

An Interview with  
PATRICIA WESTERGREN  
OH 478

Conducted by Thomas J. Misa

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## Patricia Westergren Interview

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### Abstract

Patricia Westergren worked as a program manager for Sperry Rand Univac and successor companies, after graduating from the University of Minnesota, working in the Computer Systems Division and the Air Traffic Control Division. She discusses patterns and expectations about women's career paths, which she upended after completing an executive training rotation and then going in to Marketing. Much of her work entailed contract negotiations with other corporate units and external companies. John Westergren, her husband, comments also on her career and his observations about company culture. They both discuss work-family balancing. Later in her career she managed software development for MedNet.

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Misa: My name is Tom Misa. It's the 9th of November, 2015, [and] I'm with Pat Westergren in her home. We're doing an interview as part of the Sloan Foundation funded project to look at the experiences of technical women in the computer industry. Pat, to start, could you say a little bit about any interests or background that you might've had, [any] distinctive interests as you were growing up, or in high school that might've lead you toward a technical career?

Westergren: Not one bit.

Misa: Not one bit, okay.

Westergren: I was probably much more geared towards the languages. I studied French for six years and I liked literature. I did like algebra and the sciences. Actually, a lot of my focus became more medical but with the medical you do have your sciences, heavy sciences behind it but not technical. I started one job for MedNet Solutions — this is after the Univac, Sperry, Lockheed Martin days [same company, different names]. MedNet Solutions is a computer company that provides web-based technology for major medical industry. They came to me and asked me would you please consider a position as a clinical program manager in that environment. It is a private company. My husband said if he owned stock in that company and knew they asked me to be a manager over computers and things like that, that he would've sold his stock immediately. He is correct in that I don't have an aptitude for that [technical; computer work] at all.

Misa: Okay. [Laughs.]

Westergren: I have an aptitude for being a program manager over many things. I'm a jack-of-all-trades and a master of none. I have been a program manager over air traffic control, anti-submarine warfare, pharmaceutical, web-based technology for research clinical trials, a civil mediator. I'd have to get my resume, it's quite varied. But the discipline is program management, it's not technical.

Misa: Program management, you can't really exactly get a degree in that, but some people are really good at taking different skills and different sets of people and being able to integrate them. I think that's the key, or the key aptitude.

Westergren: You need an analytical mind, you need organization skills, and you need the ability to work well with people. You need to pull a team together, motivate them, give them the energy to get done on cost and schedule. After I graduated from the University of Minnesota, I was burnt out and I was going to take a sabbatical from school and work and go skiing in Utah — which I did — and I had three, four weeks or two months — can't remember how long it was — anyway, a time period where I was leaving to be a ski bum. So I thought how should I make money to fund the trip? I went to a temp agency and they placed me at Unisys.

Misa: At Unisys, okay.

Westergren: Well, what was it? Univac, Unisys, Sperry, I don't remember which one it was.

Misa: If it was before 1986, then probably Univac. And then after 1986, I think, is when the merger with Burroughs created Unisys.

Westergren: Okay, so this would've been in 1978, around that time.

Misa: Okay, so Univac, probably.

Westergren: Univac. And I ended up doing secretarial [work] after graduating from the University of Minnesota for the month or so before I took off to be a ski bum. It was on an international program at Univac where I actually met John. So once I came back from skiing, I decided to go to nursing school at the College of St. Catherine in St. Paul. I needed a job so they [Univac] hired me. That was my first entry into a "technical" work environment. I was supporting a person in program management and that was my entry-level. It was not on purpose, it was by luck, or whatever.

Misa: You said that you started working in this support position, where? Which of the Univac offices?

Westergren: It would've been CSD, Computer Systems Division. But it was Trego or also known as 6977 [the contract date for the program]. It was an international program

that we were doing for Israel. That one lasted for a couple of years and it went into arbitration. When the Israeli project ended, I was picked up by Marilyn Snyder and started working in the Univac procurement audit department. I need to get you Marilyn Snyder's contact information.

Misa: Oh, that'd be great, thank you.

Westergren: . . . my focus was audit for small business. You know how you had requirements for contracting or hiring women in industry, we also had it for small business in industry. And so I had to learn everything related to audit. Every job I've gone into, I tend to switch to new positions about every two years because I have a boredom factor, same company, just do different jobs within the company. In the audit function, I had to learn to basically figure out the accounting structure of different companies who were bidding to us [Univac], and verify that they were small businesses and whether their financials were correct, and then do a report on the findings. And from there, I just launched to other jobs.

Misa: Was program management something that you saw early on when you were in that support role, that you said 'that's it,' because it speaks to you in some fashion?

Westergren: My motivation was travel. I loved languages, I love travel, I love culture, and as I entered into Univac, I found that each of the jobs allowed me to travel and that's

what I really enjoyed. So being a program manager... I just found I was pretty good at it and kept being moved into those positions.

Misa: Which of the Univac facilities in the Twin Cities did you work at, where was your location?

Westergren: Plant 8.

Misa: Which is?

Westergren: The one on Pilot Knob [Road], in Eagan, [Minnesota]. But we had offshoots also, because there were specialized programs, like the one with Israel where it had its own location offsite. And then I worked in air traffic control, which was at Plant 8 but we weren't even in the same division as the computer systems division. We were the air traffic control division. We were sister divisions, but co-located in Plant 8.

Misa: That was a huge activity for Univac for a couple of decades, air traffic control.

Westergren: Oh, absolutely yes.

Misa: All the way back to NTDS, and that's a long story.

Westergren: I've heard it.

Misa: When you're doing program management, can you say anything about how the different disciplines of somebody who's more financial, or more managerial, more organizational, more technical; how you found the people and how to create a working team?

Westergren: First of all, every time I moved into a position, I really had no idea what it entailed, and it was a lot of self-learning. I entered into subcontracts management for the air traffic control division. We would win a program as the prime contractor, but sometimes up to 80 percent of it would be subcontracted out to other companies. So, in the subcontracts department, you'd become responsible for quite a bit of the contract. Maybe \$40 million or so. When I first entered into it, again, my draw was I wanted to travel, and when you are managing over the different vendors, you travel and vet out the different companies, and organize teaming arrangements, and things like that. In that position, I initially had no idea even what a cost plus fixed price contract was, so I had to go and start learning, getting books and educating myself on the different types of contracts, etcetera. Some of it was just learn by experience, and just dig your heels in.

Misa: Was there any kind of career path or, alternately, training that Univac provided to people who went into program management? Besides just the day by day learning on the job. In other words, was that a recognized career path or track?

Westergren: It was a recognized path to be in it, but was there training for it? No way, you either did it well or you didn't do it well. Promotions or positions were given due to reputation. I was never much of a militant person, not much of a woman's libber because I don't like things done in a militant way or a forcing way. I believe very strongly that you work hard, you work competently, you put your head down, you get along with people, and there's a natural progression then of people just accepting you and moving you into different areas. I entered Air Traffic Control (ATC) as a subcontract representative, and two years later I was promoted to be the manager of that department. So that's kind of a fast track when you think you go into an entry level and two years later you're running the department.. I stayed with ATC for about five years, until something opened up in the Computer Systems Division (CSD) which was called a "high potential" program, where upper management took notice of certain individuals in the company, and the selected individual would work [train] underneath the president of CSD. Even though I was working in ATC, we were still considered the same company. The president there, whose name was Al Zettlemyer, was the first person to initiate this high potential training. I guess you would say this was my first formal "training" experience. The first person selected to go through this training project was the CSD director of finance. The training was a six-month rotation where the selected person worked directly underneath the president. [He] sat in on all the executive management meetings, [and] did special assignments, etcetera. I was the second person selected to go through the "high potential" training program.

Misa: Just a fantastic overview; pretty rare to get as a junior person.

Westergren: Yes, right. I was the second person who went through it. I know that there was a little bit of ‘why are we having her come in when she’s ATC and this is a CSD program?’ But Al Zettlemoyer said the training program was just looking for high potential individuals within the company. You have to remember, you keep saying in the “computing industry,” but honestly, my whole concept of the time when I was at Univac, Unisys, whatever — was “government” business. So it’s more defense and government. I touched engineers, but not computers. One of the things that would have been pretty much taboo in those days was that a woman could work in program management, she could work in subcontracts management, but you really didn’t have women in marketing because marketing [personnel] interfaced with defense workers and the military. So you’d [marketing personnel] go before the captains, and you’d go before the generals, and you have to remember back in those days, the 1970s, early 1980s, women didn’t even wear pants. We wore skirts, and we wore nylons and heels. Women in that environment did not get into, or in front of government people, or military people. You [as a woman] were limited to work with government civilian people in areas like “contracts,” but not typically in sales related to the military side of the defense industry.

Misa: But for marketing, or presentations [pause]

Westergren: So much of that was with a captain, or a general, or whatever. That was not an open avenue; we didn’t have that. After I had gone through the CSD high potential training rotation where I’d spent five months underneath the president of CSD, I think it

was still called CSD. You have to remember we changed titles and acronyms so many times. [Laughs.] But after five months the door was open [and] they [executive management] said, ‘Where do you want to go?’ I said I want to do marketing, because that’s always been closed and [now] it was open for me. And not only was it open, but I had two managers or directors, whatever they were at the time, who would take me. One was in major systems, and the other one was in spares. I was not interested in marketing related to spares. I wanted to go into major systems, where you do your teaming arrangements.

Misa: Spares would be?

Westergren: Like on contracts, you would have to buy [life cycle] spares. I don’t even know exactly [what that entailed] because I never went into it. It just sounded boring.

Misa: Spares in the sense of extras, though, that’s not an acronym for something else.

Westergren: Oh, no. Any program that you do, it’s long term. You’re not just doing it for a year or two. When you buy for the government, you might be doing 20 years’ worth, so you have to be sure that in the upkeep of the equipment you have to have available parts — spares and parts.

Misa: Right. That was my understanding, I just wanted to make sure that wasn’t something I was misinformed on. So this was really quite a major opportunity, then.

Westergren: It was.

Misa: Can you describe your work and interactions with people?

Westergren: There were certain programs where you'd put together teaming [agreements]. I think I was — not I think, I *know* I was — in the anti-submarine warfare [ASW] area for that marketing. And we were going after different programs. Being a junior person, again, I did have what I thought was common sense, and at one point in time I kind of went — I won't say against — I expressed an opinion that we shouldn't be priming on certain things, which the person who was the director of it thought we should be. They were new to the company, they kind of came in [and] they didn't really have the Midwest culture and there was some butting of heads, I think, or philosophical differences.

Misa: By priming, you mean serving as a prime contractor?

Westergren: He wanted to serve as a prime contractor in the bidding on the ASW, and when he asked me what's my opinion I said we don't have a reputation, you're going against the big hitters. We've always been kind of a black box company. So I think it would be better rather than trying to prime, to go in as a subcontractor to the primes and make our foothold and grow from there. He didn't like that very much and he considered it to be not a team player that way. It was his personality — I shouldn't even say this on

tape — but he had a lot of ethical hits against him; people calling into the ethics department or whatever, against this person. We butted heads a bit, and at one point in time I was told — he eventually left — but I was told he wasn't worth the gunpowder to blow him up, the president had said.

Misa: Oh, okay. [Laughs.]

Westergren: He had a reputation himself. He just didn't fit in and he just [pause] had grandiose ideas more than practical things.

Misa: Could you give me a sense of the different kinds of people that you would be involved with in this marketing function?

Westergren: The engineers. We had a teaming arrangement with other companies for the purpose of bidding on a proposal to win a contract. . So in one case, Motorola was coming in to do our semiconductor boards, and they had been around a long [time]. And a lot of people thought we were going to go with them, and I said well, I want to do a weighted criteria first because we just aren't going to go with just whoever keeps coming in the door. And so I sat down with the engineers and determined the most important technical and management criteria [for selection of our teaming partners in the current proposals]. Now let's weigh the importance or priority for each criteria. One criteria is a 10, this one's an eight, this one's only a five, this would be nice to have but it's a two. I then requested different individual engineers to use the weighted criteria in scoring the

various companies that we were considering for a teaming agreement. And when we were done, the U.S company that they thought they were going with — not that I was pushing in one direction or another because I didn't know this technical stuff — it ended up being a company in Canada [that we selected].

Misa: They kind of thought that the contract was there from the lobbying, or sales, or something.

Westergren: Yes. I actually heard somebody had bought a home in Florida, based on what he thought was going to be his commission. I felt bad about that but it's business, it's not personal. You work side-by-side with your engineers for a lot of it. You're the one they come to for support and I relied on them for their expertise. There was a case, and this is an unusual one — I guess I was a little bit of a rebel or didn't know enough to stay out of the politics. When I was in air traffic control, I was the subcontracts manager and we had a very, very competitive proposal for bidding on an air traffic control contract. It was called New York TRACON, [Terminal] Radar Approach and Control Program; and we were going head to head against IBM. It came down to internal negotiations and we were supposed to get memories from our sister division, CSD. The proposal bid was considered so competitive that ATC was thinking of not putting profit in the bid just to have the business, because it was that tight.

Misa: It was big, yes.

Westergren: It was a big program and IBM was used to winning. It [NY TRACON] was a very critical bread and butter program that we needed to win for our ATC division. I ended up going into negotiations with our sister division [CSD] right there in the same building, and the CSD negotiator would not negotiate fairly. I think that person thought that it was a shoo-in; we're the sister division, you're going to give it to us, why should I bother wasting my time negotiating. It was the type of thing where during negotiations I would say, there are these 10 things that need to be done and it's a million dollars. What if I only asked for five of those 10 things? And they said it's still a million dollars. Well what if I only asked for one of those things? They said it's still a million dollars. After a half hour, it was very, very evident that they weren't going to negotiate. So I went back to the president of ATC and I said well, they're not negotiating; that's their price.

Misa: That's the sister relationship.

Westergren: This is the sister division. We were ATC, they were CSD. He said what do you want to do? I said I think we need to look elsewhere as well. The CSD price was about three million [dollars] for the memories. ATC ended up going with somebody who was only a million. So that's two million out of the contract. So I went and developed another source for that [the memories]. Since the price difference was three million versus one, ATC didn't give it to our sister division. Do you see how I'm not so bright when it comes to politics? [Laughter.] So we went with the outside company. They were a great vendor, they were wonderful and they got the business. This [initial contract] was just the first go round; there were going to be many, many additional airport sites

associated with the future contracts. This situation occurred while I as the manager of ATC subcontracts department. It was later that I was selected to participate in the CSD high potential training. The vice president of CSD manufacturing was not very happy with me for taking that memory business away from them. So now I'm up on "mahogany row," that's what we called the location which housed the offices for all the VPs and the president of CSD. One day the president said to me, 'You need to fix whatever the issue is with the VP of manufacturing.' I said, 'I didn't even know there was an issue.' He said there is an issue. So I went into the VP's office and said I just want you to know the story behind CSD not being selected for manufacture of the memories for the ATC proposal. Selecting an alternate source was not initially desired, but your team would not negotiate and we were down to losing the proposal or going with the significantly lower bid for the memories. I couldn't choose CSD and lose the contract and nobody wins. So he was fine with that. The president later stated to me, 'I don't know what you did but it's all good now.' In the government business there weren't a lot of women. I had plenty of champions. I had nothing at all to complain about. I had great guys that stood behind me and allowed me to succeed in what I wanted to do.

Misa: People who did mentoring?

Westergren: No, they just trusted. I mean, it's like I said, if you put your head down, and you do a good job, and you work hard, and you're there long hours [the results speak for itself]. I've always been told I'm a calculated risk taker, but I always win because if I took that risk, I did everything in my power to succeed. I'm not a risk taker, I'm a

*calculated* risk taker. I stack the deck then to make sure that we win. If that takes a lot of extra hours, and a lot of extra research, and a lot of extra effort, I'll do that to make sure that the risk is productive.

I have a story related to calculated risk. This was during my “audit” days. I was on a site visit to negotiate contract terms/pricing for a company that had been a “sole source” vendor to CSD for a hardware product. I forget even what the product was. This sole source company had been doing business with CSD for many, many years and the head negotiator, a good ol' boy, for this company was not willing to negotiate price based on their extensive learning curve for the product. He basically patted me on the head and said go home and take care of your babies.

Misa: A little off-putting, I'd say.

Westergren: Well, it is. I'm sorry, but I know that there's learning curves and the prices should be coming down, with manufacturing you learn along the way, your prices get cheaper. There should be at least a 10 percent reduction or something like that. So I came back to my own company, and again, I had a good mentor or a good support structure — not a mentor so much as a support structure — and I laid out the request that I wanted CSD to develop a second source for the product and not continue with just the one sole source company. This action takes a lot of effort sometimes. You've got to put a lot of work, and specs, and engineering behind it to get another vendor vetted.

Misa: So then you have two sources, so you're not dependent on one.

Westergren: Two, you should never have single source. But it would not be to get rid of him [initial sole source company] because then I'd end up with a single source again. Well, the contract for that year, for that time period, the sole source company who used to have 100 percent of the business, now got 10 percent, and the newly vetted/approved company got 90 percent. The sole source company basically lost a majority of that year's business with CSD because they knew they were sole source and did not think they had to negotiate fairly with me. The reason I tell you those stories is that when I laid out the situation of what I experienced, why there was no negotiation, and why it would make good sense to either 1) not go with your sister division or 2) to develop a second source, I had supportive management people that listened and stood by me in those decisions..

Misa: People that were your supervisors?

Westergren: Usually they were presidents of the divisions because you do something like that, it takes higher than just [immediate supervisor].

Misa: So it's somebody in a position of authority.

Westergren: Right, heads of the divisions kind of thing. So things were successful that way.

Misa: Do you just naturally come to negotiation or were there classes, or training, or . . .

Westergren: [Calling out] John, do I naturally come to negotiation?

[Laughter.]

Misa: He's laughing.

Westergren: He calls me an Arab — what do you call me?

John [Westergren]: An Arab horse trader, carpet trader. [She] comes by it naturally.

Misa: Okay.

Westergren: I do my homework, and I look to see what it really should be, and I have backup as to why it should be, and so, yes, negotiation comes naturally. I loved teaming arrangements, where you're not getting into the nitty gritty of what something costs but now you're really looking into the talents of different companies, and pulling it together for what the most successful team will be to go ahead and bid for a major proposal.

Misa: So you're making judgements about kind of complementary qualities without necessarily saying it's going to be 57 cents, or 95 cents, or something like that, but you're trying to pull a team together.

Westergren: That's right.

Misa: That's human judgement, too, isn't it?

Westergren: Absolutely.

Misa: And skills, and being able to read an organization. That doesn't seem like that would come easy, either.

Westergren: That was fun. I get bored easily. John was afraid to marry me; he thought he'd be out within two years because remember every two years I changed jobs.

Misa: Every two years was a change; well maybe not in all things.

[Laughter.]

Westergren: So what other questions do you have?

Misa: You said with the military sector, especially in marketing, there weren't a lot of other women around. Were you the only woman who was doing this level of contacts and negotiations?

Westergren: I think so. John?

John: Yes.

Westergren: When I was in ASW for marketing, were there any other women in marketing at that time?

John: Teresa Hennes.

Westergren: She was marketing?

John: At that time, yes.

Westergren: What was she marketing?

John: Navy products.

Westergren: Okay, there was one other.

John: Only one other one, yes.

Westergren: She didn't stay in it, though, did she?

John: No.

Westergren: So it was rare.

Misa: It was a pretty rare thing. So in terms of your counterparts in Motorola, or you said this good old boy, I assume that those were mostly men that you were involved with in negotiating? And then you said teaming, pulling a team together. Were there any appreciable number of women on those teams?

Westergren: No.

Misa: That's all men.

Westergren: We didn't have women in management in those days. You might've had them in other industry, but not in defense industry, not in the military.

John: It was 10 years before — late 1990s — before we had a woman vice president there, and that was again in marketing. But it was late 1990s.

Misa: Late 1990s.

Westergren: And this was the 1980s.

John: And Millie Gignac was probably, you know, she was obviously the 1970s, but she was their mid-management or director of HR, because at that time Human Resources was the only place for women in our business. There were very, very few technical women.

Westergren: And not very many in management, either.

John: And again, on the business side, contracts, bookkeeping, finance, the administration side, even there, there were very few women because they went other places. They probably stayed in banking or went into other businesses, they didn't come into the defense business because of obvious reasons, I guess — many reasons.

Westergren: I told Tom, too, was that probably the only reason I was allowed access to the marketing side, where you're getting in front of the military Captains, was because of the President Al Zettlemoyer position, where he decreed that I had gone through this five months of training (shadowing executive meetings) and was allowed to select which area of business I had an interest in. And if I said marketing, what was he going to say? No? So that was really unusual to put a woman in the marketing side.

John: In spite of all his idiosyncrasies, this individual, Al Zettlemoyer, and a management style that came into Eagan from IBM and from Burroughs, but mostly IBM, they were rather innovative in the fact they started mentoring women. And again, like Pat said, he brought in — you were one of the first ones, second?

Westergren: Second one.

John: As a shadow, an administrative shadow to the president and vice presidents there. Number one, shadowing had never been done before; number two, never had there been a woman shadow, or close to it.

Misa: You said you were the second person.

Westergren: The first trainee was a male. If it was meant to be for women only, they were going to give it credibility by having a guy go through it first. [The training/mentorship project under Al Zettlemyer ended when he left the division in the early 1990's.] The finance director was first (male), I was second (subcontracts manager), and the third individual (male) was in program management. So I wouldn't even say it was mentoring just for women. It was meant to be mentoring for high potential individuals.

John: High "pots," high potential individuals.

Misa: And to give people an overview of the company as a whole, where it would take them 15 years to get what you got, you said, in five months or something.

John: Then again, it wasn't until 2005-ish when they started doing that across the board with twenty-somethings. They graduate, come into the company at 22, probably the late

20s they start identifying a bunch of people, male and female, in the different organizations, in administration, in engineering, and manufacturing operations, and they would rotate them six months on jobs around the corporation. They were high potential folks. And after their two years of four rotations of six months apiece, they could pick their job anywhere in the corporation, within reason, within capability, but they could pick their location.

Misa: Right, I want to be CEO or something, you wouldn't quite get that. But some functional [pause]

John: Part of it was, credit or blame academia, in the fact that late 20s, these kids, after five to 10 years in the workforce, they thought they should be running the company. Couple of them did, because that's what they thought. They thought that they should be in charge. It's not where she was at in the late 1980s or early 1990s, but later on, the millennials are starting to have that attitude. And rightly so, because they see kids like Zuckerberg, and a few of these others that seem to be pretty savvy, and seem to be multimillionaires at 25.

Westergren: I never felt prejudiced against for being female. Age, yes. Age discrimination, yes, because I had a lot of ideas and they looked at you as being 24 years old and why would we listen to you.

Misa: Too young.

Westergren: Too young, you're too young. And probably in some ways [I was]. I remember being in Seaberg's office, where I forget why I was called in for that, we had a group and [pause]

Misa: Was that Dick Seaberg?

Westergren: Yes. And he basically said [to me] how did you get to the place that you are? And I said hard work and intelligence. And he said and a lot of luck. I didn't believe him at all. [Laughter.] Well, but there is luck. There is an element of being in the right place at the right time and it's a blessing, actually, that you're able to pull it together. So in my immaturity, my thought was no, it's hard work and intelligence. And his aspect of saying that there's other things that pull together to make you successful, he actually had more wisdom than I did at the time, so maybe age was working against me at that point, because as I've gotten older, I agree with him now.

John: She says that I'm very lucky because I am, I am very lucky. Especially in my career and all the things I've done over the last 40 years. I contend that people make their own luck also, especially in the work force. You position yourself, you do the right things, you take the right jobs, and you can start making your own luck. It helps to be somewhat lucky also. The same guy she was working for one time asked what gives me — because I was relatively young when I had the job of program manager of the largest

program in the company at that time, the UYK43 — he says why are you qualified to be the program manager, because he looked at my resume and he looked at all this . . .

Misa: He wanted it to be pages longer, or something.

John: Yes, he wanted to see something else that he didn't see. I said I'm just a jack of all trades, and a master of a couple of them.

Westergren: We both are. [Laughs.] I told him that.

John: He just kind of looked at me, sat back in his chair, and thought about it for just a bit, and said okay. Because that's what program managers are, that's what generalists have to be — you have to be an interested party in every trade in the book.

Misa: But there's some specific skills, though. That's not just being a generalist because you have these skills in negotiation, and being able to read people, and pull a team together. And those are not specialist skills, but those are specific skills, do you know what I mean?

Westergren: Those are personality traits, I think too. I mean, it's skills, but it's in you or it's not. There are some people maybe who are looking for their own glory. When you come in as a program manager, you're there to support and elevate your people. When they see you working there long hours, they'll stay there working with you. When you're

excited and passionate about something, that will transfer into them as well. So some of it is personality traits, I think.

John: Her medical background wasn't used by her for 20 or 25 years, but it's the other collaborative things she learned in school . . .

Westergren: Deliberative process of thinking.

John: . . . that's right, and psychology, and the logical thinking of chemistry, the technical part of her chemistry education.

Misa: It's not technical, but it's methodical.

John: It's science, it's not technical *per se* in our vernacular, but it is science and it requires that. So that's a big part of that, also. And then how she applies it.

Westergren: Effective conflict resolution.

Misa: And you had no classes in any of this. Business schools teach classes in all — I'm not saying they're great classes — but these are all, it's like, Negotiation 101, Negotiation 102.

Westergren: Well this one's a little more inbred; negotiation comes natural to me.

[Laughter.]

Misa: And the same thing with conflict management, there are business school classes to learn many of these skills.

Westergren: In nursing school, we had something that addressed conflict management, and the process you go through. We studied a deliberative process of thinking, where you analyze all the symptoms in order to identify the underlying issue(s). Once the main problem is identified, you outline the different options on how to remedy the problem. Then you prioritize each remedy/solution as to which is the best option, the second choice, and on down until you reach the least viable action to solve the problem. That training or thinking translates all the way through to any discipline. Take medical symptoms out of that process and instead apply any contract or technical or management problem into the equation. Rate your options of solutions and go with the best choice, if possible. So even my formal education in nursing transferred good management technique to my work in the defense industry.

Misa: Did you work as a nurse?

Westergren: I worked very little as an RN. I went to Bemidji State for two years (French Language minor), graduated from the University of Minnesota (psychology/chemistry/pre-med) and then went on to the College of St. Catherine for registered nursing. I was pretty much burnt out after nursing school. I had already started

at Univac and was traveling and drawing a salary, so I dropped the nursing profession at that time. I did return to the medical profession in later years to work in research projects. Again, more in the program management role.

Misa: Okay.

Westergren: I did want to obtain the nursing degree as an option for work while raising a family, especially if I got tired of all of the traveling and defense work.

Misa: Oh, at St. Kate's.

Westergren: At St. Kate's. So I actually spent almost seven years; again, jack of all trades, it's psychology, chemistry, nursing, and French because I didn't know what I wanted to drop. Matter of fact, the first quarter of college at Bemidji, I registered for 21 credits of classes. Typically a full time Freshman student enrolled for 12 to 16 credits.

Misa: Ouch!

Westergren: A guidance counselor was required to sign off on the list of classes. He instructed me to drop one class, as I could not have that many credits during my first quarter of freshman year. I said, 'Okay, I'll think about it.' I handed in my class registration with all 21 credits.

Misa: That's a lot.

Westergren: Yes, but it was fine; there was nothing I wanted to drop. So that's my personality, I guess. Anyway, next question.

Misa: There's a question that I have about the different parts of Univac and also if you felt there were meaningful changes when the company went through the set of reorganizations. Did you feel like that was a change in your working culture or working environment?

Westergren: No. It didn't help it promote or demote, if that's what you're thinking about, or were there struggles to get better assignments? I didn't feel any of that. It boiled down to your reputation, your personal reputation and the people that came to support you, people you had worked with. Would you agree?

John: The change that I noticed and you might not have, that I noticed is that we were no longer a local company. In 1985, even though prior to that we were part of Sperry, and Remington Rand, and the rest of that, but prior to 1985 they weren't parachuting new management in here, it was all locally grown management, for the most part. They grew up through the ranks. Everybody knew everybody, and you had that people knowledge. Starting 1985-86, when Burroughs bought the defense part of Univac and we became Unisys, they started bringing in the IBM culture, they started bringing in Burroughs culture, and they started parachuting management into Minnesota. And it was East Coast

versus Midwest, and it was a big change. I don't know — you saw that, too I think, didn't you?

Westergren: I remember Zettlemyer being just frustrated one time. He really liked one of our directors of engineering and wanted to promote him to a VP position. This promotion required the director to relocate to Utah as a first step in the process. The director was about 50 to 55 years old at the time, and he declined the promotion. He had just started having grandkids, with family rooted in the Midwest.

Misa: Didn't want to fly off to Utah.

Westergren: His career path at age 55, he didn't need to be a vice president or a president of something. It was more important with the Midwest culture to stay immersed in his family, his wife, his children and grandchildren. The president of the company was not from the Midwest and could not fathom the fact that this guy was turning down an opportunity for advancement. So it was a cultural issue of work over family.

John: We always had a hard time — I shouldn't say that because there are always exceptions, Tom — but it was a hard time bringing kids and new hires in from California, the South, or the East. We tended to focus on Midwest schools just because of the culture here in Minnesota.

Westergren: And they [Midwest persons] stayed. The others left a few years later.

John: They [Midwest persons] stayed, the family culture was similar to that in Minnesota. Kids from California would come here for a year or two and it was either the weather or just the general restaurants, culture, things to do at night, things to do in general; they wouldn't stay. They just didn't feel as comfortable as from where they came from, and so they would go back, whereas the Midwest kids from the Dakotas, Iowa, Illinois, Minnesota, Wisconsin folks fit in just like a glove, they really fit in well with the working culture that we had developed here over the course from 1940 on.

Westergren: But I think his question was more, "Did the women find an issue with that?"

Misa: That's another question, yes, because you're describing kind of high level personnel, then there's a question about sometimes a new management comes in and either they're more or less savvy about women's issues, or they're more or less amenable to women moving into management.

John: I think they're more savvy to it. I don't think organically, here within the upper Midwest we were not attuned to women's issues as fast and as early as they were in California, the East Coast or someplace else. That's why when Unisys took over, she was one of the first to end up at that level, and they started promoting women into higher levels because of a different approach. And I think it came from the East Coast.

Westergren: Yes.

Misa: You mentioned IBM, I'm curious about that.

John: Some of the Burroughs people came out of — when we became Lockheed Martin, no, it was even before that. They came out of IBM Manassas and there was a management team that came out of Reston, Virginia, and Manassas, and that was IBM Federal Systems Division, FSD.

Misa: Oh, the Federal Systems Division, okay, got it.

John: And that's where that came from. And then when we became Lockheed Martin, we also started seeing people come out of IBM Owego, because again, they had been part of Lockheed Martin, or they were bought in the early 1990s by Lockheed Martin. So in the mid-1990s we started to see even more and more of them. But in the mid-1980s, when Burroughs bought us, we started seeing [people] from the Virginia area.

Westergren: You know my comment to that? The piece that's not being considered is that I had five kids in 10 years and I never looked at the political or as someone elevating me or not elevating me. So all of the organizational structure never really mattered to me. I was sleeping no more than two hours at a time for about 10 years.

Misa: Oh gosh. [Laughs.]

Westergren: With kids and everything. So the focus was just on the job that I had, not where I wanted to go necessarily. You keep saying did I have a pathway that I wanted to go. After two years of being done with one job, I would be focusing on something else now and I didn't even care if it was a lateral or an up or a down — not usually a down — it was just something different. The main focus for me other than doing a good job was raising the family.

Misa: That's a big important job too.

Westergren: Balance the two so all of the political stuff had very less meaning to me, and the career path had less meaning to me. That's not true of all of the women. Like Teresa Hennes that you talked about, she was not married and did not have children, and unfortunately, she ended up dying of cancer. But the career path was incredibly important to her. She was a very political, very fast track, wanting to be a fast track person.

John: Jennifer Smith eventually became, or was vice president of HR, but then went over to Lutheran Brotherhood and ran HR at Lutheran Brotherhood until she retired. [She] was high management over there and very career oriented. Extremely.

Westergren: So you had a kind of mixture, but we had more [women] that were family oriented than were career path oriented.

Misa: Were there — I'm going to choose a word carefully, but — accommodations, or flexibility, or there's job sharing, there's part time work, there's lots of different modes of structuring work that I think are more common now, that I don't believe were very common in those days?

Westergren: No. Did I ever take maternity leave, really? Even if I technically did, I still went in to work. Our first daughter was born on contract award date for the New York TRACON program

John: In 1983, so yes.

Westergren: In 1983, New York TRACON. She was born on contract award day. She was born on a Thursday and by Monday I was back at work. And that's only — I wasn't there on Friday because John took my car keys away.

John: We had a huge fight because I had to take her car keys away. She was in the hospital one day and then she wanted to go to work the next day, and I had to take her car keys away.

Westergren: We were offsite, so the baby came with me. It's not like I left the baby. Because we were offsite, I took out my brand new baby, and she came to work with me, and I just put her in her bassinette underneath my desk, and when it came time to nurse I found they didn't have any accommodations. You just found a bathroom and you nursed

her in the bathroom and then you brought her back. And so she just went to work with me every day. There was no objection because we worked off site and the work needed to get done; I didn't take maternity leave.

John: She was in one of the smaller buildings two miles away from Plant 8. That wouldn't have worked in the main building. There would've been too many people saying what you can do, and why are special needs or individual accommodation?

Westergren: Why is a baby in here? It would not have happened.

Misa: Was it kind of below the radar, you'd say?

Westergren: Yes, absolutely. And if I'm off doing something down here in this office and the baby cried, my co-workers would shout, 'Hey Pat, the baby's hungry.' So I'd come back and take care of her needs.

John: Because it was in a small facility, it was run more like a small business because of the camaraderie.

Misa: That meant you had support of work colleagues.

Westergren: That's what I've always said. I never experienced what I would consider a glass ceiling or never being on the right track. I just didn't relate that way. I related to

people who were great coworkers, and supervisors, managers, directors, vice presidents, and presidents that allowed me to do what I needed to do. I don't think it was a women's issue as much as it was work needs to be done, and she's in the position to get things done so we support her to get the work done. So, would you agree with that?

John: To give the company a fair amount of credit, there was a tremendous admiration for competence and whether you were male or female, black or white, it didn't really make any difference. Everybody really respected competence and once you proved your worth, that you were competent in a position, a job, or an idea, whatever — boy, that really worked well.

Westergren: You had support.

John: You had support of your peers, you had support of the people below you and above you. And it was well respected. And that's a case in point.

Westergren: It didn't mean you didn't come up against some things. I can remember after a few of my children were born, an older engineer that I did not know very well, brushed up against me in the hallway and said, 'Shame on you, you should be home with your children, your poor kids.' I didn't even know who he was. So women were still exposed to some comments and some prejudice, but it was few and far between, and it was individuals and not usually [someone] who I knew. It was somebody who had their own mindset without even being involved with me. You still got things like, 'Gee, I wish

that little slit in your skirt went further up.’ You know, you got your prejudice things from different people because that still existed, but I think it wasn’t discrimination, it was just — what would you call it — just harassment.

John: Later it would’ve been called sexual harassment.

Westergren: In those days, you didn’t bother with it [sexual harassment]. You just put your head down and ignored it. We used to laugh and say we don’t report it, we grade it.

Misa: Okay.

[Laughter.]

Westergren: Because there wasn’t a whole lot you could do with it without becoming a big deal and creating a negative name for yourself.

John: We eventually, as I was saying, every two years whether we needed them or not, we had another kid. Eventually, Pat’s mother would meet one of us at work. Her mother lived in West St. Paul. We lived in Apple Valley and we’d meet in either the front lobby, the south circle, or somewhere in front of the building. And so the guards —

Westergren: Watched us transfer kids from one car to the other.

[Laughter.]

John: They would be very supportive because we'd park out there and wait for mom. The guards got into it and they were saying ah, yes, they're really growing. It became part of the family because again . . .

Misa: That's a supportive work culture.

John: It was a very supportive work culture.

Westergren: I ended up leaving after 12 or 13 years there. I enjoyed it. I liked it but John was working in support to marketing and I was in marketing. There was a two-month period of time where there were only two week nights that we were home together.

John: During the week, Monday night through Thursday night.

Westergren: And I turned to him [John] and said one of us has to be the wife, and I want it to be you. You're the introvert, you're quieter, you have worked longer, I still want to keep going. And he said no, I'm not ready. So I ended up staying home and took a year off before I moved away from Sperry and transitioned into the medical profession, which were the pharmaceutical clinical trials. Then I traveled even more. [Laughs.] But that was the original reason for getting out [leaving Sperry], with the travel and young kids it got to be too much.

Misa: It's helpful to have a grandparent around, but still you can't [pause]

Westergren: I never could've done it without my mother, because we didn't want to put the kids in daycare. And the kids had three parents. When we'd go to pick them [our children] up you would think the poor kids would run to their parents. That did not happen because they had all their cousins and aunts and uncles at my mom's house. So it would be oh no, you came too early, go away.

Misa: Oh dear.

[Laughter.]

John: Or there's the other part, for a village raising a family.

Westergren: So I have to tell you I had full support. I worked hard, had my head down, I had a lot of successes but I had a huge amount of support from family and from coworkers.

Misa: Pat, do you want to say a little bit about the later experience? You said you worked essentially managing a software project, or managing this website company?

Westergren: This was clinical registries and pharmaceutical websites for cardiac, for the first one, Abbott, what it was [pause]

John: Tracking device trials for FDA approval.

Westergren: Yes.

John: So it's developing software websites which makes it easier for the client company to gather the FDA's required data about their device or drug.

Westergren: I was program manager for high level websites that supported clinical trials. Clinical trials previously relied on "hard copy" data entry where medical personnel wrote data on forms for later electronic data entry. With the new electronic websites, the data and history were electronically entered into a website, where data could be analyzed in real time. This really streamlined clinical trial information, allowing early efficacy or safety trends to be identified at least 6 to 12 months earlier than paper entry. You might close something down if it's going in the wrong direction. You could track inventory with it [the electronic website]. You could automate randomization for patient enrollment. You had case report forms. You had safety committees that would look at things [patient data] and be able to make early judgements for the direction of the study. These were million dollar websites with significant trial management capabilities. I worked with programmers on a day-to-day basis. We fought over which programmers we would have on our own project. This is where I got into the spec writing because you had identify and communicate the business requirements. Everything had to be signed off and given to the programmer for him to perform his tasks for the program.

John: Because the output of this website is — making this very simplified — once you push the button, the output of the website is the stack of paper that is submitted to the Food and Drug Administration for their eventual approval of the drug or the device. So it's then that output of all the trials, and all the information, and all the results, and all the good news and bad news goes into the FDA for their eventual approval or disapproval of the drug or the device.

Misa: So that has heavy consequences for a company.

John: Yes, it is. And instead of doing this all manually the way they used to, it's all done now with a website, web services, and all of that, so it cuts down on a lot of cost. And because of the specs she's talking about and writing, it's always the same and it is exactly in the order, exactly what the Food and Drug Administration wants to see, so it makes approvals move a lot faster, or disapprovals, so the drug company knows.

Westergren: I started with defense/government regulations, and then I moved over to FDA regs. It was a transition, but you are a program manager with this product over here, now you're a program manager with a different product.

Misa: It sounds somewhat similar, but you're now with this job you're describing essentially managing programmers in a much more [pause]

Westergren: Much more hands-on. You're a team, now. Actually [pause]

Misa: Can you say something about the management of programmers? Some people say that's a difficult thing to do.

Westergren: First of all, I spent almost ten years in bone marrow transplant programs, doing the clinical research part of it, where I was the clinical person. And when I moved into the job with the programmers, they came courting saying we only have programmers and they don't know medical. Even the people they had in management didn't know medical, so I was courted because I knew clinical trials and if you're going to build a website for somebody, you want someone involved who's the user. So I moved into that. Programmers are like engineers, they have a special personality, they're introverts many times, they just want to put their heads down and get their work done. I would get a programmer who would shudder in his knees if he had to go before a customer. I would say you need to come and explain some of this. No, I'll explain it to you, you go talk to them kind of thing, you know? But it's a team thing, a functional kind of thing, so you still had to pull together. I love my programmers. I mean you treat your programmers well.

Misa: Some of them. [Laughs.]

Westergren: No, I had some issues with management at times, but my programmers I loved. I've got some to this day that are using me as a reference when they move from job to job. Because you work side by side, and some of it you can't put everything down

in a spec. I'll give you one of the highlights. We went head to head with Accenture. You know what Accenture is? Who they are?

Misa: Yes, the consulting company.

Westergren: They're like world wide. They sponsor the major golf tournaments with Tiger Woods and all that. They're a huge company. A major pharmaceutical company came to us [MedNet] requesting a proposal for a research grant management system. I had an expertise in this area of investigator research — it's a whole different animal than the clinical research. Well we lost the bid, but we were second place. Accenture got it, and the main reason was this was so important; it [the pharmaceutical company] was under a corporate integrity agreement with the Department of Justice requiring oversight monitoring of their investigator research grants. They were required to have a validated system in place within a year to conduct this area of their business.

Westergren: As I was saying, the major pharmaceutical company selected Accenture. They had more security in choosing Accenture due to it being a very large systems oriented company. They're a big company, they had to make sure it worked. MedNet is a small software company in Minnesota. So they went with them [Accenture]. I don't know how much money they gave them, but nine months into the one-year program the pharmaceutical company canned them [Accenture]. So they came back to my company and talked with the president and said can you do this in three months?

Misa: Three months, oh lord! [Laughs.]

Westergren: So the president of the company took me out to lunch, because it was an area of expertise [where] I was the only one in the company who had ever worked in that area, in the clinical side. It's different than taking things to the FDA, this is the research grant management side, the investigators, the medical doctors doing their own research. He said you have to do it in three months. I said here's what I need. I want these programmers and I'm not going to write the specs up, I'm going to manage the program, I don't have time to write the specs. The pharmaceutical company must've given us a thousand pages of requirements, business requirements that you have to turn into something that shows how you're going to meet those requirements. I said I can't do both, so here's who I want to write my specs. They said, done, done, done, done. Well, we met that goal.

Misa: Three months.

Westergren: Three months, yes. So again, I'll do your laundry, I'll take out the trash, I'll babysit the kids — this is the president of the company saying this — whatever it takes to give you the support to get this job done. And so I've always had that kind of support. Now there's a calculated risk taking on this project where I said that we could deliver it in three months, but there's where you stack your deck with the best people and you are there from six in the morning until midnight, and you're doing this for a long period of

time. They [the pharmaceutical company] were fabulous. We ended up using them [as references] for many of our future proposals to other potential clients. When you are able to claim major, powerful pharmaceutical companies as your prior/current clients, this really gives credibility to a company's capabilities for future bids.

Misa: That's pretty powerful.

Westergren: . . . that's pretty powerful, yes. So again, it always goes back to I never felt it was about being a woman, it's about being competent.

Misa: Can you say what makes a good programmer?

Westergren: You have to be organized. You have to be analytical. And you have to be a people person. You need to know how to pull a team together, to give them that same passion and drive to meet cost and schedule.

Misa: And that's program management.

Westergren: Yes.

Misa: But my question was slightly different because you said you love your programmers, your coders, what makes a good coder?

Westergren: Oh. Conceptualization. Documented specifications are what is given to a programmer to produce an end product. You can never know ahead of time all the requirements that need to be identified in a specification for a good website. The spec was done so that when an auditor comes in they can write it off and say the required specifications were there. The specification provided a framework and something to go back to for basic instructions and clarification. I never relied completely on the specs. So I would sit down with the group and I would say okay, this is what we're trying to accomplish. I want to give you a whole background, and I want to tell you what the client is expecting to achieve. I want to tell you the challenges that will be presented. I'm going to give you [the programmer] the whole background. Now do you understand? What questions do you have? What is your input/changes to the draft specification? So when the specs were approved as final version, the programmer already had a clear conceptualization of what he/she was required for delivery. There were times that a good programmer would identify requirements that were not documented, or suggest a different approach for the product. And I'd say no, you're off track on that, or oh my gosh I'm so happy you found that because you're exactly right, this is better than what I asked for. So this is conceptualization. You can't be just a person who remotely determines code, you have to be a person who can conceptualize what you're doing. I wanted the guy who was going to give me better than I asked for, and I usually got it. One of the programmers that I loved the most was actually an engineer; I mean he had engineering and [a] computer technology degree. He was one of my best ones because his —

John: What was his engineering background?

Westergren: I think it was EE, but he was so introverted I don't know if he'd have ever made it in the business world. He wanted to stay in his own home, in the dark light, working from 10 or 11 in the morning — which bothered me a little — but he worked until three or four in the morning. Because I start at six and it's like Keith, where are you? I need you!

Misa: He wasn't working with you . . .

Westergren: He was working off site.

Misa: He was working at his home.

Westergren: Yes. And I had a team of them [programmers] depending on the client and the end product. I have remained good friends with different programmers, whether they worked from home or worked from the office. When you accomplish some major milestones together, a comradeship develops; you belong to each other now. They [programmers] don't necessarily want to be put in front of people — some do because they're on a fast track to management — but the person who wants to go into that field is usually introverted and usually wants to be [left alone in] his own cubicle just being told what he has to get done. Too often I have seen great programmers promoted into management functions, but do not do well in management because they never wanted to

be there and they don't like people — I mean they like people — but they don't like managing over other people. And so there should be a different [promotion] track something on the computer [technical] side, where you keep elevating them [in seniority] but not into management over other people.

John: That was one of the major things that we worked on, I guess started in the mid-1980s, again and that was two tracks for their careers, individual careers — one in technical and one in management. And just because somebody didn't want to eventually become the president of the company didn't make them a bad employee. They could become a technologist, they could become a fellow, they could become a major scientist, and still make the money, and still get the recognition, but they didn't have to . . .

Misa: Without going into a management track.

John: . . . go into a management track. They could stay in a technical track and because the technical disciplines [such as] engineering, computer science, you know, mechanical engineers, chemistry, they got into that discipline because they really liked their stuff. They really liked getting into the details of how things worked. They sometimes didn't like people, they certainly didn't like dealing with people problems, especially managing the major problems, let alone the junior problems of hey, 'I want to take the day off', or 'I'm sick I can't be here today.' Whatever the people problems are, they didn't want to deal with that. You have to find a different track for them.

Westergren: And recognize them because sometimes the computer programmers, because they're behind the scenes, they're not always recognized. That's one of the biggest things that I always tried to do is to say hey, this wouldn't have happened without this guy's help, this guy's expertise, or on a scale of one to 10 he's a 15; just really making sure he gets recognized for what he did.

John: The last 10 or 15 years, recognition was a huge part of finding out what peoples' strokes were. Was it money? Was it recognition? Was it time off?

Westergren: Recognition's a big one.

John: Just a letter, your picture on the wall — what gave them their strokes for job satisfaction?

Westergren: It was appreciation and recognition.

John: That's a huge part of it. And recognition of your peers, which is what Pat's been talking about also, the fact that she's competent and she was recognized by her peers as being that. Money, equal pay [pause]

Westergren: John always said that never motivated me.

John: But the fact is that even today, male/female pay is still not equal.

Misa: On average, it's stuck at some gap, yes.

Westergren: He's more concerned about it than I am.

[Laughter.]

John: No, it's not a family thing, it's an industry wide; it's a cultural thing. Even in education, for a while, you know, and medical profession, most major businesses, females don't make as much money as males.

Westergren: I'm going to comment to that. I think one of the reasons — at least in my circumstance — is that because of the family, I didn't take a track and just keep going up it, where you could've gotten the higher pay, the higher titles, the higher recognition that way, or responsibility. I ended up having to change tracks all the time. I went up this one because of family, I had to stop. I went over here because it's more family oriented and you start at the bottom again, then you go up that track. And then because of family, you'd have to quit that, so you go in a different direction. I had one person confide in me that if I had stayed at Unisys/Lockheed Martin, I would have been groomed for a vice presidency. That was just his opinion, not necessarily truth. But I didn't stay on one track because it was not conducive to the family. And so now you move over here and I have to learn a whole new industry. I had to learn the clinical research industry. And then I had to quit again, and now I had to start learning computer technology, web-based technology industry. So I had to change careers at least three, maybe four, maybe five times in the

course of our marriage. And you start at lower entry levels, you don't start at executive management levels. I am currently doing consultant work — now I can command the salary I desire or the number of hours that I want to work, when I will be gone on vacation, or not work at all.

John: Part of it is her interest level, also, and it's not an attention span [issue] but you enjoy being challenged by new things and get bored with repetitive consistent old repetitive things.

Misa: Not everybody does. Some people thrive with well-bounded [pause]

Westergren: Change is threatening to them, and for me change is very energizing. So between that personality of wanting to change, along with family requirements being first priority, the track of where I was going on my career path just took a lot of different detours. I also ended up having a father with a closed head injury and I ended up being his conservator.

Misa: Oh dear.

Westergren: So I ended up not working during that period because there were about 10 major lawsuits in three different states, and a divorce, and a foreclosure, and I go down the list. It was a 14-year effort managing the court appointed conservatorship, and three of them required full time effort. So you pull out of employment again due to family, and

you stop your career path for that. So, you know, the balls just fall differently. And I'm the oldest girl in the family so the responsibility of being executor on wills, and managing an elder's health care, taking care of people dying, all of that comes into play and all of that takes time and effort.

Misa: And all on your shoulders, too.

Westergren: Yes.

Misa: Well, this has been quite nice to have both of you here, trying to make sense of this. Are there any questions I might've asked you but didn't this evening?

Westergren: That you should've asked but did not?

Misa: Yes, about the role of women in management and technical work, particularly.

Westergren: I don't think so. I think you covered my bases.

John: I think you touched on it a little, earlier, but the fact that she was in a different scientific side, not the engineering, not the computer science side, but the medical side and that's where she got the technical disciplines, the processes, the technical thinking. Those sorts of attributes that were easily transferrable into the military and government

business. Those attributes, that methodology of thinking, that methodology of problem resolution, has a lot of similar attributes.

Westergren: They transfer from one discipline to another.

John: They transfer well across those businesses.

Westergren: Mr. Zettlemyer said made a comment to an employee one day that Pat doesn't know AC from DC, meaning I don't know engineering, and he was correct. I don't know AC from DC and I never bothered to look it up because I didn't need to know those specifics. I trusted and relied on the engineers for that aspect of the job. But the analytical side, whether you're an engineer, a computer programmer, a manager, whatever, it's the analytical side and the problem solving that is critical to whatever track you're going to take.

John: I don't think that the defense business, the computer business — not even defense — the computer business acknowledged that they should have because early on there was no such thing as a computer scientist.

Misa: Right, of course.

John: You either had your physics, your math degree — lot of mathematicians, lot of physicists —

Misa: A few philosophers even, so it's amazing.

John: . . . so they always were retraining people. They were turning mathematicians into programmers. They were turning classical electrical engineers into logic designers. So they were retraining people but they, I think, started forgetting about their — I'm calling it a retrain — with women. They didn't think that if they hired a female finance person she would translate well into military contracts, military finance because the disciplines are exactly the same just different terminologies. And the same with nursing and the medical side of it. I don't know why, because I think women were caused to be afraid to go into that line of it, also. Well they could've have been making a lot — again, I'm using money as an example — they could've have been making a lot more money. Nurses were getting paid absolutely crappy, you know, in the 1960s and 1970s.

Westergren: By the time I graduated from St. Kate's with the nursing degree I was making more in industry. And that was a major consideration — that and the travel — why go back into nursing if my salary's already gone past what I could make as a nurse?

Misa: Substantially higher.

Westergren: Substantially higher and not only that but the nursing would ceiling out [where] you could keep going in industry. But the bigger motivator was I just wanted to travel. John and I have probably hit maybe 33 [or] 35 countries in the world in travel, and

many of them seven or eight times. So travel and culture has always been important for us and being in the industry that we are, we traveled a lot on company money. It just was very satisfying.

Misa: A little hard to do that if you're working for a hospital as a nurse.

Westergren: No, they don't.

Misa: You get sent to a conference or something, but that's on a more modest scale.

Westergren: That's it. I did, I went to Istanbul for a conference.

Misa: Oh really?

Westergren: So there is some of that, but just not on a regular basis. Actually, I'm kind of curious because you've already interviewed a lot of other women, and probably from what John gave you, it's not so much the technical but from the contracts or the management side again. What came out of that? I mean, you've heard my perspective and I might be a little bit different, but did you find people were saying there's a glass ceiling, or I didn't get the support, from the group that John gave you? Is there a major trend?

Misa: We're still working through that, Pat, because I don't have the last result. But it seems remarkable to me that there were a number of women who succeeded, in a way

kind of like you, as almost a singular woman. You say like this is impossible to do. How in the world could you do this high potential and fast track that must be reserved for men? But nonetheless, that's your story. So it strikes me that there's a couple of other women. I talked with Millie [Gignac] and it's like, she's singular. How many Millies are there? One. So I'm still in the phase of having many individual stories. Now you could say they're only individual stories but on the other hand, they're real stories, right? So that helps kind of unpack some of the — you know, you get statistics, or you get stereotypes, or you get an aggregated picture, and it's really valuable to get individual peoples' stories and especially the complexity that you're describing, that it wasn't just a single path to the front or single path up.

Westergren: Stop, start, stop, start.

Misa: Right. And I think that that kind of variety is really important to also add to the historical record so that people don't have an overly simple sense about women's experiences. That they went and experienced whatever discrimination, or support, or great mentoring, or supportive work environment, supportive family environment. All of those are important things but, I mean, how do you deal with Millies? I was just writing stuff down and it was like, this is impossible! Yet here she is, she's 95. It's like good gravy! [Laughs.]

John: Many of the women I put on the list, at least the list I gave you and I know you got other lists from other sources, but most of those I would consider exceptions. Very few of

them, if they saw a glass ceiling or something in front of them, they would either bulldoze their way through it, or they'd work their way through it, or they'd do something to not let it affect them. It might bother them but they wouldn't let it affect them. They would work through it or they'd figure out how to get through it because that's the kind of individual that they are to begin with. That's in their DNA, that's in their culture, that's in their background, that's in their family, but they would just work through it. I don't recognize any of those women as being complainers or saying "woe is me." They know it is certainly now; she's [Millie] had more crap thrown at her in her life, if you've read her book or know her story.

Misa: She gave me her book. It's quite something.

John: It is.

Misa: It's this compact little volume but there's a lot in there.

John: It's amazing the adversity that she's gone through. And couldn't tell it because she's positive.

Westergren: Speaking of positive, because there were so few women, we didn't work together. I worked over here and had nothing to do with the woman working over here. And she worked over here and had nothing to do with the woman working here. And yet, when it came to our social life, there was a good bond. You hear women are the worst at

backstabbing other women. We never had that experience at Sperry. We're even good friends to this day, and we've all gone off in our different directions, and we get together and we go to dinner and enjoy each other's social company.

Misa: But you had social time but not necessarily work time.

Westergren: Right.

John: Did you talk to Tom about how now that you're working kind of in a predominantly [female] environment, how you like meetings, and how you deal with them.

Westergren: Oh. So the last job, the technical one, the president of the company — it's a privately held company and it's grown quite a bit — I would walk in and I'd say do you want the male version or the female version? And he *always* said the male version.

Misa: The male version.

Westergren: Male version or the female version. Because the female tells you here's the situation and on Monday this happened, and then it escalated to Tuesday, and then on Wednesday he said, and on Thursday she said, and then on Friday we finally came [together] and this is the result; or here's our problem, or our dilemma, or our challenge. So if you're going to speak female, you're going to hear a very comprehensive [version

of] everything, including the kitchen sink going into the story before you get to the end of why I'm in your office. The male version, you go in and you say here's why I'm in your office, do you need any more details? He'll ask a few and I might tell him something that happened on Wednesday, and that's it, right?

Misa: So it's a little bit trimmed down.

John: Readers' Digest.

Westergren: Oh, yes, you get Readers' Digest; just give me the facts versus the whole story. And as I have worked in a male dominated environment for the most part, now I have to work — not have to, but I'm working more with women. I sit [remotely at home] in meetings [teleconferences] that are run by women and I will actually put my phone on mute and go do work on other things because I can't take how long it is. [Laughs.] Just get to the point! Because I've been trained with a male perspective now, and it drives me crazy when you take too long and give me too many details.

Misa: So you're having a meeting but it's a teleconference.

Westergren: Oh yes. I'm consulting, mostly from my home now. I have to make sure I listen [during a teleconference ] to when my name is called because during 90 percent of the meeting, I'm sitting there thinking how inefficient the meeting is. I charge billable hours. My goodness, the client received 10 percent of value during the one hour meeting.

I would lose patience during that meeting, except that I continue remotely getting real work done during the teleconference, so that in good conscience I can bill the full hour to the client.

Misa: So it's kind of a different style.

Westergren: There is a different way for males and females. How we're brought up or whatever, of how we relate to our work environment. Females like to tell you every detail of a situation.

John: It might be that extra chromosome or something there. She has mentioned to me the fact that again, she grew up professionally in certainly a male-dominated environment and there's a style associated with males, versus a style associated with females. It's just different. Neither one of them's right or wrong. One might be a little bit more efficient.

[Laughs.]

Westergren: And the other one [females] a little bit more communicative. [Laughs.]

Misa: To get a little balance going back and forth there, okay. [Laughs.]

This has been so helpful, thank you folks for your time and attention.