

specific level of funding for enrollment growth. As in past years, UC expected to enhance its revenues by continuing to phase out need-based financial aid for nonresident undergraduate students. The University was considering shifting more assets from the Short Term Investment Pool (STIP) to the Total Return Investment Pool as a source of additional revenue, and increasing unrestricted private gifts, and increasing nonresident tuition. Beginning in 2017-18, the framework agreement with the Governor also allows UC to make annual adjustments to tuition and fees, so long as these are generally linked to the rate of inflation. In January 2017, the Board had approved a \$54 increase to the Student Services Fee and a 2.5 percent increase in tuition, or \$282, the first increase since 2011-12. The University had not yet developed a specific tuition proposal for 2018-19.

Associate Vice President David Alcocer underscored the University's and the State's commitment to student financial aid. Tuition for over one-half of all UC undergraduates is fully covered by grants and scholarships. Only about one in four undergraduates pays the full price of tuition. The University's financial aid strategy recognizes that students face many other costs besides tuition: living expenses, transportation, books and supplies, and health insurance. The previous year, UC provided about \$250 million in institutional aid to address these other costs. Mr. Alcocer presented a chart showing typical financial aid packages by income level. Students from low-income families who are living on campus can expect to receive nearly \$25,000 in grants from a combination of the Pell Grant, Cal Grant, and UC Grant toward the total cost of attendance, which amounted to about \$35,000. The remaining amount of \$10,000 is considered "self-help," the amount that students are expected to cover with some combination of work and borrowing. When tuition increases, awards from the Cal Grant and UC Grant programs also increase. Nearly 100,000 UC undergraduates receiving these grants can expect the aid from these programs to increase more than tuition.

Mr. Alcocer then presented another chart showing the projected impact of a tuition increase of 2.5 percent for students of different income groups versus the effect of keeping tuition level the following year. Even if tuition remained at the same level, students could still anticipate an increase of about \$660 in other costs such as housing and supplies, simply due to inflation. These costs do not generate any new funding for financial aid. A 2.5 percent increase in tuition and a five percent increase in the Student Services Fee would total \$348. For most undergraduates, Cal Grants and UC Grants would fully cover the adjustment and provide about \$100 to address other costs. For these students, about 100,000 students with the greatest need, the net cost of attendance would increase by about \$560, rather than by \$660. For families with annual income between \$140,000 and \$165,000, the tuition adjustment would be partly covered by the Middle Class Scholarship program. Families with annual income above \$165,000 would typically be expected to cover the full adjustment themselves, although some students in this income category would be eligible for UC Grants; for example, in families with more than one child in college. Mr. Alcocer emphasized that all students would benefit from the faculty, teaching assistants, classroom modernization, and other instructional enhancements that tuition revenues can make possible. The University believed that the modest tuition adjustment described here would not put a UC education out of reach for any California family. Mr. Brostrom added that his office was discussing budget plans

with the UC Student Association and would work with campus leadership, the Regents, and the Legislature before presenting a more detailed proposal at the November meeting.

Committee Chair Makarechian asked about the potential financial impact on the University of three factors mentioned by Mr. Brostrom: the expectation that the four percent base budget adjustment from the State would be reduced to three percent; the increase in the employer contribution to the UCRP from 14 to 15 percent of covered compensation; and the \$50 million in funding withheld by the State, to be released when the University had fulfilled certain conditions. Mr. Brostrom responded that a reduction in the base budget adjustment from four percent to three percent would amount to about \$30 million. The University would have to review its revenue sources in determining how to manage such a reduction. The UCRP contribution is the normal cost that the University always contributes. The State had been providing Proposition 2 monies to help address the unfunded liability, and this had allowed the University to reduce its borrowing from STIP by about \$450 million. As mentioned earlier, the increase in the employer contribution amounted to \$36 million. The University would carefully monitor returns on the UCRP and the level of borrowing needed. There were several conditions for release of the \$50 million mentioned. Two were related to implementation of the budget framework agreement: completing activity-based costing pilot programs at the Merced and Davis campuses, and development of plans for achieving transfer ratios of two freshmen for every one transfer student at all undergraduate campuses except UC Merced. Another condition was that UC complete implementation of recommendations by the State Auditor by April 2018; among these, a reporting requirement for Office of the President revenues and expenditures was already being met. Mr. Brostrom expressed confidence that the University would meet all the conditions by May 1, when the State Director of Finance must opine on the matter. He acknowledged that if the University did not receive this \$50 million, it would likely seek to make up for it through short-term borrowing.

Regent Sherman asked if the State funding for undergraduate enrollment growth of 7,500, indicated on a chart shown earlier, was a line item in the budget or if this was allocated based on cost per student. Mr. Brostrom responded that this reflected a two-year period. In the first year, UC received funding for 5,000 new students, 50 percent of the normal marginal cost of instruction from the State General Fund. At the same time, UC was phasing out need-based aid for nonresident students and so was able to return the full marginal cost funding to the campuses. However, the application and admission process at the campuses is not predictable. The University had had a target of 5,000 new undergraduate students but the actual number turned out to be greater than 7,400. In the following year, the University received \$18.5 million for the additional 2,500 students; again, this would be augmented by phasing out need-based aid for nonresident students. The State funding for enrollment was ongoing funding.

Regent Sherman and Committee Chair Makarechian both emphasized the importance of the fact that 58 percent of UC undergraduates paid no tuition. Regent Sherman remarked that this percentage had grown. Mr. Brostrom added that since the time of dramatic tuition increases at UC, the percentage of underrepresented minority, first-generation, and

Pell Grant recipient students had grown rapidly. These increases reflected the evolving demographics of the state as well as UC's partnership with the State government. The number of Cal Grants had increased significantly.

Student Advisor Sands emphasized the importance of considering the total cost of attendance. The statement that many students were paying no tuition was misleading. The Regents appeared to have accepted a "high fee, high aid" model. He asked about how this model might affect student diversity. Mr. Alcocer responded that UC certainly considers the total cost of attendance for students. He disputed the idea that UC's strategy is a "high fee, high aid" model. Relative to other universities, even large public research universities, UC fees had remained fairly flat over the past six years. The University carefully studies how changes in costs and financial aid affect student enrollment. The Office of the President produces a comprehensive annual report on student financial support. Among other features, this report tracks changes in the composition of the UC student body in the context of the California population. The data since 2008 indicated that UC enrollment has reflected the demographics of the state. One does not receive the impression that families at certain income levels have been priced out of education at UC. The University seeks to communicate a straightforward message to potential applicants about UC tuition, while not ignoring the total cost of attendance. Mr. Brostrom added that student diversity has been growing at the campuses.

Regent Anguiano asked about financial aid to address other costs such as housing, noting that the parental contribution to the overall cost of attendance was a high percentage of parental income. Mr. Brostrom acknowledged that while UC had been effective in addressing tuition costs, other student expenses were high. This was one reason for development of more on-campus housing. Committee Chair Makarechian stressed that UC was working to ensure that the cost of on-campus housing for students was significantly lower than the cost of living off campus.

Regent Lemus asked about average student debt upon graduation. Mr. Alcocer responded that based on the most recent graduating classes, typical total student debt at graduation was between \$20,000 and \$21,000. Assuming a ten-year repayment plan, this would result in a monthly payment of about \$200. Mr. Brostrom added that about half of UC students graduate with no loan balance. Mr. Alcocer also noted that the percentage of students working a high number of hours while attending UC has remained in the single digits, and this over many years.

Regent Park expressed uneasiness about what she described as a "provider-oriented mentality" and the manner in which the proposed tuition increase was being framed. Even for families with annual income over \$140,000, each dollar may be precious, and UC should be aware of the perspective of the consumers, to whom the costs were being passed on. Mr. Brostrom responded that for many years, the University had been attentive to consumer or student concerns about course availability, crowded classrooms, and deteriorating facilities. He agreed that every dollar is precious, but stressed that the University was spending these funds on essential operational and capital needs.

6. KRESGE COLLEGE PROJECT, SANTA CRUZ CAMPUS

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chancellor Blumenthal began the discussion of the Kresge College project by drawing attention to the iconic architecture of this undergraduate residential college and the founding concept of the College, the idea that participatory democracy leads to a strong sense of community, an idea as relevant for current students as it was in 1971. The Kresge College project would tread a careful path defined by several constraints, including needs anticipated for successful California Environmental Quality Act (CEQA) review and ongoing housing requirements defined under the campus' existing Long Range Development Plan (LRDP).

UC Santa Cruz Provost Marlene Tromp presented photographs of Kresge College that demonstrated the need for repairs and major maintenance. The project would trigger code upgrades to meet current standards of safety, sustainability, and accessibility. Site grade changes would require accessibility upgrades. Preserving the feel of an Italian hill town, the college's signal architectural vision, would require a thoughtful approach. The design concepts embodied in UCSC's approach were to retain and enhance Kresge College's architectural legacy, maximize academic connections to the rest of the campus, and create a housing zone with outdoor gathering spaces, while addressing student concerns about privacy and community. The project would create three coherent program areas: academic areas, with a lecture hall, classrooms, and academic offices; student support areas, with a multipurpose town center; and student housing with a higher density. There would be easier access to the campus transit system.

Vice Chancellor Sarah Latham observed that a primary challenge of this project was to minimize disruption to academic and student support programs and to maintain housing throughout the project's duration. She described the phasing plan. The project would begin with 23 buildings totaling 95,000 assignable square feet, including 11 housing structures with 365 beds. The project would be accomplished in two phases. In Phase 1, the campus would construct one new academic facility, new residence buildings with approximately 400 beds for first-year students, and associated infrastructure and utility improvements. This phase would run from October 2019 to August 2021. Student residence and academic and support programs would then be moved into the new buildings, and Phase 2 would begin, adding another 150 beds. This second phase would run from September 2021 to summer 2023. By the end of the four-year project, the College would have 550 beds, compared to the current 365, and total space for all elements of the project would increase by 50 percent.

Vice Chancellor Peggy Delaney explained that the project would include building removal, new construction, and renovation of existing buildings in order to organize the site into more coherent program areas in response to student and faculty needs, increase housing density on the site to use it more effectively, maintain academic and support spaces, and add a large lecture hall, a capital project priority for the campus for several

years. The project as envisioned would respect the architectural identity of Kresge College and uphold commitments to providing on-campus housing under the current LRDP. Ms. Delaney anticipated that the campus would return to the Board with a request for preliminary plans budget approval at the November meeting. UCSC would request full budget, design, and CEQA approval a year later, and construction would begin in October 2019.

Committee Chair Makarechian stated that the University should strive to provide campus housing at rates at least 25 percent lower than off-campus housing. In the interests of such affordability, campuses must seek the most efficient manner of construction and operation. He asked about figures provided in the background materials to the item for the number of assignable square feet of existing and proposed space. Ms. Delaney explained that these figures did not include the number of square feet being removed. The project would begin with a certain square footage, remove some space, add some new space, and renovate some of the existing space. About a third of the space would be renovated from the original.

Regent Sherman asked about the length of the CEQA process. Ms. Latham acknowledged that CEQA requirements accounted for the length of time between preliminary plans approval, full budget approval, and beginning of construction. The campus would do anything possible to accelerate the project.

Regent Sherman asked about the reasons for the complexity of CEQA review for this project. Ms. Latham responded that the addition of square footage was a factor, but most significantly, this would be a major facility undertaking for which a CEQA Negative Declaration would not be sufficient.

Regent Lemus asked if there were any opportunities to adjust or shorten the duration of the project; there might be reasonable risks the campus could take. Ms. Latham responded that the campus would explore such opportunities. The staging and timing of different elements of the project was also subject to the need to keep housing and other spaces open and in use while construction was in progress.

Regent Anguiano asked why the campus was planning to construct a 600-seat lecture hall. Chancellor Blumenthal responded that UC Santa Cruz has far fewer large lecture halls than any other UC undergraduate campus. Large lecture halls allow for large numbers of students to be taught by a small number of faculty, an efficient use of faculty. The planned lecture hall, contemplated by the campus for many years, would be the largest on campus, and it could also serve as an event space.

Regent Anguiano raised the issue of how large lecture halls or smaller classrooms can have an impact on student success. Chancellor Blumenthal responded that the other UC campuses have shown success in educating students with greater numbers of large lecture halls than UC Santa Cruz. UCSC had also compared the educational impact of large lecture classes versus “flipped” classes with lectures offered online; in these surveys, there was no difference in the students’ performance between the two modes of delivery.

Ms. Tromp added that two campus centers, the Center for Innovations in Teaching and Learning and the Student Success Evaluation and Research Center, were focused on student success and timely graduation. Offering large lecture classes was one of a number of means to achieve these goals.

Regent Park asked about the campus housing reserves that would fund part of this project. Ms. Latham explained that UCSC would use housing reserves to cover housing construction for this project. There would be multiple funding sources for the project, which had different components. The campus anticipated using approximately \$170 million in housing reserves. State General Fund monies would provide \$50 million for the academic components, including the lecture hall just mentioned.

Regent Park asked how housing reserves are accumulated. Ms. Latham responded that annual housing revenue is directed toward a number of different uses: operational expenses, major maintenance funds, and a part set aside for reserves. Associate Vice President Sandra Kim added that some of the reserves could be earmarked for the campus' other public-private partnership projects. Of the \$170 million mentioned, some would be earmarked, some would be for debt coverage levels, and some for ongoing projects.

Regent Park recalled that Kresge College was the sixth college constructed on the Santa Cruz campus, and asked about the state of the first through the fifth colleges built on the campus. Ms. Latham responded that the Santa Cruz campus has undertaken renovations of these colleges as funding allows, and one focus in particular has been to guarantee accessibility for those with disabilities. Among the colleges, Kresge College was deemed to be in the most critical condition. The Kresge College project would improve the quality of the student experience and bring about more parity in size among the residential colleges.

Committee Chair Makarechian stressed that affordability for students was a most important goal and that providing campus housing at rates at least 25 percent lower than off-campus housing should be incorporated into the project design.

7. **ENGINEERING INTERDISCIPLINARY BUILDING, SAN DIEGO CAMPUS**

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chancellor Khosla identified this project as part of a larger transformation of the San Diego campus. Over the past five years, student enrollment in engineering had increased by more than 33 percent and was expected to grow by about another 20 percent in the coming five years. The UCSD College of Engineering would be the largest in the UC system. The College currently had more than 8,000 students and was ranked 13th in the nation. Development of the College would be a strategic priority for the campus in its process of transformation. The College would function as a center, allowing the campus to integrate the Scripps Institution of Oceanography, the Division of Physical Sciences,

and the School of Medicine through Engineering's programs in big data, computer science, and nanotechnology. The College of Engineering was experiencing significant lack of space. UCSD was proposing to build a 200,000-gross-square-foot building over the next three to four years to meet the needs of this School.

Regent Park referred to background information in the item about plans to increase the number of College of Engineering faculty in order to reduce the undergraduate student to faculty ratio and asked how the campus would finance this reduction. Chancellor Khosla responded that the reduction would be funded through additional enrollment. The increase in size of the Engineering faculty would be slightly disproportionate compared to the growth of other schools and departments, in response to the high student-faculty ratio of 25.5 to one. Ideally, the ratio should be 16 to one, but this would be unaffordable for UCSD. The campus had settled on a target ratio of 21 to one. This ratio also took into account the desire to maintain an appropriate balance between teaching and research time available for faculty.

Regent Park asked about the size of top engineering programs in the U.S. relative to UCSD's program. Chancellor Khosla responded that the engineering program at Carnegie Mellon University was ranked fourth in the nation, with 1,800 undergraduates and 1,500 graduate students. UCSD's College of Engineering currently had more than 8,000 students and might grow to 9,500 or 10,000. The College's programs are in high demand by students.

8. EMERSON HALL HOUSING REPLACEMENT PROJECT, DAVIS CAMPUS

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chancellor May introduced this item, noting that the Emerson Hall Housing Replacement Project was part of a larger and ambitious student housing development plan at UC Davis. In fall 2016, UC Davis housing accommodated approximately 9,800 students. Over the next six years, however, the campus would add about 3,700 new beds. The Emerson Hall Housing Replacement Project would demolish a building at the end of its useful life, replacing it with space for 700 to 800 new beds and program space in the campus' Cuarto neighborhood. The Project was the final phase of a multi-year neighborhood plan that began with the renovation of the Cuarto Dining Commons and included the Webster Hall redevelopment project currently under construction.

Senior Associate Vice Chancellor Kelly Ratliff presented a slide showing the location of student housing areas on the Davis campus and briefly enumerated housing and dining projects already under way or planned. The campus has a tremendous student housing need, and its enrollment plan suggests that it will need approximately 300 more beds for freshmen over the next six years. The Emerson Hall Housing Replacement Project would help address this need. In all its student housing projects, UC Davis was seeking operational flexibility and the ability to add capacity through tripling and alternative designs. She explained the location of the Cuarto neighborhood, just off the Davis

campus and in the City of Davis. The housing in this area had been built in the 1960s, and the campus acquired it in 1986. A number of projects have been completed in the area since then. The Cuarto Dining Commons had been renovated several years prior and can serve about 1,500 students. Ms. Ratliff presented a slide with an architectural rendering to give a sense of the building's appearance, shape, and form. The campus was envisioning a four-story building. She summarized that the campus would demolish an existing residence hall, add at least 700 beds, and improve the quality of the interactive and academic support spaces.

Committee Chair Makarechian asked if the design of this building would be similar to that of Webster Hall. Ms. Ratliff responded that the unit designs were similar. Committee Chair Makarechian asked if Emerson Hall would have a lower density than Webster Hall, and if the building was being designed for double or triple rooms. Associate Vice Chancellor Emily Galindo responded that units were being designed for two beds, but that 20 percent of the units could be converted to triples. Committee Chair Makarechian asked about the shower count and expressed concern that if units were later converted to triples, there would not be enough showers for students. Ms. Galindo responded that the shower count was based on two beds per unit.

Committee Chair Makarechian asked if there was a height restriction for the building, or if the campus could build higher than four stories. Ms. Galindo responded that UC Davis had engaged consultants on this matter. The campus had not yet made a final decision about the height of the building, but it was very mindful of the project location in the midst of a city neighborhood. Increasing the height would also mean an increase in costs. Committee Chair Makarechian acknowledged that the building cost would increase if additional height were added, but observed that at the same time, the cost per unit would decrease and this would represent a more efficient use of scarce land.

Committee Chair Makarechian asked about the project's neighbors. Ms. Ratliff responded that the location is in a residential neighborhood. The dining capacity at this location is another important factor for the campus to consider as it endeavors to develop the project as a self-contained housing facility at the right scale.

Regent Lemus asked about parking for this building. Ms. Galindo responded that the building would house first-year students, and the campus does not provide parking for them. The project did not include parking. Ms. Ratliff noted that the building would be served by the Unitrans bus system, and that there is an excellent infrastructure for bicycling in Davis.

Committee Chair Makarechian voiced his view that the project should be "reverse engineered," starting with the amount that the University would charge for rent, at least 25 percent below the off-campus market, and use this as a base for determining what the campus could afford to build.

9. TEACHING AND LEARNING COMPLEX, DAVIS CAMPUS

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chancellor May explained that this item addressed classroom facility needs of the Davis campus. The proposed Teaching and Learning Complex project would redevelop a site located in the core of the campus, provide approximately 2,000 seats, and meet projected classroom space needs through 2030.

Senior Associate Vice Chancellor Kelly Ratliff presented a chart showing the campus' projected classroom need over a number of years. UC Davis had been using temporary spaces to meet this need, such as the Mondavi Center and the Activities and Recreation Center, but these were not ideal teaching spaces. The campus planned some classroom projects the following year: Walker Hall, a large lecture hall, and renovations to Cruess Hall. Seismically deficient space would be taken out of use at Haring Hall. The campus was eagerly awaiting these new teaching spaces, but in the coming years, in addition to this new space, UC Davis anticipated that it would need another 2,000 seats. The Teaching and Learning Complex would address this need. Ms. Ratliff discussed the project location and the advantages of developing a classroom building on the site. The architect teams would be asked to consider classroom and circulation needs, and the need for flexible configurations and design.

10. STUDENT SUCCESS CENTER PROJECT, RIVERSIDE CAMPUS

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chancellor Wilcox introduced the Student Success Center project at UC Riverside. The campus hoped to receive assurance of State funding in summer 2018 and to begin construction in 2019. The project was still in a conceptual stage, but it was very important to the campus and was part of UCR's long-term planning. There had already been discussions over nine months with students and faculty about the nature of this building.

The primary motivation for this project was student enrollment growth and the wish to promote student success. Over the past ten years, UCR had grown from about 17,000 students to almost 23,000 students. At the same time, four-year graduation rates for undergraduates had increased by 11 percent. In order to continue this trajectory, the campus would need more classroom, academic advising, and multipurpose space. Chancellor Wilcox described the proposed Student Success Center as a "classroom building plus" where UCR would also be able to consolidate student advising services and provide flexible spaces for small seminars and student activities.

UCR classroom utilization capacity was at or near 100 percent campus-wide. The utilization rate for smaller classrooms was 117 percent, and 122 percent for medium-

sized lecture halls. Without additional classroom space, the utilization rate within five years would reach 127 percent for classrooms and 200 percent for large lecture halls. Utilization rates over 100 percent, when every classroom is full all day long and corridors are crowded, have a negative effect on educational quality and an instructor's ability to meet or follow up with students individually. The last dedicated classroom building at UCR had been built in 2001.

Another motivation for this project was the fact that for the last 25 years, UCR had been leasing space in a movie theater building complex off campus. One inconvenience of this arrangement is that UCR cannot use these large auditoria in the evenings and on weekends. In addition, these auditoria are routinely criticized as the worst classroom spaces at UCR. The end of this lease provided the opportunity for UCR to consider developing the kind of instructional space it needs. Currently, student advising spaces were scattered across the campus. Consolidation of these spaces in one location would build an advising cohort from which students would benefit.

The campus envisioned that the Student Success Center building would provide approximately 24,000 square feet of general assignment classrooms, and 300 to 400 net new workstations. The classrooms would be technologically up to date and flexible. The building would include about 3,000 assignable square feet of advising space, and 9,000 to 10,000 assignable square feet for other uses, such as small meeting spaces and spaces for student groups. A small dining or snack shop facility would occupy about 2,000 to 3,000 square feet. Chancellor Wilcox presented a slide showing the project location. He concurred with views expressed in connection with other projects discussed earlier to the effect that campus land is valuable and scarce and that it may be desirable to build projects up, at greater height, rather than out. He anticipated that this would be more true for UCR in the future than it was at this moment. UCR has about 1,100 contiguous acres on its main campus, with only about 300 acres developed. The campus has land resources but it is mindful of the need not to squander these resources. The Student Success Center could be located in a number of different places, but the proposed location was in the center of campus. UCR was hopeful that State funding would be available for preliminary plans in 2018 and that construction would begin in mid-2019, with occupancy by early 2021.

Committee Chair Makarechian asked about the status of the project if State funding were not available. Associate Vice President Sandra Kim responded that this project was included in the 2018-19 Budget for State Capital Improvements. The campus would place some funds at risk for preliminary plans; this was also true for other projects discussed that day. Historically, this process has been successful and AB 94 funding has been available.

In response to a question by Staff Advisor Valdry, Chancellor Wilcox and Ms. Kim explained that the classroom utilization rates cited were based on a standard systemwide criterion and formula.

11. **PARNASSUS HEIGHTS HEALTH SCIENCES INSTRUCTION AND RESEARCH BUILDINGS SEISMIC IMPROVEMENTS, SAN FRANCISCO CAMPUS**

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chancellor Hawgood explained that the Parnassus Heights Health Sciences Instruction and Research Buildings, which he would simply call “the Towers,” were the largest facility devoted to laboratory research on the Parnassus campus. Among competing seismic and life safety needs at UCSF, improving the Towers was a high priority. UCSF had committed non-State resources to fund the design of the proposed project and would request State funding for construction. The project would enhance the structures of the buildings and protect systems and equipment to reduce laboratory downtime, preserve valuable research, and improve functionality following an earthquake. The Towers complex contains 440,000 gross square feet with five separate structures. There are two 17-story high-rise laboratory buildings, a central elevator bank, and two mechanical towers. The buildings have a minimally acceptable rating under UC seismic policy. A major seismic event could cause significant damage and disruption. Analysis of the Towers’ structures indicated that during an earthquake the laboratory towers and the mechanical towers would deflect in opposite directions and pound against each other, causing damage to separation joints and piped utilities in or crossing the joints, with potential loss of essential power to heating, ventilation, and air conditioning (HVAC) systems, damage to scientific equipment and experimental set-ups, and destruction of research samples gathered over many years by many faculty members. Loss of research materials and an inability to restart quickly would have a negative impact on scientific research and grant revenue. The proposed project would also address any areas missing fire sprinklers or laboratory equipment that is not yet braced appropriately. Due to the unique design of these buildings, any damage to the utility systems and connections would obstruct the stairways in the mechanical towers and impede the process of exiting the buildings. Chancellor Hawgood anticipated that the campus would seek preliminary plans funding approval at the November meeting. The campus expected that construction would begin in 2019 and that the project would be completed in early 2021. He noted that even with the proposed improvements, research programs in the Towers would be affected by a major earthquake; however, interruptions to the building power and utilities would be shorter in duration. The project would minimize the likelihood that irreplaceable samples would be lost.

Committee Chair Makarechian asked if the project would encompass all utilities for these buildings. Chancellor Hawgood responded that the project essentially consisted of bracing the mechanical towers and some improvements to the HVAC and utilities to prevent the mechanical towers from bumping against the laboratory towers.

Committee Chair Makarechian asked if the buildings had been intentionally designed to move in opposite directions in an earthquake. Chancellor Hawgood responded that the Towers were built in the mid-1970s; there appeared to be a flaw in the design. Committee

Chair Makarechian observed that if the design of the structures itself was flawed, the campus might have to rebuild the foundations to correct certain problems. Chancellor Hawgood responded that UCSF was carefully studying the structure of the Towers. In the next 12 to 18 months, the campus would develop long-term plans for the refurbishing of the Parnassus campus. In response to another question by Committee Chair Makarechian, Chancellor Hawgood stated that the proposed project could be carried out without disrupting work in the Towers. There might be slight changes to entry and exit paths during the course of the project.

Committee Chair Makarechian asked about the contract or project model. Chancellor Hawgood responded that this was still under evaluation. UCSF was considering using the “construction manager at risk” model or design-build-delivery model. Committee Chair Makarechian encouraged the campus to study the project and develop project plans thoroughly in advance; this would help UCSF avoid costly change orders later when the project was under way.

Regent Sherman referred to the fact that the project would be carried out while the buildings were occupied. He asked if the work could be done more quickly and cost-effectively if the buildings were vacated. Chancellor Hawgood explained that the mechanical towers are separate structures from the laboratory towers. The major work would be buffering at two different levels. The proposed project was necessary work that would not increase the costs of possible later work to improve the quality of the research spaces.

Regent Sherman asked if there were any concerns related to asbestos. Chancellor Hawgood responded that there was concern about asbestos in the buildings, but not related to this project or to the interior of the research buildings. There are about 30 research floors in the Towers. Over time, since the 1970s, about 20 floors had been entirely rebuilt, down to the studs. About ten floors were still in their original form.

12. **UNIVERSITY OF CALIFORNIA 2018-19 BUDGET FOR STATE CAPITAL IMPROVEMENTS**

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Executive Vice President and Chief Financial Officer Brostrom explained that in the 2018-19 Budget for State Capital Improvements, the University was proposing \$301 million in State funding, augmented by an additional \$110 million in non-State resources. The projects to be funded were focused in the areas of seismic and life safety, accommodating student enrollment growth, and deferred maintenance. Mr. Brostrom presented a chart summarizing State bond support for the University in general obligation and lease revenue bonds over time. In 1996 to 2000, the State provided approximately \$1.3 billion in bond support, \$2.5 billion in 2001 to 2005, and \$1.2 billion in 2006 to 2010. The last lease revenue bonds for the University had been issued in 2012, for \$342 million. Since then, UC and the State had developed the AB 94 funding mechanism,

approved in the 2013-14 budget year. This mechanism allows the University to take a portion of its State General Fund support and pledge it to debt service on general revenue bonds. This is no longer a State credit, but entirely a credit of the University; however, UC can use the State appropriation as a backstop to support this credit. In the following legislative session, this mechanism was expanded to allow for availability payments, primarily due to the University's wish to fund a large part of the Merced 2020 project in this manner. If one counted the current \$301 million proposed budget and the projected budget for 2019-20 of \$138 million, the total for projects funded under the AB 94 mechanism would amount to about \$2 billion. While the AB 94 mechanism was an effective arrangement, it was a direct trade-off with the University's operating budget. Two billion dollars of debt represented approximately \$120 million in annual debt service, money that could have been expended on operations. The University would reexamine this mechanism. Although it had advantages for the University, such as low borrowing rates and a strong credit rating, the earlier form of funding through general obligation and lease revenue bonds had been entirely separate from UC's operating budget.

Associate Vice President Sandra Kim emphasized that the passage of AB 94 a few years earlier had been critical to the University's ability to complete projects that had been frozen due to the absence of State general obligation and lease revenue bonds. With enrollment growth and changes in pedagogy, UC has an urgent need for modern classroom space. AB 94 funds will have supported the addition of almost 4,800 new classroom seats and 474,000 assignable square feet of new and renovated academic space. To address issues inherent in aging facilities, this State capital program included projects that fund infrastructure and technology improvements as well as some deferred maintenance. The largest portion of the capital outlay was the mechanism being used to support the Merced 2020 project. While the \$2 billion in projects funded under the AB 94 mechanism represented a significant investment for which the University is grateful, these projects are only a portion of UC's State capital need. Ms. Kim briefly outlined the University's three-year approach for the State capital program funding for the years 2017-18, 2018-19, and 2019-20.

In response to a question by Committee Chair Makarechian, Ms. Kim explained that student housing projects were not considered eligible for State funding. The University issues limited project revenue bonds for the housing projects it delivers.

Chancellor Hawgood asked how long the University was bound to the AB 94 process and at what point UC could seek general obligation or lease revenue bonds. Mr. Brostrom responded that there was no time limit on the AB 94 process. A State general obligation bond could be issued if a measure were approved by California voters. The University has spoken with members of the Legislature and the State Department of Finance about the issuance of lease revenue bonds. The mechanism for issuing lease revenue bonds was still in existence. He recalled that UC had taken the general obligation and lease revenue bond debt service on its own balance sheet, refinancing it to generate \$100 million in cash flow savings.

Regent Anguiano asked what portion of campus needs were covered by this plan, and how the University decides how much funding to allocate to capital needs versus the operating budget. Mr. Brostrom responded that to date, the amount allocated to the capital program had been \$15 million annually. After multiple years, this allocation had come to represent a significant trade-off. The University would like to explore the possibility of obtaining general obligation or lease revenue bonds. When one considered the University's seismic safety, deferred maintenance, and enrollment growth needs that are eligible for State funding, the proposed budget covered less than a quarter of those needs. The University would need to develop a long-term strategy on securing other funding sources versus continuing to encumber its operating budget. Ms. Kim estimated that the difference between UC's State-eligible capital program needs and the projects being funded was a few billion dollars; for additional capital needs, the difference was a multiple of this amount. This was a significant factor for campuses that did not have flexible repayment sources to fund additional projects on their own. The AB 94 mechanism had been very beneficial for these campuses.

The meeting adjourned at 4:20 p.m.

Attest:

Secretary and Chief of Staff