



Summary Report
2016-2017 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, now in its 26th year with 293 alumni, 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 2016-2017 Participants, Federal Agencies, and Congressional Offices

Thirteen educators were selected for the 2016-2017 Cohort of AEF Fellows:

Number of high school teachers: 7

Number of upper elementary and middle school teachers: 6

Number of states represented by the Fellows: 11

Number of Fellows who have been teaching more than 10 years: 9

Number of Fellows who were teaching at public schools when selected: 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: 5

Senator Brian Schatz, HI: 1*

Senator Michael Bennet, CO: 1*

Representative Mark DeSaulnier, CA: 1*

U.S. House Committee on Education and the Workforce: 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 \$3,000 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.

**Albert Einstein Distinguished Educator Fellowship Program
2016-2017 Fellows**

Einstein Fellow Name	Home State Subjects taught Grade(s) level	Sponsor/ Host Office Accomplishments
Nathan Auck	Utah Mathematics High School	<p>Department of Energy Office of Science (sponsor), Representative Mark DeSaulnier, California 11th District (host office)</p> <p>Auck co-wrote a report on the Congressman's findings from a two-year long, 18-stop education listening tour executed to hear the concerns of the education community in California's 11th District and established a legislative plan of action for the 115th Congress. He oversaw the introduction of multiple pieces of legislation designed to increase the buying power of Pell grants, minimize student loan debt, enlarge a national park, promote family engagement centers across the nation, and develop the first comprehensive system of supports for students with disabilities in Higher Education. He advised the Congressman on a variety of legislative issues including: education (K-12, Higher Ed and CTE), environment, energy, financial services, small business, animal welfare, science and technology. Auck drafted press releases, op-ed submissions, letters to the editor, and correspondence related to the Congressman's priorities.</p>
Aida Awad	Illinois Geoscience High School	<p>Department of Energy, Office of Science, Office of Science Workforce Development for Teachers and Scientists</p> <p>Awad's Fellowship focused on work in two main areas: preparing for, executing, and following up to the National Science Bowl; and developing a new series of K-12 STEM Teacher</p>

		Resources. Work for the National Science Bowl included: reviewing and developing questions for the regional and national competitions; developing and leading workshops for the middle and high school coaches during the event, including building websites for them to use in sharing the materials with their colleagues; serving as scorer for the middle school competition; organizing supplies and equipment for the Divisional Team Challenges, DTCs; and providing onsite support during the event. Work on K-12 STEM Teacher Resource Pages included: developing the framework for a new series of pages designed to support teachers in identifying connections between DOE Office of Science Featured Articles, Science Highlights and Science Headlines; creating a library of searchable resources for teachers, and developing a transition guide for the 2017-18 Fellow to use in continuing the work with new stories in the upcoming year.
Channa Comer	New York General Science Middle School	Department of Energy, Office of Science, Office of Workforce Development for Teachers and Scientists Comer provided technical assistance for the National Science Bowl, a DOE sponsored science competition. She utilized DOE laboratory resources to develop NGSS aligned curriculum materials for K-12 educators. Comer provided WDTS with current issues and trends in STEM by attending education related conferences, briefings, panels and lectures. She developed a comprehensive educator outreach proposal for DOE's Brookhaven National Laboratory to expand their presence in New York City.
Alexandra Fuentes	District of Columbia	Department of Energy, Office of Science (sponsor), Senator Michael

	Biology High School	Bennet, Colorado (host office) Fuentes supported Senator Bennet’s education portfolio in areas such as preK-12, higher education, and workforce education alignment. She met with constituents and stakeholders, conducted in-depth research and wrote memos on a range of topics related to major education legislation such as the Elementary and Secondary Education Act, the Higher Education Act, the Perkins Career and Technical Education Act, and the Workforce Innovation Opportunity Act.
Juan Gonzalez	Texas Mathematics High School	National Science Foundation (NSF), Directorate for Education and Human Resources (EHR), Division of Human Resource Development (HRD) Gonzalez worked with the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) team in the EHR directorate, which involved close work with award state coordinators, applicants, NSF program officers, and the alumni community. He assisted in the design and development of the online presentations involving the PAEMST Applicants Webinars, NSC reviewers training materials and State Coordinators’ Diversity Webinars. Gonzalez read NSC reviews for PAEMST awardees from 2014-16 and worked on projects involving text analytics and data for over 6000 PAEMST applicants.
Kayla Heimann	Ohio Mathematics and Science Middle School	National Science Foundation (NSF), Education and Human Resources Directorate (EHR), Office of Assistant Director (OAD) and Division of Undergraduate Education (DUE) Heimann provided leadership for the Federally Coordinated Science, Technology, Engineering, and Mathematics Education (FC-STEM) Interagency Working Group (IWG) Executive Team for PreK-12 on

		<p>Improving STEM Instruction. Additionally, she co-led the NSF EHR Abstract Review Committee and conducted a portfolio analysis of Noyce Track 3 awards on master teacher fellow selection and requirements. Heimann assisted in the organization and planning of the 2017 annual NSF Noyce Summit.</p>
Rebecca Himschoot	<p>Alaska Science and Math Elementary School</p>	<p>National Science Foundation (NSF), Directorate for Education and Human Resources (EHR), Division of Human Resource Development (HRD)</p> <p>Himschoot provided a teacher’s perspective in all aspects of the 2016-17 awards cycle to the Presidential Awards for Excellence in Mathematics and Science Teaching program, working with the alumni, state coordinators, applicants, NSF program officers and the program contractor. Along with providing updated materials for mentor and reviewer training, Himschoot participated in a wide-ranging review and update of program materials, and assisted in developing an updated alumni engagement plan. In addition, Himschoot created a one page, research-based quick reference guide to best practices for elementary science specialists for elementary principals considering adopting a specialist model.</p>
Doug Hodum	<p>Maine Biology High School</p>	<p>Department of Energy Office of Science (sponsor), Representative Mike Honda, California, and the House of Representatives Committee on Education and the Workforce (host offices)</p> <p>Hodum worked for two offices over the course of his term as an Einstein Fellow, starting with Congressman Honda and ending with the House Committee on Education and the Workforce (minority staff). His responsibilities varied from writing</p>

		<p>remarks for both Congressman Honda and also the Ranking Member Congressman Scott to preparing the member for meetings with constituents in the education community. In his position for both offices, Hodum researched school choice and reviewed ESSA plans for alignment for statewide initiatives.</p>
Jennifer Lane	<p>New Jersey</p> <p>Science and Engineering Design Process</p> <p>Middle School</p>	<p>National Aeronautics and Space Administration (NASA), Aeronautics Research Mission Directorate (ARMD)</p> <p>Lane served on the Strategic Communications team as the technical expert responsible for NASA ARMD K-12 educational activities. Completed tasks include upgrades to existing educational content as well as the creation of new products with a focus on literacy in STEM. She expanded her role utilizing social media as a professional development provider by promoting NASA educational materials and experiences as a useful tool in inquiry-based science education.</p>
Jennifer Mayo	<p>Oregon</p> <p>Science</p> <p>Middle School</p>	<p>National Aeronautics and Space Administration (NASA), Office of Education (OE) and the Goddard Space Flight Center</p> <p>Mayo co-facilitated the agency-wide Success Stories project. In this role she developed and facilitated webinars delivered to education teams at each of the 10 NASA centers and mentored teams as they wrote and produced a Success Story focused on OE STEM Engagement and Accountability Program project. At NASA Goddard, Mayo completed an extensive review of literature exploring systemic and sustainable Educator Professional Development resulting in a white paper providing guidance for NASA Goddard Education. At Goddard, Mayo collaborated with James Webb Space Telescope (JWST) personnel at Goddard</p>

		Space Flight Center and the Space Telescope Science Institute to create and deliver activities translating JWST's science to K-4 teachers at Space Center Houston's Space Exploration Educators Conference.
Wanda Padula	New York Physics High School	National Science Foundation (NSF), Computer Information Science and Engineering Directorate (CISE) Padula contributed to the NSF as a member of the CSforALL Interagency Working Group helping to plan activities for Computer Science Education Week. She was involved in planning the 2017 CISE Broadening Participation and Education Computing Meeting for 200 principle investigators whose projects are funded through NSF. The conference was organized in conjunction with the National Center for Women and Information Technology. In her role, Padula worked directly with the PI's and their research groups to help coordinate attendance and logistics for the conference as well as organizing reports, projects and research results for Principal Investigators.
Sharon Sikora	Hawaii Chemistry and Biotechnology High School	Department of Energy Office of Science (sponsor), Senator Brian Schatz, Hawaii (host office) Sikora served as a legislative fellow to inform education policy regarding the implementation of <i>Every Student Shall Succeed Act</i> and the reauthorization of the <i>Higher Education Act</i> . She extensively researched, analyzed, and evaluated tuition-free and debt-free college models, which involved creating economic algorithms and projections to evaluate feasibility of models.
Adam Smith	Oregon Math, Science and Language Arts	National Science Foundation (NSF), Directorate for Education and Human Resources (EHR), Division of Research on Learning in Formal and Informal Settings (DRL)

	Middle School	<p>Smith served as the educator representative with a select group of Program Directors in the ITEST (Innovative Technology Experiences for Students and Teachers) and DRK12 (Discovery Research in PreK-12) programs. Assisted with program analysis of these programs to help ensure innovative research in STEM education with a particular eye toward broadening participation among historically underrepresented populations. Smith helped coordinate a workshop on writing compelling proposals for NSF funding at the annual ASTE (Association for Science Teacher Education) conference. Smith curated a collection of NSF funded research with direct relevance to classroom educators.</p>
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