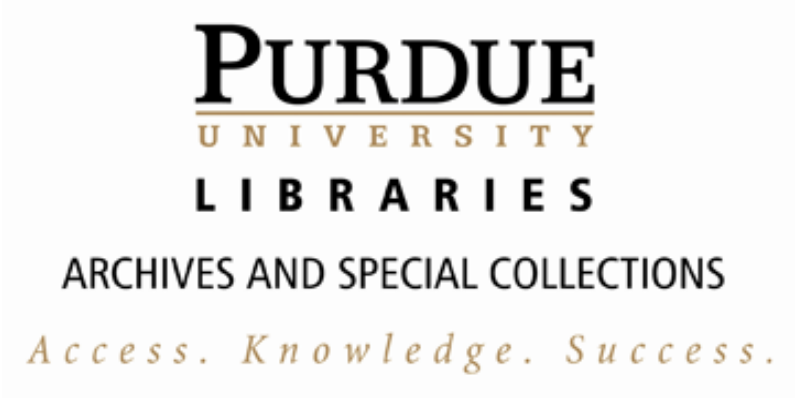
Richard E. Grace Interview

Conducted by Katherine Markee on May 29, 2008



The following interview was conducted with Richard E. Grace (RG) the Vice President for Student Services, Emeritus, for the Purdue University Oral History Program. It took place on Thursday, May the 29th, 2008, at Stewart Center in the Television Studio. The interviewer is Katherine Markee, the Oral History Librarian.

KM: Welcome. Tell us where you were born, and your parents and siblings, and the early years.

RG: Alright! I was born in Chicago, Illinois.

KM: Mkay.

RG: I'm an only child, 1930 born, the peak of the Depression. I went to grade school and high school in the south side of Chicago, in sort of the steel mill district, and had --

KM: What was that like in high school and about your grade school? What was it -- tell us a little bit about that.

RG: Grade school was a parochial school with Dominican nuns. We didn't mess around very much. They had rulers. There was plenty of discipline handed out, but I do have to tell you one thing. In about the third grade, I discovered that I really wanted to be the third grade teacher. In the fourth grade I figured out, nope, it's the fourth grade that I wanted to teach. By the time I was in high school, I was the English teacher, the math teacher, and the chemistry teacher. I knew from age seven or eight or nine that this was one of the things that I needed to do in life. I found heroes; whether they were Dominican nuns or they

were men teaching algebra and trigonometry. Whatever it was, those were heroes.

KM: Tell us - were you in any student clubs when you were in high school? What about athletics?

RG: I ran track in high school, and I was president of the Student Service League, which would be the equivalent of Purdue's Student Government here. We were introduced to philanthropy. We probably didn't know that word, but we did all kinds of drives for paper and cans. We thought we were doing good things for the high school and some beautification work around the high school. It was a brand new school, South Shore High School [now South Shore International College Prep High School]. I discovered a favorite teacher and we kept in touch for probably forty years --

KM: That's nice.

RG: -- my favorite biology teacher at that point in time. It was a love affair with grade school and high school, I have to tell you.

KM: Okay. And after high school, how did you happen to decide to come to Purdue? I assume you came to Purdue?

RG: I came directly. Two or three reasons. First of all, my parents said it was about the right distance. I was an only child and they weren't going to quite release me so easily. The high school guidance counselors had urged me to study engineering. I was good in math, chemistry, sort of good in physics, but the

guidance counselors urged this upon me. But there was a stumbling block and that is that I was an out-of-state student to come to Indiana. And so I hustled up and took days' worth of some sort of tests when I was a junior or a senior in high school, and I won a scholarship here that paid the out-of-state fee. Now, the current people will laugh. The current students will laugh because the tuition was sixty-five dollars a semester, and the out-of-state fee was a hundred dollars a semester, so I was winning a scholarship for two hundred dollars a year, and it made the difference. My parents said, "Go." And so that's how I arrived here.

KM: Okay. Did you come by train, or did you come by car? When was this? When did you enter?

RG: I came by the Big Four station. The New York Central, I think, was the train. I made many, many trips back and forth. Cars were a luxury. The only other thing that was remarkable is I was only seventeen at this point in time. Purdue was at its peak enrollment for a decade there with the G.I. Bill. I was thrust into classes as a seventeen-year-old with captains and colonels from the Army and the Air Force who were 25- and 28-years old, and I was amazed at the competition. They weren't just kids like me. These were G.I.s, and they were determined to get an education, so it was an awakening.

KM: Was this after the war that you entered? What year did you enter Purdue?

RG: I entered Purdue in 1947, in August, 1947.

KM: So it was after the war, then?

RG: After the war, but this was the peak of the G.I. enrollment, and at that point in time, enrollment was almost 15,000. Seems small by comparison, but one of the things that then-President Hovde had to contend with is as soon as the G.I.s left

5:00 over about a five or six year period, the enrollment promptly dropped down to ten thousand. And so they had ramped up with temporary residence halls, and they'd ramped up with extra faculty members. And I was away for a few years in there, [so] I have no idea how they solved all of that, but they had a gigantic problem when the G.I.s finally left and we were back to Purdue University with the normal 17- and 18 year-olds coming to West Lafayette.

KM: Okay, okay. What was student life like and what were some of your professors? Tell us a little bit about campus life when you were here.

RG: Well, first of all, I was a little overwhelmed. I was living in a Bunker Hill dormitory, which, it was a big, big, wooden dormitory that had been brought over from Grissom Air Force Base as sort of extra material I suppose, extra space. It was located right where Tarkington Hall is right now. We had three, we had four large rooms. One was a study room and three were dormitories, and we had, I don't know, approximately eighty or ninety guys living together in one room in the dormitory, and we would -- we had double bunk beds, and we had everybody sleeping head-to-toe and head-to-toe along the way so, communicable diseases like colds didn't just go through the place.

KM: [laughter]

RG: [chuckling] It was a wonderful existence, and my mother told me decades later that she cried after she left me off at this particular barracks that we had for a freshman dormitory.

KM: What about eating facilities?

RG: We took our meals, then, in Cary West, because we walked over to Cary West then. That was a wonderful arrangement. And in the middle of all of this, my mother, bless her, met a man in Chicago, who said, "I'm a member of Phi Gamma Delta fraternity. Is your son going to Purdue?" She said, "Well, of course he is." And he said, "I'll send his name in, and we'll see if we get a match out of this." Well, the Phi G house is right at the corner of 6th and Russell Street, 7th and Russell Street, and it was a good match. It was a block away from Cary West and a block away from where I was living. I found the Phi Gs in about January of my freshman year. I had a good first semester before I pledged, and then, the fun and games began after that. In any event, that has been --

KM: [laughter] Campus life revved up.

RG: Yeah. It really did, and I have to tell you, Katherine, it's been sixty years since I was initiated -- it will be sixty years later, in a few months, from when I was initiated, and I've been a chapter advisor ever since, ever since that time.

KM: Very good.

RG: Especially when I've been on the faculty, yeah, you know?

KM: That's a good relationship.

RG: Thoroughly enjoyed it.

KM: Yeah. What about the buildings? There weren't as many buildings on campus then.

RG: Well, there weren't as many buildings, there were about half the number of schools. You know, management wasn't here, technology wasn't here, nursing and health sciences weren't here. Liberal arts wasn't here. Everything, all of the rest of that, was sort of couched in a large School of Science. Before I get to buildings, let me tell you a size or a scale factoid, and that was that the Schools of Engineering were about sixty percent of the entire campus. The enrollment on the West Lafayette campus was sixty-percent engineering students, mostly undergraduates, of course. While we have grown and grown steadily, several thousand, we are now down to about twenty-two percent of the campus. That's because of all of the schools that have grown up: the academic schools, now colleges that have grown up around us. It's been a steady decline in numbers, but a steady growth in quality over the decades for the Schools of Engineering.

KM: Right, exactly.

RG: One of the buildings that I remember that isn't here is the old Fowler Hall. It was a separate building. It had first floor seating and balcony seating because I'm sure it was a play shop or it was used for theatre productions. We took our freshman lectures there and we had a lecture from each one of the school heads in engineering. And [Dean] Andrey Potter would come over and give us a lecture

10:00

on that it really doesn't matter which engineering you take as long as you find the right one. Well, easy to say, but finding the right one made all the difference.

KM: [laughter] How did you know you wanted to be a college professor and what was the impact of Purdue education on you? Could you reflect [on that]?

RG: Well, we talked a little bit about grade school --

KM: Right.

RG: -- and a little bit about high school. Well, the first thing that happened to me is I found more heroes right here at West Lafayette. I found Richard Crowder in the English department. He was a hero. Frank Martin in the chemistry department; I still use the factor-label system when I'm stuck on a problem, and it's the method that Frank Martin devised for all of us in the 1940s. John Bray in Metallurgical Engineering and Andrey Potter: I looked up to him. I didn't know him well, but I certainly looked up to him. Sort of a wild card -- I got to know Karl Lark-Horovitz who was head of the Physics Department. When I was in my first or second year, I was a very traditional engineering student, but I started asking questions and finding my way around the campus, and I discovered that I was interested in some projects in physics because they paid fifty cents an hour, and that was a princely sum at that point in time. So I became an hourly paid research assistant to Karl Lark-Horovitz's research group when I was a junior. He had a half a dozen graduate students and a couple of post docs. Louise Roth was growing single crystals of germanium, I didn't know what was going on, but I listened very carefully. And, you know, I found out that there was a lot more than teaching that

was going on at this institution. There was something called discovery. Discovery got embedded in me in absolute terms. I learned about research methods and techniques. I heard about research contracts and government grants and publications. And I went to a few seminars where they served sherry, and I thought, “Wow. Is that really a neat thing!” So I was hooked on becoming a college professor, and it was all due to those heroes that I found at Purdue.

KM: Right, good. Okay. How about graduate education? After you graduated from Purdue, then what was next?

RG: I went off. Actually, there weren’t very many places to study that had really good graduate education in engineering at that point in time. There was Cal Tech, of course, MIT, and Carnegie Institute of Technology. Carnegie Tech was a school very, very much like Purdue. It had placed great emphasis on science and engineering, and I went off to study Metallurgical Engineering. Didn’t really know what I was getting into, particularly, but I found a new set of heroes, and I found that research was the primary thing that went on – discovery/research. As a matter of fact, in my entire graduate program at Carnegie Tech, none of the courses were taught during the day. All your entire day was devoted to your research assistantship and doing your projects, whatever they were, and all of the coursework was taught in the evenings, starting at 6:30. We ran for an hour and a half, sometimes one course, sometimes two courses. It was a full day and at eight o’ clock the next morning you were due in the research lab. You kind of bootlegged your homework in, but nonetheless --

KM: Interesting schedule.

RG: There were projects to be done. I finished a PhD in three calendar years. I was -- it was not exactly the norm, but it was approximately the norm for many of the students. So I had graduated from Purdue when I was twenty. I had just turned twenty-three, I was then twenty-four, and I was hoping to make it by my twenty-third birthday, but I missed, so I was twenty-four when I came back to Purdue.

KM: And how did -- let's talk about Purdue: your appointment and initial reaction when you came back as a faculty member versus a student, and your family.

RG: Well, okay. I came back here in September 1954, and I didn't have very many places to find a job at this point because there really weren't many departments
15:00 that were looking for PhDs in Metallurgical Engineering. There were only a handful in the country at that point in time, but good things had been happening over the decades. Metallurgical engineering had been a few courses taught within Chemical Engineering in the 1920s and '30s. There was a "met" option, four or five courses, in the '30s, and then Metallurgical Engineering became its own curriculum around 1940 or '41, which is the program I went through. Then, George Hawkins -- George Hawkins, who was then the brand-new Dean of Engineering in about 1953 or so -- hired Reinhardt ["Shu"] Schuhmann, [Jr.], from MIT to come in to head the Division of Metallurgical Engineering, and I was Schu's first hire, so I got in on the ground floor. Several of the faculty didn't take to him, exactly, so there was a turnover in faculty. More importantly, there was an element, an event, that happened in engineering education called the Grinter

Report. This was a national report that had been agreed to by all of the engineering programs: all the electricals, mechanicals, civils, chemicals. It was written by Dr. Grinter from the University of Florida, and it revolutionized the way that engineering education was going to be taught from that moment on. And the reason was simple: during World War II, the engineers, clearly, were great at production of war goods, but, equally important, it was the scientists and the mathematicians that won the war. The scientists and math majors around the world created radar, sonar, bombsights. They created the atomic bomb out in New Mexico. And it's clear that engineers were not the key players in all of that. So, for better or for worse, engineering education took a turn toward engineering science. That was the key word for the next ten or twenty years, with some focus on engineering design, as well. So curricula were all totally revamped. We placed much greater emphasis on math, physics, and chemistry. We taught the engineering courses with more mathematics than had been used before, and certain courses had to go by the wayside. They were the practical things that had been going on in the '30s and '40s, and A.A. Potter had kept them. I'm sure he felt they were very important. But things like gas welding and electric welding and foundry, and shop, graphics and descriptive geometry, they became things of the past. Another example: Bell Labs, in 1947, had created the transistor. And at that moment, diodes, vacuum tubes, they became, the way --

KM: Dinosaurs.

RG: -- the way of the dinosaur and the dodo bird. So we had a clean slate. If there is a regret that I have about all of that is Heavilon Hall got torn down. It was simply

an old, old structure, built in 1890 or ’95, and it was falling apart. It would have been probably a million dollars in 19-whatever, ’58 or 1960, if we had kept it. So it got razed and of course now we have this wonderful bell tower over here as a permanent reminder. But we probably would have made a different decision today. It would be like University Hall, but for the College of Engineering.

KM: Right, yeah, alright. Okay. Let’s move into the College of Engineering. Let’s talk a little bit about that. You were the -- start with Materials Science and Metallurgical Interim, and then you were the head. Let’s work on and talk about how they’ve changed.

RG: Okay. Let me say the very first thing that the faculty and I did. Well, first of all, I’ve got to get promoted. So, I started in 1954. I was promoted --

KM: What building? Where were you located?

RG: We were in the Chemical and Metallurgical Engineering Building. This was a building that was built just before World War II, 1938, ‘39, ’40. It was state-of-the-art when I was an undergraduate, and the departments were still combined, and we used to have holy wars over space, two major players in the same building.

20:00 You know the drill, I’m sure. But I was promoted to Associate Professor in 1958, full Professor in ’62, and Head of the School in ’65. And along this same period of time, there was another set of major events. It was called contract research and it became big-time in engineering. Now, the Science Departments had had a better deal in all of this. The Atomic Energy Commission, the National Science Foundation, were both founded in the late ‘40s, NSF in 1950, but ARPA, A-R-P-A

[Advanced Research Projects Agency, now DARPA, the Defense Advanced Research Projects Agency], it was the organization that was founded somewhere around ’58. And they created what were called interdisciplinary laboratories, IDLs, to study Materials Science. And this threw Metallurgical Engineering into the same bed, or perhaps the bedroom with the physicists and the chemists and some of the other engineers. None of us knew whether we liked this or didn’t like it, and the thought of sharing facilities and having budgets with two or three departments participating, this was a zoo. These were really difficult times. There were players and there were non-players. One of my good friends in the Physics Department put up a sign -- we were having a site review by this agency. And the sign read: “IDL, go to Hell.” And we were, we didn’t know what to do at this point in time. It think we had the head of the Physics Department take the sign down or something. But, in any event, the first thing we did when I became head was to change the name of the school from Metallurgical Engineering, alone, to Materials Science and Metallurgical Engineering. And, of course, at that point, the science departments got a little bent out of shape because we were using the word “science.” And that tension lasted about a decade, maybe more, and so now we have the School of Materials Engineering, and [it] looks like it’s pretty stable, and it has wonderful space over in Armstrong Hall, but I know I’m getting way ahead of the story at this point.

KM: It’s okay.

RG: So I stayed in -- doing my job to the best of my ability, but I have to say I was really awakened to the possibility of interdisciplinary activities between departments, and that was pretty foreign, to Purdue University --

KM: At that point.

RG: -- at that point in time. There were others like me who were happy to participate. We had Sunday seminars at each other's house, and we would each take a turn trying to promote a field that would extend into others. But it also was a difficult thing to penetrate. So, I need to get on and tell you about the 1960s because that was the most difficult time that I have ever had at Purdue. First of all, the national picture: we had Civil Rights Acts of 1964. We had the Vietnam Conflict get started around '63, '64, and it lasted seven, eight years. We had John Kennedy shot, Bobby Kennedy shot, Martin Luther King, [Jr.], gave his "I have a Dream" speech, and he was shot four or five years after that. Kind of a tangential thing, oral contraceptives hit the market, big-time, in the middle 1960s, and the students questioned every bit of authority. These were the Boomers. These were the kids that were born right after World War II. They came to Purdue as the first generation of Boomers to hit the college. And what they did is they said, "We don't like anything about these rules. We're changing the rules. You play by our rules." War rules were "Hell no, we don't go," "Make love, not war." They moved out of the residence halls. They couldn't stand the rules and regulations there. They moved out of the fraternities. That's when all of the apartments became so popular in West Lafayette. And, in those Vietnam Conflict years, we had an anti-technology movement created throughout the whole United States. Well, you can

25:00 imagine how that applied to engineering at Purdue. We had enjoyed fifteen hundred, sometimes sixteen hundred, beginning engineering students every year for fifteen years or so, from, say, 1954 or so, when I first joined the faculty, up through ’67, ’68. And then we started down, [losing] a hundred or two students every year. We got down to eleven hundred. We were approaching a thousand freshman. At that point in time, Fred Hovde, our beloved [President] Fred Hovde for twenty-five years, he retired, and Art Hansen came on board. And throughout all of this transition there was the question of what was engineering going to do about all of this? The school heads took a dim view of any kind of change whatsoever. “We’ll just tough it out - the students’ll come back eventually.” Another group said, “We don’t know anything about recruiting. That’s for private schools, private universities.” And so, then-Dean of Engineering [Richard] Dick Grosh and I cooked up a plan called Interdisciplinary Engineering Studies. It went by the acronym IDE. Two quick tangents: the faculty did not take to IDE in large measure. The department heads took to it in even a smaller measure and promptly dubbed that IDE stood for “I’ll Decide Eventually.” Others said that IDE was only three-quarters of a good I-D-E-A, a good “idea.” And so they said, “This will never work.” So President Hansen came over and had a little talk with the department heads and the dean of engineering, and said, “The rest of the university has noted your lack of freshman enrollment. We would like your positions reassigned to us because we’re having growing enrollments and you’re having a declining enrollment.” And so he didn’t quite say it this way, but the message we got is, “You clowns better do something about this or I will reassign

the positions in your budget within the next year or two. 1972 saw nine-hundred and twenty-seven freshman enroll in freshman engineering at Purdue University. That has got to be the lowest number in sixty or seventy years, and it did catch our attention. So, at that point in time, IDE came off the shelf big-time. The faculty said, “This sounds pretty good to us. We think we can do it.” We invested time and energy creating non-traditional program titles, and this is where the first non-traditional programs became [known] throughout all of engineering. Things like Architectural Engineering, Acoustical Engineering. This is where Biomedical Engineering was first identified. Environmental Engineering, Nuclear Engineering, Systems Engineering. None of these, none of these words were around at that point in time.

KM: Nor were there any courses or anything of that sort.

RG: Well --

KM: Or was there? Okay.

RG: We repackaged. We said, “We’re going to do this for our own purposes, now. We are going to create a new look for the School of Engineering to attract students to Purdue. We are going to let faculty have a little more leeway in doing their research and creating -- bringing things from research into the classroom.” But we wanted to do it with very small costs, especially the increments. So we said, “We are just going to repackage the current courses across school lines.” Interdisciplinary is the word which is, which was, at that time, a very foreign word to many people. So we would package up an Environmental Engineering

program that would have courses in Civil and in Chemical, and in Mechanical Engineering, depending on whether it was water, wastewater, or gas or chemicals that were the issue, and the same with Acoustical, with Biomedical Engineering. There were professors in Electrical Engineering that were champing to do work in Biomedical Engineering and the system didn't let them do it. So what we did is we created a whole new set of curricula that were just on paper.

30:00 There were no faculties, no buildings. We had volunteer advisors. We probably had a hundred advisors throughout the engineering faculty. And slowly but surely, between the IDE program, the Women in Engineering Program, and the Minorities in Engineering program, we made major, major efforts to recruit students at this point in time. And those programs brought another hundred students and then two hundred students a year, and then three hundred students a year, and we were right back up to fifteen hundred beginners, and we never had to give up any positions, at least that I know of. There was another one of those sea changes in there. Dick Grosh, who was Dean of Engineering, promptly left in the middle of all this. I think he got a big promotion and went to RPI [Rensselaer Polytechnic Institute] as president. And John Hancock, who was head of the School of Electrical Engineering, became Dean of Engineering, and we continued for, oh, seven, eight, nine years doing this new vineyard that Purdue had never explored, and, oh, by the time 1980 came along, or thereabouts, I had about 350 students enrolled in this [IDE]. The enrollment's much lower now because the students found the original schools more preferable, eventually. But now, that IDE program is housed over in the new

Engineering Education Department. And it's still alive and well, not quite the same size or scale it was, but at its time, I personally believe, that that, the Women in Engineering program, and the Minority in Engineering program saved the day at Purdue Engineering for the decade. And it was the only decade when it wasn't quite as much fun to get up in the morning and come to work.

KM: I bet.

RG: The students were hellacious for about seven or eight years.

KM: Mhmm. Then [it] was the freshman engineering. You want to talk a little bit about that?

RG: Somewhere toward the end of about 1980, [leaving, was retiring from the then-Department of Freshman Engineering, and John Hancock said [to me], "You know all about this stuff. You know about enrollment management, and you've been through all of this stuff. Why don't you take this one on for a few years and see if you like it?" Well, I'm not the least bit shy, as you know, so I took this department on and found out quickly [that] I had the largest counseling and guidance program in all of Purdue University! We had fifteen hundred beginners and another seven or eight hundred students that stayed over in the sophomore year, so on any given year we had twenty-three hundred, twenty-four hundred students that were enrolled in, then, the Department of Freshmen Engineering, and we had several faculty members who were just great at what they did. [Richard] Dick McDowell organized all of the counseling and guidance programs that got everybody registered and make sure they had that extra five minutes at

the end of the registration period to talk about life's problems, if there were any. Bill LeBold was doing his research on making sure we had good retention in the schools of engineering, making sure that the course -- the kids took the right courses in the right sequence. And two other jump-starters were [Dr.] Jane [Zimmer] Daniels in the Women in Engineering Program. Now Jane wasn't the first. She was several along in that job. And Marion [Williamson] Blalock in the Minority in Engineering Program. We published papers, and we won awards. We won awards at ASEE [American Society for Engineering Education]. We won awards from industry and from other societies for both the outstanding Women in Engineering Programs in the United States, as well as the Minority Engineering Program. [We] became a national force, and there are Minority Engineering Programs throughout colleges of engineering in the United States, and it became another success story, if you'll let me brag just a little bit.

KM: Sure.

RG: I had no idea of what I was getting into. But I also saw that there was a new force on the scene. You heard me report that the pill came on the market around 1965.
35:00 Babies didn't get born. After the Boomers, the birthrate dropped to half what the Boomer birthrate had been, and by '65, by '75, by '83, there was going to be a huge falling off in the number of freshmen that were going to college. This was not just Purdue, this was nation-wide.

KM: Right.

RG: And so the question of enrollment management became very real, both for the College of Engineering, as well as for the university as a whole. And somewhere in there, in that very time period, Art Hansen went off to Texas A & M system. He went as chancellor of the system. John Hancock, the Dean of Engineering, went to industry. Henry Yang became Dean of Engineering, and Henry had more energy than all the rest of us put together, at that point in time. Teaching went up, research went up, government support for research went up. We were busier and happier than we had ever been, and we were working very hard against the very fragile enrollment pool ‘cause we had been through this once before, and we just couldn’t believe --

KM: Do it again, right.

RG: -- that we were going to see a falloff in freshman engineering enrollments.

KM: Mhmm.

RG: So one day, I have to tell you, one day, over at the Lambert track, my jogging buddy, my good friend George McNelly who was Dean of the School of Technology, the founding Dean of the School of Technology, said to me, “You know Dick, the Vice President for Student Services position just opened up a few weeks, a few months ago. I’d like to nominate you. You think you could handle anything like that?” I said, “Well, you know the odds of this. Engineers may or may not fair out well in that particular position, but go ahead.” And so, probably two days later, then-Provost “Tip” Tyler, Vice President and Provost Varro Tyler, called me and said, “Well, I gotta have a resume if we’re gonna do anything, so

get one over here in a hurry." And about two weeks after that, I was in [President] Steve Beering's office, having a two-hour interview, in which I said very little, but agreed with a lot of things that Steve Beering was saying. In the meantime, I had done some other things. I had become a trustee down at Embry-Riddle Aeronautical University in Florida and was very conversant with the national enrollment management picture by that point in time. And Dr. Beering knew that this was going to impact Purdue, and so he and I spent probably half the time talking about strategies by which we could move me into Student Services, and we could redo something to the admissions program that would ensure both the numbers and the quality. Well, I took that job in 1981 [correction: 1987] and stayed with it for about seven years. I retired the first time in 1987 [correction: 1995], and I'm going to try to recite those Student Services departments for you. First of all, Katherine, you're old enough to remember long division. Remember long division, and when you did it, you got something that was called the remainder? Well, Student Services grew up as a kind of "remainder" over about six presidents at Purdue University. Now, there was a core. There was things like Admissions, and Financial Aid, the Registrar, the Dean of Students Office, the CoRec, the Student Hospital, and Placement Service. A.A. Potter created the University Placement Service originally for Engineering students. But that was a kind of a core that had grown up over the decades, loosely. But added to that, I also had the responsibility for things like convos [convocations] and lectures, the three military departments (I learned how to throw a snappy salute at one point in time), bands and Purdue musical organizations, and an offbeat group called the

Psychological Testing Services or something that I probably merged with the Student Health Center. And so I wondered just a little bit about how to get my arms around this thing called Student Services. And it was at that same time when the Minority Engineering Students were clamoring for their Black Cultural Center for their own identity. But what the department heads and I did was essentially two-fold. We started, first, to unify Student Services. The Registrar went one way. The Bursar reported to Dr. Ford. Fred Ford and the Bursar never talked to anybody in the Registrar's Office about anything, and there were issues, shall we say? The Admissions Office never talked to the Academic Deans. The Student Health Service never talked to anybody. They were physicians, and they only talked to themselves, and there were a few faculty members that wondered how they were ever going to get promoted because the band had faculty and the military departments had faculty, so this was a heterogeneous group. I have to tell you, this was a wide-ranging group. So we decided we would unify, and we adopted some goals. This was the era of goals and mission statements, but the thrust of the matter was we agreed to recruit a better class of students for Purdue. On the side, it was "make sure we kept the enrollment up for the whole university" because this was when the national pool of eighteen-year-olds was very small. So we were going to recruit the very best students that we could. We were going to retain them through graduation. This was the beginnings of the retention efforts that have come on so strong. And the third thing we were going
40:00 to do is to strengthen student life. Strengthen those things that related to the cultural and the social and the religious, and awareness of self for the young

people, and tolerance of others, and all of the things that we had to do to improve on the structure of social clubs, the fraternities, the sororities, the residence halls. About the only thing I didn't have student responsibility for was the residence halls. They had grown up in the financial side of the house, and it was the largest residence hall system in the country, as well, at that point in time. And so we simply programmed each other to talk to each other within Student Services. Sometimes we had departments move from one department to the next, and they would have cookies, morning cookies together. This was a little soft for the engineer here, to figure out how we do it. We really needed to do it with numbers and computers, but some things we did with cookies, and they worked! The other thing that I really want to tell you about is this was the day, this was the decade, of the customer service movement in America: the notion of "customers" became very apparent. No one had considered that a student applying to Purdue was our "customer."

KM: Right.

RG: And the parent that was going to pay thirty or forty thousand dollars' worth of tuition was a "customer" of this institution. But beyond that, we would have departments, academic departments, make requests to the Registrar's Office for information, and they were "customers." It turned out, throughout the whole university, we all were customers of one another's, and we mounted some quality control initiatives, and Tom Templin who was an assistant vice-president, Marvin Schlatter who was an assistant vice-president at that time, helped us revamp quality control, quality initiatives throughout Student Services. And I believe the

one that I'll single out, that I'm proudest of all, is we created a new admissions system that had not been done before. The goal was for students to apply online.

45:00 This is the computers rearing their ugly heads. We were moving away from the mainframes in the university and we were looking at the issue of desktop computers. Now, engineering and science were a decade ahead of us on all of this, but Student Services was catching up, and we thought, "Why not have an online application, even though only the nerds might be able to apply, only the kids that knew how to run computers in high schools could apply?" And then, our group that was trying to do these quality improvements said to the financial aid office, "Why don't we do a financial aid estimate at the same time we do the admissions application?" To which the financial people said, "You can't do it that way." Well, maybe it took a month or two and we figured out a way, with our computers, we figured out a way that Joyce Hall could come up with a preliminary financial aid estimate at the very same time the Admissions Office was sending out the offer for admission, and you can imagine the rest of the story. Admissions went up, the quality went up, the engineers and science and all the people that used computers in the university were now getting kids that were computer savvy. It was one of those grand success stories, another one of my success stories --

KM: Definitely!

RG: -- that everybody else did the work! Now, I have to tell you, I'm good on the front end, good on the ideas, but I have to give credit where credit is due. At the same time, another major initiative was the Americans with Disabilities Act and FERPA,

the Family Educational Rights and Privacy Act. Betty Suddarth, as Registrar, led the charge on the Family Educational Rights and Privacy Act. Betty Nelson, as Dean of Students, also led the charge on Americans with Disabilities Act, and we see their work, we see their handiwork throughout the entire campus. So I came up for retirement. I was turning sixty-five years old in 1995, and I said to my wife, "I wonder what you do when you're retired because I haven't given five minutes -- I haven't had five minutes of any thought to this." And so, Steve Beering must have thought, "Wonder what Grace is going to do in retirement?" And he and I had a "father-son" talk about six months before I was due to retire, and I was telling him about these admissions initiatives. The Office of Admissions, we'd changed directors. Doug Christiansen was now the Director of Admissions, and I said to Steve, "You know, the faculty has complained for twenty-five, thirty-five years, that I know of, about CODOs, that's the Change of Degree Objective Process. And I said, "We have never taken a student, we've never admitted a student to Purdue University in a hundred and twenty-five years except they declare their major when they were seventeen years old. And so," I said, "You know why a third of them get it wrong is they're seventeen and they have absolutely no clue about what they want to study, and why don't we have a new academic unit in which undecided freshmen, undecided beginning freshmen, can enroll at Purdue University and then make a more fluid transfer, a planned transfer to the academic program of their choice?" Here we go again. The university wasn't quite ready for this. The Faculty Senate had had a thousand questions about what this new unit was going to do and whether it would steal

resources away from the academic schools. Bob Ringel was now the Executive Vice President, and he paved the way with the other deans that this was a good thing. We would try it with just a hundred and fifty students or so. This was of course the camel with its head under the tent flap. And so a hundred and fifty students or so turned into two hundred and fifty and three hundred and fifty and now I'm a little hazy, but there's about twelve or thirteen hundred students enrolled in this undergraduate studies program.

KM: Right.

RG: And it's a program that really was needed. There's no question. We have students who are scholastically, academically, they're just not mature [enough] to take on Purdue University --

KM: And to declare.

RG: -- and to declare a major when they're, say, in September, October of their senior year in high school.

KM: Right.

RG: And so these students are given special counseling. We offer an education course in the College of Engineering [correction: College of Education]. I even
50:00 was nominated for one of their best teacher awards and I declined in favor of a younger person over there in Education. We really didn't know a lot about what we were doing. We went to other colleges and universities. Ohio State is a leader in this regard, and what we did was we put together a program and of course, the

engineer in me, we had to do the statistics right, so we had a control group. We matched every undecided student with another student in one of the academic schools, randomly, who had the same SAT scores and the same rank in [their high school] class. This was a challenge for the Registrar, but Betty Suddarth did it. So we had a control group that we could measure, semester-by-semester, the retention of who was staying at Purdue and who was moving along through their third and fourth semester. And you know how the story turns out. The undecided students were a couple of points better than the average Purdue student, but we were giving them an enormous amount of counseling and guidance throughout this program, and I don't know that that has held up today, but it was a success story. And there's simply no question that that's what Purdue needed at that point in time, and I'm glad to see that it's still going strong.

KM: Still here, yeah.

RG: And probably growing a little bit.

KM: Right, yeah, that's -- Couple things you wanted to address is that, over the decades, what are the forces that have shaped, say, Purdue and the college?

RG: Oh my, certainly, certainly all -- let's do a little engineering. There is a system and its surroundings, and most things can be described by a system and surroundings. You put a student inside an engineering curriculum and you have the student is the system and that's the surroundings. You take Purdue University as the system and now you've got the world, you've got the United States. There's no question that the Congress of the United States, with things

like the Civil Rights Act and Title IX, gender discrimination, mostly in intercollegiate athletics, of course, but gender discrimination -- as an aside, the ratio, you know the ratio I'm going to refer to, when I was an undergraduate student, was about 6.1 to 1. There were 6.1 women for every male [correction: there were 6.1 men for every female] on the campus. In the Schools of Engineering, the ratio was 1,000 men to every one woman enrolled in engineering, and now that's all changed. The point is that these external forces, mostly congressional in nature, some from the Indiana General Assembly, some from things like computers coming into the scene.

KM: Technology.

RG: Technology has just changed the way Purdue does business, and so, the most important piece of the story, for me, is that Purdue has caught up, my view, Purdue has caught up with its peer institutions in terms of not being compartmentalized by just the departments and just the schools of the university, but we're talking to each other. And we have not only interdisciplinary activities, curricula and programs that are educationally sound, but in the new spirit of things, we have multidisciplinary research: the Birck Nanotechnology Programs, for example. Those are examples of current-day activities that just couldn't have happened unless there were external forces, unless things changed outside Purdue, and they were just brought into us, and some of the time we led, some of the time we followed, but that's important, too.

KM: We got it together. We brought it in, yeah.

RG: We got the job done.

KM: Right.

RG: I would like to --

KM: Your three wishes and closing remarks.

RG: Yeah. I would like to end this particular interview on three wishes.

KM: Okay.

RG: And they're near and dear to me. I've seen them operate over several decades at this point in time. My first wish is for the student body. My wish would be that every Purdue student would find a friend, would find a mentor on the Purdue faculty, and they would become life-long friends. They would perhaps have a father-son, father-daughter relationship in addition to the familial thing, but I have
55:00 twenty or thirty such students that I consider every bit as much of the family, and I may call them, or they may call me and we spend an hour [talking]. Might not see each other for two or three years, but we'd spend an hour or two [on the phone]. And I have a second wish and that's for the faculty, in particular. I wish that the faculty would seek out one or more students and mentor them and help them with their personal development. And if that means take them into their home or have a beer at Harry's or a cup of coffee at the Sweet Shop, whatever it is, that they would mentor them and become friends for life. And my third wish is institutional, and I have seen the Undergraduate Studies Program fill a need that this institution really needed at its time, and my wish is a new college, a new

administrative unit, called a Freshman College that would expand the role of the undecided freshmen in the freshmen class. I think the time is right for perhaps a half of Purdue's freshmen class to come in. Certainly all of the STEM students: the Science, Technology, Engineering, Mathematics, even the Krannert students, even the management students would fit into that pool, and we would have just the best university in the world! Those are my three wishes for how to strengthen Purdue.

KM: Good. Thank you, Dr. Grace. We appreciate that.

RG: Thank you, Katherine, and "Hail, Purdue!"

KM: My pleasure! Thank you.

End of Interview

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*Proper names may be spelled incorrectly