

Einstein Fellowship

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Abstract

In 2010, the Albert Einstein Distinguished Educator Fellowship program celebrated 20 years of bringing K-12 classroom teachers of science, technology, engineering, and math (STEM) to Washington, DC to serve in federal agencies and on Capitol Hill. The intent is for Fellows to bring their education practice to help inform education policy. From September 2010 through July 2011 I served as an Einstein Fellow at the National Science Foundation. My specific position was in the Directorate of Education and Human Resources, Division of Research and Learning in Formal and Informal Settings, Lifelong Learning Cluster. The Lifelong Learning Cluster focuses on areas of informal education; this is an area we now identify as serving as strong a learning purpose as does formal education.

The National Science Foundation (NSF) is a grant-awarding agency, but research from these grants has resulted in major changes in our society. Currently, grants for education are focusing on STEM education in a myriad of aspects, from instructional technologies, robotics, reaching underserved groups, identifying exemplary STEM schools and programs, creating after-school programs, creation of films, new websites, and more.

In the course of my time with NSF, I surveyed teacher groups and reported to the Cluster on the impacts of informal education resources on their students and classroom practice. Results and implications of one survey were published in the *Technology and Engineering Teacher*, the professional journal of the International Technology and Engineering Educators Association (ITEEA) in April 2011. These surveys helped the Cluster Program Officers understand the usefulness of specific informal education resources and teacher accessibility to these resources.

Another aspect of my position at NSF was aiding the Presidential Award for Excellence in Science and Mathematics Teaching (PAEMST) program, a program to recognize outstanding K-12 science and math teachers. This program is under the auspices of The White House, but is administered by NSF. Applications for the PAEMST awards are accepted by each state; the top applications are sent to NSF and reviewed by experts who then recommend the top winners for science and math in each state to The White House. These awardees are brought to DC for an award ceremony, professional development, an opportunity to speak with education leaders in DC, and to meet the President. Members of the PAEMST team included four Einstein Fellows (myself included), and two NSF Program Officers. My duties involved leading sessions, preparation of printed materials, introducing dignitaries, and participation in the Awards Ceremony. Two such recognitions were held during my tenure, each lasting four days. I accompanied one of the groups to their Presidential photo and was able to see President Obama in person!

Each Einstein Fellow's experiences vary according to their agency placement, assigned duties, and their personal goals for their fellowship experience. One hopes to make a lasting impression, contributing to something that will be valuable after they have left the position. My contribution to

the Directorate for Education and Human Resources was the research and compilation of the education and outreach resources, director contact information, and additional information for each of NSF's 101 Research Centers. These Research Centers, supported through NSF grants, are situated throughout the United States and represent most of the Directorates at NSF. There had never been one document which placed all 101 of those easily at hand. I also worked with the Large Facilities group at NSF and did a similar document for their 18 facilities, located internationally. These documents will allow NSF Directorates to share the information with those divisions and clusters which may be able to help meet the needs of those institutions.

One exceptional aspect of the Einstein Fellowship is the number of opportunities Fellows have for professional development. We toured NBC, USA Today, the American Institute of Physics, the National Institute of Health, the CIA, the Library of Congress, the Patent and Trademark Office, the National Academies, and the PBS NewsHour studio. We attended numerous forums, House and Senate sessions, and workshops on education. We attended conferences and conventions. Several of us were able to address the President's Council of Advisors on Science and Technology (PCAST). I spoke to PCAST about their need to use the "correct" definition of the T in STEM...technology (their September 2010 report had identified the T as computer science; as I pointed out to them, it was not even a T descriptor!). We participated on panels at the Wilson Center for International Studies. I participated on a panel addressing the scalability of education programs. It would take me another page just to describe the other opportunities I, alone, experienced this year. These unique experiences are some which make the Einstein Fellowship an outstanding opportunity for STEM teachers.

The Einstein Fellowship is open to K-12 STEM teachers with a minimum of five years of continuous teaching experience in their STEM field. ASTE members can help by identifying outstanding candidates who meet the criteria and encouraging them to apply. The fellowship is an exceptional opportunity to be recognized for teaching expertise and to make an impact in the education policy arena.

Details on the Albert Einstein Distinguished Educator Fellowship are available at: <http://www.triangle-coalition.org>.

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