

Ocean Sciences Educators Retreat Minutes – 10/21/2010

Despite many regional, local, and national efforts, representation of minorities in the ocean sciences is still very low. The goal of this meeting was to develop some action items and materials that can help the oceanographic community recruit minorities and explain what oceanography is all about.

1. 2010 Survey Results – Russ McDuff, University of Washington

Russ presented the 2009-2010 academic year survey results from surveys that were sent to Ocean Leadership member institutions. There were some new challenges this year in that the surveys covered three years of academic data and were sent in electronic format for the first time, which resulted in a low return rate.

To lead off the underrepresented discussion, Russ showed that Oceanography is a predominantly white field. Between 2006 and 2010, when there were gains in female participation, the percentage of white students increased. The OSER data is consistent with the NSF data in the field of oceanography. However, if you compare the field to Physics, you can see that oceanography is very bad at attracting Asian Americans. Russ would have liked to the data to show the progress the oceanography community is making in recruiting and retaining minorities, but unfortunately the data did not show this. The oceanographic community truly needs to work together to fix this problem.

2. Communicating to Different Generations – Mel Briscoe, Consortium for Ocean Leadership

If the oceanographic community is going to develop recruitment tools and materials to target underrepresented students, they also need to remember that the majority of students entering oceanography programs are young – of the Millennial Generation.

There are different ways to best communicate to the four different generations: Traditionalists, Baby Boomers, Generation Xers, and Millennials.

3. Attitudes of minorities in relation to STEM careers and majors – Cindy Martinez, AGI

An increasing number of minority students are entering into universities, but they are not reaching oceanography or marine science departments. The oceanography community really needs to be concerned about the minority representation because by 2050 45% of the U.S. population will be diverse and they will need to become the new ocean scientists, technicians, and scientists in general. They will become a huge part of the workforce and recruitment and training needs to start now.

Some attitudes of minorities that Cindy discussed are: They are very tied to their families, they will not travel far to go to school, they want solid career paths, and their parents are strong influencers in their college choice. We need to keep parents and the ideas they have about oceanography in our mind as well when making recruiting materials. Hard hats, dirty clothes and ships can come across as a blue collar job in many households, unlike the image of a clean cut doctor. We really need to be thinking about what are the draws of oceanography (Money, saving the planet, being outside, having fun). We need to work together to redefine our goals and messages within oceanography

4. HBCU/MI activities and opportunities – Bob Shepard, Science and Engineering Alliance (SEA)

Bob discussed activities that SEA has been involved in that relate to building relationships and targeting alliances between science and engineering programs and HBCUs students. As a result, in SEA's experience, roughly 40% of their recruited students have gone onto grad school.

What followed was a discussion about how to recruit AND retain minority students into oceanography programs. John Farrington offered the idea that although many HBCUs do not have marine science majors, most have environmental clubs or a few relevant courses and that these are the students the oceanography community should reach out to. Jim Yoder and others offered concurring comments.

5. Strengthening Undergraduate Programs – David Conover, NSF

David stressed that one of the most important ways to increase the pipeline of students entering graduate programs is to strengthen our undergraduate programs. Not having enough undergraduate marine science programs is limiting the pool from which graduate schools can pull students from. As Division Director of OCE at NSF, David pledged to work to improve this, as he sees it as a major challenge in growing oceanography graduate programs.

He also reminded everyone that there is an Opportunities for Enhancing Diversity in the Geosciences (OEDG) funding opportunity that closes on November 10th.

6. How to work with the COSEE Network – Gail Scowcroft

COSEE has over eight years of infrastructure in place to help coordinate efforts to increase diversity in the ocean sciences. They have a lot of experience scattered across the country in various offices and programs, and would welcome the opportunity to work together to do a better job of broadening participation. Gail also shared some lessons learned from the programs they already have in place:

- Minority students do not like to leave home for school, so we need to maximize the oceanographic institutions that are in those areas with high minority populations and expose the programs at those schools
- Family and friend interactions are a big part of the college experience for underrepresented students. We need to continually have in mind what institutions are offering to families too.
- Students need to see clear career paths and opportunities

7. Working Groups Developed – Working groups were developed as a result of the conversations that occurred throughout the day regarding recruitment of underrepresented students into the ocean sciences.

1. How Science is Taught - This working group will be formulating a white paper to discuss how science is taught in the United States. There are some people that disagree with separating out subject areas rather than integrating them into one interdisciplinary program. This group will also touch base on how Earth Science and Environmental Science are taught in high school. The white paper (or

potentially a Op-Ed piece will be used by Consortium for Ocean Leadership in education discussions with others around Washington working on this subject.

Members: Mel Briscoe – Ocean Leadership

Marlene Kaplan - NOAA

Brian Taylor - UHawaii (lead)

Michelle Hall- NSF

2. Promoting Ocean Sciences - This working group will have two main projects. The first will be to develop some sort of generic oceanography recruitment materials and use these materials to travel to “unconventional” conferences such as regional conferences that target minorities in some way, rather than large oceanographic conferences. They will be tasked with designing materials, identifying conferences to attend, and organizing booth attendance. Secondly, they will work to organize a workshop in which federal government employees, HBCU professionals and others can attend to begin to build partnerships and networks of teachers, professors and students.

Members: Brandon Jones, EPA

Jim Yoder, WHOI (lead)

Gail Scowcroft – COSEE, URI

Clarice Yentsch – ORRAP

Mike Abazinge – FAMU

John Farrington – UMass-D

Bob Shepard - SEA

3. Formulating Partnerships – This working group is tasked with exploring methods and ways to bridge partnerships between HBCU/MIs with Majority Serving Research Institutions.

Members: Clarice Yentsch – NSU, ORRAP (lead)

Lynne Murdock – NPS

Matt Gilligan – SSU

Bob Shepard – SEA

4. Inventory of Family-related programs – An action item to the entire OSER attendance to explore and inventory what is being done to engage families in the oceanographic community. Many minority students are extremely tied to their families and also respect their family’s opinions of their career choice. We need to engage the families enough to support and encourage their child’s decision to enter the ocean sciences.

Members: Everyone is reporting back to Allison!

8. *Miscellaneous Discussion*

Ocean Leadership put on the table having an OSER 2011 meeting so that the meeting would precede the biannual Ocean Sciences meeting. This way the survey data or discussions at the OSER meeting could yield a presentation or poster at the Ocean Sciences meeting. It was also discussed moving OSER to be every year, but there was not

a lot of interest in doing so. Mel encouraged participants to think about this and it would be revisited later.

Ocean Leadership is working on organizing a workshop prior to the Ocean Sciences Meeting in 2012 that would cover various topics that early careerists may not have learned in graduate school – how to communicate to the public, write grant proposals, network, etc. It would be a two day workshop before the meeting started and the second day would include a “train the trainer” session so that we can disperse training materials to senior folks that want to provide this training at their own school.

Meeting Attendees

Clarice Yentsch	Nova Southeastern University
Cindy Martinez	AGI
Brad Gaffey	University of Delaware
Joan Willey	UNC-Wilmington
Marlene Kaplan	NOAA
Lynn Murdock	National Park Service
Brian Taylor	University of Hawaii
Hans Vogel song	East Carolina University
Gail Scowcroft	University of Rhode Island/COSEE
Audrey Toplin	NOAA
Barbara Wallace	BOEMRE
Mike Abazinge	Florida A&M University
Steve Lohrenz	University of Southern Mississippi
Meg Tivey	WHOI
Michelle Hall	NSF
Mark Abbott	Oregon State University
Russ McDuff	University of Washington
Doug Bartlett	Scripps
Matt Gilligan	Savannah State University
Bob Shepard	Science and Engineering Alliance
John Farrington	University of Massachusetts-Dartmouth
Jim Yoder	WHOI
Lisa Rom	NSF
Joan Cleveland	ONR
Brandon Jones	EPA
David Conover	NSF