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I grew up in a small town called Bainbridge, Georgia. The population there at the time was about ten thousand people. The school system was segregated. It had eleven years, eleven grades. My mother was my role model in terms of making it clear that hard work was always what brought rewards. There was never a question in my mind, growing up, about what was necessary to be successful. Although my mother had a very limited education herself, she used what she had to be successful. It's amazing, I'm getting emotional just talking about my mother. I told you she was going to be ninety-nine.

Going to school, from first grade on, I never had any question that I could be successful if I worked hard. Fortunately, things came fairly easily to me. I was not distracted by the fact that we had books that were not new, that had been used across town. My teachers were extraordinary in terms of their support.

What made them extraordinary?

Well, first of all, they came to visit our house. When there were no problems, they came to say things were going well. They showed an interest. I also had a chance to work during the summers. This was, of course, not when I was in elementary school but during my high school years. I worked in the office of a black dentist, the one black dentist in town. So, I had a chance to be in a professional environment. I learned early on what it took to be successful there, watching this person operate and the staff around him. He had a senior person, a woman working with him, who was very

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well organized. It was just clear; it made all the difference in the world whether you had the details correct on someone who came in for dental work. Of course, you needed to have things in place where you could find them. It was just an orderliness, now that I reflect on it, that really I learned early.

That's a learning experience.

Yes, it was a great experience. And, of course, I made some money. I don't even remember what I made. I'm sure it wasn't very much, but what was important was just the habit of getting up and going to work and being expected to do things correctly and living up to those expectations.

Among the people who stand out in my mind, especially in terms of my teachers, is a woman named Mrs. Hattie Mae Mann, who was my mathematics teacher beginning in the fourth



grade. She happened to have been the wife of the principal of the school. She also was the sister-in-law of one of the major mathematics teachers in our high school. What would happen is that she would tell her sister-in-law about me, and they would arrange for kids from high school to come down and compete with me in solving problems. I would stand up on a chair at the blackboard—because I was short, you know, at that age—and I worked problems against these high-school students. It was a tremendous opportunity and she arranged it.

Her sister-in-law was Mrs. Ann Loring Smith. Between the two of them, they arranged for me to have these experiences. I enjoyed it immensely. I was never short on confidence because to me this was a real indication of their confidence in me. Other teachers allowed me to grade homework papers, to help them by running errands, to do things that I thought were important. I was in the drama club early on. I played the witch in *Snow White and the Seven Dwarfs*. The doctor's daughter played Snow White, of course. On one occasion in my fourth-grade class, when people were reporting on their homework, the doctor's daughter said, "Well, my mother helped me with my homework." My response was, "I didn't need anyone to help me with mine; I did mine on my own."

As early as that grade, I felt I should be able to do what was expected of me. It was a great experience. I don't remember anything particularly negative. I skipped a couple of grades during the years, so I finished high school at fifteen. Again, it was just a very supportive environment. I don't particularly remember anything, other than some negative things from students. If students think you're successful, they will clearly try everything they can to "put you in your place." I got called all kinds of names. I've never been particularly popular with my peers. I certainly have had friends, but I don't think I could get elected to be anything, any kind of position that required votes, because I just was never political. I never spent my time trying to do that. In high school and throughout, I actually welcomed examinations because I didn't think the teachers could ask me something I didn't know. I found out when I got to college that that was not true, but I felt that way in high school.

So, it was just a very supportive environment from both male and female teachers. Most of my

elementary school teachers were women. Many of my teachers when I got to high school, especially in science and physical education, were male. It was just an extremely supportive environment.

One other thing I remember. Even in the community, people knew you. Both white and black folk knew you because it was a small town. No one said anything to me that made me feel less than anybody else. The only thing I remember that stands out vividly is having to walk back and forth from home to school and pass by the swimming pool, the only public swimming pool, in one of the parks there. Only whites could go. The children seemed to be having so much fun and I didn't understand why we couldn't go. It was very hard to understand that. That's when I learned that race really did make a difference, the color of your skin really did make a difference.

This was at what age?

I don't know. I must have been in the fifth or sixth grade, something like that, when I really started noticing. The only alternative for black kids at that point, if they wanted to learn how to swim, was to go to the Flint River. I actually later on had a cousin who tried to do just that and drowned. There was no way I was ever going to try to do that. So I never learned how to swim.

There were other incidents. For example, I used to look at my books and wonder who is this person whose name was in them and what did she or he look like? Another area was the movies. At that point you could go to the movies for nine cents, but blacks had to sit upstairs. I would get to go on Saturdays and so did everybody else. People who had been working all week would go and it was not the most comfortable place, not only in terms of location but in terms of just the environment. But that was the way to get to see the movies.

I remember once doing something that we were forbidden to do which I thought at the time was significant. There was a park in the center of town, like a town square. It was a beautiful park right in the center, and it had all kinds of flowers and everything. Black people were not supposed to go through this park. But the theater, from the street where I would walk to get up there, was on the opposite side of the square, so you'd have to go all the way around to get to the theater. One day I decided I wasn't going to do that, so I ran—liter-

ally ran—through the park. But I felt as if I had accomplished something when I got to the other side of that park!

Another thing stands out that had a particular effect on me. There was a major street not too far from where I lived, called West Street. One day I heard a lot of noise. I thought it was a parade. I must have been, I don't know, four or five years old—maybe a little bit older, but not much older than that. I knew I wasn't supposed to go from my house to this street. It wasn't that far away, but it was a major street and you could get hit by a car. But the noise sounded like it was a band, like a parade or something, so I ran over to the street. I looked between the legs of people who were standing in front of me and what I saw was this man who was tied to the back of a car, being dragged. This black man was tied to the back of a T-model car. He was still alive as he was being dragged through the streets.

About two blocks from where I saw him was the court house. When they got to the court house, they untied the rope that had him tied to the car and dumped his body over on the lawn of the court house. His eyes were still open, which people discussed openly. One black man had enough courage to go over and close his eyes. The story was that a white woman had accused the man of raping her, but in the black community the story was that there were three white men who had actually attacked her. Anyway, over the years as something happened to each one of these white men, the word was that justice was done.

So there was that incident. I'll tell you one other and then we can skip to MIT. I had three cousins. There were two sisters and a brother. The brother is the one who drowned in the Flint River. The two sisters were in the five-and-ten cent store, McCrory's. I think they were there to buy something, and this little white boy came up and spat on one of them. She turned around and slapped him, which of course you would expect. His mother came over and there was an altercation between the mother and my cousin. My cousins left before anything else happened. Of course, the police started searching for them and unfortunately it was a black person—a black man—who told the police where my cousins were and where to find them.

So they found them and put them in jail. I went to visit them and it was my first time in a jail.

I can remember even today this heavy door closing behind me and seeing my cousins in this awful, dark place. White people in the community were upset about a black person slapping this white child and hitting this white woman who came over and hit her. My cousin was just defending herself, but people wanted to lynch both of my cousins. The sheriff—a man named Stevens, I don't remember his first name—arranged to have them let out in the middle of the night and they fled from there and went to Jacksonville, Florida, where they had some relatives.

So some pretty dramatic things happened in my childhood. However, in terms of things that happened to me personally, in terms of racism, I can't say that anybody went out of their way to treat me particularly bad. I certainly had my share of having to avoid being accosted by white men over the years, but nothing ever happened to me that I wasn't able to get out of. But my cousins were extremely fortunate that in this case the sheriff himself arranged to have them get out. He was white, but arranged for them to get out. Otherwise, they would have been physically harmed, and actually may have been killed.

They could have been lynched.

They would have lynched them, right, for nothing. The kid came over and spat on her. The other thing that was, of course, particularly significant was that it was a black person who told the police how to find them. That's how they've done over the years. Anyway, that's enough about my childhood.

It seems like there was never a question about whether or not you would go to college.

No. There was a woman who taught civics, Mrs. Evelyn Martin. She taught civics in the tenth grade, I think. Mrs. Martin's husband was the local funeral director. I also had the pleasure of visiting the homes of my teachers. As I told you, they came to our house, but I would go visit with them too. I visited the woman who was my teacher's sister-in-law, Mrs. Smith, the math teacher. In fact, her daughter is Anne Pruitt, who was at Ohio State. I would go and stay the weekends with them a lot. Mrs. Smith was just wonderful. I spent a lot of time at her house. With teachers, it was just that kind of supportive environment.

So with Mrs. Martin, who was the tenth-grade civics teacher, there was just never a question

that I was going to go to college. She wanted me to go to Talladega, which is where she had graduated from. So I applied to Talladega and to Paine College, and ended up going to Paine because it cost less to go there than to go to Talladega. That was the basis—financial cost, nothing else.

When I got to college, of course, I worked. I worked in the dining room my freshman year. I picked up so much weight that my physics teacher told me he was going to recommend me for spring football practice. The dining hall had good home cooking, and I got more than my share. You know, I served the food. My fondness for things like homemade rolls started early.

Working and eating.

Working and eating, right. I was taking very challenging courses. I was taking physics and actually took a statistics course as a freshman with seniors in college. Elias Blake was a senior in that class. When I first came to class, students looked at me and told me I must be in the wrong room. I said, “Is this statistics?” or whatever it was called, and they said yes. I said, “Well, I’m in the right place.” I ended up making the only A in the class!

At this point, you have always been sort of the youngest person in a group.

That’s right, that’s very true.

In competing with high school students in math, and in these challenging college courses.

Right, challenging courses. I had a great time in college. I did very well. I didn’t make too many friends because I could get up and study the morning before an exam and do extremely well on it. My roommates and other people would stay up half the night while I would go to bed, and then I could get up early, study, and do well on the test. That’s not a good way. It’s a good way to pass tests, but it’s not the way to remember and make connections between things for a long period of time. I would never advise anybody to do that.

Anyway, after that freshman year working in the dining room, I began to work in the president’s office. I got a job working there, and I worked there for the other three years. Again, it was a job with a good bit of responsibility for a student.

You got to meet a lot of very key people too, including the president.

Oh yes, definitely. The president was extremely supportive of me. I had the opportunity, again, to

learn how to do things correctly. It just was a great opportunity.

So when you look at your overall experience in college, what would you consider real highlights?

Well, one problem I had was that I had to major in chemistry because we couldn’t get enough people interested in mathematics to take the advanced courses in mathematics. That’s how I ended up in chemistry. We tried, but we couldn’t get enough people to sign up for advanced math. You had to have at least five students in a class to offer it. I could not get all the advanced courses in mathematics that I needed for a major, so I majored in chemistry.

Again, my teachers were very supportive. My chemistry teacher had gone to Atlanta University. He arranged for me to apply there. I applied to Tuskegee and got a fellowship in the George Washington Carver Institute. Then I also got admitted to Atlanta University and had an opportunity to go to work there. It’s amazing how you make these decisions. Clearly, the opportunity to work at the George Washington Carver Institute would have been tremendous. I would have been doing research at a place that had a strong research tradition. But I had grown up in a small town, and college in Augusta was a very protected environment. For example, when you got ready to go to the library, everybody had to go in a group. If you went downtown, you had to go in a group. I just thought at some point I would like to have some freedom, so Atlanta sounded like a better option to me than Tuskegee, Alabama. That’s how I chose to go to Atlanta.

That was to go to work?

That was to go to graduate school.

Who was influential in helping you to go there?

My chemistry professor at Paine, who had taught at Rust College, was George Caldwell. In fact, his wife teaches here at the University of the District of Columbia, I believe. She also was a chemistry teacher at the time at Paine.

I graduated there. I was nineteen when I finished college. I had the opportunity—a board of trustees scholarship from Paine—to go to graduate school. I went to graduate school and one of the classes in which I enrolled was taught by my husband-to-be. When I first met him, I thought, “This is a man who is married, with three children”—

and this, that, and the other. Anyway, it turned out that he wasn't married and a few months later we ended up getting married. At the same time, I got a letter from the Paine Board of Trustees saying that since I had married to advantage—which of course was ridiculous, since a college professor at that time wasn't making very much—they were taking the scholarship away.

Mac and I discussed it a lot. I mean, I was really crushed by it because it wasn't the money, it was the honor of having a board of trustees scholarship. I had gotten it on merit, and then for them to take it away—and then the fact that it wasn't true that it was a particular financial advantage to be married to a professor—was quite upsetting.

One of the things that happened there was that as a graduate student in chemistry, in talking with my husband about my real love for mathematics and the fact that I hadn't been able to take advanced math courses, he encouraged me to take math courses I needed at Morehouse while I was still a graduate student at Atlanta University. So I did that, and had an opportunity to meet one of the best professors—probably the best professor in mathematics I've ever had—a man named Claude Dansby, "Pop" Dansby. He was so good. I mean, we used to say that you would have to be a "way-farin' fool" not to understand mathematics after you took it from him. He was really excellent.

He was that good.

He was that good, right. So I had a chance to study under him and make up the differences in the courses. Then I entered the master's degree program in mathematics at the same time that I was in chemistry. I earned my master's degree in chemistry, and then the following year I received one in mathematics. So I was able to do both of them. Now I was in the discipline that I wanted to be in, so then after that I went on into mathematics.

Again, there were just people at every point I can tell you, who made a difference in terms of what happened to me. Teachers really made a difference. I think one of the problems we have now is that a lot of students, especially in urban areas, are in schools with teachers who don't come from their communities and who don't really know anything about their backgrounds. I guess I'm sure they start out wanting to be good teachers and helpful to the students, but somehow they don't know enough to reach the students who

need to be reached. So having supportive teaching is extremely important. And, of course, throughout all of this my mother was extremely supportive.

Anyway, I went to Atlanta University and, as you know, worked at Spelman after that for several years.

How did you get that job?

While I was a graduate student, I wanted to earn some money even though I was married—because it wasn't to advantage. So my teachers arranged for me to take my first position at Spelman. It was as a laboratory instructor in chemistry, the freshman chemistry class at Spelman. They were impressed with the work that I did in the lab and asked me to teach.

I guess the first thing I did as a part-time instructor was to offer general physics and then I taught general chemistry. Finally, as I finished my work in chemistry and mathematics, I ended up teaching more courses in the math department. Then I went away to graduate school. What happened while I was away was that the woman who chaired the math department at Spelman passed away and so they asked me. I was actually going to come back from graduate school and work at Morehouse, but then the woman—Mrs. Georgia Smith—died.

Where did you go?

I went to Chicago for a couple of years—the University of Chicago, where my husband had gone. Of course, there were a lot of issues there. I had two children at the time and my mother-in-law was keeping my younger son. That was a whole other story, but I would not recommend that anybody do that because in retrospect it was not a good thing to do. On the other hand, it was a way for me to devote time to pursuing my education.

But anyway, this lady died and so instead of my going to work at Morehouse—which is what I had worked out with Dr. Benjamin Mays—Dr. Albert Manley and Dr. Mays talked and they decided that I should go to Spelman. I had nothing to do with it. It worked itself out. There was no way for me to go back to Spelman because I had gone away to school without a leave of absence. But then when Mrs. Smith died, all of a sudden the two of them decided it was Spelman where I needed to return. So I did. I went back there.

Those are two very powerful people.

Yes, right, but you know it's not exactly the way for a decision to be made. Nevertheless, I went back there and stayed there over the next fifteen years, I guess, and went to school at the University of Georgia this time, instead of trying to go so far away. At that time, our family was all back together. I would be at Georgia during the week and then commute home every weekend. I did all the shopping, all the cooking, all the laundry, everything. I would try to do all that and then go back down there to Athens. The woman with whom I lived in Athens was a Mrs. Jessie Appling, a very nice woman who must have been sixty-five or seventy but very, very supportive. She would have dinner ready for me when I would come back on Sunday afternoon, because I was company for her. It was certainly a welcome relief for me.

You had been worked down.

Right, yes. So it was really very supportive. By that time Hamilton Holmes and Charlayne Hunter-Gault had finished at the university, had just finished. I was the first graduate student, the first black to graduate with a Ph.D. from the University of Georgia.

I never knew that.

I don't ever talk about it, but it's true. So by that time they had been through all the hell. At that point, most of the controversy and most of the problems were at the undergraduate level—you know, where you have a lot of young people who don't know right from wrong—but in graduate school everybody was supportive. The faculty were generally supportive and so were the students.

And your faculty, for the most part, were white.

Oh, they were all white.

And they were very supportive.

Very supportive. In fact, I got offered a job at the University of Georgia on the faculty. I would have been the first black faculty member there in mathematics. But I had commuted for three years and had been away from my family.

How far was that?

Sixty-three miles, I think, or sixty-six miles.

So that's about an hour at least.

At that point, it was like an hour and fifteen minutes from home in Atlanta to Athens. I had done that every weekend for three years and I just

thought that it wasn't fair to my children to keep doing that, although it would have been quite an honor to be on the faculty there. That was in 1966. Yes, it would have been quite an honor.

Oh, that was extraordinary—first of all, to be the first black to get a Ph.D. from there in math.

It was the first black Ph.D. in any field, and it happened to be in mathematics and I happened to be a woman. But again, it's sort of like what we've said many times and that is, if you look for racism you'll find it. I didn't look for it. I really didn't. I mean, I didn't have time to be trying to figure out, now did this person say this to me because I'm black or did they say this because I'm a woman? I didn't have time for that. I never dwelled on it. I think if I had, I certainly would have made it. There were enough issues trying to get through with the mathematics, so my attitude was sort of what I say to some of the staff members here—you can't get bogged down, you can't let all these things distract you from your central goal. Otherwise, you'll end up constantly frustrated.

So I never paid it any attention, I just never let it matter. And I'm sure it must have been there, I'm sure that there was nothing unique about me that people all of a sudden decided they weren't going to behave that way because of me. It just had to do with the fact that I just never dwelled on it. Throughout my life, any time I thought someone was doing something wrong, I spoke up. If it's in a department store and I'm standing there and somebody else walks up, I'll say "I'm sorry, I was here first"—just to make it clear. You can withdraw and just let people take advantage of you, and then you do after a while, I guess, start feeling as if you're at some great disadvantage.

Anyway, I could have stayed at the University of Georgia, but I would have had to commute because there's no way Mac was going to move. His job was at Morehouse and my children were there. At this point, we were all back together and they were in school.

So you decided to go back.

Yes, I went back to Spelman.

Now, is that when you became head of the department?

Yes, I was acting chair after Mrs. Smith died. You see, that's what I went back to first. That was in 1961. I came back from Chicago. I was in Chicago from 1959 to 1961. I came back to Spelman in

1961 as acting chair of the math department because Mrs. Smith—Mrs. Georgia Smith—had died. So from 1961 to 1963, I was on the faculty. Then I decided I really wanted to finish this degree, and that's when I started commuting back and forth from home to Athens. Dr. Manley, who was at Spelman, is another person who was extremely supportive of me.

Now, was he president?

He was president of Spelman at that time, right. He was very supportive of my doing this. I got the degree in 1966 and came back, and between 1966 and 1975 I had several experiences that were extraordinary in my view in terms of being a faculty member. I became chair of the department, I became a tenured member of the faculty, I became chair of the natural sciences division, helped to write proposals, got involved in fundraising not only for the department and the division but also for the college. I then became associate academic dean and worked very closely with Dr. Manley over all those years. He really provided opportunities for me to do things that normally someone my age would not have been able to do.

The other major thing was that I started out as co-chair of this institution's self-study process. You know how every college has to go through a self-study, a major undertaking especially at that time when black colleges were just being accredited by the Southern Association of Colleges and Schools. The person who was my co-chair really never got involved, so I ended up being really the chair of the committee and got a chance to work with faculty across all of the divisions and departments. We started out—the natural sciences division—as the first division of the college because of a grant we got from Title III. Because of the success of that division, the college decided to organize the rest of the departments into divisions. Now I understand that under Dr. Johnnetta Cole this has been undone, but that's what happened back then. It was just an extraordinary time and really a great opportunity to learn how a college operated at that level. I got involved in promotion and tenure, and just learned a lot.

Your mentor or mentors?

My greatest mentor during that period was Dr. Albert Manley. Of course, I had a mentor at home—my professor, my husband—who was older, considerably older than I was. Of course,

one of our tensions was I often thought he acted like he was my father rather than my husband. But that's a whole other story. You've got to know Mac. He was just that way, I think.

You were among peers almost from college all the way up to this point. You were with peers who were, for the most part, older than you.

Right, most of them were. In fact, when I first started teaching at Spelman the students in my classes were older than I was. I was chaperoning students who were older than I was. They didn't know that, but they were. Yes, I guess so—although certainly in growing up through high school and in college, I had boyfriends who were my age, but they were always so immature. So when I had a professor who was somebody like Mac, who was actually twenty-one years older than I, I was so impressed with his knowledge and his maturity. It was such a change. So I just sort of got into that.

Anyway, I worked at Spelman until 1975 when Jim Mayo, who was an MIT graduate teaching physics at Morehouse, called me. He was teaching physics earlier, and that's where I met him. He left Morehouse and went to the National Science Foundation in the early '70s. In 1975, when I first met you at the Institute for Educational Management at Harvard, Mayo called me several times while I was there about coming to NSF to interview for a position there. It was a rotating position. A rotator, a person who is a rotator, is a faculty member at an institution who comes and spends up to two years at a federal agency. The idea is that then you can go back to your college or university and be able to make sure faculty understand what programs are about in that agency in the government. Jim Mayo kept going back and forth with me on the phone about coming to NSF, and I finally called Dr. Manley and I said, "You know, I really think I want to do this. Will you support me in doing it?" After several conversations, he reluctantly said yes and had to find two people to do what I was doing back at Spelman.

So I went off to NSF, and in the second year they asked me to stay for the two years. In the meantime, back on the campus Dr. Manley had announced his resignation, his retirement as president of Spelman. The Board was in the process of electing a new president, but seemed determined to have a male. The faculty and the student body, many of the faculty and many of the students,

thought it was time for a woman to be president. There was such an upheaval about it, including a lock-in of the Board, that I thought, “I don’t really want to go back there to this kind of environment.” NSF had asked me to stay on as a staff member. They offered me a position as a program manager, which I took. I did that between 1975 and 1980.

Then, in 1980, I heard from Constantine Simonides and I guess at that point you all had been talking about my coming to MIT. I remember Jim Mayo tracking me down to Albuquerque, New Mexico. You talked with me. Constantine called me for several months. Finally, I said, “Well, let me go up to visit to see.” When I got there, I kept thinking, “Well, student affairs isn’t a part of my background. It’s not academic and there’s no reason why I should do this.” But I got to MIT and found, much to my surprise and delight—and I must say that MIT is unique in this regard because I haven’t seen it in any other institution—that at MIT there was a heavy academic component to the student affairs area. In fact, the undergraduate academic support office was one part of the dean’s office, so that it was very clear that the Institute did not consider student affairs as being simply housing and dining.

Of course, that resonated well with me because it allowed me to continue my academic interest, but also to pursue the other reason I was attracted to MIT, which was that I really wanted to understand how a major university operated. You see, I had had that privilege at Spelman—of understanding how a college of that size and resources was organized and functioned, and of having a major influence on what happened there. Now I wanted to see the same thing at a major university. That was the other thing that I found particularly attractive about it. That was in 1980. I went in April 1980 and stayed there until June 30, 1990.

Can you talk just a little bit in terms of those first impressions of MIT beyond those points you just made? What are your reflections about your early experience at MIT?

One thing I found very interesting was the interview process. Constantine had arranged for a group of students to interview me, and he also arranged for faculty, faculty residents, and dean’s office staff to do so as well. I must say I found the

students extraordinarily bright and supportive. I thought, “Yes, this would be an interesting experience.” There was one—there’s always one in every group, later he actually turned out to be very supportive—who wrote an article early on, saying something about it’s getting somebody off the streets to be dean. I really resented this because I didn’t come off the streets. It was very condescending. But, you know, that particular young man ended up being very supportive.

In the interview with the faculty residents and dean’s office staff, two people stand out in my mind who seemed to be particularly displeased with my being considered for dean. I could tell it from the nature of their questions. One was the wife of one of the housemasters, the other was an associate dean in the office that I was going to take over. I thought, “My goodness, why are these people so displeased?” But that didn’t deter me because by that time, having met a number of people and having talked with students, I really could see that this would be a place that I would want to go.

I tell you what else I remember. Once that decision was made, and once I was there, I met Walter Rosenblith in the hallway and he just embraced me. It was such a supportive act. And he welcomed me. He was very, very warm. I don’t know whether that’s the impression that other people have of him, but he was extremely kind to me. Of course, Jerry Wiesner was very supportive. He was president. We were just at the transition from Dr. Wiesner to Dr. Gray.

Before you go any further, you knew when you were taking this position that you were the first black to be on the Academic Council, at the highest level of the organization of the institution.

Yes, I guess I knew that. But not having been there, it wasn’t as big a deal to me as probably for people who had been fighting for that. The most important thing was what I saw in the people, and the opportunity to learn how a major institution operated. I think I recognized that being on the Academic Council I would get a chance to see how a university operates. I paid a lot of attention to how things were done, how decisions were made. I was always looking for fairness and justice in decisions. For the most part, I found that—that it was a fair place.

Now one of the people I went to meet with early on, as I took on the responsibility, was Ken

Wadleigh, the dean of the graduate school. The first thing he said to me was, "Here's a pad and a piece of paper for you to take notes as I talk." I knew right there we were going to have a problem. I certainly took notes and I was covering everything. I don't know what the history was, but there was this tension between him and Constantine. I don't know whether Wadleigh felt that he was in any way left out of the decision, or whether he would have voted for somebody else to be dean. I don't know what the problem was, but it was clear that he wanted to establish a certain kind of relationship with me which was not one of being a colleague, not one of being a peer. So, thinking about early impressions, that's one I certainly remember.

Let me just say one thing about the office. See, after that interview, I knew that at least one person on the staff was not going to be particularly supportive. Up to that point in my life, I had been able to work with a number of people. I felt I could work with anybody, that I could find a common ground on which we could build a relationship. That turned out not to be the case with this individual. It's the one major mistake that I made, not insisting that he move to another position at the Institute. I'm sure there are others, but that one I often reflect on.

The problem was that this person was very good in his job. He did an excellent job of carrying out his responsibilities. At the same time, he was constantly doing things to undermine me and tried in every way he could to discredit me. But I had thought at the very beginning, here's a very talented person and surely we can find ways to work together. I just didn't anticipate the depth of the deception that occurred. But it taught me a lesson. No, I haven't forgotten it, although I still tend—and I don't think I want to change this—to trust people until they give me a reason not to. I still feel that way. Trust people until they give you a reason not to. When they give me a reason not to, it is very hard to go back. Yes, it's very difficult to go back. I think that you should give people the benefit of the doubt, the way that I want people to give me the benefit of the doubt, until there's something that I do or say or fail to do that causes a loss of confidence or trust.

Anyway, I certainly do recall that that's a decision I would have been probably much wiser to have made—and that was to say, I really need to

get somebody else who's more supportive. I'm not sure that other people there necessarily saw all the things that he was doing until at one point, I remember, there was some memorandum that he wrote where it was clear to people like Constantine and I think to Paul. It was clear that this person did not have the Institute's best interests or my best interests at heart. But it took a long time for others to see his deception. It took years before that actually became clear. This person was also very well liked by some of the other folk at the Institute who were not particularly supportive of affirmative action or issues as far as minorities are concerned.

I think that's the most negative thing I remember about the Institute—knowing and seeing now that there were some people who were in key positions at the Institute who unfortunately have never really embraced being supportive of minority students. There's no evidence that these people have done anything that could be a kind of track record. They're going to be in every environment in which you go. On the other hand, there were people who clearly demonstrated their support of these issues. Paul and Constantine are at the top of that list. They balanced off the naysayers by far—by far, you know—in genuine commitment, not just in things that are expedient. There are people there, who were there, for whom there's a question in my mind regarding the depth of their commitment. They didn't do anything to cause harm, but in Paul's case and in Constantine's case the commitment was clear, constant, and steady.

When you say their commitment was steady, can you say a little more about that?

I can tell you, for example, there was a memo. I remember it was April 5 and I don't remember the year—April 5, 1980, I believe. This was a memo that Paul wrote to departments offering them extra positions if they found minority faculty members who were clearly prepared to be successful in their departments. He would give them an extra slot. I thought that was a tremendous commitment, and it was in writing. The thing I found amazing was how few faculty members, how few department chairs took advantage of the offer. It was there, right from the beginning, and it got rehashed and revisited during the ten years I was there. But it never changed, the basic commitment was still there. There were a few faculty who took it seriously—a few chairs—but not many.

One of the things that I remember—a decision that I didn't think was the right decision, but the Institute made it anyway; I think it was during John Turner's time—and that was to decentralize the affirmative action process. I remember when they gave it to the deans. The deans were going to report periodically on their success. It didn't work. In my view, it doesn't work, the moment you start diluting the effort. Now in theory you solve problems closer to where they occur, but in issues like affirmative action this doesn't work. It's my concern nationally, that we're now pushing everything back to the states. Well, I know when the states had responsibility in an earlier time, it didn't work. There's no question in my mind that it isn't going to work this time. There has to be a national effort, just as at universities the leadership has to come from the top. When Paul was there, in my view, he exhibited the kind of leadership the president should on these issues.

Also, I remember one of the major things we did was to look at the racial climate on MIT's campus. What happened was that one day I had on my desk folders from about forty students—primarily black students—who by every measure should have been successful at the Institute. They had high SAT scores, they had high grade-point averages, and letters of recommendation that were extremely strong. You couldn't tell them from the other students who were there. I knew they weren't there because somebody lowered standards; they were there because they met all of the qualifications. But yet they weren't being successful. We were trying to figure out, how could this happen? If it's not in what they brought with them or didn't bring with them, it has to be something in the environment.

At that point I think there were two members, Frank Perkins and Holly Heine. She was head of the undergraduate academic support office. And then there was Frank Perkins. Was Frank the head of the Office of Minority Education? I think he was acting director of OME at the time.

Yes, he was.

That's why he was involved. Anyway, we decided that we needed to look at this whole process. We said, let's start at the very beginning. Let's see how minority students are recruited to MIT. What's in the admissions materials? What do people say when they go out to recruit minority students? What kind of image are they portraying of the

Institute and its support or lack thereof for such students? We started at the very beginning and asked people from the Admissions Office to come, people who did recruiting and stuff like that, and to describe everything to us. And very importantly, we asked them to stay on and join the group so that they could see what happened to students after they got to MIT. It's one thing to recruit students and to get them admitted, but you need to know what happens to them after they get to the institution.

So we went through the whole process—recruitment, admissions, how advisors were selected, who advisors were for minority students. We went through the financial aid process, we reviewed what happens to minority students in the departments, we looked at career planning and placement and at the alumni office. We went through the whole process. One of the things you and I will remember that came out of that process is that as people learned more and more about the issues, they somehow were able to identify blacks who could join their staffs. When I got there, as far as our office was concerned, there was Mary Hope. As you know, there were a few blacks in other offices, but over the two and a half years we looked at MIT's racial climate, many of the offices found ways to hire minorities. All of a sudden, they were able to do that. I think it had to do with really understanding what some of the issues were.

Anyway, as you know, we issued the racial climate report. We went to Paul and to Francis Low, who was the provost at that time, and got their support for what we were doing. Then we issued the report. There was very good coverage of it. Paul was on television speaking about the report, I thought in a very forthright manner. His cover letter that went with the report to the faculty recognized that we had issues.

In fact, one of the things that I thought was really admirable about Paul at that point was that it was clear that MIT had not been supportive enough or had not lived up to its responsibilities to those students.

Yes.

And on national television, if I remember correctly, he basically said that.

He did, he did. I admired him immensely for doing that. Another kind of person would have made the thing seem as an anomaly of some sort. He didn't do that. Let me tell you, in that process

Constantine was extremely supportive. He came to all the meetings, you remember. Jay Keyser came to several of the meetings. So did the director of admissions, Michael Behnke, and the head of career planning and placement, Bob Weatherall. I saw changes in him and in everybody, just the whole group, and also in several faculty members.

You might remember faculty had this teaching on March 4th to try and deal with issues. The reaction ranged from shock among the faculty at some of the statements that were attributed to some of them by former students, to people not believing it, just thinking it wasn't an accurate reflection. So reactions ranged all over the place.

One of the things I thought was unique about the way you developed that report was how you started out with a small group of people.

Right.

Had you ever done that kind of a report? I thought it was remarkable, how you did that.

Probably what led to that is, when I was at NSF I spent a lot of time listening to people. You know, we always had meetings. I found, and it really got reinforced when I got to MIT, that any idea I had got improved on when other people got involved in it. I found early on that when people take an idea and look at it from their set of experiences, they can see ways to make the idea better, or they can see potential ways in which the idea might be misinterpreted. So you've got to talk with other people. It requires a lot of time. On the other hand, you end up with a better product. First of all, people have helped to develop it, so they have ownership in the end product. They have been a part of it and they can see that their ideas have been incorporated. Now, it doesn't work if you just have groups and then you go off and do what you had in mind all along.

This is really an aside. I went to a meeting that was called by the Department of Energy during the Reagan administration. Several people were there. They had us all talking in these working groups, and we were all busily working. However, they had a group of people down the hall who had already written the report and without getting our input. So later we had a large group meeting. I said something about it and the lady said, "We can take care of that in the xeroxing." I said, "This is not a xeroxing comment. It has to do with the fact that a group of people over

there are already writing the report and you have us over here doing all this talking."

Of course, there was no way The Quality Education for Minorities Network (QEM) was ever going to get a grant from the Department of Energy during that time. Nevertheless I felt, what the hell, this is not right. Anyway, it doesn't work when you're not serious about listening to people.

I thought it was an excellent process.

You see, you also learn. It's not like you're just sitting there taking notes. I learned more about how the Institute works and how the whole process works from a student's perspective.

I would notice that somebody would mention, "Well, John Doe has been doing it," and you would say, "Well, why don't we bring him into the meeting?"

Yes, exactly.

So the group just kept getting larger and larger and larger.

Exactly, because you want to benefit from people's experiences. Anyway, that worked. I think it was very important. The process itself was as important if not more important than the report that came out. You could see people expanding their own knowledge and understanding about issues and then adjusting their behavior, which is what you want in any situation.

As a matter of fact, in a way, as I think about it—I hadn't thought about it before—we sort of do that here at QEM. We have a series of brown-bag discussions supported by the Aetna Foundation. Twice a month we bring together people around major educational issues. We have discussants, people who are knowledgeable about those issues, and the rest of us get to benefit from that and to ask questions. Sometimes the speakers are in the process of presenting or formulating policy or plans, so they get feedback from us as they go along. In a way, it's the same kind of thing except that we don't stick with an issue. We change. One time it may be tracking, another time it may be vouchers or something like that. But they are all major educational issues, whereas in the case of the racial climate report at MIT there was a basic issue with which we were concerned and we were looking at it from recruitment, from admissions, from advising, financial aid, and so forth. But it takes a lot of time. The other part that requires an enormous amount of time is to write up what you've learned.

Through that whole process, it took how long?

It took about two and a half years, I think, because we did the racial climate report and then we did a follow-up report that focused on financial aid. It seems to me we did another one on another topic that grew out of that. But the major one, clearly, was the first one.

I want you to know that those reports are very valuable at the Institute. Over the past few years, we've had a number of people come in—particularly black students, graduate students, or faculty members who were new—and ask about those reports, look at them, and so forth. Oh, good.

And one of the things they ask is, "Well, what did they do about it?" That brings me to another question about it, and that is, were there from your viewpoint any surprises as to the result of that report?

I think I was really surprised that faculty members would say the kinds of things they did to some of those students. I was really shocked at that. I just couldn't imagine saying to somebody, "Why don't you go where you people can be successful?" or "How did you get in here when my son didn't?" Faculty as well as peers were giving the feedback to many of these students that the only reason a minority student was at MIT was that standards had been lowered. I guess I didn't realize that that was as prevalent as it was, as it came across in that report. I can almost forgive students because they don't really know, but it is unacceptable for faculty members to have that kind of attitude.

On the other hand, many minority students said there were individual faculty members who were extremely supportive of them and that's how they got through. So I don't want to make it too one-sided. But even if you don't like somebody, I just couldn't imagine going out of your way to be mean to a student. I mean, that's why you're there—to help develop them.

I noticed also, shortly after that report, that you developed a group of people to go around and talk to the councils and the departments. Can you reflect on that?

Well, one of the strategies that we felt was important was to make sure that people knew. It's the same thing that's happened with the QEM report. Once you've spent all that time doing something, you don't want it to end up as just another report on the shelf. You've got to make sure people know. You have to have a dissemination plan, a plan for discussing it.

One of the strategies that we came up with was to meet with the school councils. We called and asked them, told them we wanted to come and have this discussion. Paul had come out in support of it. He had written a cover letter that accompanied the report. Every faculty member was sent a copy. There was absolutely no way that some dean was going to say, "Well, we don't have time to have this discussion," so we had it everywhere.

I remember that in the School of Engineering, after we were there, one of the departments actually asked us to come and talk with them about it. Also, in a meeting in the School of Science, I was surprised when a department chair said that he knew of at least one professor in his department who asked black students easier questions than white students because he was trying to get the students to participate. My reaction to that was that not only do those black students know this is happening, everybody else in the class knows. When exam time comes around, professors don't ask black students easier questions. They expect black students to know the same things that everybody else knows. I thought that for him to sit there as chair of the department and make these statements was really a poor reflection on him as the leader of the department to let that happen. But anyway, it was a very revealing set of meetings with the school councils.

That was in my opinion a major set of contributions your office made, specifically you, at that institution during that period of time.

Well, it made us look at the whole process. It was sad, some of the things that some of the faculty did, including the lack of the support they provided to students.

There are two other things I want to mention that I think were significant during the time I was there. One was my hiring Travis Merritt as head of the undergraduate academic support section of the dean's office. He was a professor who in my view was not being fully appreciated in his department or in his school. Convincing him to come and join the ODSA staff brought greater credibility to our efforts because he was a faculty member.

The second was talking with housemasters at Ashdown and at Bexley about what we could do to better serve freshmen. Independently, each talked about introducing freshman seminars. The freshman class each year was about a thousand students. We talked about having each freshman

enroll in a seminar of no more than eight students with faculty, a seminar that would be taught by a senior faculty member. Each faculty member would be assisted by an upperclass student who also would serve as an advisor and work closely with the eight freshmen. Travis and I met with different department heads about involving their faculty in the seminars. We were often met with the statement, "Well, the faculty are already overloaded and now you're asking them to take this on, they'll have to give up some course." A course like this was probably three credits, I don't know.

Three credits.

Three credits. The first year we were able to get eight people to agree to do it. Then the next year we got sixteen. I understand that Travis managed to eventually get about 125, for the number of seminars needed to accommodate the entire freshman class. It's a huge class, and it is amazing. I really feel good about that, because he clearly was able to get faculty to do it. The two faculty members were Vernon Ingram, housemaster at Ashdown, and Judah Schwartz at Bexley. It was the two of them who had the idea about the seminars. We took it, and as I say, working with Travis we were able to get it off the ground. I feel good about it because it provides an opportunity for every freshman at MIT to meet a senior faculty member in a small setting. This is very important. At many colleges and universities around the country, including major research universities, freshmen have more contact with graduate students than they do with senior faculty members. MIT students have a whole menu of seminars from which to choose.

The third development of which I am proud was the establishment of the Community Service Center. Virginia Sorenson was the person who took on that responsibility, first on a part-time basis. She was able, in working with the freshman class each year, to insure that each new freshman class would take on community service as a project. The vision was to have that office be a place where a student, regardless of how much time he or she had to volunteer, could walk into the office, find an organization in the community that needed support, and get involved. The idea also was to have volunteer opportunities categorized by type of service to be provided—for example, working with the elderly, working at hospitals, or tutoring. My goal—I don't know whether it was

ever accomplished—was to have these opportunities computerized to make it easy for students to find a match. In the beginning, this information was in a big book. When I was there a couple of years ago to visit, I was very impressed with what I found. I talked with a lot of students who were working in the office to learn how things had evolved.

We have a community service component here at QEM. With support from the Annie E. Casey Foundation, we have been able to set up community service centers on seven college campuses located near low-income public housing. The centers connect the students and faculty with people who need their services.

To digress for a minute about those three things you mentioned, one of the things that maybe you can talk just a little bit about is the environment that allows that to flourish. Tell us about that.

Oh, yes. From the very beginning at MIT, I was able to get things done—for example, have a luncheon meeting—without having to get sixteen signatures. This was not the case at other places where I had worked, perhaps because their resources were more limited. I was impressed that, at MIT, I could just sign and we could actually bring people together. Of course, at a very busy place like MIT, you have to have food to attract people, either lunch or cookies in the case of students. The fact that we had adequate resources in the office showed that MIT clearly considered student support services an integral part of the Institute. It wasn't seen as something off down the corridor somewhere. Also, the fact that the office was centrally located at the institution, and that the Dean for Student Affairs was a member of the Academic Council and thus was involved in all the key decisions at the Institute.

That climate is clearly one that is not in place in most colleges and universities. Even in the major universities, many people still see student services as distinct and apart from academic services. The Institute feels the living environment has to be as supportive and conducive to academic achievement as the classroom because most learning occurs outside the classroom. I just hope this view that academic and student services must be inextricably linked never gets lost.

Another impressive thing about MIT was that people were not hung up on titles or where you

went to school. I mean, you wouldn't be at MIT if you weren't good. Once the Institute admitted a student, the attitude seemed to have been that we didn't make a mistake in admitting that student. Also, there is important redundancy in the system. A student doesn't have to go to a single office for "counseling." Students can get support in their departments, living groups, and even in student clubs. It's an important set of circumstances that I hope continues. The whole attitude toward clubs, that if a student could get four other students—no matter for what purpose—the student could organize a club. Five students and a title was all that was needed. It's wonderful. A similar attitude exists about athletics, that a student doesn't have to be an accomplished athlete in order, for example, to join the golf club or the ski club or the swimming team. There are people in the athletics department to help each student wherever his or her level is. There is no place that I'm aware of where such a low threshold exists.

One of the projects on which we're working, with support from the National Science Foundation, involves holding conferences in the nineteen states that have at least twenty-five percent of their high-school graduates coming from minority groups. What we've done is to determine how many math, science, and engineering minority graduates each state is producing, as well as how many each should be graduating to help achieve NSF's goals and also QEM's goals for baccalaureate and doctoral degrees in mathematics, science, and engineering. We've identified the top ten institutions in each of those states in terms of their production of minority baccalaureate degrees. Now we're in the process of interviewing the provosts and others to determine what it is about those campuses that allows them to be more successful than other institutions in their respective states. So far, I haven't found any that are as successful as MIT.

We're looking at the whole question of climate. What is it that makes some places more successful than others? MIT has a unique set of circumstances that supports students at the level of their prior experience and builds on that experience.

That's one of the things that I think people who really care about the environment there are concerned about—the reengineering process we're going through. They really

don't want to see that piece hampered, whereby it changes in such a way that we become just like any other university.

Right. But, you know, people would complain about the low turnout at MIT faculty meetings. Often it was necessary to recruit people up and down the hallway when votes had to be taken. On the other hand, what it said to many of us was that faculty in general were satisfied with the way the university was being run and with the committee structure that was in place, where faculty played key leadership roles. Faculty assumed that their colleagues were taking care of things, and unless something was really amiss they didn't show up at general faculty meetings. I think that's a sign of a healthy environment.

That's a good point. I hadn't heard anybody talk about it that way, but that's absolutely right. The fact is that if we remember, back to the time you were there, the times when we had a huge number of faculty members at faculty meetings was because somebody in the administration had made some blunder.

Exactly, like trying to close a department down. That's right.

And you couldn't get a seat.

Right, exactly. The other thing was that the people with whom I worked most closely, in terms of the reporting structure, I found generally—especially with John Deutch probably more so than others—that if you had a good argument for what you wanted to do, you could do it. Speaking of him, when he first became dean of science, he visited with a lot of us. He asked me, as he did other people, what should be done in the School of Science. I suggested recognizing faculty who were outstanding teachers, and he adopted this idea, which continues to be in place.

That came from a discussion he had with me. I was really impressed with the fact that he actually listened and followed up on the idea. In working with him after he became provost, he seemed very impatient and wanted to get on with things. On the other hand, if I wanted to do something new—especially if I could do it within the resources I already had—he was very supportive. That's how we got the Community Service Center started. It was not in the budget, and he wasn't about to give me new money. I said there was a way I could do it with existing resources, so let me try it. I really give him credit for letting me

proceed because, as a result, the Institute has a community service center. Someone else might have said, "If you have money left over, give it back. We can use it somewhere else." But he didn't do that. I liked the fact that we talked about why it was important to do something, about the resources required, and about what would happen if the Institute didn't carry out the particular activity. He was fair, I think, in terms of reviewing what we had asked for and the rationale we gave.

So I enjoyed that. I enjoyed it because he made decisions. There was no continuation of a discussion. Either it happened or it didn't happen.

The interesting thing about it is that I think that there haven't been that many people in your position—in fact, virtually none—but it appears from my personal view that clearly one of the real beauties of the place is your example of having an idea and being able to work out something to try it. This seems to be broader in the Institute in a way that it can be done, it was being done, and can be done now in a number of places. Again, we have to be very careful about not going too far with the reengineering business.

Yes, I think you're right, because you could stifle creativity that way.

And if MIT wants to be on the cutting edge as it is, and wants to continue, I think it's got to be very careful about not developing an atmosphere where that is cut off.

Right, I think you're right. There is a very attractive condition in place there and I think it would be a mistake not to give people the freedom and resources to be creative. In fact, I wish we had enough resources here, where we could do that as well. We need to be on the cutting edge, just as MIT is on the cutting edge. But it requires a lot of time and effort and resources in order to be able to do it.

So MIT was very special. My memories of the place are generally very positive. I didn't like all the speeches at the opening of school each year; I never liked all the speeches during freshman week. I never liked that. It was always a struggle. I didn't like repetition, although a given class wouldn't know that the previous class heard some of the same things. I just didn't particularly like that part. I probably disliked that more than anything else.

Now, you had to play a major role in commencement.
Yes, that was all fine.

You didn't have any problems with that.

No, because I worked with Mary Morrissey and people like that who were very close friends and very supportive. But it was tough, the speeches. I didn't like that part.

It was always clear to me that with students there is always some controversy. I think the counseling section of the office probably had the greatest problems. I mean, housing and student activities—not too much controversy there—but there were problems where students clearly needed help in trying to cope in the MIT environment. It's a tough environment for students who have been the first in their class before coming there, and then to find that everyone else in the freshman class at MIT had been at or near the top of their high school class. All of a sudden, it's clear there's no way you're going to end up at the top of your MIT class. That requires a lot of adjustment, and it may require more for male students than for female students. The women students tend to be less caught up with being "at the top."

What adjustments do you think you had to make?

I think I sort of alluded to it. I had just come from the National Science Foundation, where I had responsibility for two programs and essentially for the whole proposal process—writing the guidelines, for soliciting proposals, setting up review panels, looking at their reviews, and writing up recommendations. Of course, there were other people along the line who had to approve various steps in the process. But essentially, I worked independently.

One of the first things I learned after I got to MIT was, as I said, that any idea I had generally could be improved on through discussion with others. That's a hard thing to learn. Some people take a long time to learn it. They're so attached to their own ideas that they don't see that not only can the ideas be improved upon, but they move more quickly because you now have advocates for your ideas by having involved others. Fortunately, I learned that early. I think that was probably the biggest adjustment. I feel that the quality of my work was better as a result of that.

What would you say about the quality and availability of services and assistance at MIT?

When I look at my own office, of course, I had a lot to say about who was there and who was not there. I saw many people grow over the time when I was there. One of the first things that happened

at MIT in my area was the introduction of computers into the office. Most administrative offices didn't have them. We had just gotten one at NSF before I left, so when I first got to MIT we purchased one. I think it was a DecMate. People got a chance to see improvements in our work. Constantine wasn't necessarily supportive of it either, as I recall, but eventually the office was computerized. I can remember one staff member literally crying because she was afraid of the computer on her desk. I said to her, "Just turn it on. Things will improve, if you turn it on. Just do that much." Now, of course, this person sends me e-mail. It's just amazing. Having top-quality people in your own office, and being able to work well with people in other offices, was essential.

The other thing is that as far as the MIT Medical Department is concerned, I thought—and still think—it's one of the finest facilities around. I think the kind of service I got and the advice I got has been good. Of course, I try to stay healthy and do the things I should do myself, so that's been fine. Certainly, being able to live at 100 Memorial Drive was very good. I don't know, I just generally found the support there very strong. I didn't have anything to do with buildings and grounds, so I don't know what that would have been like.

Based on your own experience—particularly at MIT and, since that time, in your position now where you see things from a much more global viewpoint in terms of the entire country—is there any advice you might offer to blacks who would be coming to or entering MIT? I'll put it in three categories because of your unique position: Is there any advice you can give to students, any advice you can give to black administrators, and any advice you can give to black faculty?

One of the things that I recall being shocked about—and I certainly don't want to say that this applies to all—I remember having this young man in my office who said to me that he never asked a single question in class because he was afraid that people were going to judge the whole black community on the basis of his questions. He thought his questions were naive, that they were not sophisticated enough to ask in class.

I think that's a tremendous mistake for students to make. The advice that I gave to students then, and give now, is that your transcript does not reflect how many times you ask a question. It

doesn't reflect how many times you went to the instructor's office. It doesn't reflect how many times you begged somebody to help you, or asked questions, or were offered help. It doesn't reflect any of that, but it does reflect whether you had knowledge and understanding of the subject.

So, my advice is to ask questions, to not feel intimidated—don't let the environment intimidate you—and to set up study groups. One of the things that we started—and I need to check and find out what has happened—was the very controversial Project XL.

Oh, it's still going.

That's good news. You have to get experience making presentations and asking questions and sharpening your questions. That's good. I'm glad to hear that. That's the kind of thing that students need and understand. Early on, be clear about when, how, and at what point you need help—and get it, because it's there. The faculty, even in my case as dean, aren't going to come knocking at your door saying, "Do you need any help?" They have enough work to do, enough issues to deal with. I never really found anyone who refused to help. I think you have to be clear about what you want. You have to be very clear about that, and you have to make sure that what you're asking is something that can be done in a reasonable period of time.

For administrators and faculty, I would say the same thing. People are there, they're willing to help—but you have to ask and you have to be very clear about what it is you want. You have to have some ideas about how you think the problem ought to be solved. I don't think you should simply give somebody a problem. I can tell you as an administrator running this organization, don't bring me another problem. I have enough problems. If there's something you want to do, tell me what you think ought to be done about it. Then, together we can decide whether this is a reasonable approach or is something that we can afford to do. Nobody wants you to come in and walk out, leaving behind a problem that didn't exist before you came in.

I would say that whether you're a student, an administrator, or a faculty member, it's important to have some sense of how you would propose resolving the matter. Obviously, it would vary depending on your capacity, whether you're a student or a

faculty member. Also, I would say to an administrator, “If you have an idea that may seem to be off-the-wall, you should go talk with people about it.” One of the things that’s nice about MIT is that there isn’t a criterion for not doing anything. I mean, an idea can really be off-the-wall, but usually there’s something creative in it. It may be too much or too grandiose or too far out, but there’s something unique about it. There’s usually a kernel of a good idea. In talking with people, you get to see how to shape the idea so that it’s more realistic, more appropriate for the particular situation.

I would say, “Hold onto the feeling and discuss your ideas with others. Don’t be afraid to share them.” Now there are some people—not particularly at MIT, but just in general—who want to hold onto an idea because they’re afraid somebody else is going to take credit. That’s the quickest way to kill your own idea. You’re holding onto it so tightly that nobody else ever gets a chance to look at it and to decide whether it is something to which he or she can contribute. Of course, you have to be enthusiastic about what you want to do too. You have to be passionate about what you want to do. You can’t just go in—and, again, no matter whether you’re a student, faculty member, or administrator—with a lackluster presentation of your idea, because people become motivated by your own enthusiasm and energy for what you’re doing. They’re more likely to invest in you if they see that here’s a sane person who is proposing a reasonable approach to do something.

Perhaps the last piece of advice I would offer is to understand that there is much to be learned from failure. I can’t tell you how many times I’ve seen people assume that because something didn’t work the first time, or when they hadn’t tried it, that it doesn’t have any merit. With most things, the process works to a certain point. The challenge is to find out how far did an approach work and at what point did it start going wrong, and then identify alternatives at the point where it didn’t work—rather than saying, “I’m never going to try this again because of what happened the last time.” Maybe in your approach with people there was some common ground emerging and then you went too far. Or, in solving a problem, it was working up to a point and then you run into a dead end. You don’t say, “Well, I’m going to abandon this whole approach,” but rather, “Was there something that took me so far and what are my

alternatives instead of the one I took?” But most people don’t see that even though you don’t succeed at something, there are lessons to be learned from trying. You don’t give up. You go back and start at the point where things went astray.

You could have such fear of failure, which a lot of people have, that you aren’t willing to take risks. I have never had that. I really haven’t focused on failure. If somebody had asked me five or six years ago about setting up an organization such as QEM, I would have thought it was possible. I mean, I had no idea how this was going to turn out, and the jury is still out on how it’s going to turn out. However, I have been very pleased with the kind of support we’ve gotten, the opportunity to meet with all these people across the country, as well as here in Washington. We’ve met some incredibly talented people. It’s a great opportunity, and I’m enthusiastic about doing it.

Now, the moment you lose your enthusiasm about something, you really should get out. I’ve been very fortunate over the years in that I haven’t gone out looking for things to do and then been disappointed. Maybe if that had happened, I would have a different outlook on life. I haven’t had any grand plan, about wanting to be this place in five years and that place in ten years. I’ve never used that approach. I’ve just been incredibly lucky to meet people who thought I could do what they wanted and fortunate to have had the opportunity to do it. So I really feel blessed.

Well, you’ve done well.

Well no, I don’t know about that. There are things that haven’t worked. I don’t mean to say that there haven’t been things that haven’t worked. There have been people I’ve clearly misjudged in terms of being able to work with them, but even in those circumstances there was something to be learned from the experience.

I just hope the leadership at the Institute appreciates the history of MIT with respect to minority participation and integration, and that they do their darnedest to try to find people who are committed to fostering minority participation and put them in positions where they can make the decisions that will enable MIT to continue to be the kind of place where you can test your ideas and where you can be your own self. There are a lot of people, as you know, who have strange ways, but they’re able to be successful there. I’m not sure

the country appreciates that it has a place such as MIT, where people can function like that. The people who have been at the Institute know that, but I'm not sure that it is as well known to others. People tend to think of places like Harvard and Yale, and they are wonderful places, but there's such a focus on who has been there and what family went there. One of the very attractive things to me about MIT is the broad base from which it selects its students. There are no two or three schools or families that have an "in" as far as getting their students or relatives admitted.

And that's another strength which I didn't mention before. It's the enormous diversity of high schools represented in each freshman class—public high schools from all over the country, where students who have done well in those settings have a chance to come to MIT and be a part of its unique environment. It doesn't happen in most places—the alumni and the big donors and the folk you know have so much influence on whether you get admitted. That also was one of the things I liked about NSF. There was a peer review process in place there. It wasn't that somebody could call up and say, "Fund this project." It didn't work, and I hope it never does. I just want to emphasize how important it is to be free of those kinds of barriers, as certainly is the case at MIT.