SWE STORYCORPS INTERVIEWS

Jill Tietjen, Kristy Schloss, and Sandra Scanlon Interview

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Society Of Women Engineers National Conference

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This oral history interview was recorded November 7, 2008 at the Society of Women Engineers National Conference in Baltimore, Maryland as part of StoryCorps, a nationwide initiative of Sound Portraits Productions to record and collect oral history interviews. A copy of the audio recording of the interview has been deposited at the Walter P. Reuther Library and Archives of Labor and Urban Affairs, Wayne State University. The interview may be used for research and educational purposes only.

Jill Tietjen, Sandra Scanlon, and Kristy Schloss

Jill Tietjen is president and CEO of her consulting firm, Technically Speaking, Inc., which she founded in 2000. She was the CEO of the National Women's Hall of Fame in 2015, director of the Women in Engineering Program at the University of Colorado at Denver from 1997 to 2000, and spent more than 20 years in industry. She received a bachelor's degree in applied mathematics with a minor in electrical engineering from the University of Virginia in 1976, and an MBA from the University of North Carolina at Charlotte in 1979. She sits on numerous boards and advisory panels. Tietjen is a Fellow, life member, and past president of the Society of Women Engineers, and a recipient of the Society's Distinguished Service Award. She is the author of *Her Story: A Timeline of the Women Who Changed America*.

Sandra Scanlon is the president and principle electrical engineer of Scanlon Szynskie Group, Inc., an architecture and planning firm. She worked in industry for nearly 20 years before founding her own company. She received a bachelor's degree in electrical engineering from Valparaiso University in 1989 and is a registered professional engineer. She is highly active in a number of professional and community organizations. She is a

Fellow of the Society of Women Engineers, and recipient of the Society's Distinguished New Engineer and Entrepreneur awards.

Kristy Schloss is the owner and president of Schloss Engineered Equipment, an environmental equipment design and manufacturing company. Prior to Schloss Engineered Equipment, she was a project engineer for Black & Veatch Engineers-Architects. She received a bachelor's degree in civil engineering from the University of Colorado at Boulder in 1986. She sits on a number of boards and advisory panels. She is a Fellow of the Society of Women Engineers, and recipient of the Society's Distinguished New Engineer and Entrepreneur awards.

In their 2008 StoryCorps interview Tietjen, Scanlon, and Schloss discussed the different paths they took to engineering; their experiences as one of the few women in the college classes and in their companies; the reasons they became entrepreneurs and the freedom they enjoy as business owners; and the importance of outreach and mentoring, both to help society understand what engineering is and to ensure that aspiring engineers persist in the field.

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Jill Tietjen: My name is Jill Tietjen. I'm 53 years old. Today is Friday, November 7, 2008. We're in Baltimore, Maryland at the Society of Women Engineers National Conference. And I'm here with two of my dearest friends.

Kristy Schloss: I'm Kristy Schloss. I'm 45 years old. Today is November 7, 2008. We are at the National Conference of the Society of Women Engineers in Baltimore, Maryland, and I am here with my dearest friends.

Sandra Scanlon: I'm Sandra Scanlon. I'm 41 years old. Today is Friday, November 7th and I'm having a great time at the Society of Women Engineers National Conference in Baltimore, Maryland and I am here with two of my dearest friends.

JT: Sandra, why did you become an engineer? [01:00] And what kind of an engineer are you?

SS: I am an electrical engineer, emphasizing in power distribution and power distribution within buildings and so forth. I became an engineer because I love math and science. I loved playing with Legos, and Tinker Toys, and building things, and taking things apart. When I got into school, I just really excelled at those kinds of classes and found my way in college, just loving engineering and

loving electrical engineering more than anything else. And so here I am.

JT: And I think, Kristy, that you and I both found engineering in a different way. So why don't you talk about your experience?

KS: I found engineering because I wanted to make a difference on society and civilization. I wanted to help people. I wanted to be altruistic and improve the world, and see that something that I can do will really make a difference. That's why I chose the water industry, and my company designs and manufactures environmental treatment equipment. [02:00] Really, we clean up the world's water and improve the quality of life for people all over the world. That's how I make my difference.

JT: And I didn't know I wanted to be an engineer. I started as a math major in college and found, actually, during my first semester in college, that I was in the wrong place, that I needed to transfer to engineering. I went and I saw the dean of the school, made all of the arrangements I needed to transfer to engineering, called home—this was in 1973 when there were pay phones at the end of the hall in the dorms—and asked to speak to both of my parents. Told

them I was transferring to engineering and it's just been exactly the right career choice for me. I'm a planner in the electric utility industry. [03:00] Sandra, so, what was the field of engineering like for you when you started?

SS: I had a hard time trying to figure out where I wanted to go to school. That was the beginning of it, and I couldn't decide if I wanted to go to a smaller college or a larger one. I had looked at Purdue University and University of Iowa, and then I looked at Valparaiso University in Indiana, and I really liked the small, family atmosphere that it had. That appealed to me very much. And I'm glad that I did that, because then I found that I was one of very few women in the College of Engineering. So the women that were in the College of Engineering pretty much bonded together as our own group. We were our own support group, and I found that to be very helpful because being in the electrical engineering class—only one of three women in my particular class—it was nice to have that support group, because the guys really didn't provide that. (laughs) [04:00]

KS: When I was in school, when I transferred into engineering, and when I finally graduated I was one of two women in my class. And so I completely understand that's why I found

the Society of Women Engineers to be so incredibly valuable in keeping me involved in an engineering career but also providing leadership training opportunities, and friendships, and networks, and so many incredibly valuable assets. That's why I've stayed involved for so many years, as we all have.

SS: Yeah, I think when we come to the SWE conference, that's the biggest part about it is, we get to see all our SWE girlfriends, our SWE support group. Yes, it started in college and it continues with where you reside and work. But then you have this broader national group of friends that, you know, you see once a year at the conference and sometimes at other events. But, I mean, that's just the coolest network of friends there is, I think. [05:00]

JT: Well, when I was at the University of Virginia, I entered in the fall of 1972, which was the third year that the University of Virginia admitted women. I'm one of the first ten women to graduate in engineering from the University of Virginia. There was not a Society of Women Engineers section at the University of Virginia when I graduated. So I didn't find the organization until my employer, Duke Power, sent me to do on-campus recruiting at North Carolina State University. Where at a gymnasium at a coffee table at

a career fair, I found the Society of Women Engineers and immediately bonded with the group. And it has just been a wonderful experience with me. Sandra, another question for you. How do you feel that you've managed to balance the work with your family? Because I know that you have a son. [06:00]

SS: I do. My son is 12 years old now. And I know in the beginning, even before I had him, just the thought of how to balance a career with family was a big issue. At the time, I worked for a large Fortune 500 company and while they had family-friendly programs and so forth, when you're in engineering it's very hard to job share. And so that type of opportunity wasn't really an option, so then it became discussions of telecommuting and working some of the time from home and so forth. Which, back then, was not as prevalent as it is today. And so, long story short, I had my son and realized that I really didn't want to juggle it all. [07:00]

And so I made the choice to step away from my career for a while, enjoy my family time and the activities that then I was freer to do, because I had my whole day available to me. But then after a while, I really missed engineering and I missed the work that I did. And so, at that time, I

decided to become a consultant and be in charge of my own destiny, and be in charge of my own career. And I haven't looked back since and now have a successful engineering firm. I'm still the boss and get to decide when I take vacation, and have lunch with my friends, and do the volunteer things that I want to do, and have the time for my family as well.

KS: I think that's a really interesting—excuse me—a really interesting thing to realize, between the three of us, is we all used to work for large corporations. We all used to be part of that larger corporate entity and all three of us now do our own thing. [08:00] All three of us run our own companies, and have employees, and are masters of our own destiny—although we answer to our employees, and our bankers, and our bookkeepers, and our attorneys, and all the rest of our masters. But it is something that all three of us have chosen to do and it's a unique difference, I think, that really binds the three of us together.

JT: It's really important to me, at this point, to have control of my time. I want to be able to give back, like through the Society of Women Engineers, and spend that time doing the programs, the outreach programs, and the professional development programs through the Society of Women

Engineers. But I also decided, actually, now eight years ago, that I was going to go out on my own and have the flexibility, as Sandra said, to have lunch with people I want to have lunch with, and to do my volunteer activities, and to work and make sure that all my work gets done—which is does, whether that means I start at five o'clock in the morning, or I work on Saturday, or I work on Sunday. [09:00] Because I get to do the things, that way, that I want to do. So it's been really important to me. And I will also say that my husband probably says that—I know he says that I'm never going to retire. So I'm not sure he would say that I'm necessarily balancing work, life and family. And since I travel so much I actually say that my house, my husband, and my cat live in Denver, and I live in the airport. (laughs) But it is kind of interesting how life changes over time, too, from being the corporate employees that we all were to now being the boss, where we can control our lives and our destinies.

SS: Well, and I think the other thing too, is that you get a greater sense of satisfaction for being in charge of the things you do, and then being able to balance them so that you can prioritize and give back to what you want. [10:00] So I love to give back to the Society of Women Engineers. I

love to mentor students that are coming up through high school and college, to encourage them to pursue engineering and stay in engineering. You know, that gratification you get from having helped someone, and they come to you later and say, "You remember that time when you spoke at such-and-such? Well, I was there in the audience and I remember what you said about this." It just gives you the warm fuzzies inside when, you know, you get that feedback that you've made a difference, and you've given back, you know, to others and to the community. And I just think that's so important. And when you're in charge of your own destiny, you run your own business, I think it gives you a little more opportunity to do that.

KS: Which was exactly the point that I was going to make, which was all three of us are very involved not only, of course, in the Society of Women Engineers, but other activities. [to Sandra Scanlon] You're on the State Board of Professional Engineers and Land Surveyors. [to Jill Tietjen] You're on the Board of Georgia Power Transmission——Power? [11:00] Georgia Transmission. I chair the board for the Federal Reserve at the Denver branch. And we're involved in other activities, but all of this, really, is because we all want to give back in different——in

not only from engineering but through the community and through our societies. I think that that's part of what we do, and we all have in common. And absolutely, mentoring is one of the most important parts of my life. I like knowing that I made a difference, or tried to help encourage men and women to stay in the field of engineering, and to go into engineering. It's one of the reasons I do what I do.

JT: It's so interesting because at lunch today Kristy and I had lunch with a student from the Colorado School of Mines. And it's wonderful to see that she is so enthusiastic. Of course, it's also interesting to note that she's highly idealistic, which you would expect with someone of that age. [12:00] And to be able to provide some direction and guidance. We actually were able to talk with her and she had a very interesting idea, which was, let's just say a little simplistic about a very complex issue. And we were able to provide her with some different perspective, and I think that her eyes got opened a little bit about—she was actually trying to quantify it in a formula. She's an engineer, she can't help it. (laughter) And it was much more complex than that. And it's just so fun to see students like that. And then, when we were in the career fair today, coming over to this interview, we ran into a

student that we had seen yesterday and she was able to give us feedback about the people that she had talked to in the past few hours at the career fair, and the opportunities that she found.

That is just so incredibly satisfying to know that that kind of influence which I never had. [13:00] I never met a woman engineer until I became a woman engineer. I never had a woman engineer as a faculty member when I was in undergraduate school. And so it has become incredibly important to me to serve as that role model and to serve as that mentor so that people see that it is something that we can do and that we're not abnormal, although some people would say that maybe we're not exactly run of the mill.

SS: (laughs) I think that's so true. You know, when I was in college—that's something I didn't even think of until you said that. There was one woman on the faculty in the College of Engineering. I remember distinctly now, in I think it was my junior year of college, that she wasn't there for a semester. And it was because she left to have a baby. [14:00] But then she was back the following semester, and I remember thinking, "Wow, that's got to be a lot to juggle," at that time. And, boy, now I look back and think, "Yeah, but you know, we can do it." (laughs)

KS: And when I was in school, it was in my graduating last semester—I was graduating when we had our first woman faculty, first woman engineer I'd ever seen. And I took her intro class just so I could sit there and watch what she did, and what she wore, and how she acted, and everything so I could actually see what a woman engineer did, and what we were expected to conduct ourselves. We're still dear friends. She was my first mentor, aside from my father who was an engineer, who convinced me that I could survive engineering school. And then, my mother, who was my mentor, professionally, and encouraged me that I could survive after engineering school. [15:00] But she was the first practicing woman engineer I'd ever seen and it's—fortunately, it's not that way any more, and I think we've worked long and hard to try to change it, and I think more people, more women, need to come after us and change it even more so.

SS: And I think you touched on something important, Kristy, in that it's just being aware. I mean, how many of the kids that we come across that are in elementary school, and you ask them what an engineer is, or do you know an engineer? They say that they don't know any. Or they have a very narrow view of what engineers do. And that's why I think

it's so important for career guidance events, like the one that we do in Denver, "Girls Exploring Science, Engineering and Technology," that we bring the girls in, and we have them do workshops, and meet women that are in all kinds of different, you know, science, technology, engineering, math careers. [16:00] So that they're aware that, "Wow, there are these different kinds of jobs out there that I can do," and, "Oh, yeah, I do need math and science to do those." Instead of the usual, you know, perception of, you only need math and science to do the really hard jobs. Well, you need math and science to do all kinds of jobs, and the more successful these kids are in school, and take all the classes that they can, the more opportunities that are available to them. And, you know, I feel like sometimes I'm on my soapbox all the time when I say that to people, but I still think there's a lot to be done to tell people about the profession.

JT: There's a tremendous amount, still, to be done about the profession. In early polls, in the early 2000s, that were taken, the polls showed that about two-thirds of American women didn't know what engineering was, or didn't know what engineers did. And, over half of American men, didn't know what engineers do, or are, and what they did. [17:00] And

unfortunately some percentage of people, I think it's down to around 5 or 10 percent, think that engineers are people who drive trains. So we still have issues about, really, the basic understanding.

But, sadder for us and one of the things that we work on through the Society of Women Engineers all the time, is demonstrating the value that engineering brings. And the three of us sitting in this room are involved in ensuring that there's power to everyone's home, and everyone's business, that there's clean water that's provided to everyone's home, and everyone's business. And without basic infrastructure things just do not happen in a way that makes any sense. It's one of the reasons why, not only do I support the Society of Women Engineers, but I also support Engineers Without Borders. [18:00] Because when that particular organization goes into a country and puts in a water-conveying system that brings water to a Third World country, or a very poor part of the US where they haven't had water before, and they haven't had clean water before. When they haven't had water before, the girls were the ones who spent their entire lives transporting the water, and now those girls actually get to get an education. That's such a visible and visceral demonstration of the value of

engineering. And so engineering provides so many benefits to our lives. Engineers are the ones who make the world work.

KS: There isn't anything that an engineer hasn't been involved with. We've been—it's the research. It's the development. It's the implementation of all things—of ceramics, of space travel, of infrastructure, of clothing, of the Internet and computers. [19:00] And there isn't anything that we aren't involved with. We really are responsible, as Jill said, for making the world work. And for those people who want to really make that kind of contribution, engineering is definitely the way to go.

SS: I think you hit on it right there, is that kids today are so used to having a cell phone, having a microwave, having a DVD player. I mean, think of all the gadgets that these kids have readily. And when I was growing up as a kid, the first computer I had was a Commodore 64 and I played Pong on it. And my son has no clue what that is because he plays Xbox 360, and he's on the Internet with other players. And so just think of that difference. I mean, that's just incredible.

And then think about, just, the [presidential] election coverage the other day when they had the hologram on CNN. [20:00] I mean, that was a huge thing at the "Girls Exploring Science, Engineering and Technology" event just the other day, which was the day after the election. They brought that up in the workshops and compared it to, "Think back when we watch Star Trek." You know? And the transporter that, you know, beams somebody from one place to another and that, in Star Wars, you know, with Princess Leia when R2-D2 put her out as a hologram. Well, they just did it now on a news show. And so I think that the kids now, when you approach them and try to tell them, you know, what engineers do and so forth, it's got to be in a completely different context than when we were kids.

JT: Well, the rate of change is so fast. Technology is advancing so quickly. I have spoken at some events where I hold up an IBM punch card. I learned to program computers using an 80-column IBM punch card for each line of computer code. [21:00] And I held up that card and there isn't a kid in the audience who even knows what I'm talking about. Now, all of their parents do because the parents have seen those cards. But when you think about how far—that was in 1972. So in 36 years, we have gone from having punch cards with

which we program computers, to having embedded computers in our ovens, in our microwaves, in our refrigerators, in clothing, in cell phones. I mean, it's everywhere, in elevators. I mean there are little computer chips that do all kinds of things for us.

Pretty soon, there are actually going to be cars that know how to drive in lanes, and how to take off-ramps, and how to keep distances between cars in front and cars behind, that are all going to have been made possible by technology. But that all requires engineers to actually make sure that the technology works, and that it's safe. [22:00]

And as we all three know, sitting in this room, engineers protect the health, safety, and welfare of the public. That is what they are trained to do; that is what they are licensed to do. So it isn't just a matter of creating the cell phone; it isn't just a matter of creating the vehicle. It's ensuring that those technologies can be used safely.

Facilitator: I was wondering what—kind of going around—what your proudest accomplishment is? And like, if you could give concrete examples of a moment where you just really kind of cherish, that really showed that, you know, you're

an engineer and you're—it could be like your, back or a recent accomplishment. [23:00]

JT: I'll be happy to start. The answer on my—a very significant accomplishment. One of the things that I do is I testify in regulatory proceedings before public utility commissions, public service commissions in various states. And I have now been involved in the successful licensing— and one of them is still under construction—of three power plants. So there is a tremendous feeling of success when the actual—the certificate is called the Certificate of Public Convenience and Necessity. When I am in the hearing room, and I hear the commission say the words, that the Certificate of Public Convenience and Necessity has been issued to build that power plant, then I know that all of the work that I have done to assist my client to get that power plant certified, ready to build, ensures that the customers of that utility will in fact have the electricity that they need. [24:00] And I have to say this, because it is something of which I am incredibly proud, when I fly—I fly all the time. When I fly across the country at night and I look down and I see the lights, that's what I do. I help make sure that those lights stay on for all of us.

SS: One of the things that I think I'm most proud of isn't necessarily a single event. It's more of a conglomeration of efforts at things. I started my consulting business with projects for Denver Public Schools, and the school systems in the state. [25:00] And part of what I love is, when I've gone into a school and done a project that maybe, for example, gives them a new computer lab and so I've done the design for the power and the data wiring and so forth that's necessary for that. Then I'll come in later and I can see the kids all sitting at the computers and working on projects in class.

And I've done several projects that are like that. And one of them in particular was actually pro bono work that I did for a school that was very poor and managed to scrape together donations for computers, and for equipment. And then they came to some consultants that they know, that had done that work and said, "Would you design it for free?" And, of course, you know, soft spot in my heart, I said, "Sure." But it was all the letters that the third grade class wrote about their lab, and what they got to do on the computers and so forth, and that was just—you know, to me, those are the moments that I cherish. It's not so much the money I saved a client or the big successful contract I

landed. [26:00] It's those things, of giving back, that, you know, that get me right here. (laughs)

KS: I think—in terms of my profession, as I've mentioned earlier, it really is cleaning water, making it potable, and for the world cleaning it up so that it's safe to drink, that it helps the economic viability, the sustainability, the social justice. And it's quite a kick to, you know, go some place—into a city, or a town, or a village—and see my equipment there with my name on it. It is, it's a personal reward. [27:00] But even, somehow, as gratifying to me is when I go in to speak at some place or give a presentation and afterwards, someone will come up to me and say, "You know, you don't know me, but I attended something a while back at which you spoke, and I was going to drop out of engineering but something you said encouraged me and I decided to stay with it. And now I have this great profession, and I'm doing this, and I contribute in this way." And knowing that I made that difference is huge for me, and that'll keep me going for years. So I think it's a huge charge.

JT: You're reminding me, when I was at the University of Colorado at Boulder, as their director of the Woman in Engineering program, one of the women who had graduated in

1949. At that point in time, when you were a freshman at the University of Colorado at Boulder, there was a math qualifying test that you had to take as a student to determine at what level you were in competency and math. And all freshman students had to take it, like, when they were there for their first week. This woman went and took that test and when she got the results, she was told that she had failed the test. [28:00] She went back to her dorm room, she packed her trunk, and she was getting ready to leave when her roommate said to her, "You need to go check and make sure that that was your test." And she went and she checked, and it wasn't her test, and she had passed the test and she graduated in 1949.

That story, the reason why I told that story, is because so often it is a small act of encouragement and a small—a small recognition, a small act of kindness, an ability to smile at someone, or to talk to them. That just makes all the difference in the world. People do come up to me, Kristy, also, and say—I've been speaking in SWE now for 20 years. [29:00] So they'll come up to me and they'll say, "I heard you speak at Wichita State," which was in 1988 or something. I mean, it was a very long time ago. And say, "You made that difference, too." It's incredibly

reassuring, and it's wonderful, and it makes it all worthwhile.

F: One question about earlier, you were talking about, sort of, that there needs to be more done by professionals. Can you talk about some of—and I asked this before at a previous interview. But kind of more about the early challenges? Some stories about what you faced, you know, in school, as women in the profession early on?

SS: I can start. In college, I think, the advantage I had was I was in a smaller environment. So to reach out and have small communities was a bigger deal than maybe at a larger university. [30:00] But getting out into the workplace, being mistaken for the administrative assistant or other office support staff, as opposed to being the engineer, happened many times. Or, if you're in a meeting and you're the only woman in the meeting room, they just tend to assume that you're there as an assistant for the meeting. So I had that happen to me many times. But my first career, being in the petroleum industry, I would say it was interesting when, you know, you have your hard hat on, and your jeans, and T-shirt, and you're walking around a refinery. And the workers are all just stopping dead in their tracks, what they're doing, because they can't

believe that there's a woman walking around in the plant that doesn't look like the other folks that work there. And then, sometimes the comments that were made, which, you know, is really not conducive to a supportive environment. (laughs) But, you know, you get past it. [31:00] And then I think over time, obviously, age and wisdom adds to that.

But when you're younger I think you get tested a lot. And I felt that as a woman, I got tested more for my knowledge and ability than some of the men that had started working the same time I did. And for a while it really bothered me, until I really realized that I have nothing to prove to them. I know that I'm good at what I do. I'm confident in what I do, and when I stopped paying attention to that, and just ignored it? Then forever after that it just wasn't an issue with me. So I don't know if that's really the right approach, but I found when I ignored it then it seemed to just go away.

JT: My first job was at Duke Power Company in Charlotte, North Carolina and the first week I was on the job, I was taken to all of the power plant sites that were local. [32:00] We went on to the turbine floor at one of these power plants, and then we took the elevator up to the control room level. And when we got off of the elevator we were in the men's

locker room. Because that's how you got from the elevator to the control room. Now, nobody who I've talked to since then says it was ever that way, but it really was. There was a man there in the locker room. I mean, that's just how things were, because there wasn't even an assumption that there would be a woman involved. Or that there would be a woman coming off of the elevator for any reason who needed to be in that power plant at that point.

And I have one story that is one of my favorites because, like Sandra, these kinds of events happened over, and over, and over again. But I was trained as a speaker, when I worked for Duke Power, to give talks on nuclear power. And one day I was sent to a group that was called "The 39 and Holding Club," which I didn't even do my research on at that point to figure out what that meant. [33:00] But I arrived at the church to give the talk and I walked in, and the person who was at the registration table first said to me, "I thought Duke Power was sending an engineer." And I said, "They did." And then I got——then it was a lunch and it was for——"The 39 and Holding Club" was for a group of elderly citizens. It was a talk after lunch. And I got up to speak after I was introduced after lunch, and I heard this old lady at the back of the room say, "Oh my goodness,

she's so short!" And then I had to give this whole talk on nuclear power, which was back in the days, a long time ago, when your slide presentation was given, and you had to turn the lights out. So that meant everybody went to sleep. But, you know, we all have these stories. [34:00] Kristy has tons of these stories. Sandra has many of these stories. I have these stories. "You're pretty smart for a girl." "You don't look like a woman engineer." Or, "You do look like a woman engineer."

KS: Or, "Wow, you are a woman engineer!" Yes.

JT: On, and on, and on. The stories just go on forever.

SS: You just reminded me that, at the Valparaiso University where I went to school, the only women's bathroom in the entire building was downstairs next to the dean's office, because it was for the dean's secretary back when the building was built.

KS: And originally, the Colorado School of Mines didn't even have a women's bathroom in the engineering building. Now they've come so far that 30 percent of their freshman class are women and they have the second largest Society of Women Engineers student section in the country. So there's huge advances but yes, I have tons of stories. [35:00] I think,

really, what earns us our stripes are how we've survived them, and dealt with them, and worked through them, and actually changed so many perceptions into our—the capabilities of us as women engineers, and of others. Hopefully, we all make it to the day when it's no big deal whether you're male, female, whathaveyou on the job site, in construction—which is my industry, which of course is still rather rough and tumble. That it doesn't really matter what gender you are because it's all about being professional and knowing your job. But yes, there's still attitudes out there that are challenging and that we still try to change. That's part of what we do.

JT: One of the reasons why we're here is because we are hopeful that there will be a point in time, as Kristy said, that it won't matter whether you're pink, or purple polka-dotted, or whatever it is, that you can be an engineer. [36:00] And for me, one of the reasons why I am so involved with the Society of Women Engineers is that no one ever even suggested to me that I could consider being an engineer. And I think that there are many young women, as there are also many young men, who have the talents and the aptitudes and the abilities to be engineers.

The country, the United States, needs engineers. They are the economic drivers—scientific, technology, and innovation drivers—and we need those young women, and we need those young men, in order to drive our economy forward. So it really is our belief, the three of us sitting here—I know I can speak for us in this—that we need to make sure that we reach those young women so that the one that does have the idea for how we're going to get to Mars, or the one that does have the idea for the next biomedical or nanotechnology advance—that that individual is reached so that we as a society can benefit from her knowledge, and talents, and abilities.

F: We've got three minutes left.

KS: That was a great way to end.

F: Do you want to say anything else?

SS: That sounds good to me.

KS: That was it, yes. I mean, that just was—with a bow.

END OF INTERIVEW