

The Regents of the University of California

COMMITTEE ON LONG RANGE PLANNING

July 15, 2009

The Committee on Long Range Planning met on the above date at UCSF–Mission Bay Community Center, San Francisco.

Members present: Regents Bernal, Garamendi, Kieffer, Kozberg, Marcus, Nunn Gorman, Reiss, and Schilling; Ex officio members Gould and Yudof, Advisory members Croughan and DeFreece; Staff Advisors Abeyta and Martinez

In attendance: Regents De La Peña, Island, Johnson, Lansing, Lozano, Makarechian, Ruiz, Stovitz, Varner, Wachter, and Zettel, Regents-designate Cheng and Hime, Faculty Representative Powell, Secretary and Chief of Staff Griffiths, Associate Secretary Shaw, General Counsel Robinson, Chief Investment Officer Berggren, Chief Compliance and Audit Officer Vacca, Interim Provost Pitts, Executive Vice Presidents Lapp and Taylor, Senior Vice Presidents Dooley and Stobo, Vice Presidents Beckwith, Broome, Duckett, Lenz, and Sakaki, Chancellors Birgeneau, Bishop, Block, Blumenthal, Drake, Fox, Kang, Vanderhoef, White, and Yang, and Recording Secretary Harms

The meeting convened at 2:05 p.m. with Committee Chair Kozberg presiding.

1. APPROVAL OF MINUTES OF PREVIOUS MEETING

Upon motion duly made and seconded, the minutes of the meeting of February 4, and the minutes of the joint meeting of the Committees on Compensation and Long Range Planning of March 18, 2009 were approved.

2. UNIVERSITY OF CALIFORNIA ANNUAL ACCOUNTABILITY REPORT AND SUB-REPORT ON STUDENT SUCCESS

[Background material was mailed to the Committee in advance of the meeting, and copies are on file in the Office of the Secretary and Chief of Staff.]

Interim Provost Pitts reminded the Regents that the Annual Accountability Report was to have been presented at the May meeting, but was postponed. Vice Provost Greenstein would be giving an abbreviated overview of the report along with a more detailed look at the sub-report on student success.

Mr. Greenstein expressed excitement to be presenting to the Regents the first edition of the University of California Annual Accountability Report. He informed the Regents that the Report is part of a comprehensive framework that President Yudof announced in July 2008 to ensure greater accountability across the UC system. It measures campus and

University-wide performance in meeting core goals, and it will be published annually in May.

The Vice Provost pointed out that the indicators in the report are organized into 15 sections. These sections cover a wide range of topics, from undergraduate access and affordability through research, budget, and public service. Because coverage in each topic is limited in the complete report, seven sub-reports will be published periodically. Together, the reports will be used to help determine how well, and at what cost, the University meets its goals; they will also be used in support of strategic planning to inform budgetary decision-making, to assist management, and to promote the University's commitment to accountability.

Mr. Greenstein recalled that the Regents had been provided with a draft report during their September 2008 retreat. Since that time, the Report has been revised and enlarged extensively, with a great deal of input from the Academic Senate and from the administration. It has more indicators, it has new sections on staff, health services, libraries, capital resources, sustainability goals, and on UC Extension. Its new introduction highlights key themes and trends, and additional data throughout compare UC with other institutions. The Vice Provost expressed his gratitude to the campuses for their assistance in creating an entirely new section, in which each of the ten campuses tells its own story as it emerges from the data. While he observed that the Report may have many uses, Mr. Greenstein discussed five key outcomes derived from the Accountability Report.

The Vice Provost noted that the first use of the data is to showcase the University's strengths and successes. Counted among these is UC's percentage of Pell Grant recipients, which at 33 percent, is higher than any of its private or public comparison institutions. The Report also documents the University's success in improving student graduation rates. Between 1997 and 2004, the freshman four-year graduation rate climbed from 46 percent to 59 percent. Mr. Greenstein also pointed out the annual registrations in continuing education, a benefit of the UC system that is rarely mentioned.

Mr. Greenstein suggested that the Accountability Report could also be an instrument for greater transparency throughout the institution. He noted that the aspect of transparency is applied to both the University's business operations and its academic profile. Not only does the Report show income from various revenue sources, it also provides information about the changing cost of a UC education. While the University's per-student-expenditures have decreased 23 percent since 1998, the amount contributed by students has increased over that same period.

The Report uses objective data to document some of UC's pressing challenges. Insufficient salaries can affect the University's ability to recruit and retain world-class faculty, and thus weaken the University's academic quality and competitiveness. The Vice Provost indicated that UC faculty salaries are approximately 15 percent behind private peer institutions and only slightly ahead of its public peers. The composition of the Senior Management Group is problematic, with only a 17 percent representation from

minority groups, and with only one-third of the members being women. The Report also outlines the rising cumulative debt of the graduating professional school students since 2001, reflecting both the growth in the fees and the availability of substantial loans to graduate school students.

Benchmarks established in the Accountability Report will show how UC compares to peer institutions and to national trends. While research expenditures track consistently with the national average since 1996-97, the University compares less well with the elite public and private research universities that make up the American Association of Universities (AAU) with regard to the proportion of graduate and professional degrees awarded. Conversely, UC grants more undergraduate degrees than its national cohort.

The Accountability Report will inform and help the University assess the effect of policy and budget decisions and will be particularly useful in the next several years in determining the effectiveness of the interventions and actions UC has taken during the current financial crisis. Trends in virtually every indicator will be watched closely to help evaluate the consequences of changes made to fee and financial aid policies. The University will track changes in enrollment levels of underrepresented minorities to assess whether the achievement gap is bridged or widened by a variety of factors, including policies regarding eligibility, admissions, and fees.

Regent De La Peña requested clarification of the information depicting family income. He then observed that the data regarding salaries indicate that UC faculty are compensated at a scale similar to other public universities. Mr. Greenstein confirmed that the University was a few percent ahead of its public competitors, and about 15 percent behind its private peers. He noted that data are not drawn from a total remuneration study, which would take into account the cost of living and the value of entire benefit packages. Noting the quality of the benefits provided faculty, Regent De La Peña suggested that presenting the full data would provide a helpful and accurate comparison. Dr. Pitts interjected that, despite the favorable comparison with public institutions, the University of California competes primarily with certain private schools such as Harvard, Yale, Stanford, and the Massachusetts Institute of Technology for faculty; therefore the difference in that salary category was significant.

Regent Bernal asked if the University would be using the metrics in the Report to establish systemwide or campus goals. Mr. Greenstein explained that both the system and the campuses already have goals in place. He opined that the decision to include material from the Accountability Report would be, in some respects, a matter for the Committee.

Regent Ruiz expressed his belief that changes in UC fees will pose significant affordability and accessibility problems for disadvantaged students. He questioned what next year's version of the Accountability Report would show once the recent budget cuts had been in effect. He observed that a large part of the future workforce of California will be comprised of those disadvantaged students and that the Regents needed to anticipate the effects and changes brought about by the State economic crisis.

Regent Kieffer remarked that it would be valuable to have information on the incoming freshmen as well as their outgoing counterparts. He suggested that the Report track both weighted and unweighted grade point averages. Drawing particular attention to the Standardized Achievement Test (SAT) scores, he then asked why some elements and data in the Report had different timeframes than others. Mr. Greenstein explained that for each element, the Report collects data over as long a period of time as possible; some areas of research have a longer recorded history than others. Regent Kozberg added that the SAT in particular changed its format a few years ago.

Regent Kozberg observed that an increasing number of UC students are declining to state their ethnicity. She asked how those students were represented in the charts depicting student racial and ethnic diversity. Mr. Greenstein reported that the students who do not declare their ethnicity are not recorded in this Report. He acknowledged that it was a question to be addressed as the number of students declining to state their racial and ethnic identity increases. Regent Kozberg emphasized that she hoped the Vice Provost would give some thought to that issue. Mr. Greenstein affirmed that Regent Kozberg had raised an important issue, in that the results in the Report would grow increasingly less valid unless the undeclared students were incorporated into the statistics in some way.

Regent Kozberg followed up with a question regarding the growing relevance of home schools and private charter schools in the University data. The Vice Provost remarked that a small amount of data had been collected, but was not substantial enough to be meaningful. He confirmed that the data would continue to be collected from incoming freshmen and, over time, the University would be able to determine if students coming from one kind of school have different characteristics than those coming from another.

Regent Kozberg congratulated the Vice Provost on the strength of the Report and asked how its information will be integrated into data that are being collected nationally and internationally. Mr. Greenstein encouraged the Regents to view the entirety of the Report on the internet to better grasp its scope and content. He explained that the online data could be downloaded and analyzed in a multitude of ways to correlate to any local or national comparison information. He remarked that some information contained in the Report had been drawn from national databases to which California contributes. However, the Vice Provost cautioned that both the University of California and the nation demonstrate a certain level of weakness in measuring learning effectiveness. Mr. Greenstein stressed that in all aspects of the Report, the University would look both inwardly and outwardly for information by which to measure its accountability.

Regent-designate Hime referred back to Regent Kozberg's remarks regarding the growing distortion of statistics related to race and ethnicity because of the number of students who elect not to disclose that information. He asked about the value of the Report in the future if the data are not meaningful. Mr. Greenstein stated that he would provide the Regents specific data regarding the number of students with undeclared racial and ethnic affiliation and would determine a course of action to remediate the statistics. Regent Lozano mentioned the growing importance of international benchmarking and expressed a desire for UC to take leadership in that area. The Vice Provost informed the

Regents that the President would be establishing a joint administration-Academic Senate group to provide guidance regarding how the Report should develop. He offered that the issue of international comparisons is one that is of interest but was complicated by country-to-country differences in data collection and categorization. He agreed that there are some elements that will translate internationally and that the University should investigate them.

Regent Kozberg thanked the President, Interim Provost and Vice Provost for creating the Annual Accountability Report and asked that the discussion move on to the Sub-Report on Student Success.

Vice Provost Greenstein began by remarking that the University of California aims to prepare undergraduate students to assume roles as the next generation of leaders for California and the nation. In that light, student success needs to be defined and measured broadly to capture what students achieve academically as well as what they accomplish after they graduate.

Explaining that the University's data are strongest in regard to academic success, Mr. Greenstein focused his presentation on undergraduate students. More than 80 percent of all UC freshmen graduate in six years, compared to 74 percent at the American Association of Universities (AAU) public institutions and 89 percent at the private. The Vice Provost speculated that the differences in graduation rates between UC and the AAU institutions could be explained in part by the fact that the University serves a student population that is more diverse, is composed of more first-generation college attendees, has more Pell Grant recipients, and has more students from families where English is not the first or the only language spoken at home. Unlike the private schools, which can recruit students with only the very highest SAT scores and grade point averages (GPAs), UC offers a place to all students in the top 12.5 percent of California's high school graduates. The University takes eligible students from a broad range of backgrounds, encourages and supports them through graduation, and they graduate in six years at rates that compare extremely well with peer institutions.

Systemwide, the University has consistently remained in the 80 to 82 percent range in six-year graduation rates; however, Mr. Greenstein pointed out that the individual rates by campus vary between 67 percent and 90 percent for the same cohort. He suggested that the variation could be tied to differences that exist across the campuses with regard to student academic preparedness and socioeconomic backgrounds. While all campuses enroll students from the top 12.5 percent of high school graduates, the pools they draw from are not uniform. The Vice Provost detailed statistics related to student performance broken down by campus. Noting that GPA is a strong predictor of student success, Mr. Greenstein showed that 93 percent of students with GPAs above 4.2 graduate in 6 years, compared to 69 percent of those with a low GPA. The average GPA varies considerably by campus, and would likely contribute to the difference in six-year graduation rates. Similarly, 86 percent of students who satisfy their English language writing requirement before coming to UC graduate in six years, as opposed to 75 percent who fulfill that requirement through some developmental education while they are at UC. Students with

low Academic Performance Index (API) scores and those who are first-generation college students typically also do not perform as well; these students are more prevalent on some campuses than others. The Vice Provost pointed out that income, on the other hand, does not seem to be a strong predictor of success, particularly in families with incomes below \$79,000, but even in those below \$120,000.

In discussing race and ethnicity in relation to performance, Mr. Greenstein indicated that some demographic groups tended to have higher six-year rates than others and that those figures were even more disparate when combined with gender distribution. Again, underrepresented students are not enrolled uniformly from campus to campus.

While the overall two-year graduation rate for transfer students has improved, the same differences exist across the campuses and correlate to variances in academic preparedness and socioeconomic/demographic background.

The Vice Provost noted that the UC campuses share a great deal in common as part of a great public research university: they all admit from the top 12.5 percent of California's high school graduates, they all hire faculty to pursue research, and they all offer graduate and professional degrees. Despite this, Mr. Greenstein emphasized that it is the differences between the campuses that serve as a hallmark of the system's strength. The market conditions that they face as they pursue their own academic access and financial sustainability goals are important guides to understanding the very different opportunities and challenges that each campus confronts. The Vice Provost argued that these differences help to demonstrate UC's ability to draw from a very broad population and encourage success.

Mr. Greenstein reflected that, unlike the data on academic success, the data on learning outcomes are complicated and controversial. Since the Spellings Commission (the Secretary of Education's Commission on the Future of Higher Education), the topic has become a matter of national public policy debate and is politically loaded. Every two years, the campuses conduct their University of California Undergraduate Experience (UCUE) surveys and report the results to the Regents. The survey, a self-reporting tool given to graduating seniors, indicates their own perception about how well they did, what they learned, their level of writing skill, and whether they have gained knowledge of a particular discipline. In 2008, 72 percent of those seniors said their analytical and critical thinking skills were very good or excellent, whereas only 23 percent felt similarly skilled when they came in as freshmen. Similarly, surveys ask students where they want to go in life, and a very small patchwork of alumni surveys provide information on where UC graduates go after they leave the University. From those data, the Report assumes that 40 to 50 percent of UC graduates go on to some form of graduate or professional degree, and have ultimate career destinations that emphasize education, research, the learned professions, and business.

The Vice Provost argued that the rising cost of education at UC demands that the University make a concerted effort to provide better outcomes data. UC needs to be able to demonstrate to parents and to the State how that greater level of investment is repaid.

Recalling a recent presentation about the inevitability of greater reliance on non-ladder-rank faculty, Mr. Greenstein reported that the University will not have any real means of determining the consequences of such a change unless it can gather data on learning outcomes. UC cannot verify its assertion that it can recruit students from broad backgrounds and launch them in successful professions if it does not have better evidence on their careers. The Vice Provost informed the Regents that the highest priority for the next Accountability Report is to develop a richer set of indicators in these areas, certainly with respect to postbaccalaureate graduate career and geographical destinations. He commented that he looks forward to returning next year and being able to report to the Regents what has been learned.

President Yudof thanked the Vice Provost for his presentation and remarked that it was a vast improvement upon data that was produced in the previous three to five years. He observed that the University was going to have to grapple with the problem of outcomes; the faculty do not all see this issue the same way and that standardized tests have known weaknesses. However, without some sort of assessment, the University cannot know if or how its students benefit from their UC experience.

The President also informed the Regents that the University is largely in compliance with national standards. With the exception of the outcomes measures, the faculty have agreed to participate in a voluntary accountability system.

He observed that the University has to move beyond correlations to causations; it needs to try to find means besides SATs and grades to identify the characteristics of student groups that indicate they will be successful at UC. He acknowledged the profound difficulty of such determination, but underscored that the purpose of an accountability report should be to inform the decisions made by the institution. The data are a useful tool for assessing UC's performance, but the University needs to work out strategies derived from the data.

Regent Kieffer asked President Yudof if he knew of any universities that perform outcomes assessment. The President affirmed that such studies had been done, and that during his tenure at the University of Texas, he had administered the College Learning Assessment (CLA) to students. Faculty experts examined the data and determined that some institutions add considerably more value than others. Citing the need for faculty cooperation, President Yudof remarked that he is currently waiting for a report from the faculty to hear their thoughts and concerns. Regent Kieffer speculated that the assessment might raise issues of what the curriculum is intended to accomplish by the time a student graduates.

Faculty Representative Croughan noted that the Senate had just received the final version of the Accountability Report the previous week and had not been able to address it due to the overwhelming activity surrounding the furlough and salary reduction items that were discussed that morning. She explained that the faculty's Educational Effectiveness Task Force has been working on outcomes assessment for approximately one year. Ms. Croughan indicated that the President had been given one preliminary draft of their

findings, which was not particularly supportive of the CLA, but that did contain some other very objective, goal-oriented, subject-matter specific aspects that she believes the faculty will embrace and put forward.

Regent Garamendi thanked the President for making the Accountability Report a priority and called it a useful and necessary tool. He wondered if the Report would become a mechanism by which the University could assess how a strategic plan might be composed and put into effect.

Regent Island expressed concern regarding the ability of the University to validate its admissions construct and its concept of academic merit. Upon reading the Report, he felt that the only current test for UC is the graduation rate; he observed that this statistic does not measure the quality of the educational experience the students receive, the students' contribution to the learning and creative environment, or the students' contributions to society after graduation. Regent Island questioned the usefulness of the Report as a tool for the University, for the Regents, and for society if graduation rates are its only critical determinant or factor. He acknowledged the challenge of collecting data of the type mentioned, but he believed that such data would answer important questions for the University.

Interim Provost Pitts recalled that this is the first annual report put forward by UC. As such, it is somewhat incomplete due to a shortage of historical data in some areas. The Academic Senate weighed in very heavily and added material, but the Report is still lacking in many areas. Dr. Pitts agreed that the question about the progress of students after graduation is critical, and said that he intended to begin the somewhat arduous task of gathering some of that data. He related that the faculty had voiced concern regarding the complications associated with measuring learning outcomes, particularly when the assessment gauges many disparate areas of study. While underscoring that this Report is a first attempt at tabulating some information, the Interim Provost acknowledged that the data need to be improved and made more sophisticated to provide the information Regent Island sought.

Regent Island followed up with an observation that the information regarding graduation rates seemed to serve as an economic tool and asked if it was a valuable one. Regent Kozberg noted that it was also an important tool that is being used on a national level. Mr. Greenstein confirmed that the graduation rate statistics do function as an economic tool related to throughput. He indicated that he had tried to accurately present the Report as one that was operating with limited data and that he also had expressed his intent to extend the future version of the report into areas where it is currently weak. The Vice Provost remarked that the President already had asked him to investigate data on learning outcomes and student post-graduate success. He had accumulated some material that he could have presented to the Regents at this meeting, but felt it was sufficiently flawed that it did not warrant presenting. Noting that a new institutional research unit has been created in the Office of the President, Mr. Greenstein reported that those staff are developing a range of data that would allow the University to approach some aspects of these issues with the material currently at hand. In addition, the office intends to field a

standard AAU survey to alumni who graduated 5, 10, and 15 years ago. The Vice Provost agreed that the issues raised by Regent Island are very important and stressed his intent to have more valuable data at the time of the next Annual Accountability Report.

Regent Marcus asked whether any institution had ever conducted studies on students who achieved extraordinary success or made breakthroughs in their fields after graduation. Mr. Greenstein recalled that, as a historian of higher education, he had encountered those types of studies routinely in a European context, and opined that American institutions should explore that type of research. Regent Marcus suggested that if UC could identify characteristics of extraordinary achievers, it could use them as an element of acceptance to the University and could revolutionize graduate effectiveness. Regent Marcus asked Mr. Greenstein to provide him with information about those types of studies.

Regent Kozberg observed that contact with alumni for purposes other than fundraising might have a positive effect on alumni relations overall. She then inquired as to the means by which students satisfy the English language and writing requirements and wondered if the remediation was done at the UC campuses or at the community college level. The Vice Provost replied that the method varies between the campuses, with some working closely with local community colleges and others offering that instruction themselves.

Mr. Greenstein called the attention of the Regents to the campus profiles which have enabled the campuses to use the data as a launching point for discussing their individual experiences with student participation and outcomes. He pointed out that the profiles have the additional interest of having been written before the State funding crisis and therefore provide a very important baseline regarding their perceived future as of early 2008. He encouraged the Regents to review the profiles to get a better sense of the quality of education and student experience.

Faculty Representative Powell remarked that, based upon his previous experience of serving on the undergraduate student experience committee, the campuses do use the Annual Report data in a local context to inform the student experience and to make strategic judgments about the use of campus resources.

Staff Advisor Abeyta questioned if the University was making efforts to understand the backgrounds and priorities of the students enrolled in continuing education classes. He proposed that their cultivation could lead to development of dialogue with a broader pool of individuals who have an affinity for UC. Mr. Greenstein responded that he did not have an answer at this time. Regent Kozberg volunteered that Mr. Greenstein would research the answer and provide the information to Mr. Abeyta.

Regent Kozberg noted that University reports typically do not segregate information by campus. She thanked the campuses for their assistance and participation in the creation of the Report.

Regent Ruiz expressed satisfaction with the Report and indicated that it will help UC be more effective and more efficient. He thanked the President and the Committee for their efforts.

3. **IMPLEMENTATION OF THE UNIVERSITY OF CALIFORNIA DIVISION OF AGRICULTURE AND NATURAL RESOURCES STRATEGIC VISION**

[Background material was mailed to the Committee in advance of the meeting, and copies are on file in the Office of the Secretary and Chief of Staff.]

Senior Vice President Dooley informed the Regents that he assumed the role of Vice President of Agriculture and Natural Resources (ANR) in January 2008 and was directed take a critical look at the Agriculture and Natural Resources program and make sure that it was properly aligned with the challenges facing the stakeholder communities it serves. He determined that it would be best to use a demand-based model to discover the future requirements for the program rather than planning around existing organizations and capacities. Through this process, ANR was able to develop a strategic vision, identify priority areas for the program, and initiate a Provost review, a traditional academic review of the program.

Noting that the most recent presentation from a vice president of ANR was in 1994, Mr. Dooley felt it beneficial to give the Regents an overview of the Division and its functions. He explained that Agriculture and Natural Resources began as the public service arm of the historic land grant mission of UC, and that its role is to maintain a connection with the people of California, identify issues of importance to them, and apply research to address the questions that arise from these issues. ANR is composed of a statewide network of scientists and outreach personnel who have historically been engaged in the agricultural community but who are increasingly incorporated into facets of California's many communities.

The Division of Agriculture and Natural Resources is allied with three campuses, and has slightly more than 800 faculty appointments. Seven hundred of those are Agricultural Experiment Station appointments, which are akin to ANR faculty on the campus; in some cases they teach courses, but the expectation is that their research is mission-driven. Additionally, the Division has approximately 112 Cooperative Extension Specialists who are housed on the campuses and who are intended to serve as a bridge between the research on the campuses and ANR's county-based operations. ANR has ten research and extension centers, distributed across the State in a variety of microclimates and environments where faculty from the various campuses conduct applied research. ANR has offices in 52 counties and approximately 220 Cooperative Extension Advisors who serve as the actual interface with the people of California.

Mr. Dooley called attention to the extraordinary talents and achievements of the ANR faculty, particularly those in the Agricultural Experiment Station appointments. About eight percent of UC's ladder-rank faculty, approximately 25 percent of its honorary award-winners in the American Academy for the Advancement of Sciences, and ten

percent of its National Academy members, are in the Division of Agriculture and Natural Resources. The Division also includes six members of the Institute of Medicine of the National Academies and a number of Ford Foundation fellows. The Senior Vice President further related that one of the ANR faculty chaired a working group of the Intergovernmental Panel on Climate Change which co-won the Nobel Peace Prize with former Vice President Gore.

Mr. Dooley noted that funding for ANR is quite varied. It receives moneys from the State to support both the campus- and county-based activities as well as some formula funds from the U.S. Department of Agriculture. Local governments provide funds to support county operations, and a significant amount of extramural funding comes in the form of contracts and grants. He noted that since 2000, the apportionment from the State has been reduced to approximately 45 percent of its previous amount, a substantial reduction over the last decade. However in that same period of time, there has been substantial growth in extramural funding, even from non-agricultural sources such as the National Science Foundation and the National Institutes of Health. These organizations are increasingly forming strong connections between the characteristics of food and the population's nutrition and health; since ANR has many faculty working in this area, it has been very competitive in securing national funds. Agriculture and Natural Resources receives money from the California Environmental Protection Agency, from the Air Resources Board, and a variety of other State agencies, primarily to support diverse applied research program areas.

The Senior Vice President explained that while a large part of ANR's programs are focused on production agriculture, it is also now involved in a variety of other areas such as the Center for Produce Safety at UC Davis, the Berkeley Atmospheric Sciences Center, the UC Riverside Institute for Integrative Genome Biology, and its Center for Conservation Biology; the program is also very active with the Energy Biosciences Institute at Berkeley. The Center for Regional Change at Davis is a program that is working with local government to look at growth patterns and see how they impact sustainability both in the community and in the local environment.

Mr. Dooley explained that the program extends into the health arena and noted its historic efforts in nutrition education in local communities, particularly with underserved populations. The Foods for Health Institute, a multi-college, multi-disciplinary effort initiated at Davis, brings together production agriculture, nutritionists, medical school faculty, and others to try to proactively develop stronger linkages between the food produced and the health of the people who eat it.

Overall, the Senior Vice President remarked that the success of the program is quite overwhelming. Agricultural productivity in California over the last half century has increased by 250 percent. It is one of the fastest annual productivity growth rates of any industry in California. In 2008, California produced farm gate value of about \$30 billion in agricultural productivity, which translates into an overall impact on the economy of about \$100 billion. Recent studies have suggested that a large share of that productivity growth is related to technology and knowledge developed at the University of California.

While he expressed pride regarding the history of Agriculture and Natural Resources, Mr. Dooley cautioned that the future of the program may not be built strictly around the connection to production agriculture. Bolstered by the results of the strategic visioning process, he expressed his belief that many of the issues confronting California in the future are interdisciplinary and involve practices far beyond historic production agriculture. These issues will require ANR to take a much different look at how it relates to the science disciplines within the University. The program has developed a vision for 2025 through an interactive process with a variety of stakeholders, both within the University and without. It identified nine major areas that appear critical to the future success and sustainability of California, particularly in the Agriculture and Natural Resources area. They are all interdisciplinary and integrated programs related to topics currently of much concern, such as water issues, sustainable food systems, and science literacy.

As ANR examines how it can align itself around these major areas, it also has undertaken a Provost review, which is a more traditional academic review pursuant to the multicampus research protocols. Mr. Dooley explained that the review was led by a high-level panel, with members of the National Academies and chaired by Catherine Woteki, who is the Global Science Director for the Mars Corporation. The panel returned with a number of recommendations, including the conversion from a focus on production agriculture to a vision for food and natural systems. The panel also raised some questions about whether ANR should focus strictly on California, since the program has international implications and its scientists are engaged all over the world. The review process discussed the program's visibility and brand identity; Mr. Dooley echoed the concern that ANR's role is not well understood and that its broad contributions to the lives of everyday people in California are not well known. Similarly, the panel suggested that ANR identify metrics to measure its successes and gauge its accountability.

The review also recommended that the program ensure that its processes are inclusive, that it attends to the diversity of its workforce, and that it serves a diverse California. Mr. Dooley expressed some frustration with the challenge of that suggestion, stating that the age distribution of the faculty is disproportionate, with twice as many members in the 55 to 65-year-old category as there are in the 25 to 35-year-old category. He pointed out that ANR faces some significant hurdles in recruiting and identifying faculty and cooperative extension advisors to address the many future retirements and vacancies in the coming decade. This, compounded by the restriction in workforce over the past ten years, has created shortfalls in the diversity arena; Mr. Dooley stated that he intends to devote very considerable attention to this dilemma as he moves forward with the program.

The review indicated on many occasions the instances where ANR could engage more proactively with external partners and with other parts of the University. Mr. Dooley recalled that last spring, Agriculture and Natural Resources hosted a session with directors of water resource centers and institutes from across the UC system. At this conference, he noted, it was clear that most of the directors had never met one another; he felt that this was an area where ANR could perhaps provide some coordinating leadership

in connecting the science that is pursued in those centers. On a related note, the Senior Vice President outlined that the Cooperative Extension specialists, whose primary responsibility is outreach, are not well recognized through the typical metrics for merit and promotion that apply to ANR faculty since the metrics do not address the outreach responsibility. Mr. Dooley assured the Regents that the Division would be working to correctly align the metrics for success in particular positions and thanked Faculty Representative Croughan and Dr. Pitts for working with the Academic Senate to determine how to address those questions.

The Senior Vice President observed that the review processes he had initiated were originally intended as guidelines for attracting additional revenues; instead, they will help serve as a means to deal with significant budget reductions. He stressed that ANR is engaged in a very aggressive program of evaluating all of its existing programs and measuring them against how they add value to its vision and initiatives. By the end of the fiscal year, he expects to have all of the restructuring in place and have a realigned program that is reflective of the needs of the future; the Division will make hard decisions about which programs are associated with those needs and which are not. Part of this process is the evaluation of all of ANR's administrative structures, which are statewide and have historically been disaggregated. Mr. Dooley elaborated that ANR had already begun the process of collapsing and consolidating many of those functions and will achieve substantial efficiencies in those areas.

Mr. Dooley observed that the county governments are equally challenged fiscally and reported that Agriculture and Natural Resources is working with them to consider some very different models for providing services, such as joint powers agreements, with multiple county and regional centers that would provide services and achieve substantial efficiencies in the administrative footprint. ANR has a variety of statewide programs, many of which Mr. Dooley believes have become entitlements; he is examining all of them closely and will be eliminating or restructuring them around the newly-identified major initiatives. The Senior Vice President shared his strong conviction in the importance of securing cooperation among important constituencies as fundamental changes are implemented. He has assembled working groups on the campuses and in the field to help determine how to implement some of the major structural changes and align ANR's programs appropriately. Mr. Dooley expressed his confidence in a positive final outcome, and noted that 620 of the 1,100 departmental faculty and advisors participated in a statewide conference ANR held in April to mark the roll-out of the initiative. He felt the high level of participation was reflective of the hard work that the staff exerted to make sure that everyone was consulted and involved in the process. He shared his hope that next year he will report to the Regents that Agriculture and Natural Resources has implemented the major changes necessary to align its resources around its major new initiatives.

Regent Garamendi thanked Mr. Dooley for his very thoughtful and extremely useful presentation. He then asked the Senior Vice President to clarify why climate change was not included in the nine key areas of focus for ANR. Mr. Dooley explained that it is in the Report as a critical component of many of the initiatives such as water resources,

sustainability of natural systems, and sustainability of agriculture. He encouraged the Regent to look at the Report's supporting documents where climate change is considered to be an overarching issue that touched on most, if not all, of the major initiative areas. Regent Garamendi countered that, as such a profound factor, climate change should be explicitly and aggressively included; he had not noticed it on any of the slides shown during the presentation. Mr. Dooley indicated that climate change was not included on the slides in the interest of brevity but, in the complete document, issues related to adaptation and reducing emissions are identified as significant areas in which ANR can provide significant value.

Regent Marcus questioned if there is any way to measure the effect of UC's 50-year involvement in the productivity of the agriculture industry. He felt that such documentation would provide a strong argument against undermining one of the largest industries in California by jeopardizing the University's budget. Mr. Dooley replied that Julian Alston at UC Davis and Phillip Pardey at the University of Minnesota have done significant research on productivity growth and agriculture across the country since 1950 and tried to tease out how much of that growth was related to public investment in agriculture-enhancing research. Their research estimated that for every dollar invested in technology to increase productivity growth, the return is at least 20 to 1, and that for each dollar spent, the country has gotten a return in present value numbers of 20 to 30 times the investment. The President's Advisory Commission on ANR has been engaged in advocacy on behalf of the University. It distributed information related to this topic in Sacramento and is actively engaging the agriculture community to convey that message. He acknowledged that the information has not translated into any change in the tide of State contributions, but that ANR is working very hard to advance that knowledge.

Regent Marcus observed that the agricultural community is enormously influential in Sacramento, so their involvement could have a phenomenal outcome. Mr. Dooley added that he put together a Natural Resources Advocacy Task Force in January 2008, and that it is currently implementing a program to involve the agricultural community in advocacy on behalf of the University. With offices in 52 counties around the State, ANR has a network that extends much more broadly than any other component of the University, so it has an opportunity to make significant progress in that regard.

Faculty Representative Croughan expressed appreciation to Mr. Dooley on behalf of the Academic Senate for the planning, strategic review, and the Provost review of ANR. She recalled that the Academic Senate had asked for an academic review of the department for about a decade. She mentioned that she was honored to serve on the Provost review committee to see how the program's future structure would coincide with academic improvements such as the recognition of the Cooperative Extension specialists. Ms. Croughan raised one other recommendation from the review committee, which was that ANR should consider expanding beyond its current three campuses (Berkeley, Davis, and Riverside), perhaps initially to Merced and then throughout the system. She noted that the current budgetary restrictions may render that option infeasible for the near future, but encouraged Mr. Dooley to continue to examine how to expand the program to other campuses. Mr. Dooley expressed some doubt of establishing long-term structural

alignment with other campuses at this time, but added that shorter-term University-wide engagements with prominent scientists on particular initiatives, for example, food nutrition, were worth pursuing. He explained that he had already engaged in dialogue with Dr. Heber who is working on human nutrition issues in the UCLA medical school; he pointed out that there is a clear and logical connection between a segment of the programs at UCLA and nutrition initiatives that ANR would like to pursue. Mr. Dooley said that ANR would be assessing where the best talent is within the system and would try to collaborate with those individuals without diluting the diminishing resources invested in Berkeley, Davis, and Riverside.

Staff Advisor Abeyta referred to the great value of Agriculture and Natural Resources, particularly in terms of outreach to students in primary and secondary schools. He asked about the degree and duration of the effects the ANR outreach program has upon California's youth. He remarked that ANR's effect on the younger population is important to communicate. Mr. Dooley indicated that ANR is investigating how it can leverage its resources with other initiatives in the Office of the President and on the campuses for elementary and secondary school outreach. He indicated that a logical relationship exists between ANR programs and other departments in the UC system that have pre-identified students who have interests in science and engineering areas to increase the number of science and math teachers.

Regent Ruiz recalled that before he was a Regent, he knew about the Division of Agriculture and Natural Resources; after becoming a Regent, he was amazed that others were not familiar with it. He opined that ANR had, in fact, been dying within the UC system. Regent Ruiz expressed appreciation for the support the Office of the President gave to strengthening the program and complemented Mr. Dooley on his rapid revitalization of the Division. He echoed Mr. Dooley's assertion that the program encapsulated more than agriculture; that it was concerned with natural resources, climate, air quality, and healthy food. Regent Ruiz asserted that ANR is an incredible resource for the University, for California, for the nation, and for the world. He argued that providing communities with food, or with the ability to feed themselves, is an incredibly powerful resource. Regent Ruiz suggested that as the Regents work through the process of trying to plan for the future of University of California, they could use the ANR methodology as a roadmap for maintaining excellence within the system. Regent Ruiz reminded the Regents that Mr. Dooley was not only serving as the Vice President of ANR, but was also the Senior Vice President of External Relations; he thanked Mr. Dooley for fulfilling both of those roles successfully, and thanked President Yudof for his support.

The meeting was adjourned at 3:45 p.m.

Attest:

Secretary and Chief of Staff