

An Interview with
YVONNE M. SHEPARD

OH 492

Conducted by Thomas J. Misa

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Abstract

Yvonne Shepard was born in Puerto Rico and graduated in 1968 with a math degree from Saint Mary-of-the-Woods College, an all-women school in Indiana. She accepted a job at Bell Labs as a STA, while a male classmate (from Rose Polytechnic) hired in as MTS. Transferred to Chicago, she did Master's work in engineering at Northwestern (graduating in 1976) and became MTS. She discusses several instances of male managers' attitudes and anxieties about women employees. (She along with Mary Holt and Denise McGrew organized the Men and Women in the Work Environment workshops.) She took up a liaison position for the Bell Data Network, then assumed increasingly responsible managerial and executive positions with the AT&T organization, gaining an executive MBA in 1982 and further training in international business. Shepard became President and COO of AT&T Puerto Rico then worked in AT&T International's marketing organization. She retired from AT&T in 1999, and pursued consulting assignments with Direct TV of Latin America and Advanta Corporation. Following 2001 she helped lead Hispanics Inspiring Students' Performance and Achievement (HISPA).

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Misa: My name is Tom Misa. It's the 17th of December 2015, and I'm talking this afternoon with Yvonne Shepard. We're doing a set of interviews for the Sloan Foundation that tries to understand the careers and experiences of women who worked in the computing industry from the 1960s to the 1990s. Yvonne, can you begin by taking us back a bit and reflecting on your childhood or grade school or high school years. Were there any activities, or hobbies, or classes that may have particularly attracted your attention, that propelled you toward a technical career?

Shepard: Well, let me just start by saying that I was born in San Juan, Puerto Rico. So my set of experiences when I was growing up, my educational experience was probably different than a lot of my peers here in the U.S. in that we didn't have as lush of a set of choices for courses, and stuff like that. So I pretty much had a straightforward grade school and high school. My mother was highly educated. My mother had come to college in the States. She's 97 years old right now, so you can imagine she was really a pioneer. Her father put her on a ship, sent her to New Orleans where she went to school, and you know she went to college for four years here in the States. So that was very unusual but it was such a good experience for her that she wanted her three daughters to have that same experience. I'm the middle one of three so as I was going through middle school and high school, it was a given that I was going to try to come to school in the States. It wasn't second guessed at all. So I was fortunate enough to get a scholarship and at the time it was for an all-girls Catholic college in Indiana. And I came to college without any idea of what I wanted to study. At first I thought I wanted to study hotel management because I

was in Puerto Rico, of course, where hotels were doing very well and it seemed like a glamorous life.

Misa: Right.

Shepard: I did well in math, so it was okay. You know math was okay but it wasn't something I would gravitate towards. So I had no idea what I was going to study and when I came to college freshman year, because I was an undecided major I decided to get out of my way the classes that I had to take, like math was one of the requirements. So I took the math class. It was easy so I kept on taking another one and before I knew it I said you know, I think I'm going to become a math major. But I really hate for this to be recorded but there wasn't really any grand deals or high level motive on that. It was easy. That was the path of least resistance for me.

Misa: What was the name of the Indiana all girls Catholic college that you were attending?

Shepard: St. Mary-of-the-Woods College, in Terre Haute, Indiana. And there I did have a teacher who kind of channeled me that way, really she did. And when I went to graduate from college I had no idea what I was going to do, and I had to earn money. I didn't come from a wealthy family. My parents were divorced. And I had to stand on my own two feet when I graduated from college. So I asked this nun that was a friend of mine, what was I going to do with a math degree? I didn't want to teach, I told her. I said

I didn't want to become a teacher and that was the primary avenue for math majors was teaching. I said I didn't want to teach. She said why don't you write to Indiana Bell, I hear that the telephone company is hiring people. So I wrote to Indiana Bell and Bell Laboratories answered.

Misa: Bell Labs answered, okay, that's pretty nice.

Shepard: Yes, it wasn't Indiana Bell gave me an answer it was Bell Labs. They probably funnel it to Bell Labs because I was a math major and I had good grades, that's what I'm thinking.

Misa: Can you tell what year you graduated from St. Mary's?

Shepard: This was 1968.

Misa: 1968, okay, thanks.

Shepard: Yes, 1968. And so I interviewed with Bell Labs, and I interviewed with IBM. I went with Bell Labs for various reasons, but the primary reason was that I felt that it was going to be a freer environment in Bell Labs. At IBM it seemed like everything was preprogrammed for you and they were going to put you in this little track, I mean this little box, and you were going to follow this way. At Bell Labs it was less proscribed and it suited my personality a little bit better. So after graduating from college I decided to

stay in the States and I went to work at Bell Labs. Interesting fact here is that I was hired as a Senior Technical Aide; STA is the acronym we use.

Misa: STA.

Shepard: Yes. I had my good friend's boyfriend — he was a physics major at Rose Polytechnic, an all-boys engineering school at the time, next to St. Mary-of-the-Woods. And he also got hired, and he got hired as a Member of the Technical Staff, MTS.

Misa: And there's a big difference.

Shepard: Huge difference. Are you aware of the difference?

Misa: Why don't you please go ahead and record that.

Shepard: Okay. The Member of Technical Staff that he was hired as, his first year he went straight through college to get his master's, all expenses paid — school, travel, living — plus a salary he got. I got nothing. I mean I got my job and I was so thankful to have a job, you have no idea. [Laughs.] I mean I even had to take the license plates on the car that I bought, and finance those with the car because I had no money. So I was very happy to have a job, and very thankful. But then Michael says to me, it doesn't seem right. He and I shared a ride to work, and he said, 'It just doesn't seem right that I got hired as an MTS and you got hired as STA, and we used to take some classes together.'

Because I used to go to his school for differential equations and some of the courses. And I got good grades, too. At the time I didn't even really question it too much. But then as time went on, I got promoted to something called Associate Member of the Technical Staff, AMTS, and I had a department head — a white male, by the way, named Nick Martelotto — I'll never forget him. He called me to his office. He said, 'Yvonne, you are in the graveyard here at Bell Labs.'

Misa: Graveyard, that doesn't sound good.

Shepard: Yes, it wasn't good. He says, 'If you want to get anywhere, if you want to advance any further here at Bell Labs you have to have a minimum of a master's degree.' And I looked at him and I said, 'Back to school?' He said, 'Yes, so why don't you get started on a program called Tuition Reimbursement Program, and if you get accepted by Northwestern' — at the time I went to Chicago, I started in New Jersey and I got transferred to Chicago — and he said, 'Why don't you get started at Northwestern on a tuition reimbursement program and then we'll see what we can do about reclassifying you, but the problem is that we have no process in place to reclassify from AMTS to MTS, at this time.'

Misa: Oh.

Shepard: Because you know the people they normally put as AMTSes, they were the ones that were doing a good job as an STA, you know, a really good job, but they

probably thought didn't have potential to become MTSes. But this guy thought I could become an MTS, so I said okay, fine. So I started going to school. I got accepted by Northwestern on my own without Bell Labs backing, and I started going to graduate school. And then at the time, the computer science curriculum was under the electrical engineering department. There wasn't a computer science department at that time. So I took all of the electrical engineering courses I had to take for the requirement, and all this stuff, and I had like about two or three more courses to go, two courses and my dissertation or something like that to go. And Nick calls me to his office, he says, 'Yvonne, guess what, we have figured out a way to reclassify you as MTS GSP, Graduate Study Program,' so they would pay for my school. I said, 'Really?' He said, 'Yes, but what you have to do is we have assembled a group of directors and they want to interview you and just make sure that we're doing the right thing by promoting you to MTS.' I said, 'Oh sure, that's no problem.' Except at that time, to be honest with you, a director to me was the closest thing to God on earth.

Misa: Right, they're way up there.

Shepard: [Laughing] I mean it! So I said okay fine. I had a little bit of an adventuresome spirit and I said why not? So I went on this interview and there was another woman. I think if you haven't talked to her you will be talking to her — Judy Lindner.

Misa: Yes.

Shepard: She and I were the first two people from AMTS to go to MTS and we both were waiting, we both were to go through this process. So I go into the room and they start asking me all these questions, some of which were really ridiculous like where do you see yourself in five years from now? That's the stuff they ask you about? [Laughs.] So anyway, and then I don't remember what question they asked me but all of a sudden I went like, this is ridiculous, I said to myself. I stop and I said, 'You know, I'm having trouble with this process.' I said, 'You are willing to send to graduate school a man without knowing how well he's going to perform in graduate school, without knowing how well he's going to perform on the job, but you're willing to give them MTS GSP just based on how they perform in college. I performed just as well as those guys in college. You know how well I work because I've been working for you now about three years, and you know how well I do in school because I've been going to school and paying for school under tuition reimbursement.' They reimburse me for the tuition.

Misa: Okay.

Shepard: 'But I've been going to school and getting good grades, so I don't get it, how come you don't have enough information to make your decision?' So Warner Ulrich — I'll never forget — looked at me and said, 'Okay, Yvonne, thank you very much, we have no more questions for you.' So I go out of the room, and Nick Martelotto was outside the room and I said, 'Nick, I blew it.' He goes, 'What did you do?' So I told him, he goes, 'Oh, Yvonne.' So we thought I wasn't going to make it.

Misa: You basically were calling these men on the flimsy assumptions they were throwing at you, I think.

Shepard: Yes. It was like in the beginning I was playing the game, but then I just went like hello, what's wrong with this picture? There's something wrong here. [Laughs.] Something wasn't jiving for me so I called them on it. And that's how they did approve my promotion, and I became promoted to MTS, so when I graduated from Northwestern I graduated as an MTS at Bell Labs.

Misa: So you got your master's and more or less at that time you became a full Member of Technical Staff.

Shepard: Yes.

Misa: Yvonne, do you recall the year?

Shepard: Yes. This was the year that I graduated from Northwestern you mean?

Misa: Yes.

Shepard: 1976.

Misa: Was it the same year that you were also made MTS?

Shepard: I probably was made MTS a year before that.

Misa: A year before.

Shepard: I don't recall exactly; I think it was 1975. I graduated in like May of 1976 or something like that. And I still had a couple of courses to go, so probably May of 1975. So then from there — do you want me to keep going with this?

Misa: Yes please.

Shepard: Okay. When I was at Indian Hill in Chicago Bell Labs, I was involved with the data networking. This was before the internet, before anything else, and I was in charge of the remote job processing and entry system software, so I was doing system programming. It was operating system programming not applications programming. And I just thought that data networking and stuff was really the greatest thing. And by the way, I forgot to mention something that you may find of interest. When I was at Indian Hill, the beginning at Indian Hill, I got involved with a women's group, an affirmative action committee. You know those were big then. And we had workshops for men to sensitize them to women in the work environment. In one workshop, a man — one of the directors at the time — told me that the reason women had gotten hired at Bell Labs so much is because they had thought that this software thing, or programming of switching systems, electronic switching systems; that this software requirement for that was going

to be short term and that women were perfect for that because if you hire them they either get married and don't work anymore, or eventually get pregnant and stop working.

Therefore, they needed a high quality workforce for a short period of time, and women were perfect to be hired for that.

Misa: Wow, that's fabulous. [Laughs.]

Shepard: I was told that by a director.

Misa: Wow, amazing.

Shepard: This may have been one of the reasons why maybe more women entered that field was because they were looking for women to enter the field. They were pitching it to women because they were the perfect resource because they assumed software was going to go away. Surprise! [Laughs.]

Misa: People didn't have a clue, I think, about how hard software was and how central it would be, how permanent software would be.

Shepard: They were all coming from the equipment side, you know, electrical engineering, the gizmos were the thing. The intelligence of the software was still something that was not, in my opinion, fully understood how powerful that could be. There were probably outliers who did understand that, and had thought about it that way,

but the bulk of people were not. Because I had this interest in data networking, I heard through friends, the grapevine, that AT&T was planning to launch a commercial product. They called it Bell Data Network, but then changed names. But the development was getting done at least here in New Jersey. I also thought it would be kind of fun to get a rotational assignment into AT&T because it exposed me, again, to different things; it wasn't just the Bell Labs culture. So to make a long story short, I worked it so I got a rotational assignment to New Jersey, to be in product management, which they thought was really good because I would be like liaison between the marketing and Bell Labs. And Bell Labs was a culture — I don't know if it's still like that — but it was a culture where you didn't have credibility very much if you came from those people from AT&T. But if you were from Bell Labs, you earned your stripes at Bell Labs, you had credibility. So it was important to put a person with some credibility from Bell Labs in that translation process between marketing and Bell Labs.

Misa: Which of the New Jersey facilities did you go to then?

Shepard: I went to headquarters in Basking Ridge. Well first I was in Morristown for a few months and then we got transferred to Basking Ridge, New Jersey. And then after like two years being here, I got promoted by AT&T into management, first level management. And it was like because AT&T was promoting me, I had to say to Bell Labs I'm not coming back to you. Honest to God, the guy that I told you, Nick, the guy that had walked me through it all, he said, 'Don't do that, Yvonne. Don't go to those

people at AT&T. They're not very smart. You know you have to stay out here with the smart people.' [Laughs.] Isn't that funny?

Misa: Yes.

Shepard: And he was a good guy, by the way, you know? But that's the way they thought about it. It was funny. But anyway, I decided to stay out here in New Jersey, and that was a very good move for me because then I move to a different assignment, and I got promoted through many different assignments on the business side. So AT&T paid for my master's in business, an MBA.

Misa: MBA, okay.

Shepard: So I went ahead and got that. And I decided I really thought being a business person in a technology world was really a good fit for me, and that's where I fitted the best. So I stayed there.

Misa: Did you start that about 1978 or so?

Shepard: Yes, I'd say about 1978. And then I got from assignment to different assignments, and I started getting promoted. I graduated from my MBA in 1982. So I started my MBA in 1980; 1978, and then in 1980 they sent me to graduate school and I finished it in 1982.

Misa: And where did you take the MBA?

Shepard: It was a special program that AT&T had. The diploma is from Pace University.

Misa: We can fill that in, too. I'm just curious because you talked about taking classes at Northwestern, a well-known and respected college. I'm just wondering if there's a similar relationship, but it sounds like it was.

Shepard: Yes. Let me tell you, we had professors that AT&T would fly in from all over the world to teach us. I had a professor from England, was the one that was brought in to teach the information systems component of the MBA. I got a dispensation for that course because of my background. I had a professor from Babson College [Dr. Rogers] who was the one that taught us the marketing. I had a professor from Princeton University, Uwe Rheinhardt that taught us economics. I had a professor from — Harry Levinson — I don't know if you know him but he had the Levinson Institute. He just passed away in the past couple years. He was very well known and he was like the human resources component type thing. It wasn't that I went to that school, that school underwrote the program for AT&T, and AT&T chose the professors from literally all over to come and teach us. It was a very special program.

Misa: You said Pace University was the underwriter of the MBA program.

Shepard: Underwriter, yes. But our professors were from like all over, like I mentioned. It was a two-year program and you had to be chosen to participate in this program. It was like an executive MBA.

Misa: Yes.

Shepard: So I did that, and also AT&T sent me in — well that was like in 1982 — and then I went and did a stint back at Bell Labs, by the way, but this time on the administrative side of the house. They were doing some work to try to reduce the costs at Bell Labs, and they wanted somebody working with the administrative side of the house who understood Bell Labs. So anyway, I did some work there. And then when I came back I got an opportunity to go to Switzerland. It wasn't a degree but it was like international business, and it was a three-month program that they sent you to become more familiar with what it was like to do international business. So I did go there. And then when I got back, I had another man who I also had a lot of respect for, this time at AT&T, whom I really liked, and it turns out that AT&T then acquired the telecommunications company in Puerto Rico. He asked me if I wanted to go and be the president and chief operating officer of that, so I said, 'Why not?' I had no idea what I was going to do, but then I went and I did that. I was the president and chief operating officer of AT&T Puerto Rico. And by the way, the first woman and the first Puerto Rican on that.

Misa: That must have been quite a notable assignment.

Shepard: Oh, that assignment was like I want to tell you, to this day, I think it was my best assignment ever. Best assignment ever. It just really was fun; it was fun. I worked like a fool [laughs], but it was fun. I enjoyed that very much. And then I got back from Puerto Rico and guess what? I became a director, just like the guys that had interviewed me. I was back. [Laughter.] And then I was in international consumer marketing. International, I don't know if you remember, there was a long time ago, when you were traveling abroad, it was very expensive to call back into the United States. I don't know how old you are, but anyway —

Misa: Old enough to remember that, yes, it was punishing.

Shepard: You remember that you could use a special number to get back into the U.S.

Misa: Yes.

Shepard: That was one of my products. And I had the support of the military, the consumer side of the military worldwide. And I had something called language line services, which was a translation in 120 different languages, so we used to do three-way translation for people on the phone. What else did I do? So anyway, that's sort of what I did. It was about a \$2 billion budget that I had, so it was a pretty good size assignment. At that time, AT&T was really struggling with what it was going to do with respect to the internet and data networking, and the people at the top who understood that, were not

going to win. They just were not going to win. And the people that were making the decisions were people who really didn't understand that, in my opinion. My older sister was dying from cancer so I took the opportunity — I was 52 years old and I was barely able to retire — and I retired from AT&T. And then after my sister passed away that year — that was in 1999, by the way — that I retired. My sister passed away at the end of that year. A friend of mine who I had met at AT&T, who had gone to work for Direct TV of Latin America, he called me up and said he needed someone he could trust to help him run Direct TV of Latin America, because he was the president. So I said okay fine, I'll go and do one assignment for him. I started doing one assignment, and then a second assignment, then a third assignment, and before too long, I was still on a consulting basis to him, but I had a big apartment in Florida — Ft. Lauderdale — and I was there like full time. And I did other consulting work with Advanta Corporation. It was a consumer credit card company, but it was mostly on the strategic marketing side, that's what I did with Advanta was strategic marketing for them. And for Direct TV, it was everything, figuring out what was really going on, finance, coaching people, so it was really nothing having to do with technology directly even though Direct TV is a high technology company.

Misa: But it was really your general managerial skills and insights that were valuable at Direct TV.

Shepard: Yes, that was exactly right. So then, I got a little bit older and then 2001 happened, the World Trade Center. I said I don't want to be in an airplane all the time,

which I lived in an airplane because when I worked for Direct TV, that was Argentina, that was Mexico, that was Brazil, and Ft. Lauderdale. I mean that was where I ended up, sometimes in one week I go to all four places, in one week. And I just said this is not what I want to do, and I quit. I quit working. And so that's about that. And then I did a couple of other things. Should I be saying this or should I stop?

Misa: No, no, that's fine. It's certainly interesting to see the arc of your career.

Shepard: Okay, up to today? So when I quit working I decided to take six months of doing nothing. And I did do that. And then to make a long story short, I decided that there was a large Latino population where I live in New Jersey that didn't know English and that they would be better off if they learned English. So I started an English as a second language school in my church, and we started with eight students. Now there are over 100 students and there are three levels of instruction. And actually I passed on the administration of that to somebody and I'm no longer involved with that. And then after that, I cofounded a group called HISPA, Hispanic Inspiring Students for Performance and Achievement. Our purpose is to motivate middle school students to use education as a way to fulfill their dreams. So we bring Latino role models to the middle schools. We have a program that there's six visits to the schools, and the Latino role models inspire these Latino kids. And that's what I've been working at the most. We started in New Jersey seven years ago, and we're now in New Jersey, in New York, in San Antonio, Texas, and we just opened in south Florida. As soon as we can figure out another component, another piece of what we're doing, we're coming to a place [where] we

probably are going to start to be more aggressive about rolling this out nationwide because it's very successful. We have partnered with Princeton University here in New Jersey, Columbia University in New York City, UT San Antonio in San Antonio, and we don't have a college partner yet in south Florida because we just had one session, one opening. But we're looking for a good name university to partner with and help us support the program there, because we bring the kids there during the summer for some sessions. But here in New Jersey, we take the kids to the place where Einstein taught. You should see the faces of those kids.

Misa: Oh wow.

Shepard: So anyway, it's just kind of fun. So I'm the chairman of the board of directors of this organization, and I also do dishes because when you have a small not-for-profit you do everything. But that's really what's keeping me busy now.

Misa: Yvonne, could I ask you to do some slightly wider reflection. This is a really great narrative of your career, it has so many rich components to it. One question that I'm interested in trying to understand better is that you were going into Bell Labs, and going into a technical career, you mentioned connections to other women but in the 1970s, particularly in the United States, that was of course a very active period with the women's movement. Was that also an inspiration for you?

Shepard: Oh yes, it was. Absolutely. Wasn't that when Geraldine Ferraro also ran [for vice president] — it may have been a little bit later — but it was early in the 1970s, right?

Misa: A little bit later.

Shepard: But anyway, yes, absolutely. I want to tell you when I first started working I didn't have a clue that [because of] the fact that I was a woman, that perhaps there were going to be different standards applied to me. I didn't have a clue because I went to an all-girls Catholic college and there, everybody, I mean, the president of the student council was a woman, guess what?! All my role models there were women! [Laughs.] And when I was growing up in Puerto Rico, believe it or not, most of the time [too]. My mom was a very strong and a bright woman, at that, and she kept on saying you can do anything you want to do; there is nothing you cannot do. In terms of my upbringing, I never thought being a woman was a deterrent. But when I started working and I started hearing some of these things, you know, some of the different criteria that were used against women, then I started becoming very aware of that. And then, of course, I joined the affirmative action committee at Indian Hill; I was a member of that.

Misa: Can you describe your work for the affirmative action?

Shepard: Beg your pardon?

Misa: Would you please describe your work at Indian Hill with the affirmative action committee?

Shepard: Oh, yes. Let's see, we would meet and talk about what was happening, what things perhaps we need to change. Like some members of the group established a mentorship initiative. I started an initiative which was Women in the Work Environment Workshop. They had an acknowledgement that there was an issue between blacks and white, you know, discrimination against blacks.

Misa: Yes.

Shepard: But they didn't get the women. And Mary Holt and Denise McGrew and I formed a team and we made a proposal for a Women in the Work Environment Workshop and that got accepted and implemented. So that was a side of my work in the affirmative action committee.

Misa: Just a second so that I can get this properly credited, you and Mary Holt, and you said a third woman was involved?

Shepard: Yes, Denise McGrew.

Misa: Denise McGrew, okay, thank you.

Shepard: Yes. Mary Holt was representing the switching system side of the house, I was in the computer center side of the house, and Denise McGrew was the administrative side of the house. So we wrote a proposal, and sold it, and got it implemented.

Misa: That was a really fundamental workshop that many of the other women that I've talked to have commented on, and have very deep experiences with, so it's nice to talk to somebody who was there at the origin.

Shepard: They have mentioned that to you? That's good.

Misa: Oh yes.

Shepard: Because until then the whole focus group was just black and white, you know, literally I mean. And even in the Women in the Work Environment Workshop, one of the first exercises was to divide us up according to race whereby black women could talk to each other, white women could talk to each other, and then bring those together. This woman that was there was Philippino and I am Latina we looked at each other, we didn't know where to go. So we went to both. We kept on going from one to the next and we decided we had something in common with the black women, we had something in common with the white women, and we had our own little group. But still, we had a good time. That was a good thing I really did that and I felt really good about myself. It's good to hear that feedback.

Misa: I think that's been raised at least four, five, or six times. It's always been described as this was ongoing so it's a real treasure to pin that down. I've exchanged some e-mails with Mary Holt but I haven't yet got her agreement to do an interview. She thinks that she's not important enough.

Shepard: Are you kidding me?! That's so Mary Holt.

Misa: I'm sorry, if you could correct her judgement I would love to talk with her.

[Laughs.]

Shepard: Oh she's wonderful. She's a wonderful human being! She's an experience and she's wonderful.

Misa: If you would please put a little emphasis . . .

Shepard: Yes.

Misa: . . . because two or three other people have also said exactly the same thing and I think she may have got the misimpression that I'm interested in talking with purely technical women, but his workshop that she was involved with as well as you were involved with would be a topic of great interest to me.

Shepard: Oh, I tell you, she eventually ended up getting her master's in — it's not social work — I'm going to say sociology. And she is such a bright, bright woman and she is so good at that. I mean, ah, she just sells herself short. Absolutely I will zip her a note.

Misa: That would be great, I'd really appreciate that. Did you have a specific model in mind for the Women in the Work Environment Workshop?

Shepard: We worked with Eileen Lang. We worked with a woman consultant who helped us figure out how to work this and, in terms of models and stuff like that, what we ended up using. Mary would probably be the best person; she probably could tell you chapter and verse. I was more involved with the making it happen, selling it, structuring it, and making and selling it. By the way, all three of us worked at it; it wasn't just me trying to sell it, you know what I'm saying? But that was my biggest contribution was in selling it. Mary's big contribution was in the content, I think.

Misa: In content, okay.

Shepard: Yes. And we all worked with Eileen Lang. So anyway, that's sort of what I did when I was in the affirmative action committee. We also did meetings with directors, and departments, and we would go to their meetings and when they wanted to talk about affirmative action and how women were getting treated or not treated. And sometimes department heads or directors would ask for one of us to come over and help them

conduct the meeting, and have exercises, and stuff. So anyway, that was my participation in the affirmative action committee.

Misa: I have a follow-up question. I've been told — couple of people have made a similar comment — they said that in the 1970s affirmative action was very concrete. That is, there were very specific grievances about working conditions, promotions, salaries. And in the 1980s, it was a bit more difficult to have the same sense of being precise and feeling like you were making headway because the women's issues, that part of affirmative action became more diffuse. Does that sound true to your perspective?

Shepard: Yes and no. The yes has to do with in the 1970s, I felt there were fairly well-defined, specific issues you could point to. The 1980s, what I think happened was we did a great job at teaching people how to speak differently, how to make things look okay, while they were still not okay. Follow what I'm saying?

Misa: Could you describe that in some detail, because that's a very subtle but extremely important point to get clear?

Shepard: Okay. What I think happened was that there was a language that had to be learned, right? Now they couldn't call us "girls," they would say women, but their actions were no different than before. So the behavior was still going on but they learned because they were very smart men, to disguise it so you couldn't pin them. It wasn't that obvious, it wasn't that clear cut. I don't know how to say it differently.

Misa: Sometimes we think that the 1970s was a big triumph, and you're saying that in a way it was a partial triumph, but that what was changed was the surface. Some of the behaviors and some of the actions underlying were not changed as much as the surface appearances might've given people the illusion of.

Shepard: Right, exactly.

Misa: Okay.

Shepard: It's like I say, we many times in business like to think we're very objective about how we make our decisions. I just think we're very good at rationalizing what our gut tells us to do, and that's how we make business decisions. So I have to tell you that's what I think so you understand where I'm coming from. So when people were making hiring decisions let's say at Bell Labs, they were still using their gut. But now they learned that they had to rationalize it differently. Now they had to find good arguments why this woman wasn't the right choice for this and this guy was the right choice. But they learned how to do that and they did that very well. The gut was still connected to the old way of being, but their language had changed enough and they were astute enough to know they couldn't speak like that anymore. I do think that that's what happened. It's like I say to some of my friends, I say we just didn't go long enough and deep enough. We just went through the first layer. It's like peeling something; sometimes we just peel the first layer but there still is more there. Now, you know, fairness, as I look at things —

even though I do hear some horror stories nowadays, by the way, I still hear horror stories — but when I look at it, there are more women in positions of power now in corporations. IBM has a woman CEO, PepsiCo, I mean those are big time companies. Financial services and technology; I mean Yahoo and Facebook, really, but that's I think a different breed. So anyway, I don't know if that meaning says to you.

Misa: I've had several other women say something similar, but you're articulating it in a particularly precise and helpful way.

Shepard: Okay.

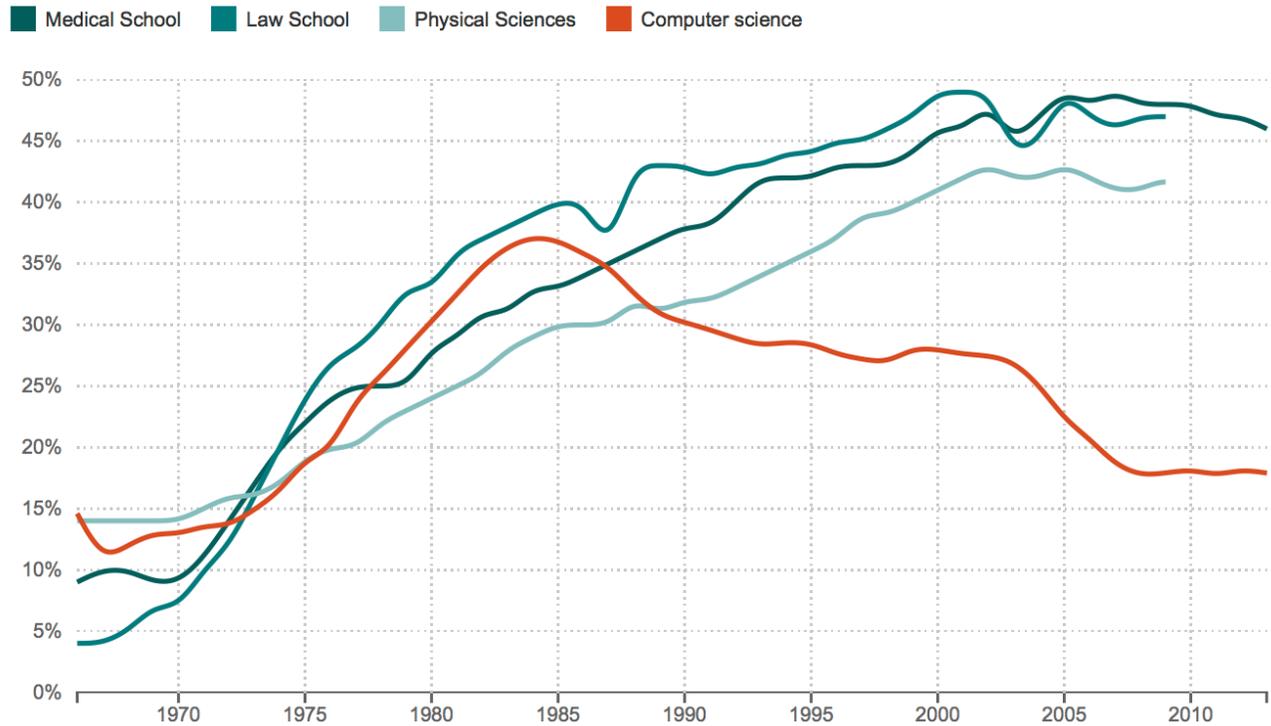
Misa: And it connects really to the puzzle that I think I mentioned the Sloan Project is focusing on, that is there's some subtle cultural change that occurred in the 1980s or into 1990s where in computing maybe something happened similar to what you describe happening inside of Bell Labs. There is a deep puzzle about why in a professional field where people do exciting work, they're well paid, the work is consequential, it builds a big slice of our future, why women are not flooding into that? Why they are leaving, or at least staying away in very large numbers? That doesn't make any sense to me. I think that these more subtle issues are exactly where the resolution to that puzzle may be located.

Shepard: Yes. When I read the NPR blog, you probably know which one I'm talking about, where they put together the numbers for this?

Misa: Yes.

What Happened To Women In Computer Science?

% Of Women Majors, By Field



Source: National Science Foundation, American Bar Association, American Association of Medical Colleges

Credit: Quoc Trung Bui/NPR

Shepard: And when I read that I went like wh-a-a-t?! I was shocked. I knew there was a reduction of women in computer science, but I thought it was a reduction of women in technology overall. I couldn't understand that because I always used to say, actually, when you are in technology, it is easier for you to prove that you're good at it than if you are in strategic planning. If you're in strategic planning somebody has to agree with the way that you see the world, your assumptions, and where it is that you're taking things. Or in marketing, somebody has to agree that the way that you have looked at that

information and the conclusions that you have derived from those are correct. And because you will know the outcome, the actual outcome, months and sometimes years from the time that you make the judgement. But when you're in technology, your program works or doesn't work. Your algorithm works or it doesn't work. You know it is a much more objective way of evaluating a person's talent.

Misa: That's right. It should be.

Shepard: Yes it should be. Therefore, personally I felt that that helped me because of my language barrier. As you can tell, I have an accent. Spanish is my vernacular. And I always felt that that helped me in getting my feet on the ground, or something, you know? Because it wasn't about how I said it, or what I said, it was obvious; here it is, done.

Misa: It worked, yes.

Shepard: To me, it's a puzzle, by the way. And I read what they said in the article, and it's interesting. It's interesting stuff. I was talking to my niece about it — and she went to M.I.T., obviously it's written here in the afterword — and she says she saw that very thing happen at M.I.T. to girls, that they would come to M.I.T. to work in computer science, or technology, or something like that. And they felt that they were so far behind the guys because the guys already have been programming those things.

Misa: Oh, yes.

Shepard: You know, the Tonka Truck Marketing Model type thing?

Misa: Right, right.

Shepard: And they were discouraged, and they dropped out. It doesn't mean they won't come back eventually if that's what they want to do. That's fascinating but I don't think it explains it all, in my opinion, but I don't know what else explains it.

Misa: Very likely it's more than one single thing, too, that's pretty clear because it's a major cultural shift to bring so many women, and for having so many women enter the computing work force and computer science. That's what our research is trying to uncover a bit, and it's not going to be one thing that changes in the 1980s, but those curves, if you've seen them, it's like you could get a master's degree in social science by drawing the same curve. But this is reality, it's not some model, it's actually the reality of what's going on in the field.

Shepard: Yes.

Misa: So it's unlikely that it's just one single thing because people [have] tossed out six, seven, eight, nine different hypotheses, and it may be something more subtle in terms of the difference between surface appearances and underlying behaviors. And the latter, the

underlying behaviors are really hard to understand, hard to document because what we see [in] newspapers and magazines, your typical interview just stays at that surface level and we think that everything's okay.

Shepard: Yes. It may be something as simple as it just [stems] from the fact that some of the boys had a little bit more experience with things justifies people in closing the doors to women and opening the doors to the guys.

Misa: Yes.

Shepard: I don't know. It's a puzzle. I think that was a fascinating thing, I looked at it; oh my God! I was shocked by the magnitude of it.

Misa: Yes, the magnitude is really significant. We ended up getting interested in this at the Babbage Institute because we looked at the computer science degrees, but you might have the assumption that it's only an academic problem, like it's a problem with academic computer science. But once I saw the white collar workforce numbers, no, this is a problem for our society.

Shepard: Yes, it's interesting.

Misa: Well Yvonne, this has been such an enjoyable conversation. I feel like I've learned a lot. Are there any other topics or questions I might've asked that we haven't had a chance to cover?

Shepard: Well, you did not ask — I don't think — I didn't tell you very much about my personal life other than my mother being a strong influence, my sister dying, I think that's about all that I told you about my personal life. And I am happily married. I've been married for 34 years, and been married to a very smart man, supportive. So I think that a lot of what I was able to go from here to there — someplace else — is due to the incredible support that I got from my husband. So I just wanted to make sure that I put that in there.

Misa: Yes, okay.

Shepard: Anyway, Tom, I am going to definitely send Mary Holt an e-mail.

Misa: I'd appreciate that. Thank you so much, Yvonne.

Shepard: Very good. Thank you so much, Tom.