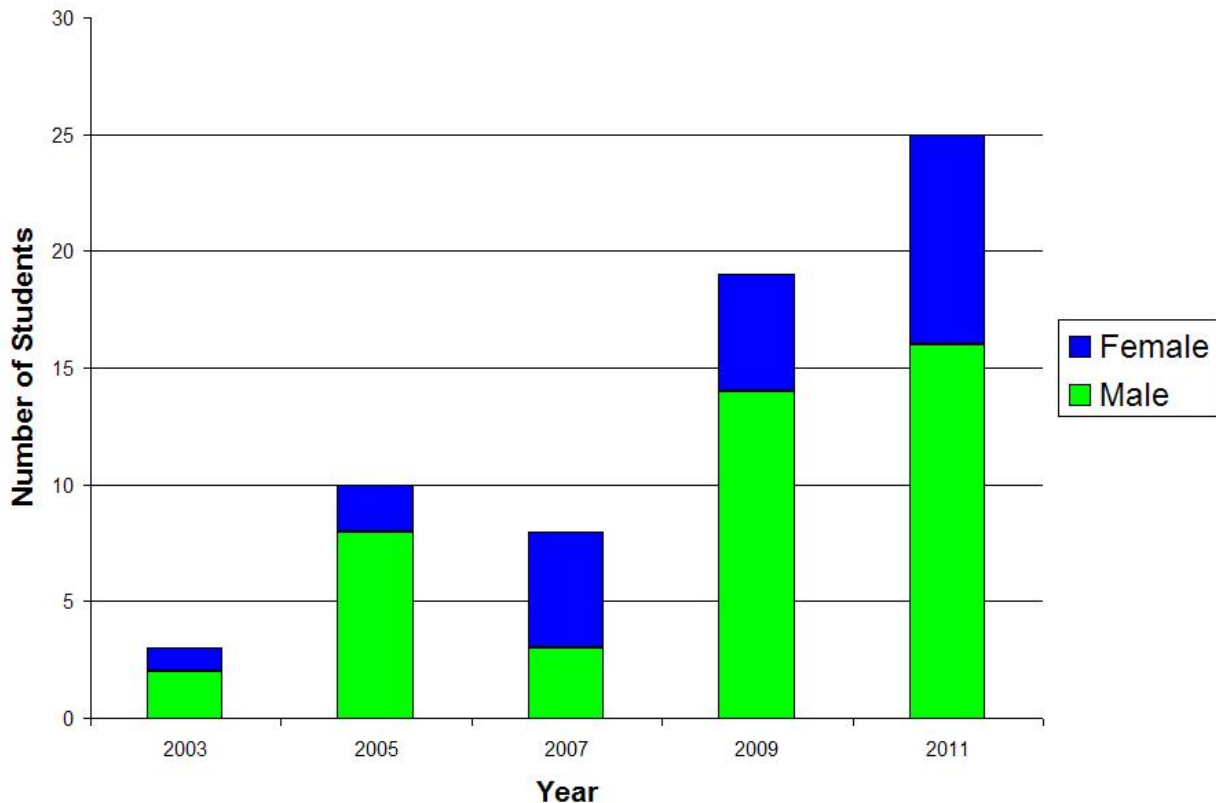


Figure 3. The number of students has increased dramatically.

## 2. Reaching Out

### 2.1 Recruiting students

Prior to the first outreach program, a list of universities with Geomatics programs was created and letters were mailed to department chairs to recruit participants. The students were then required to email an application form back. Recruitment was conducted this way for the first three programs, and the applicant pool was not very large.

Starting with the 2009 program, the letters were mailed out, but instead of emailing the application, an online application form was available on the THSOA web site. In addition, the notice was posted in the Marine Technology Society (MTS) e-news letter. For the first time, there were more applicants than available spaces for the students, so the program grew to 19, but some students were not able to attend. In 2011, the letters were emailed to the professors, and the MTS not only posted a notice in the e-news letter, but also sent out the information to the student chapters, reaching many students who would not have had access to the program otherwise.

## 2.2 Securing Funding for the Program

The student outreach program would not be as successful without the generosity of THSOA Corporate Members that donate money and airline tickets to support transportation and lodging for the students. The University of New Hampshire and University of Southern Mississippi sponsored the students for the luncheon for the first years, but with the increase in participation, THSOA now covers their costs, in addition to providing full registration, and beginning in 2011, a small stipend for food.

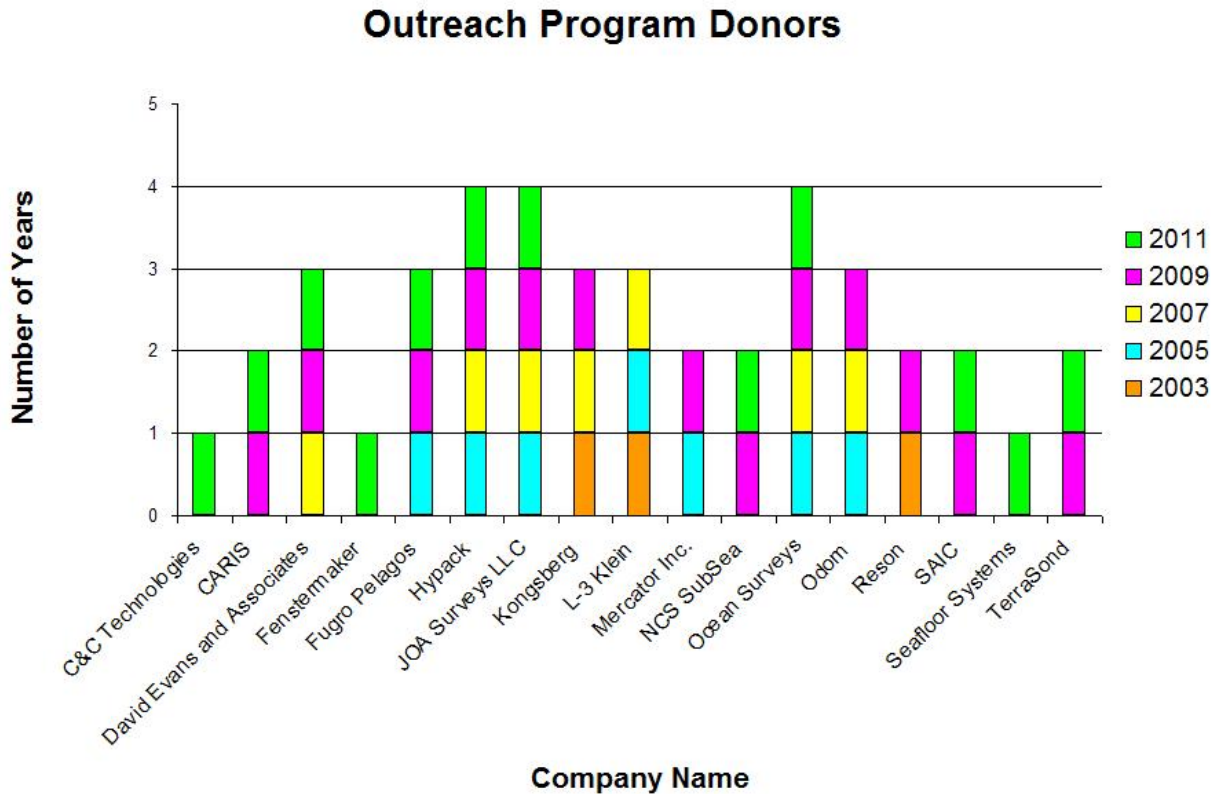


Figure 4. Donors to the Student Outreach Program

## 3. Program Development

In 2003, the students participated in the conference by attending workshops, on-the-water demonstrations (See Figure 5), and a student luncheon where they were introduced to the opportunities for graduate level education in hydrography at the University of New Hampshire and University of Southern Mississippi, and government employment with NOAA, the Naval Oceanographic Office, and US Army Corps of Engineers.



Figure 5. Heath Harwood and Mark O'Neal on a survey vessel during a demo in 2003.

In 2005 and 2007, the program added a mentorship program, to provide a friendly face in the crowd for the students. In addition, corporate donors were invited to send a representative to the student luncheon to share their experience in the field with the students (see Figure 6).



Figure 6. Outreach students, corporate donors, USM students, professors, and government representatives enjoy the Student Luncheon in 2007.



Using suggestions from previous participants, in 2009, the program developed even more. Prior to arrival, the students received a document with important information and logistics for their time at the conference. They arrived on Sunday and we met for an informal dinner and meet and greet. On Monday morning, there was an “Intro to Hydro” workshop, led by Jerry Mills (NOAA) and Stephen Farrell (USACE) that provided the students with a basic introduction to hydrography and associated equipment. In the afternoon, Holly Jablonski coordinated some on-the-water demonstrations with the Bay Hydro II (see Figure 7) and a NOAA group led by Gene Parker provided information on data processing and cartography. The pre-icebreaker meet-up with mentors continued in 2009, as did the Student Luncheon. A wrap-up dinner was held on the final night to obtain feedback from the students and allow them to spend one last evening together. In addition, an online survey was sent out to all of the students to evaluate the program.



Figure 7. Students onboard the Bay Hydro II with LCDR Holly Jablonski in 2009

The “Intro to Hydro” workshop was such a success it was continued in 2011. Jerry Mills and Mark Huber (USACE) provided the morning session (see Figure 8). Holly Jablonski coordinated

with NOAA, the Naval Oceanographic Office, and USACE to provide on-the-water demonstrations in the afternoon, and NOAA representatives also provided a session on data processing and cartography. The mentorship program changed a little, the mentors provided information about themselves, and they were sent information about the students. For the first time, there were enough mentors for all of the students; unfortunately not all the mentors had a lot of time with the students.



Figure 8. Students attending the morning “Intro to Hydro” session in 2011

Another new aspect to the 2011 program was the acceptance of two Canadian students into the program. This provided a new and interesting cross-cultural interchange between the students (see Figure 9).





Figure 9. Canadian students Camille Pagniello and Rowan Fox with Jon Dasler (David Evans & Associates Outreach Program Donor)

#### 4. Program “Results”

The goal of the outreach program is to introduce students to the field of hydrography and provide enough information to interest them in pursuing the field as a career choice.

When they arrived, seventy-eight percent of the students who attended the conference either had no idea that the field of hydrography existed or had heard of it, but had no idea what a hydrographer does for a living. Forty to fifty percent of the students did not know a thing about the equipment that is used during a hydrographic survey.

During the conference, the students participated in many activities, most enjoyed the on-the-water demonstrations because they were able to see the equipment at work. Many of the students also participated in the various workshops to gain additional knowledge. All of the students



spoke with the vendors and hydrographers during social events and at their leisure. A few of the students even attended technical sessions.

After the conference, the students' knowledge of the field was much greater. More than ninety-five percent of the students stated that the experience encouraged them to pursue a career in hydrography. Ninety-five percent reported that the conference provided them with opportunities such as employment and other contacts.

In addition to asking the students about what they have learned during the conference, another way to measure the effectiveness of the program is to track the students and see if they are employed within the field. While it is very difficult to keep in touch with all of the students, I sent out an email query and received 32 responses. It seems that many of the students have been inspired to keep with or move into the field of hydrography (see Figure 10).

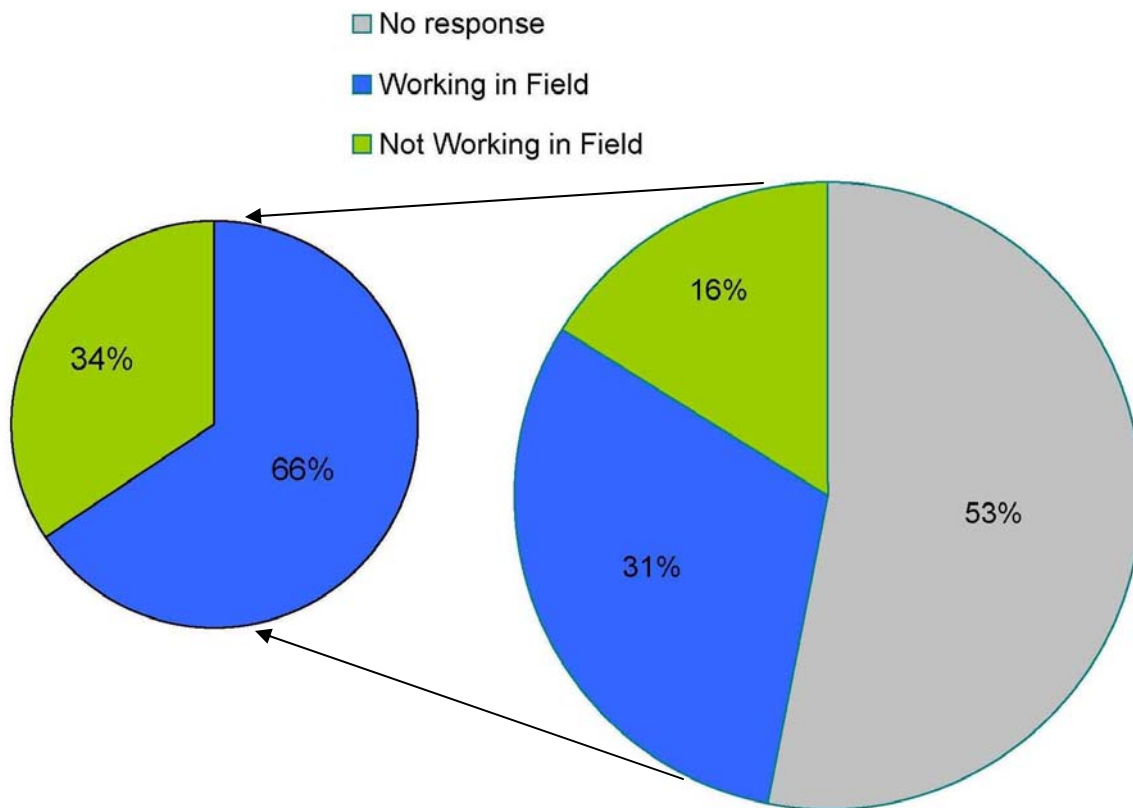


Figure 10. The chart on the right illustrates that 53% of the students did not send a response back to the query about their employment status. The chart on the left was created using the data from the students who did respond to the query of their employment status.

## **5. Hydrographers of the Future**

As the seasoned hydrographers begin to retire, the field will need the enthusiasm of youth to carry it forward. The onus is upon us to share our experiences and knowledge with the students so they may create the charts and the maps of the future.

THSOA has supported the Student Outreach Program, which has been developing and growing every year since its inception. It plans to continue the program at US Hydro 2013 in New Orleans. For the next program, the goals are to improve the mentorship program, reach out and have more electrical engineers participate in the program, and continue to encourage students to enter the field of hydrography. In addition to the Outreach Program, THSOA currently has regional and national scholarship programs and thoughts about developing an internship program.

Taking the step to bring two Canadian students to the US Hydro conference in Tampa broadened the cultural aspect of the group. Continuing to bring one or two Canadian students to the US Hydro meeting would likely benefit all students involved and would mirror the ongoing relationship between US and Canadian hydrographers. The hope would be that in the future, when there is an established student outreach program in Canada, there would be a reciprocal outreach to American students.

## **REFERENCES**

DaSilva Lage, J, 2004, In Search of Future Hydrographers: The Hydrographic Society of America Student Outreach Program, Proceedings of the Canadian Hydrographic Conference 2004, Ottawa

## **ACKNOWLEDGEMENTS**

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## **BIOGRAPHICAL NOTES**

Jana DaSilva Lage has a Bachelor's degree in Geology from the University of Rhode Island and a Master's degree in Geology/Geophysics from Rice University. She is a member of the Hydrographic Society of America and has been actively involved in their student outreach program since she began it in 2003.

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