



Summary Report
2015-2016 Fellowship Year

Prepared by the U.S. Department of Energy, Office of Science
Office of Workforce Development for Teachers and Scientists

Program Overview

The Albert Einstein Distinguished Educator Fellowship (AEF) Program provides a unique opportunity for accomplished K-12 educators in the fields of science, technology, engineering, and mathematics (STEM) to serve in the national education arena. Fellows spend eleven months, beginning in September of each year, working in Federal agencies or in U.S. Congressional offices, bringing their extensive knowledge and classroom experience to education program and/or education policy efforts.

The AEF Program operates under the Albert Einstein Distinguished Educator Fellowship Act of 1994 (Pub. L 103-382). The legislation states that the Department of Energy (DOE) administers the AEF Program including recruitment, application and selection, and overall management.

The AEF Program is designed to meet the following objectives identified in the legislation: 1) to provide outstanding elementary and secondary STEM education teachers the opportunity to bring to Congress and appropriate branches of the federal government the insights, extensive knowledge, and practical experience of classroom teachers; 2) to increase the understanding, communication, and cooperation between Congress and Federal agencies; and 3) to increase the understanding, communication and cooperation between the federal government and the STEM education community.

The Federal science agencies that host Fellows have as part of their goals to support STEM education to help ensure a future workforce is sufficiently prepared to contribute to the emerging science and technology fields. Fellows are placed in education offices where they provide insights during project conceptualization and assistance with established programs. The Congressional offices that host Fellows, sponsored by DOE, have either a strong STEM portfolio or want to increase their portfolios within their offices.

Overview of the 2015-2016 Participants, Federal Agencies, and Congressional Offices

Eleven educators were selected for the 2015-2016 Cohort of AEF Fellows:

Number of high school teachers: 9

Number of upper elementary and middle school teachers: 2

Number of states represented by the Fellows: 11

The Fellows were selected by the following Agencies and Congressional Offices:

U.S. Department of Energy: 2

National Aeronautics and Space Administration: 2

National Science Foundation: 3

Senator Al Franken, MN: 1*

Congressman Mark Takano, CA: 1*

Congressman John Sarbanes, MD: 1*

Congressman Mike Honda, CA: 1*

*DOE sponsored the four Congressional placements.

Program Scope

*Fellowship Support***

All Fellows receive a monthly stipend of \$7,000, which is paid by the sponsor offices. Additionally, Fellows can request to receive up to \$3,500 for travel and fees associated with their professional development during the Fellowship. All current benefits for are available on the program website: <http://science.energy.gov/wdts/einstein/>.

*Application***

The on-line application is located on the DOE website at: <http://science.energy.gov/wdts/einstein/>. Interested educators can access the application from mid-August through mid-November.

The application consists of three sections:

- Questions highlighting educational background, professional experience, professional activities, awards and publications;
- Five essay questions; and
- Three letters of recommendation, one being from a school district official.

The responses to the questions on the application are used to assess the eligibility of the application. While most of this information is fact-specific, it provides a way to make both a quick and qualitative evaluation when compared with the responses in the essays.

*Application Review and Selection***

The application review, selection, and placement process is communicated in detail and posted on the AEF web page: <http://science.energy.gov/wdts/einstein/how-to-apply/application-review-and-selection-process/>.

Positions Descriptions

Host offices interviewing selected candidates, the semi-finalists, must have, in advance of the interviews, one-page position descriptions that detail the work load requirements and planned responsibilities within the offices. The semi-finalists can then gauge their interests and capabilities in the positions and determine the best fit for their individual needs.

Contributions to the Host Offices

Fellows are regularly recognized for making significant contributions to their host offices. Most of this is managed and guided by position descriptions under the guidance of host office supervisors.

The Fellows in each cohort are usually a collaborative group and are encouraged to share ideas and work together to expand upon tasks and inevitably deliver projects beyond expectation. Position accomplishments are observed by program management during the four required “reports and presentations” due throughout the Fellowship.

Fellows’ Professional Development

Fellows are required to establish individual professional development plans designed around high-level goals that combine to advance the knowledge and skills of the Fellows. These plans help the Fellows identify goals and objectives and establish “actions” that will contribute to the achievement of the high-level goals.

The professional development resources available to Fellows from science agencies, STEM policy experts, advocacy organizations, and other STEM education stakeholders may not exist at this level at any other time in their career. The establishment of a plan with milestones will help ensure a valuable experience both within and outside their host offices and into the future.

Outcomes

Fellows complete the AEF Program with a portfolio of opportunities to share with colleagues and students. The portfolios include information on: undergraduate and graduate internships, scholarships, the national research infrastructure supported by the Federal government, how to compete for grants, the latest research on advancing STEM education, and opportunities that inspire students towards STEM careers.

The experiences gained are personally and professionally valuable, and subsequently shared with colleagues. By gaining a clearer understanding of educational issues at the national and local level, Fellows become recognized leaders for the ability to convey substantive information and influence the future of STEM education.

**Current descriptions as of May 2017

**Albert Einstein Distinguished Educator Fellowship Program
2015-2016 Fellows**

Einstein Fellow Name	Home State Grade Level(s)	Sponsor/ Host Office Accomplishments
Doug Baltz	Michigan High School Science	NSF, Education and Human Resources Directorate, Division of Undergraduate Education (DUE) Baltz conducted portfolio analyses of Noyce awards and the review process and developed a Noyce nonprofit partner survey for the awarded Principal Investigators. The research findings and analysis will help Principal Investigators/NSF better understand the symbiotic impact of incorporating non-profit affiliations. Baltz also helped organize/provide leadership for the 2016 Annual NSF Noyce Summit.
Joanna Hubbard	Alaska Middle School Science	DOE, Office of Science (sponsor) Representative Mike Honda (host office) Hubbard assisted Congressman Honda in developing support for and introducing two top priority bills, H.R. 4013, The Equity and Excellence in American Education Act which focuses on taking the first steps towards a more equitable school funding system, and H. J. Res. 97, Proposing an amendment to the constitution of the United States to make a quality education a civil right. Hubbard built support for Representative Honda's education bills. Hubbard organized the Equity in Funding American Education briefing in conjunction with, and at the request of, Ranking Member of Education and the Workforce Committee, Bobby Scott.
Cristal Jones-Harris	Georgia High School Science	NASA, Office of Education and the Goddard Space Flight Center Jones-Harris produced research reports, evaluation frameworks, and systemic design models for NASA senior leadership on effective organizational practices as an

		<p>alignment to Federal investment goals. Served as a Lead for the Interagency Working Group (IWG) Evaluating Professional Development subgroup to work with senior members at other federal agencies to develop an evaluation framework as a cross-agency collaboration effort. Jones-Harris provided evaluation technical support for NASA centers on developing evaluation practices to be in alignment with NASA OE Headquarters strategic plan goals. Jones-Harris developed NASA-unique climate science content using computer science curriculum for pre-service teachers to engage in problem-solving activities.</p>
Susan Kennedy	<p>North Carolina</p> <p>High School Technology</p>	<p>NASA, Aeronautics Research Mission Directorate</p> <p>Kennedy served on the Strategic Communication Team, the Aeronautics Campaign Team, and the Education Coordinating Council. As a member of the Education Coordinating Council, Kennedy helped develop education-related requirements for NASA’s Office of Education and the NASA centers across the country. Through Kennedy’s efforts in organizing events, conducting outreach, and developing curriculum, she exposed more than 400,000 people to NASA’s resources.</p>
Sally Mitchell	<p>New York</p> <p>High School Science</p>	<p>DOE, Office of Science</p> <p>Mitchell assisted in the coordination of the National Science Bowl and assisted with the Virginia and Washington, DC, regional competitions. At the National Competition, Mitchell developed an activity (Science Bowl Clue) for the middle school competition and implemented it during the tournament. Mitchell completed a project with the Idaho National Laboratory and the iSTEM program where she developed teaching materials for K-12 educators in materials science.</p>
Jessica Mulhern	New Jersey	DOE, Office of Science (sponsor)

	High School Science	<p>Congressman John Sarbanes (host office)</p> <p>Mulhern assisted the Education Legislative Assistant with the Congressman’s education portfolio including the Congressman’s legislation known as No Child Left Inside Act. Mulhern also worked on apprenticeship legislation, gathering information from the Maryland Department of Education and Department of Labor about their pilot youth apprenticeship programs. Mulhern wrote a Legislation Memo about apprenticeships for the Congressman that included a brief historical review of apprenticeship in the US, existing apprenticeship policy/data, lessons learned from local, state, and foreign apprenticeship policy, review of existing federal legislation and executive actions, and issues and opportunities for apprenticeship legislation in the 144th Congress and beyond. Mulhern drafted youth apprenticeship legislation just before the end of the Fellowship.</p>
Matthew Owens	<p>South Carolina</p> <p>High School Mathematics</p>	<p>NSF, Division of Human Resources and Development</p> <p>Owens worked with the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) Team, which involved close work with award state coordinators, applicants, NSF program officers, and the alumni community. Owens assisted in the design and development of the online presentations involving the PAEMST Applicants Webinar and State Coordinators’ Diversity Webinar. In addition, Owens created new partnerships for PAEMST with the National Board for Professional Teaching Standards (NBPTS), National Association of Black School Educators (NABSE), and the Parent Teacher Association (PTA).</p>
Teresa Sappington	Mississippi	<p>DOE, Office of Science (sponsor)</p> <p>Congressman Mark Takano (host office)</p>

	High School Engineering	Sappington served as the Maker Caucus Fellow for the House of Representatives, responsible for planning and executing panels/events that inform Members, staffers and the public about current and relevant topics in the Maker Movement. Sappington organized, and was responsible for, the Capitol Hill Maker Faire, which consisted of six panels during the day and a Maker Faire exhibition in the evening.
Michael Stone	Tennessee High School Science	NSF, Computer Information Science and Engineering Directorate Stone contributed to the NSF as a member of the Education and Workforce (EWF) team in the Computer and Information Science and Engineering (CISE) directorate. Stone was empowered to thrive as a member of the team, contributing ideas and insights. As a participant to the White House Computer Science Education Week Coalition Meeting. Stone presented strategies to reduce the racial and gender gaps in computing, particularly in low-income communities.
Cristina Veresan	Hawaii Middle School Science	DOE, Office of Science (sponsor) Senator Al Franken (host office) Veresan supported Senator Franken’s K-12 and postsecondary education priorities by conducting legislative research, meeting with national education stakeholder groups, participating in meetings/hearings, and working on a variety of writing tasks including drafting remarks and memos. Veresan was charged with re-introducing three of Senator Franken’s college affordability bills—from pitching the idea to the Senator himself to physically dropping the bill in the Capitol’s Democratic cloakroom. Using feedback from key stakeholders, Veresan updated the text of all the bills with help from the Senate’s Legis Counsel and re-wrote the ‘one-pager’ bill summaries.
Donna Volkmann	Virginia	DOE, Office of Science

	High School Science	<p>Volkman’s Fellowship focused on participation in the preparation and execution for the National Science Bowl. Volkman also provided support to Brookhaven National Lab and NREL with their K-12 Outreach programs. Leading up to the Regional and National Science Bowl competitions, Volkman reviewed, edited and wrote hundreds of questions, from middle school to high school, ranging in topics from energy, biology, earth and space science, and life science. Volkman developed and organized the high school teacher workshop at the National Science Bowl, which was attended by approximately 60 teachers and focused on renewable energy and teacher resources for teaching renewable energy.</p>
--	---------------------	--