NCAR’s Undergraduate Leadership Workshop

The annual Undergraduate Leadership Workshop (ULW) at the National Center for Atmospheric Research (NCAR) connects about twenty undergraduates from around the nation with research scientists, engineers, educators, and leadership at NCAR in Boulder every year. This immersion experience was initially intended to provide students with exposure to careers in the atmospheric sciences and to encourage them to pursue graduate school. This program fulfills the recommendation in a 2014 report to the Directorate for Education and Human Resources at the National Science Foundation to provide student opportunities to build knowledge and capacity for workforce development in STEM fields.

This five-day gives college students a chance to explore careers in the atmospheric sciences and develop their leadership potential. Scientific areas of focus include weather, climate modeling, solar dynamics, and societal impacts of severe weather and climate change.

Mentoring, Developing Career Skills, and Leadership Training

Participating students learn about:

- What does informal leadership look like
- How do leaders use values to guide their choices and actions
- Communicating professionally
- Résumé-writing and mock interviewing
- Talking with mentors about life in the atmospheric sciences
- Interacting with career panelists from the private sector and academia
- Working with peers on activities and projects to develop teamwork skills

Alumni Survey and Focus Groups

A long term evaluation of the program, which is now in its 14th year, is yielding insights into the aspects of the program that ULW alumni have found to be most valuable. The evaluation has utilized focus groups, surveys, and interviews to assess the impact the program has had, both short term and long term over the course of the students’ educational and professional careers. We sent out an online survey to 117 ULW alumni in November of 2015, and had 71 responses to rating (Likert) scaled questions and written comments. At the 2015 AMS conference, we held three focus groups of ULW alumni including 35 people in total.

Impacts of the ULW on Alumni

ULW Alumni were asked to rate their agreement with the following statements.

“The ULW . . . ”

Provided valuable insight or guidance on graduate school
Supported me in developing a professional network
Provided an experience that helped to prepare me professionally
Increased my confidence in my ability to pursue my career
Helped me develop long-term connections with peers
Introduced me to new career opportunities
Immersed me in the science culture at NCAR
Provided an experience that helped to prepare me professionally
Exposed me to labs and facilities in the atmospheric sciences
Provided valuable insight or guidance on graduate school

The main themes that are emerging are an appreciation for having been introduced to a whole new suite of careers in science, and for the close peer group that provides long-term support. Results suggest that the overall value of short but intense programs with opportunities for exposure to careers, professional development, mentoring, and peer-relationship-building have a significant positive impact without the effort or cost of a full-fledged internship.

Nominating a Student to the NCAR ULW

To attend the ULW, a student needs to:

- Be nominated by a faculty member in a department that is a UCAR member university or college (one nomination per school)
- Be a junior at the time of application (generally)
- Deadline is March 14th

Visit the ULW Website at: https://scied.ucar.edu/undergraduate-leadership-workshop

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