

An Interview with
DANA BECKER DUNN

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Conducted by Thomas J. Misa

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Dana Becker Dunn Interview

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Abstract

Dana Becker Dunn graduated from a rural Illinois high school, then attended Southern Illinois University as a math major taking numerous computing courses and graduating in 1972. She joined Bells Labs as one of the last STA ‘courtship’ hires, completing a master’s in electrical engineering and computer science from Northwestern University. Her technical career began in operating systems programming, with a specialty in relational databases; then she was promoted into supervisory positions in the AT&T headquarters in New Jersey. As a Sloan Fellow she completed an executive MBA at MIT in 1984 then went to work for AT&T information systems division. Among her managerial responsibilities were connecting marketing and technical staffs; overseeing large operational groups in marketing and communications; and in 1994 separating Lucent Technologies from AT&T. She retired in 2001 as an officer of Avaya. She reflects on the transformation of women’s issues within AT&T, including a suggestion that with overt forms of discrimination largely banished, it may have ‘gone underground’ and be more difficult to locate.

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Misa: My name is Tom Misa. It's the 7th of January 2016, and I'm talking with Dana Dunn this afternoon. This is part of a set of interviews that we are doing for the Sloan Foundation, looking at the careers and experiences of women who worked in the computing industry during the 1960s through the 1990s. Dana, I wonder if you could begin by sharing something about your background or your childhood. Specifically, were there any hobbies, or activities, or classes in your grade school or high school years, that attracted your attention and that might have paved the way for your later interest in a technical career?

Dunn: Just briefly, I grew up moving around a lot. I went to 13 grade schools in six years, so I changed schools two or three times a year, up to junior high. Then junior high and high school I was in the same time and went to the same school. I was a very good student and probably that's part of what helped me be able to make all those changes. In some cases, families that we knew that were doing that, the kids didn't fare so well in school but in my case school was easy. I always loved math and science, and never really liked English and history. That was true for my entire school, so when I got up into high school, I continued to enjoy math and science. My mother, when I was growing up, always thought that I was going to be a math teacher because she wanted me to be able to make a living in case I didn't have a husband or didn't stay with a husband. So that was kind of her counseling.

Misa: That was a traditional thing for women who were interested in math, of course, to do at the time.

Dunn: Yes, absolutely, and my mother thought that was a very secure way to go. My parents did not go to college but my brothers and sisters all did. I had three brothers and sisters older than I was, but they were significantly older than I was. They were in high school and college when I was born so by the time I came along, a lot of things had changed but it was just always assumed we would go to college.

Misa: Where was your high school, may I ask?

Dunn: Pekin, Illinois; really the heartland of Illinois farm country. [Laughs.] It was a feeder school so it was very large. The high school was 4,000 students so it had actually quite a lot of opportunity to take classes and because I was good in math, by the time I was a senior I was tutoring others in calculus and many other things, which I just liked math. I thought it was like solving a puzzle so for me, pretty much all math was fun.

Misa: Was there any kind of a math club or cohort of people, girls or boys who were interested in math at the high school?

Dunn: No. I was head or president of the National Honor Society, and things like that. I was in Latin; I was head of the Latin Club. But I don't even know if there was a math club. If there was, I wasn't involved. I don't remember that at all. There was no emphasis on computing at all. We're talking about 1964-69 when I went to high school, so I was just never exposed, really, to any of that. I was a musician, as well. I was a jazz singer

during those high school years. I also was in an a cappella group, so I was very involved in music. I played several instruments, which is not uncommon for people in math and computer science. Anyway, through the coaching of my mother, I guess, I decided I would go and get a teaching degree at Normal, Illinois, which was Illinois State University. It was a teaching college at one time, but by the time I went it was a general university. I sort of went there because that's what I'd heard. I applied to one school and went to one school.

Misa: Those were the options then.

Dunn: Yes. I was salutatorian out of 880 students and I was number two. Number one beat me by like 0.2 percent or something. [Laughs.] Anyway, we were good friends. So I applied to one school. I got in. I went. But I got married at the end of that year, which was — I don't know why — anyway, well I got married. At 19, I was married the summer after my freshman year and he transferred to Southern Illinois University and so, so did I. It was at Southern Illinois University that I had my first programming course, and I believe the first one I took was a FORTRAN course and I loved it. The first course I took was terrific. It was again for me, solving a puzzle. I think that really was for me, it was almost a game in my mind. This was when it was punch cards, and you carried around these big packs.

Misa: Yes, sure.

Dunn: And I spent hours and hours in the computer center. I got my undergraduate in three years. I went through rather than in four, I did it in three. I took every computer course they offered. At that time, computer science was pretty new. It was in the math department. Because I was good in math, I tested out of a lot of early courses, freshman courses, and so I got to skip a bunch of my math courses. So I went and did as much computer science as I could and I just dove into it. I got to know my professors. In fact, in some classes I was T.A. in classes I was actually taking. The only test they wouldn't let me grade was mine. [Laughs.] So I really just ate it up, but I had really no exposure before then.

Misa: Sounds like you had some really good teachers, then, at Southern Illinois.

Dunn: Yes, you know, it was a new field. It was COBOL, FORTRAN, and lots of logic courses, and programming courses as you went on. Whatever the circumstances were there, I just really loved it. I was also — it was in the math department at this time, it wasn't a separate department, computer science wasn't — and so I was also good in math and also friends with many of the math teachers as we started out so it was just a place for me to hibernate. I didn't however, which I have sometimes regretted although later in life I took more courses, but I took so much math, and computer science, and science courses that I pretty much ignored the philosophy courses. I took what I had to and no more, you know, philosophy, history, I took enough to get a degree. But everything I took was math and computer science, and loved it.

Misa: It sounds like that was what really attracted you.

Dunn: It was. I have a niece, excuse me, a granddaughter — I have several nieces, too — but I have a granddaughter right now who is 17, and I encouraged her many times about math but she is scared of math. When she was in grade school, we would do things and I would talk to her about solving problems and stuff, and thinking of it as a game. She got to her freshman year in high school and one day she came to me and said, you know, I got it. It was algebra and she said I got it, I'm doing really well in that. She's an artist and she has decided she's going to go into gaming, but what she wants to do in gaming is not as much the computer side but she wants to do the art side of gaming where they create environments. Of course you have to be able to do the computer stuff as well; you do both.

Misa: Sure.

Dunn: But her focus is what's attracted here there, and she went to Carnegie Mellon. They have a program and it was predominantly boys, by the way. I think there were three girls in the class. Carnegie has this programming with gaming. But she went and did really well. I was amazed it was almost all boys. I thought oh my God. [Laughs.] That's when it hit me, too, that what's going on here in all this computer and gaming is the girls are [pause]

Misa: What was your experience may I ask, about being a woman taking math department classes?

Dunn: In general I would say, for me, in math is that there's a right and a wrong answer. And therefore there's not as much subtlety in grading, and I found it pretty easy because I was good and I got it right. So for me, it was easier than some of these courses that I thought were very subjective, and I thought teachers were subjective about how they graded and fairness to women. There was a lot of issues back then, and as I got into the work environment, *huge* issues about women in the work environment and stuff. But I think for me, math — and I didn't go there because of this because I already liked math — I found it easier to compete what I considered fairly with the guys. And math classes were predominantly men then, they weren't dominated by women.

Misa: Would you say three-quarters or maybe even more men?

Dunn: I'm going to say three-quarters, I think there were. It's been a while. This has been a long time ago.

Misa: Sure, I'm just looking for a general sense.

Dunn: I'd say 75-80 percent were men. It was kind of unusual even then for women to be in the math curriculum, but again, it seemed to me to be pretty fair. And in the early courses for computer science the same was true, you either got the program right or you

didn't. It wasn't a lot of gray in those courses. Now as you got into higher level courses and it became more philosophical in some ways, and systems oriented, then there was much more capability. My specialty in computer science at the time was databases.

Misa: Oh, okay.

Dunn: And databases were quite new at the time, and I kind of pushed the envelope on learning new database structures, and organization for databases, and stuff. So actually when I got to the Labs, I had kind of something that most other people [didn't]. I mean, computer science was so new then and everything was really moving fast so it gave me a bit of a competitive advantage when I started the Labs because I'd had the new courses.

Misa: When was it that you graduated from Southern Illinois? You said you graduated in three years.

Dunn: I didn't get the degree from Southern Illinois University, I actually transferred to the University of Illinois in Chicago because my husband got a job. Part of the reason I was doing it in three years was because he was several years ahead of me and I was just trying to keep up so when he got a job, I could follow him up. So that's what happened. He got a job up in Chicago so I transferred and did my last semester or two in the University of Illinois, but the first degree is from Southern Illinois. And then I had to find a job.

Misa: And what year was your graduation?

Dunn: Would be 1972. I graduated from high school in 1969 and graduated from undergraduate in 1972. In doing that, I was taking seven and eight courses a semester.

Misa: Good gravy.

Dunn: But I didn't have any trouble because I loved it. I mean it was weird; I just loved it so, anyway. My husband had heard something about Bell Labs hiring — and I didn't know anything about Bell Labs — and I just blindly went and applied for a job there. It was the only place I applied for a job.

Misa: [Laughing] Okay.

Dunn: I'm in the same business, and I was the last STA hired in Bell Labs in what they call the courtship program. If you've talked to other Bell Labs people you've probably heard about it.

Misa: Yes, but please go ahead and explain your experience, if you would.

Dunn: During that period of time, instead of bringing women in at the MTS level, they would bring you in to what they called a courtship program at the STA level. And I'm telling you, men and women with the same credentials: men went in as MTS, women

went in as STA. That, by the way, was one of the things that caught them when the decree came down about discrimination. But at any rate, I didn't know the difference, it was a job, and it was a good or very good job, at a very prestigious place. So what the heck, I went in at the courtship level, STA. What happens at Bell Labs when you go in without a master's degree is you need to get one or you'll never go anywhere. They have several programs. One is a program called the LUPT program, which allows you to go to school and work at the same time, but you get some time off, certainly, going to school. But you're going to school full time, not quite, but close to it. The other one is OYOC, which means you get to go away for one year and just go to school. They pay for everything. You come back. And of course, most men got OYOC and almost all women got LUPT when I came into the system. So as I said, they stopped the courtship program because of the legal actions going on. And at the time, after I'd been in and working for a while, they decided I might actually be good enough. There are two things you can be, an AMTS or an MTS. An AMTS is an Associate Member of Technical Staff and it was a dead end. Member of Technical Staff really is where all supervisors and everybody else is promoted from, and they're the people who get the top projects, and they are able to do full research, and stuff like that. So again, I didn't know much, but there were a couple of women in our department and I had a good supervisor when I started who was telling me the way it really was. So the advice of my supervisor was you have to go back and get a master's degree, and the best way for you to go is LUPT because at that time, I was awfully new and wasn't going to get OYOC, it looked like. They talked me into going back to school so I went to Northwestern to get my master's degree in engineering and

computer science. At that time, computer science was in the engineering department, so I essentially got an EE specializing in computer science.

Misa: Oh, okay.

Dunn: There are a couple of things that happened, I guess, when I started there that I would say really woke me up.

Misa: Sorry, just let me ask, 1972 would be when you started at Bell Labs?

Dunn: It is, September 11, 1972. Isn't that interesting; I never thought about that. I had a supervisor tell me, one of my first supervisors said that just doing well and being good isn't good enough, you have to sell yourself. And that advice was probably some of the best advice I've got because many, I think, men and women but more women sort of felt like well, if I do a good job they'll take care of me.

Misa: Okay.

Dunn: And that was a fallacy, really, and I think it still is, by the way. Yes, you need to do a good job, but then you need to be able to tell people you're doing a good job and toot your own whistle at times, and be able to sell your ideas, and get people to listen to you, and all that. That was early on and when he told me that I was really upset at him. I felt like he was telling me like you don't have to do good, you just have to be a good

salesperson. That wasn't what he was saying, and in the end, after several years and more experience, I really understood what he was saying and it served me well in my entire career.

Misa: It sounds like your supervisor really played a bit of a role as a mentor.

Dunn: Yes, I had several that did and several then that were real bad. [Laughs.] But yes, the first supervisor that brought me in was good. He was a fatherly type. He treated me like I was a daughter. But it got me off the ground. And then I had some others that were really worthless, I'd say, that were real chauvinists. You know back then is when we created women's support groups, and programs, and lots of things went on there. I look back and I have enormous — many of the women you've interviewed, we're all still good friends and that's how many years later. It was a tough time for women because in Bell Labs, what happened was in general, it was one or two women per directorship so you would have hundreds of men and one woman, who would be an MTS or that equivalent, or maybe two. So you wouldn't know if it was you that was the problem, or if it was the way you were being handled was the problem, kind of thing. So these support groups really helped us both share our frustrations and get advice from people that had a little bit more experience. Or just be able to say gee, it happened to me, too. And someone else would say that's happening to me, too. So maybe this is just not me, maybe it's an environmental thing that we need to get changed kind of thing. So it was exciting times, I guess. [Laughs.] I'll let you ask a question; I know I went on and on and on, so I don't know where we are in the questions.

Misa: No, it's really great because I have a set of questions you just narrated out basically about your education, experiences, background, training, and then how you ended up taking your first job. I'd like to know more about the technical work that you did when you first came to Bell Labs.

Dunn: I came into Bell Labs, into the computer support arena, so my work was in operating systems, specifically. So I was working on programs that actually ran the computers, many of the other people in the labs were working on switching systems, writing software using the computer center. So I was what they called a systems programmer as opposed to an applications programmer. And because Bell Labs was so demanding an environment for technology advancement, we did not just use commercial systems to run the applications, we modified the systems to get more out of them, and add features and functions that the Labs, in this case, the switching department needed, different kinds of functions. And so we were constantly modifying the system. Also at that time, there were lots of new computers coming out. We had a lot of different computers. Of course we had IBM, we had DEC, and UNIX was being invented at the time right at the lab. And then the Amdahl came out, the Amdahl computers in Sunnyvale, California, and they were competing with IBM. I and one other peer went out and benchmarked the Amdahl because we needed so many computers and Amdahls were supposedly a faster and better computer than IBM. So we benchmarked those computers to see if we wanted to buy some, and then indeed we did. So my work was, when I was actually programming, was basically that systems programming, and doing that kind of

benchmarking for new systems and services to bring to the labs to make things go faster, better, add function, and so forth. I was promoted rather quickly to supervisor so then I was supervisor in that area for several years. And then I left the Lab — actually, this was quite controversial in Bell Labs — but I wanted to go see what the rest of AT&T looked like and I've never be afraid of like jumping into new experiences. Actually, I would say that probably — just going back a minute — the fact that I moved and assimilated so many times when I was younger really worked well for me in the business environment because I was not afraid to move and take on a new job. In fact, in many ways I loved — after about a year, year-and-a-half at a job, I would get bored so I wanted to move. I will say that AT&T and Bell Labs and the whole environment really provided that for me; I was able to do that. I was one of the first women promoted at Bell Labs— not the first but one of the first and definitely one of the youngest — and so I had a kind of a long runway ahead of me. The other thing I guess I learned there; well, I'll step back a minute. After I got into the environment for a while and realized it was all these prejudices against women and things to be done. You probably heard, I think, about the workshops and stuff at work, Women in the Work Environment, and so forth.

Misa: Sure.

Dunn: I participated in all of those and I was very vocal. But I also had I guess, a brood, or a number of men who were supporting me. In other words, not everybody was bad. There were some men who were in supervisory and management positions who really wanted to help the women and they didn't know how. I was young and I think outspoken,

and a number of those men decided to kind of help me. In that I learned both how to be mentored and how to keep a mentor, and keep a coach. By that I mean I interacted with them and I would seek them out for advice and counsel. If I was going to make a move to another department or to another job I talked to them, and so forth. Out of that came several men and several women who decided we wanted to create a mentoring program in Bell Labs. That was still at Indian Hill, where I started. And so we did, so there's a nice cadre of people who were the committee that set up this mentoring program and then of course we each had people that we trusted to be a mentor, and so forth, and so the network expanded. So we could create the mentors that we knew were good and then as women came in — this was initially for women — as new women came in we would make that assignment and we had a program going on for a while.

Misa: Was it focused at women initially or did it extend also to men at Indian Hill?

Dunn: At that time it was focused on women. There were so few coming in [laughs] that the idea was to really try to help them out because they were coming into environments that were basically pretty antagonistic toward women. And these fellow peers of mine — supervisors and department heads and even directors — that were supportive of us could see that. And so it was thrilling to give women a helping hand to get them into the environment, and help them assimilate, and help them be assimilated. I mean it takes both; both have to occur.

Misa: Right.

Dunn: And so anyway, but what I would say out of that is I was particularly pretty good about keeping my mentors. I used to give talks to women on— it was part of that you have to sell yourself. You have to reach out, too. If you find someone who's supportive of you, then you keep in touch with that person. Even if you change jobs and you don't see them anymore, every once in a while contact them, see what's going on, ask them for advice — everybody likes to be asked for advice — so keep in contact and keep that connection; don't ever burn any bridges. And out of that came opportunities for me to move out of the Labs, and I actually got this opportunity where you could go out of the Labs for a year and then come back, which was very unusual. Bell Labs saw themselves as the top of the heap at AT&T and nobody should want to leave Bell Labs, and go to other parts of AT&T. But if they did, there was a program that allowed you to go for one year and experience it and then come back. So I really pushed to get in that program. So in the late, I guess I was at Indian Hill until January of 1980 so I was there eight years in the Labs and then I made the move. By that time it was a promotional move, I was promoted into a department head in AT&T back in New Jersey, which I wanted to go to because that's headquarters for everything. So I left the Lab after eight years.

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

Dunn: I went to Piscataway, and at that time it was considered part of AT&T headquarters but it was the computer division. I had come out of systems programming and what I was going into was an applications development group that did all the

applications for the Bell operating companies. So they built the databases, personnel databases, the financial system, you name it. We had a gazillion applications. So for me it was not only a promotion, it was a move into a different area, but it was still computers, it was still working with people programming.

Misa: You have this connection to databases again.

Dunn: Absolutely. And one of the things I should tell you about the databases thing, when I came into Bell Labs, one of the things they wanted you to do as a newbie was teach a course. What they would do was because all of us were coming with the latest, newest computer science experiences they wanted to capture that from the people coming in. So it was kind of a university inside of Bell Labs, and I never really after I got into this, I didn't want to teach. My supervisor said this is a good opportunity for you. I tried to refuse it and he said no, you don't understand. [Laughs.] This isn't an opportunity you refuse. So I taught relational database.

Misa: That was pretty new at the time.

Dunn: Yes, besides working, my specialty was relational database. He drafts me into teaching this course and I have never had such a difficult year in my life. First of all, that was a secondary assignment, my main assignment was programming. I was teaching this course and the thing that made it so difficult was I had Ph.D.s — and pretty much everybody in Bell Labs either has master's or Ph.D. — I mean, you can't stay there,

really, and do good work without one of those degrees. So the people who came to my classes were master's and Ph.D.s and some of them were seniors. They were really well known, they had — I was totally impressed — they had written books on subjects that I had studied, and I was teaching them so I was pretty intimidated. I was about a half hour ahead of them on every course.

Misa: Wow.

Dunn: Anyway, it worked out fine because they didn't know relational databases, that's why they were there.

Misa: Right.

Dunn: So I did it, but I never taught another course; I hated teaching. [Laughs.] That was just not my thing.

Misa: So how did you find the kind of culture and climate at Piscataway, once you moved to the headquarters in New Jersey?

Dunn: Probably a step back. It was worse than the Labs; in fact it was seriously worse. We had struggled so much at Bell Labs with trying to change the environment that I think we actually did make some headway there. But when you're in it, you don't know it. It doesn't feel like that. You're kind of in the trenches and you don't see the bigger picture.

So we were well ahead of many other parts of AT&T in that regard because when I moved to Piscataway, first of all, I had two men supervisors who said they weren't going to work for a woman.

Misa: Oh, they were your reports.

Dunn: Yes, they were my direct reports who refused to work for a woman. And that was just the beginning. But in terms of that, in the end I won them over. I mean they were real supporters of mine before we were done. But you walked into this environment, and the day I walked into the building there were no other women department heads, I was the first woman department head there. When I walked into the building, everything stopped and people stared as I walked across the floor to my office. It was really like being in a fishbowl.

Misa: Wow.

Dunn: And you know what happens, again, when you're the one and only. People are like well, she's speaking for all women, there's just a lot of pressure to get it right or not screw up, however you want to think about that stuff. I had, however, a great boss on that move. I didn't know it at the time; I mean, I didn't go there because I heard he was good at working with women or anything, but he turned out to be a super guy and he gave me a lot of room, and a lot of support, and did a lot of coaching. It was a very different environment. AT&T was a much different environment than Bell Labs. Bell Labs was

much more free flowing. I mean, you had a publish or perish kind of environment but you had a lot of freedom to do things, from a technical point of view, and a project point of view. There were many more rules and regulations to follow in the AT&T Bell system. And I used to say — and this was to my direct reports — I don't pay you to follow the rules, I pay you to think when the rules don't fit. In the AT&T environment there was these ridiculous rules that didn't make sense in some cases. Oh, God, it was like stepping back many, many years in a lot of ways. [Laughs.]

Misa: How many direct reports did you have as a department head then?

Dunn: Probably six, I'd say, and each of those had three or four direct reports. It was a pretty good size organization, it was probably 500 or 600 people at the time, programming. They were all programmers in that organization. So that was my move from staying in computing, but doing a different part — applications.

Misa: Just to clarify, you said that was intended to be just a single year or short term rotation, correct?

Dunn: Yes, I went on that kind of a program but then I decided to stay. My vice president, executive vice president at the time, Sumner was his name, who was a real Bell Labs elitist. He took me out to lunch, he did everything he could to tell me how stupid I was for staying. [Laughs.] I think he legitimately did want me to come back, I had done some good work, but he just could not understand why anyone would stay in AT&T.

Misa: Right.

Dunn: But I really held to my guns and decided to stay. And then within a couple of — maybe just a couple of years, yes — there was a program called the Sloan Fellows Program, which I heard about, which AT&T participated in that. AT&T and several of the operating companies — Bell Labs didn't — but AT&T and the operating companies participated in that, and you go to M.I.T. for a year to get your Master of Science degree in Business. It's called the Sloan Fellows Program, a very prestigious mid-career kind of program.

Misa: This was for a science degree, not a business degree.

Dunn: It is a business degree, it's just that they only give Masters of Science.

Misa: Okay, but it's at the Sloan School at M.I.T.

Dunn: It is the Sloan School, yes, it's their management school.

Misa: Right.

Dunn: But it is a special program, it's called the Sloan Fellows Program, and only 56 people went per year from around the world. They picked people from different

companies and from government, and they have a very robust program. You had to be nominated by your company and then you had to be selected by M.I.T. And M.I.T. had these things where they wanted so many from outside the United States, so many in, so many from government, so many from corporate America, and blah blah blah blah. But I decided I really wanted to go because I wanted to get a business degree because I had decided that I really liked management. I wanted to move from the technical world into more management, and to do that I felt like I needed a business degree, an MBA actually. But then I heard about the Sloan Program and so I talked to my boss — this was the guy I said was so great when I came — and he thought it was a great idea. But then what happens is you're selected by your management but then a larger management at AT&T, you know a number of people get selected and out of that, AT&T then chooses one person to go to Sloan. They pay for the entire year, they pay for all your living, and you continue your salary, so it is a cool program.

Misa: A great deal.

Dunn: It is a great deal, yes. And they paid for my master's degree at Bell Labs, they paid for Northwestern, too. So I made out alright with my degrees. But anyway, long story short, I did get selected and I went to the Sloan Program for a year. That was 1984, and it was the year of divestiture. I had decided because it looked like we were divesting — I mean, we all knew that was going to happen — and I wanted to go into the competitive part of AT&T, I didn't like this regulated stuff because it was just too restrictive. To do that I knew I needed a master's degree in business. So anyway, I did get

selected and I went. It was a terrific, absolutely fabulous year. But we divested that year so I was a person without a home because the whole system shifted while we were in school. Although they agreed to take me back, I mean, they were going to bring me back. They didn't make you sign an agreement to stay with them but they expected you to come back, obviously, but when I came back it was Long Lines AT&T that decided that they owned me. And that's the way they said it. Usually when you left for the phone program and came back into AT&T you got to interview for different jobs, you know, people kind of vied for you to interview for different jobs. But in this case, the head of Long Lines also knew who I was and he decided that he owned me, and that's what he said, and I was going to come back wherever he told me to.

Misa: Wow.

Dunn: Well, I'm not real good when you tell me that. I mean nobody owns me. No company owns me. Nobody owns me. [Laughs.] That did not sit well with me so I went about finding out about other opportunities within the system, in AT&T. And AT&T information systems had been spun off, it was the nonregulated side of the business. So I put out my feelers and my contacts, and started talking to everybody and seeing if there was anything open that I could chat with some folks. This against, by the way, this guy from Long Lines, who was an executive VP up there. I mean, he could've fired me in an instant if he'd wanted to. So anyway, I went and interviewed with information systems. I interviewed in marketing. The reason they were interested in me, which I think is real interesting, I had gotten the MBA but who knows, you're not a marketing type just

because you went to school. I went and interviewed with the VP of marketing and he wanted me because they were interfacing with Bell Labs switching development and his marketing people couldn't talk to the technical people. In other words, the marketing people thought the technical people were crap, and the technical people thought they weren't good for marketing. It's very common that marketing and technical people don't respect each other. He could not get product out the door like he wanted because they were just having all these problems, and he wanted somebody who knew the technical people and could talk technical. He didn't care if I had any marketing. He said I will teach you the marketing side of the business, what I want you to do is go in there, establish your credibility with them, and get them to produce us some products. That was a winning combination because I did. I knew everybody and he taught me what I needed to know in marketing, and we made a great [team]. Well, so I did take that job with him but boy did I piss off the Long Lines. That was not a cool conversation and what happened was the guy from marketing wanted me so bad he went and literally fought for me to shift. That meant leaving Long Lines and I was going to information systems, and that was a wonderful move, that was terrific. Then just briefly I'll say I went on to do that work, spent a lot of time there, and then I went back into what was AT&T communications, which was the telephone side of the business. See most of this time, I was in either the computer side of the business, or I was helping people develop systems that were computing systems, not as much telephone. I had never been in the telephony side of the business. I decided it was probably time I learned something about the telephony side of the business and I went into AT&T communications. [I] had a lot of different jobs there, including I ran operator services so I had huge operational groups,

you know thousands of people. Then I went into that computer side of the business, and got promoted several times in the communication side of the business, went back into marketing, and then as phone things started splitting off and I helped separate Lucent from AT&T.

Misa: Oh really, that was a huge change.

Dunn: Yes. And so I went to the Lucent side of the business. And then the people who — the technology that we were developing, they were System 75 and 85s, back in the day, and that came after me because when I went to that marketing job it was working with people developing System 75s and 85s, which are on premises customer phone systems — and after I'd been in the telephone business for a while, a couple of my people I kept in contact with said gee, why don't you come with us? And that's when we took Lucent out. And then I was in the side of the business that became Avaya, and I actually did help directly spin Avaya, and then I ran the operations for Avaya. So in the end I had about 20,000 people nationwide and worldwide supporting the systems. So the latter half of my career was really management of large organizations.

Misa: Just to get a sense, you said you moved to AT&T information systems in 1984, I think.

Dunn: When I came back. Yes, when I graduated I came back into AT&T information systems.

Misa: But I don't have a sense of how long you were there and when you moved into AT&T communications.

Dunn: I'd almost have to go back and look at my bio, but I was in information systems probably three or four years, then went into communications, and then I was in communications until 1994, because 1994 is when we spun Lucent. But I left to go to the part that was going to be Lucent. I'm pretty sure that was 1994. And then I was in the Lucent side of the business until I think we spun Avaya in 1998. Yes, I'm pretty sure we spun Avaya I believe in 1998. Then when I was in Avaya, because I helped to create some of these spins, I helped to spin off a part of Avaya as well. And then I became an operational person again. And then I retired in 2001. I love every minute of it. [Laughs.] I have never looked back. That 10 years of the corporate business was pretty tough, and at the level I was operating in it was about quarterly results, and [heavy sigh] things are hectic. Anyway, I was kind of glad; I was ready to retire.

Misa: Yes. You had quite a notable career, then. [You] had a bunch of different responsibilities, and then positions of some significant authority and responsibility.

Dunn: Yes I did. I was an officer of the company of Avaya when I retired. I may have been an officer of Lucent, too. You know there's different levels. But the last 10 years, of course, with all those spins and everything, lots of options and things like that but I did well by the company, absolutely. My view of that whole AT&T experience was there was

enormous opportunity to move and take on new challenges, and I really was able to do that so I had a very rewarding career. In that regard, I'm very happy with the career and the choice I made to go into computers. It turns out that technology background really helped me all along the way because it was a technology company so not being afraid of technology, even in management was a real plus in the organization.

Misa: Sure, you could see things, and understand things, and speak to people and they'd give you some respect that they might not have with a nontechnical manager.

Dunn: Exactly. And I would say, my job when I went into that AT&T department head, I was the first woman department head. I was also the first woman director of marketing at the time I was first moved there. So I did do a lot of those firsts, and you know you hit a lot of roadblocks. But I had people also who helped me, so there are pluses and minuses there. It was a tough environment and I guess I'm a little sad to see that I don't think it's changed as much as I thought it would. You know we really spent a lot of energy, as first women doing this, and my friends who all experienced this in moving through the company, a whole lot of energy trying to change the environment. And sometimes you do that just one on one — a particular manager or a group of people you're working with — to make a difference but it takes a lot of extra energy besides doing the job. I was tired when I left, but I thought we had made progress. But I've got to tell you, I read these articles, and I step back in, and I talk to some of my daughters of my friends, and I'm just not sure we've made as much progress as I felt like we should with all the energy I saw

expended by women and supportive men, trying to make those differences. It doesn't feel like we've come a long way.

Misa: Here's a puzzle that maybe I can ask for your reflections or observations on: so many people have told me that in the 1970s the affirmative action issues were very clear, they were very concrete. It was salaries, promotions, things that were crystal clear, okay? I'm not saying easy to solve, but just clear. Several people have said that affirmative action in the 1980s became more diffuse, harder to get metrics on, harder to know when you were making progress or exactly what issues were the ones that needed attention. Do you think that would be a fair characterization from your perspective?

Dunn: Maybe in some of the programmatic things did get changed is what you're saying; some of the salaries, even though they're talking now that salaries have not progressed that much. Or women at least knew to go in and ask for more, you know?

Misa: Right.

Dunn: And they would. Because you know, it was such a secret thing and then you would find out. And that was my case, I was totally underpaid — well into probably six or seven years of the last—and was getting what I thought were great increases. It turned out I was low, and that made a difference when I was shifted to department head, you see, because they look at your salary because that's supposed to tell how well you're doing.

Misa: Oh, yes.

Dunn: Yes, absolutely. I mean, you know it is so subtle, it's amazing. The fact that my salary was lower, there was a real question: if she's so good, how come her salary's so low? So anyway. But in terms of when you were saying that I was thinking more along the lines of what I found after we worked a long time, and made changes, and things really did. We got to see what we thought was progress. The discrimination went underground. What happens in an organization when you first go in is it's pretty much right there and you can see it. And people say things because they're just ignorant about things and then once you call —

Misa: These two guys saying that they wouldn't work for you, you can't say that anymore.

Dunn: Exactly. So they learned through all the workshops how not to say certain things, and not to "offend" people, but that doesn't mean the discrimination went [away], that they changed their mind. In some cases it did, but in some cases it just went underground. And I think what happened to me when I went to AT&T is it had gotten subtle at the Labs. Over time we did make some improvement, but it did go kind of underground so it's harder to know is this a problem because you're a woman, or is this just a problem because you're not doing something right. What hit me when I went out to the "real world" of AT&T was that nobody was subtle. Clap, clap, clap, you're a woman and I don't like you and I don't want to work for a woman. Two subordinates said that, but

they said it to my boss; one said it to my face. 'I don't want to work for a woman. I've never worked for a woman. I'm 55 years old and I don't intend to work for a woman.' I said, 'Okay, then let's see what we can find for you, and then you can transfer.' [Laughs.]

Misa: Then there's like oh no, no, I didn't really mean that.

Dunn: I didn't threaten to fire him, I just wanted to find him another job. I said I can do that, I can help you find another job because I'm here [laughs] and if you can't work for me, you're not here.

Misa: Yes. So this idea of discrimination going underground seems a very subtle but very important observation, Dana. Can you give us a greater sense of texture? What would you say about discrimination going underground, how would you characterize that?

Dunn: Back in the time I could've given you a lot of good examples. What would I say? I mean there were, well it would even be like being talked over in a meeting, not talked at, not listened to, even though you were trying to say something, not acknowledged to contribute, you know what I mean? It wouldn't even be that they would say anything about a woman or anything like that, because they knew what not to say. They wouldn't offend anybody by calling you out on anything, but there would be a subtle but consistent like ignoring the woman in the room. And by the way, most of the time it was only one woman in the room, so it wasn't like you had multiple opportunities or whatever to get in.

Misa: Were there any strategies that women developed to try to deal with that? I think women's voice in meetings, I think that's still a concern for many people today.

Dunn: First of all, I was never timid — well maybe I was when I first got there — but I learned pretty quickly to step in and I would tell women this is where I would say that I took advantage of being a woman in some ways, because when I entered the room you knew I entered the room. I would take a power seat in the room, and I would establish myself early on by introducing myself to whoever was leading the meeting, or whoever was supposed to be there if they didn't know me, or if I did I would acknowledge them. So there were things like that, that I would go in and establish myself so you knew that I was there; I wouldn't go sit in the corner. Many women do.

Misa: Somebody told me that you had to speak within the first five minutes otherwise you were not considered part of the meeting, was that another concern?

[INTERRUPTION]

Dunn: Anyway, I'm sorry. So where were we? Establish yourself early on?

Misa: The question was trying to get a sense of situational strategies. You were talking about taking a power seat, establishing yourself early on. One of the Bell Labs women,

one of your colleagues said, 'I knew that I had to say something contributing to the meeting in the first five minutes.'

Dunn: You know, I didn't think of it quite that way, but I made sure I said something early on, that I spoke up. Again, it's part of that, "I'm here and I'm not taking a back seat."

Misa: Right.

Dunn: But I try to speak something intelligent about whatever was going on at the meeting, or the issue, or whatever. I would try to be the first in to make a comment. Or I would try to be supportive of something going on, very quickly, so they would know I'm listening. [Laughs.] So I didn't think of it as five minutes, necessarily, but probably the same idea.

Misa: Yes, okay.

Dunn: To try to make sure my voice was heard early on. The other thing is, of course, people have different demeanors. I do think sometimes women tended — especially back then — and again, part of this was I think it's sort of like if I do a good job they'll notice me. Well, not necessarily. And especially in an environment which is all men. They may notice you for the wrong reason, you're a woman, and other kinds of reasons for noticing you not necessarily for your work, which was always a concern, by the way. It was

always to be known because of your work, not because of your gender. And that was always a fight. In one of the workshops after I'd been there several years, I described it something like I keep a fence around me at all times in the work environment. I don't let anybody get close to me, either physically or emotionally. You know, like making passes and stuff; basically I just build a fence around me. By the way, when you do that, that's energy consumed . . .

Misa: That's right, exactly.

Dunn: . . . and has to deal with, and yet every encounter, I worried about that and made sure I was absolutely professionally. You knew that I had nothing going on but profession here. And especially when you were meeting with someone alone. Of course we also had meetings where there was, you know, drinking and I always participated because I think the social side of things is required if you're going to make it, but boy, I had my guard up and I was the first out of there or I was right after that. I only had one time in my career where I was accosted in the elevator.

Misa: Yes.

Dunn: I did have a time, and he was a director of mine. So who knows? I don't know if I let my guard down or he was ignoring everything. [Laughs.] For me, it was always an issue in that I was always concerned about it. Whether or not the other person had that concern or not, I was, I wanted to make sure they knew.

Misa: So that extra energy is really something that is emotionally draining. It's taxing, it's an extra requirement — in addition to doing your work, by the way.

Dunn: Yes, absolutely. But I do think learning to speak up, and learning to gain the floor, and so forth. And that was really true again when I moved to AT&T. It was really worse at AT&T. Being the only woman department head, I can assure you, I'd walk in, you know, they'd talk to each other, they played golf together, and they knew each other and they would ignore me, acted like I wasn't there. Not for very long because I have a style that doesn't let that happen, but that is what would happen. It was clear to me when I came in that I was not part of the club.

Misa: Did you ever feel like you needed to take up playing golf or something like that?

Dunn: You know, there's a thing about this — and this is my thing — it would've been handy, yes, had I taken up golf but it irritated me so to think that I had to do that, that I didn't. I actually did play golf, but I played with my girlfriends. I wouldn't play it with — because I wasn't a very good golfer [laughs] — so I wasn't going to show up there, you know. I had a friend, Pat Russo, who was the head of Lucent, and she grew up with brothers and she played outstanding golf. She did use golf as a way to get into the brotherhood. She and I talked about it quite a bit. It was one of her useful things, and she was as good or better than many of them. But I kind of resented that and so I never did. It was just one of my things. [Laughs.] But it would've been helpful. There's only so many

things I felt like I had to give up and change to make me successful and every once in a while I'd hit this brick wall that says no, I'm just not going to do that. I don't like it, I'm just not going to do it, so anyway, that was one of them.

Misa: Well Dana, this has been just a fascinating conversation. I wanted to make sure if there were any topics that we hadn't had a chance yet to talk about and that you wanted to include, that we make sure there was room for that.

Dunn: Let's see, I would say this. First of all, I didn't give you many stories about blatant discrimination in Bell Labs — which I did have — I'll give one. I had a supervisor, and there was a special project that came up out here in New Jersey, it was a lead task force that I was perfect for, and my supervisor decided because I was married, that my husband wouldn't let me come out and he never asked. I found out about it and I actually confronted him directly. And he said but I figured you couldn't go. And I said but I can. So it turned out I got the lead. The same supervisor, we were in a crisis one night at the Labs, all the computers were down and I happened to be the one to be called and led there. And so I called his home to let him know what was going on because it's like for every so many minutes we were down it cost the Labs a million dollars. So it gets to be pretty big, pretty fast and goes right up the line pretty quickly. His wife answered the phone, and she then handed the phone to him and I told him the situation, what was going on. He came into the office the next day and said never call my home again, my wife thinks you're my girlfriend.

Misa: Oh good gravy.

Dunn: Yes. And I said to him, that's your problem, and that's your wife's problem. I will call you at home whenever there is this kind of crisis again. He went away, and he came back and apologized. But it was things like that. I mean just out and out assumptions that you wouldn't want this promotion because it would require a move. God, it's just — it was over, and over, and over again. Anyway, that's what I'm saying, many of those kinds of obvious assumptions, that got handled by the workshops. But the thing that didn't is just the subtle I-don't-think-you-can-do-the-job-because-you're-a-woman, or I don't think you can handle this because you're just not quite up to par, or you might decide to have a baby and then what would happen? You know. So lots of those, which goes on and on and on as you move on, because they're afraid you're going to go out of the work environment. I'm not sure it's not going on as much but I think the thing that helps, now — or it should help and I don't see it because I hear all these bad stories — but technology makes it so much easier to be flexible and for people to work in the work environment, at home. In fact it makes it too easy for people to work all the time, but it seems to me that in this day of technology, it ought to be easier for companies to accommodate flexibility for women. Or for anybody else that needs flexibility. With the economy and everything that's going on, I feel like companies and people are more scared they're going to lose their job and less willing to do those things to accommodate people.

Misa: Right, so it's kind of like technology might make that easier to do, programming or some kind of report somewhere else, but if you're fearful for your job you're not going to be doing that for fear that your boss wouldn't see it. So you have to be there to make sure that your boss sees you at work.

Dunn: Absolutely. I have had any number of women tell me that. Got to be at work, be seen; out of sight, out of mind. I might lose out; I might not be seen as serious. And so with all the capability to do that, with not missing a beat, it's not happening that way. There's a lot of flexibility at the lower level, or people that have the jobs that, you know.... But people that are wanting to be promoted, wanting to move up, they feel like they can't be out of the environment. They've got to be seen. And so it's not getting easier. I don't have, by the way, on the reason girls aren't going into computer science, I was floored when I read that article recently. I thought about how many fewer women there are in the computing world because to me, it's an easier world for women to compete in than most others. I read the article that said because boys are into gaming early, and learn computers. And by the way, I see it even in my grandson. He's a freshman and he's building his own computer. And he's building his own computer so he can do gaming.

Misa: Okay. [Laughs.]

Dunn: He's building this computer that's geared toward fast gaming capability and by the time he gets to be a freshman in college if he wants to do computer stuff, he's going

to be ahead of the game. And I thought my son, he built his own computer; he's not in computers, by the way, he's really a social scientist kid. But he built his own computer; he's good at computers. For sure, the boys are attracted to gaming, and all the girls are into — sometimes they're into gaming but I don't see them in it as much as the guys — so that article was suggesting that by the time they got to college they were ahead of the girls, in terms of having computer knowledge, programming knowledge, and had a jump start. And then you hear about Silicon Valley, it's not a particularly good place for women to work. Although you hear there are a few women CEOs out there, you keep hearing even they are struggling. Everything they do, of course, is rare that they're a woman.

Misa: Exactly.

Dunn: But they're struggling to set up environments that are helpful and yet, there's talent everywhere.

Misa: Dana, this is exactly why I wanted to encourage your observations on this discrimination underground. In Silicon Valley, they sometimes boast that “our company is not run in a professional manner” and it's not an excuse, exactly, but it leaves open the possibility then that all of the affirmative action policies just get chucked out the door. Well, it embraces also an unbalanced gender workforce and that's something that they're taking positive pride in. It's a very strange world out there. So it's a real puzzle.

Dunn: Right. It's interesting, you know, you're right, just to have that one [woman CEO] at the top. And in fact, it depends on how supportive that one woman is. There are a lot of women who are not supportive of other women. There are queen bees. There are women who have made it, and they look around and they say I made it on my own with no help, you can make it on yours. And then you have other women that are just wonderful at trying to help other people move ahead. But all through our careers we would help each other. We knew the women to stay away from and I mean, there were women to avoid just like there were women to recruit and get along with. And sometimes you can't avoid them because they become, you know, at the higher level and then you have to deal with them. There's those kind too.

Misa: Right.

Dunn: When I was pregnant, I was running operator services at the time when I had my son and I took four months off. And I was, at that time, that would be certainly director level — I don't know, I had 10,000 people or something — I was at director level and I set it up so that my team could run without me, and my vice president was very supportive, and everything. What I didn't realize is that the impact that that had for other women, because many women were not taking any time off. They would take six weeks, maybe, after having their baby. And they just wouldn't — it was all, again, being away for too long. And in some cases bosses weren't so supportive. But for many, many women, the fact that at my level I did that, and I took the time off, it just kind of opened up a whole new thing for them, that they could do that, that it was okay for them to do

that. That if someone at my level could do that, then any of them could do that. In operating services, there I had a dominant woman force. [Laughs.]

Misa: Right. So that was a really important issue, I suppose.

Dunn: It was a huge force.

Misa: Important anywhere, but especially with them.

Dunn: Particularly by women, but most of the management was men. But for women, and I didn't do it for that reason, you know, I worked with my boss and so on and so forth, so that it would work out and everything. But it made a bigger impact than I would ever have imagined for people in being a role model for them.

Misa: Right.

Dunn: So, there's the CEOs or executive VPs and so forth, they can be very strong role models for other women. Which is why it was such odd that it was a woman — and I've forgotten her name [Yahoo CEO Marissa Mayer] — who went back so quick, and she's having twins now, and she's going to go back and, you know, the concern is that that sets a precedent for everybody else that well, if she can do it, then we can. So there's still a lot of that going on, that women in high positions do kind of represent and speak for others, even if they don't know it.

Misa: That's right.

Dunn: What they do does make a huge difference. By their actions they set precedents, and they set tones in the company. So these women who are at the top level, they are setting a tone, just as men do — by the way — but for women, and it's so unusual. They're much more under a spotlight than men in that same position, but like it or not, they do set a tone for women in those organizations.

Misa: And that can be positive.

Dunn: Absolutely.

Misa: Yes.

Dunn: Or it can be not so positive.

Misa: Dana, I've learned so much from our conversation. Thank you for taking the time this afternoon.

Dunn: Yes. You know one other suggestion I would make, sometimes what happens, if you get a group together to talk at one time because what I find — and it helps me — someone says something and it sparks something and you get much more robustness

from the total group because they're interacting in a way that the dynamic really sparks memories. And so just as a thought for your research, sometimes — I know different research is done different ways — but sometimes having a group together to tackle some topic or some issue or whatever, and listening to them talk it through can also be enlightening.

Misa: It would be interesting to do almost a workshop based on the experience that the Bell Labs women had, because each one of you had notable experiences and you've also thought carefully about how to be a technical professional woman, and each one of those terms, that's a really important concept. So the project we're doing right now for the Sloan Foundation really is a pilot study. Thanks for the suggestion.

Dunn: Alright, well good luck with your study.

Misa: Thanks so much.