INTERVIEWER: Today is August 25, 2010. I am Karen Arenson. We are talking today with Wesley L. Harris, associate provost for faculty equity at MIT. He is also the Charles Stark Draper professor of aeronautics and astronautics, and served as head of the department from 2003 to 2008. He was the first director of MIT's Office of Minority Education. And he and his wife, Sandra, are housemasters at New House, one of MIT's most distinctive residence halls.

Outside of MIT, he served as dean of the School of Engineering at the University of Connecticut - Storrs, and as associate administrator for aeronautics at NASA.

Wes, thank you for talking with us today.

When you were a student at the University of Virginia in the early 1960's, you were active in the Thomas Jefferson Council on Human Relations, a group that focused on racial issues at the university. Nearly 50 years later, you're still involved with race issues at a university. Are you surprised that these issues still warrant special attention and effort?

HARRIS: Karen, thank you for the opportunity to have this conversation. A very interesting leading question. I'm not surprised. Race is a part of the American experience. It has had an impact on all of us. It is fundamental to the way we think, the way we act. It will take time to have a more extended and more intellectual approach to the advantages of the differences as communicated to all of us through race. The advantages I believe will lead to a stronger, more robust society, a stronger, more robust country, and a stronger, more robust nation.

INTERVIEWER: How would you describe the progress that has and hasn't been made over this period?

HARRIS: Well, being a southerner, born and reared in Richmond, Virginia, I've seen tremendous progress in terms of race relations in the US. Given my age, I remember walking through a park in Richmond when water fountains were segregated for colored or for whites.

I remembered going to the campus of the University of Virginia in Charlottesville. On the Trailways bus, there were different waiting rooms in Richmond and different waiting rooms in Charlottesville for coloreds and for whites.

I can go back to Richmond to the same park. I don't see that segregated water fountain. If I choose to go to Charlottesville from Richmond on the Greyhound bus, I won't see a segregated waiting room. At that level, there's been tremendous progress. There's obviously a lot of progress at higher levels as well, including in the White House. But down at the Earth, what we do here at MIT in my more than 30 years here, a tremendous stride in understanding the advantages of diversity-- race being one particular element of diversity-- has been brought to our community here on campus.

INTERVIEWER: How much would you say racial issues and policies have changed since you first arrived on campus, nearly 40 years ago?

HARRIS: I would say that policy wise, the fact that I now have a title working with Provost Reif as one of two associate provosts of faculty equity. My counterpart is professor Barbara Liskov. Her portfolio is MIT women. My portfolio includes faculty of color.

That took, in my opinion, a very deep systems approach to the MIT community that Provost Reif just grabbed the whole of, put his arms around it, made a decision, and moved forward with it. That was not done prior to Reif's energy, his creativity, his determination to make a difference.

I see differences in terms of the undergraduate student body. Go back to 1972, when I arrived. There were very few women in the entering class. Paul Gray, I think, was the biggest catalyst to change that. And it's changed to the point where now we have approximately 50 percent of our entering class, undergraduate students, are women.

Along with that has been an increase in the number of students of color-- African American, Hispanic students, and also a few Native Americans, as well. So the under-represented groups have certainly made major strides in their participation in the community of scholars here.

At the faculty level, women have certainly made tremendous strides, and will continue to make even more so. The pace for faculty of color has been much slower.

INTERVIEWER: Where do you think MIT will be in 10 or 20 years if you look into your crystal ball?

HARRIS: In 10 to 20 years, Karen, I would think MIT will be a leader. I don't anticipate much change in the undergraduate student population. Given the energy behind Rafael Reif's initiative, first noting the study that he sponsored on faculty race and diversity. Working with his academic deans, he, in place, plans to implement the recommendations in that study. I think that will place MIT in a position to move to a true leadership role in diversifying a faculty-- the most outstanding faculty in the world in the science, technology, engineering, and mathematics field, by the way.

INTERVIEWER: What do you think it will take? What needs to happen that hasn't happened yet?

HARRIS: I think the most important thing, Karen, is a willingness on the part of MIT faculty to have a very quiet, penetrating, intellectual conversation on race. We are a very rich community. We are very blessed with a lot of grey matter, brains, intellect. We have no knives, no guns, no weapons. We want to come to a table and have the conversation in order to find a way forward in which there is a win-win solution.

INTERVIEWER: Did you have any reservations about taking the associate provost job?

HARRIS: I did not. And the reason I did not is, my work with Provost Reif, prior to his asking me to come to join him. That was one factor. I just respected the man. I'd seen him put his arms around some very, very difficult problems at MIT prior to his asking me to join him.

Second, he'd already appointed Barbara Liskov, Professor Liskov, to the other associate provost of faculty equity. And Barbara is an outstanding faculty colleague, first of all. Former head of EECS, respected internationally for her research. And that said to me that Rafael Reif had the highest respect for this office on faculty equity. That he was not looking for a way out, but in fact looking for a way forward. So it was not a difficult decision at all.

INTERVIEWER: How much are the issues involving faculty equity for under-represented minorities the same or different from those involving women?

HARRIS: Well, they're different in a lot of ways. And I think Rafael Reif, again, understood that. First of all, the populations. There are a lot more women at various levels in the pipeline, various stages in the pipeline that lead to, at the current time, an opportunity to hire more, to bring more women faculty on. This is not true for the under-represented minorities, total, combined, not just any one single cohort of under-represented groups.

Second, the issue of gender in the US compared to the issue of race. They are different. And the level of conversation, the ease at which one can have a conversation around those topics differ. The threat, perceived, real, imagined, what have you, also differ. So we need to understand that they are different, that they require different energy, a different creativity, that they will also combine to make MIT a much more robust, a much more active, a much more engaging, inviting enterprise.

INTERVIEWER: Have you laid out any kind of five year plan? Or how are you going about this challenge?

HARRIS: I would say I don't have a five year plan that's written down. I have a set of stages that I have shared with Provost Reif. The first stage is the current, existing faculty of color that we have recruited to our campus. That's the first charge, to make sure that each of those young people, especially untenured ones, have every opportunity to show their strength, intellectual strength, in terms of their research, their teaching, and their service. What it is, is there anything that the provost's office can do to make sure that they show their very best? And then we relax and let the case go forward for promotion.

Second, how do we begin to encourage, incentivize, some unique departments within the MIT community to accelerate their efforts to bring aboard, within their community, faculty of color? That's a conversation that's ongoing. I think it's beginning to show some results, especially in two of the departments in our of School of Science.

Third, to ask if our sister schools-- the Ivies, the Caltechs, the Stanfords, the Berkeleys-- to join hands with us. The problem of under-represented minority faculty members is one that is national, and one I firmly believe MIT cannot make substantial gains without a true national effort. So those are the big pieces that I would say constitute our plan.

INTERVIEWER: A unanimous resolution by the MIT Faculty in 2004 called for doubling the percentage of MIT Faculty who are under-represented minorities within a decade. How much progress has been made, and what do you think is the likelihood that this goal will be met by 2014, or anytime soon after that?

HARRIS: Karen, I happened to be the person who wrote most of that resolution. I would say that we're on the positive slope. We are going up slightly each year. We have agreed upon what we mean, first of all, by under-represented minority faculty members, and our colleagues here in the provost's office have assured us that our current data is correct, and we have shown progress since 2004.

It's a goal that's somewhat of a stretch. If we can double it in a decade, it would be an achievement of almost unexpected, unrealistic, unexpected, great, great advances. No institution, in my opinion, in the STEM field can do more than double in a decade.

INTERVIEWER: You mentioned that report on the Initiative for Faculty, Race, and Diversity, I think that was its formal name. It said that the proportion of MIT faculty members who were under-represented minorities had reached 6 percent in 2010, this year, up from 4 and 1/2 percent in 2000, a decade earlier, although the counts were lower if you didn't count the faculty born in other countries. And it too-- and you may have written a lot of this-- noted that there were some departments including chemistry and math that hired no under-represented minority faculty members at all between 1991 and 2009. What was your reaction to these numbers? Were you surprised?

HARRIS: Given my time on station here at MIT, I certainly knew about the situation in the Department of Chemistry, and in our Department of Mathematics. So to answer your question, I was not surprised. The data was obvious. Now that it's documented, it's now exposed to all who care to read.

INTERVIEWER: Do you think other people were surprised?

HARRIS: Oh yes. I think when you call attention to such absence, it then hits people like a glass of cold water in your face. So it did wake up some people.

Look, we have an opportunity to present the advantages of diversity to our community. And within that, race is a very important part of the diversity matrix. That means working with colleagues, in particular the department heads, to show them, to convince them that first of all there's talent out there that they would welcome if they just knew who they were. And then once they're here, to make sure that the talent that we bring in has every opportunity to grow, to flourish, to add value to what MIT is about.

I firmly believe our current department heads in physics, chemistry, and math, would walk with us, in that direction, whenever we ask.

INTERVIEWER: You mentioned that one of the things you will be trying to do is to make sure that there is nothing standing in the way of new faculty doing their best here. What kinds of things do they say they'd like help on, if anything? Or what types of things are you trying to help them with?

HARRIS: OK. First of all, Karen, I work with the individual faculty member, his or her department head, to ask questions about progress. For example, does the faculty of color have a mentoring team? Is that mentoring team effective? Is it effective because both the mentor or mentoring team and the mentee have a very positive relationship that engages, that supports, that reinforces, that leads to progress?

Are there any unknowns to the under-represented minority faculty member? For example, what are the best journals to publish in? How to get NIH funding? How to get NSF funding? How to get into DOD?

We raise questions about appointments outside of the Institute. Are they moving to be reviewers of journals in their fields? Associate editors of the major journals in their fields? Are they being invited to serve on committees in the National Academy of Engineering? Do they receive invitations from their peers around the world to present their work? To let that kind of momentum be expressed to all faculty, all faculty, but certainly, the mentors and department heads of faculty of color.

INTERVIEWER: Some of the things that are sometimes taken for granted that people know about and know how to do.

HARRIS: Yes. May I say something? Karen, mentoring is important to the lifeblood of MIT. And too many faculty-- and this is a statement without regard to gender or race-- too many of our colleagues simply do not know how to be a mentor. And unfortunately, too many of our young colleagues don't know what questions to ask as a mentee. They just haven't had the experience. So really, we really need to raise the level of mentoring at MIT.

INTERVIEWER: How do you think about MIT's role in the world? And why do you think it's important that there be more under-represented minority faculty?

HARRIS: Oh, MIT's role in the world? MIT is the leading institution of science, technology, engineering, and mathematics in the Western world. And maybe in the entire world. It thrives on its intellect. On the fact that it generates true stewards of the discipline. It also generates theory and products that have an impact on the production of national wealth, on the management of our environment, on bringing true peace to the world. MIT will continue to do that.

In my opinion, it is focused almost exclusively on the northern hemisphere and its history. I think MIT must turn now and ask how can it play a more productive role in the southern hemisphere, in Africa, in South America, in Australia-- a very rich population base, a very rich collection of resources, minerals in particular, exist in the southern hemisphere. As I see MIT in the next 100 years or so, the richness of opportunities in the southern hemisphere would be most attractive.

INTERVIEWER: Although you left MIT in 1985, you returned a decade later and you've spent about 30 years here. You've been deeply invested in it, as a housemaster and in other ways that go well beyond being a professor of aero and astro. What does MIT mean to you, and how comfortable of a place has it been for you over the years?

HARRIS: MIT, first of all, has been an opportunity to engage an environment with the very best minds. My peers, the faculty peers, as well as the large number of students, both undergraduates and graduates, that I've had an opportunity to work with, have convinced me that my decision to come to MIT was based on reality. That this is a strong intellectual environment. That remains. That's a constant. That richness has not changed. That is the cornerstone of why I am here.

One person, more than any other, has played a major role in that. And that person is professor Leon Trilling, a colleague in the Department of Aeronautics and Astronautics that first invited me to come to MIT in the summer of 1972. Leon and I are not only mentor and mentee, but we are genuinely friends and share much in common, many conversations, many dinners, lunches, et cetera. He knows the ups and downs of Wes Harris as his experience has been here at MIT, and I am simply grateful for that.

The experiences beyond the classroom and beyond the research bench-- for example through the position of housemaster at New House-- that is a result of asking myself one question. Namely, Wes, if you really are here in part because the students are here, prove it. If you can engage with students in the classroom, at the research bench, what about the other dimensions of their life? What about how they grow outside of the classroom and the research bench, where they live? When they have to make all sorts of critical decisions beyond simply solving a problem or completing a problem set. So the richness of the experience at New House residence hall is driven by that one question. Wes, if you're here for students, prove it. See what they are like when they're outside the classroom. How could you add value to that dimension of their lives?

INTERVIEWER: So you had a champion initially, a mentor, and you're now doing the same for another group of people. But has it always been a comfortable place for you? I get the feeling that in between, you, like most people, have--

HARRIS: No. MIT, has been-- as I said, Leon Trilling knows my ups and downs. No, it has not been a walk on a cloud, always a soft landing. I would say my experiences have been as rough or as bumpy as that of any other person who spent 30-odd years here.

The important thing is this, Karen: what did I learn? What did I take away? Is the glass half full? Or is it half empty? Why the life at MIT? Is there some richness that still resides? Is there a positive residue after all has been considered and it's in front of you? And the answer is yes.

INTERVIEWER: The faculty diversity report said that under-represented minority faculty were not always as comfortable at the Institute as other faculty. Do you think it's become a more comfortable place for this group than it used to be? And what do you think it will take to make it more comfortable still?

HARRIS: I think it has become more comfortable. If you continue with the study on faculty race and diversity, you would see a bimodal distribution. The older faculty, like Wes Harris, tend to express more discomfort with the environment than the younger cohort of faculty of color. The micro-inequities that are a part of my generation of faculty of color, I think is beginning to erode. And there lies, I think, the essence of this bimodal distribution.

Now what will make it even better for this younger group as they become, eventually, the older group? The comment that I made earlier: MIT must find a way to have an open, intellectual conversation on race, where a faculty member can tap me on the shoulder, or any faculty of color, hey let's go have lunch. Let's talk about this thing. Now how does it come across to you? How does it come across to me? What are the pluses and minuses? What are we going to gain after we do this? What are we going to lose? That's an important question, too.

INTERVIEWER: You set out to be an aeronautical engineer, but along the way, you've poured substantial time into civil rights and diversity, time that you could have spent on engineering or on other things. But you've also said that the civil rights battle had given you an extra incentive to achieve. What role has the quest for civil rights and greater diversity played in your life and your career?

HARRIS: Karen, it has been a major driver. I wouldn't say its been the only driver, but a major one. And I think this requires a few comments. First remember, I'm a product of the southern part of the US. I was born and reared in Virginia. And Richmond, in the state of Virginia, was perhaps the most conservative of the states, including Alabama and Mississippi. It was Virginia with massive resistance. It was Virginia who closed its public schools rather than desegregate them coming out of the '54 decision. It was not Mississippi. It was not Kentucky. It was Virginia.

And what does that mean? It was clear to my high school teachers, all of whom were African American-- every student was, every principal, every guidance counselor, it was entirely segregated in Richmond. The one thing that you took away from an environment like that is this: that the world outside of yours has formed an opinion that scholarship by, for, and with the African American is of low quality. That was a lasting piece of the southern experience of blacks of my generation-- that you cannot generate scholarship.

So what did we do? Our life mission was to prove that you can do that. That you can come to MIT as a student. That you can participate in the MIT environment as a faculty member. That you can define serious research questions, formulate them, write research proposals, get the proposals funded, collect a group of graduate students, solve those problems, publish them in the most prestigious journals, and move forward. So yes, race has been important in terms of my strength.

And I want to add, I could have taken a different point of view and succumbed to the southern notion that scholarship is impossible and been totally dissipative-- negative, alcoholic, or whatever. But for us the glass was half full, not half empty. We had an opportunity to perform. And we took it. INTERVIEWER: Let's talk about your early years before you came to MIT. Tell us some more about where you were born, where you grew up, and what your family was like. Where you got your ideals from.

HARRIS: Sure. I was born in Richmond, Virginia, in 1941. Twin brother. I'm the younger of the twins. There were five of us, four boys and a girl, one daughter. Of the five of us, three are still alive, my twin brother and my older sister. The Harrises, Taylors, and Minors are all from Chesterfield County, and/or Powhatan County in Virginia. These are counties surrounding the city of Richmond. My family roots we've traced back to at least 1833, and to slavery. With the name of Matilda being the oldest one that we can identify as a part of us.

During the Depression, the family walked to Richmond, Virginia from Chesterfield County and Powhatan County, knowing that they could no longer survive in the countryside on the farms. Uneducated, they became common laborers in the tobacco factories in Richmond, Virginia.

In the '30s and '40s, tobacco was trucked from the Carolinas where it was grown and cured. It was unloaded in Richmond, and the value added was provided. Cigarettes, cigars, pipe tobacco, all those products came out of Richmond. And my family were common laborers working in those conditions. And from there we became graduates of public schools, went on to universities, earned Master's, doctorates, and myself and my twin brother have been faculty members at outstanding universities in the US.

A family that preached, believed the following: do the right things for the right reasons. It may not make you happy, but you can always look in the mirror. Do the right things for the right reasons.

Second, education is important. It is perhaps the most important thing. We were not a Bible reading, religious directed family. Very ethical, very moral, but not very religious. We didn't use four letter words, but we just were not very religious. But very ethical, and very moral.

High school, best education in the world. You see, that's one of the things that was perhaps not known about the South. My high school physics teacher, Eloise Bowles Washington, earned a Master's degree at the University of Pennsylvania. My high school calculus teacher, Rozeal Diamond earned a Master's at Columbia University. These are black women who went north in the early '40s to earn Master's degrees, knowing when they returned home to the South, they could only, at best, teach in the public schools. They were not going to teach at a university. But that was an advantage which my generation had when we went to public schools in Richmond. They also not only had detailed knowledge of their fields, but they cared about us as human beings, and they made that a priority in the classroom, not just to teach us how to think, how to solve problems, but how to perform, what's expected of us as human beings. And those are lasting contributions.

So my early childhood was one of balance, symmetry, strength. I remember clearly those teachers, my family, my siblings, my mother, my father. The bishops, if you will, of my community. I remember all of that. Very positive.

INTERVIEWER: Did other friends or relatives place as much emphasis on the importance of education as your family seemed to? Or did that come from your doing so well in school, and so people encouraged you to do more of it?

HARRIS: I just this past summer had my 50 year high school reunion. We had a class of 203 finished that year at Armstrong High School in Richmond, Virginia. I would say we have about 10 PhDs in that class. And for black southerners, I would say that's very, very unusual.

Now, what about the classes after our class? Can you always get that kind of ratio? Probably not. But that wasn't any class. So to answer your question, there were more than just Wes Harris or the Harris family thinking positive about education. Certainly that class, that year, that group of young people to come through Armstrong High School had a community focused on excellence in the classroom.

INTERVIEWER: Were other members of your family active in civil rights issues?

HARRIS: No. Other than my twin brother, who's much more active than I am. No. The others did not.

INTERVIEWER: Did any of them work in science or technology in any way? Did you know anybody who did, or did that come through school?

HARRIS: My mentors began to appear in public school. In grade school first, Mrs. Hartly, my math teacher in the fourth grade. Yes, I remember her that far back. And certainly by the time I went to high school it became clear that science was my way forward. But there was no member of the family, and certainly no one in the immediate neighborhood, in the same block, same street, that was an engineer or scientist, no. Not in those days.

INTERVIEWER: How did you choose where to go to college and what to study?

HARRIS: That was easy. Eloise Bowles Washington, my physics teacher said, Wesley you will go to University of Virginia. I had no choice when she said that. She said for two reasons. Number one, Wes, you will do well. Number two, Wes, you are black, and there's no way UVA could not see that. And that was very important to her and very important to me. Remember now, this is University of Virginia 1960, 12,000 students. No women. No women. Seven black undergraduate students in that environment. We were allowed to major in only one school, engineering. We could not major in the sciences, the languages, economics, sociology, we could not major in any of those. Only engineering.

INTERVIEWER: What was the rationale? Was there one?

HARRIS: Yes. It goes back to this idea of generating scholarship with, for, and by people of color. Eloise Bowles Washington said, you've got to do that for that reason. So you've got to go there and do well. And she said, you will do well. And you're black. She made that very clear. Those were the two reasons.

INTERVIEWER: Did they have a rationale for allowing you to major in engineering, but not in other things?

HARRIS: Oh, yes. That's the state of Virginia, OK? The state of Virginia have, and still do, Virginia State University in Petersburg, Virginia, which is what's called an HBCU, Historically Black College and University. That university offers degrees in chemistry, physics, French, astronomy, economics. So the state of Virginia said if you're black and want to major in those fields, you go to Virginia State University. You can only come to the University of Virginia if you want to major in engineering.

Now to tell you how crazy it was, my twin brother majored in physics. He didn't want to go to Virginia State. He wanted to go outside of the state of Virginia, which he did. The state of Virginia paid all the tuition.

INTERVIEWER: And he went to Howard?

HARRIS: Yes. That's how crazy the South was.

INTERVIEWER: Do you know when Virginia changed that?

HARRIS: Yes. I would say it began to change around 1963, my third year on the grounds at the University of Virginia.

INTERVIEWER: You mentioned that a couple of your teachers had studied up north in Pennsylvania, and Columbia. Did anyone suggest that maybe you would have more freedom and be less isolated if you went to another state than if you stayed in Virginia? And did you even think about it?

HARRIS: It was not discussed. I'm not certain Columbia was any friendlier than UVA or Penn in those days. Remember, these women were there in the early '40s, so it was probably a very isolating place for them. What was clear in 1960 in Virginia was that the University of Virginia was the place where we must demonstrate scholarship. That was first. It was not William and Mary, for example. It was not Virginia Polytechnic in Blacksburg. It was Thomas Jefferson University that we had to demonstrate scholarship.

INTERVIEWER: How did your professors treat you there? Did you have any mentors?

HARRIS: Yes. Two outstanding mentors: John Edward Scott and George Matthews. Both earned their PhDs at Princeton. They were different individuals. Matthews from Pittsburgh. John Edwards Scott, son of a banker, blue blood Virginian. I think his father was a banker in Norfolk. I was an honors student and they were my tutors, both of them. And they basically said, Wes, the only way you're going to graduate from UVA is agree to go to Princeton. So that's how I got to Princeton, basically. But they were mentors. True mentors. I would not have done as well at UVA had it not been for the presence and participation and encouragement of John Edward Scott and George Matthews.

INTERVIEWER: Were there any black professors on the faculty at the university when you were there?

HARRIS: None. Absolutely none. And there were plenty of faculty members who participated in Massive Resistance, that is closing the public schools, in particular in Charlottesville, who actually taught me mathematics at UVA.

INTERVIEWER: But you encountered some real racists among your professors?

HARRIS: Yes. Absolutely.

INTERVIEWER: Did you have any doubts about whether you could succeed there given the racial climate?

HARRIS: Never. No. Could not allow to be negative. That was not going to happen.

INTERVIEWER: You mentioned that your twin brother went to Howard, and that it was a historically black university. How did his college experience differ from yours? And did you ever wish that you were there too, and that you weren't at UVA trying to make a point?

HARRIS: It differed in a lot of ways. For example, my brother Bill goes back to Howard for a reunion. There are people he actually hugs, and shake hands with. I mean, that's a part of a college experience, to meet people that you bond with for life. You share emails these days. In the old days, notes and letters about marriage, and children, and grandkids, and stuff. It becomes a real life term relationship.

There's no one that I can hug when I go back to Virginia. Right? I mean, people spit on me. Threw lit cigarettes on me. So there's no one that I can share, or who wants me to share my experiences with them. So that's one big difference.

And that's a price that my generation paid to integrate white universities. Certainly white universities in the South. You just don't have the richness that other undergraduate students have. You don't bond. Nobody wants to talk to you. You don't shake hands. You don't hug. You just don't.

By the way, that's one big transition on our campus at MIT. You do see students of color with white students, who are bonding. I see it at New House, for example.

INTERVIEWER: You did have a very tiny knot of close friends, both at the university and in the community, who helped you through or who you were close to when you were going through as a kind of support network?

HARRIS: Oh yes. Well certainly, there were seven of us people of color on UVA's campus, among 12,000. So that seven. But most important was the community of African Americans who lived in Charlottesville. We would walk down, we called in downtown, off campus, Sunday to go to church. Because we know if we go to church on Sunday-- and these were all segregated churches-- the black people in Charlottesville would invite us home for dinner. So we had a Sunday meal. That was probably not the most generous way to do things, but there was a motive. The motive was more than just going to church. The food was very important, and being able to relax and laugh was also very important. We really didn't go to save our souls, that's the point I want to make. That was not the objective. At least it wasn't my objective.

INTERVIEWER: Well you were going to connect in part, as well as to eat.

HARRIS: Right. May I name a person? The Yancy family, Y-A-N-C-Y, was my main anchor in that experience.

INTERVIEWER: During college you served as chairman of the university's Thomas Jefferson Council on Human Relations. What did that group do? And was it integrated or was it all black? And what were you able to achieve?

HARRIS: It was definitely integrated. Human relations in those days meant that you had a mix. You had all races, certain blacks and whites participating. OK. Thomas Jefferson, right? That's the father of the University of Virginia. So if you accept or adopt the name Thomas Jefferson, you immediately have a shield in front of you. Some of the nonsense-- some of the arrows and spears simply bounce off. So it's important to have that name. On a campus like Columbia, the Thomas Jefferson Human Relation Council probably would have been the NAACP chapter. But that would have never have survived at UVA. You had to have something that was sort of gold plated, so TJ was what we accepted.

And what did it do? It began to raise the consciousness of black students and white students as to the value of race on the campus. How did the communities-- should they come together? If they should, how? What are the risks involved? How do we get a spokesperson for that? How do we respond to editorials in the student newspaper? Who will write them? How do we scrub them down before they're sent over to the editor? And what are some of the what ifs about our existence?

Now what did we do? What are some of the things that we actually accomplished? A white colleague, whose last name is Leary, had the idea that we should invite Dr. Martin Luther King to our campus. And we did. President Kennedy was killed in November of 1963. And the spring of '63, Martin Luther King came to the grounds of the University of Virginia, and gave a major speech in Cabell Hall. And it was the Thomas Jefferson Human Relation Council that invited him, escorted him, while he was on our campus.

INTERVIEWER: And you were chairman at that point, I believe? You helped host him.

HARRIS: Yes. And we had a meal together and all, that night. That was one of the highlights of our undergraduate experience.

INTERVIEWER: Was there a big turnout? How was he received?

HARRIS: OK. Well received. And the turnout issue is an interesting one. My excitement says that it was a large turnout. Since then, I've been interviewed about that event. And there was actually photographs of Dr. Martin Luther King in Cabell Hall. And there are a lot of vacant seats. So somehow I magnified the attendance. I thought Cabell Hall was 89 percent full. The photographs don't show that. Well, the one photograph I've seen, don't show that. It wasn't a panoramic view where you could see all Cabell hall.

INTERVIEWER: How did you think about race relations then, and about the balance in your own life between studying and working on these issues?

HARRIS: Karen, I consider my focus to be research on engineering and aero. I still believe I have a duty and a responsibility to respond to issues related to race and diversity. If you ask, Wes, how do you compare your interest in race and diversity with someone like Claude Steele, I would say I'm way in the background. That this person has thought about it, has written volumes on race. And I've written nothing on race. I've acted, I've responded, reacted, whatever. So in that sense, I do not consider myself a full time practitioner of race. I'm more or less spongy responding, but don't claim any intellect, any scholarship on race. For example, all of my PhD students have been in the School of Engineering here. All of them. And they all have done aero related work.

INTERVIEWER: Do you think consciously, though, about the trade off in an hours between how much time you need to focus on engineering to succeed and thrive and how many hours all this other stuff is taking? Even separate from your, quote unquote, personal life?

HARRIS: The answer's yes. I've thought about it, and think about it, and have conversations with many, including Leon Trilling, including my twin brother Bill, regarding this tension between, how much time do you have in a day, Wes? And how is that time to be petitioned? How much to your discipline that you've been trained in and how much to issues of race and diversity?

There's no question that I could read another paper. I could write another paragraph. I could pose another model, solve another differential equation if I did only that, and did not focus on race.

But, Karen, what you're asking may be presented a bit differently. One question is this: in your lifetime, Wes, what is the burden of race? And if the measure is how many papers you've produced in your technical field, then the burden is very, very heavy. Because there's only 24 hours in a day. And if six goes to running down somebody's mentor, that's six I don't have for engineering.

INTERVIEWER: So you don't sleep.

HARRIS: Right. But the choice, my generation had to pay that price. At least, I think so. I act that way.

INTERVIEWER: When did you decide that you wanted to attend grad school and become a professor yourself? And how did you decide where to go?

HARRIS: I think I always wanted to be a teacher once Eloise Bowles Washington and Rozeal Diamond got a hold of me in high school, and maybe even Mrs. Hartly in the fourth grade. There's something magic about those three women in terms of how they mastered their discipline and how they reached out to young people.

Second, Matthews and Scott. Again, how they served as mentors at UVA was quite impressive. There were no black faculty. And these guys took this little black guy from Richmond and said, we're going to make sure you go forward.

And then the final piece was George Bienkowski. George Bienkowski is my PhD adviser at Princeton. And he taught me so much in terms of fluid mechanics and in terms of what it means to be a human being. I owe so much to George. And it was clear at that point that all I wanted to do was to perform as a teacher in a university environment.

INTERVIEWER: Did you participate in civil rights activities while you were a grad student?

HARRIS: The answer is no. Princeton wasn't quiet; the whole world was upset, '64 to '68, with the Vietnam situation, the takeover of buildings at Cornell University, the similar situation at Columbia. Some jostling on our campus at Princeton.

Remember now, this again was Princeton prior to women. Like UVA, Princeton had no women when I was a graduate student-- or maybe a dozen in the entire campus. Goheen. Bob Goheen was the president, and Bogo or whatever we used to call him. And he listened. He came out and talked and responded, we got a few things done with him. But there was nothing compared to what was going on in Newark, or Manhattan, or Chicago, or LA. Nothing of that sort at all at Princeton. Princeton has always been an insulated community. Once you're there, you're protected, and nothing comes in.

INTERVIEWER: What was the racial climate like at Princeton, say compared to UVA or anywhere else?

HARRIS: Not much different from UVA, because I had Bienkowski at Princeton, Matthews and Scott at UVA, and I just anchored on those people in those particular environments, and moved forward. The community of Princeton was very different, north of Nassau Street. I mean it was like Charlottsville. Very different. Very racist, segregated, a little ghetto for blacks. If you go there now, you'll see that that entire part of Princeton is populated by Hispanics. Very few blacks live there any more. Transitions, but it's still a ghetto.

INTERVIEWER: What did you do after Princeton?

HARRIS: After earning my PhD at Princeton, I accepted a position in the Department of Aerospace Engineering at the University of Virginia, returning home, you might say. A part of the challenge that Eloise Bowles Washington gave me, Virginia is a place to prove that black folks can do quality scholarship. Now that was something I picked up in high school, and it stayed with me. Once I left UVA and finished up at Princeton, it was clear to me that I wanted to go back to UVA.

INTERVIEWER: Did you consider going anywhere else? Did you apply? Were you certain that you would get hired there?

HARRIS: Yes. I was certain I would get hired. John Edward Scott and George Matthews were still there. They were running the department, so I had an open arm-- sort of come on back, Wes. You know, you're a Princetonian. You've got the stamp of approval. Join us. That was not an issue.

Now did I apply any other place? Karen, I'm not certain. If so, it just faded.

I did meet professor Leon Trilling in the mid-winter of 1968. Professor Trilling and Harold Wachman, Professor Wachman, co-chaired an International Rarefied Gas Dynamics symposium here on this campus. Part of my PhD thesis was presented as a full paper at that conference. Professor Trilling happened to come into the session in which I was giving my paper, and he introduced himself, and asked me about coming to MIT. And I told him no.

And we've had conversations about that since then. Leon, how did this happen? How did I actually ever get to meet you? This was an international conference. You could have been any place on campus except at my session. He says, Wes, look. I did have a research interest in the same area as yours, so I wanted to know what you were doing. But that chance event, that Leon and Harold co-chaired at that conference, on this campus, in the US, in the mid-winter of 1968, that is February, March of '68, was the big difference.

INTERVIEWER: So it was at MIT. So you had come up to MIT at that point?

HARRIS: We drove up, my adviser George Bienkwoski and I, to Cambridge for that international symposium.

INTERVIEWER: And when he asked you about whether you might have an interest in MIT, even then, you didn't say gee, do I really need to go back to UVA?

HARRIS: No. No I didn't. I just said no, Leon. I'm going back to UVA. It was clear.

INTERVIEWER: Were there any other black faculty members at Virginia when you took your position, or were you the first?

HARRIS: There was certainly none in engineering. I believe there was one in the Department of English. If not the same year, then certainly the second year that I was on the faculty.

INTERVIEWER: How welcoming were the other faculty at the university when you arrived as an assistant professor? You had your two colleagues who were encouraging you to come back, but what about everybody else? What happened when you showed up at faculty meetings?

HARRIS: Within the aerospace engineering department, there were a handful of colleagues that were very warm and inviting, at ease. They all were junior colleagues, assistant professors.

For example, I shared an office with Professor John Junkins. Very, very deep Southern drawl, from the state of Alabama. We're actually friends to this day. He's now a tenured, chaired professor at Texas A&M University at College Station, Texas. Longtime friends, OK?

Herman Parker, like Matthews and Scott, senior members of the community, 20 years my senior at least. Parker was also very, very welcoming. I had met him when I was an undergraduate student there, but did not know him to the degree that I got to know Scott and Matthews.

Now all faculty meetings were held by schools. So the School of Engineering had its faculty, College of Arts and Sciences had its faculty meetings.

I did reacquaint myself with Paul Gaston. Gaston is a professor of history at the University of Virginia. He's emeritus now, but still alive. He was quite important in the Thomas Jefferson Human Relations Council.

INTERVIEWER: Was there any outright hostility on the part of any of your colleagues? Or hidden hostility?

HARRIS: No. As undergraduates, yes. But certainly a much more civil environment among adults. I'm not saying they didn't care if I would just disappear, but they didn't do things like throw cigarette butts on you.

INTERVIEWER: Did you get the support you needed to do research, set up a lab, things like that?

HARRIS: Yes. I had no problems with that at all.

INTERVIEWER: After you became an assistant professor there, you took visiting positions at other universities fairly quickly-- at Southern University in 1970, and then at MIT in '72. Why?

HARRIS: OK. The Southern University experience-- or experiment-- in the context of what was going on in the US-- Kent State, for example, the actual shooting and killing of students on the campus of Southern University-- and the unusual confluence of PhDs from Princeton and Yale-- two of us had PhDs from Princeton and two from Yale-- formed a young group of Turks, in physics at Southern University for one year. It was a time that we all remembered, that was very moving, and risk taking and ideas were flowing rather freely. And we were looking to have an impact. Why not go to Southern University? What if you'd proved you could do scholarship at UVA? So what? Who cares? Who mattered? How many black kids will be impacted? If you could do the same at Southern University, the impact on poor southerners from the backwoods of Louisiana would be enormous.

INTERVIEWER: And the proportion of black students there was?

HARRIS: 100 percent.

INTERVIEWER: Was that an HBCU?

HARRIS: Yes. Southern University was all-- and still is, to this day-- all black. It's in the same city as LSU. And like Virginia, LSU had a system for blacks and a system for whites.

INTERVIEWER: But you went back to UVA, and then you went to MIT. Were you beginning to rethink where are you wanted to be?

HARRIS: Somewhat. But my friend, my champion, my godfather, Leon Trilling would just not stop calling. He was persistent. He persevered. Wes, when are you coming to UVA? Wes, we've got a spot for you, Wes. I'm sorry-- come to MIT. Wes, when are you coming? Wes, if you have a need for housing for your family, we can work on that. There are locations in Newton. Good public schools. Now Leon was relentless.

INTERVIEWER: So you decided to come and try it? Did you have tenure yet at Virginia?

HARRIS: Yes I did. I started here in August of '72, and by the fall of '72 John Scott, who was head of the department at UVA, said Wes, you have now tenure at UVA. So I gave up tenure to come.

INTERVIEWER: And you came as a one year visiting professor, which went how?

HARRIS: I thought marvelously well. Full of excitement. Again, the richness of intellect on the part of my peers, the faculty, and the brightness of the students. And also all the gadgets, all the things that the laboratories had. This was such a well-endowed enterprise with facilities that made UVA look like a nursery.

INTERVIEWER: But even compared to Princeton? You'd spent four years at another wealthy university.

HARRIS: Princeton has always been Princeton. I mean it's very rich. No question there.

INTERVIEWER: What were your first impressions of MIT in general, and with relation to race and diversity? I mean, besides better equipped labs?

HARRIS: Again, the people were everything I thought they would be, in terms of their intellectual gifts and their brightness. MIT was a much faster pace then UVA, a much faster pace than Princeton.

MIT tends to focus more on research and laboratories, less on support environments. Here's what I mean. I think MIT made a conscious decision to invest in laboratories and not to invest in dormitories. I think MIT exploited it, the fraternities and sororities, to bring up the need for beds. Whereas Princeton did not do that. Princeton was an entirely contained community, very rich not only in laboratories but also in dormitories.

INTERVIEWER: Except for their eating club system.

HARRIS: Right. Right. But that's, the eating clubs certainly was a problem in terms of class on the campus. Including class among non-minority students.

So the pace was different. I think the commitment to support environments for undergraduate students, MIT compared to Princeton, MIT compared to University of Virginia was very different. MIT for me was always more of a pull environment than a push. You always have to get in front. You couldn't make it from behind. I think Princeton was a bit more relaxed, and certainly the University of Virginia was a lot more relaxed compared to MIT.

INTERVIEWER: At the end of the year what happened?

HARRIS: Leon Trilling and-- head of the department at that time was a researcher from industry who worked on helicopters-- asked me if I would be interested in a tenure track position, non-tenured but tenure track. And I said yes. And I then began my career at MIT as an untenured associate professor in aeronautics and astronautics. That was, let's say, mid-summer of 1973. I think by the year '74, certainly by '75, I was both in the Department of Aeronautics and Astronautics and the Department of Ocean Engineering.

INTERVIEWER: Why was that?

HARRIS: My interest in acoustics. Both underwater acoustics and then noise generation and propagation by airplanes. Rotorcraft as well.

INTERVIEWER: When did you gain tenure here?

HARRIS: I'm not certain anymore. I think in 1979. I think it was '79. '78?

INTERVIEWER: So you became director of the Office of Minority Education in '75. You were untenured. How did that come about? And did you think at all about, was this a good thing to do if you were still working on tenure?

HARRIS: Well, a couple things. First of all, it was a good thing to do. At least I believed it was, and still do. Why? Conversations with Trilling, Hartley Rogers, Paul Gray, a whole litany of faculty of color and students of color on campus. I was convinced it was a problem that, if we could just pose it correctly, MIT had the resources to allow us to resolve it.

Second, Karen, I had no fear of being able to generate scholarship in an environment like MIT, so endowed with great graduate students and facilities that if you just identify a research area that's rich, that needs to be solved, worked on, you can't fail at MIT. You just can't. So I never had an element of fear. It just never occurred to me that I couldn't do both.

INTERVIEWER: Let's come back to the research you were working on. Do you want to talk a little about what you did focus on?

HARRIS: Yeah. Again, this was '72, '73, and '74. This was coming out of the Vietnam experience. The US Army lost a lot of helicopters in the Vietnam war. And the Vietcong, the bad guys, with nothing more than a human ear, listening, no electronics could identify the type of helicopter on its approach. Attack helicopters like Cobras, versus transport helicopters like some of the big Chinooks, and anything in between. Once they could identify the approaching helicopter by type, they could decide how they would like to shoot it down. And usually a hand pistol, a low caliber device, is all they need to shoot the tail rotor and a helicopter would crash.

Now how is it that they could listen and, by the human ear, determine the type of helicopter? It was the acoustic signature generated by the rotor blades that gave them away. So we, the good guys, finally figured that out. The Army research office said hey, Wes, tell us how to reduce the noise signature on the helicopter rotors.

INTERVIEWER: And were you able to figure something out?

HARRIS: Yes. We were. Now the opportunity was there, but also we had at MIT an anechoic wind tunnel. The only one in the country. See, resources. The ideas, yes. But MIT made it possible. An anechoic wind tunnel at MIT already existed. So that was the major piece of work. I then had a series of students on transonics, unsteady transonics. I've had students in lean sustainment. My most recent PhD developed the only comprehensive model of blood flow for patients with sickle cell. That's Francois. And we are very pleased with that work.

INTERVIEWER: How did you move from things like aerodynamics and aeroacoustics and rarefied gases to things like sickle cell?

HARRIS: First of all, sickle cell, as far as we're concerned, is a problem in fluid dynamics. The blood plasma is a fluid. Unlike aerodynamics it's contained in capillaries and blood vessels, whereas in aero it's flow over a metal airfoil or fuselage. So fluid mechanics is a common thing in all of them.

Second, rather then be concerned about heat transfer as heating in an airplane, we're now worried about the transfer of oxygen from blood cells to the surrounding tissue. So again, the commonality is transport properties. In one case it's heat. In terms of blood flow, it's oxygen. So the modeling was not that difficult at that level. Very, very difficult in completing the details of the modeling. For example, in a sickle cell patient, the red blood cell actually changes its shape, becomes brittle. Now how do you model that kind of mechanics for a red blood cell? So that was the major breakthrough.

INTERVIEWER: Did you have to start reading biology to get your foot into that? Or did--

HARRIS: Yes. Oh yes. Blood flow mechanics. Yes. Right.

INTERVIEWER: Are you still doing research now?

HARRIS: Yes. Francois and I are writing a series of papers. Yonatan and I are looking at some new approaches to the PhD thesis of Francois. We want to do some of tweaking and a bit more advanced work then the model, itself. So the answer is yes.

INTERVIEWER: When you first came, you were working in aero and astro, and also in the ocean engineering. But as you took the administrative responsibilities for the Office of Minority Education, did you have to cut back on the research you were doing so that you had enough time to start up this new office?

HARRIS: Karen, again, I probably could've published a half dozen more papers in the three years I think I served as the director of the Office of Minority Education. I'd say two a year, a half dozen, maybe nine.

Probably lost a lot of sleep. Or didn't sleep much. But the jobs-- the jobs, plural-- had to be done. And at MIT, if you sign on to do a job there's only one outcome that's acceptable. And that's the most professional, the most complete, the most rigorous one.

INTERVIEWER: How were you chosen as director of that office? And had you been one of the people involved in advocating for it in the first place?

HARRIS: Certainly the answer to the last question is yes. One of the agitators, or advocates for it. OK. Now how did that process--

INTERVIEWER: And if we back up, so you came to MIT and began to meet with a community of others who are concerned about under-represented minorities at MIT, mostly graduate students, or undergraduates? Or faculty?

HARRIS: Certainly, Shirley Jackson, who at that time was a graduate student, was involved with expressing concern to-- I believe it's was first Professor Paul Gray, who has been a constant in this. Much like Leon Trilling, Paul Gray has been a marvelous supporter. Remember I said earlier, he was the catalyst in my opinion that led to the increase in women undergraduates in our population. I think it's directly traceable to Paul Gray's influence. And he certainly has had an influence on faculty of color and students of color in the graduate level.

A little bit more about context. Look further west to West Lafayette, to Purdue University. You see the emergence of what we would call an Office of Minority Education already in place. Come a bit further east to Carnegie Mellon. You see again, already in place before OME their model for OME. So MIT was coming rather late to the lunch. Dragging behind. A lot of support from General Electric Foundation. Money's going to Carnegie Mellon, going to Perdue University to attract, basically at that time in the US history, African Americans into engineering.

And that was a push to move MIT toward developing an Office of Minority Education.

INTERVIEWER: Which would do what?

HARRIS: Which would-- much like what Rafael Reif wants us to do now in faculty, enhance the quality of the experience of students of color at the undergraduate level. And to basically eliminate the anxiety and fears on the part of the white faculty that these were undesirables. We had to work on that, as well.

Now the question is, how was I selected? That was a question you asked. I don't know. I suspect Paul Gray had a great influence in that. I suspect Walter Rosenblith did. The office reported to Walter Rosenblith. It's now part of DUE, but when I was director the associate provost was Hartley Rogers. And Hartley was the person that Walter said, would you help bring aboard OME, and Wes will report to you.

I think this is important, Karen. Walter Rosenblith, Paul Gray, Jerry Wiesner, Hartley Rogers, said that the issue was academic and scholarly. DUE is on the other side of the fence. They don't have as a priority academics and scholarship. No. It's more drying eyes, and hanging raincoats. It's more the social-- important stuff -- but it's not provost. It's student affairs. So that's a major change. A major change.

INTERVIEWER: And how did you go about-- you said one of your goals, was, for example, to assure some of the faculty that these students were serious. How did you do that?

HARRIS: Hartley Rogers and Leon Trilling, again, helped me form an advisory committee to the Office of Minority Education. Professor MacVicar, professor Art Mattuck, mathematics, professor Tony French in physics, professor Gus Whit in materials science and engineering, Alan Davidson in chemistry. I don't know who the biologist was, but this group of colleagues, all full professors-- remember now, I'm still an untenured associate-- formed the advisory committee. And we would meet, I would say, once every two weeks, to talk about the experiences of students of color, primarily African Americans that they have in their classroom. They all taught the required first year subjects, all had the responsibility. So they saw the undergraduate minority students up close.

And through persuasion we got things done. For example, the fifth week flag. No such thing existed until we decided that we had to have more information, timely information, on the performance of undergraduate minority students. Art Mattuck didn't like it. We had to convince him that he could do it at no additional penalty on the part of his faculty. Because if you ask for something that doesn't exist, somebody's got to sit there and do it. Somebody's got to collect the data. And Art wasn't impressed with putting another piece of burden on his faculty. But we got it done. And now, the fifth week flag is for everybody. Helped us better manage the performance, the pathways of the students of color.

Now there's something else important in the whole process. I think the most critical thing about OME is cycle time. You must solve problems immediately. Students cannot wait a day or two days for you to resolve a problem. You've got to be able to solve problems immediately. Long cycle times lead to disaster.

INTERVIEWER: After a few years, MIT seemed to get better at either selecting the minority students it was bringing in, or helping them along, because I think graduation rates began to go up. Do you think some of this was just alerting people who needed help or recognizing when they did, or what do you think accounted for the improved graduation and so forth?

HARRIS: Karen, I think your data is correct. I think there's a profile that says the graduation rate for students of color in the '60s was much less than those students who matriculated here in the '70s and '80s. I don't think there's been a positive change since the '80s, however.

And what happened between the '60s, '70s, and early '80s, I am unable to identify the most important factor. But certainly selection is one. No question about that. The change within MIT to more of a student centered learning mission, I think, is another. The attitudes on the part of the minority student, certainly, an attitudinal change allowing them to accept the challenge of MIT, or encouraging them to accept the challenge of MIT must be another.

Changes beyond the bounds of MIT, the kind of intellectual capital that accumulates in a community as that community prospers, between 1960s, mid '60s and mid '80s-- it's a very complex kind of system that we're trying to understand. Those four are the four that I want to talk about now, a half hour later, I'm sure I will like to add some more; the complexity is enormous.

INTERVIEWER: You decided to step down from that job after about three years. What made you decide that was the right time? And then you did earn tenure, but in '85 you decided to go off and try another university and another job. Talk about those if you would.

HARRIS: Well, three years, I thought Hartley Rogers, the person to whom I report-- remember now, he's associate provost working with Walter Rosenblith-- I thought we had the lay of the landscape. We knew what some of the important parameters, important coordinates of the problems or the challenge are. We didn't know how they're related. We couldn't-- and still to this day no one, in my opinion, can give you a perfect model of the undergraduate student of color at MIT. But I thought we'd done enough. We certainly had raised the consciousness of the key movers on the faculty side, like Mattuck and French and Whit and Davidson. I mean these were the guys that did really-- and Margaret MacVicar, who really had a firm grip on what the undergraduate experience was at MIT.

Leon and I had a conversation, and Leon said look, if you want to be the better engineer, maybe you have to stop. So that was another factor in it. Conscious decision. An exit was made such that everyone had a soft landing. I took a year off, went down to Washington to NASA headquarters, and came back. They had a new director of OME, and people had forgotten about Wes. And I went back to my laboratory, helped the Army solve this problem with rotor noise.

OK. Now you also said I left MIT in '85, after tenure-- in fact, a full professor. Karen, you learn at lot at MIT. At least, I think I did. I thought I'd observed how engineering is to be advanced by observing my colleagues at MIT, in all of the departments, department heads to deans. What's the relationship to science working with, again, through OME. What about the humanities?

I wanted an opportunity to build a school of engineering. The queue to serve as dean of engineering at MIT is a mile long. Wes Harris is two miles back. It wasn't going to happen, for a whole host of reasons. Race has nothing to do with it. It was not going to happen. The University of Connecticut at Storrs happened to be looking for a dean of engineering. And I did apply, I actually applied for that job. And Anthony DiBenedetto, professor of chemical engineering, was the provost. And remember now, I had no experience as a department head. At that time, I had not served as a department head. I'd been to Washington for a year, done an administrative job at MIT in OME. Tony said, come on down, Wes. Tony was a maverick as well. Very supportive.

I would say of all the administrative jobs I've ever had, I learned more at the University of Connecticut in Storrs than any other place.

INTERVIEWER: Interesting. How much were you able to do in your five years there, in terms of implementing things you had in mind?

HARRIS: Working with the industry in Connecticut, which at that time was called the cradle of defense, with Electric Boat, with Pratt Whitney, with Sikorsky Aircraft, and all of their suppliers. A lot of defense work was done in the state of Connecticut. Working with them, the leaders in those industries, with the state legislature in Connecticut, and with my boss Tony DiBenedetto, we basically built the entire undergraduate laboratory structure at the University of Connecticut in Storrs, which is the largest School of Engineering in the state. We basically had two or three students of color in the undergraduate program. We changed that by 100 percent at least. And that was a major change in the state of Connecticut. You know, by the way, UConn is in the northeast sector. It's out in the woods. It's not down along the Gold Coast. It's not in Hartford, even. So it's an unusual environment. But we worked that.

We developed, formed, organized, the first grinding research center in the US. Precision manufacturing is grinding. Companies like Pratt & Whitney must have precision pieces to fit into their jet engines. And we went international to Bristol in the UK to find a person in grinding to come back, bring this person to Connecticut to head up our grinding center.

It was a marvelous time. There were several departments in that school that were in a show cause accreditation status when I arrived. And with the money for the revamping of laboratories, when I left they all were in the six year standard review cycle. So I learned a lot there.

INTERVIEWER: And from there you moved to Tennessee, and then to Washington again?

HARRIS: Yes. Tennessee was a blur. Some interesting things, not much of which was intellectual. But Washington was very good. I ran the nation's aeronautics program, reported to Dan Goldin. We had $2 billion of support for aeronautics. This was Bill Clinton's first administration. Today the funding for aeronautics at NASA is about a half million. Where did aeronautics go? To support the space program. The government, NASA itself, the executive branch, the legislative branch took the money out of aeronautics to pay for the space shuttle. And the demise, I think, will cost us greatly.

INTERVIEWER: Did you expect to go back to MIT after that? Or did you think about staying in Washington longer?

HARRIS: I would have stayed. There were certain situations that led me to leave NASA, and I think by that time Earll Murman was head of the Department of Aeronautics and Astronautics here at MIT. I think this is somewhat important, at least historically. Earll and I were graduate colleagues at Princeton. Earll graduated one year ahead of me with his PhD. Earll finished in '67 with his PhD, and I finished in '68. So I've known Earll longer than anyone else, including longer than I've known Leon Trilling. So when I needed to get out of Washington, Earll made it convenient to return to MIT.

When I left MIT in '85, Earll Murman was just starting I believe. He may have had two years here when I left in '85. Yes. That sounds about right.

INTERVIEWER: And he became your route back in. Had it changed much in the years you were gone? And did you see MIT any differently after your other experiences?

HARRIS: Yes. It's changed tremendously. Give you one interesting-- at least I think interesting-- example. '72 to '85, I played basketball over in the gym quite regularly. And it was a good mix of white men and African American men. So I come back in '95. To my surprise, there are a lot of Asian guys playing basketball. A lot. That was impossible '72 to '85. Not one Asian student did I ever see over at noon hour basketball.

Walk around campus. Especially Next House. You see a lot of Asian Americans. That wasn't so '72 to '85. You also begin to see a large number of Hispanic students. In fact each year now at MIT, there are more Hispanic students in the first year class then there are African Americans.

So the demographics changed tremendously in a decade. I mean, it was just unbelievable the shift in demographics. Mind you, while we look at who's playing basketball, and Hispanics and et cetera, the women population in the undergraduate class was growing exponentially. So yes, MIT had changed tremendously in that 10 year period.

INTERVIEWER: While you were away from MIT you served on the visiting committee for aero and astro. Did you see your department, or the engineering school, or MIT at all differently after serving on the visiting committee, as the outsider looking in and trying to analyze it?

HARRIS: Yes. For the following reason, I did see it differently. As a faculty member you can only see so much. And you're always looking for resources as a faculty member. As a member of the visiting committee, you get a wider view of the department. What are some of the unknown issues that as a faculty member you don't see, but as a department head you must respond to? Having been on the outside, and with experiences as a dean and at NASA headquarters, I grew even more so in understanding engineering, and more so in understanding aeronautics and astronautics.

So my engagement with MIT or aero/astro as a visiting committee member obviously gave me a different perspective.

INTERVIEWER: And probably your trusteeship at Princeton added to your understanding of the larger picture of a research university also?

HARRIS: Yes. The four years as a trustee of Princeton-- Karen, you want to know what money can do? Serve as a trustee of Princeton. The kind of problems and the way they solve those problems is truly amazing. For example, Princeton decided to grow its undergraduate student body by 20 percent. What did they do? They asked themselves, what's the most important thing about the Princeton experience? Answer: precepts. The number of students per faculty member in the precept cannot change. That would destroy Princeton. No matter what it costs to grow the university by 20 percent, we can't change that. So if you're going to grow by 20 percent, you're going to have more faculty. If you have more faculty and more students, you're going to have more dormitories. So the Whitman College, the most expensive building on campus, was put up. Princeton made a calculation of how to do this. That was during the time in which I served as trustee. So I'm impressed with how things can be done if you have those kinds of resources.

INTERVIEWER: You became head of your department in 2003. How did that come about, and what was your tenure like? What did you do during those years?

HARRIS: OK. First of all, I'm sure I applied for the job when Ed Crawley was selected, my predecessor. It was--

INTERVIEWER: In the late '90s, then, or the mid '90s?

HARRIS: Yeah. I had returned from NASA, so let's say it was '96, '97 when Crawley became department head. I really wasn't interested when Crawley said he was going to move on, do some other things.

A senior faculty member who I worked with in Unified Engineering said Wes, I think you'd make a good department head. Why don't you apply? And this time around, I sort of just casually asked some of my colleagues what did they think? So I sort of put the big toe in the lake to see how cool it is, and decided to apply. And I did.

Now there are some very important people on that search committee. Rafael Reif, our current provost, was on that search committee. The first time I met Rafael Reif was when he was on that search committee as the representative from EECS. I had also served on the committee to select the dean of the School of Engineering that led to Tom Magnanti being the selectee. I was on that search committee, along with Mary Boyce, who's now head of ME.

So I believe the search committee sent a short list of candidates over to Magnanti. And I did get to know Tom when I served on the search committee. And Tom selected Wes Harris. So I think that's how it came about.

INTERVIEWER: Were you surprised? In other words, here you had kind of been interested earlier and didn't get it. And then all of a sudden when you were not expecting it so much, there it came?

HARRIS: Yes, Karen, I was surprised. I clearly was. Very surprised. Very, very surprised.

INTERVIEWER: But you were in a position following all that experience to begin to apply lots of different experiences you'd had?

HARRIS: Right. Remember now, Karen, this is MIT. This is 2003. At that point, there had never been an African American department head anywhere in the Institute. Nowhere. Rafael Bras, Puerto Rican background, had been head of the Department of Civil and Environmental Engineering. But there had never been a department head-- certainly not in engineering. Phil Clay may have been department head in Urban Studies, but not in engineering, not in science, not in Sloan. Not in humanities. OK. So it was a surprise.

Tom Magnanti was an excellent person to work with and work for. I thought he had a vision that was unusual. If you looked at his website when he was dean, I think it was much richer than what it is now, in every dimension. I think he was much more of a people's dean then a gadgets and widgets dean.

The experience itself as a department head, eye opening. Believe me. You can never overestimate the importance of parking. You can never overestimate the importance of location of a person's office, or what size couch they can fit in. People draw all sorts of sabers and spears, all kind of stakes in the ground over things of that sort.

A big eye opening was my realization that the department basically divides itself into three groups, red, blue, and white. Either they're for you or against you, or on the fence. And no matter what you do, you get those three groups. Sometimes the people switch back and forth in which group they are in. But you've got to deal with that.

Ideas are ideas only if you are smart enough to understand the psychology of the department and get various movers and shakers with your idea. Even ideas that everyone would agree at a later date was the correct one, they would fight tooth and nail to keep it the way they want.

Give you an example. Unified Engineering, our prize, flagship course, had become burdened with too many different small subjects. I wanted to change that. And I did. But that was a fight that drew blood all over the department. I dare you to take my component out of Unified. OK. Now it is. Now it's back to four subjects, which is the way it was in the '70s. And everyone is happy.

INTERVIEWER: So it sounds like it was less high minded, and less fun than you might have anticipated.

HARRIS: Yes. Right. Karen, it is a job of service. It is a job of service. If you're not willing to help and serve-- the only reward is service. There are no accolades.

INTERVIEWER: Let's talk about a different type of service, then; your housemastership. The year before you became department head in 2002, you and your wife Sandra became housemasters for New House. Tell me about that. How did that happen? You mentioned it a little before, but if you could elaborate now?

HARRIS: OK. 2000, 2001, I served as the Barry Goldwater professor of American Institutions on the campus of Arizona State University in Tempe, so I had a year off. Triple degree temperatures, but at the same time, there can be the niceties of Arizona. Sandra would come out and visit, and time for reflection.

And we kept asking ourselves why are we at MIT? And the answer kept coming back the same, the same. It is MIT students. That's the real reason. The reason you're not earning the bigger salary at Boeing is you love the students. So let's prove it. Let's see if we can work with the students outside of the classroom. That is, as housemasters.

Now we were a bit timid. Our first preference would have been to serve as housemasters of one of the graduate dorms, Ashdown for example. Where the politics were, that was-- another team was already put in place for that, or selected for that one. But Simmons was about to open in the fall of 2002. And the Essigmanns-- who at the time we became housemasters, or shortly before we became housemasters, were housemasters at New House-- they were selected to be housemasters at Simmons. They would move across Briggs Field from New House to Simmons. So there was a vacancy at New House. And Sandra and I interviewed for that and were selected.

INTERVIEWER: Did you know many students there? I mean, New House of course is this interesting mix of the language houses, foreign cultures, but it has Chocolate City.

HARRIS: It has Spanish House. It had Russian House, and there were a lot of Ukrainians in the Russian house. Spanish House was primarily Chicano, although there were two or three Puerto Ricans and even some, too, internationals from South America and from Central America, like Mexico. So it was a very rich mix, in terms, of diversity.

INTERVIEWER: So there was not only the Chocolate City, which was the mostly young African American--

HARRIS: All. Essentially all African American. Men, at that. No women.

INTERVIEWER: But also the Hispanic--

HARRIS: And House 4 was essentially Asian American. Still is. Predominantly Asians live in House 4.

INTERVIEWER: And they're called?

HARRIS: House 4. Right. Because House 2, House 4, House 3, House 5 don't have a cultural designation.

INTERVIEWER: Had you had much interaction with the students in Chocolate City? The black male undergraduates?

HARRIS: Yes. Absolutely. I've known many members of Chocolate City, dating back to '76, I think, when it was formed.

INTERVIEWER: Well, there was a good deal of debate when they were formed about whether it was a good thing for the young minority men to live together in a separate living group. And some people said they were isolating themselves, rather than mixing with others. And others said they mixed a lot already, and it was a way for them to chill out and support each other the way people in other independent living groups did. Did you have a reaction to the concept, when the house was started? Did you think it was a good thing? Or did you think it wasn't a good thing?

HARRIS: I was in OME at the time, I thought it was a good thing. This was '76, I believe.

INTERVIEWER: And has being housemaster for New House changed your views of it in any way? Do you think it's still useful and important?

HARRIS: The answer is yes. I think it is useful, and that it remains an important element in our community of students and housing. Now there's one caveat. I would not recommend Chocolate City for all undergraduate males of color. Those who want it, and are able to engage the CC environment as a value added piece in their academic experience, should participate. But not all come with that mix of interests and skills and motivation. So I'm not saying it's a universal solution to anything. But those that want it and can use it certainly should.

INTERVIEWER: Would you say the same about the Hispanic community, and the Asian community? Or is there something special about--

HARRIS: I think my words would be the same. If we unpack that, and ask what it is about the Asians, the answer would be different from what it would be about the Hispanics, or about the men of color in Chocolate City.

INTERVIEWER: And that is?

HARRIS: Well, each group bring their own cultural experiences, their own set of challenges and motivations, and their communities reflect how those pieces come together to add to their experiences at MIT. And hopefully, perhaps to be proven, that it adds to the value of the experiences of all at MIT.

INTERVIEWER: In talking about some of your other interests beyond aero and astro, and the minority education, your biography notes that you're a member not only of the National Academy of Engineering, but also of the Confrerie des Chevaliers du Tastevin, and the Cosmos Club in Washington. And most people affiliated with MIT probably know about the National Academy, but probably there are fewer who know about Cosmos or the Confrerie. Tell us about those, and why they're important to you. And where do you fit them in?

HARRIS: Cosmos Club is a club for, I guess, eggheads or academics in Washington. I consider it a distinct honor, in fact, to be selected for membership in the Cosmos Club. It occurred while I was actually in Tennessee, before I became a participant at NASA headquarters.

Tastevin-- a bunch of French Knights that love red wine and joke all the time.

INTERVIEWER: Burgundy in particular?

HARRIS: Yes, exactly. Exactly. So that came about only because I was a part of NASA. Going to the Paris Air Show, they treat you all sorts of ways. So they take you up to Burgundy into the countryside, and induct you into Tastevin. I think one of the queens of Sweden or whatever was inducted the same night I was. But it's fun. It's good food, good wine, good jokes, very relaxing, absolutely relaxing. The French do know how to enjoy life.

INTERVIEWER: And are these things that you share with your young advisees at MIT? That it's important to add some fun to all the serious study?

HARRIS: I do.

INTERVIEWER: Well this has been a fun conversation. Thank you very much.

HARRIS: Thank you, Karen.