

Middle School Girls Explore Careers in Geography

April 21, 2006

Lefrak Hall, UM College Park



Ronald Luna welcomes the group to the department

As part of the university's series of Cool Careers in Cybersecurity Workshops, the Department of Geography hosted a visit by 33 girls from area middle schools on April 21, 2006. These workshops will provide information and skills necessary to navigate the professional pipeline in the vast fields of Cybersecurity and Information Assurance as well as other science, technology, engineering, and mathematics (STEM) fields. The workshop provided participants with a full day of speakers, hands-on activities and campus site visits.

Despite the gains of the last twenty years in the representation of women in STEM fields, their numbers still lag behind their male counterparts. Researchers have found that until third grade an equal number of boys and girls show interest and feel confident in learning science and technology. However, these numbers continuously decrease for girls throughout middle school and into high school. Various explanations for the significant decrease in girls' interest in science and technology through their school years have been posed. Cool Careers in Cybersecurity Workshops sponsored by Educational Technology Outreach within the College of Education draws on research that indicates recruiting and

retaining girls to the science and technology fields should include targeted programs to educate women and minorities about STEM career choices. Many women and minorities have had limited exposure to computing in grade school and high school, especially if they come from lower-income households and communities. A new National Research Council report indicates that general Information and Technology Fluency skills and concepts will also be needed by all citizens if they are to be competitive in the modern world. Curricula should provide early exposure to real-world examples of the content of interest connected to careers. Enrichment programs should emphasize team projects and diverse real-world examples of technology applied in content areas. Curricular material that addresses major societal and/or environmental problems has been shown to attract women to the discipline. Mentoring and role models in the career choices has also shown success in recruitment and retention.

Girls are recruited through the campus Talent Search Program. Funded by the U.S. Department of Education, Talent Search is designed to provide students with early college awareness and post secondary opportunities to all students in the program. This is done through a variety of activities and workshops that encourage students to pursue an academically rigorous course selection. Students participate in a wide variety of college tours, and leadership activities to strengthen their motivation and persistence in school, as well as engage in leisure services so that they can become well-rounded students. The program targets youth in families in which neither parent graduated from college. Female middle school members of the Educational Talent Search are individuals who have maintained a 3.3 or above, have held a consistent "B" average in math and science, and have good citizenship as described by their teachers and counselors. Students stay with their middle school "UMCP counselor" for 2 years and then move to a "UMCP high school counselor" for their high school career.

The visit to the Department of Geography was hosted by Ronald Luna, undergraduate advisor, who spoke to the group about the requirements of a college education in general and the requirements of a geography degree in particular. The group then toured the labs where student researcher Tatiana Loboda talked about her research with the Amur tigers in Siberia and Research Associate Dr. Hongliang Fang presented research done on the Chesapeake Bay.



Dr. Fang explains the research being done on the Chesapeake Bay

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