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Are you an AEF Alumni? We would love to hear from you!

Please email Einsteinfellows@orise.ora.gov and tell us what you're doing now to promote STEM education.

Check out these **FREE** resources from the Department of Energy's National Laboratories: <http://science.energy.gov/wdts/stem-resources/k-12-educators/>

Join Us:



Back to Class: The Transformation

By Guest Writer and Current AEF Fellow: Pascale Creek Pinner

Gretel von Barga is my hero! Gretel preceded me as the Albert Einstein Fellow (2017-2018) at the United States Department of Energy Office of Science (DOE SC) – Office of Workforce Development for Teachers and Scientists (WDTS). When I met her, I knew that her energy, like my own, was generated from her love of teaching and her classroom experiences. So, I was very curious to find out how her return home to Sammamish, Washington and her classroom unfolded.

Gretel shared the journey back to the “other” Washington, a five day cross country trip, with family and cats in tow, facilitated a mental transformation from the experience of being an AEF fellow to her new/old role of classroom teacher. Although sad to be leaving DC, she was also eager to return to her home, “where you know people and they know you”. She relates that as they drove, they repeatedly heard the same song and the lyrics resonated with her. “There’s nothing in the world that feels like the place that I know where they all know me. I’ve got to get back now to the ones who love me...” The importance of the sense of community she experiences in Sammamish is something identified as a key takeaway from the Fellowship.

Since I also plan to return to my classroom after the fellowship, I was curious about the transition Gretel experienced when she returned to hers. Returning to Skyline High School, a place she loves, with a job she loves, and a school that values her as a professional making a difference in students’ lives was truly a homecoming experience. She shared her excitement and tears of joy at being able to see her class list with “her people” before she even got home! Her first day was filled with the excitement, optimism and eagerness that both students and teachers feel as a new school year commences. Consistently blogging her experience as an AEF Fellow allowed her colleagues to share her AEF year as well. This helped start conversations on her return. While they asked about her experiences, they were generally just glad to have her back! Transitions aren’t easy and life is full of challenges and wonderful experiences.

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Computer Science For All



In her time as a 2017-2018 Albert Einstein Distinguished Educator Fellow, Kimberly Hermans, a High School computer science teacher in Irvine, California got a close up look at the need to broaden the nation’s computer science workforce. Expanding opportunities in computer science for underrepresented minorities and women is Hermans’ passion.

Noting that the workforce has a need for people who understand computer science, and that the top paying jobs are in the computer science field, Hermans is concerned with the growing inequities if underrepresented minorities continue to choose alternative electives.

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Alumni Update:

What's Going On In This Graph?

By Guest Writer and AEF Alumni Fellow, Sharon Hessney

Sharon Hessney, 2011-2012 Einstein Fellow in Senator Al Franken's office, was frequently asked "What do you teach?" When she answered, "High school statistics!" congressional staffers would share their frequent difficulties with statistics in their jobs and ask if she would teach them stats. Unwilling to forego her assign as an education policy advisor, she worked with the American Statistical Association (ASA) to offer a seminar series: *Stats For Staffers*. In the seminar, ASA members related the ways in which statistics are gathered, used, and interpreted for public policy.

So, when the ASA put out a call soliciting ideas for ways to use *The New York Times* in K-12 classrooms, Sharon proposed the feature, "[What's Going on in This Graph?](#)" (*WGOITGraph?*). Using the Times' graphs, the feature asks students "What do you notice?", "What do you wonder?", and "What is going on in this Graph?"



This graph appears at: [The New York Times](#)

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We welcome submissions regarding the AEF Fellowship. Send updates to: Einsteinfellows@orise.ora.gov. Subject Line-Newsletter

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Computer science illiteracy will guarantee underrepresented groups won't be qualified for the top paying jobs further perpetuating a larger social inequality problem.

Hermans served her fellowship at the National Science Foundation Directorate for Computer and Information Science and Engineering Division of Computer and Network Systems, assigned to the Education and Workforce Group, supporting programs that expand computer science education in schools and promote diversity in computer science. Using what she learned at NSF, Hermans returned to her classroom ready to initiate change. "In Irvine, resources and programs are available to students; which is a big step as a majority of schools in the U.S. do not have access to computer sciences classes. Yet, the diversity in the classroom is not consistent with the diversity of the overall student population."

As a woman, Hermans has first-hand knowledge of being an underrepresented minority throughout her computer science education. Because of her experience she has taken a proactive role in recruiting women into her computer classes. Hermans also sees the greater challenges of the computer science workforce shortage and how the evolving workforce has a need for people in all areas of study to have strong computational thinking skills. She credits the Fellowship with giving her a broader view of computer science education. This view has caused her to examine the ways students are motivated to enroll in computer science as well as the ways that the value of computer science education is relayed to both students and parents.

Hermans believes many students choose to not enroll in computer science courses or programs, because they do not know what computer science is, or they don't see the benefits. "I need to think about and look at the student population as a whole, and think about ways I can educate them about computer science and its benefits," she said. One personal goal upon returning to her classroom is to work toward ensuring every student takes at least one computing course before they graduate. "Computer science is truly everywhere, and no matter what students want for their careers, a knowledge of computer science will give them an advantage."





...Back to Class

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A second transition and major challenge she has faced since returning has been maintaining some sense of work-life balance. Like many teachers, life seems to be consumed with teaching; thinking about teaching, prepping for teaching, or just actually teaching. The AEF experience helped her find balance between her work and personal life – some quiet time to just breathe. During her year in DC, she was able to visit the National Botanical Garden and just sit and think surrounded by the peaceful plants. Even the daily metro commute provided time every day to just sit, reflect, observe, and think. Now that she's home, those reflective times are few and far between. A final, related aspect of her time as an AEF Fellow is the shared "sense of going through an experience together" with the other fellows. Gretel enjoyed all of the different professional experiences that were provided to the group, as well as the ones that she enjoyed and discovered on her own. I asked Gretel what advice she would give to myself and others upon returning to the classroom. Her words were poignant: "I am lucky enough to work with colleagues, in a school and in a district that values educator professional learning and growth. I was supported in my application, during my leave and upon my return. My advice would be to be humble about your accomplishments and opportunities, while simultaneously having enthusiasm for sharing resources with others. The AEF experience is about modeling a growth mindset, being a lifelong learner and having gratitude for those who support you", words of wisdom for us all. I truly wish Gretel an AWESOME school year as she continues with the career she loves and that loves her. I also appreciate her sharing her experience so that those of us who are considering returning to our classrooms realize that while the AEF experience is truly once-in-a-lifetime, our career choice as teachers is too.

...What's Going On In This Graph?

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Since September 2017, over 2,000 students have submitted responses to this free, online, monthly feature. On the second Tuesday of the each month, Sharon and ASA members moderate the responses in an active live environment spanning five hours. Each monthly release is capped with The Reveal. The Reveal shares The New York Times article that includes the featured graph, some of the most interesting responses, additional questions, and Stat Nuggets. Stat Nuggets explain in simple terms the statistical terms that are shown in the graph, thus making stats a bit more accessible for all students.

Sharon finds *WGOITGraph?* very rewarding. After all, she did something comparable in her classroom for twenty years. Now, she creates the graph lesson planning. By providing this resource, any teacher worldwide can use the feature for free. "When I was on the Hill, it was clear that members of Congress and their staffers, as well as others, really wanted to understand statistics better. Statistics were flying all around them but they had little background or time to understand them. We started with *Stats for Staffers*, but now we are moving down to grades 7-12. Participating in this fun, innovative statistical data literacy exercise adds to the skillset of both teachers and students as they apply the skills learned at *WGOITGraph?* to their understanding of real data.

No more throwing up hands up in confusion. It's empowering to read a graph, and, it's good for standardized test-taking too!

Listen to podcasts about *WGOITGraph?* on [Data Stories](#) and [Policy Viz](#).



We welcome your submissions regarding the Einstein Fellowship. Send your updates and accomplishments to: Einsteinfellows@orise.orau.gov Subject Line Newsletter