Thank you very much, Ralph, for agreeing to be the subject of an oral history interview. You will soon be moving on to the presidency of the National Academy of Sciences after serving for seven years as UCI's chancellor. We are grateful for this opportunity in the final months of your chancellorship to discuss your viewpoints and opinions regarding a number of significant issues related to higher education in general and UCI in particular.

First, however, I wish to inquire about the possible relationship between your extensive and ongoing scholarly activities, on the one hand, and your educational values and leadership style, on the other. You are a highly acclaimed specialist in atmospheric science. This specialty has involved you in environmental policy at the national and international levels. Among other topics, you have
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conducted research on the plasma physics of earth's ionosphere and the chemistry of the ozone layer. In what ways has this scholarly expertise influenced your performance as an academic administrator, either as dean or as chancellor, or both?

RJC: Well, surprisingly, I see a lot of connections. I say surprisingly because I think most people would be surprised that I could recite a bunch of transferable kinds of experiences, and also it surprised me to find how those experiences have been transferable.

First of all, I've developed a tremendous appreciation for the impact of research, which is, after all, a fundamental part of our mission at the University of California. I was fortunate enough to get involved in research that had direct connections with human activities, both ongoing and future activities, so that our research was immediately relevant. In fact, the subjects are of some controversy, and we had to defend ourselves against various interests. We became, perhaps, the ally, unwitting or not, of other interests. So the relevance and impact of research was a very transferable kind of experience.

Also, the research that I've been involved with has been so interdisciplinary that it made me somewhat suspicious of the value of continuing an academic organization in exactly the same image of a previous organization. In other words, I have a very strong view that research quite often lies at the interface of existing disciplines rather than in the heart of discipline. Yet, strangely enough, because of the relevance of the research I worked on, everything had to be done well, which implies the need for disciplinary depth. So I kind of have a hybrid view of interdisciplinary research, that it has to be strongly based in a discipline. In my
case, there had to be enough solid chemistry so that a chemist could not come along
and tear it apart in five minutes, but with enough recognition of other disciplines to
be applicable to the problem at hand.

So I came here with a disposition towards the value of interdisciplinary
research but with great respect for what a lone wolf does in an isolated discipline,
sometimes making the breakthrough that enables people to do something later in an
interdisciplinary manner. It's a long-winded answer, but I really learned these
lessons before I came here, and I think it's affected my perception of things.

Then, of course, there's the scope. The involvement in global worldwide
environmental problems of a physical nature, not just an esthetic one but something
involving human health and animal health and the safety of air and water, naturally
leads you to understand that there are questions having to do with human
populations, lifestyle choices, our consumptive patterns, as opposed to the lighter
footprint that would be left on the earth by a much smaller human population and a
less consumptive one. That, in turn, I think, has given me a lot of appreciation for
the non-scientific things that go on at a university—the questions of human values,
traditions, a sense of place, the value of literature and art in clarifying views of
values and expressing views of values.

Then, of course, what does not come naturally for an academic is some
understanding of the role of economics and even of management of businesses. All
of these things are involved in worldwide environmental problems, and I was given
a very rich taste of all of those in these controversies that I was involved in in my
research.
Then, finally, it's been useful to me to be able to interact with students. What I've been trying to say by implication for the last two minutes is that, in viewing how a university is organized, how resources should be allocated, what kinds of program choices to be made, how to evaluate faculty, there's also some transferable experience in interacting with students. Students really wonder what they're going to do after they graduate. If I major in history, am I going to be a historian? If I want to be a lawyer, do I have to major in pre-law, and then will I work in a law office the rest of my life? Because my career has been so varied and unpredictable, I've been able to relate to students and tell them, "No. The day you get your diploma does not stamp you with a tattoo on your forehead for the rest of your life that will determine exactly what you do for the rest of your life. It's only a beginning." So I have felt well-equipped for interacting with students, who quite often are concerned about whether the degree is going to track them for the rest of their lives.

SCO: A very interesting response to that question. It's one that I don't know if those of us who have been in academic administration ask of ourselves enough. We spend most of our lives getting ready to be a professor, and all of a sudden we're thrust into this other world. But there’s a connection.

RJC: Absolutely.

SCO: My second question is related to the first one, Ralph. In what ways did your prior experiences at the University of Michigan from 1971 to 1978, at the Scripps Institution of Oceanography from 1978 to 1981, and as director of the Atmospheric Chemistry Division of the National Center for Atmospheric Research during the
1980s help shape your educational values and your general sense of the appropriate public mission of a major research university? This overlaps, obviously, with the first question.

RJC: That's a very thoughtful question that I'll try again to connect to my experiences the way that you were leading me to at least think about it. My positions before coming here were largely in research. Once again, I learned a lot about the impact of research and how people do it at universities, but at the same time, I learned some practical things, like what are the roles of the federal agencies in Washington in sponsoring research in those fields like engineering and computer science and the physical and medical and biological sciences. Those have really helped me here at UCI, because so many faculty – they're so far away from Washington, and we have so many young faculty, it's helpful to be able to talk with people and to help other people to figure out how to get grants and how to manage them, and so forth. So my previous experiences have practical value.

I also saw what happens in a fully mature university, in the case of Michigan, and even somewhat at Scripps Institution of Oceanography, which is, after all, a hundred and one years old—it was founded in 1903—of what happens when a faculty gets old. There are some very good things, some traditions, and some very strong cultural modes where a mature and old faculty work, some of which are irreplaceable—high standards, traditions that have an enriching value. And some of which should be avoided.

SCO: Ossified.
Ralph J. Cicerone

RJC: Ossified, as in, “It's always been done this way so we have to keep doing it.” So I think it made me especially happy to be at UC Irvine where we had a chance to inculcate ourselves. You who were here in the early days probably feel this even more strongly. We had a chance, and still have a continuing chance on this campus to inculcate those values that have been embraced at the best universities for the right reasons, while also not becoming automatically ossified. I've seen faculty privileges being abused, for example, by older—very, very old—faculty, who had been at one university all of their lives, and so forth, and also some very wonderful things that they've created. These are both first-class organizations—Michigan and Scripps Institution of Oceanography.

With regard to the National Center for Atmospheric Research: First of all, it was a great experience in terms of my own research career and getting me some administrative experience and some leadership experience. But it was also a reminder of what it's like to be at a research institute and not a university. There is a big difference, and it's called students. And also, there's a longer term view at universities. There's a historical role, many historical roles for universities, which are not felt at a research institute, let alone embraced and defended. So being at that institute, it's a little bit barren, in a way, without students; so it feels very good to be on a campus with students and not at a research institute.

SCO: Mike Gottfredson [UCI Executive Vice Chancellor] gave me an astonishing statistic recently, Ralph, which relates to an earlier response. Forty percent of UCI's faculty have been appointed within the last five years. This is remarkable to
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me, because it means that the older faculty to which you referred are now almost
balanced by those who have only been here for a few years.

RJC: I think we've benefited from that situation.

SCO: I think so, too.

RJC: I've found it remarkable that we have some founding faculty still on the campus.
Where else can you go to a university of any note and find the founding faculty still
around, who can remind the younger faculty what some of the best ideas have been,
which ones have come and gone quickly. The founding faculty tend to be the most
loyal and most committed people on campus, so they've served as great role
models. With regard to new faculty, I don't think it's quite 40 percent. I've heard
that number before. But it's high.

SCO: I hope I didn't misunderstand him.

RJC: I've actually heard that number said by other people, and I think it's an over-
estimate. We have roughly a thousand faculty, nine hundred to a thousand faculty,
and the best year we've ever had is hiring eighty to ninety faculty. So you multiply
the average year times four or five and you've got 320 to 360. [From Chancellor
Cicerone’s State of the Campus, January 2005, p. 2: “Approximately one-third of
the current faculty have arrived at UCI during the past six years....”]

SCO: Well, thanks for that correction.

RJC: We've also had departures. You'd have to figure that all in, but I think it's probably
more like 30 percent, maybe 35. But the point is, it's a big number. In five years.
The place has changed dramatically..
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SCO: Ralph, when we were both serving as deans in the mid-1990s, you introduced to the Chancellor's Cabinet what I believe to be an excellent idea, the idea of “quality indicators.” As I recall, your idea was to identify a number of such indicators that are common to all academic units—such things as faculty publications and awards, faculty publication citations, membership of faculty in honorary societies, Graduate Records Exam scores, placement records for graduate students, and so forth. Your idea was discussed extensively by Laurel Wilkening's Chancellor's Cabinet, although I am not certain it was ever fully implemented. I do recall preparing a binder full of data regarding the School of Humanities, a binder that I updated each academic year. The goal, as I understood it, was to link academic quality, on the one hand, and budget allocations to academic units, on the other hand, to a much greater extent than had occurred previously at UCI.

Have you sought to implement this idea during your own chancellorship? Will it be employed, for example, in the reallocation of faculty positions on this campus in the coming years as called for in the draft report on strategy for academic development at UCI?

[NOTE: This report calls for the return to the EVC of 25% of faculty FTE vacated for reasons other than denial of tenure, beginning in July 2005. Those positions will then be reallocated to new programs and to “a few existing programs that are now at or near the level of greatness.”]

RJC: I remember the discussions we had, along with a few other colleagues, and I think I have incorporated that thinking a lot in my own discussions and a few decisions.
But I don't think we've institutionalized the idea well. In fact, I don't think the idea has been very well institutionalized anywhere.

SCO: Anywhere in America, or anywhere in –

RJC: Well, that's an overstatement.

SCO: It may be true.

RJC: It's an overstatement to say it hasn't been adopted anywhere. But I think, generally, the idea has more potential than has been realized. For example, in the ranking of doctoral programs and in the rankings of universities, that has become an important cottage industry. The NRC rankings, the National Research Council rankings, of doctoral programs have been based on reputation. It's been said that the two hardest things for a university to do are, number one, acquire a reputation, and, number two, lose that reputation. Reputations lag the reality, both on the upside and the downside.

Yet, many of our rankings are still based entirely on reputation, and yet, what we need—I'll just repeat the argument briefly—is that field by field, for example in graduate programs, which I maintain do not have to be linked to departments. I believe departments exist for the creation and maintenance of a good undergraduate curriculum and that graduate programs don't have to be bound to departments. So that graduate programs (I'll use that word advisedly, as opposed to departments), in evaluating themselves, should be using quantities and measures which they would like other people to use in evaluating them.

For example, in a field where scholarly publications attract citations to other people's work, such as fields that publish in respected journals, citations are an
important measure. Now, it turns out there are useful ways to count citations, and there are misleading ways. People who specialize in the field can help us to sort that out. That's been one of my hobbies.

There are other fields where the mode of publication is in books. We still have to find a way of assessing quality and impact of those publications. How do people do it? The quality of the press, the quality of the editors and the independent reviewers of the manuscripts or the books. Somehow we need in each field to use those measures. Let the participants in that field themselves use that, so that in, for example, the physical sciences, where the means to do research are largely linked to federal funds, for equipment and whatever, there's a peer review that takes place on those grant competitions, and the success in obtaining these grants, statistically, is a strong indicator of the health of a program or a department. So in some fields, the existence of a federal grant is a good measure. Obviously, not in those fields where federal grants don't exist or in agricultural schools, where the agricultural research, for the most part, is not peer reviewed. It's an entitlement. But if you know the distinctions –

So I've used these measures and this kind of thinking as much as I can in my personal decisions. For example, in fields where I don't understand the venue of publication or the presentation of a piece of artistic creation, I try to find out what the participants value and then try to hold them to their own measures in my decisions about what kind of favor to show to those faculty and those units, or in the hiring of faculty and the promotion of faculty. I try to use these in my evaluation. But we haven't instituted this usage very much on campus.
We've started. For example, the assignment of faculty positions and faculty resources on the campus, for the most part, was linked to student credit hours and the teaching demands on the units in which the position was placed. In the last few years we have assigned some faculty positions more according to these quality indicators as measures of activity, and we've assigned some faculty FTEs now joint with research units where we think that the prospects of that research unit are unusually high as measured by these qualities. We'd like to systematize this more, for example, with regard to research space, which is very, very expensive in the experimental sciences. We simply cannot afford to have unlimited space for everybody. We can only have the space for the people who are really active, and that's hard to do in a university.

Graduate resources is a place I'd like to make some improvement now. For many years, we've been concerned that we don't have enough graduate students in our program.

SCO: Does current graduate enrollment constitute roughly 11% of the total student body?

RJC: We have just reached a campus high since 1969.

SCO: At what percent?

RJC: I'm writing it up right now. We've had four years of growth in the ratio of graduate to undergraduate enrollment, even through these rapid rises in undergraduate enrollment, so we're either at the high since 1982 or since 1969. [See State of the Campus Report.] We're getting back to where we should be. Perhaps inevitably in our rush to help all graduate programs to expand, I think we haven't paid enough attention to quality. You know—in fact, you're referred to this in another place—
there's no university that can afford to be uniformly great across all graduate disciplines, so we're going to have to focus our resources more on certain graduate fields on campus individually, not school by school, but individually in schools, based on which programs really can be excellent. Not all of the excellence is measured by input, such as how much money do they have, how many graduate fellowships are they awarding. We have to measure something by output, too. Where are we placing our students?

Once again, that gets to what we value. There are different values in different fields, but one of our common values is that we believe we're creating the next generation of teachers. I believe that one of our measures should be, Are we placing our students in teaching positions? Now, there are great arguments for placing people in public service and government organizations, and that should be given some weight, too. So on the output side of our graduate programs, we should be evaluating ourselves by what we're accomplishing, where are our students going, and how long is it taking them to finish their degrees here.

This is the measuring across the country. The time to a Ph.D. degree is almost out of control. First of all, we can't even, I'll bet you most graduate program directors on this campus cannot tell you what the average time to degree is in the program. We're not even keeping track of it.

SCO: Well, we were for a while because I remember chemistry was one of the best in terms of its time to degree.

RJC: It has lengthened.

SCO: Three to four years.
Ralph J. Cicerone

RJC: It has lengthened.

SCO: And humanities was among the most deficient, six to seven or more years.

RJC: I think it's lengthened also. At any rate, without necessarily commenting on the actual quality, it's something we have to keep track of, so that as we sharpen our focus on graduate programs and move some of them ahead and ahead and ahead, I think we're going to have to dole out what central resources we have to graduate programs much more along the lines of quality. Where are you now and what are your prospects? And not twenty years of aspirations. There have to be results.

But to answer your very good question, we have not institutionalized this view of quality measures anywhere near to what we should be doing.

SCO: I was really taken by this idea. It had not, to my knowledge, been proposed at UCI before you did so in a formal way. One reason I liked it was that as sitting as a dean and briefly as an EVC, I heard a lot of hyperbole from those seeking resources. Everyone's program seemed to be the best in the world, and you wanted to be able to say to the person, well, prove it with some discernible qualitative indicators.

RJC: I'll mention a case, and I don't have to identify the field or where I was as a department chair or dean or chancellor when this case came through, but the claim was that the individual faculty member who was being proposed for a high-level position here was at least as influential as any other researcher in his field. One measure of influence is citations, and this was a person in a field where the venue of publication was journals, so I checked out his citation record, and I compared him to two other leading names and found that one of the other leading names was
one hundred times more cited than that individual, and the other one was ten times more cited. They were in close enough fields that they published in the same journals. You have to make a fair comparison. Certain medical journals, for example, might get more widely cited than a mathematics journal, or vice versa. But when I saw that a fair comparison showed this individual wasn't even on the same charts as the people they claimed he was, I didn't approve the appointment.

SCO: That would produce at least a dubious skepticism about future claims being made by that department.

RJC: Yeah.

SCO: I'd like to ask you the same question I asked Jack Peltason during an oral history interview I conducted with him in late September. Would you care to comment on former UCLA Chancellor Charles Young's openly expressed skepticism about the "value added" of the central office of the president of the University of California? And/or, would you care to comment on Charles Young's belief that there will never be adequate financial resources to permit each UC campus to become a Berkeley or a UCLA, so that it makes no sense for each of the campuses to develop across the board strength in all academic departments in professional schools?

RJC: Well, those questions are with the insight of a person who's had to face those questions—yourself. The first thing about whether the central office, the University of California systemwide president's office, has any value, I think we should all be skeptical. We should all be skeptical of every level of administration, including the personal things that we add overhead to operations. I would say it's
net positive and that the UC president's office would have to be reinvented if it were abolished. However, we have to be skeptical about a lot of their procedures and the size of the place. So many requirements added to us all by federal legislation or by the public will have made it necessary to keep records and to have people on staff to handle legal challenges and public relations issues and Public Records Act requests. These things add up. They are not inspiring. I don't wake up in the morning, and I doubt that very many people wake up in the morning, saying what does it take to build a parking structure that will conform to the State of California's Building Safety Codes. Yet we need those people. I'm not just trying to be nice.

I think generally the systemwide president's office, where they really do get in the way and I think are less than useful, is in matters of academic program where the campuses really have far better ways to assess the need and value of individual academic programs than anybody in the president's office ever will. The Academic Senate, of course, is meant to be in charge of academic programs, but, inevitably, the UC president's office has a role in either getting resources for us or not getting resources for us to do certain things, or helping to decide to terminate a program or start a new program. Generally speaking, they're not helpful at all. They, in fact, can make decisions which are 180 degrees wrong, because they have the authority but they're not close enough to the action to know what's going on.

There's another way they help us, and that's that at many public universities, the executive vice chancellor and the chancellor would have to be in the state capital once a week, and the existence of the UC regents, and better yet the UC
president's office, just takes away the need for us to go and interact directly with the legislators, which, while it can be rewarding, I generally speaking don't like to do it. Most of us academics are not very well prepared to do it. Our systemwide organization is probably the best in the country and actually shields the campus from some of the direct politics.

SCO: I'm forgetting the name of the person who is our legislative representative. He's really good.

RJC: Stephen Arditti. You're right.

SCO: And that's true. You wouldn't, as a chancellor, have the time to engage in that kind of a thing.

RJC: No, but if you talk to your colleagues at Ohio State or Michigan State or University of Texas or some of the very strongest, Penn State, Illinois, they're dealing with legislators directly all the time.

The second part of it, will we ever have the resources for the whole UC system to have all of the campuses be very, very strong—to develop across the board strength, I think you said—that remains to be seen. I'm skeptical, but I think the final answer remains to be seen. Right now, we're at probably the bottom of a very serious economic downturn. The state budget is in much worse shape than the economy of California is, so I want to be careful how I characterize this. It's not like the general economic depression of the early 1990s where you could look around you and see that everybody was having trouble. There were no jobs, interest rates were high. Now the unemployment rates are low, the economy's growing. It's the state budget that's a problem. And trying to open a new campus at the same
time, and trying to grow enrollment under enormous public pressure to make access to the university easier, we're also trying to build new programs. So we have a confluence of factors that make it hard to do everything.

But I'm skeptical. I think the cost of graduate programs and professional programs is high enough that it is unlikely that every campus will end up with a whole array of strong graduate programs and a full array of strong professional programs. Yet, I think there's a need for them, and I feel almost – what's the word I want here? I feel a moral need and a governmental need, a social contract type of situation in which our public research universities should have the goal of being as good as the best private universities, and that we shouldn't cede any territory. We shouldn't cede or forfeit any major scholarly activity, because if the best public universities do not have the largest spectrum possible of the deepest and best educational and research opportunities, we're failing the whole American experiment. I think we're in danger, because, for various reasons, the state spending on the university is not even coming close to keeping up with the needs.

The model that has existed up until now, especially in California, is that education is a public good; therefore, the government will support it very well. In the old days, when tuition and fees at the University of California were so small, and the students only had to take care of living expenses and transportation expenses, I think it was largely due to the view that education is a public good that will be of social good and an economic benefit. The view today seems to be much more tending in the opposite direction: namely, that higher education benefits the individual, and that therefore the individual should pay for it. We're very much
headed towards whoever benefits is paying. We're not there yet, but that's the direction we're going.

So, if you're trying to manage the university, where will the resources come from if they're not going to come from the state government? How high a fee can we charge the students and still have access to people, for example, who don't have the means with a high financial aid model? If we are going to develop this capability for more of the campuses to become and remain first rate across the board, almost across the board, the answer is that we're going to have to have a lot more private resources, private fundraising. And this comes at a time when corporations are not in the business of giving away money. It's going to be private individuals, private foundations.

SCO: Your response fairly effectively answered my next question about the privately funded but publicly committed university, so perhaps we could flow to question six, Ralph, which is a little more specific and sort of grows out of this concern about declining public funding for our research universities. How important to the financial stability of UCI, in particular, has been the newly formed University Research Park, and in what additional ways have you as chancellor thought to increase revenues to UCI at a time of declining financial support from the legislature?

RJC: The agreement for the University Research Park was signed before I became chancellor, and it took me a while to even understand what it all entailed. I think the great potential there is still in front of us. It's never going to be a source of enough funds to make up the difference. Just for some ballpark numbers, the gap
that we're going to have as we move along with what's needed is measured in hundreds of millions of dollars a year, and the income from the University Research Park will be measured in maybe around ten million dollars a year. In fact, smaller, more like four or five. However, it helps, because this money is of a particular color. Namely, it does not have restrictions. Quite a few of the funding sources that the campus has access to, as you know, Spence, have restrictions placed on them. State funds may only be used for certain purposes and specifically may not be used for other purposes. The funds from the University Research Park are almost like a private endowment. They are especially valuable for use for special opportunities or liabilities that we didn't expect.

We've already used some of them. For example, we've taken about a million dollars a year out of Research Park funds for graduate fellowships. We've increased the fellowship funding on campus by about 100 percent in the last four years. It's up to – I'll have to check the number, but well over ten million dollars a year, and getting a million dollars a year or so out of the Research Park certainly hasn't hurt. Programmatically, I think the Research Park has more opportunity and potential also than we've derived out of it. The hope is that the kinds of businesses that will move there are research intensive, or will have some other strong connection with the university that will become supportive. And I mean indirectly. Companies that will employ UCI students and faculty, either as consultants or part-time or full-time employment. That's a big benefit to us, especially in a geographical area where transportation is becoming more difficult. If individuals can have jobs nearby instead of twenty miles away, it really helps. We haven't
done real well there. The mixture of companies in the Research Park is just that, a mixture. It doesn't have a dominant theme yet. For a while, computer software was developing, and something like three-quarters or 80 percent of all the interactions we were having with the Research Park were focused on ICS, information and computer science, and one department in engineering.

The hope is that, programmatically, the Research Park will take a shape to it that will be research-intensive. That could be in digital arts; it could be in animation where our digital art students might get involved; it could be in medicine. There are some discussions going on with some prospective tenants now. The Irvine Company does all of this because they really have most of the authority, and they are talking to some prospective tenants who I think would add some real spark to the interactions with UCI. The entry of Broadcom will highlight engineering.

So on the money side, it's useful, but it's never going to be even close to the amount we need to make the difference from the declining state fund. But as you know, it's flexible money. Then the programmatic interactions have a lot of potential way beyond what we've got now.

What are we doing to get extra funds? Private fundraising is really a major occupation now. To be a dean at UCI now is – it's virtually a requirement that the dean have a great deal of his or her emphasis on external activities to make our value known better to the community so that they will be supportive politically and influentially, as well as through donations. Raising money is very hard. People tend to be loyal to their own universities where they went as undergraduates, to
their alma maters. In Orange County, in the immediate area, there are so many preexisting loyalties to other universities. On the other hand, we're finding an increasing number of people who understand the value of having a great university in their back yard, that people are contributing, and our private fundraising record is going up.

Now, is it going to solve the problem? I think it can. We're raising say fifty to eighty million dollars a year now. If we can quadruple that over the next decade or so, that's really going to be important. So we're putting in a lot more time, and we haven't had that kind of success yet. We've had a couple of good years, and I think this year's going to be a good one.

SCO: My recollection is that we as a campus came somewhat grudgingly to this realization about ten years ago.

RJC: When you and I were deans.

SCO: Yes. I believe it was Vice Chancellor [for Advancement and Development] Jerry Mandel who was first preaching this sermon, and we were somewhat -- at least I was somewhat—skeptical, but I came soon to realize the significance of the program.

RJC: I think it's inescapable. Certainly, the political will of a people can turn around a state government, but there are some factors here that will probably never again be as favorable as they were in say the 1950s, '60s, and early '70s. First of all, the state has acquired so many other responsibilities through these referenda that have the force of constitutional amendments, that so much of the revenue is now legally
obligated to be spent doing X, Y, or Z, that the money left over for the areas of activity where there are not mandates, like the University of California, is reduced.

Then secondly, there's the globalization of the economy, which has changed the whole picture for the United States' economy and our corporations, where exposure to low labor costs is hurting American companies, and all this stuff about outsourcing of jobs. It's not being done, as far as I can tell, by evil corporate CEOs who are anti-American. It's being done because their competition is doing it, and their competition is increasingly international, so they have to cut costs. The only way to do it is to shift manufacturing processes overseas because the manufacturing workers are paid less there. Well, increasingly now, that's extending to highly educated people. China and India are producing very highly educated, let's say, engineers and computer programmers. The governments are supporting all kinds of activity. And American companies can get work done there at 10 or 15 percent the cost of doing it here. So the corporate world doesn't have the so-called easy life that they used to. They're not going to get back in the business of giving away money to universities, and the taxes that they pay are probably not going to rise very much.

In that kind of environment, I think we have to turn to private support. Fortunately, in the United States—and de Tocqueville saw this before anybody else—there is this volunteerism community spirit, a legacy of philanthropy, which simply does not exist in Europe or Japan or China. It doesn't exist outside of the United States. So we have an opportunity.
As you said, ten years ago, most of our colleagues really wondered whether raising private funds was necessary, if it was possible, if the need would persist. Now I think all of those questions have been answered, and I think most of the faculty – and this gets back to your point about so many faculty being hired in recent years. Generally speaking, the newer faculty have viewed the situation about fundraising as a fact of life; whereas, the people who can remember how much easier it used to be, I think most of them have agreed, but they don’t quite –

SCO: Begrudgingly.

RJC: Yeah. It’s understandable. I think we’ve got great potential. We live in a very wealthy area, and as UCI becomes more recognized and contributes more to the surrounding community, we’re going to do better. What’s been fun for me as chancellor is to watch the many ways that the campus does help the surrounding community. In the Athletics Department, campus recreation has these weekend sports camps with children, especially in the summer, where you’ll find from between three hundred to fifteen hundred little kids on our campus taking swimming and diving lessons and baseball and basketball and soccer taught by our students and our coaches. People in the area really appreciate that. They appreciate coming to great artistic performances at the Claire Trevor School of the Arts, and then at the Barclay, too, having to do with UCI.

UCI’s become much more of a community resource, so it’s getting easier for us to go out and seek contributions for our programs, because people begin to realize that you do something for me, too. A lot of wealthy people who I’ve actually enjoyed working with, they don’t have to pay any attention to it.
Fortunately, most of them feel television is pretty awful. They like to read books, and they like to go and talk to people who are the authors of these books, and they like to go and talk to other people who have read these books so they'll come to campus for book discussion sessions at our libraries. More than half of the usage of our libraries now are by remote usage and community members, and not just campus students and faculty. Our campus athletics is becoming more fun for the surrounding community. Each of our deans has these breakfast and lunch and dinner meetings where they'll feature a faculty or student speaker or performer, and community members are just flocking to these. The medical school and the hospital have been so much improved the last decade that they've become a community resource. I actually think that we have a better chance to raise a lot of funds. This could make up the difference. It could distinguish UCI above most other of the top universities in the country. And I actually predict that the value of the campus to the surrounding community is going to appear in future rankings of the university.

SCO: A new indicator.

RJC: I see this coming, that sometime in the next—who knows?—ten years, even dumb magazines like *U.S. News and World Report* will begin to have a section in their ratings of how valuable is this university as perceived by the nearby residents.

SCO: Regional perspectives on everything.

RJC: But even for national universities.

[end tape one, side B; begin tape two, side A]
SCO: One assertion made by several analysts of higher education regarding problems facing our institutions relates to governance. James Duderstadt, for example, has argued in his book *Beyond the Crossroads: the Future of the Public University in America*, that current academic governance structures are too rigid to accommodate the realities of the rapidly expanding and interconnected bases of knowledge and practice. He is especially concerned about the respective roles of lay governing boards, such as the UC Board of Regents, and of shared governance with elected faculty bodies, such as the UC Academic Senate, believing that such structures prevent academic administrators from moving nimbly and unhindered as they seek to address pressing problems and achieve needed change. Do you share these concerns, and have you found yourself constrained in the ways Duderstadt and others have identified?

RJC: Generally, I'm not as concerned. I know Jim Duderstadt, and I've read a couple of his books. I'm not as concerned, but there's certainly some basis. Let's start with the Academic Senate and the UC regents. There's probably no university that has a more fully developed sense of shared governance in practice than the University of California does, because the senate's role is chartered in documents, and you know them very well. Generally speaking, though, I think it works very well. However, I think we've each had experiences where there have been people in powerful roles in the senate who either were intentionally trying to resist change or didn't understand the need for doing something quickly, or even on a specific limited matter, they just didn't understand the timeliness of the issue.
First of all, by having really good relationships with the Academic Senate and building an environment of trust—which I know you were very good at, Spence—we've overcome most of those that we've been able to, when we really have something urgent, get the senate to cooperate, whether it's in academic personnel or some other governance issues. I think the key there is embracing the idea of shared governance and asking everybody to be reasonable, and by being straightforward and credible.

The relationships have been pretty good and very reasonable, with understandable exceptions where the Academic Senate in the UC is so process-bound that sometimes the whole system collapses under its own weight. To get something approved requires a sequential process. Then you come up to summer and the committees don't meet, and, by the way, “the main meeting wasn't held this year because one faculty member couldn't make it.” So you end up with something being stalled from April until November. This has actually happened several times.

Also, the better we understand the system, the more we can work around it. And the value added by the shared governance is very high. The faculty is very much the core of the university, and having everybody really believe in high standards and in the fundamental mission goes a long way. Then a lot of faculty involved in the senate are free to admit that they don't make the final decision, but they want to be fully involved in consultation and discussion, and oftentimes add a great deal, even though they don't make the final decision. I'm pretty happy with that.
The Regents is a bit of a different matter. We've got some very good
individuals on the Board of Regents, but they're under such public pressure and
perceived pressure to, for example, increase access to the university while also
maintaining quality and, for example, achieving racial and ethnic diversity. When
you bring all of those things to play in admissions for undergraduate education, we
have a very difficult equation to solve under numerical constraints that are almost
contradictory. And with an admissions system which is incredibly complicated.
I've had some experiences in these six or seven years of getting into discussions
about admissions with faculty or parents or students and admissions directors, and I
find out the more I learn and the more I think I understand how the admissions
process actually works, then I realize I really still don't understand it. Now we
place these Regents on the hot seat, and they try to make decisions about the
admission process without fully understanding it, because they're under pressure.
And not just from telephone calls from people who think they can control
admissions for their sons or daughters, but from a public point of view that they
think they understand what our capacity of the campuses are, and then they realize
that applications are growing much faster than our capability of absorbing students.

It turns out that if you look at all the colleges and universities in the United
States, including 1,700 four-year colleges, and then ask how many applications do
they receive for freshman admission, it turns out that the five top universities in the
country in number of applications are UC campuses. I didn't believe this when I
was first told this three years ago. UCLA has had more applications than any other
university for about five years in a row. UC San Diego is second. Santa Barbara is
third, Berkeley is fourth, and we're fifth, and we're closing in on Berkeley. And there just aren't enough spaces, so admissions has become the poster boy of difficult issues where we've tried to create an admissions system. I can go over all the goals, but there are obvious things like fairness to identify gifted students who haven't had good opportunities, and so forth, to prevent gaming of the system. The more complicated our goals become, the more difficult it is to achieve them all at once. And the Regents try to tell us how to do things without even a clear understanding of how the system can actually work. So the awkwardness of these lay governing boards has been probably most noticeable in admissions.

Then they don't understand the finances. They don't understand things like the research funds and the contractual obligations that come with research grants and contracts, that we can't simply take so many dollars away from a chemistry faculty member and build a better classroom in psychology. With every new Regent we have to go through that kind of a process, and yet every one of these individuals is a distinguished citizen who has committed to a twelve-year appointment with no pay, zero salary, with a time commitment of between, on average, fifteen to thirty hours a week. That's on average. So it's very frustrating. But I'm much more optimistic than I think Jim Duderstadt was.

SCO: I'm gratified to hear that after your chancellor experience you've remained at least fundamentally committed to shared governance with its acknowledged limitations. I think Duderstadt is, frankly, a bit autocratic in his sense of what universities require.
Ralph J. Cicerone

RJC: Another thing, his early writings, which I *really* disagreed with were saying that universities were becoming so expensive that the only solution was for distance learning and taking courses over the Internet. I think that would be fundamentally short-changing students and especially the public university. We would have a class-based system, which is fundamentally un-American, where some students could go to the best private universities and have small student-to-faculty ratios and the rest of us are stuck with a computer screen. I'm sorry, but we will not do that. Fortunately, I think most people understand that that's a poor substitute, and we're not going to do it. He was very apocalyptic there.

On the other hand, Don Kennedy has written books called – instead of academic freedom, he's written one called *Academic Duty*, which lays out some of the responsibilities that we on campuses haven't accepted well enough, especially the faculty. So with shared governance comes shared responsibility, and we often have to remind the faculty and ourselves of that.

SCO: Ralph, the following and penultimate question flows from the previous one.

During the 2003-2004 academic year, you and EVC Gottfredson established six major strategic planning committees with a total membership of faculty and staff approximating ninety people who were charged with examining several aspects of campus life. You chaired one of these committees dealing with UC Irvine's public role or public mission. Other committees dealt with such matters as academic breadth, campus life, physical facilities, research and graduate studies, and resources. Were you pleased with the recommendations of these various
committees, and what is the process by which certain preferred and widely
endorsed recommendations will be implemented at UCI?

RJC: The original goal was a nice simple clear question, and it turns out we don't have a
simple clear answer. It was, How big should the campus become? The population
pressures of California and the demand for higher education and research are
growing. In one sense, it would be imperative for UC Irvine to grow its student
body indefinitely, let's say some ridiculously high number like fifty thousand
students. In another sense, we know that the resources are becoming harder to find,
and the land is limited. Now we really have to worry about what campus land to
use, so we ask the questions. And by the way, we're forced to write a new long-
range development plan, LRDP, sometime soon anyhow, where surrounding
municipalities have to agree with our enrollment plan, as well as the Regents.
What we thought is, why don't we try to answer the question of how big the campus
should be so that then we can have a long-range view of what facilities to build,
how many dormitories, what the traffic flow pattern should be, whether we would
have to have high-rise dormitories, which has of course never been part of UCI. By
the way, the answer there is no.

We decided to break it down into pieces and instead of just having the
physical planners see how dense the campus could be and whether we could
accommodate 35,000 students or 40,000 students given that our current LRDP
[Long Range Development Plan] is around 30,000. Our current enrollments are
around 24,000, and if we were growing at a thousand per year, which we did five of
the last six years, that's only six more years of growth. So it's time to think about what do we want to be when we grow up. What are we going to look like?

We broke the task down into these different committees. A couple of them were pretty obvious, like physical facilities. If you assume an enrollment of so many people, what do we need in the way of electrical power, roads? Can we satisfy all the rules that Newport Beach and Irvine and Orange County have on traffic flow and pollution, and so forth? Safety. But then, of course, that leads you to ask, What's tolerable? What would the campus life be like? How many students could live on campus, and what would it be like to have a larger residential presence? So we got into questions like this.

The one I wanted to take on was what we called public role, or public mission. If we could envision the campus pointed off in one direction, and maybe what the public expected from us or was willing to pay for was going in the same direction, and if we're projecting ahead two or three years, it might not be of concern; but if you had the directions of thought and assumptions diverging rather than converging, we wouldn't have a very good plan. On the committee I chaired, we asked some questions like, Can we anticipate some trends? What are we seeing in the world now that will tell us what will be expected of the university? What would we on the campus feel is most worthy of our time? And then, of course, where can we get the resources?

A couple of the trends that were pretty easy to see are that people are living longer and have longer, healthier retirements. Some people want to continue learning as curiosity-based learning, recreational learning and enrichment, and
there are certain universities that are now dealing with retired people taking serious
courses in philosophy or writing, things like this, or science. Another trend is that
people are changing their employment more times in their careers. You've heard
both of these trends, and they both seem here to stay. Life expectancy is getting
longer. People don't work for one company anymore the rest of their lives. So,
bingo! It means lifelong learning is probably going to be a bigger part of higher
education in the future. Does that mean that UCI or any UC campus should
automatically go in that direction? That's another question.

Another trend is about the world order. The world has changed so much
since the end of the Cold War. You and I have discussed this before, Spence, that
the order that was imposed on the world when there were two super powers, each
with its spheres of influence, controlling things with an uneasy truce and a
demarcation line in between, is now gone. Now we have many more nations than
we did fifteen years ago, perhaps thirty, and some of those nations are falling apart
because they were just federations imposed on local tribes and different ethnic
groups. What does this mean? It probably means that a well-educated American
citizen has to understand more about the world around him or her than they used to,
perhaps more emphasis on language, area studies, international affairs. I think
everybody agrees on that, and that leads to the next set of questions. What should
this campus do about it? Certainly, the mark of an educated person is possibly
going to be influenced by that. We've talked about some of these things.

Each of the committees has tried to make predictions about what will be
valuable in the future and what it should mean. We didn't end up, so far, with an
easy answer about how large the campus should be. The planning effort has taken
a lot of time, and we've gone through several drafts just with the eighty-five or
ninety people who started it. The next step will be to turn the draft over to the
Academic Senate and its appropriate committees for their discussions, because of
shared governance and knowing that they will add something to the process. And
we'll probably ask some external community people to give us comments back. I
don't know where or when this is going to end.

In fact, this last year, when the campus didn't grow because of Governor
Schwarzenegger's insistence that we accept 10 percent fewer freshmen than the
year before, has given us a respite of an extra year to think about how much we
should grow in the longer term future. I think what we'll end up with is a plan of
where to go in the next six or eight to ten years, but *not* the final answer of where
we should be thirty years from now. It's just too far ahead to see.

SCO: It seems to me a very useful and necessary exercise for the campus. Final question.
Could you describe how you and your wife, Carol Cicerone, who is a distinguished
faculty member in the Department of Cognitive Sciences, have managed to meld
two very different scholarly careers into such an excellent professional partnership
as you have served as chancellor of UCI?

RJC: Well, thank you for the compliment. It's been a labor of love and also a very
difficult one. I can still remember in 1989 when we both received offers to come
here as faculty members. She got an offer before I did. Because I've become
chancellor, people might assume that Carol was the tag-a-long person. It was
really more the opposite. The School of Social Sciences gave her a faculty offer
before I got mine. I think both of us really feel so strongly about the value of higher education and that the opportunity to participate as graduate students and as faculty members that we’ve had in our careers are really just that—opportunities. We feel very idealistic about this whole enterprise. So we've both just thrown ourselves into the jobs to the point that we've given up so many other things that normal people have, because we've enjoyed it. Well, her job was probably more impossible than mine because I'm supposedly getting paid full-time to be a chancellor, where she had two full-time jobs—teaching and research, as well as serving as the chancellor's spouse.

Then also working on the external and the internal side of the campus where we've tried to stimulate and disperse some activities on the campus and in the external community by putting our own personal attention into it, first of all, to learn ourselves what's going on, and then also to attract more people and to convince more people that these activities are worthwhile, whether it's interacting with the external community or with our own outreach programs and the CAMP [California Alliance for Minority Participation] program, outreach programs for middle school students, or special meetings of prospective grad students. We've just tried to do all of this. Carol has been absolutely indispensable.

It's actually been eye-opening for us, too, because Carol has been so well received, especially, let's say, in external community events. What does that mean? Well, largely it's a compliment to her personality and her graciousness and her focus and her ability, but it's also a reminder to us of how respected we are, the University of California Irvine, that when people in the external community find
out that she's a faculty member, a full professor in a strong department in a strong university, they really respect that. It's been an eye-opener to us and a reminder of just how respected our whole profession is and how valued higher education is. So that has helped to keep us going.

She's been absolutely indispensable. I don't know how a person in one of these positions who doesn't have some kind of a partner could possibly do it. We've tried to avoid talking over a lot of internal issues, campus issues, at home.

SCO: It's tempting, I should think.

RJC: Oh, yeah. Frustrations and opportunities and tactics. But you try to take a break at home. Carol does so much reading, and in the last two years, I've probably read four times as much, five times as much as I did the previous five years, books and magazines. We try to have some peace at home. But it's been totally absorbing. UCI is on such a trajectory. It's been very exciting.

SCO: I have high regard for Carol myself. My first encounter with her was when I first was appointed EVC and she was chair of CAP. We had some particularly complicated issues that arose at that time. I gained immediate respect for her.

RJC: She was very conscientious. Well, look at the last UC Regents meeting just two weeks ago. She couldn't come because she's been caring for an aged parent, but I'm not sure how many Regents stopped me in the hall and said, "Where's Carol? Say hello to her." It's just been very impressive. They've paid attention to our campus because of her, some of them.

SCO: Is there anything else you wish to add before we conclude?

RJC: I really appreciate this. I don't know what you can make out of all this.
SCO: My own candid opinion is that this has been a terrific interview, and I really appreciate your time.

RJC: I suppose with the perspective of time oral histories like this can say, Gee, that’s what they were thinking then? How could they be thinking that? Because it turned out to be so wrong. Or, Gee, I didn’t know those things had started that far back. So I suppose with time these things shake out.

SCO: Sam did quite a few of these, and they’re all in our library. I’ve read many of them. One of the topics in which I was interested is how we ended up with an organizational structure composed of semi-autonomous academic units called schools rather than an overarching college of arts, letters, and sciences. I was able to discover that through the oral interviews that were conducted in those early years.

RJC: I should read those.

SCO: I’ll share them with you sometime.

RJC: Well, thank you. Maybe we can get to some of these other topics, as well.

SCO: Ralph, thank you so much for taking your time to provide this extended and highly informative interview.

RJC: Let me give some more thought to these and then suggest a couple of other topics that you might want to cover.

SCO: Fine. Let me know.

RJC: Thank you.

END OF INTERVIEW