

Caroline Solomon's SWS Transcript

Stephanie [00.09]:

Hello, I'm Stephanie Hakulin. Today on STEM Workforce Stories we'll chat with Dr. Caroline Solomon, Director of STEM at Gallaudet University...

Dr. Caroline Solomon [00.31]:

So, when I got to college, I asked myself if I wanted to fight for the environment as a policymaker/lawyer or as a scientist.

Stephanie [00.48]:

We'll learn more about Dr. Solomon's passion for the environment and more, today, on STEM Workforce Stories.

Michael Sullivan [01.06]:

Hello Dr. Solomon, thank you so much for participating in this interview today. We really appreciate your time. I wanted to open our interview with you giving a little bit of an explanation of your own personal background as a deaf person, what your experiences were growing up.

Dr. Caroline Solomon [01.29]:

I became deaf at 18 months old from spinal meningitis. And very soon after that, my parents decided that they wanted me to grow up with American Sign Language as part of my education.

I was mainstreamed at a local public school and also took classes at the school for the deaf and had many friends there at the Delaware School for the Deaf.

As I went into college, I already knew that I was interested in science, but I was not yet ready for graduate school. So, I decided to do something different and I did a Fulbright Fellowship in Australia where I could study the Great Barrier Reef and explore different fields within oceanography I would like to study in graduate school.

It was a wonderful experience and at the end of that year abroad, I decided I was ready for graduate school in oceanography. I did my master's at the University of Washington in Seattle. After that, I moved to Maryland to do my PhD studies, and then became a faculty member at Gallaudet University, where I have been ever since, and I absolutely love my job as faculty here at Gallaudet, working with students and with fantastic colleagues. That's my journey in a nutshell.

Michael Sullivan [02.50]:

When we had chatted before, you talked about moving into a house that has a creek behind it, but swimming was not allowed in the creek. Would you mind sharing that story with us and what feelings you had and what that was like?"

Dr. Caroline Solomon [03.10]

Sure. When we moved to Maryland, we rented a house that was right by a creek and there was a dock behind our house so that you could just walk out and go swimming. And we bought a used Sunfish, so my brother and I would often go out on the creek to the river and sail in our

little boat. Sometimes we would get a warning that the creek was polluted. Why were humans creating this situation that we couldn't swim? It didn't make sense to me. So, I wanted to do something about that. So, when I got to college, I asked myself if I wanted to fight for the environment as a policymaker/lawyer or as a scientist.

Michael Sullivan [04.08]:

We're going to move to a different area soon, but I'd like you to talk a little bit more about being a student at Harvard. Were you the only deaf student there at that time? What kind of particular challenges did you face as a deaf student at Harvard?

Dr. Caroline Solomon [04.27]:

I knew that by going to Harvard, I may be the only deaf person there and I would be lonely. It was a very real possibility and I was aware of that, but I also knew that there were deaf students at other colleges in the Boston area such as Boston University, MIT, Boston College, and the other some colleges in the area, so I would be able to connect with those deaf students. And so the friends that I made during that time are still people I stay in touch with today. Some of them have become doctors, professors, I mean, all kinds of things. And it's really amazing to think about that. And a couple of them have ended up as my colleagues here at Gallaudet as well, so it's great to be able to see longtime friends here in my workplace.

Really, I think it's critical to have fantastic mentors and allies. They really make it possible. During graduate school, you have to find those one or two people who are going to tell you all the side information, right? There is information that you will not learn in a classroom. There's some water cooler conversation that deaf people don't have access to. And so you need one or two people who are going to tell you the rumors and gossip and share that with you; that is an important part of learning. "This professor is doing that..." "That student is doing that..." This is all important information, incidental information. Those allies are extremely important and in every situation in my life from college, graduate school to my professional life, I've always had two or three people telling me what is happening and I don't think they realize how important they were to me.

Michael Sullivan [06.19]:

I'm curious, what does your day-to-day work look like?

Dr. Caroline Solomon [06.25]:

We're really proud of our lab spaces that we have here at Gallaudet, because they were designed specifically for deaf people in mind. Deaf scientists were involved with the design because we know how we learn, know how we do our work, and science is very collaborative now. We also encourage a lot of innovation, thinking and designing their own experiments. To encourage that, we have whiteboards where students come together and write down their ideas on how to design their own experiments.

One thing that's great about my school here at Gallaudet is that we make a very conscious effort to hire deaf scientists into our programs. For example, about half of our faculty in biology program are deaf themselves and half of them are not. The same is true for chemistry, information technology and mathematics.

One important thing that I have learned over the years is to show students that they can. Students often think about specific professions because these professions are represented on TV such as doctors, nurses, and other similar professions. Students don't realize that science is very diverse in occupations and it is important to show them that they could work in a variety of places. Deaf

people are starting to work in these places and I can now easily invite someone to talk to the students who currently works at the EPA or Department of Energy, NASA, or different agencies. Or even in the private industry or become a pharmacist. Our students have become almost everything I can think of because they realize they can. The important aspect is knowing they can.

As a deaf person, there are going to be struggles and barriers that are out there, but it's important for students to understand that they are not alone in their frustrations.

Michael Sullivan [08.00]:

When we chatted before, you brought up the storytelling aspect and said that you tend to be a natural storyteller. Is there a story you'd like to share with us?

Dr. Caroline Solomon [08.12]:

I always talk about my ecology class in college because we were required to do two field trips as part of that class. And I chose the field trip that required going to observe the red-winged blackbirds. And I didn't realize that the big part of the research was listening to the blackbirds, so that was a problem. I got out to the forest in Massachusetts with my interpreter. It was a typical Boston and New England spring in March and it was freezing cold. It's four o'clock in the morning, we're out in the woods and the professor is explaining what to do for the project.

After hearing the explanation, I started thinking, "How can I do it? I can't help my lab partner". It required listening for the calls of the male red-winged blackbirds to claim their territory. I looked at my lab partner and said, "I'm truly sorry I can't help listen but I can at least record the data." To this day, I tell my students that I will always make deaf-friendly field trips. I will not repeat my own experience where I felt could not participate.

I remember in college, there were four of us women who were all roommates. Two of us were science majors, and the other two were literature or humanities majors. The literature and humanities majors were able to get better grades, while those of us who were science majors were working very hard and getting Bs. Don't be afraid of science and math just because it doesn't come easy. It doesn't always come easy. It requires grit and determination to navigate science but what drives you through is your love for science, curiosity and passion. It is important to hold on to that as you go through high school, college and the future.

Michael Sullivan [10.18]:

I wonder what advice you would give to yourself. If you could go back in time to middle school or high school or even early undergrad, what advice, if any, would you give to your earlier self?

Dr. Caroline Solomon [10.33]:

I think I would have liked to meet deaf scientists earlier on. That would have helped me, especially when I hit some of those roadblocks. There were some out there but I didn't know where they were. It would have been nice to know where they are. Obviously, Gallaudet and NTID/RIT would be where people could look for those kinds of role models but it is not widely known. I would have liked more mentorship from deaf scientists so that when I hit those barriers, I could ask how they handled different situations.

I would say don't be afraid to reach out to a deaf scientist. We are more than happy to meet with you. We really want to pass on our love for science, so don't be afraid to reach out to us. And I

think many of us would answer if you reached out to us. It's a really amazing group of people in many different fields and with different experiences and different interests.

Do not become discouraged if you find yourself in a difficult math class. You will get past it and have that aha moment. Many of us actually had to get help, too, to understand things.

There will be surprises. There will be frustrations, celebrations, and failures along the way. But in the end, it is worth it and you love it. One other thing I want to say to everyone is that science, technology, and math can be hard, but you have to think about the who makes the most contributions to society. Advancements in technology is what makes our lives easier.

Advancements happen because of what science, technology and math contribute. So you are playing a huge role in society and always keep that in mind.

Stephanie [12.40]:

Hello, it's Stephanie again! I enjoyed listening to Dr. Solomon's insightful advice about persevering, even when things get tough. Dr. Solomon's journey is just one of many amazing stories. You can check more of them out on STEM Workstories. Have a good day!

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