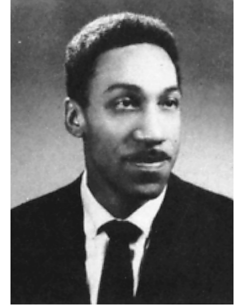
WILLIAM B. STEWART



BA 1952 (mathematics) Ripon College, BArch 1955 (architecture) MIT; worked as a draftsman and designer in both public and private ventures, 1955-1969; executive director, St. Paul (Minn.) Model Cities Program, 1969-1971; Model Inner City Community Organization (MICCO), Washington, DC, 1971-1973; director, Minority Student Program (MSP), University of Minnesota, Morris, 1973- ; taught at University of Wisconsin, River Falls, and University of Minnesota, Morris; recipient, President Appreciation Award, Association of Minnesota Black Counselors and Directors of Minority Programs, 1975-1977.

I came from a family of five children—four girls and I was the only boy. My father died when I was eight months old. My mother really reared that family. We lived in Detroit, Michigan, at that time in mixed neighborhoods until the time I went into the service. We lived in Hamtramck, Michigan, which was the Polish neighborhood near the railroad tracks. I later went to elementary schools in Highland Park, which is an Italian neighborhood. For junior and senior high, I went to another part of Detroit that was Jewish.

So most of my experience was in a mixed school that had a black population, but it was not totally black. In many respects, I think that sort of saved me because the schools were good until the community all turned black, and then it changed considerably. I went to an all-city technical high school and that sort of gave me a base for being prepared in the areas that I would need if I decided I wanted to go to a school like MIT.

Now in society at that time, there was no encouragement at all for blacks either in the high schools or junior highs to go to college. That had to be thought about on your own. I thought about that from the time I was ten years old, that I was going to go to college. I lived in Detroit, Michigan, the automobile capital of the world. The factory odors made me sick. You could feel them out there. So I was determined very young. My father had died, my mother was on social security and she had to work. I decided early that I would get out of that situation somehow.

So that came at a very young age. Most of my youth was spent in an extended family. My uncles always helped provide for me. I had a friend whose father would take me in on the weekend with his only son, so that they made sure I had some kind of dimension with a male figure. I went through in the early '40s a riot in Detroit, June 1943. There was a race riot in Detroit just before World War II, and I experienced that kind of behavior. It was before that major one in 1967 when they burned Detroit, but I went through that as a youth. That was a traumatic experience. Then to have to go into the service with that behind you was a very shocking experience.

I grew up in a situation where I really never understood my identity, and there always was an ambivalence about who I was and what I had to do—then to get into a society where it seemed as though there were no opportunities in the area that I wanted to get into. I knew I liked art. I liked

Edited and excerpted from an oral history interview conducted by Clarence G. Williams with William B. Stewart in Morris, Minnesota, 19 October 1996.

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

to write poetry. I liked to do other things. Now where my insights came is when I went to this junior high school, where there was a Jewish student who at that age of fourteen or fifteen was doing magnificent drawings. His name was Solomon. He became a noted architect in Detroit later on. I looked at those things and I said, "Oh, wow." I thought that maybe this is what I wanted because I couldn't make money as an artist. So I wanted to get into architecture. There was no place anywhere for any of us to do that. In fact, when I went into the service they laughed at me. The black brothers laughed at me, talking about how I'd never make it.

Did they see any of your work?
Not after that. No, the only example was to draw elevations for a latrine—outhouse—to be screened on all sides. It was on the Palau Islands, on one island—Peleliu. The commander had the men construct it. But before, that's what they said, "You'll never make it, you will never make it. No one will ever hire you." I said to myself, "If I live, I'm going to try."

What year was that, approximately?
Late 1945 into 1946. We were in the segregated Navy. Opportunities were extremely limited. The only thing you could do was be a cook. You have to understand, I took the alpha-beta tests and did very well. They told me in school that I did not belong in cooking and baking school. That was near Rochester, New York. They told me that my scores on the Army and Navy alpha and beta tests were such that I had no business being there. But I couldn't get out of it.

I went through a period somewhat of depression, but not totally. My commanding officer at the air station at Squantum in Massachusetts approved of my taking the test for carpenter's mate 2nd class. I passed it and was promoted to 2nd class petty officer in that area. I was released from cooking and transferred to Camp Perry, Virginia. I was trained in the Navy's new logistics support outfit to go in behind the Marines in battle and secure a base to build Quonset huts and act as a port outfit to unload supplies.

Tell us how you actually got out of that situation from high school up to even getting to MIT, even finding out about a place like MIT.
I was in the United States Navy, had taken these batteries of tests, and they sent me down to Massachusetts. I had just gotten out of cooks' and bakers' schools on my way going overseas. I had read about MIT. My physics instructor told me in high school, at Cass Technical High School—"MIT is such a difficult place. MIT kills students. The tests are so hard they give you three-hour tests and they don't even worry about sitting you apart." I said to myself, "That may be true, but I'm going to try."

That's how MIT got planted in my mind. When I was in the Navy in Massachusetts at Squantum Naval Air Station, I put on my blue uniform, I went down to MIT, talked to the director of admissions, and told him I wanted to go there if I lived to get out of the Navy. He said, "Son, let's see if we can try."

Was the director white?
Yes, he was.

I know he had to be.
He was white.

Was that teacher who told you this white?
That's exactly right.

He didn't think you could go there.
He just stared at me. He didn't believe that. Now look, I knew nothing about MIT. He mentioned it to the class. I asked him about it and he told me, "Mr. Stewart, you do indicate a semblance of intelligence, but MIT is too hard." I said to myself, "Yes, but why not?"

Then on the basis of that, when I got in the service and I was down at the Squantum Naval Air Station, I was in the Boston vicinity and I used to try to go to school part time if permissible. Otherwise, I always had books to read and stuff like that. I belonged to a book club. I just read. I did that. That was my nature, to continue to learn all I could in preparation for college after the war was over.

When were you in the Navy?
In the Navy, from 1943 to 1947, I read. I went to Boston when I was on leave one day. I heard about the school, went down there, picked up a catalogue, and came back to the base. That was the day I decided I was going to go and see the director of admissions.

When you went to MIT that first time to see about the possibility of applying, what was your impression of the place?
I thought it was a massive place—large, because of the major buildings. I remember I had to catch the

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

street car and such. I walked out and saw that big ancient building, and then you get in and the ceilings are high and I didn't know which way to go. But I had called him and he told me where to go, so I came. He even impressed me that much more, in a way that I would have to thank him because I didn't sense any negative behavior like that I had encountered before. He was receptive at that point. He encouraged me and that made me feel as though it was possible to attend MIT.

Then the thing I did was I went back and I got shipped out overseas and I kept the information. I kept reading, and then when I came home and got out of the service I started looking for work. I had my mother, and I was going to help the family and prepare for college. I worked for two or three years. I worked for three years in a factory at Chrysler Motors.

Before you actually applied?
That's right, and then I applied. I applied after I went to Wayne State University for six months, and after I went back to Cass Tech High evening school. I had finished high school, but I wanted to go back to evening school again to see if I could reorient myself. And then I started Wayne State University.

Is that when you were saying that while you were working in the factory you would actually take your books?
I worked forty hours a week and went to evening school from 6 to 10, four nights a week.

You would actually go while you were working.
I'd take my books to the factory, wrap them up so they couldn't see them, then get on the assembly line. I had a concealed place to study. A friend and I worked together. I'd catch up and go back and look at my book while he held the line for a short time, sneak it so they wouldn't see me. I also learned vocabulary by taping *Reader's Digest* list of words to my machines. But they found out later. A foreman in the last job in shipping autos overseas wished me well.

The desire was that strong. I applied to MIT. I took the entrance exam. I didn't pass it and I felt even more dejected, because I was denied entrance to MIT. Then I had another black friend by the name of Bill, and I forget his last name. He was from Mississippi and going down to Hampton Institute in Virginia to work on his master's degree in agriculture. We had developed a friendship. He told me, "Look, don't be so dejected. I'm on my way down to Hampton." He looked up these twelve colleges that had an association with MIT on the 3-2 plan, and he wrote all twelve of them.

I got into Ripon College in Wisconsin. My mother had died, so it was really kind of luck to be accepted. I had a choice to make, and so I left. I told my sister I wanted to help her and the family. She said, "No, we will survive. You know what you need." I got in mid-semester. Ripon, I think, was a very good college and had suspended unsuccessful students. Therefore, I and others were admitted and accepted on probation.

And you went how many years there?
Three and a half, and then I graduated with a degree in math and a minor in physics.

You still didn't forget about MIT, though.
No. Well, the next step was to try to get into MIT through that 3-2 plan—I and two other people, two other white fellows. All three of us were successful in getting in. In fact, the other two were in the Sloan School of Management.

This was the graduate program?
Undergraduate.

So you had to go to that school first and then come to MIT as an undergraduate student. You actually did a double take.
Exactly, but I didn't have to take all of those first courses. I had had all the math and physics requirements completed. Therefore, I immediately went into the School of Architecture.

What was the experience like?
Well, it was very different in this sense. I didn't see anybody like me. I did not have a black friend as I had at the other school. We were the first two blacks to graduate in 125 years at Ripon College in Ripon, Wisconsin. I mean, in a smaller college at least you had to a degree some kind of support system from whites—and one black male Navy veteran, Delroy Cornick—whom you would talk to. But I had no support system at MIT. Delroy received his Ph.D. in business economics from the University of California and was head of the business economics department at Morgan State University. He just retired and still teaches part time in the graduate school there.

How about the architecture department at MIT?
The architecture department itself was small and our relationships with some of the professors were

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

good. They would work with you and the students. But insofar as the support system, the social and psychological, there was none of that.

What are some of the highlights of that experience at MIT?

First of all, let me talk about the personal and social psychological thing. I did have friends who were going to Boston University who were working on their master's and Ph.D's. James Marquiz, who received his master's degree and Ph.D. at Iowa State University, was a major support for my success at MIT, psychologically. He is now retired after teaching music at both South Carolina State College and Albany State College. In fact, Martin Luther King was working on his Ph.D. at Boston University while I was at MIT. And Howard Thurman—black theologian, author, and great churchman—was there at that time in Marsh Chapel. Then I knew people in the community. I did have a family I knew from the Navy. I did have to a degree some kind of life outside of working all day and all night and all weekend at MIT. That helped me survive in the lower points when things weren't going well. At least I could go and talk to these people and have some response and encouragement.

But my life inside MIT, as far as the students were concerned, I think the informal part of the education was somewhat good in the sense that I was on the student staff and I worked in the dorms, cleaning the dorms and so forth. I got to know a number of students in engineering as well as other students outside of the architecture discipline. That allowed me to develop those kinds of informal relationships, so that I wouldn't feel totally isolated. I played intramural sports and that kind of thing. But insofar as studying stuff was concerned, there were no types of group study things where we sat down together except through architecture and planning. So if there were any problems, I had to just work them out for myself. I couldn't go to someone for academic assisting. I couldn't go to someone for support. There were only one or two professors in architecture who really worked with me. Insofar as things like civil engineering and all of this, I had to do it all on my own. That doesn't provide an academic support system of what I would call study groups together where you could overcome problems.

That's one of the more difficult parts. I had no way to work out those kinds of things except through class and maybe through one or two professors, but principally in the architectural area. Then the most disturbing part, there were no internships. I'm in a field that I feel I'm not even sure I'm going to get employed, and here I am working with the hope that times were going to change and that I would find a position.

You had gone through all of this experience realizing that, "Sure, I'm doing all this, but I won't even be able to get a job."

I didn't even know. In engineering there may have been an internship, which in a sense you always had to question whether they would accept you because you were black. But there were none in architecture.

This was the '50s?

The '50s, 1952–1955. That McCarthy anti-Communist Congressional investigation was going on at that time. Prejudice, discrimination was open all over—even in the factory. When I came back to Detroit for summer work in the factory, they had a list. They looked down this thing, and I could see that I wouldn't get a job for the summer because I was not on the list. I had to work as an orderly in the United States Marine Hospital.

What was it like at MIT? What were the things that you felt were just openly racist when you look back at it now?

Oh, the attitudes of people in general and some attitudes of your instructor. He would indicate if I had a tough day, "I don't understand—can't you do this?" In fact, one instructor talked to me about another black student and why wasn't he in class. But you'd get the attitude—a few of them, not all of them.

There were some very good instructors there. The ones I found who were the most sensitive were the ones who by far, in effect, were the most intelligent and sensitive to my plight as a minority black student. This applied to teaching even in the art and the engineering area, which we were required to coordinate in architecture. A lot of that stuff involved both the liberal arts and technical thoughts. MIT was going through a stage at that time of attempting to develop a liberal arts curriculum along with the technical curriculum. In that kind of a sphere, it was important that I came out of a liberal arts institution along with other persons who transferred there. I could then cope in a way with the affected thinking to a degree,

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

because you had highly selective technical scientific thinkers who may even embody some of the same theories about technology.

In certain classes you would experience the arrogance of students, which seemed a subtle MIT trait. But on the positive side, there were some instructors who did work with you and try to help you, but they were few and far between.

What would you say was best about your experience at MIT and what would you say was worst?

I would say the best experience is you're in a competitive kind of environment, whereby the work that you see done is the best you're going to find anywhere else, I think. You're working with students like DuPont's son and other prominent people's sons, so the work that you have to perform has to come to a standard. That I would call some of my best experiences, in the sense that when you develop a project you know that that project has to be up to a certain standard of excellence.

There were a few students who would offer help on projects. There were also a few professors who worked at helping you. Even doing my thesis there was one. He took me through a whole setting of my thesis site and photographed it. That was the best part.

Who was he?

Professor Tom McNulty. I don't know if he's still there. Then I had a couple of student friends, one from New York and another from New Mexico. We were very good friends. We'd talk about architecture. We'd talk about the theory. We'd talk about the philosophy.

These were white students, right?

That's right—Tad Hoshour from New Mexico, Leo Leonni from New York, and some others including Bob Dyck, who is now a professor of urban planning at Virginia Tech in Blacksburg, Virginia. We'd ride our bikes and then we'd talk. That informal education was an important part of it. For example, there was also a black graphic designer from Cleveland, Ohio—Mel Nickerson—who was doing work with Dr. Kepes in graphic design. I worked with Mel. We used to stay up nights and he'd talk about drawing, painting, sculpture, and things of that sort. That helped. That was the rich part of informal education.

Then I knew my friends at Boston University. We'd meet on a Sunday and we'd walk around the city. And Dr. Thurman was there at the church. That atmosphere was expansive, and we'd also go up to Harvard. That atmosphere, the philosophical base, the rigor of the program that people could talk to you about, and then you'd see them do their work, that's what I enjoyed more than anything else—even though there were no blacks. The only black undergraduate student I knew at MIT was Reginald Griffith. There were two black graduate students, one in electrical engineering and another in mechanical engineering. I also understood that the husband of Dr. Josie Johnson, regent of the University of Minnesota, was there in graduate school. I did not know he was there, as he may have lived off campus.

What about the worst part of your experience there?

The worst, I think, is the fact that there was no psycho-support system when there were down periods. There were no faculty whom I could relate to. I knew nothing about black history. I had no role models. I had nothing to work with. I had nothing to drive toward. It's only after I got out that I began to really read and know about blacks, not only in engineering but blacks in history. I was going through a stage of personality development and mine didn't crystallize until I really began to question what happened and who I am.

Then the long hours of work. I wouldn't call that bad, but then the fact that there was no social life within the institution. There were no comrades within the institution whom I could talk to about, for instance, the things that we have here. If we had had enough people to just get together, even if there were no faculty and staff, at least we as students could have gotten together to begin to discuss things. But all I saw was a white sea of faces no matter where I went. That was the worst, most difficult part of MIT.

Just a subtle impropriety. I mean, one day I went down the hall with a female student—we had a white design girl in architecture—and everyone just turned around to watch me as if something was wrong. Going down the hall, I couldn't understand it. We were just classmates. There was no personal relationship.

Norbert Wiener, who developed the science of cybernetics—at that time my wife was my girlfriend from Boston University—came over to eat. My wife was sitting there with me and Tad Hoshour, a white student. Norbert Wiener had a thing of not looking at anybody because his mind was concentrated in "outer space," but he looked

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

over to that table and saw her. My first reaction was, "Here is this man, a genius in his time, but he has to look over and see her." Now I don't know whether he thought that she was a student there, because she was working in one of the MIT labs at that time, or whether he really saw her as a black woman in a situation that he couldn't fathom.

But that's true. I can attest to it. He'd lose his car in places and forget where he parked, but he could see that day. So I'm saying the atmosphere was congenial yet hostile.

You finished MIT in '55?
Yes.

What happened? What did you decide to do? How did you get to the next step beyond, once you got that training and finally finished in '55?
Believe me, I was scared to death because I had no job offers. Luckily, what happened—and I had talked with people about that—is that Thorshov & Cerny had one of their partners there, chief designer John Rama, who had finished his master's in architecture. They were looking for people to employ. Two other white students, Gene Peterson and Dwight Churchill, and I applied. They hired all of us to come to Minneapolis–St. Paul.

I said, "Where should I go work? Do I have a chance?" And the professor said, "Well, there's nothing in Detroit that I know of." They weren't employing us at all at that time. He said, "Maybe you should go to New York, but if you get an offer in Minneapolis, take it. Architecture is opening up in that area." That's how I got my first position.

Here in Minneapolis.
I came down here to Thorshov & Cerny, and Cerny was a professor at the university in architecture. John Rama was their chief designer. He hired me and Gene Peterson and Dwight Churchill at the same time. They needed people who were just starting at that point. That's how I got here. When I got here, I had no place to stay.

Talk a little bit about that. In other words, you got a job that was offered to you in Minnesota?
Well, not from a firm. Professor Cerny had a firm on the side. Thorshov & Cerny was the largest firm in the area. I came just as we got married. I had not been there before. I didn't know what they were going to do for me once they saw me. I was supposed to get married and I came up to Minnesota two weeks ahead of time to find a place to stay. My wife, Ida Wilcox, now Ida B. Stewart, was a student at Boston University and had just been accepted at Hamline University as a student.

I came up to look for a place and I never encountered so much discrimination in my life. Gene was my white friend. I went over to Hamline, they didn't have anything. There was no housing available around in the Twin Cities at all. I went to Billy Graham Bible College at that time and went into a private apartment residence. A family was sitting down on a Sunday morning. The man looked up and saw me and said, "Nigger, no apartment is available." His five-year-old son looked down at his breakfast on the table in embarrassment as his father pointed me out as "the nigger."

This was on Billy Graham's campus?
That was around the campus where Northwest Bible College was, and there was some private housing and apartments around there. I just answered an ad and went to it. I'm sure students were renting from those private apartments and homes.

Hamline University was another one. I couldn't get anything there because the dean of students said that my wife had to be a GI to get into the government barrack housing. I couldn't understand that. I did finally get a private place. When the fellow saw who I was, he said I couldn't have it, that someone else had taken it already. I took my white friend Gene Peterson to test his claim, and he rented the place. We then went to the NAACP to contest it. The owner said we had to share a bathroom with other tenants, and I said, "No, I'm not going to take it."

So I wound up finding a black lieutenant colonel who was in the Army, a supply officer in North Dakota, South Dakota, and Minnesota. I was going to live in the YMCA and my wife was going to live in the YWCA. He then got us a hotel room where he lived, and that's where we first started out. I even took the supervisor of the architectural firm to help me look for a private place in downtown Minneapolis. That didn't do anything.

How did you get to your present job? You spent a number of years down at the University of Minnesota at Morris?
The thing that happened to me, I worked for two or three firms. My wife, by being a teacher, was very active in the St. Paul black community and at

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

that time the Summit University area in St. Paul was going through renewal. They later received a Model Cities grant. Renewal is physical planning, but Model Cities was economic and social and physical planning. They needed our work in physical planning, which revolved around architecture at that time. They needed someone who could set up a community organization, to work with the urban renewal system and set up this Model Cities process. At that time, in the urban renewal agency they were looking for people and they thought that I would be a good director.

So that's how I started and got into urban renewal. I was the director of the Summit University community organization in that thousand-acre area—twenty-five thousand people—and started the renewal process. By the time it got into Model Cities, then I was selected by the citizens of St. Paul—with approval by the mayor—to become the St. Paul Model Cities director.

I stayed in that position for three years. Then I went to Washington, DC. I was the director of the Model Inner City Community Organization (MICCO). I was recommended by fellow MIT architectural black student Reginald Griffith. He had his own design office and later became director of the National Capital Planning Commission (NCPC) in Washington, DC.

When I went to MICCO, Nixon was president. Walter Fauntroy was there as formal director of MICCO. He went into Congress. They had a whole area, 650 acres. I think there are about fifty to sixty thousand people over there. He moved into Congress in DC as its representative. He needed someone to come in and take his place. I mean, that was one of the only places in the country that had their own physical planning staff to include their own social planning.

I went in and that thing was really kind of phasing out. They wanted someone to come in and take it over, to revive it. You know, God protects the innocent and the fools, so I did take the job. That's how I got to meet Mayor Washington, Marion Barry, and all of them. I was there for two and a half years. The whole program phased out because Nixon definitely was going to take it away. I think you could see how that has changed the situation.

How I happened to get to Morris, I really had to consider strongly a position offered to me with Housing and Urban Development in Washington, DC. I was waiting for a position to open up, which I could have worked at, as head of the architecture department of the HUD agency. It never did. My wife had an appointment at the University of Minnesota. The dean had left on sabbatical leave in education and she took the teaching position for two years. My kids were here near Morris at St. John and St. Benedict high schools. The University of Minnesota was starting a minority program. The first coordinator quit and they just happened to say, "Why don't you try it?" That's how I happened to get to Morris.

You've stayed in that position how long now?
Twenty-five years.

What have been the highlights of your career in that particular position?
I think the highlights for me, I've always wanted to do something for the black community. That has been the crux of my whole thinking from the time I grew up until now. In fact, I was thinking in terms of really going into sociology and giving up architecture when I left Ripon College. I had a chance to go to Northwestern University to work on my master's. I really was fighting that battle. It just so happened that I got into MIT. I probably would have gotten a master's in sociology and gone into teaching or something later on. It just happened that fate moved me in that direction.

I think the highlight of my life has been doing something I feel has a significant impact on that community that changes its condition, that provides the opportunity for those students who come behind us to make changes in the country. I felt that perhaps architecture could do it. It only does that to a small degree as plans are developed for a particular area. Once I got out of architectural firms and moved into planning, it became a whole different phase of things. This progression continued into Model Cities, MICCO, and into the other area of education, which I wanted to be in anyway. Then my life changed in another direction.

How is that?
The thing is, I think, that I've been able to impact the lives of a number of students for the twenty-five years that I've been here, such that these students have made a difference not only at the University of Minnesota, Morris, but in the city of Morris as well. That includes a significant role in shaping not only their own lives but the society surrounding us. In the program itself, I came in

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

with the idea that I could transform both the university and the city of Morris. I said, "I think I'll make this, as a dream, the best program in the state."

Do you think you have?
Yes, that's what they tell me.

What evidence do you have?
Well, the study that came out from NCATE, North Central Association of Teacher Education accreditation for the university, saying that one of the six strong points of the University of Minnesota, Morris is the minority student program. The evaluations that came through said that I had the best program in the university system. In fact, we have continually developed the minority student program process. The programs have moved beyond their beginning into the twenty-first century. We had developed a five-phase process. In fact, in five years—from 1990 to 1995—we had the highest graduation rate of minority students in the university system.

We have a process now started by a University of Minnesota science professor. We call it the ME3 Program, the Minority Education Encouragement and Enrichment Program. That grew out of an eleventh grade summer project of bringing students in science into the university who did not have perhaps the training of the best students. We brought them in for experience on a five-week basis with the science faculty. They'd do experiments and present them at the end. They stopped funding that program, so we had to do something with the teachers. They would no longer finance students from the federal government.

Dr. Sungur, a former head city planner from Turkey, is now a statistics professor. He came to this country, got his master's in architecture, didn't want to go back to Turkey, and got his Ph.D. in statistics. He helped me lay out a five-phase process. We have a teacher institute the first year. We bring those teachers in. It's a phase thing. We work with those teachers on the newest techniques in math and science, what's being taught on the college level. They in turn bring to us methods on how to work with their students. Over a period of five to six years, we can impact significant change in their science teaching.

For example, we had the worst schools in Chicago—the West Side—participate in the teacher institute. Seventy-five percent of those kids drop out or get kicked out. The way our set-up is in Minnesota, there is a high percentage of minorities now. We have brought those teachers from Chicago and from here in the Twin Cities and the rural areas, and we're in our third year of the institute. There are common math and science teaching problems in both the rural and metropolitan areas. We feel that within five to six years those schools ought to be on par with any other school.

In our second phase, we bring the students in from those high schools and work with them to develop research and science techniques. We work with them on experiments four weeks or so with professors, develop their techniques for doing research. The third phase, we go into the community, work with those students, those teachers, and those parents, and use the scientific methods for doing things for that community. Then the fourth phase, we bring accepted University of Minnesota students into our Gateway Program. In that Gateway Program, we teach them math, English, and computers. For five weeks they are taught by full-time professors. Then we move them into our system. In the fifth phase, those students go into engineering or go on to science teaching. An example—they can go back to Chicago and be an intern for three years, get paid at the master's level.

So what we feel is that that cycle is a beautiful cycle because not only are we attempting to update the skills, but we are feeding those kids back into that community. I think it's the most magnificent process. We have committed to three phases as of right now with funds. What that does is involve the four different departments. The science department is involved because they learn experimentation and teaching; the education department is involved because their teachers are teaching in the system; the humanities department is involved to some degree because we have teaching and mentorship programs developed through their faculty, and so is the social science department. Not only do we have a program that works with minority students in terms of recruitment-oriented issues, but we can also reach into each department through this type of program. At the same time, that institute is there and the kids are doing research in the community, while participation is also taking place in the Gateway Program. So you get a reinforced process in each phase.

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

Sounds fantastic.

Half a million dollars over five years for both the teacher institute and Gateway programs has been allocated by the university and other government resources. So I feel that the program, rather than being something on the side, adjunct to the institute, has really collectively become a part of the evolving institute in terms of doing something not only for our students but with all students. Finally, the University of Minnesota William B. Stewart Scholarships were established for financial assistance to minority students majoring in science and mathematics or pursuing graduate degrees.

It sounds like that's one of the most gratifying efforts you have developed in your career, really. I mean, to see that you've put your hands on and to see it develop like that, that really is a model.

We came in with twenty-five students. The Twin Cities said it would be impossible to develop a program like that in rural Minnesota. Now we are sixteen percent of the entering population and fifteen percent of the total population, whereas the total university only has eleven percent.

What advice do you give to young black men and women who would be entering places like MIT or your school, Morris? What kind of advice do you give young black potential achievers in education now? It would be very useful to hear what you have to say about that. If you had to give advice to younger folks and make them listen to it, what would you tell them?

I think that the first thing a student needs to do—a black male or a female—is they should prepare themselves during their undergraduate years by concentrating heavily on those areas that will impact their going to an institute like MIT. That is, they should concentrate on the math, the science, and those areas in computers—if that is the thing that they want to do. At the same time, I think tutors in testing techniques are very important at this point. They need also a well-rounded general education, so that they are able to see all those impinging factors around them. It isn't enough simply to be in science. I think they need to have a strong commitment to a sustained effort of achievement, and yet be willing to fail. I think a student needs to experience failure if possible. If they can move beyond that failure point and rise above that, then I think you can understand the difficulty. They can take any adversity that may present itself.

I think also the students should get involved in activities that will test their ability to "lead," take "initiative" on their own, develop the working relationship between themselves and other people, and embody themselves in something that they really like to do that will develop their creative talents. The students they compete with are in that stature. They need a good, healthy, strong concept of who they are, too. If that's fragile, then the type of obstacle they face will be difficult and they're going to have to be bi-cognitive. They're already bi-cultural. They're going to have to be bi-cognitive too because the obstacles they may face beyond that will require that. They need a good strong grasp of black history so they know where they come from. They also need a good strong grasp of who they are in identity and self-concept.

I had to go through that. Unless they can operate from that base, I don't think anything could turn them around because what's going to happen is that they are going to be tested all the way through. If you know who you are, you can make the rest.

Is there any other comment about the MIT experience or anything else that you would like to make sure is connected with some of your thinking at this point?

The experience that I've had with people who persist. An old man told me something once, "Son, let me tell you something. When you really want something, you need to be like a bulldog. Once he gets his teeth in you, he doesn't let go. When you persist for something, you've got to get in there and roll up your sleeves and drive on to it." That encompasses a broad type of thing that you don't let go. It musters all of your residual mental and physical powers. You have to set up some goals and objectives for yourself.

The thing about that, it's like going along a road. There's no resting place on the road to revolution or evolution and there's no resting place on the road to getting where you want to go. You cannot let those outside things affect you. You have to keep moving in a direction. You have to plan ahead. You have to set a goal, a series of short- and long-range goals, whether or not it's affecting your other relationships, even family. Your family is important. But if you keep that goal ahead of you and then plan all the other things around it, then you'll make it in my eyes. But you must have a goal and you must have a mission. Then you have to

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023

evaluate these goals and objectives. You have to know how to analyze those goals and what you have to do to begin, re-approach it, and go through it again. Use the higher levels of Bloom's taxonomy of educational objectives—hierarchical thinking, in a sense. Finally, keep time to laugh at yourself.

You must have a mission and a goal. It has to be something that you want to do, really want to do. You really have to concentrate. You take whoever you can along with you, but you have to keep on that track. If anything dissuades you along the way, then you won't make it because there are so many trials and tribulations. And it's only for a short time in education before you leave. It only takes usually four years out of your life as an undergraduate, or whatever it requires out of a young life, so you have to delay gratification.

There's no time for fancy clothes. I had all that stuff, took my steamer trunk and suitcase down there full of clothes. I set it all aside and put on my fatigues. It doesn't matter. If I didn't have a car—could not afford it—that didn't matter either. You take your trunk on your back or your house on your back, and that's what I had to do because there was no home to go to. Then when you get through, you buy the necessary items to live. But that's very difficult if these material items matter to a black student.

I maintained the expression that the MIT experience was a "love-hate relationship," in tribute to those who survived in those early years.

Downloaded from http://direct.mit.edu/books/book/chapter-pdf/1886729/9780262286305_c000400.pdf by guest on 22 March 2023