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Interview with Charles Cannon, 2004

Columbia College Chicago

Charles Cannon

Today is May 12, 2004 and this is an interview with Charles Cannon, Chair of the Science and Mathematics Department at Columbia College Chicago. So if you could tell us what you were doing before in your professional life before you came to Columbia.

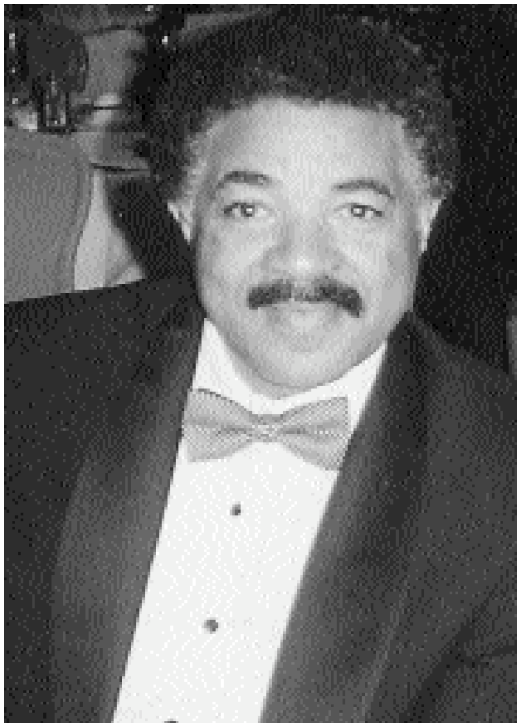
I was employed by the Illinois Mathematics and Science Academy. That's a residential high school for students gifted in science and mathematics. It's the brainchild of Leon Lederman, the Nobel Laureate in physics. I heard about the project back in '85—1985 as I was in the industry prior to the academy, and since I had been engaged in a lot outreach educational projects even when I was in industry from '74 through '85 with the Amoco Research Center out in Naperville. I was a chemist. I worked on petroleum additives. That was an era when we were doing a lot of research in the area of tertiary oil recovery techniques. We don't do that anymore. The industry changed quite a bit. I guess see the price of oil now is $40 a barrel. So that changed a lot, but I was at the Math and Science Academy and there I was part of a science team. The science team handled all of the science disciplines, chemistry, biology, physics and there must have been eight faculty members on that team. Initially I started out on the physics team. I was going to be chemistry, but we lost a physics person. And since my expertise was in the area of physical organic chemistry and I had a lot of physics type experiences in the graduate courses I taught when I was in graduate school, I was given an assignment to work with the physicist to teach my first year in the physics program. And that's how I really got to meet and work a great deal with Leon Lederman because he often visited the academy, which was a very interesting experience.

It was six years later that my first inkling of even toying with the idea of coming to Columbia came about, which was in the spring of 1992. That was in my sixth year with the academy and I was engaged in—well I had almost finished a project setting up a state of the art organic chemistry laboratory. We were fortunate enough to get a sizable grant from the Amoco Foundation and to set up this laboratory. The grant was somewhere around $250,000 and I was—it was my lab. So we had all kinds of the instrumentation in that laboratory that graduate students would kill for to have the privilege to use. So that's where I was and I just—I was happy as I could be and just thought that that was it. That was going to be where I was going to be forever. And then I—someone brought to my attention that there was a position open at Columbia for science and math—the Chair of the Science and Mathematics Department and I had had some experience with Columbia before then. It was about 10 years prior I was chairing the Chicago section of the American Chemical Society. It's the third largest section of the American Chemical Society—the Chicago section is. I think we have about 5,500 members in this area. So I was chair—Section Chair, probably one of the youngest chairs to take that position.

How old were you?
I can't—well let's see when I came out of college I was 28 and that was in, let's see '68—that was in —

You're undergrad '68?
No, no, no, when I received my Ph.D.

'74.
It was '74 and then I was 28—28 years old at that point. So 12 years later 40—I was engaged in—I was at the academy and so it was somewhere in my thirties that I was chair of the Chicago Section of the American Chemical Society. And there was this person from Columbia College that came in the room and I was presiding over this meeting. And after the meeting this person, who was the previous chair of the science and math department came up to me and started talking—introduced herself to me and told me about Columbia College, and it was fascinating. She was very—it was obvious she was very excited about Columbia



College and what she was trying to do at Columbia College. And I think at that time there was only one room serving as the science and math department and it was located on the 11th floor of the 600 South Michigan building. As a result of our conversation, she—I was persuaded to look into accepting a part time teaching position in the department to share with students. I think the course that we agreed upon was—it was like the chemistry of food—something related to the practical aspect of food, but looking at the chemistry from a chemical aspect point of view. And so I thought about this for a while and academia was always—has always been in my blood so it was just an opportunity for me to kind of engage in something. Although, I lived in DuPage County so it was quite a trip you know to drive in for an evening class. It was a commute, but she was quite persuasive.

And this is Zafra Lerman?

Zafra Lerman yes, no one else but Zafra Lerman, and she was—I don't know how many other part time teachers were with the department at that time. But I remember coming over and it was one of those evenings and this was before I began teaching, and we talked about what some possibilities were because I had to design something that I would bring in and share with the students. What she was after was practical technology or scientific information that students could grasp and use and, and identify with and I bought into that because—I have engaged in some of that in some of the afternoon scholars program I have done prior to it. So I came over one evening. It was a very interesting evening to talk about this in more in depth and I met Zafra on the 11th floor and we—I don't know how long we spent there, but we did demos. We talked about—she, she shared with me—I wanted to know what they were doing and she shared with me some of the things that they had been doing with the students, some of the demonstrations—real life type situations. And I will never forget—we did one demonstration to demonstrate particles, particular matter on particles are all in the air. And we turned the lights out and took a flashlight and shined it you saw all these particles. So we talked, talked like this, and it was quite fun.

Then I was persuaded so I did this and I was younger so you know I could—I had the energy to do the drive. I don't recall whether I stayed with that for a year or whether I was with it one semester and it just became too, too much for me. Because when I was with Amoco we did a lot of traveling too sometimes, but it was fortunate for me that during that period if I didn't have any problems with the class. And I think it was one night—one night a week you know and we have most of our courses still are one meeting a week, but it was a great, great deal of fun to do that. And it was not until 1992 now I would see Zafra at the ACS meetings because Zafra attends too and she's very active with the American Chemical Society. So we would see each other at the meetings and she would share what's happening with the department and she was always very, very enthusiastic about what was going on with the accomplishments that she was able to make here at Columbia College with not being a place where you would find science and math majors.

So I don't recall the exact year, but when the new—when she—when the department had expanded and they moved to 623, 5th floor over there I remember her telling me about it. I don't—I think it was a year or two after she mentioned it to me that I actually had the opportunity to come down and look at this. You know she's you just have to come down you know and, and see what we have. I think at that point she had been very successful with acquiring very sophisticated instrumentation through grants from the National Science Foundation. So eventually I was able to come down. I was very much impressed with the difference in what I saw back in the eighties and you know when I was here as a part time teacher and at that point very much impressed. But in 1992, the spring of 1992 after I learned about the opening I still had no interest in leaving my organic chemistry lab at the Illinois Math and Science Academy. However, there were several persons who were talking to me and very persuasive and insisting that I do look into it. It took me about three weeks to make up my mind to actual submit an application for that position, and I finally did and I was called in for an interview. I think I came down here three times for interviews.

Do you remember who you talked to?

During the interviews?

Yes.

I remember some of the people. The committee consisted of faculty and chairs and at that time Sam Floyd was the Academic Dean. Bert Gall was there. I don't know I

think his title was Executive Vice President, but Bert Gall was on that committee. I do remember Abour Cherif was one of the teachers in the science and math department. At one of those meetings he participated. I don't know whether he was officially on the committee or not, but I know he participated in one of those. The chairs included, he's retired now, he was the chair of the—John Mulvany, chair of the art and design department. And Phil Klukoff who has passed away now; he was chair of the English department. Those are two that I remember. Now one of those meetings we met and went over—this was a return trip. We met over in the Printers Row, which after I was here for a while learned was almost headquarters for Columbia College. And more chairs were invited to come to that meeting and we just had a wonderful exchange about what the college was about, some of the challenges that I would face in the position. And so eventually I—you know the—at the time too President Alexandroff was here and I was invited to—you know selected as the candidate for the job. I had a meeting with him. I think that was during the last interview trip I came over and during that trip I also made a presentation before the entire faculty of the science and mathematics department. At that time it was—there were only five full time faculty members in the department. We still had a host of part time faculty. There was Gerry Adams and Gerry Adams is still with us today. He has been with the department almost 20 years. Pan Papacosta has been with the department a long time too. I think Pan is about a couple of years behind Gerry and Abour Cherif came in about a year—a couple of years behind him. Then there was another—there was a biologist there, Sandra Steingrabber. A very interesting scientist and Sandra was engaged in a lot of research projects that engaged her away from campus and on campus. I think the year that I came in here she was away on a—it was either sabbatical type leave or a special leave because I don't think she had been here long enough to have—

(Inaudible).

Yeah, right I don't and at that time we did not have a tenure system. We had the probationary and non-probationary track. So she was another person and there was a chemist, Jackie Haus was a chemist there. And Jackie's position was a one-year position because she was a replacement for a faculty member that had been—that had resigned, or had left. So we were five full time faculty and we had several part time faculty who had been working with the department since the original date the doors opened, and so they were almost like full time people themselves. But it was a very interesting—the first year was quite challenging.

Can you talk about some of the challenges that you had?

Yeah, you know there have been—there have been some separations. There have been some separations there and the separations left a lot of wounds. So my first challenge was to win the trust of the faculty members who were there and to try to get them to heal some where we could move on with the program that we were you know that we were charged to be in charge of. At that time when I came—that spring of 2000—I mean 1992 they were in the middle of a search for math faculty too and that was—it ended up Ann Hanson was hired in that position. Now there's an interesting history there because Ann and I both worked at the Math and Science Academy. And as a matter of fact before I, I had heard about the position with—as chair of the science and math program and had been approached, and one day—Ann and I had been doing a lot of programs. She—we did some adventurous program for groups of students and we would take some of those programs off campus to Illinois—not Illinois State University—Eastern Illinois.

Eastern.

Yeah, Eastern yeah, we would take them down there for a three-week period immersion program in science and mathematics, and it was a wonderful experience. So Ann was like the dean over all—one of—that program because she worked out of the outreach office. And one day I went by there and we were just chatting about some of the anticipated programs we were going to do and she showed me an ad for a math teacher and she shared with me that she was thinking about applying. I said that's interesting. I said you know I—there's an opening for the Chair of the Science and Math Department too and I'm thinking about applying for that position. And we were talking so wouldn't it be interesting if we both ended up at the same place over there and as it turned out we actually, we actu-

ally did. And when I came in by the time I had become a final list and had become identified as the person who would be offered that position that search was in its final step. It was in the stage of bringing in candidates to be interviewed and Sam called me and ask if I would assume the responsibility of that—very interesting. So we came in and invited the, the people in and the search committee was already engaged and Ann Hanson came in and just blew everybody out of the water with her presentation in math. And so it was not that I knew her that really won her the the hearts of the search committee. It was her performance that she came in here and her dedication to working in the area of mathematics with these students. And I think that our experience with the Math and Science Academy played a key role in our readiness to come to the college.

Prior to that I had, had many experiences working in high school and after school programs. Even when I was in college, undergraduate school, I set up a school. I grew up in Alabama and during the period when I grew up there was a lot of outward discrimination as far as opportunities for young black children to have during the summer months. You know there were summer schools, but the black children didn't have the opportunity to go there. By the time that I finished my first—I think it was in my first year in college I returned home that summer, and I talked with the parents in the little area where I used to live, the little neighborhood. And it was mostly cousins, friends or families that had children who were in this, in this area and I talked them into supporting me in setting up a six-week summer school and I was the teacher. We had all—we had—I remember we had math, we had reading, we had writing. We had four—I think it was four subjects that, that we did and the parents actually demanded that their children come to these sessions and it went very well. After six weeks we had a little ceremony. At that time I did a lot of scribbling, script and so I made the graduation certificates for them. So the parents fixed a lot of little treats and we had a little ceremony. So I never forgot that and years later I found after my grandmother passed I found one of the certificates that was given to a cousin in her things and I brought that with me. I keep that with me all of the time. It's in my office now, that certificate.

So I had had a lot of experience then. Plus when I—before I left the Amoco Research Center I decided that I wanted to—I had not taken—you know going to college in chemistry and concentrating in the area that I concentrated in I didn't engage in the education courses, which that a person would take who was going to teach it. You know the, the pedagogy and the different strategies. So I undertook a program. It was the Madeline Hunter, a master teacher program. The Madeline Hunter was a very popular educator in that era and she traveled all around the country holding workshops and just thousands and thousands of very effective in the information that she shared and how to achieve teacher effectiveness in the classroom. So I went through that whole program on my own. There was a center out in Dupage County. I forget which one—the number of the system—the number of that system, but I went to that system and used the materials from there to finish the program. So I finished the program and that was a tremendous learning tool. As far as learning we *(inaudible)* you know the psychology of understanding how students learn you know. So that, that was very important to me so that has played a very I think important role in everything that has happened as far as my being in academy since that time.

But getting back to the first year here at the college—the college has evolved—been evolving. I guess it was evolving before I got here and it continued to do so after I arrived initially, and Zafra explained to me how some of the challenges she had in attracting students to take science courses. And she has a real cute story she tells about how she would take groups of students—she took them to a local bar and they'd talk about alcohol and she will show them the molecules and did a lot of explaining. So she made it a little interesting to them; a little practical using examples of that nature, something that they should be familiar with, but it was fun. But anyway she always talked about the struggle that she had in convincing the community here that this is the place for science and mathematics. And the program grew over the years and it evolved into a fairly large program. At that time, at the beginning students were not required to take science and math courses. So there was a great difficulty to run the classes and having enough students to justify running them. But she somehow was effective and

attracted students, and from going through the community and getting enough support from other faculty around the college it had grown into a large program with five full time faculty members when I arrived.

But upon arriving because of the separation of the previous chair from that department and the formation of the second unit which was given part of the space of the science and math department made it very challenging. And you know continuing the same program that you continued in a full fledged department, but now you have half of the department that you're dealing with. But we were able to—I think we were able to experience success in focusing on our experiences with students. And I bet that still continues to be the strong draw of educators here at Columbia College, the experience that the faculty has in the classroom or engaged with faculty—I mean with students here at Columbia. They are different. They are different students. Although we are attracting more students who, if you will, are considered the traditional type college student, they're still different, and the students they—they're doing such fascinating things.

I participated in the LAS School of Liberal Arts and Sciences honors program today and all of the departments selected a couple of students to honor either for leadership ability or their service that they're rendering to the community, the college and for scholarship, and it's just fascinating to sit there. It was just fascinating to sit there and listen to all these great things on what the students are doing. And the two students that the science and math department honored for service. The student was out there doing things—doing works to help other people you know. This student engaged in programs—I believe programs at Cook County Hospital, in neighborhood programs, reading programs, helping students in the community become better readers. And so it's, it's real interesting to see the caliber you know of people we have—who are attracted to Columbia. Another one was honored for academics, excelling very highly. She's in the theatre department, at first was in the television department. And these are students that have been with us for several—for at least two or three years. You know they have come to us and worked with us one year and they gravitate back to us. So we really appreciate you know their maturity, their dedication and commitment to what they're doing.

So in that light I think that it makes the experience for the teachers and educational experience too and it's most gratifying to have a chance to see the student outside of the classroom from how they are inside the classroom. And we often have opportunity to do that because in the science and math department we don't have majors. We do have a minor, but we venture out and we go to some of these events that these students are participating in and we see their other side. We actually see what they do out there with their lives and it's just a joy to, to try to structure courses that makes thinks two persons who are not going to make their life work in it. You know if, if we had science and math majors it would be very different effort that we would have to put forth to make presentations in the classroom, graph courses because we have the interest already. But it's a greater challenge here to make it make sense. And over the years the techniques that we use in the non-science major and math classrooms are being adopted in—by major programs across the country because they've been found to be very effective in helping the students to grasp the concepts for longer term. You know in many cases students go in and memorize things, but we don't want them to do that. We want them to leave, and, and leave with something that they can use from that course and I think that we've been successful in doing that.

When you came on board then was the Science and Math Department—you know you talked about issues of space and, and healing, but did the mission of the curriculum have to change or did that kind of stay the same direction and what did you bring to it as Chair?

It changed. It changed.

Can you speak to that a little bit?

Prior to—we—I think the, the rigor increased and we're still you know we're still evolving and making sure that that's there for it. As now it is a requirement. Students are required to take six hours of science. One of those courses must be laboratory experience and three hours of mathematics. So it's set that all the students coming through Columbia must have these courses.

When did that happen?
Oh my let's see —

Do you remember?
I don't remember exactly when it happened, but I know it must have been pretty early in my tenure here that that came about, because there were several committees that were formed to look at this and to work out what we call the Joint Studies Program. And we've revised that a couple of times too since I've been here, and we now since we've restructured we've also revised it again and we have a program which was very well accepted. The revisions to the LAS quorum of courses that was presented by our dean recently and it's said to be embraced by the entire community. So it—yes it evolved so initially when Zafra first had the one room department and even after it expanded to the floor over in 623, 5th floor in 623 South Michigan there still was some I guess tentativeness in presentation on what one could include in a course because the students—you could run the students away. In the area of mathematics many students were math shy or had a phobia about it—math phobia. So it was very, you know, give/take a little bit for teachers to really keep students in the classrooms and still we're dealing with faculty who were not totally convinced that science and math should be a part of the life of students here in college.

Can you speak to that just a moment why you feel that a graduate of Columbia College should have science and math as part of his or her curriculum?
Yes, when you look at any profession out there in the world and if you look at how our world has evolved in today's world students are faced with all kinds of information when they get out there. Some of it is technical information in science and mathematics. The bulk of the population are not the decision makers who pass bills or laws on how we're going to treat certain—stem cell research is one that's out there in the papers now. We feel that our graduates should be wholly educated. Meaning that they may be in the theatre or in the music department, but they need to have a working knowledge of what's going on in science, of what's going on—you know how to work with numbers. An appreciation for literacy level in that and it makes sense because no matter what field that students go into, they're using it, and our job is to show them how to. And it's so much fun when you begin to make those connections with the students, to show the students how those connections are natural in some of these areas.

We have a very strong program with the—it was the Sound Department and now it's the Audio Arts and Acoustics Department. So we do several courses for them, two of which are science of electronics and we do science of acoustics. Now when I came here that department was in control of the electronics course and it was four hours. We were asked to do a laboratory experiments for that. We did the best we could to make sure that that worked well and we coordinated it. But after a while our faculty and the sound department developed such a relationship, a trusting relationship that something happened that was quite unheard of and that that department asked us to take the course into our department, which was unheard of. You know departments just did not give up credit hours and that was quite a number of credit hours. So we, we've built quite a strong relationship with that department and that department has been able to strengthen its program. And we've been able to assist them in strengthening their program in sound engineering. There are some needs for that out in the world you know, in the entertainment world, all facets—in the television area, all of it. We need people with those skills and what better people to have that skill than the person who's coming out of a program like Audio Arts and Acoustics. So we are working with them to—and there are students that are taking calculus in the program. And we are talking about even increasing the physics offering for their students. So it's—I think that that's part of it.

Now there are other examples across the campus too. The management area we've done quite a bit of work with them. We have a faculty member who taught statistics, taught their statistics classes in their department for them. And we later developed a statistics course in our department so that relationship is working very well. You know they have accountants so they're not—they don't have phobia in working with numbers because they're working with them all of the time, but just looking at it as mathematics because it is mathematics; having an appreciation for doing estimations. You look at numbers, you look at a situation and you have an appreciation to do you know estimations. So that's important.

In many of the cases students really are better equipped in those areas than they think they are. Their confidence levels just have to be worked on because we have experienced some very, very talented students in those areas and find very strong backgrounds in mathematics and in science. Some of the students although they are only required to take two courses, they come back and they'll take extra courses you know as their electives in the science and math area, and they'll come back and ask for courses that we don't have. And this is one of the reasons we worked on our calculus course to get that going, because we had students coming here who had had—they were coming from high school programs that had very strong math backgrounds. So they had had all of the math so then we needed something for them and so that's how that came about. But it's—I think it's just useful; we want them to be—we want to educate the whole person, the whole person and for them to be able to go out and to be able to adjust to any situation that they run into. You never know what you may do before you get to where you want to go.

Those are interesting examples of two-year collaborations with other departments. Certainly the college is calling for that or wanting us to move in that direction. In light of that, has your role as chair changed since you came here?

The first few years that I was here I was under the umbrella of the previous era.

Right, right or as Louis says chair for life.

Yes, I think I was the last one. I think I was the last one. All of the chairs that were hired after I was hired were hired on three-year contracts. So I think we may still have—at one point we had about three or four categories of chairs in the department—I mean in the school and in the college, but I think that that has been redressed so that has changed. And the role—I think the role of chairs have changed have changed over the years too because—and I—you know it all depends on the time the era is. Some people look back with very critical eyes and don't have good feelings for it. But you look at what was happening at that time —this was something that was evolving and I am sure that that looking back can be painful—both painful and enlightening—you know you can have some light moments in the impasse, but there was the good old boys network, the chair persons' counsel. Now that's one area that I personally take a lot of pride in and that's the chairperson's counsel, because I was a very—I came from a very organized and organizational, you know very structured professional environment. And the chairperson's counsel was not that structured; it was very informal. And shortly after I arrived—I was thinking about it the other day and I didn't have the opportunity to go back and look at the record to see what years I was elected as chair—the chair person's counsel, but it was during the, the days of John Duff. The summer that I came in—I came in July 2, 1992.

Didn't he come in the fall?

He came in the fall. As a matter of fact, when I interviewed with Mike Alexandroff he was such a jolly character. You know I just looked forward to working under him that following in the fall. And I came in that summer and then I learned that after I was hired he wanted to step down. He was going to retire and so we had a laugh about that after I came in. You know he shook my hand and welcomed me to the college and I said oh my goodness I heard that you were going to step down. He said yes, it's time to go. I said my goodness I came and you're going. And so I was the last chair that he you know had in that he hired really as president. Then John Duff came in as president in the fall so we came essentially at the same time. And for the next eight years I served as chair under John. Now during that period were a lot of changes done. There were a lot of changes through governance which were painful for a lot of people. But during my service as chair of the chair person's counsel I instituted a couple of things such as agendas for every meeting. We have copious notes that are minutes for each meeting.

And these things were absent prior to—

Prior to—

Were they social?

It was very informal. Yeah, it was very social. I'm sure that all of the things that they needed to take care of was taken care of in the way that they operated at that point, but as chair I had the opportunity to regroup and I—my thinking was that there should be a relationship between the chairperson's counsel and the administration of. So another thing that happened during my tenure service as counsel was that we establish regular meet-

ings. We invited the president to come in. We invited—he wasn't Provost at the time, but Bert Gall to come in, the dean. And then eventually and I think it was during my tenure—I served to years. I served two terms. Eventually we established a relationship where I was invited as chair, chair of the chairperson's counsel, to sit on the president's cabinet. I think that's what we called it at the time, because it was a large group—all of the people in the administration and they had a representative from our group. And one of the things that John wanted to do was to change the way the chairperson's counsel looked. I think we had one or two females, Shirley and Suzanne. No, no it wasn't Suzanne. It was Zafra—no she—Zafra wasn't—dance—the dance chair was on there—and I'm embarrassed.

Was it Shirley?

Shirley, Shirley yes, Shirley Mordine was on—my good friend Shirley Mordine. And so he wanted to have more females. There should be more females on, but there were three units—three units to, to take away that good old boys trait. And I think there were other people on the—in the chairperson's counsel who also you know wanted that to go away too. There were three other units—graduate units. They—I think the title for those were directorships at the time. One was Educational Studies, Interdisciplinary Arts—but there was another one. There were three of them that came in with—they were converted from directorships to chairs during John's tenure. So that was kind of controversial, but after it happened I think it worked very good. And it changed the—began to change the image of the chairperson's counsel and we're still evolving. We're still evolving and we're still trying to find a meaningful role in the governance of the college. The governance system has changed a couple times too. Those are things that changed to be more inclusive and I stuck my nose in it because I wanted to learn about the college. I wanted to learn everything I could my first year. I am regressing back to that. One of the things that I did and I'm pleased that I did was to reach out to each one of the departments. So I made an appointment to go to each department chair and I took them to lunch. We had lunch and talked and I tried to extract what I could experience from them about the college and running our department, you know dealing with faculty issues and all sorts of things and I learned quite a bit. I learned quite a bit and that was real beneficial for me. It was beneficial to me in more than one way, more than just gathering knowledge. It was beneficial to me in establishing relationships with other departments and I did the same thing for Zafra Lerman. I tried to learn as much as I could from Zafra in her tenure as chair of the department.

So was that important in your success that you know you even come here as a part timer and knew her and then came in the next chair of the department that you had some continuity and relationship with her?

I think the relationship that I had with Zafra stemmed from our professional affiliation with the American Chemical Society because by the time I came here for you know as chair of the department that she had founded it had been many years you know by that time so I almost forgotten it. But I think where the importance comes is in learning the different—strengthening my people skills I should say—strengthening people skills. I guess you know I couldn't have learned more in going back to school and taken psychology courses and that kind of thing about people. I find people are so interesting. You know all of us are different and we're unique and we have our own way that we see things. I feel there's a tendency for a student to become a little disturbed if we can't get someone to see things the way we see them, but I find that fascinating if I'm challenged. If I have an opinion about something or someone has a different opinion, I find that interesting just to understand why another has that opinion and then my opinion can be challenged. Well why do you think that way? In a lot of cases people are not used to that. They're not used to that, but that I find that to be very interesting and enlightening, educational to me. But the—what did I get out of that? Let's see, I think I got—I did get out of that a lot of information on history and it helped me to understand what I needed to do to make faster progress with my people in the science and math department. As far as the healing of things and the trust, moving on to big and greater things and expanding the vision for the future and teamwork.

Now my being a chemist and coming from the industry sector it was quite a—it was a natural thing to work with a team of people from different areas. You know would work at the bench I may work with somebody who's an engineer and a plat to look at policy. You know we

first started the laboratory events then we go to power plant, then we move to the plat with the product. When that product is on the board I'm used to sitting in a room with managers or people who don't even go close to a laboratories and people in the engineering part, they're responsible for their part and other scientists. You know I'm an organic chemist who, there are inorganic chemists, analytical chemists there and we sit around and we work as a team, bring—put our skills together to make this project work.

That doesn't necessarily come natural for any of us.
It doesn't naturally—it does not—it does not come natural and there are a lot of reasons for that. Who gets the credit and that can be—

Who gets the budget?
Who gets the budget, yeah.

Who gets the territory? Who gets the core—
Who gets the territory—who gets the, yeah right, right, right.

You know we are—we've moved quickly through this and I have a lot of other things that I wanted to talk to you about. So if I—I don't—I want to talk about diversity here at Columbia and your work on the part of advocacy for minority students and kind of where you feel that's at, at Columbia. And are you hopeful? Are you discouraged? If you can speak to that.
I'm hopeful. I'm hopeful that I really—let me share something with you. When I came to Columbia I was so pleased to have my first experience under a superior in a work situation who was African American and that was Sam Floyd. So I was so proud that I had this opportunity because beforehand I had not had that experience. Now the students at that point we had even more probably number wise and percentage wise proportionately more minority students than we have now. We've grown, so we've grown you know the majority students have grown too so the number has gone down a little bit. But the diversity part and learning different cultures is a natural—this is a natural school for that to happen. I think that there's been some tension as far as all of this working out because we've expanded in faculty, we've expanded in staff, we've expanded in administrators along with students. And there are some who are coming from environments that are not as open as this so it takes them a while to become trusting and say is this for real. I think we have—we have a ways to go—we still have some things that we need to do here, but I love it for the diversity. Now just yesterday I was walking from the garage to the building and there was a group of students outside—it must have been about six African American male students out there in the park. And usually I talk—you know I speak to students as I pass, but in speaking with these students just as I pass the student was more interested in what role do you play here at the college. And so I had to turn around and go back and I told him I was chair of the Science and Math department and so we engaged. And then I wanted to know okay what's your major and we got into that type of conversation. These were freshman. They were new students who were here. So I felt that they felt good about seeing me here and probably the same type of feeling I felt when I saw Sam Floyd in his position when he was here. I think that we need to continue to, to highlight that as a strength and to realize that is one of our most important strengths that we have that diversity here. And with this new cultural studies major which is most appropriate to have here in this environment I think that we are on the right track to doing that too. That was the program—the new Cultural Studies program. I learned today that five students are majors. The first five—the first five. Were you in there—were you in the liberal arts?

Some of my courses —
Are you a liberal arts student?

Yes, I have a history lecturer with liberal arts. Before we end I just want to say that your last kind of story and your experience and the response of the students and that you engage with them and having an African American boss for the first time that that represents to me as a woman too when I had my first female boss. And I don't know if our society recognizes still how important it is for young people to see themselves reflected in what they can be, because I think we tend to think oh that's all old you know we don't have to worry about that anymore. But I agree with you very strongly that it really is underestimated how powerful that is to see people like you in positions.
And you know if you think about it even before they get to this point you think about students who are isolated in areas where they may not have the opportunity to see anybody but people just like them. And this is why—I think this is

why I became so engaged in outreach type programs. And the college has several outreach programs. As a matter of fact some of the programs my predecessor engaged in and she still engaged in, they reach out to students in the Chicago metropolitan area. We are collaborating with—Educational Studies department in a special program this summer. It's a math program for students who have English as a second language. We will be training new teachers and then they'll be working with students and we'll be assessing them and see how that relationship works—using visual, more visual techniques and teaching mathematics to the students. Because in—with these students with English as a second language, if you know many of the problems are reading problems and if some of them were sitting on the committee.

Unfortunately our time is up. I want to thank you very much. I know—