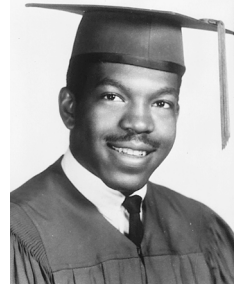


JAMES M. TURNER

BS 1966 Johns Hopkins University, PhD 1971 (physics) MIT; staff appointment as research assistant, MIT, 1966-1971; taught at Southern University and Morehouse College before joining the staff of the US Department of Energy (DOE) in 1977; program manager, DOE Office of Fusion Energy, and international collaborations manager, 1977-1988; director, Office of Weapons Surety, 1988-1994; manager, Oakland Operations Office, 1994- ; deputy US negotiator for dismantlement of nuclear weapons in the former Soviet Union, 1991-1994; senior DOE representative, Operation Auburn Endeavor, 1998, to safely package and transport weapons-grade nuclear material in the Republic of Georgia.



I'm married. I have five children, three from a previous marriage. I have a set of twins, Malcolm and Rachelle. They are now twenty-six. Malcolm is at Harvard. He's in a joint program with the Harvard Business School and the Harvard Law School to get an MBA and a JD. Rachelle works as a financial analyst in Washington. She has recently been accepted into Duke's MBA program and will be starting that in September. My next child is Nat. Nat finished Duke. By the way, Malcolm finished University of North Carolina, Chapel Hill, in 1993, and Rachelle finished Wellesley in 1993. Nat finished Duke in 1994. He works for Hallmark. He recently was transferred from Florida to their headquarters in Kansas City. His primary responsibility is to increase the percentage of minority store owners and suppliers to the company. He'll be getting married this summer. He's the first of my children to get married, and I'm very proud of that.

Then I have another son, James M. Turner IV. James is fourteen. He's a freshman at Monte Vista High School. I think as far as a career goal, he loves computers and I think that's about as focused as he has gotten at this point. Then my youngest child is Lauren. Lauren is twelve. She has a deep interest in marine biology. She is also an outstanding soccer player and track athlete. She also gets pretty much straight A's in school, so we're hoping we'll be able to parlay that into a good college education.

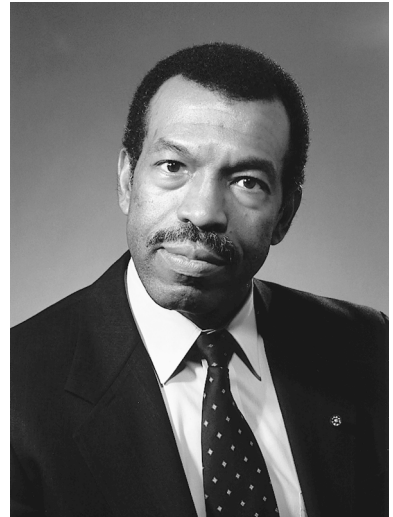
My wife's name is Paulette. We've been married sixteen years, almost sixteen years. She's originally from Connecticut and her field is accounting. She has a degree from the University of New

Haven. I consider myself truly fortunate to have her as a spouse.

Say a little bit about your parents.

Let me just mention too about my sister. I have one sister. She lives back in Washington, DC. She also has a set of twins and they're graduating this year from Wake Forest University. One will be going to medical school next year and the other will be going to grad school in a combination of French and Spanish. So again, we're very proud of them.

Let's see, my parents were both college-educated. My father graduated from Howard University. My mother graduated from Columbia University in the School of Nursing. We had a household that was very traditional as far as values are concerned, so things like respect for others and a very firm work ethic were ingrained in us from the earliest of times. In fact, the unofficial



Edited and excerpted from an oral history interview conducted by Clarence G. Williams with James M. Turner in Oakland, California, 7 March 1997.

motto for our house was the thing from Caesar—“Veni, Vidi, Vici,” “I came, I saw, I conquered.” So for my sister and me, what that meant was that we never wasted time trying to convince ourselves that we could do something, we focused on how we could get it done.

But again, I really appreciate my parents. They both stressed education. Before I knew what college was, I knew the expectation was that I would go to it, whatever it was. It was never a question. In fact, I was well into my thirties before I finally discovered that, as I was going through school, I always assumed that I had no choice. I had to like every class. Literally, my father would kill me if I came home talking about how I was bored in class or something, because to them learning was a privilege and it was precious. Just like you wanted to go up the steps from the first floor to the second floor, you can't decide, “Well, I don't like the sixth, seventh, and eighth steps.” Education was a way to get from where we were to where we wanted to be. We basically didn't have any options. We liked every class we took, no matter what it was. I appreciated that. We also came up with an atmosphere of community in the neighborhood where our neighbors had a role in our upbringing. If we were misbehaving, they would tell our parents and we'd be in for a whipping. And that was great. Both my parents are deceased now, but I really greatly admire the values that they gave us, and the work ethic.

Obviously, they were tremendous role models and mentors for you. Beyond them, in your high school days, who were the people who stood out in your mind who were very influential in your life?

First of all, let me just say that usually this is where many people start talking about their grandparents. But it turns out that out of my four grandparents, three of them were dead before I was born and the fourth one died when I was about four or five years old. I grew up in DC and she was in Ohio. I have essentially no recollections, so I can't give you a grandparents story. But quite frankly, my father was very good at math and I started off wanting to please him. That's why I got interested in math and science, and as a young child—I'm talking about age six, seven, and eight years old—it was a priority for me because I wanted to please my father. I put the extra time and attention to it, and I got good at it and enjoyed it. Then it became

less of trying to please my father as opposed to something that I looked at for self-fulfillment.

My mother certainly was the greatest person I've ever met, hands down—both as a person and as a thinker and scholar. There's no comparison. Both my parents are obviously on a pedestal, but my mother just clearly stands out. Through my mother, I learned the value of family. Her family was the tightest, closest family I have ever seen, and that led to another person who had a lot of impact on me. That's a cousin I had, Grayce Brent. Grayce was the daughter of one of my mother's sisters. When the sister died, the children were parceled out to the rest of the family to continue their upbringing. Grayce came to live with us. I guess she was finishing high school at the time and I was just a baby. But she was always like the older sister to me. She certainly reinforced and complemented the messages that my parents gave and the values they tried to instill. Then when she married, her husband, Booker Brent, I immediately developed a tremendous admiration for. He's an architect. He's one of these people who doesn't say much, but when he says something, you stop and listen because he's very thoughtful. And again, there was that sort of technical background, that sort of fit into what my father was interested in and where I was headed.

But again, I think that as well as the many family friends that we had, and aunts and uncles and things like that, they were all very consistent. The message was the same, “You're going to make something out of yourself, even if we have to beat you to death to make it happen.” There was always the high family expectation of achievement, and even though my mother was the first in her family to go to college, still all of her sisters and brothers—my aunts and uncles—even though many had not finished high school, they still understood and treasured and valued education. All were very successful in their own ways. It was something that was just a very solid, clear, unequivocal expectation of us.

Given all that, in the high school then, you had no choice but to excel.

Right.

I suspect you did. How did you do in high school?

I went to Gonzaga High School in Washington, DC. Last year we celebrated our 175th anniversary. It is a Jesuit high school. The Jesuits were very

strict and very traditional. They insisted on excellence. They had a very good balance. They set the bar very high for us to aspire to. Then when we achieved that level, they on one hand patted us on the back and said we did a job well, but on the other they kept the stick out to say, “You don’t stop here. You’re now going to reset the bar a little bit higher, a little bit farther out of your reach.”

So I think it was an excellent experience. Also, I was in an honors class there. That was also an experience for me. It was the first time in my life when I really had to study. Things did not come easily. They instilled in me a work ethic that I still employ today, and so I feel a tremendous debt of gratitude to them. I still contribute financially to the school because, again, I feel that much loyalty and admiration for what they did. I thought it was just an outstanding education. We had four years of Latin, four years of English, two years of German, a year and a half of college level chemistry, a year and a half of college level physics, a year and a half of calculus before I left.

So it was just an outstanding education. The whole time, it was pushing everybody. People today may talk about stress and all this foolishness, but this school was really pushing us to develop ourselves and then, once we reached the plateau, pushing us on to that next plateau and not letting us rest. Fortunately, at the time I appreciated it. But now, as an adult, I’ve grown to appreciate it that much more.

Do you recall how you actually determined where you would go to school? Basically, what I hear you saying is that it was not even a question about whether you were going to go to college. But what about that whole process of going through selecting what school you would go to? I can’t remember the details of how we settled on the schools, which schools to apply to and all. Certainly we were not wealthy, so financial aid played a role in it. For me it came down to, for an undergraduate school, between RPI and Johns Hopkins. Basically, I chose Johns Hopkins. I think it was one of those things. When we were doing these things, we sort of looked at them as life-and-death decisions and things that were going to change our lives forever. But again, looking in hindsight, it was a win-win situation because I think both of them were good schools.

At Hopkins I did very well, pretty much got straight A’s. But there were some things that hap-

pened to me there that began to certainly raise my consciousness as a black person. At the time I started at Hopkins, Baltimore was not an integrated city. Even though I never had any problem with any other student, there were never more than eight black students in the undergraduate school at any one time.

We were in a situation where all the freshmen had to live in freshman dormitories. When I was a freshman, there were two of us—two black students in the dorms—and we were roommates. The next year there was one student, and he had a single. Some of this was beginning to sink into me because I just never really had a consciousness about this before. I mean, I just considered myself one of the people and never saw myself as a black person, just saw myself as a person.

I guess there were a couple of really poignant incidents that occurred. One I recall when I was a senior. I majored in physics. I was just walking around in the physics building. My father directed me to one of the places that I was going to apply to graduate school—Johns Hopkins—so I was going around distributing some recommendation forms. I remember the secretary came up to me and asked me if I was lost. On the contrary, I was not lost. I knew exactly where I was and it turned out that they had just done an article on me in the Hopkins magazine, about being first in my class.

So that began to sink in. Also, it began to sink into me about some of the things that I guess I had just not noticed. I began to think back when I was getting ready to enter as a freshman. I remembered there was a questionnaire we had to fill out. It asked questions that actually, in hindsight, I think were quite offensive—things like “would you mind a Negro for a roommate?” But again, all that was in hindsight. On balance, though, I got what I came there for and that was an education. It prepared me for the next step, which was going to MIT for graduate school.

*You’re really talking about what period on that undergraduate level at Johns Hopkins?
'62 to '66.*

The number of blacks in the entire school, not the class, was no more than about eight.

The whole school, right. In 1963 I remember they admitted their first American black student to the medical school, and that was a big deal.

But even though that number was so small at Johns Hopkins, you still ended up being first in your class.

Yes. I studied hard. I joined a fraternity. There were several physics majors in the class ahead of me and these guys actually proved a tremendous resource. They did a good job of kind of taking me under their wing and all that, although I did a lot on my own. Still, though, particularly when it came time to thinking about graduate school, I really paid close attention to what they were going through—the kinds of things they were asking, what things they were putting on their applications—just so I would be ready to deal with that.

I worked very hard. One of the things about the fraternity was that we prided ourselves on our academic averages. It was really a carry-over from the kinds of things my parents had instilled in me and that I had gotten from high school. There were so many students who I recall came in as freshmen and all they talked about were their board scores and all that. That was fine, but we were in college now and the time for that had ceased. So while they were talking about their board scores, I was studying. I decided that there were probably a lot of people who were smarter than I was, but there was nobody who was going to work harder than I did. I decided that my path to success was to out-work everybody else, and that's what I did.

Well, it sounds like the family tradition sort of passed right on to you.

Absolutely. Now I wish I could pass it on to the next generation.

What did you do next? You did well on the undergraduate level, so you're thinking about moving to another level. How did you come to decide about where you would go next, and where did you go?

The choice for graduate school came down to MIT and Columbia. I knew I wanted to continue in physics. There were two things, a couple of things that influenced me. One, I had a chance during my spring break of my senior year to visit both campuses. I wasn't sure precisely which field of physics I wanted to go into. MIT had a very large faculty, a lot of different areas represented, whereas Columbia's was small and much more focused. Then there was a friend of mine from Johns Hopkins, who was a year ahead of me, at Columbia as a graduate student. When I visited the campus, that's why again it helps to do these kinds

of things, I bumped into him and even though we had different personalities, he hated the place and talked to me about that. So I took that into consideration.

But also it was a positive selection at MIT. I just fell in love with it when I got up there. Also, I think deep down inside I wanted a challenge. MIT was the best, and I wanted to see if I could run with the big dogs. I think that was a big part of it.

What did you like about it when you first came here? You said you liked what you saw.

I didn't much care for Boston, but I liked the resources they had, I liked the atmosphere there, the stress or emphasis they had on learning. Again, just the challenge of it all to me was important, being able to rise up and meet that challenge. Then also, as I got to know some of the other black students there—like Shirley Jackson, like Sekazi Mtingwa and other folks who were there—that certainly helped to get settled in. They were undergraduates at the time, but I think it certainly helped me just to get settled into the campus and find my way around and just kind of know which end was up.

Talk a little bit about your overall experience at MIT, the academic as well as the social. What are the significant things that you remember about being at MIT?

Let me just start by saying that I was just up at MIT a week ago for a meeting of the National Conference of Black Physics Students. It was the first time I had been back to MIT in probably about thirteen or fourteen years. I was just struck by how many good memories I had of the school. In fact, I'm not a sentimental person, but on the other hand, as I was driving to the airport, I had to pass by Building 37—which is now the Ron McNair building—where I did my graduate work, and also by the Great Dome. I couldn't leave town without at least passing by those places.

So to me it's a very positive experience, a very good experience. Clearly, the academics were excellent, but also that's when I really sort of developed black consciousness. Also, I really take my hat off to the school and people like Paul Gray. When black students gathered together and we formed our Black Students Union and all that, and we began to press for a greater enrollment of black students, the school was entering into an area where it had no data. And again, with those technical types, they want to have data. I must say, on

sort of a global level, with Paul there, he asked us some very tough questions and some very legitimate questions. It forced us to get our arguments together, to have our ducks lined up, and to make sure that we were ready. I really applaud him because he took a risk in trying some things, accepting some of the recommendations and suggestions that we had. Also, the thing that I most appreciate him for was the fact that he kept his word. When he said something would happen, it would happen. There was no need to check or go back or anything like that. It was done. It was done in the first-class way that MIT does everything, and I appreciate that.

But it was also difficult for us because we were students. While we would take time to get involved in these things, the people we were competing with—our colleagues and peers—had that much more time to study or do something else. So it was a difficult chore, but it was something that we were all committed to. Again, I think it was something that the school became committed to. It was a learning experience for, I think, all of us.

I must say on a personal level, one of the people—besides Paul Gray—whom I admired from the faculty and the administration was Al Hill. Al was chairman of the physics department at the time. He, in a way, sort of took me under his wing. I know I didn't get any favors or anything like that, but on the other hand he made sure that I kept my eyes focused on my objective, which was to graduate with a degree. There were several times that he got me back on the right path where I needed to be. Also, there were a couple of occasions where I had to take some part-time jobs because of money and all that, and he removed that as an issue. I certainly appreciated that. But again, I had to toe the line just like everyone else. I appreciate the fact that he respected me enough that yes, I was going to be held to the same standard as everybody else, and that was done. That was what he did for me on a personal level, and I certainly appreciate that. He may have done it for countless other students too, but it just wasn't his style to talk about it.

He just did it.

He just did it and didn't take any bows for it. Again, I appreciate the confidence and the interest that he took in me. I really feel a sincere debt of gratitude to him also.

I think all my experiences at MIT were very positive ones. Some of it involved kind of learning the lay of the land. I remember when I first came, my first year, I had come out as this hot shot from Johns Hopkins and thought I was ready. But then I kind of had a couple of rude awakenings. First of all, there was a big difference between MIT and Johns Hopkins, number one. Hopkins was a good school, but MIT was just in a different league, it seemed to me.

In addition, it was one of these real-life lessons that one needs to learn. I remember the classes I had my first semester, my first year. I was working by myself and I remember killing myself over these problem sets. I remember when we would turn them in that many of the white students would say, "Oh, this problem is trivial and that problem is trivial." And I'm saying, "Trivial! You know, I killed myself over these problems, what do you mean?" So I began to doubt myself. Then I figured out what was going on. They were getting together in study groups. If we had ten problems to do over a two-week period, I was doing all ten of them by myself, and on the other hand they were divvying them up so maybe one person would only have two problems to do over that two weeks. Yes, I guess—given that—they probably were trivial.

But once I decoded that, I was able to accommodate that. I think many of the black students, I think we really helped and reinforced each other. I think another person there who was very helpful to us was Ron Mickens. Ron was a post-doc at the time and gave us fatherly words of wisdom, even though he wasn't that much older than the rest of us. But he had been through this thing. He had already gotten his Ph.D. and all that.

Among other people who had a big influence on me, I remember there was a Jesuit priest, Bill Burke—white Irish-Catholic from Boston—and we formed a study group. When we met, Bill lived in a rectory over in Back Bay and we would meet a couple of times a week studying for our general exams. We would meet over at his place. He had a board set up. It was quiet and we'd get together maybe three nights a week. There were three or four of us. Again, he was really good, really one of the nicest people I've ever met.

As it turned out, he passed his general exams his first time around, and I did not. In fact, he was the only one from our group who passed his the

first time around. But the thing that really impressed me about him—and again, one of the things that I will always remember him for—is that in spite of the fact that he had gotten through, and had started his research for his dissertation, we kept the group together. We continued to meet over at the rectory. He was still just as active a participant as anyone else. So I got through the second time. But he didn't have to do that. He could have just said, "I've got mine, you get yours and have a nice day." But there was more there than just some superficial friendship.

As we got to know each other, it turns out that he was also going through a critical period in his life. He had become a priest—not by choice but because he was the youngest and nobody else had gone into the priesthood, so it was him or the shame of not having anybody do it. It was kind of thrust upon him. In his words, he didn't know how to tell his grandmother that he didn't want to do this. But now he was having some second thoughts about his career and where it should go. He had some tough choices to make too. He eventually decided to leave the priesthood, but again I think this speaks to the kind of integrity this person had. He reimbursed the Jesuits for the college education and the graduate education that they had given him. That's just the type of person that he was.

Those were some of the main features, but I just thoroughly enjoyed my time there. I enjoyed the people I met. Also, when you get in that environment, you sort of take a lot of stuff for granted. The first job I took was at Southern University, an HBCU in Baton Rouge, Louisiana. After I had gotten out of Boston and all the facilities and resources that were so readily at hand, I began to miss them. I loved MIT, what I got from it and hopefully what I contributed to it.

I also have talked to other students who were there when you were there, including some you've mentioned. They have talked about the role you played. You haven't said very much about your activist role there. One of your colleagues and good friends, Shirley Jackson, when I interviewed her, said, "You must talk to Jim Turner because he was very important in my life and the things that we were able to do." I suspect a lot of it had to do with working with Paul a lot. But you had a lot to do with the BSU and a lot of other things, and even though you were a graduate student, there were a lot of things you did. Talk a little bit about that kind of experience.

Well, Shirley and I met. It turns out we grew up a half-mile apart from each other in Washington, DC, but didn't know it until we got to MIT. Clearly, within two minutes, you know that Shirley is somebody special. There was sort of a critical mass, and quite frankly we met and talked through some things. My former wife was coming out of a civil rights background. She integrated the University of South Carolina, so we were talking through some of these things and decided that we were going to take a stand. I think that it was important that we had each other for support because it's very difficult to maintain that high energy level, that high commitment level. There are times when it's late at night and things don't look like they're ever going to work out. You're sort of on the verge of just throwing it all over the side, and then somebody comes. Sometimes maybe it's just a word, sometimes it's maybe just a look. That sort of charges your batteries and gets you to keep on.

Shirley and I helped form the Black Students Union. There were some ups and downs, and I'm happy to say that I don't think there was ever an issue where we had a personal disagreement. We may have disagreed on strategies and tactics and all that, but I think it always revolved around the job that needed to be done. And there weren't that many instances. I don't want to give you the wrong impression, but we were still able to do it in a way where we could walk out regardless of disagreement and be able to work together. There was never a sense of a winner or loser. We just agreed, "This is the best way to move on and we're both committed to it, let's do it."

Quite frankly, it was a joy working with Shirley because she brought the same kind of intellectual depth and thoroughness that she brings to her physics. Invariably, she would think about four scenarios that all of us had missed. She was always up front about asking the what-if question. "What are you going to do next?" I'd say, "Okay, I guess we can't adjourn this meeting quite yet." I mean, that was great. She also shared with us. A lot of us were new to MIT, and she was very open about sharing her experiences with us—what worked and what didn't work, and where people might be coming from. Again, it was just a pleasure and an honor to work with her and to know her, as well as the other students. It was just a matter of reinforcing each other.

Also, we had to learn a lot of this on the fly. I always felt comfortable about being able to discuss anything and everything with Shirley. I didn't feel at all vulnerable in sharing with her doubts, concerns, weaknesses that I felt, and I would hope she felt the same way. Quite frankly, I feel very happy for her to see her career and how it has advanced. Again, I have the highest admiration for her. And I guess one of the reasons I haven't said much about myself is because it was always team effort. I guess I just never considered myself as an individual because it was all as part of a team. It was a team to the extent that we all succeeded together or we all failed together. For one or two of us to succeed, and the rest not to, was an unacceptable solution or outcome. I mean, I always viewed it as a team concept. There were some frustrations too. Obviously, we would have loved it if all the black students on campus had been a part of the Black Students Union, but some chose not to and that was certainly their prerogative. Some of the things that we did also shaped some of the years after I left MIT.

Very much so.

One of the things that Shirley and my former wife and I did was that we wanted to start a black school that was focused on science and technology, science and engineering. We got catalogues from everywhere. We read them and all that stuff. Yes, that was really my first exposure to black colleges other than a summer geography class I took at Howard. I took that, quite frankly, just for the social benefits, but it really was an eye-opening experience. It got me to think on broader levels.

Actually, the first thing I wanted to do coming out of graduate school was to teach in Africa. About a year before I finished, I started writing letters to African embassies all over the continent, because we wanted to go over for a couple of years and teach and help out. Money was not the issue. I was asking for enough so I had a roof over my head and maybe one meal a day. One of the disappointments I had, quite frankly, was that—and I don't know the reason why—the only response I ever got was about two weeks before my graduation. I had sent these things out a year before I graduated and I obviously couldn't wait for these people to make up their minds, so I had already accepted a position at Southern University. I don't know the reasons why, but certainly it was what it was and that was that.

But again, Shirley and others were great assets—Sekazi, but also people like Warren Shaw. I know Warren is a fund manager and has gotten written up in several magazines.

Warren Shaw.

Yes, and others who were great assets. Also, quite frankly too, in that period I also had the privilege of getting to know and meet Ron McNair. Ron came up—he was a student at North Carolina A&T—to spend his junior year at MIT, and then he came back for graduate school. Again, that's somebody you talk to for ten seconds and you know that you're in the presence of greatness. That was certainly a big loss to us all, but he certainly showed the light for us. Mike Fant is another guy I remember—a really high achiever, had his head screwed on right, a fighter.

So we had a lot of different personalities, a lot of different things that we brought. But I was always happy that we could stay together as a cohesive group, that there wasn't any squabble about who's leading who and somebody getting mad and going off and doing their own thing. We stayed together as a cohesive group. We kept our eyes focused on things. Also, I think, maybe we didn't fully appreciate it at the time, but to do something like Project Interphase was a bit of a risk for all of us because we didn't know what we were doing, what we were getting into. But I think we took it as something serious and something we were all committed to. I was very happy to see it still surviving.

We're quite thankful for you and Shirley and the others because, basically, you really set the stage for what we actually are doing now. Those things, as you've said before, are the things that we're doing now and they have virtually not changed that much. It was your brilliance as students, to have a vision and the comradeship and knowledge and power to force the institution in many cases to do these things. I don't take it lightly, Jim. I know you're a very modest person in that sense, but it's very important that we get a sense of how you have been able to be trailblazers in that sense.

One of the things too that I've really appreciated and was very happy for in our group—there were many groups of students on many campuses who were doing similar things—was that we pushed for more black workers on campus and better conditions for those workers who were there, including the people who changed the beds, who washed

the dishes, who did those kinds of things. We tried to also keep that as part of our focus because those folks were important too. They had families and mouths to feed and they deserved opportunities also. I just am very proud of the fact that we also tried to push for those kinds of things.

There was also, for me, another impact, and that was that I could see MIT stepping out and being aggressive and bringing in hundreds of black students each year. I would look back to Johns Hopkins and they're still at the five and ten level, and they're saying they can't find anybody. That really infuriated me about Hopkins. Now they're trying to take some steps and I've had some involvement with that. But if a school like MIT can find a couple of hundred of students—Hopkins, why can't you find ten?

Also, it was an eye-opener to talk to some of the faculty. I remember we had some very frank discussions with people in the math department. Quite frankly, the folks who were there felt that because they contributed each year to the NAACP, that that was it. "What more are we supposed to do? We've done our thing." So it didn't bother them in the least that they couldn't remember any black students in the math department. They didn't see any problem with that, whereas the physics department was a lot different. They did view that as a whole and as a deficiency, really took it as a serious thing. To us, it was an education too. We did what we could.

Well, you did more than perhaps you even thought that you would do. Do you have any sense about what kind of experiences at MIT, general or specific, have helped you most in your career up to now?

I think a lot of that has really been the confidence in just striving to be the best at the best place. Some of the things that I've done subsequent to that were things that were new areas to me. Again, that sort of confidence I got because of being able to succeed at MIT helped. I think too, quite frankly, I know for a fact—even though I can't document it—that having the MIT beaver on my finger and the MIT name opened some doors. Compared to other black students, who are certainly just as capable or maybe even more capable, the fact that I had MIT next to my name sort of gave me some instant credibility and provided opportunities for me which may have not been available under other circumstances. I think that certainly has been a benefit to me. I think, too, just

watching what goes on there, I was certainly gratified seeing last week at the National Conference of Black Physics Students almost two hundred black physics students. In my wildest dreams—my wildest dreams weren't even at that level. So just to see that.

Again, I think what the school provided as far as an educational foundation, but also what it took to get that—the work that it took, having to deal with different people, many different types of people, and just the confidence that you have. Again, you're tracing back to what our parents did for us. It just sort of reinforced that. For example, when I got involved with some of this work in helping the former Soviet Union dismantle nuclear weapons, I didn't know about foreign policy. But on the other hand, I had every confidence that I would learn enough to be effective, and I think we did make some progress and did some things that were important—the fact that the Russians have subsequently come back to us and said that they needed something, and to have the United States government step up to the plate and be constructive because it was in no one's interest to have a problem or weapons stolen or a weapons accident. To lead the Department of Energy side on that, I think was a privilege. I work with just some absolutely first-class people in the government, in different agencies. Then to look at my Russian counterparts across the table—people who did have first-class jobs, but the world changed on them—they did everything that was expected of them and they did it well, but the world just changed.

Those were experiences. For me too, there was one poignancy about it. I remember when I was about eight or nine years old, growing up in Washington. This was in the early to mid-'50s, when we were having air raid drills and things like that. I remember one summer evening I was at home. The air raid sirens went off and for some reason, this time for me, it sounded real. I remember hearing a plane streak overhead and I said, "This is it! This is it!" So I went and hid under the bed in my room and did everything they told us in the civil defense drills. I was scared to death and I started crying. I was just hysterical almost. I remember my parents running upstairs to see what in the world this was all about. It took them I don't know how long to get me calmed down and convinced not to worry, that we were not getting

bombed. When I was doing some of that work, I remembered back to that incident and I said, “Gee, I want to do this well because I don’t want my children to have to go through that kind of fear of destruction and death and all that.”

Again, I think the MIT experience helped in both tangible and intangible ways. There was that instant credibility, then just the rigor and the training that we had gotten. Again, to me, it’s just sort of an unbroken chain that started with my parents and family and friends. I went through high school training, went through MIT, and then later. It was all consistent, it all fit together. The challenge now is to pass that on to my children, and I think of my older children. Again, I think they deserve a lot of credit on their own, because they’ve had situations where they could have gone off track. But they have stuck to it, they have all been successful, they’ve all got great futures in front of them. I’m now focusing on my twelve-year-old and fourteen-year-old, trying to get them over the hurdle. My wife and I are very much together in that.

Again, I just look upon my time at MIT with a lot of fondness and nostalgia. It just was a great period of time for me, even though I worked pretty hard. It’s a time that I’m very fond of remembering again, as people like Paul and Al Hill and Shirley and folks like that made that all an experience that I was able to get through and then to appreciate.

You’re extremely eloquent. It could not have been said better. I think you’ve really covered the ground. It’s really a privilege for me to have a chance to talk to you. I see why the others told me I had to talk to you.

Well, I certainly appreciate this opportunity. I also appreciate the kind words. I guess one of the things that I really should have done and never did was to go back to people like Paul and Shirley and just tell them how much I appreciated their impact on me. I guess I take that as something now that I’ve got to do. I hope my body language would say that, but on the other hand I need to make that explicit because I think that has really shaped who I have become and who I will become in the future. As we discussed at lunch, I don’t consider my career over yet. I think it’s still on that positive slope, so I’m not ready to start writing memoirs yet.