

Keynote Address
17th Annual California Farm Bureau Federation Meeting

President Robert C. Dynes
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Let me begin by thanking Bill Pauli, Doug Mosebar, Paul Wenger, who's on my Advisory Committee, and George Gomes for inviting me to this meeting. It's really a pleasure to be here. As I was standing there at the break, several UC Davis alumni came up and introduced themselves, and I felt like I was in a very friendly and warm environment. So I thought I would just take a poll of this group. I know many of you are from the Cal State system, which is our sister organization. How many are here from the Cal State system? I don't want to hear cheers; I just want to see the hands. How many are Aggies? Well, you can cheer. I think there are some other UC folks. There probably are some Bears from Berkeley here; there are Bears everywhere. There are just a few but they're a loud few. Any from other UC campuses? Yes, San Diego, go Tritons, and UCLA, go Bruins. Also, I want to mention that we are now 10 campuses, and I want to talk about the 10th campus a little bit that's in Merced.

This is the second event this fall that has given me a new sense of the kinship between the University of California and the state of California. And I know of the kinship with the Farm Bureau. In fact, the origin of the Farm Bureau as described was indeed designed to better communicate between the University of California and the ranchers and growers of the state of California. And so the Farm Bureau is a very important partner for the University in us delivering our mission to the state of California.

There are two events this fall that have made me feel a closer relationship to California, not the ones you read in the newspaper, but some other events I'd like to remind you of. Today, as you've heard, this is the first time in 60 years that a president of the University has addressed the Farm Bureau. And I would like to assure you that it won't be another 60 years until that happens again.

The second event happened on Labor Day. I presided over the opening of the 10th campus of the University of California at Merced. It's the first campus that we have opened in 40 years, and it was a glorious ceremony. It was our 10th campus, and its Chancellor, Carol Tomlinson-Keasey, referred to it as "a perfect 10." And it really was a wonderful day. If you've been to the Merced campus, then you've seen the buildings coming up out of the ground. Some of them were finished, and some of them were not finished yet. But that did not stop the 55 founding faculty, the inaugural class of 1,000 students, and 4,500 community friends who attended to celebrate the opening of "their" UC campus. It was clearly viewed as "their" campus, as belonging to the San Joaquin Valley. Its mission is to serve the entire state of California, but clearly first among equals is the San Joaquin Valley.

On that day, there were a couple of things that were pretty clear to me. One was that the trajectories of the University and the state have been identical for a long time. And the destinies, I am convinced, of the state of California and the University are locked together. As the state goes, so goes the University, and as the University goes, so goes the state. The second thing that was obvious to me was that the University of California system and its research mission could not exist anywhere else on the planet. And California, in return, would not have achieved world prominence without the University of California. The two really go hand in hand, and I'll talk a little bit about that today.

I'm going to give you a little warning: Part of the reason that I agreed to come and talk here was to have some time for questions and answers because I don't learn from speaking to people; I learn from listening. So I would like, at the end of this, for you to express your views – I'm used to it, it's okay – or ask questions, and I will try to answer them as honestly as I can. Those who know me know that I'm pretty straightforward, and if you ask a question, you're going to get my opinion.

In the formal part of my presentation, I'd like to do two things: I'd like to look back on the history of the University and the state, and our original mandate, and then, I'd like to look forward to the future and talk a little bit about my view of the future of the University and of the state of California. It's a critical issue; it's an issue that we think about a lot. Everybody thinks about it, but nobody does much about it, in my opinion, so I'd like to tell you what we're doing.

In the course of that, I'd like to talk a little bit about the two years that I've been president of the University. I have traveled around the state; I've seen the state from Chula Vista to way up north, from the coast to the border. I've seen urban, suburban, and rural parts of the state, and I've learned an awful lot. I've learned more about California than I ever thought possible, and I'd like to talk a little bit about that. You're not going to get the whole story, or you'd be here for days.

In preparing for the opening of the Merced campus, I dug a little bit into the history of the University of California, and I discovered that the dream of the University of California is actually older than the state itself. At the Constitutional Convention in 1849, that was the year of the Gold Rush, a year before California was admitted to the Union, Californians began to plan for a University that would assemble the finest minds to create knowledge and to benefit the state. Nearly all the convention delegates had come to California from somewhere else in search of a better life. They had no money to build a University. They had no land to put it on. But they shared a bold vision for California's future. And they shared one peculiar trait which I believe that we as Californians share today: They did not comprehend the word "impossible."

In 1862, Congress passed the Morrill Act, which I believe was one of the most significant pieces of legislation that ever happened in the United States; it created the land grant universities, the public universities in the United States which have changed the world. The mission as stated in the Morrill Act was to create state colleges that would teach agriculture and mechanical arts. So from the start, agriculture was the prime mission of the state universities and, in fact, the University of California. At that point, we were off and running. The UC founders got the land and the money they needed. And the University was created. Of course, that was at the Berkeley campus.

Fifty years later, after Congress established the Agricultural Extension Service, growers here in California, your predecessors, formed county farm bureaus to support UC farm advisors, and they brought UC agricultural research to rural areas. So you did it, we did it as partners 50 years ago. And the existence of this relationship today is a product of the formation, as Bill outlined, of the Farm Bureau in support of the University to translate the University's knowledge to the farmers.

Since it was founded in 1868, the University has followed the mandate of its founders by carrying out what has traditionally been referred to as our mission: research, education, and public service. Let me translate that a little bit. Research is the creation of new knowledge. Education is the creation of the next generation of creators and creation of the next

generation of leaders. And public service takes those creations, that knowledge that is created, those people who are educated, and applies them to society's benefit.

That three-fold mission was one of the real hooks that convinced me to leave private enterprise and come to the University of California. The thought of actually doing something that would affect society was intoxicating at the time. I was working at AT&T Bell Laboratories. And basically, we measured the bottom line: How much money did AT&T earn? It was the currency of the realm. And I remember thinking: No, there's got to be more. And that attracted me to the University of California. And over the time that I've been here in California, since 1990, as I learned more about the University of California and its mission, I started to evolve it and develop it in my own head.

Let me start on some territory where I feel comfortable, and that is science and innovation. We have always talked about "R & D": research and development. And you probably know and understand what was meant by that. I grew up in the semi-conductor business, and research and development was very clear. But the R&D era in my mind ended on September 11th, 2001. As I watched on television, and many of you saw the same thing, I watched in horror as the World Trade Center buildings came down. And the thing I saw was probably something a techie would see: the first responders – the fire crews, the police, the health care providers, the emergency workers – all were scrambling around South Manhattan, and they were not communicating with each other. They all had communication systems, phones, all the high-tech things, but they couldn't communicate among themselves. The police couldn't talk to the fire crews; the fire crews couldn't talk to the rescue squads. And I sat there thinking: No, we have the technology, we know how to do that, we've known how to do that for five to ten years, what the hell is going on? And I realized that, in many ways, we've failed. We've done the R&D; we've done the research, we've done the development.

The terrible costs of not completing the job were so obvious on September 11th. From that time forward, I've developed a different mantra for what our mission is. It really is a new era of R, D, & D: research, development, and delivery. The University has to play an important part in the delivery of our intellectual property, our creations, our developments to society. And so, R, D, & D became my mantra for the last two years that I was Chancellor at UC San Diego, and it has been my mantra for the little over two years that I have been President of the University of California.

Let me give you a trivial example that is not directly related to agriculture: health care. We do basic fundamental science all the way from molecular biology, understanding how proteins fold, all the basic science, that's the research. We also, at various of our biology departments, our schools of medicine, we take that basic science and use it to try and design and develop new drugs. That's development. Finally, we take those drugs, and we put them through clinical trials, and we do that with corporations to better society so that those drugs can be translated for a higher quality of life. That's delivery. If we drop any one of those three, it won't work. So research, development, and delivery are extremely important to the University of California's mission.

So when I became UC President, I decided that I didn't want a formal inauguration because those robes make me itch. So I decided that I would travel around the state and talk about the University. The agenda was that I was going to talk about the University – we were in terrible budget times – and I was going to try to build up a political constituency so that I could go to whoever was going to be governor after the recall and try to make a case for more support for the University. But a funny thing happened while I was on those tours – and I still am on those tours, I've done over 20 of them at this point – and that is that I

learned more. I learned a lot more about the state of California than I spoke about. I didn't know it then, but I was following in the footsteps of B.J. Crocheron, who founded the UC Agricultural Extension Service. He led caravans of UC farm advisors on what he called "traveling conferences" to agricultural sites throughout the state. It just proves that there are no new ideas, there are just new audiences.

The original purpose, as I said, of my tours was to talk about the University. Instead, industry leaders, including many of you in this room, told me how much they depend on the University of California to stay competitive. And they told me how much they depend on what I now call "R, D, & D."

Let me give you two real examples of what I consider as the successful part of our mission. In April 2004, one of my early visits, I visited the UC Kearney Research and Extension Center at Parlier, where a UC Cooperative Extension Farm Advisor named Manuel Jimenez had been growing blueberries in California.

Five years ago, people said, "Blueberries in California? What are you, crazy?" Even I said, "What are you, crazy?" I grew up in Ontario. Blueberries grew there in these sort of marshy, swampy areas, good blueberries. But Manuel suffered from the same thing many Californians suffer from; he didn't know the meaning of the word "impossible." So he set out to grow blueberries in California.

To date, Manuel has tested 50 varieties of blueberries in the San Joaquin Valley. That's "R&D": he researched the blueberries, and he grew them. This spring, Manuel invited 150 farmers to Kearney for a blueberry tasting, and he told them how California blueberries can be harvested in May and June, way ahead of other regions and way ahead of the market. So that it really is a product that could be ahead of the rest of the market, and you can command a price for it. That's the 2nd "D" – the "delivery." So it's a simple example of R, D, & D. By the way, I had some of those blueberries. I grew up eating blueberries in Southern Ontario, which I loved. These blueberries with a little bit of ice cream are unbelievable, it's to die for, they're really good blueberries.

The second example: In July of this year, I visited Half Moon Bay, and I stopped in to see Jack Pearlstein, who's a member of my Advisory Commission on Agriculture and Natural Resources. Jack owns Nurseryman's Exchange, which is a quintessential California success story. It is a 63-year-old business run by three generations of the same family, and it is one of the nation's leading producers of ornamental plants, with 800 employees in California, Florida, and Hong Kong.

As Jack was leading us through their greenhouses, which were the biggest greenhouses I've ever seen – maybe some of you have bigger ones, but I was really impressed – he explained how he taps into the latest UC research on irrigation, climate and pest control, and plant propagation. Then, as we were walking through, he stopped and turned to me and said, "Bob, without your science, we're through. Without your science, California will no longer be an agricultural state." It kind of stunned me that somebody who has his nose to the wheel would turn around and make a statement like that.

It is not a coincidence that the University of California is one of the leading agricultural research and teaching institutions in the world on the one side, and on the other side, California has been the nation's top ag state every year since 1948.

As Bill said, when President Sproul addressed this group in 1946 – was anyone here in 1946? I didn't mean here on the planet, I was here on the planet, I mean here at the Farm

Bureau – he rolled out a list of pivotal UC accomplishments which you've just heard. I could go down a list again today of similar accomplishments. But rather than do that, we've distributed some leaflets in the first few rows that have a list of the partnerships between UC and you. It'll be distributed over the next couple of days. I don't want to go down this list because I want to talk about other things. So please look at this. It's good to feel good about things that have happened in the past. But it's important also to think about the future.

So let me conclude with a snapshot of my own future priorities and the way I think about the future. The future priorities of UC are synonymous with the future priorities of the state of California.

Beginning my third year as President, which was in October, I launched a long-range planning initiative titled "UC 2025." The guess is that the state of California will be 50 million people by then, and that's going to put a lot of strain on the state, strain in areas that you know very well, like air and water quality. But the positive side of that is that California has always thrived on new and different perspectives coming into California, creative, innovative, and diverse people coming into California.

So I've asked a group that are planning and thinking for me what California will look like in 20 years three questions. The first is: What will California need and what will it look like in the year 2025? Will we need more schools of medicine? Will we need a different form of Cooperative Extension? How will farming look in the year 2025? How will health care look in the year 2025? The second question is: What will the premier University look like, what will the best University in the world look like in the year 2025? And the third question is: What decisions do we have to make today to be that best University in the world in 2025? It's my opinion, having watched California from outside and then having been in California for 15 years, that the way California thrives, the way California continues to be the place that everybody wants to live, the place that everybody loves to hate to love to hate, is that we're ahead. We're more innovative. We take more risks. We run faster than anybody else. If we stop doing that, if we start to gather around ourselves, we will no longer stay ahead. So part of the University's role is to insure that we, and you, stay ahead of the competition.

You probably have heard the phrase too many times, I've seen it on bumper stickers, and I'm sick and tired of it: "think globally and act locally." I want to use that to describe the way I'm thinking. Global: Whether we like it or not, the world is really small now. And we have to think globally. So let me talk a little bit about the strategy we are taking to best serve California. Make no mistake about it: Our job is to serve California. And to do that, I believe we have to start looking globally. We have to start looking at our competition globally. So let me talk a little bit about China. And then the other part, thinking globally, I want to talk a little bit about the tragedy I've seen in K-12 education in the state of California and how I've resolved that we can get out of it.

So let me first talk about China. It's huge. And I'm sure you've thought about it. If you haven't, you should be thinking about it. In October, I led a UC delegation on a tour of China to launch what we are calling "10 + 10," a partnership between the 10 campuses of the University of California and the 10 leading Chinese universities.

It's clear what China wants from the "10+10"; they've said it very clearly. The Minister of Education and the Minister of Science and Technology said it clearly, and the universities said it clearly. They want to be like the University of California, and they haven't figured out how to get there. In return, what I see is a community of 1.3 billion people who revere higher education. And they are going to partner with somebody, and I would rather it be us

than anybody else. I'd rather have my nose inside the tent than outside the tent. After all, here's a country that is now a net importer of energy and food, and it will continue that way. I discovered they have huge problems in their farming community. And they're worried, a lot of them, that they will continue to be net importers of food. We should understand that, and we should look at that as an opportunity.

In addition, there's 1.3 billion people, and the state of California has always benefited in high technology from bringing people from around the world to come here to study, and some of them stay. So I'm not doing this for benevolence. I'm doing this because I think it is our way to stay ahead of the competition. And I'll be happy to answer questions from those of you who feel sensitive about this. Greater collaboration with China does not mean that we give away the store. Our R, D, & D mission serves California first and foremost.

The second thing I'd like to talk about is more local. While I was touring China, I was very impressed with the math and science literacy of Chinese youngsters. They all spoke English. They are all well advanced in mathematics and enthralled by science. I wish I could say the same thing about California, but it's not true. Throughout the state, I have visited schools and indeed whole school districts where there has not been a single credentialed math and science teacher. In those districts, untrained science and math teachers are struggling, and their students are languishing.

The number of students who do not pass statewide 9th-grade algebra tests is appalling. And it is my opinion that no one can run a business of any form, no one can run your business, without some deep fundamental understanding of mathematics and science and technology, so that you're able to grab onto the next technology when we put it in front of you so that you can stay ahead.

This is a serious problem for California. Trust me, the next generation has no interest in science and technology. And the way we've stayed ahead is by using technology to our advantage. As Jack Pearlstein said over at Nurserymen's Exchange, if they can't do simple algebra, then the future of California farming will be at risk.

So, in response to my shock, we've launched a program – the Governor and I, actually – that will commit to produce 1,000 science and math teachers a year by the year 2010. And we've paid attention to the three issues that I think you have to pay attention to: the recruiting of these young people, the education of these young people, and then the retention of them as they go out and teach. And so we've paid attention to all three. The recruiting is straightforward. I think a lot of high school students want to take on a profession that is noble. And they want to go back into their own communities and teach. And so we've been recruiting them. We have students in the program now.

In education, we're having to write an entire curriculum that is different from the curriculum we've had inside the University of California; it's aimed at educating students in a broad way to be science and mathematics teachers and taking the courses necessary to credential. Finally, in retention, the state and the Governor have created loan forgiveness programs for students if they stay in the schools for a period of five years. And industry in California, high-tech industry – I'm walking the streets talking to high-tech industry – they have committed to internships for teachers in the summer so that they can go back to biotech or high-tech companies and continue to be refreshed with the notion of how science can be used to change society.

I talked about this program in Washington, D.C., in September, and I received nothing but enthusiasm. It's amazing the number of people who said, "We've been moaning about K-12

for at least a decade, and nobody has done anything about it." And this program has the span that over a period of a decade, we can change California. So it's with great enthusiasm that I've pushed really hard to get this program in place so that your school districts will have highly-trained and credentialed science and math teachers for the young people of California for the next generation of leaders.

Let me end my formal remarks by expressing again my gratitude for your hospitality and your friendship and your attentiveness. The California Farm Bureau has truly been an extraordinary UC partner. I think sometimes people in UC forget that. But you truly have been partners with the same mission, and that is to keep California competitive in the world. We've grown up side by side in the 20th century, and we should continue to be side by side. And I am confident that it won't take another 60 years for a UC president to stand in front of you, because it is my belief that together as a partnership, we can keep California the place we want it to be. Thank you.