RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

NEW BRUNSWICK

AN INTERVIEW WITH ELMER C. EASTON

FOR THE

RUTGERS ORAL HISTORY ARCHIVES

WORLD WAR II * KOREAN WAR * VIETNAM WAR * COLD WAR

INTERVIEW CONDUCTED BY

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TRANSCRIPT BY

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Sandra Stewart Holyoak: This begins an interview on July 21, 2008, with Dr. Elmer Charles Easton in Piscataway, New Jersey, with Sandra Stewart Holyoak and …

Paul Clemens: Paul Clemens.

SH: Thank you so much for taking time to talk with us on this bright summer day. Could you tell us, for the record, where and when you were born?

Elmer Easton: I was born in Newark, New Jersey, on December 23, 1909.

SH: How long did you live in Newark, in that area?

EE: Well, I lived there; that's a good question. [laughter] I went away to college in 1927 and lived … in Newark from 1909 to 1927. Then, I went to Lehigh University, to study electrical engineering, stayed at Lehigh for six years, and then, I left Lehigh and went to Harvard, to work on my doctorate. I was up there for awhile, and then, came back to Newark in the middle of the Depression, could get no job at all, of course, and, finally, wound up, quite by accident, teaching at the Newark College of Engineering. That was back in 1935. From 1909 to 1927, I lived in Newark, and then, from 1935 to 1942. That's [it].

SH: Where was the Newark College of Engineering located at that time?

EE: Right downtown, in the City of Newark, on High Street, [renamed Dr. Martin Luther King, Jr. Boulevard in 1983]. It's still there. It's now called the New Jersey Institute of Technology.

SH: Was there any talk of it joining Rutgers at any point before you left there?

EE: No, no, but, [laughter] it's interesting, … you mentioned the Newark College of Engineering; as I say, I taught there. Could I give you a personal experience?

SH: Please.

EE: … I told you, I was studying up at Harvard, working on my doctorate, and I ran out of money and I didn't want to sponge on my parents anymore, so, I was looking for a job. I didn't finish my doctorate, I started looking for a job, and came back to Newark and I heard that, at the Newark College of Engineering, there was a sudden opening in the middle of the term. This was in February, in the middle of the year, because one of the professors was driven right out of his class by a bunch of hell-raising kids, his students, [laughter] and so, a friend of mine heard about this opening and, of course, I couldn't get a job anywhere else. I never wanted to teach at all, [laughter] but I went down there because I desperately needed work and interviewed [with] the president of the Newark College of Engineering and he explained to me what the situation was. I said, "Well, I'm really not interested in teaching, but, yes, I can handle that job," and I said, "I'll teach only as long as I'm having fun. If I stop having fun, I'm going to quit." He said, "That's a deal." I got into the job and, of course, the first day on the job, [laughter] these kids started in on me the same way they did on the other guy. I thought, "Well, this is fun. I'll join them." So, we just fooled around the whole period, … joked and laughed and had a great time, and second

period came along; they started the same thing, so, I went right along with them. I thought, "This is great." [laughter] Well, at the end of the … second period, the biggest guy in the class followed me back to my office. He put his arm around my shoulder and he said, "Okay, you win. [laughter] You call them to order and we'll back you up." I got in there, in the third period, I said, "Now, we're going to get down to work," and, from then on, I was hooked on teaching. It was fun, because I was able to handle this crowd of rowdies. That's how I got involved in teaching.

SH: That is a wonderful introduction to teaching.

EE: But, I never had any intention of teaching at all. When I was up at Harvard, working on my doctorate, there was a group of four of us studying together, in electrical engineering, and we lectured to each other on various subjects that we knew were going to come up on our doctoral exams. … When I was up there, lecturing to the other three guys, one of them said to me, "You ought to be a teacher." I said, "Not me. I'm not going to be in a classroom. [laughter] I want to get out there and build things, electrical engineering," and I wound up as a teacher.

SH: Had your father been involved in engineering?

EE: Oh, no, no, no. My father was a very great man. I admire him enormously, although I never appreciated him when I was a kid. [laughter] He was born in England, … in Canterbury, in England, and [into a] very poor family and he had to go to work at the age of twelve. … He had some very hard jobs, but he saved his pennies and, eventually, he boarded ship and came to the United States, to start a life on his own. … Here was a man who [came] out of school at the age of twelve and he came to this country, started as a painter and decorator, painting houses, and hanging wallpaper, and, gradually, he started his own company and hired a crew and trained them and did very well at it, as a house painter. No, he never went to college, and my mother was the same way. She had to go to work when she was about twelve. [laughter] She worked in a jewelry factory in Newark.

SH: Was she born in this country?

EE: Yes, yes, she was born in Newark, yes.

SH: Were there other members of your family? Did you have brothers and sisters?

EE: No, no, I was the only child. … I came along rather late in their lives, and I guess they figured that one like me was enough. [laughter]

SH: Where did you go to high school in Newark?

EE: I went to Barringer High School, which was a great high school, a really wonderful place. It's the third oldest high school in the country and we had some marvelous teachers there. I remember teachers with strange names. [laughter] My chemistry teacher was Mr. Dumm, D-U-M-M, and the math teacher was Mr. Dull, D-U-L-L, [laughter] and, I tell you, those two teachers were anything but dumb and dull. They were marvelous teachers. They really inspired students.

It was a great place. [laughter] Our football coach taught physics, and I remember one case; am I rambling too much here?

PC: No, no.

SH: No, this is wonderful.

EE: I remember one case, when he was teaching physics, he was showing us the difference between a pull and a jerk, and he had a toy locomotive, a cast-iron locomotive, weighed a couple of pounds, and he tied a string on the end of it, held it … over his hand, and then, he tied another string on the bottom of the locomotive and pulled down on it. … He said, "Now, if I pull down slowly, the upper string is going to break, because the weight of the locomotive was added to the pull in my hand. You're going to break it, but, if I give it a jerk on this," he said, "the bottom string will break." I happened to be sitting in the front row. He came over to me and he says, "Easton, catch this." I put my hands out, spread my legs apart, put my hands out to catch the locomotive, and he pulled slowly down and, of course, the upper string broke and I watched it crash, right down to the floor, and I can never forget the look the football coach gave me. [laughter] I could just see him say, "God, I'm glad you're not out for football," [laughter] but that was Barringer High School. It was a wonderful place, wonderful place.

SH: When did you first get interested in engineering?

EE: That's an interesting question. [laughter] When I was a kid, I really thought I wanted to be a physician, when I was very small, and this is a story that I told at the reception that Dr. McCormick, [Richard L. McCormick, nineteenth President of Rutgers University, 2002-Present] gave for me [on April 21, 2008]. … When I was about ten years old or so, I had a Sunday school teacher who happened to be a student in electrical engineering at Rutgers. … His family lived in Newark, as mine did, and he went to Rutgers in New Brunswick, but he came home weekends to teach the Sunday school class, and he had a hobby of building wireless sets. We call them radios now, but they were called wireless sets then, and, one day, after the Sunday school class, he took us up to his house and showed us his wireless set and he let us listen to signals coming in. In those days, there was no broadcasting, there was no WJZ or WCTC, [laughter] just dots and dashes from commercial stations and a few amateurs who had voice. I listened to that and I thought, "Gee, this is great. I've got to have one of these." [laughter] That's how I got started and this Sunday school teacher from Rutgers got me started on wireless and, with his help, and my father's contribution of twelve dollars, which was a lot of money then, we built a wireless set, I did. … Then, in 1923, this student, whose name was Francis Shiffmeyer, incidentally, Class of Rutgers 192-; I don't know what class he was. At any rate, 1925, I think he was, but, in 1923, he stopped at my house on one Saturday morning and picked me up, took me down to Rutgers, to see the School of Engineering, where he was studying. We got down there in the morning, on a Saturday, and he took me through the Engineering Building, which is now Murray Hall, on the College Avenue Campus, and he took me down to the electrical engineering labs and showed me his equipment and … told me what he was doing. … I thought to myself, "This is good, this is good," [laughter] and I thought, "Maybe if I study electrical engineering, I can find out how my wireless set works," because that puzzled me. [laughter] "How on Earth [does it work]?" I put a piece of wire up over the roof, and I was picking up messages coming in from the air, and I

couldn't figure out how that worked. I thought I'd study electrical engineering, not medicine. When I got home from Rutgers that day, Francis brought me back home, I spoke to my father and I said, "I think I'm not going to study medicine; I'm going to be an electrical engineer." He said, "Well, it's your life. You can do what you want, but," he said, "if you're going to study engineering, why don't you study civil engineering, because, if you take electrical engineering, you might be electrocuted." [laughter] I think that one of the reasons he said that was that we had just, a few days before, had our house wired for electricity, old gaslights in those days, and he had electricity put in and, of course, we were always warned, "Don't put your finger in the socket. Be careful." [laughter] Well, that's how I got started in engineering.

SH: That is wonderful. Why did you go to Lehigh?

EE: Oh, well, that's another good question. [laughter] I told you that this student from Rutgers took me to Rutgers [laughter] and it was a visit to Rutgers that got me started. … Of course, I was just beginning high school at that time, 1923, and, a couple of years later, I had another Sunday school teacher, [laughter] because Francis Shiffmeyer, he graduated from Rutgers and got a job as an engineer with the Public Service Company in Newark. … He no longer taught the Sunday school class, but the man who followed him was a graduate of Lehigh University in electrical engineering. His name was Charlie Derrick, and so, when he found out that I was interested in electrical engineering, he started talking to me about Lehigh and I thought, "Well, now…" When it came time for me to go to school, to go to college, I decided I wanted to go far away from home, so [that] I couldn't come home weekends. I wanted to get the college experience, but not so far away that I couldn't come home for Christmas. I thought, "Lehigh's just right." I applied for admission to Lehigh and I got, also, an application for a scholarship for Lehigh, and I could have qualified for the scholarship. I had pretty good grades in high school, not the best, but good enough, [laughter] and I told my father that I was going to apply for the scholarship and it was a form that he had to fill out, and my father was in the painting business. He wasn't a wealthy man. He was painting, decorating, and he looked at the application and he said, "I think we'll leave the money there for those who need it more than we do," and I was greatly impressed by that. He said, "I'll pay for your tuition," and so, that's how I got to go to Lehigh and my father paid for my tuition. Of course, I did some work. I graduated from high school in January of '27 and, of course, I couldn't go to Lehigh until September. In those nine months, I worked for an electrician. [laughter] I was an apprentice electrician in that time and I also worked during the summers to earn some money, but, otherwise, my father took care of it. That's how I got to Lehigh.

SH: Then, to do your doctorate at Harvard …

EE: [laughter] I got to go to Harvard because one of my professors at Lehigh had also gone to Harvard, and so, he suggested it and I thought, "Well, I've got a choice here. I could go to Harvard or I could go to MIT," but I decided I'd go to Harvard, and then, I had a choice, I could get a PhD or I could get an Sc.D., doctor of science. … It turned out it would be more difficult to get the doctor of science than the PhD, but I thought, "As an engineer, that's going to be to my advantage." I went for the doctor of science and that's how I got to go to Harvard, and I got a scholarship there, which paid for my tuition. … At Lehigh, I told you, I couldn't get a job at all when I graduated at Lehigh, but, when I couldn't get the job, I was advised, by the same guy who

suggested I go to Lehigh, he said, "Why don't you apply for a fellowship here at Lehigh? Get your master's degree." I thought, "Well, this is a good way to kill time while I can't get a job." I got the James Ward Packard Fellowship, named for the Packard automobile man, he was a Lehigh graduate, and that gave me free tuition and 750 dollars a year stipend, and I had to take two years to get my master's degree. I worked half time on research and half time on my studies, and with prices what they were in the Depression days, 750 dollars went a long way. I was able to pay my whole way through the two years that I was there at Lehigh and I actually saved some money, out of that 750, to go to Harvard. [laughter] But, after a year or two at Harvard, that money was gone. … I told you that story.

SH: When you came back to Newark and you began teaching, this would have been in …

EE: 1935, yes.

SH: How was the Depression affecting your family in particular?

EE: The Depression was terrible. People living today have absolutely no conception of how difficult those times were. There were no jobs at all when I graduated and, previously, people would come to Lehigh recruiting engineers. It was one of the top schools and there were no problems getting jobs, but, when I graduated, nobody came recruiting. You couldn't find any jobs anywhere and it was extremely difficult throughout the City of Newark. There were people selling apples on the street corners, that sort of thing, very, very difficult times. Now, fortunately, my father maintained a reasonably good business and, although we never got rich, [laughter] we had food on the table all the time. He was a very good businessman and, as I've said before, I really admire that [man] for what he did with the limited education that he had, great guy.

SH: Did you live at home while you were teaching?

EE: Yes, yes. [laughter] [The teaching job] was only a few miles away from where I was … [living]. It was quite easy for me to do that. As soon as I started earning money, then, I started paying board at home. [laughter]

SH: Were there other extracurricular activities that a professor at the Newark College of Engineering was required to do, like chaperone events or sponsor different clubs, anything other than the teaching schedule that you had?

EE: Not really, no. [We were expected to do so but were not required. However I would like to recall an incident which occurred when I was a student at Lehigh.] One teacher influenced me in a great way. Unfortunately, I can't remember his name and I should, but he was teaching us a course on electrical engineering. He stopped right in the middle of one lecture, … looked around the room and he said, "Who's paying for your education here at Lehigh?" and he got to me and I said, "Well, my father's paying … my way here. He's paying my tuition," and he went around the class asking, and, when we got finished, he said, "You think that tuition is paying for your education here?" He said, "That tuition that your dad is paying covers only half of the cost here." He said, "Other people, graduates of Lehigh and friends, are paying for the rest of your

education." Right there on that spot, I said to myself, "When I get out of here and start earning money, I'm going to pay back to Lehigh the half of the education that somebody else paid for me," and that's how I got started paying back to Lehigh. [laughter] I've got a scholarship program going up there, as a memorial to my parents, the Frank and Helen Easton Memorial Scholarship, but it started because that one professor made that remark in that class, [laughter] and I've been contributing to Lehigh ever since, and also to Rutgers, of course, and also to Harvard.

SH: While you were teaching in Newark at the College of Engineering, were you still working on your doctorate at Harvard?

EE: … I was finished. … I had done everything except finishing my thesis. I finally, in the in-between times, got the thesis finished, before the war broke out.

SH: Did you work at another job during the summer, between the semesters?

EE: Yes, yes.

SH: What did you find to do in Newark?

EE: Public Service. Well, I worked with Public Service; … go back a little bit. [In] 1930, when the Depression first began, I got a summer job with Public Service. I was a junior in college. After that, I worked for this electric store. I told you, I worked as an apprentice electrician and, in the summertime, they took me on, because I could do radio repair work. That's what they were in, and I was a radio operator at that time, amateur operator, still am, and so, I got a job with them. I remember, I was being paid eleven dollars a week, which was a lot of money in those days, eleven dollars a week, but you talk about how the Depression affected people. When I was a student at Lehigh, there was one restaurant downtown, in Bethlehem, Pennsylvania, where you could get an entire meal, and I mean an entire meal, starting with soup, roast chicken, pie for dessert, cup of coffee, fifty cents. Fifty cents, that's how far down … the prices got. People were desperate and, speaking of that, [laughter] how low prices were; I'm skipping all over the place here.

SH: That is okay.

EE: In 1950, when I was at Rutgers, one of our professors retired and we had a retirement party for him at the Roger Smith Hotel, which was then a very fine hotel in downtown New Brunswick. You know what it is today, and not so long ago, looking through some old papers, I came upon the invitation to attend his retirement party at the Roger Smith Hotel and it said the price for the dinner, and we got a full dinner there, and a gift for the retiree was two dollars and fifty cents.

SH: My. [laughter]

EE: Yes, two dollars and fifty cents, and the top salary for a full professor … at Rutgers, top salary for a full professor at Rutgers, was six thousand dollars a year, six thousand dollars a year.

SH: That is amazing. You said you finished your PhD before the war began. What became of you then?

EE: … Just as the war started, as we got into it, let's put it that way. [laughter]

SH: Okay. Were you involved in the military?

EE: That's another long story. As I told you, I was teaching in Newark at the time and, when the Japs bombed Pearl Harbor, I was just putting the finishing touches on my thesis and I said, "That's it, it's finished, out." … I tried to get into the Navy, … because I was an electrical engineer and a radio operator on top of that, both of which they needed in the Navy. I thought I could get into the Navy. They turned me down because of my sight. I had such bad eyesight. I had astigmatism. I couldn't get in. I said, "Well, maybe I can get in through … an officer's position in the Navy, go to OCS," [officer candidate school]. I went over to New York, the recruiting station in New York, the Navy recruiting station, and submitted an application, [to] see if I could get a waiver on this eyesight. … While I was waiting to hear from them, I was home one day and I got a telephone call from Harvard saying that they were desperately in need of somebody to teach RADAR at Harvard, because Harvard had turned its entire engineering operation and all of its scientists over to the military, but they had no civilian courses at all at that time. … They very much needed somebody to teach RADAR. So, here I was, [laughter] applied for the Navy, invited to teach RADAR, and, of course, to make any change, you had to contact your draft board. I went to my draft board and I told them, "Here's the situation. I'm waiting to hear from the Navy and I've got this invitation to teach RADAR at Harvard," and, without any hesitation, the draft board said, "Take the RADAR job. We'll give you a deferment," and I found out, years later, why they had to do that. They were instructed to do that, because RADAR had the top priority and they needed people in their field. I spent the war teaching RADAR officers. We had all military, and they were all officers, Air Force, Marines, Navy, Coast Guard. So, that's where I spent the war years, teaching RADAR at Harvard.

SH: Can you describe the difference in the campus between your time there as a graduate student and now teaching during the war?

EE: [laughter] Yes. It was entirely military, entirely military. You heard the bugles go for the various movements, the groups assembling for drill. It was entirely military. I was one of the few people there not in uniform. … It was interesting, and I often wondered and think to myself, "Gee, sometimes I wish I had been in the military," because I meet with my friends, and they exchange stories about their war experiences and I have to sit there like a dope and say, "Well, I sat out the whole war," but we did contribute.

SH: I was going to say, I think you need to change that. [laughter]

EE: But, one reason I think so, during the war, it was right in the middle of the war, Winston Churchill came over to Harvard, and this was all hush-hush, of course, very secret. … All of us in the RADAR group got to meet Winston Churchill and he had come all the way over there to thank Harvard for the help that we were giving in that field, and, of course, the British had

discovered RADAR. They'd developed it, but that gave me some indication of how important this was to the war effort and I've had communications with some of the RADAR officers that went through my classes, after the war, and they told me how much that helped. Well, that's beside the point.

SH: Were there any Rutgers men that were in that class, that you were aware of?

EE: No, but there was one who came; this is interesting. One of the Marines that came through there, it was funny; I told you, we had all kinds of officers from all the branches. The Marines were a different group. [laughter] I remember, … they were griping, "They wanted to fight. They didn't sign up to go to no goddamn school." They wanted to fight. "What are we doing here at Harvard?" Well, one of the students there, a Marine, I learned about this years later; I'm going to backtrack now. I hired a guy, when I became dean here at Rutgers, several years after I'd become dean, I hired a fellow to teach civil engineering at Rutgers and he had a doctor's degree from Harvard. His name was Marvin [L.] Granstrom and he came and taught civil engineering at Rutgers for a long time. … After he had been there for several years, he came up to me one time and he said, "You know," he said, "you were my teacher at Harvard in the RADAR school," and he said, "You did such a good job of teaching up there, I figured, 'If that's the kind of teachers they had at Harvard, I was going to go back to Harvard after the war and get my degree.'" So, he did that, and then, [laughter] by sheer coincidence, I was looking for somebody in civil engineering and I got hold of him. So, that was a Rutgers connection.

SH: There you go. After the war ended, was the program phased out?

EE: Oh, yes, yes, yes.

SH: Were you then looking for another teaching position?

EE: No, I stayed … at Harvard. They kept me on the staff, teaching electrical engineering, at Harvard and I became the assistant dean of the Faculty of Engineering at Harvard, after the war ended. … I was there in that capacity for a couple of years after the war ended, and then, I got a letter from the President of Rutgers, Robert [C.] Clothier, [fourteenth President of Rutgers University, 1932-1951], and he said that … their current dean, whose name was Parker Daggett, … wanted to get out of the deanship [and] go back to teaching, and that they were looking for somebody to [replace him as] dean. … He [President Clothier] wondered if I was interested in coming down for an interview, to see if I would be interested in the job. That's how I got into Rutgers. I … had no reason to leave Harvard. [laughter] I had a good job up there. … I was very happy in my job, but I could see, at Rutgers, a chance to build something. As soon as I got down here, it was very obvious that there was a chance to build something and I could see why Parker Daggett wanted to get out of the dean's job. It was a mess. … When I came down for the interview, of course, I had to be interviewed by a faculty committee first. I made a couple of trips down from Boston to interview at Rutgers, and I could see what was going on here. … When I first visited Rutgers, in 1923, [laughter] the whole College of Engineering was in … one building [now called Murray Hall], and it was only half of the building that it is today. The other half of it came during the Depression years, through the WPA, (Work Progress Administration). They put an addition on it, but, when I visited in 1923, it was [still] a relatively small building,

[which] … held the whole College of Engineering. … [This] was … [possible] because there were fewer than two hundred students in engineering. … Before [World War II] … the maximum enrollment was [about] 240. … Of course, after the war, all of a sudden, there's an influx of all these … [men] who had gone into service, interrupted their college work, came back, wanted to go to college, all at once, [laughter] and, of course, they had the GI Bill, which paid their tuition. … When I came down … for the interview, they had over seven hundred students there and they still had only this one building. [laughter] The University had put up a bunch of temporary barracks buildings, old wartime barracks buildings, on what they called the University Heights Campus. It's now the Busch Campus. There was nothing over there then and just a lot of open space, and so, Parker Daggett was struggling with seven hundred students, most of whom were housed in these temporary shacks, which were miserable. … When I came, in 1948, Dr. Clothier did invite me to serve, that's what I walked into, one building that you could really call a building and a bunch of temporary shacks over here. … I remember, on weekends, going over there in my old clothes and working on the equipment, trying to clean out the; we got a lot of war surplus equipment, and I got over there, I corralled a bunch of students to go over there with me, [laughter] and we worked like dogs on that equipment, to get them ready. It was a mess, but, of course, I immediately told Dr. Clothier, the President, … "We can't get along this way," and, of course, he knew that, and I said, "We've got to get some new buildings over on that campus," and so, we did and, by 1960, 1961, I got there in 1948, in 1961, we finally got enough money to put up four buildings on the University Heights Campus. … They were connected together with walkways and we called it the Engineering Building then. The four of them grouped together was the Engineering Building and it sat out there in its pristine glory. [laughter] There was one other building that preceded us. That was Microbiology, down at the other end of the campus, and, after that, the Wright-[Rieman] Chemistry Lab came along, but we occupied the one end of the campus for a long time, by ourselves. That's how we got over on the other side of the river.

SH: In that twelve years, how did you manage seven hundred students in Murray Hall?

EE: It wasn't easy, it wasn't easy. … Well, there was an additional building beside Murray. There was an old dwelling called the Ballantine House, [Ballantine Hall and Gymnasium]. It's still a dwelling. We took that over and we had offices and, strangely enough, this dwelling had a swimming pool in the cellar. … It must have been a wealthy family that owned it at one time and we used the swimming pool as a hydraulics lab … for the Civil Engineering Department and, of course, well, when I came over here …

[TAPE PAUSED]

EE: We're back in the old Ballantine Building. … We made a hydraulics lab out of what was the swimming pool, but that's what we had; the old Engineering Building, and I told you that there was an addition [that] had been put on it, the WPA, so, it was a little larger then, and the Ballantine Building and a lot of these temporary shacks, which included our laboratories. … When we started there, we were giving only three programs, civil, electrical and mechanical engineering, and I wanted to go far beyond that. … We also had what was called then the School of Ceramics. Now, the School of Ceramics started about 1902, I think it was, as the School for Clay Workers. The State of New Jersey set it up to help the clay industry build bricks

over at Perth Amboy and the Sayreville area and it later became the School of Ceramics. … The head of that school, John Koenig, his name was, wanted to get into engineering. He said, "We're going far beyond building bricks. [laughter] We want to become an engineering program." He talked to my predecessor, Parker Daggett, and ceramics then became a part of … the College of Engineering, and so, I expanded that considerably, [as the Department of Ceramics] thanks to John Koenig's help, and we also added industrial engineering and I set up several five-year programs, which I liked very much. The five-year programs gave a student an opportunity to get two bachelor's degrees in five years, one in engineering and one in some liberal arts field. You could get, let's say, a BS degree in electrical engineering and a BA degree in history in the five-year period, and that spread. … Of course, chemical engineering; we never had chemical engineering and everywhere in this middle of our State of New Jersey were the heavy concentration of chemical industries, so, that was my first really big assignment, to get chemical engineering started in the State University, and, in order to do that, we had to get the building. When we got the building, chemical engineering was one of the first things to go into it. That's how we got started growing. [laughter]

SH: How did you deal with the funding for this, to expand these different departments?

EE: [laughter] By a stint of, a lot of, very hard work and a lot of hard work on the part of helpers. I got a group of our alumni, who were there before I came, graduated in 1947 and earlier, and I formed the Rutgers Engineering Society and they helped. … Of course, the President of the University, Dr. Clothier, was a great help and we were pushing the State of New Jersey, because this was the State University, and, incidentally, it was then called the State University of New Jersey, in 1948. Some people say it wasn't, but it was, and, as I said in the beginning, it's one of the reasons I left Harvard and came down here, because I thought there was a chance to build with the state's backing. … I used to have to go down to Trenton and deal with the legislators down there and the budget director and fight for my budget and fight for an appropriation. … In one year, I think it must have been four, five years after I started, we got an announcement, or a referendum, on the ballot. The people of the state were to vote on an appropriation to get us our buildings. We lost by one vote in each congressional district of the State of New Jersey and we managed to get the second one on in 1960 and, in 1961, the people voted to give us five million dollars for the new building. I got the five million, plus, all the pennies and dimes and nickels that I could scrounge. [laughter] I got to thinking to myself, "I spent years getting a doctor's degree in electrical engineering and all I'm doing now is going around with a tin cup, collecting money," my gosh. [laughter]

SH: You talked about wanting to set up the chemical engineering program and needing a building.

EE: Yes.

SH: Did you go to these chemical companies and ask for funds?

EE: Oh, yes, everywhere, went to all the chemical industries, yes, definitely.

SH: Were they willing to help?

EE: Spiritually, yes; financially, no. [laughter]

SH: We have heard that before, right.

PC: Yes.

EE: Yes, yes, and I remember going to one, the Olin Foundation. I went to every foundation I could think of. The Olin Foundation was helping chemical industries, chemical programs all over the country, and I remember talking to this one fellow in charge of the foundation and he told me a story that he'd just encountered. He got somebody to make a contribution in his will, to a university, and he said the fellow wrote in his will, "I'm giving X million dollars to the University of California, better known as UCLA," and so, he was struggling with this legal problem. … He gave the money to, "The University of California, better known as UCLA," and they're two separate institutions. So, you said, "Did I ever go to chemical industries?" every one that I could find, yes.

SH: Were you backed by the different administrations?

EE: Oh, yes, definitely, definitely, one hundred percent, yes.

SH: After President Clothier, the next president was …

EE: … Lewis Webster Jones, [fifteenth President of Rutgers University, 1951-1958].

SH: Lewis Webster Jones, right.

EE: Yes, yes.

SH: Was he also behind what you were trying to do?

EE: Yes, yes, didn't do very much, but he was definitely behind it, oh, yes, yes. I got support, again, verbal. [laughter] "Yes, we think this is great. Go ahead," that sort of thing. But, Dr. Clothier really pushed it and Mason Gross, [sixteenth President of Rutgers University, 1959-1971], when Mason Gross came along, he pushed it hard. He was a good guy. Yes, they all supported it.

SH: Was President [Edward J.] Bloustein, [seventeenth President of Rutgers University, 1971-1989], behind the Engineering Department?

EE: Oh, yes, yes, definitely, yes, yes. I remember, when he first came, … I made it my point to make sure that the first part of the university Ed Bloustein saw was the College of Engineering. As soon as he got on the campus, I invited him to come over and visit the College of Engineering. … I remember, he was a great smoker, with a pipe, and he came with a can of tobacco and a pipe and, of course, the pipe kept going out and he'd fill it up, light it, but, yes, he was always interested in engineering, and I made sure he was. [laughter] He was a good man.

PC: I just wondered if you could tell us a little bit more about what the engineering program was like when you got here. What are your memories of the engineering programs that existed when you got here?

EE: Well, before the war, it had been small, as I said, but it was good, and, shortly after I got here, I got to reading an article by a professor from, I think it was one of the Southern universities, maybe it was Duke, and he had made a study of the productivity of engineering colleges based on the percentage of graduates who were listed in *Who's Who in Engineering* and he rated Rutgers way up near the top, above Princeton, incidentally, and above Duke, and, of course, I published this. … Later on, I got a nasty letter from one of the professors at Duke, "Can't be true, can't be true," [laughter] but I told him, "One of your own professors wrote this article. I'm just quoting him." It was small but good, good quality, and we tried to keep it that way all the time. We were pressing not for numbers, we were pressing for quality, quality, quality, all the way, and I think that the faculty was definitely behind that all the time.

SH: When you got here, had the faculty managed to stay here at Rutgers through the war, and then, continue afterwards?

EE: Yes.

SH: Did you have to replace people?

EE: Well, I had no need to replace them, but, as they retired, I had to replace them, but, of course, as the enrollment grew, which it did, I had to add. That's how I got that one professor that I mentioned to you. Oh, yes, it was necessary to change. It was quite a turnover, eventually, just as there has been a turnover since I left. [laughter]

SH: In the early stages of trying to expand the school, was there support from the other departments at the University or was everybody trying to fight for their own dollar?

EE: Well, as I told you, when I started here as dean, I had to go down to Trenton and defend my college budget, as did every other dean, and then, when Mason Gross became President, he said, "Enough of this." He said, "I am going down there for the whole university," but, yes, I was down there fighting for my college and the Dean of Arts and Sciences was fighting for his college and the Dean of Agriculture was fighting for his college, but we're all fighting for Rutgers. There's no question about that, but that was before Mason Gross, and then, he took over the whole thing and we backed off. But, by the time he got there, we'd already gotten our new buildings. [laughter]

SH: You were on several committees, obviously, as the dean, under the President.

EE: Oh, yes.

SH: What were some of the more interesting committees that you remember working on?

EE: … What I wanted to do was to get Rutgers' name spread around the country. I joined the American Society for Engineering Education, … which involves people from all engineering colleges throughout the country, and I worked my way up in that until I became president of that organization, and so, we had contacts throughout the country, and I was not [only] president of that organization, I was also on a group called the Engineers' Joint Council, that was a professional group, and, also, the Engineers' Council for Professional Development. That was the group that accredited engineering colleges and I headed the regional, the northeast regional division, of the accreditation committee. I got involved in those, and then, the AAAS, [American Association for the Advancement of Science, pronounced "Triple A-S"], I was involved with the AAAS as well, also, with the National Society for Professional Engineers, yes, and the Institute for Electrical and Electronics Engineers. I got involved in a lot of things, not because I wanted to get involved, but because I wanted Rutgers' name to be spread around the country, and, as a result of doing that, I was able to get Rutgers' name spread beyond this country. [laughter] I remember, one summer, I was up in New Hampshire, a vacation up there, and, [in] this little boarding house, breakfast time, the phone rang, called me to the telephone, "Washington, DC, calling." They wanted me to go down to Africa, to help the British build the new Royal College of East Africa, Royal Technical College of East Africa, in Kenya, and so, I thought, "Gee, great opportunity for Rutgers." I took that assignment and spent a couple of months down in East Africa and I got a contract with the British Government and the College of Engineering at Rutgers and we set up complete programs. Outlined all the curricula for them, selected the laboratory equipment for them, helped them order it. We prepared a library, got the books and shipped the books down to them, and all as a contract with the College of Engineering at Rutgers. … That was a very interesting experience. … I didn't look for this, but I grabbed it as soon as the opportunity came along, and so, we got Rutgers known in East Africa. Incidentally, that is now the University of East Africa, but, then, in 1960; that was 1954, when this happened, right in the middle of the Mau Mau Rebellion down there, the terrorists. It was an interesting time to be there, but that's beside the point. … Then, on another occasion, 1960, I had another call from Washington, again. They wanted to send a group of people down to South Korea this time, to evaluate our foreign aid program as it pertained to education in South Korea. They wanted me to contact all of the engineering colleges in South Korea and see what they needed and how our foreign aid program was helping them, and so on, and there was another man who had all the medical schools and another one had all of the business schools, and so on. There were five of us. I spent a … couple of months, [laughter] in South Korea, but everywhere I went, [I went as] the Dean of the College of Engineering at Rutgers University, and so, we got spread around there. I'm drifting here.

SH: No, you are not. This is wonderful, because these stories are part of the history of how this program became so well-known.

EE: Yes, yes.

SH: Were there other committees that you served on in these other organizations that you want to talk about, or should we talk about the committees you served on within Rutgers?

EE: Egad, … it's interesting you ask, I had about, I don't know how many pages, listing all the committees that I'd served on and my friend down the street borrowed that, said he was

interested, "Well, what was I doing?" … She has the copy of it, but, if you're interested, I could probably get that.

SH: That would be wonderful. When the University reorganized and the Faculty of Arts and Sciences was created, were you on that committee?

EE: No, no. See, I retired in 1974. I had always planned to retire when I was sixty-five and I did, and it was interesting, because, … when I got to be sixty-five, which was in December 1974, I was eligible for the state health benefits program, having put in twenty-six years at Rutgers, and I could also collect Social Security. … I was also going to do some engineering consulting, but, when I started doing that, I discovered I was working for the government. [laughter] I wasn't working for myself, because I was losing Social Security, I was making money consulting and, on top of that, I had to pay Social Security tax, unemployment compensation tax, all that. I forgot about that and I got involved in the Rotary Club. I had been invited to join the Rotary when I was a dean, but I couldn't attend, because they have attendance requirements. You have to go to all the meetings, and so, I said, "As long as I'm dean, I can't go to that, because I have so many luncheon meetings as dean," but, when I retired, they invited me again and, that time, I joined and that was in 1975. … As soon as I got into Rotary, one of the Rotarians said, "I'm in Boy Scouts." He said, "We need somebody to run one of the districts in the Boy Scouts." He said, "I want you to come and do that, take that job." I said, "I've never been a Boy Scout." I'm wearing a Boy Scout belt, incidentally, [laughter] but I said, "I've never been a Boy Scout. I don't know anything about it." He said, "This is a problem of administration." He said, "We've got a bunch of guys down there, they're fighting all the time. We want somebody to go in there and knock some heads together and get them organized." I said, "Well, maybe I could do that." I got involved in Scouting and, before I knew it, I was the president of the council and, after I gave up as the president, the woman who had been the treasurer for umpteen years, the bookkeeper, resigned and the fellow who replaced me as president said, "Would you take over as a bookkeeper and a treasurer for a few days while we find another one?" Eleven years later, I was still doing it. [laughter] I really got heavily involved in Scouting. It was really a full-time job, for nothing, of course, *pro bono*; you know what I'm talking about. That's how I spent my retirement, instead of doing the consulting that I thought I was going to be doing, [laughter] and, of course, I got involved in the United Way. … I was interviewed by some people from Lehigh the other day. They were down here, said, "How did you get involved in the United Way?" and I said, "As soon as I became dean down there, somebody from the United Way came and hit me up for a contribution, and, the first thing they asked me, 'Would I chair one of the groups of fundraisers? Would I take the professional group?'" I had to raise money from all of the engineers and the lawyers. They gave me … those two groups. I got started with the United Way and that just spread and spread and spread, and, first thing you know, I was the president of the United Way. [laughter] … I was involved with them, up until recently, for many years. So, between the United Way and the Boy Scouts, I was pretty busy in my retirement, in a very satisfying way, might I say.

SH: That is great. Going back to Rutgers and your time here as dean, how did you recruit your students?

EE: Well, … one way I tried to recruit them, every year, I would invite a group of students; … remember, I told you that my first contact with Rutgers was when Francis Schiffmeyer, 1923, brought me down to Rutgers to see the College of Engineering. … In the afternoon of that day that we were down there, he took me to a football game. I saw a Rutgers football game and I never forgot that that got me hooked on engineering. When I became dean, as soon as we got some new buildings that we were proud of, [laughter] I would invite groups of high school kids down for Saturdays, in the fall, and take them through Engineering and also take them to a football game in the afternoon, and we did a lot of recruiting that way. … Of course, we had our alumni, a lot of distinguished alumni, who would go around to all of the schools with which they had connections and try to impress some of the kids to come to Rutgers, and, of course, as soon as we got our new buildings, we really had something good to offer.

SH: When did you realize how important that connection was between the College of Engineering and your alumni?

EE: Right away, the minute I arrived. One of the first things I did as a dean was to organize the Rutgers Engineering Society, because we had had … a Harvard Engineering Society and I was active in that, with the alumni, and they were very active in support of engineering at Harvard. As soon as I got to Rutgers, at that time, one of the very first things I did was to get a bunch of the older alumni together and organize the Rutgers Engineering Society, and they took it from there and I had a lot of help from them.

SH: Did you work closely with them?

EE: Oh, yes, yes, definitely, very closely with them, yes, in our homes. [laughter] We had many a meeting in this house.

SH: Was your family supportive of all of the activities that you were involved with?

EE: My family? My father died in 1939, so, no. My mother, of course, she lived with me here and she died in 1959. Oh, yes, she was supportive. She attended a lot of the Rutgers affairs.

SH: Did she?

EE: Oh, yes, thanks, to a large extent, to Mrs. Clothier, the President's wife, who came right [over], actually walked over to this house, and invited my mother out to attend these [events]. Yes, she was supportive, definitely. …

SH: Did you stay in contact with any of the students that you taught at Harvard, other than the one that you wound up hiring as a professor here?

EE: Yes, yes, I get Christmas cards from several of them, yes.

SH: Did you teach when you were here at Rutgers?

EE: Yes, I did. …

SH: How much did you teach?

EE: Not a heck of a lot, [laughter] because I was so busy raising money and trying to build the college, and that's one of the things that I missed. As I told you originally, I never wanted to be a teacher, but I had so much fun doing it that I resented not being able to teach, but I finally got [back to teaching]. Once we got the buildings settled, then, yes, I did start to teach and I taught all graduate courses, on conduction of electricity through gasses and industrial electronics, and then, I started a course on creative engineering, and this was a course on how you get ideas, how you create something new, and we had fun in that course. … It's funny, I wrote that course up once when I was taking a train down to Florida to attend an engineering conference in Florida, and I spent the whole night sitting up in my compartment in that train, writing up this course, and we got it going and it was an honors course, just for a handful of students. … In that course, I brought in people from various fields of activity. For instance, I had [F. Austin] "Soup" Walter, who used to teach music, I don't know whether you met Soup Walter, and had him come in and talk about creativity in music, how people created musical compositions. … I had painters come in, "How did he create a painting?" and, in all the fields that I could think of, I tapped them, throughout Rutgers, and brought them into that class. … To give you an example of what we did, each year, we picked a project and I asked the students to help pick out the project, and one project was to develop antilock brakes, which you now have on every automobile today, the antilock brakes, and, in order to work on this antilock brake system, that was our project for the year, I had them review all of the literatures in the patent field. They had to go through all the patent fields on brakes and find out how brakes had been patented and we had to come up with a different way of doing it, and whatever project we picked out, we started that way, find out how it had been patented, how it had been done before, and then, … we had to create a new way of doing that thing. We ran into that and, actually, when Dr. McCormick had this affair for me on April 21st, a couple of the guys who were in one of those creative engineering classes attended that ceremony, came up and told me that they had enjoyed it. [laughter] Yes, I guess I was involved in some teaching.

SH: The make-up of the student body changes greatly at Rutgers following World War II, as you said, because of the influx of GI Bill students.

EE: Oh, yes, yes. Of course, when they first came back, … almost all of them were veterans and, God, they were all, "Work, work, work," because they knew how much time they had lost, in the service. … You didn't have to push them at all. They were anxious to get their education and, of course, as they phased out, we began to get the normal college student again, and, yes, well, I tried to encourage them. For instance, for all of the seniors, for example, I had a regular session, with me, … just for the senior class, I [would] bring in topnotch engineers from various fields to come and give an informal talk on what they were doing, and then, I'd take them out to lunch. … [laughter] In Engineering, we had … so little money, I never had any money in the Engineering Dean's budget for this sort of thing, so, I paid for the lunches myself, … but that's beside the point. You don't have to put that in, but [you] say, "How did we get in touch with the students? How did we get them involved?" That was one way of being personally involved with them, and then, we also would have an occasional picnic down in Johnson Park. I'd get a bunch of the students down there and we'd have a picnic down there, with games and that sort of thing,

faculty and students together. It was fun. … I mentioned that we had a retirement party for one of the professors and we also had just parties for the faculty, at the Roger Smith Hotel, and I used to play the piano. I had an orchestra when I was a youngster [laughter] and I found out that we had several fellows in the faculty who played various instruments, and so, I got a little band together and, when we'd have these faculty dinners, parties over at Roger Smith, we would play. [laughter] … I remember the first time we did that, the group was out there, they were all serious, "The Dean and the professors are all going to play?" They thought we were going to come up with some very classical music and we hit it with some hot jazz stuff. The place broke down. [laughter] … We had fun, let's put it that way, or tried to.

SH: You were determined to make this fun, teaching or otherwise, right?

EE: It was. [laughter]

SH: How diverse was the population? How long did it take to become more diverse, maybe is the better question?

EE: I don't know. We never looked at it that way. We never considered diverse. … [To] give you an example; when this diversity thing began to come [up], I remember getting a call from somebody, when I was the Dean, saying, "How many black students do you have there?" I said, "I don't know. I have no idea. We don't ask, 'Who's black?' and, 'Who's white?' We don't care who they are." "Oh, you must know." I said, "No, we don't know." That was the beginning of things, and then, I got another call, some time after that, "How many Spanish-speaking professors do you have on your staff?" I said, "Well, I speak Spanish. Do you want me to count me in?" "Oh, no, not you," and so, I said, "Well, what do you mean by Spanish-speaking?" "Well, anybody who comes from, say, South America." I said, "You mean Brazil, anybody coming from Brazil?" "Yes." I said, "They don't speak Spanish in Brazil. They speak Portuguese," and this is the sort of thing that went on, and then, we had another case, which really annoyed the heck out of me. Speaking of diversity, we had a deans' council. The deans would meet with the President once in awhile, well, monthly, as a matter-of-fact, and, on one occasion, he invited one of the women, a young woman in the administration, a newly appointed woman, to come in and talk about getting women involved … on the faculty, and I remember this woman coming in. She came in, I thought she was wearing her pajamas, and she sat in a chair with … her legs crossed in the chair like a little child, sitting there, and I thought, "Who the heck is this little kid sitting over here?" It turned out she was one of the new officials and she started lambasting me about, "Why don't you have more women on the faculty in Engineering?" Well, I said, "To begin with, in order to get a faculty job, you have to have a doctor's degree and I can't find very many women with doctor's degrees in engineering," and, "Well, you…" She just started lambasting me and I lost my temper, because I really had tried hard to get women in engineering, and I got one, two women, and we actually had two women on the faculty at that time, which, apparently, this woman didn't know about, but, well, I'm drifting here, but you talk about diversity.

SH: What was your retort to the woman?

EE: … [laughter] I really don't remember exactly what I said to that woman. I was trying to control my temper. I was tempted to turn to the President and say, "What's this kid in pajamas sitting over here?" [laughter] … Oh, I've often thought of what I wanted to say to her, but she was so convinced that I had made no efforts whatever to get women on the faculty, and I had tried hard to get them on and, as President of the American Society for Engineering Education, that was one of my projects, to get women on the faculty and, also, black people on the faculty. … We had a lot of black people in the American Society for Engineering Education, including one of our presidents, who followed me, … and I had pushed that. I really pushed that diversity, and … to have this kid in her pajamas criticizing me, I really lost my temper. [laughter]

SH: Were women able to take courses at the College of Engineering through Douglass?

EE: Sure, oh, absolutely, absolutely. Yes, it was a funny arrangement. They had to register in Douglass, but take courses in engineering, and, it's funny, the Dean of Douglass would always call me up and say she has a student who wants to study engineering, "Would I interview her?" Well, of course, I did, and I remember one case. [laughter] A young girl came on, … she wanted to study engineering. She came with her mother, incidentally, came into my office, and she was a cute kid, just as cute as could be, and she wanted to study engineering. Well, of course, I questioned her, "Why do you want to study engineering? What do you know about engineering?" and so on, and she said, [as] one of the reasons she wanted to study engineering, she said, "I want to marry an engineer when I graduate and I'll be an engineer with him." I looked at her and I said to her mother, "She's not going to wait until she graduates," and she didn't. She married one of my engineering students before she graduated. But, yes, they could, and lots of them did.

SH: Rutgers College was an all-male college until 1972. What about the Engineering School?

EE: Yes, sure, it was, always, but we could always take students from Douglass.

SH: You also took other women students who were just registered as College of Engineering?

EE: They didn't come to us that way. They had to register through Douglass. That was the [arrangement], yes.

SH: That was what I wanted to make sure, that I understood.

EE: Yes.

PC: What was the difference between being an undergraduate in engineering and doing graduate work in engineering? How did that change over time? Did the graduate program grow? When did it start? Was there one here when you got here? Were they giving graduate degrees in engineering when you got here?

EE: A little bit, yes, and civil, electrical and mechanical master's degrees, but … I expanded that, as rapidly as I could, to the doctorate. Yes, we were giving the doctor's degree very early after I came here.

PC: Did you get a lot of students in the doctor's program?

EE: Oh, yes, quite a few.

PC: The typical professor in engineering was teaching both undergraduate courses and some graduate students as well.

EE: Yes, that's correct, yes. I tried to get, as many as possible, the top professors teaching the freshmen, … and not just the teaching assistants, [laughter] but that wasn't easy to do.

PC: One of the areas that I thought we might ask you a little bit about, too, is how Rutgers related to the private sector, to companies in New Jersey. How did you go about forming, I will not say partnerships, or whatever they were?

EE: Yes.

PC: What sort of companies did you work with?

EE: Well, for one thing, … I did organize what we called the Rutgers Engineering Associates, which involved companies, and I hired one of our former football players, Bob Ochs, Robert Ochs, who later became the Chief of Police for Rutgers. [laughter]

PC: Oh, yes, okay.

EE: He was an engineering student and I hired him to head this Rutgers Engineering Associates program and go around to the various industries, get them interested in Rutgers, come serve on committees and, well, just to get acquainted with us. We did that and we also formed what was called the New Jersey Council for Research and Development. Now, this, I can't claim credit for all of this. I was involved in it, but somebody else had started it. It involved all of the engineering research groups in the State of New Jersey, whether they be in industry or in the university. … Of course, Princeton and Rutgers were both actively involved in engineering research, so, we were involved in it, and then, we had RCA and Squibb and Merck, most of the engineering [firms], Bell Labs. I guess we had about forty industries who were involved in engineering research in the State of New Jersey, and that continued for a number of years. I was president of that. What else?

PC: Did professors often do work for both Rutgers and for some of these private sector firms.

EE: Yes, yes.

PC: You had people working in Bell Labs as well as working at Rutgers.

EE: Yes, but they were doing some consulting work, yes, consulting work, and vice versa. We had some full-time industrial people teaching a single course for us at Rutgers, if it happened to be something of a specialty that we weren't competent in. I'll give you one example. I laugh at

this one. [laughter] We were after somebody in electrical engineering [who] had a special expertise, and we finally got him in Bell Labs. … He had just the background that we wanted, and so, I approached him and asked him if he would come and teach this one course for us, while still working at Bell Labs. "Sure," he'd do that. Well, it turned out that he was black, which meant absolutely nothing to me. I wanted his expertise. [laughter] When he showed up, one of the professors said, "Oh, this is going to look good on our record. We've got another black person on the faculty." When it came time for him to sign in, you're supposed put down race; he puts down, "White." [laughter] He didn't want that to be involved, and we didn't hire him for that reason, not at all. We hired him for his competence in that particular field. The fact that he was black was just coincidental. … [laughter] I can see his picture; he was so mad at this business that he wasn't going to give us credit for a black one, so, he writes, "White," and I sort of admired him for it. [laughter]

PC: Did a lot of your students find jobs in these same New Jersey companies?

EE: Oh, yes, yes. That worked out very well. Yes, we begin to get recruiters and, of course, another thing I did with trying to get companies interested, I tried to get companies to give scholarships or some financial aid to students. … Every year, I would have a dinner and have representatives from each of the companies come and meet the students who had received their stipends, but, interestingly, it was very difficult to get the students to show up. That annoyed the heck out of me. "Oh, why should we come?" "Well, the man is giving you X number of dollars." "Well, I'm busy. I've got to study." I had to twist a number of arms to actually force them to come, [laughter] … but we did it anyway.

[TAPE PAUSED]

SH: While you were here at Rutgers, while you were still Dean of Engineering; you were always Dean of Engineering, [laughter] but the Civil Rights Movement, there were several incidents here at Rutgers.

EE: Oh, yes.

SH: We talked about Mr. Ochs and his work with the police department. What were some of your memories of that time here at Rutgers?

EE: Oh, gosh, yes, that was an unhappy time, because … there were a lot of these students, … well, there were not only the students, but some of the faculty, too, not ours, but some of the liberal arts faculty, "Down with everything that was administrative. Down with everything that was government," and it was a miserable, miserable time and, remember, they had some cases, they were all down on the ROTC, for example, and they would throw Molotov cocktails through the windows of the ROTC Building, over on College Avenue Campus, and they were starting these bomb threats of all the buildings. I remember the first bomb threat we got. Gee, you learned … a lot about people in a case like this. The bomb threat came and we were ordered to evacuate the buildings, all the engineering buildings. The police came and wanted to go through the building, to see if they could detect, find a bomb. I said to the cop, "You won't know what to look at. [laughter] … You won't know whether some of our equipment is a bomb or not." I said,

"We'll escort you through. One of us will take one cop through each of the four buildings." I told them I'd take the B Building and one of the other ones took the C and the A, and we got to the D Building. [laughter] I looked at one of the younger professors there and I said to him, "How about you taking the policemen through the D Building?" "No, no, no, not me," [laughter] and I was so shocked. It was the youngest one of our group and he was terrified. … We went through the building and, as we were going through, … I kept saying to the cops, "Now, look, if I wanted to plant a bomb here;" we had the ceiling, with the panels. You can lift up the panels, hung ceilings. I said, "I'd just lift up one of those panels, slip my bomb under there and slip the panel back and you'd never see it." He said, "You want to go through the building and we take all the ceiling panels down?" [laughter] "No," and then, we had ashtrays there, standing ashtrays, about three feet high. … This is when you could smoke. You had a little pot of sand on the top. I said, "If I wanted to put a bomb in here, I'd take that pot of sand out and put the bomb down in that big container, put the sand on it." "Should we go through and empty all the ashtrays?" "No." This is the sort of thing we went through, and this happened over and over again. Finally, I got the whole student body together one time, as many as I could get in the auditorium, and we had quite a lengthy talk about responsibilities and being sensible. I told them, "From now on, if we get any bomb threats, I'm going to tell you. If you want to leave, you may leave; if you want to stay, you can stay," and that's the way we left it. … So, for the better part, the engineering students were peacefully involved in this thing. They didn't throw bombs through the ROTC Building, they didn't have bomb threats to our building, and so on, but the media really played it up. For instance, we had a graduation program for honorary degree candidates over on the Queens Campus. … We had about twelve thousand people over there, … out in the open, and Hubert Humphrey, [Vice-President of the United States from 1965 to 1969 and Democratic Presidential nominee in 1968], was to get an honorary degree, and this was in the middle of the Vietnam mess, with all this hullabaloo, and, as I was walking down through that area, there was a group of students out on College Avenue with big signs, big smiles on their faces. The signs read, "Down with the zip code." The Post Office had come up with the zip codes about that time. They were going around with the signs, "Down with the zip code." They're getting in the spirit of "down with everything." [laughter] … We had fun with them, but, then, we went into the ceremony. … Of course, this was covered by the media there, all the television programs' cameras were down there, and there were twelve thousand people scattered out. It was a big crowd and I got the privilege of putting the hood over Hubert Humphrey's head, because I was tall enough to reach over. [laughter] No, Humphrey was a short man, and, when we were doing that, I noticed there was a small group of people [who] got up, way in the back of the group, and walked out. On the television that night, I watched the program, what did they show? the handful of people who walked out in the back, never mind the rest of it, that Hubert Humphrey got an honorary degree. They played up the protestors. … In another example, they had two protests going on. … Well, one was a protest, the other was a support. There was a group of kids, about forty of them, down at the College Avenue Gym, on the steps of the College Avenue Gym, protesting ROTC. They wanted to abolish ROTC at Rutgers, and there was another group, up on the College Avenue Campus, by the statue of William the Silent, [a statute of William I,
Prince of Orange, on Voorhees Mall, College Avenue Campus], there, and there were about two hundred of them there, in support of the ROTC. Well, my office was over there. … Well, it wasn't, but I went over anyway and I wanted to see what was going on. I stood in the back of this crowd of two hundred students here and watched them enthusiastically support ROTC.

Then, I come home to the television that night, to see what I could see; here, they had the forty kids in front of the College Avenue Gym, they had them up on the steps there, and you could see, the TV people were telling them, "All right, now, now, put up your fists and shout," and there they all did. [laughter] The media was distorting a lot of the activities going on at the campus. Well, you asked me what happened; I'm drifting again.

SH: No, these are the kinds of stories that I would like you to share, because it helps document and tell the other side, maybe, of the story.

EE: But it went completely overboard. Filth; the *Targum*, which is our student newspaper, as you know, kept getting filthier and filthier and filthier, dirty stories, dirty stories and dirty jokes, for no reason other than "down with the administration, down with everything," and I remember, they had one there, the editor of the paper had his picture taken with his pants down, sitting on the toilet. That was on there, and I could give you some other stories about sex, but that's the sort of thing that was going on. It was utterly incredible how the whole thing collapsed into moral decay.

PC: Do you sense that many of the students from engineering were involved in this or were they mostly the arts and sciences?

EE: Mostly the arts and sciences, yes. Why, I can't say that all the engineering students [did not participate]. We had some screwballs, too. [laughter]

PC: In general, how did the relationship between Engineering and Arts and Sciences go over the time you were here?

EE: Good.

PC: Did the number of students who were in these five-year programs increase?

EE: Yes, yes.

PC: Was there real contact between the two schools during the time you were here?

EE: I thought so, yes, yes. [laughter] To give you an example, this is a little disgusting, I don't know whether you want it, but, at any rate, I'll tell you a story. The Dean of Arts and Sciences called me over there one time, during all this mess. He said, "I want to show you something." He said, "This is a poem." He taught a class in which the students were to write poems and this fellow wrote a poem, entire page; it consisted of one word, repeated over, over, over, over, over and over again, and the word, "You," at the bottom. You can imagine what that one word was, and he says, "What do you think of this? Do you think this is a poem, this 'F-F-F-F-F-F-F You?'" I said, "No, it's not a poem to me." [laughter] I've written some poetry and I have been a poetry judge, but that's beside the point, … but he said, "I took it to one of my faculty members and [they] said, 'Yes, that's poetry.'" He said, "What am I going to do?" but I'm drifting again, but did we have good relations? Yes, we did have good relations, yes.

SH: Were any of the professors in the Engineering School involved in the teach-in against the Vietnam War?

EE: I don't know. I don't know. We never got into a discussion of it.

PC: Yes, a lot of the people who were here when I came here, in History, were, Warren Susman and Lloyd Gardner.

EE: Oh, Gardner, yes. Oh, gosh, that Gardner was a character, so was Susman, in more ways than one. [laughter] I remember going into a doctor's office one time. This was years ago. … This is off the record. …

[TAPE PAUSED]

SH: When the different colleges were added to Rutgers, like when Livingston College was developed, how was that handled and what were your views on that?

EE: … Well, yes, that's interesting. Livingston College was set up about the time when we were trying to get more, I hate to say this, black students, and there had to be a place which they could call their own, and so, they got a dean to start it off. [Ernest] Ernie Lynton, his name was, and I remember, in his office, in the Dean's Office at Livingston, he had a big picture of one of the black militants with his fist up. It was that sort of thing, to make them feel at home, and they were getting black students from all over. … On one occasion, … I told you, we had this … deans' group and a group of deans had to meet with a group of black students, I think most of them were from Livingston. … The chairman of our deans' council was the smallest man of the group, the Dean of Social Work at the time, and he was sitting in the front row and one of the black students, a great, big, husky guy, he came over right in front of this little guy, … the dean, and he said, "Now, we students know more than you professors. We students know more than you professors and we're going to tell you what to teach us," and this guy just sat there and he said nothing, but that's the sort of thing we had to contend with. … As soon as Livingston got started, thefts began all over the place. They stripped the plumbing out of the buildings, out of the dormitories, they stole the furniture out of the dormitories. … Poor Bob Ochs, … chairman of the police department, God, his cops would go over there, catch them in the act, and then, of course, there was a hullabaloo that the police are down on the black people, they're discriminating against the black people. … We had a lot of that, a lot of it, but I think that's calmed down a lot. But, that's the way it was in the beginning, let's put it that way, and then, they developed, … and this is something that rather distressed me, … when I went over to the College of Engineering, some years later, I saw a poster on the wall, "Society of Black Engineers," and there was another one, "Society of Hispanic Engineers," and I thought, "Why are we doing that? Engineering is engineering and not to care what color your skin is or what language you're speaking. It's engineering," but that's the way it got. Now, I don't know whether they still have it, those divisions, or not, but there was also a Society of Women Engineers. … [laughter] I could more or less appreciate that. I don't know why, but why we had to have that separation, when we were trying to get consolidation, I could not comprehend that. We wanted togetherness.

SH: How active were you as dean of the college in making sure your engineering students found employment after graduation?

EE: Not too active. … We had an active placement department and, once in awhile, they would call me up, the placement people would call me up, or some fellow from industry would call, "What do you think of this student?" but, other than that, I left it to the placement people. That was their full-time job. They did a good job.

SH: Were there internships that you were involved in setting up for your students with these different companies?

EE: Yes, yes. We had some of those.

PC: In terms of your faculty, did you play a major role, not only in the recruitment, but in the promotion of faculty? Was that part of your job as the dean?

EE: Oh, yes, yes, definitely, yes, and that got out of hand, because we got a faculty union, and, as soon as the union came in, then, we had to have committees. We had to have a committee on promotions and a committee on this and a committee on that, and then, we got, in [some] cases, there was more politicking to get a higher position in the union by offering that, "If you give me such-and-such a position in the union, I'll do this for you and I'll do this for you." That was just about the time when I was retiring, that sort of thing started, but, prior to that, yes, I had a lot to do with the promotions.

PC: Can you tell me, for a young, untenured professor, how was that decision made before the union was involved, when you first came here?

EE: … It started, of course, in the department, the department, which would suggest or nominate this person for a promotion, and then, … there was always a university-wide or college-wide; down here in New Brunswick, not Newark, … just in the New Brunswick colleges, a college-wide, university-wide, committee on promotions, which reviewed every one, no matter which college it was from, reviewed every one of those, and then, it would come to me and I would have to approve it or not, for the College of Engineering, but it went through a general committee of diverse people.

PC: Did most of your young professors get promoted? Was it the norm at Rutgers that people who got hired usually got promoted in Engineering or was there a high turnover rate?

EE: I don't know how to answer that question, but I do know of some of the top jobs where I had a real to-do with that university-wide committee. … I had one professor, who stayed long beyond after I retired, incidentally, who was up for promotion and I had strongly recommended this promotion, so had the department. He really was building his department, and not only in this country, but in South America as well. I don't want to mention names here, but he did not have a great many publications, but he had a good deal of engineering experience, not only in this country, but, as I said, abroad as well, and was doing a superb job of teaching. … I strongly supported his promotion to full professor and I had a devil of a time with that committee,

because they just added up the number of papers, said, "He doesn't have enough papers." Now, I don't think half the members of that committee were qualified to judge the quality of the papers, … they were in engineering, not in their field. But, that's what we had to contend with, but I'm drifting again, but I gave you one example where I had a run-in with that committee, but, generally, we got along quite well.

SH: What year did you move out of Murray and consolidate over on the Busch Campus?

EE: 1963, and we dedicated the buildings in 1964 and had a wonderful occasion, wonderful dedication ceremony, yes. … They started building it in 1961, took two years to build it, and we moved in in '63. That was a very interesting move.

SH: How so?

EE: … Well, to move all of that equipment and all of the books and everything. Of course, we got all new furniture when we moved, … office furniture, because the stuff we had was dilapidated trash, but, otherwise, we had a lot of equipment to move and all the professors' books. …

[TAPE PAUSED]

EE: We're recording now. We had one fellow on our faculty, he'd been a colonel in the Army in charge of logistics, of moving stuff. I put him in charge of the logistics of moving [laughter] and he got a hold of a lot of Army-surplus crates, boxes, ammunition boxes, to put the books in, and all the other stuff we had to move, and he coordinated that whole move and got it moved over there, in pretty good order. … I told you, we had the dedication ceremony. We had the Governor of the State, came up, Governor Hughes spoke, and we had the President of Pennsylvania State University, came and talked. He was one of my classmates at Harvard. We studied for our doctorate together. … I'll give you one example of dedication. I had a secretary whose name was (Ann Wallace?), marvelous woman. She had been my predecessor's secretary. I inherited her when she was just young and she lived that college and, when we had the dedication, we had these big buildings, all the people sitting out in the front, on the lawn, and my secretary looked around and she saw some of the window shades were not pulled down evenly. She went through that whole set of buildings and made sure that every window shade was pulled down. [laughter] That's the kind of dedication we had for Rutgers. It sort of grew on us. [laughter]

SH: It sounds like a wonderful core group that you had working with you.

EE: It was.

SH: I am going to suggest that we part now and agree to schedule a follow-up interview at a later time.

EE: Okay, if you'd like.

SH: Thank you again for your time.

EE: My pleasure.

----------END OF INTERVIEW----------

Reviewed by Shaun Illingworth 9/15/08
Reviewed by Sandra Stewart Holyoak 9/17/08
Reviewed by Elmer C. Easton 2/21/10