The Regents of the University of California

COMMITTEE ON LONG RANGE PLANNING
February 4, 2009

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

Members present: Regents Kozberg, Marcus, Reiss, Scorza, and Shewmake; Ex officio member Gould[1]; Advisory member Croughan; Staff Advisors Abeyta and Johansen

In attendance: Regents De La Peña, Hopkinson, Island, Johnson, Lansing, Lozano, Makarechian, Pattiz, Ruiz, Varner, and Wachter, Regents-designate Bernal and Stovitz, Faculty Representative Powell, Secretary and Chief of Staff Griffiths, Associate Secretary Shaw, General Counsel Robinson, Chief Investment Officer Berggren, Executive Vice Presidents Darling and Lapp, Senior Vice President Stobo, Vice Presidents Beckwith, Dooley, Foley, Lenz, and Sakaki, Chancellors Birgeneau, Block, Blumenthal, Drake, Fox, Kang, Vanderhoef, White, and Yang, and Recording Secretary Smith

The meeting convened at 1:50 p.m. with Committee Chair Kozberg presiding.

1. **ANNUAL ACCOUNTABILITY SUB-REPORT ON UNIVERSITY PRIVATE SUPPORT**

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

Assistant Vice President O’Neill recalled that the 2007-08 Annual Report on University Private Support was presented in November 2008. The past ten years have seen significant growth in gifts to the University. Last year UC achieved a record of $1.6 billion in private support, an increase of $300 million over the prior fiscal year. This represents a 24 percent increase, during a year when many charitable institutions did not fare well.

Mr. O’Neill referred to a chart showing private support over a 20-year period, from 1989 to 2008. While there were increases in 16 out of the 20 years, there have been years with modest declines. These coincided with times of economic crisis. As part of the accountability framework, the Office of the President would provide more information comparing the University, systemwide and by campus, with its peer institutions. A chart comparing UC with eight other universities, public and private, showed significant growth in private support over the last five years.

[1] In the absence of the Chairman of the Board

Most gifts received at the campuses are restricted to specific purposes. About 30 percent of these are for research. An even larger percentage of gifts is targeted to specific departments. Only two percent of private funding received last year was unrestricted. This was consistent with the pattern of the last ten years and reflected the typical level of unrestricted funding for public institutions. Donors may have a passion to support the University in very specific areas, rather than in general needs, such as deferred maintenance.

Mr. O'Neill then discussed UC endowments. The University's first endowment came from the 1862 Morrill Act, the land grant act signed by President Lincoln. The first major gift to UC was a professorship in Oriental languages, established at the Berkeley campus in 1872 by Regent Edward Tompkins. That endowment has grown and now supports four chairs at UC Berkeley. In the 1930s the General Endowment Pool (GEP) was created as a common investment vehicle for the endowment funds. At that time, there were about 100 such funds. Since the 1940s, campus foundations have been active in receiving and managing endowments.

The Regents' policy on gifts and endowments guides the use of these funds for purposes for which State support is not adequate. The policy has influenced how the University solicits gifts and, in the infrequent cases of unrestricted gifts, the Regents have determined how funds are to be allocated.

As of June 2008, the University had about $9.6 billion in endowments, including funds in the GEP and held by the campus foundations. In the last two years there have been significant new gifts, totaling $280 million in 2007 and $376 million in 2008. Most new funding for the endowments, about 80 percent, comes to the campus foundations. There are over 11,000 separate endowment funds at UC. Last year these endowments distributed approximately $350 million.

In a comparison of endowments per student at various institutions, UC falls in the middle of the range of its comparison public institutions. This is due to the size of the University, with well over 200,000 students. While it might not be realistically possible for UC to reach the endowment-per-student level of some private universities, it would be desirable for the University to increase its endowment per student.

Mr. O'Neill cited a recent report by the National Association of College and University Business Officers (NACUBO) on college and university endowments. Investment returns for college and university endowments for the year ending in June 2008 were down 3 percent. The GEP performed slightly better for this period, with a decline of 1.5 percent. The weighted average of the GEP and the campus foundations experienced a decline of about 1.6 percent. Endowment balances remained flat at most institutions; this takes into account investment returns, additions to endowments, and distributions from endowments. NACUBO issued a supplemental survey on investment returns through November 30, 2008. This survey showed an average loss of 23 percent; UC's loss for that period was 22 percent. The impact on UC's endowments and the support provided to campuses is difficult to state. Mr. O'Neill anticipated that, for the current year, the payout from UC's endowments would be approximately the same as it was last year. This was due to a 60-month rolling average. The strong investment returns of three to five years ago would support a level of payout consistent with last year. It would be difficult if not impossible to achieve growth and increased endowment payout in the future without a turnaround in the investment market.

Data from the American Council on Education indicate that restricted funds account for 55 percent of the endowments of private institutions; the average figure for restricted funds in public institution endowments is 80 percent. UC endowments are even more restricted, with 90 percent to 95 percent of funds restricted to specific purposes. The trend among donors has been to designate funds for particular purposes. Mr. O'Neill did not believe that this would change in the future.

Over 25 percent of UC endowment payout supports student financial aid. More than half of all the individual endowment funds are directed to financial aid.

As part of its accountability framework, the University tracks private support both annually and for multi-year trends. It is mindful of donor restrictions and tries to align areas of donor support with the academic interests of the University and to ensure flexibility to address changes from year to year. UC benchmarks itself against its peers in alumni giving, parent giving, and incentive programs.

Mr. John Glier, president and CEO of Grenzebach, Glier and Associates, discussed the likely impact of the current economy on philanthropy, private support metrics for the University of California, and best practices for high-performance philanthropy in higher education.

Mr. Glier began by discussing a chart showing total U.S. philanthropy over the last 40 years. Americans currently give away over $300 billion, 2 percent of the nation's GDP, and probably the equivalent of about 1.8 percent of personal income each year, across a broadly diversified set of sectors in civil society. Philanthropy in America has demonstrated remarkable resilience through five recessions and across many different economic and political landscapes.

In a chart showing percentage changes in philanthropy from year to year, there was only one negative number in forty years, -1.3 percent in 1987. This was the only time in the last 40 years that giving in America has gone down in nominal dollars. Mr. Glier saw this as a reflection of the strength and the breadth of philanthropy in the U.S. economy. He described philanthropy as a growth enterprise, providing 2.8 percent compound annual growth for more than 40 years. In higher education, that number is 3.1 percent, adjusted for inflation.

Education represents 15 percent of American philanthropy, or about $45 billion; higher education represents about $28 billion of that number. Giving to education shows the same growth as philanthropy in general, although there were a number of down years.

Economic stress is felt more acutely in higher education, particularly due to the impact of capital markets on many large gifts.

Mr. Glier then displayed a chart with annual percentage changes in philanthropy to education. There were a number of years of negative growth, usually following or within recession years. Education and health have suffered more than other sectors in American philanthropy during recession years, whereas giving to religious institutions has continued to increase during that same period. The effect of economic stress varies among charitable organizations and institutions. Some charities and universities experience substantial decreases in philanthropic giving, but just as many, about half, continue to prosper and grow their gift totals during and immediately after such periods of economic stress. After the last recession in 2001, fundraising at 14 of 20 top universities increased in the year of the recession and in the year following, while it declined only at 6 universities. A recent survey of campaigns launched around the period of the last recession showed that 25 of 26 campaigns achieved goals about 15 percent above the average of their original targets. In spite of the down economy of the last six months, there has been an extraordinary level of giving to higher education, with over $3 billion given since the first of October. Thirty-one campaigns were launched with targets that total well over $5 billion.

Mr. Glier reported that his organization has surveyed institutions across the country and found that, in this particular recession, giving has increased at about half of the institutions. Net contributions are down about 3 percent in cash, but 12 percent up in numbers of donors. Charities that appear to weather economic downturns best are often those with organized programs, a compelling case for support, leadership committed to their mission, and a persistent and confident execution of fundraising plans.

Mr. Glier acknowledged that volatility in the capital markets slows down gift decisions, but noted that his advice to clients is to stay the course, to know their donors, and to be sensitive to the environment and its impact on some donors. He advises clients to increase their stewardship activities everywhere and to continue to solicit. Some donors continue to give during recessions and most donors reengage when conditions improve. Mr. Glier observed that philanthropic gifts continue long after consumer decisions have stopped, and that well-planned and led campaigns often prevail in many different economic and political landscapes. He saw little room for pessimism in the business of fundraising, including fundraising for higher education.

Mr. Glier then turned to data about the University of California. The University has been a leader in philanthropic growth in higher education for the last 20 years. It has outperformed Carnegie I public and private universities in 10-, 15-, and 20-year growth. The University has enjoyed an annual growth rate of 7.5 percent in ten-year growth and compares favorably in growth in dollars at all public and private research universities. Its ten-year growth lagged somewhat behind growth at several leading public universities and two major private research universities in California, the University of Southern California (USC) and Stanford. The latter two had a combined growth rate of 10.6 percent. Mr. Glier stated that the figures for USC and Stanford were included because the prospects for philanthropy at UC were extraordinary and because UC was still far from the theoretical limit of funds that it could raise.

Data on the ten-year growth rate for campuses with and without medical schools, compared also with Carnegie I public and private institutions, showed that campuses with medical schools have outpaced growth at leading public and private institutions nationally, while those without medical schools have somewhat lagged the pace. Mr. Glier described alumni giving as a core driver of growth. On a chart of ten-year growth per alumni of record, UC's growth rate of 3.2 percent is relatively undistinguished, but its average contribution of $951 per alumnus is about double the average $474 giving level per alumnus for all public Carnegie I research universities. Alumni giving at UC is about 70 percent of the average at private universities, and only about a third of that at Stanford and USC, which stands at $3,276.

The average UC alumni gift, $1,436, is virtually even with that at the Virginia public universities and 50 percent higher than at Carnegie I public institutions, where the average gift is $966. It is two-thirds of the average alumni gift to Carnegie I private institutions and about a third of an alumni gift to Stanford or to USC.

The next chart showed that ten-year growth in alumni participation has been negative, a national downward trend and a major concern for higher education philanthropy. The eight Texas public universities were the only institutions on the chart to show a slight increase in participation over the past ten years.

Ten-year growth in parent giving presented a more positive picture, and Mr. Glier suggested that it might prove to be the best prospect in the future. Public institutions are growing faster than private institutions in this area, but at present, private research universities raise about twice as much from parents. He noted in particular the 56 percent growth rate at the Texas public universities. The Stanford-USC average is double the amount raised by the ten UC campuses.

If private support is seen as a percentage of institutional budget, the percentage of 12.6 at UC places it slightly ahead of the 12.4 percent at the six Virginia public universities. Philanthropy at UC has moved from a relative component of 8.6 percent of the budget to 12.6 percent, evidence for the significant impact of philanthropy on the UC budget.

Mr. Glier then discussed potential for growth. Over the previous ten years, total giving to the University increased from about a half a billion to $1 billion. The compound annual growth rate from 1994 to 2004 was 9.2 percent. If the 9.2 percent growth rate is sustained, the University could reach $1.89 billion in private support in seven years. The average growth rate for Carnegie I private and public research universities was 7.7 percent. If UC achieved only this rate, it would reach $1.71 billion by fiscal year 2011. In order for the University to double its fundraising from $1 billion in 2004 to $2 billion in 2011, a compound annual growth rate of 10.1 percent would be necessary. In 2008 the University reached a $1.6 billion total, exceeding the growth path of 10.1 percent. It would be difficult to predict growth this year, but Mr. Glier noted that, to achieve the growth rate of the past ten years, in fiscal year 2009 UC would only have to realize a number of $1.58 billion, slightly less than last year's record high.

The next chart displayed institutional advancement expenditures in proportion to private support. In fiscal year 2006, the last year for which there are explicit data, the University spent about $170 million to raise $1.2 billion. This represents a 14 percent cost and compares favorably to a defined cohort of institutions.

On a chart of expenditures relative to alumni of record, UC's mean spending level of $147 is close to the national cohort average of $155, but for all UC campuses combined the average is $120. The spending level at the ten campus institutions varies from a low at one campus of $54 per alumnus to a high of $513. UC has not yet standardized its overall institutional strategy regarding levels of spending.

The next chart showed the net yield of fundraising dollars as a percentage of institutional expenditures, the overall budget of the institution. Compared to its cohort of universities, which achieve an average net yield of 12.7 percent of budget, UC underperforms somewhat at 11.5 percent. The net yield at the campuses varies from a low of 5 percent to a high of 21.8 percent.

Mr. Glier then discussed advancement expenditures, or spending on development and alumni relations and communications, as a total of institutional budget. In 2006, the University spent $170 million, or 1.8 percent of its $9.3 billion institutional budget. UC is spending less than its cohort peers, who are at 2.2 percent. The University has a growth path and opportunities for further investment in this arena.

Finally, Mr. Glier considered best practices which account for UC's performance and the success of its high-performance peers. High-performance fundraising universities set program goals and metrics and link those metrics to a return on investment structure. They are mindful of spending and of the viable, predictable, and sustainable return on private support dollars. They engage in conscious brand-building, identifying unique institutional strengths, competitive advantages, and excellence that differentiate them from their peers. They consistently benchmark with their peers. They compete aggressively for scarce internal resources and capital to grow their programs and staff, and they compete using a return-on-investment model. They invest heavily in long-term engagement strategies with alumni and selected non-alumni constituencies. Mr. Glier observed that Stanford's extraordinary investment in alumni relations, well above its public and private peers, has worked to its advantage over the last 15 to 20 years.

High-performance institutions make accountability and transparency part of all of their management activity and reporting. Recruiting and training functions are designed to meet the demands of a tough marketplace. The architecture and dynamics of volunteer structures are re-envisioned. Program initiatives are built on evidence and market testing. High-performance institutions reconstitute voluntary board agendas and events to ensure that participants derive both intellectual and emotional value from these experiences and become investors. They provide training and skills to their professional staff and academic partners, deans, and voluntary leaders. They build a culture of philanthropy through the encouragement of continuous and annual giving practices. They create thoughtful and concrete gift opportunities for gifts as low as $10 and as high as $10 million. They task themselves to constantly look for leaders within their organizations. They practice stewardship beyond donors' expectations and facilitate and help shape the transformational initiatives to which the most generous donors respond.

Mr. Glier concluded his remarks by suggesting that the Regents should request that the campuses track and report on key metrics annually; benchmark those metrics against the best global universities in fundraising and alumni relations; identify and fund incentive opportunities that accelerate unusual growth, such as the initiative in parent giving, enabling the necessary infrastructure to grow; and periodically formally recognize donors to the institution.

Chancellor Blumenthal provided a brief overview of fundraising at UC Santa Cruz. The campus is now 43 years old, in transition from being a start-up university to a maturing campus. Fifty percent of enrollment growth has occurred in the last decade. The alumni base is relatively young. Entering freshmen who were 18 in 1965, when the campus opened, are turning 62 this year, an age when capacity for and interest in giving increases. Fewer than 16 percent of UC Santa Cruz alumni are 52 or older, the peak giving years. Thirty percent of alumni are under 32, less than ten years from graduation. Nevertheless, UC Santa Cruz has a large impact relative to its size. One measure of its innovation is the growth in research funding. Over the last five years, UCSC has raised more than half a billion dollars in federal contracts and grants.

The campus recognizes that private support is vital to its future, and it is about to undertake the first comprehensive campaign in its history. Chancellor Blumenthal informed the Committee that he is attempting to change the culture of the campus, to encourage support of philanthropy and make it a shared goal. By the end of this year, he and the Provost will have visited all 41 academic departments to discuss fundraising activities and departmental involvement in them. This will help to share campus values and goals, explain challenges, and engage faculty in the upcoming comprehensive campaign. The Chancellor and Provost are also working with the UC Santa Cruz Foundation leadership to reinvigorate board membership as active and successful partners in fundraising.

The campus is now investing in fundraising infrastructure. It has been able to leverage matching funds received from the Office of the President and create innovative programs. Regional outreach has produced 64 events in its first year, with more than 1,600 attendees. A successful parents' program has been launched. Campaign consultants are now finishing a campaign feasibility study for the campus.

The impact of these investments has been significant. The campus has the goal of doubling its fundraising within five years. In the last two years, private fundraising at UCSC has increased by 46 percent. For the first six months of the current fiscal year, the level of fundraising is higher than last year despite the difficult economic times.

Chancellor Blumenthal concluded that this was an exciting time for the campus, and he looked forward to reporting on its success at a future meeting.

Chancellor Birgeneau next addressed one specific development activity at UC Berkeley, part of the campus' large-scale campaign to raise $3 billion. This campaign is now in its public phase. As of December 31, 2008, the campus had raised $1.42 billion. A little over a year ago, the campus received a signature challenge grant from the Hewlett Foundation for $110 million with an additional $3 million to improve investment performance. The purpose of the $110 million is to fund 100 endowed chairs, 80 of which are based in departments and distributed uniformly across the campus. The Hewlett Foundation provides $1 million for each chair, with $1 million to be matched by a donor. Twenty interdisciplinary chairs are controlled centrally by the Chancellor. The Hewlett Foundation provides $1.5 million for these chairs, to be matched by $1.5 million from a donor. Based on previous fundraising, the campus estimated that it would take about seven years to raise the funds for the 100 chairs. In establishing these chairs, the Berkeley campus permanently changed the financial model for payout. The base price of a chair was raised from $500,000 to $2 million. UC Berkeley has emulated the private university model in which chair income provides a scholarly allowance for the chair-holder and supports core needs of the University. Chairs support faculty scholarship and salary and provide graduate student support.

The specific financial model for the $2 million Hewlett chairs includes a scholarly allowance of $25,000. One-third of the remainder is used for graduate student fellowships. The other two-thirds are directed to the faculty salary pool to support the academic year salary of the chair-holder. Typically, $2 million in funding and a payout of five percent provides for a scholarly allowance of $25,000, a graduate student fellowship at $25,000, and $50,000 to the salary pool, which enables UC Berkeley to remain competitive with its private institution peers.

This fundraising challenge was launched in September 2007. Of the 80 chairs located in schools and colleges, the campus has received matching funds for 39. It has secured matching funds for 10 of the 20 interdisciplinary chairs. Sixteen months after the launch date, the campus has obtained funding for 49 of 100 chairs. Thirty additional chairs are in active discussion, and Chancellor Birgeneau anticipated that matching funds would be obtained for them in the coming months. Rather than the expected period of seven years, most chairs will have been established in less than two years. He emphasized that matches are attractive to donors. Those who might have been reluctant to give to an endowment with a five percent performance can change their minds when a ten percent payout is possible.

Chancellor Birgeneau reported that this matching grant provided the opportunity for the campus to revise its payout model for already existing chairs, to ensure that more chair income would be available to support the core needs of the campus, rather than all being directed to the individual chair-holder. Now, as the campus reassigns or renews chairs, and endowments are typically somewhat greater than $500,000, the scholarly allowance is fixed at $25,000. The next $25,000 is used for graduate student support, and any remaining amount in excess of $50,000, which exists for only a few chairs, is directed to the faculty salary pool. This represents a fundamental change in the financial model of chairs at UC Berkeley. It will permanently underpin graduate student support and help the campus to provide competitive salaries. Chancellor Birgeneau emphasized the critical importance of matching funds and reported that for one of the $1.5 million interdisciplinary chairs, a donor has provided matching funds of $3.5 million.

Chancellor Block next discussed the Bruin Scholars Initiative at the Los Angeles campus. Last year, in a non-campaign year, UCLA raised $481 million in commitments and $457 million in cash. This makes it the leading public university campus in the U.S. in philanthropy.

The campus recognizes a need to build additional support for undergraduate and graduate students. The goal of the Bruin Scholars Initiative is to double the amount of endowment available for undergraduate and graduate financial support, to raise $500 million over the next five years – $300 million in graduate student fellowships and $200 million in undergraduate student scholarships. The campaign is straightforward in its message and focus on putting funds aside for students. In carrying this out, the campus hopes to maintain access and affordability, to continue to improve diversity, to foster a service ethic, to encourage world citizenship, and to support research.

Committee Chair Kozberg commended the Chancellors for the time and effort spent on these initiatives.

Regent Hopkinson referred to figures presented earlier by Mr. Glier in regard to UC expenditures per alumnus, compared to peer institutions. She found that these figures might be misleading, because of the far greater number of alumni at UC compared to some of these peer institutions. She praised the Berkeley campus for its revision of the financial model for chairs and for allowing endowment funds to be used to supplement faculty salaries. She opined that, if the University did not continue this effort, it would find itself at a disadvantage in its efforts to remain academically superior.

Regent Scorza asked Chancellor Birgeneau about the definition of graduate student support. Chancellor Birgeneau explained that, for a department with a Hewlett chair, $25,000 is provided for a graduate student fellowship in that department. It is like other fellowships, but derives from an endowment for a faculty chair. It is a gift to the student.

Committee Chair Kozberg asked Mr. Glier if the University should be alert to anything different about the current economic climate. Mr. Glier noted that the current economic situation is often described as incomparable to anything experienced within a lifetime. Fundraising in public and private universities is being affected by this mood, by the cuts in State expenditures and support for public higher education, and by the fact that endowments will not deliver the same resources. He described this as a depressing mood or environment and identified as the most significant general concern the possibility that this mood would cause universities to abandon their fundraising activities. Where there have been significant declines in giving to higher education, it is the institution that has slowed down or lowered its level of soliciting, for an annual fund or for major gifts. Mr. Glier emphasized the critical importance of private gift support programs at UC.

Committee Chair Kozberg requested that Mr. Glier provide the Regents with the metrics discussed in his presentation.

2. **ANNUAL ACCOUNTABILITY SUB-REPORT ON THE RESEARCH ENTERPRISE**

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

Committee Chair Kozberg welcomed Vice President Beckwith, who was to discuss the University's research enterprise and the difficulty of assigning metrics to the area of research. Mr. Beckwith stated that his presentation would seek to put into perspective what research means to the University, the culture of research and how the output of research is measured, and future research opportunities for the University.

The University is distinct among the California institutions of higher education in its mandate to conduct research. Mr. Beckwith stated that those in the academic community widely view research opportunities offered at UC as the most important factors in recruiting star faculty, post-doctoral students, and graduate students. The quality of research at the University is also one of the leading factors for top rankings in relative comparisons among universities, such as the *U.S. News and World Report* rankings.

Mr. Beckwith recalled that in March 1999, *Time* magazine chose the Person of the Century based on the criteria of who had the greatest impact on civilization in the 19th century. Albert Einstein was chosen, recognizing that his work set much of the course of 20th century, including knowledge that led to the development of nuclear weapons, the field of quantum mechanics, and an understanding of basic physics that ultimately gave rise to computers. Those ideas had a power that went well beyond anything anyone could have predicted. By most of the indicators used by the University to measure the research enterprise, however, Einstein would be overlooked: he had no graduate students, did not receive federal grants, and earned no salary. Mr. Beckwith gave this example as a caveat, emphasizing that the University wants people like Einstein across all fields, and so must be cautious in choosing and applying metrics to research outcomes.

The University spends approximately $4.5 billion on research systemwide, constituting approximately 25 percent of the University's budget. Of that, $3.3 billion is direct funding, $700 million covers the indirect costs of the research, and $600 million is supplemented by the University to carry out research that is not reimbursed. The University annually creates approximately 1,400 inventions and receives $120 million in income from research. For every $100 million in extramural funds the University receives from research, approximately $5 million is industry-sponsored and $3 million is income from inventions. The vast majority of the University's research funds is won competitively from external sources, through competition involving peer review. Mr. Beckwith emphasized that this is a strong measure of the quality of UC's faculty. It also suggests that UC is not in a profit-making business. Funds received from licensing, inventions, and income amount to approximately $100 million annually. Mr. Beckwith explained that the University welcomes the money and hopes that industry sponsorship will increase because it is one way to show UC's impact. Currently, however, this source of funding is small in comparison with other sources.

Mr. Beckwith turned to the culture of research and how the University fosters great research. In contrast to business, in which ideas are turned into money, research is about turning money into ideas. While there is some correlation between money and ideas produced through research, he recalled that the greatest ideas that emerged from the last century, those of Einstein, did not involve money. Within the culture of research, researchers value other research and other researchers based on what they judge to be the quality of their ideas. While the average person may have a sense of this value, it is not easy to measure. As the University goes forward, it will be critical that the metrics chosen are appropriate. Mr. Beckwith warned that if UC measures the wrong things, it will manage to the wrong things and so potentially miss the star researchers and produce lower-quality research.

Mr. Beckwith discussed the research ecosystem and what stimulates great research. Research is a people-driven business that includes star faculty who have enormous talent and ability to ferret out the secrets of nature or understand the human condition or realize great art. Top students and staff are critical components of the research enterprise. Mr. Beckwith opined that the university has emerged in this country as the most interesting and dynamic place to foster new ideas due to the vital mix of young people – students – who are very intelligent and ask many novel questions, working together with older people – faculty – who are also very intelligent but who are more influenced by the ideas already well-established in their fields. Another vital component in the stimulation of research is clusters of competence, which UC fosters well, especially in particular fields. Research also requires access to resources, such as high-quality equipment. For example, the University is one of the best places to research astronomy in large part due to access to unique resources such as the Lick Observatory and the Keck Observatory. Access to information is also essential, including great libraries as well as information and data accessible through other sources of technology. Finally, the research enterprise must function as a marketplace, in which research funds are reallocated periodically so that new researchers have opportunity and older researchers have to compete.

There is a range of parameters used to measure success in research. Leading indicators include the number and quality of graduate applications and the amount of research support. Medium-lagging indicators include publication rates, high-impact results, and citation indices. Long-lagging indicators include prizes, awards, membership in societies, rankings, building new facilities, and paradigm shifts. Research and the economy provide another set of indicators, including number of inventions, patents, licenses, and the impact of research on local economic growth. Mr. Beckwith explained that essentially all of the indicators are only proxies for what the University wants to know about the quality of its research. These indicators must be used, but must be used judiciously; measuring research funding is not the same as measuring research impact.

Mr. Beckwith next discussed how the University compares with other institutions. The National Science Foundation ranks universities based on research and development expenditures. By this measure, UC San Francisco ranks second in the nation, UCLA ranks fourth, UC San Diego ranks sixth, UC Davis ranks sixteenth, and UC Berkeley ranks twentieth. He noted that those with the highest rankings have medical centers, which bring in a large amount of research funding. In terms of growth in the research enterprise, UC has lagged in comparison with other academic institutions, which is something that the University should assess, although Mr. Beckwith was unsure if the lag was significant. He pointed out that, overall, faculty face a budget of declining support for research. Since 2003, all sources of research funding have been declining. He opined that the federal stimulus package may change this trend, however, and that the University is well positioned to receive dollars from that source.

Another useful indicator of UC's research quality, at least for the fields of science and engineering, is the Academic Ranking of World Universities by Shanghai Jiao Tong University. The index used for this ranking includes a number of factors, such as quality of alumni, the number of major prizes won, and the number of faculty cited in academic articles. In this ranking, UC Berkeley is in third place and UCLA is in thirteenth place, followed closely by UC San Diego and UC San Francisco. Further, among the public institutions, five UC campuses fall among the top ten, including the top three. Mr. Beckwith observed that this is a very powerful and remarkable achievement – no other university system comes close – and is a much closer measure of the impact of research in science and engineering than measuring research support. Looking at Nobel Prizes, in the last decade only four public institutions have been awarded three or more prizes; UC campuses account for three of the four.

Total income from inventions is also an indicator to measure UC's research enterprise, although research is not a profit-making business. The University's inventions have shown a healthy rate of growth, which is helpful in order to demonstrate to the public that the University has a major impact on their lives. In his role, Mr. Beckwith advocates for ensuring that the University's intellectual and technology transfer policies are structured to bring forth inventions quickly. While no single campus ranks number one in research, Mr. Beckwith underscored that, collectively, the University is world-dominant in research power. It is thus an enormous strategic advantage for the University to take a collective view and combine the talent and resources of the campuses in order to address society's major problems, such as climate change, energy, the environment, and health care.

Mr. Beckwith turned to strategic opportunities that are on the horizon for the University. Investments in equipment for research include the next generation Advanced Light Source and the Thirty Meter Telescope (TMT). The California Institutes for Science and Innovation carry out translational research by creating strategic teams in the laboratory in order to bring forth inventions to the public. He stressed that this brilliant and unique approach has not been capitalized on because the University has not provided the institutes with operational budgets commensurate with their capital investment. Other strategic opportunities in research include continued agricultural productivity and addressing needs around climate change, water, national defense, and the “brain trust.”

Mr. Beckwith spoke specifically about the opportunities involved in developing the Advanced Light Source (ALS). In order to advance the ALS to the next generation, an investment of between $10 million and $20 million will be required to conduct the necessary experiments. Once those are completed, the University would be poised to receive $1 billion from the Department of Energy, which has a strong need for this technology.

Turning to the humanities and the arts, Mr. Beckwith noted that the humanities disciplines have always relied on understanding human interaction, artifacts, literature, and art; traveling to specific sites to study such things was once central. With investments in digital technology, these sites and types of data can be digitized, allowing faculty to access and conduct research on them from their desktops. Information density is high in the arts and humanities, and the bandwidth requirements for these disciplines eventually may exceed those for the sciences.

Mr. Beckwith discussed the federal stimulus bill, which includes $20 million to improve information technology for the health sciences in general and in hospitals specifically. The University has more hospitals and information technology than any other university system, and so is well positioned to mobilize for this opportunity and ensure that this benefit flows to the health care industry.

Long range planning issues with regard to research were discussed. The University has excellent access to major industrial facilities, especially in the Bay Area and in Los Angeles, giving the University an enormous advantage for many types of future research projects, especially space research. Mr. Beckwith stated his concern, however, about the University’s research infrastructure; if investments are not made, it will be difficult to retain star faculty. There is strong competition from new foreign universities, such as those in Singapore, Korea, China, and Abu Dhabi. Policies are also crucial to UC’s competitiveness and long-term success, including those involving student support, tuition determination, and technology transfer.

Mr. Beckwith discussed several challenges for the University in research. He emphasized the need to, in conjunction with campuses, set and implement systemwide research priorities, including the creation of new programs and the sunset of old ones. Major research priorities need to be advanced in the budget and among Regents, the California Legislature, the federal government, and the public. He urged the University to think big. A second challenge is to further enable UC as the research arm of the State by creating an efficient grant administration organization and by working with the Office of the President and the Legislature on State research initiatives. He also discussed the challenge of ensuring that research benefits flow to taxpayers through systemwide research and technology transfer policies that complement campus activity and that demonstrate the benefits of UC research to the public.

Mr. Beckwith summarized that the state of research at the University of California is superb, but it will not remain so unless investment in UC's research is maintained.

Regent Hopkinson echoed that the research achievements of the University are extraordinary and that UC must be diligent about assuring that financial resources continue to be provided. She expressed confusion about the numbers presented. When Regents view the budget, the figure allocated to research is about 10 percent of the overall budget. She noted that this allocation has been decreasing over time, and that the State allocation to UC for research has also been declining. She expressed the need for Regents to understand how to reverse that trend of decreasing State support for research. Mr. Beckwith explained that virtually all of the competitive grants the University wins are from the federal government. State support is crucial, however, in part because faculty become more competitive with the funding provided for infrastructure.

Regent Marcus commended Mr. Beckwith for an outstanding presentation, noting that when the quality of the University is discussed, it is overwhelmingly the quality of research and knowledge creation that is highlighted. He inquired how progress at the campus level can be institutionalized and become part of a larger planning process so that it is monitored and measured over time. He also asked how the Regents can assist in the process, both to obtain the resources and to ensure that research is a priority on all the campuses. Mr. Beckwith opined that the University should monitor the leading indicators and ensure that it is paying attention to areas where it is trending down. UC may not get all the grants for which it is competing, but it should be obtaining a good fraction of those; if this begins to drop, the institution needs to analyze why that is the case. Another area that the campuses could measure is whether top talent faculty are leaving and whether top, highly competitive students are choosing other institutions over UC. These are leading indicators of how the University is faring. Regent Kozberg concurred that these are indicators that the University should capture.

Regent Ruiz requested to hear more about the University's research on an ongoing basis so that Regents do not overlook UC's accomplishments. He asserted that the University's critics should hear about these as well, including legislators, citing a conversation he had recently in which a legislator was unaware of the extent of research done at the University. Mr. Beckwith concurred that the University has many exceptional stories to tell. The public does not recognize the extent to which their lives are touched by things such as drugs developed at UC or improvements in agriculture that increase the productivity of the state. Regent Ruiz emphasized that legislators need to know the impact that reduced budget allocations to UC will have on society. Mr. Beckwith observed that this is a very high priority for President Yudof, who has put Interim Senior Vice President Dooley in charge of this initiative. Mr. Beckwith and Mr. Dooley have been working closely together to assess how to present UC stories so that the public recognizes the impact of UC on their lives.

Regent Island inquired about the process for setting priorities with the campuses, and asked whether such decisions are made on a systemwide basis in contrast to an ad hoc campus approach. Mr. Beckwith responded that there is a mix of approaches, which lead to a diverse and healthy portfolio. Most outstanding research is always going to be done through market-oriented, bottom-up approaches. Systemwide priorities should never overtake that. He opined, however, that there may be problems of scale that require a more organized approach, which could be viewed by the systemwide office. He gave the example of the Manhattan and Apollo projects, which intentionally brought together people with expertise from a number of areas in order to solve specific problems. Some problems currently facing the nation may be solved by the application of systemwide resources. He expressed his opinion that the University might regret a failure to consider ways in which certain problems may be approached by combining resources throughout the system. Regent Island asked if the campuses would embrace this approach. Mr. Beckwith reflected that, in his year at the University, the campuses have not shown enthusiastic support for many initiatives coming out of the Office of the President. His office has begun discussions with the campuses' Vice Chancellors for Research as to whether they want to approach faculty about these possibilities. Some opportunities may present themselves, such as the federal stimulus package funds for health care to underserved communities, where the University's faculty could combine their research to solve a real world problem.

Regent Pattiz requested that, at a future meeting of the Committee on Oversight of the Department of Energy Laboratories, Mr. Beckwith give a presentation on the interaction between the research at the campuses and the national laboratories, noting that there has been movement in that direction. He opined that it would be helpful for Regents to learn about those developments and how fees received from the Department of Energy help to drive research on the campuses.

Regent De La Peña noted that the University has a variety of patents, both UC patents and those combined with industry; he asked who negotiates the fees and if the University can do better. Mr. Beckwith explained that the fees are normally negotiated at the campus level. The Office of the President is only involved in difficult cases that a campus has perhaps not faced before. The University's policies for technology transfer are aimed at maximizing the public benefit of the inventions as opposed to maximizing revenue. In many cases, it would be possible to maximize revenue, but it might be at a cost to the public benefit. Reviewing whether the University is leaving monies behind is a good idea, but he cautioned that the amount of revenue received from patents and licenses is rather small compared to other sources. Regent De La Peña noted that industries may be receiving a larger benefit than UC in some arrangements. Mr. Beckwith stated that he will look into this issue further.

Regent Gould believed that the federal stimulus package is an opportunity for the University to step forward and show its value, receive important resources, and reestablish itself as a leader in many areas. He requested a report on how the University is approaching opportunities within the federal stimulus package.

Committee Chair Kozberg requested that, for both presentations, the power point slides be provided to Regents.

3. **APPROVAL OF MINUTES OF PREVIOUS MEETING**

Upon motion duly made and seconded, the minutes of the meeting of November 20, 2008 were approved.

The meeting adjourned at 3:40 p.m.

Attest:

Secretary and Chief of Staff