

STANFORD UNIVERSITY
BUDGET PLAN
2019/20

Approved:

This Budget Plan was approved by the Stanford University Board of Trustees June 12-13, 2019.

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STANFORD UNIVERSITY
BUDGET PLAN 2019/20



EXECUTIVE SUMMARY

To The Board of Trustees:

I am pleased to submit the Stanford University 2019/20 Budget Plan for approval. This budget focuses first and foremost on maintaining Stanford's many strengths. It also begins to build financial strategies that over time will support the major initiatives of the Long Range Planning (LRP) process.

A central component of the LRP process is addressing the affordability challenge in this region. It is—and will continue to be—a major priority of Stanford's budget planning. We are budgeting for a solid salary program for faculty and staff. We are also continuing long-term efforts to enhance our housing programs with over half of the capital plan and capital budget earmarked for housing. Once the Affordability Task Force completes its work later in the year, we expect additional investments across a range of areas that will support our community.

The growth in the general funds portion of the university's budget continues to be very modest, with limited capacity for incremental allocations. However, we were able to fund several key priorities. These include an expansion of financial aid for undergraduate and graduate students, enhanced support for student mental health, systems and network infrastructure, and improvements in our research platforms.

The Budget Plan has two parts. The first is the Consolidated Budget for Operations, which includes all of Stanford's anticipated operating revenue and expense for 2019/20. The second is the Capital Budget, which is set in the context of a multi-year Capital Plan. The budgets for Stanford Health Care and Stanford Children's Health, which are separate corporations, are not included in this Budget Plan, although they are incorporated into the university's annual audited financial report.

Highlights of the Budget Plan:

- The Consolidated Budget for Operations projects a surplus of \$126 million on \$6.75 billion of revenues, \$6.5 billion in expenditures, and \$138 million in transfers. We anticipate revenue to increase 3.1% over the projected 2018/19 year-end results. This is the result, principally, of a 7.6% increase in health care services revenue and a 4.3% growth in student income, offset by a 6.1% reduction in SLAC sponsored research activity, which is driven by a reduced construction program compared to 2018/19. Overall, we are budgeting a 5.1% increase in expenses, driven largely by a 6.3% growth in compensation.
- Within the \$6.75 billion in revenues in the Consolidated Budget are \$1.6 billion in general funds, of which \$209 million flows to the Graduate School of Business, the School of Medicine, and Continuing Studies in accordance with formula agreements. There will be \$127 million set aside for the Capital Facilities Fund and other housing and facilities reserves. We anticipate a general funds surplus of \$8.4 million, after reserving \$11.5 million to support initiatives emerging from the LRP process in the coming years.
- This Budget Plan presents the projected 2019/20 results in a format consistent with generally accepted accounting principles (U.S. GAAP), as reported in the university's annual financial report. The projected Statement of Activities shows a \$2.8 million surplus. This SoA surplus is smaller than in

recent years mostly due to a smaller surplus in the Consolidated Budget itself, but also due to higher depreciation expenses as the Stanford Redwood City campus and other large capital projects are placed into service.

- The Capital Budget calls for \$908 million in expenditures in 2019/20. These expenditures are in support of a Capital Plan whose projects, when fully completed, will total approximately \$3.7 billion. Capital expenditures in 2019/20 will be directed toward the following large projects:
 - ◆ \$369 million to complete the \$1,161 million Escondido Village Graduate Residences.
 - ◆ \$96 million to finish the \$220 million Center for Academic Medicine facility.
 - ◆ \$44 million for the BioMedical Innovations Building.
 - ◆ \$38 million toward the Middle Plaza residential and office project on El Camino Real in Menlo Park.

STRATEGIC CONTEXT

The 2019/20 Budget Plan has been influenced by several factors:

- **Long Range Planning**—The LRP process has advanced significantly over the past year with design teams fully engaged in a number of areas to support our strategic objectives of: Advancing and Bridging Disciplines, Building Pathways for Impact, and Strengthening Communities on Campus and Beyond. Starting in June 2019, each programmatic activity will receive seed funding for a limited period of time. The level of funding will vary based on programmatic need. It is anticipated that many objectives will be funded through reallocation of existing resources for alignment with new operational or strategic priorities. In parallel, the Office of Development will work with teams on the scale of the initiatives, funding strategies and testing the waters with external advisors. By June 2020, the Executive Cabinet will confirm the initiatives: for external funding priority; for resourcing internally through reallocation of funds; and for school/unit consideration.
- **Affordability**—The high cost of living in this area, combined with significant commutes, has made affordability a central issue for Stanford. Consequently, the Affordability Task Force has been studying the situation and plans a report and recommendations later in the year.
- **Slow Growth in Endowment Payout**—For the past several years the growth in endowment payout to a typical fund has not kept up with the associated expense increases. This has put added pressure on many areas of the university to reallocate funds or find ways to reduce costs. We expect endowment payout growth to be just 2.1% for 2019/20, again below the anticipated cost increases.
- **Philanthropic Support**—Stanford is very fortunate to have had strong fundraising results over many years. We are optimistic that the friends of the university will continue their support in 2019/20 with gifts supporting operations, endowment, and capital facilities for projects that they believe most effectively advance the education and research mission of the university.

The following are our major priority areas for the 2019/20 budget:

- **Enhancing Access and Student Life**—A top priority in this year's budget process included several initiatives aimed at expanding access for undergraduates and providing more support for them on campus. We improved our already strong undergraduate financial aid program by removing home equity in the calculation of financial aid eligibility. Financial assistance for graduate students was also increased, with an 8% rise in the minimum assistantship salary. We also expanded mental health services on campus for all students.

- **General Funds Surplus and Reserve for Future LRP Initiatives**—It has been our general practice since the 2008 recession to carry a general funds surplus to protect the budget against potential revenue shortfalls. For 2019/20 we are carrying an \$8 million general funds surplus. In addition, we have \$11.5 million remaining from a \$20 million base budget reserve created in 2017/18 for future LRP initiatives.
- **Supporting Research**—Funds were allocated to the Dean of Research to enhance shared research platforms.
- **Diversity**—Work on the IDEAL (Inclusion, Diversity, Equity, and Access in a Learning Community) initiative continues into 2019/20 with several budgetary implications; in particular, we allocated incremental funding for the Faculty Incentive Fund and the Faculty Development Initiative.
- **Housing**—2019/20 will be the final year of construction on the Escondido Village Graduate Residences, a 2,434 bed complex slated to open in the fall of 2020. During the upcoming year Stanford will continue to subsidize \$22 million of off-campus housing for graduate students. This effort began in 2013, and Stanford will have spent over \$125 million during this period helping to provide affordable housing to our graduate students. In addition, construction will proceed on Middle Plaza-Residential, a mixed use development in Menlo Park that will provide 215 rental units to both faculty and staff. We will also continue the purchase of homes and apartments in the area under the Board-approved Off-Campus Housing Initiative.

FINANCIAL RESERVES

Stanford has three principal categories of financial reserves:

Expendable reserves—We project Stanford’s expendable reserves will stand at \$4.7 billion at the end of 2018/19. Of that amount, \$3.8 billion is a combination of restricted and unrestricted expendable funds, and unspent restricted endowment payout. The remaining amount is split among plant, student loan, and agency funds, which are not included in the Consolidated Budget for Operations. These reserves consist of thousands of funds held across the university, largely controlled by individual faculty, departments, programs, and schools.

Tier I Buffer—We project the Tier I Buffer will stand at \$1.55 billion by the end of 2019/20. The Tier I Buffer comprises the university’s unrestricted funds functioning as endowment, the payout from which supports the general funds component of the Consolidated Budget. The majority of the buffer’s funds are generated by a portion of the investment returns on our expendable reserves. The Tier I Buffer acts as a backstop to maintain the face value of those expendable funds, which are invested in the merged pool.

Tier II Buffer—The Tier II Buffer is estimated to be \$1.0 billion by the end of 2019/20. Like the Tier I Buffer, this fund is generated from excess investment returns from expendable reserves, and is invested as funds functioning as endowment. The payout from the Tier II buffer, however, is used at the discretion of the president. The corpus of the Tier II buffer acts as a general university reserve.

CONSOLIDATED BUDGET FOR OPERATIONS

The table on the next page shows the main revenue and expense line items for 2019/20 and compares those numbers to our current projection of final results for 2018/19. Some highlights of both income and expense follow.

CONSOLIDATED BUDGET FOR OPERATIONS, 2019/20

[IN MILLIONS OF DOLLARS]

2017/18 ACTUALS	2018/19 BUDGET JUNE 2018	2018/19 PROJECTED ACTUALS		2019/20 CONSOLIDATED BUDGET	CHANGE FROM PROJECTED ACTUALS
Revenues					
938	982	976	Student Income	1,018	4.3%
1,075	1,125	1,106	University Sponsored Research	1,147	3.7%
580	510	520	SLAC Sponsored Research	488	-6.1%
1,232	1,311	1,323	Health Care Services	1,424	7.6%
460	425	445	Gifts and Net Assets Released from Restrictions	445	0.0%
1,521	1,612	1,631	Investment Income	1,658	1.6%
544	560	556	Special Program Fees and Other Income	579	4.0%
6,351	6,525	6,558	Total Revenues	6,758	3.1%
Expenses					
3,571	3,854	3,818	Compensation	4,057	6.3%
303	321	321	Financial Aid	341	6.1%
197	222	213	Debt Service	242	13.4%
1,820	1,817	1,826	Other Operating Expense	1,854	1.5%
5,891	6,213	6,179	Total Expenses	6,494	5.1%
460	311	379	Operating Results	264	
(267)	(141)	(213)	Transfers	(138)	
193	171	166	Operating Results after Transfers	126	
3,334	3,539	3,527	Beginning Fund Balances	3,693	
3,527	3,709	3,693	Ending Fund Balances	3,820	

REVENUE

Student Income—This figure is the sum of tuition and room and board income, and is expected to grow by 4.3%. Tuition income is anticipated to grow 4.2% over the projected 2018/19 actuals as a result of increases in the undergraduate and graduate tuition rates and slight growth in the number of graduate students. Room and board income is projected to increase 4.5%, due to the 4.25% room and board rate increase and a 4.95% increase in graduate room rates.

University Sponsored Research—Sponsored research revenues (excluding SLAC) are expected to grow by 3.7%. Federal research will increase by 2.7%, while non-federal sponsored research will grow by 5.6%. This shift in sponsor mix has been an accelerating trend in recent years with the share of federal research support having dropped from 73% five years ago to just 68% in 2019/20.

SLAC—SLAC's revenues are expected to decline by 6.1%, due to reduced construction activity compared to 2018/19. When SLAC is included, total sponsored research revenue is expected to be nearly flat compared to 2018/19 projected year-end results.

Health Care Services—Revenue from health care services is projected to increase by 7.6% in 2019/20. This revenue consists principally of payments from the hospitals to the School of Medicine for faculty physician services. Health care services revenue has been the fastest growing element of the Consolidated Budget over the past 15 years, with a compound annual growth rate of 11%. The 2019/20 growth has slowed a bit, though it still reflects robust clinical activity by Stanford faculty physicians.

Expendable Gifts—Stanford has enjoyed very strong fundraising results in recent years. Consistent with the estimate from the Office of Development, we expect expendable gift revenue to be flat in 2019/20.

Investment Income—This category consists of endowment payout (\$1,362 million) and other investment income (\$296 million), principally from the Expendable Funds Pool (EFP). Endowment payout is projected to increase by 4.0%. The payout growth to a typical endowment fund will be 2.1% for 2019/20, but overall payout growth is higher due to additions to endowment principal and real estate income. The Expendable Funds Pool payout will drop by 14.6% in 2019/20. By Trustee policy, EFP payout is based on the total return of the pool in the prior year, up to 5.5%. Because we expect lower returns in 2018/19 than in the prior year, the payout for 2019/20 will be reduced.

EXPENSE

Compensation—We anticipate total compensation to increase 6.3% over 2018/19 year-end results. The increase is the result of a strong merit-based salary program and a 3.4% overall increase in headcount.

Financial Aid—The amount of need-based financial aid, athletic aid, and graduate tuition aid will grow by 6.1%. This increase allows Stanford to maintain its generous need-based aid program for undergraduates, particularly for those families with incomes below \$125,000. As noted above, it also reflects the elimination of home equity in the calculation of financial aid eligibility.

Other Operating Expenses—This substantial expense item is the amalgam of graduate stipends, operations and maintenance, utilities, capital equipment, materials and supplies, travel, library materials, subcontracts, and professional services. These expenses are projected to grow by 1.8% in 2019/20, driven largely by anticipated inflationary increases.

SCHOOL INITIATIVES

A few programmatic and financial highlights from Stanford's seven schools for 2019/20 are:

Graduate School of Business (GSB)—The Business School will implement recommendations from committees examining the future of management education and the changing nature of faculty research. Specifically, there will be increased support for junior faculty and growth in hiring of predocs, postdocs, and research assistants.

Earth, Energy & Environmental Sciences (SE3)—Resources in the school are strained due to a bulge in junior faculty recruitment costs and slow growth in endowment payout. However, the school is taking a lead role in many elements of Stanford's Long Range Planning process, including sustainability research and the initiatives in Data Science, Natural World, and Stanford Social X-Change.

Graduate School of Education (GSE)—The GSE is beginning the implementation phase of its own planning process that has been two years in the making. Work is advancing in the areas of learning differences and special education, as well as in early childhood education. These and other initiatives will be supported by current and new members of the faculty and will provide opportunity for expanded interdisciplinary work across other schools and departments at Stanford.

Engineering—The school is deeply involved in the university's Long Range Planning effort with a number of faculty participating in Data Science, Human-Centered Artificial Intelligence, as well as other areas. The school is also focused on its undergraduate curriculum, with several departments revamping their major and with Aero-Astro creating a new undergraduate major.

Humanities and Sciences (H&S)—The school continues to build on its outstanding quality with new programs to support the teaching efforts of junior faculty. There will be a series of external departmental reviews starting in 2019/20 to identify opportunities for teaching innovation and improvement. While H&S is in strong financial health, slow growth in payout in recent years has created a funding gap that has been addressed with expense cuts, support from the provost, and the use of reserves.

Law—The Law School prides itself on continual innovation in its teaching and research. Next year the school will launch a full-time global quarter for 24 students, the only program of its kind in legal education. The school is also launching a new technology initiative that will expand research and teaching in areas involving the intersection of law and technology.

Medicine—With \$2.7 billion in revenue the School of Medicine is Stanford's largest and most complex school. With its partners, Stanford Health Care and Stanford Children's Health, which together comprise Stanford Medicine, the school continues to expand its programs of education, research, and patient care. On the education side, in particular, a new MD curriculum was introduced this year and a new six-year MD/MS program will launch next year.

GENERAL FUNDS BUDGET

A central component of the annual budget process is the development of the general funds portion of the Consolidated Budget. The \$1.27 billion in general funds in the non-formula units can be used for any university purpose. General funds play a critical role as they help to maintain many of the core academic and support functions of the university.

Our highest priorities for the use of general funds were to establish a competitive salary program for faculty and staff and maintain a modest surplus of \$8 million. General fund allocations for non-salary expense were held flat for 2019/20. Additional priorities were:

Student Support (\$12.8 million)—As noted earlier, we are strengthening the financial aid program for undergraduate and graduate students. We will also be expanding mental health services with additional staffing in Counseling and Psychological Services and the Office of Accessible Education.

Facilities Costs (\$2.1 million)—As new buildings come online their operating costs are typically funded with general funds. We are budgeting for a partial year of operation for the Neuro/ChEM-H Research Complex, which will open later in the current fiscal year. In addition, funding is allocated for security services at the Anderson Collection.

Systems and Administration (\$5.7 million)—Administrative costs are almost entirely funded with general funds, whereas academic and program costs often have some portion of support coming from restricted funds. The largest allocation in this area is for the alumni and development system (ADAPT), as well as a variety of smaller administrative systems. The newly organized Office of External Relations will receive supplemental funding, consistent with the long range planning priority of having Stanford engage more purposefully beyond the university.

Research and Faculty Support (\$7.2 million)—This category includes funding for the Faculty Development Fund and the Faculty Incentive Fund, aimed at recruiting and retaining a diverse faculty. There is an additional allocation for enhancing shared research platforms.

Long Range Planning Reserve (\$11.5 million)—Base funds are reserved to address LRP initiatives, particularly affordability, in future years.

CAPITAL BUDGET AND THREE-YEAR CAPITAL PLAN

The Capital Budget and three-year Capital Plan are based on a projection of the major capital projects that the university intends to pursue to further its academic mission. The Capital Budget, estimated at \$907 million, represents anticipated capital expenditures in 2019/20, notably for the Escondido Village Graduate Residences, the BioMedical Innovations Building, and Middle Plaza at 500 El Camino Real in Menlo Park. The three-year Capital Plan spans 2019/20 through 2021/22, with total project costs of \$3.7 billion. The three-year plan includes projects that were initiated prior to 2019/20, as well as the full cost of projects starting within the rolling three-year period through 2021/22. The Capital Budget and Capital Plan are subject to change based on funding availability, budget affordability, and evolving university priorities.

ACKNOWLEDGMENTS

Again this year, the Budget process was very challenging. We signaled early in the year that it would be a tight budget, and most units showed great restraint, only bringing forth extremely high priority requests. Nevertheless, requests far outpaced available funding, and very difficult decisions had to be made. We took the unusual step of not allocating any cost rise on the non-salary portion of base budgets for administrative units, in order to allow some reallocation of funds. Again, the LRP priorities were extremely helpful in guiding the difficult decision-making process that we went through.

The Budget Plan is the product of a great deal of work on the part of managers and budget officers at every level of the university. I thank the budget officers and leadership in the schools and administrative units for their efforts in support of the budget process.

There are two hardworking advisory groups that assist me in formulating the general funds budget and capital plan. The University Budget Group consists of Stacey Bent, Xing Chang, Sarah Church, Andrea Goldsmith, Judy Goldstein, Patti Gumport, Rosemary Knight, Randy Livingston, Steve Olson, Steve Sano, Dana Shelley, George Triantis, and Tim Warner. This group met from late September through March, often twice a week, to review submissions and requests from the various budget units and to advise me on the final allocations of general funds. Support for the Budget Group, and for the creation of this document, is provided by the University Budget Office staff, consisting of Kayte Bishop, Xing Chang, Jacy Crapps, Neil Hamilton, Kulneet Homidi, Dana O'Neill, Mike Ling, Davis Reek, Mark Rickey, and Dana Shelley, under the able leadership of Tim Warner.

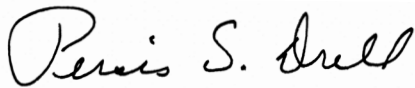
I would like to acknowledge the long term dedication of Patti Gumport and Rosemary Knight, who have completed their final year on the budget group. They have both been incredible citizens of the university with their budget group service. We will miss their wise advice and broad perspectives on the university.

The Capital Planning Group consists of Jack Cleary, Lou Durlinsky, Megan Davis, Stephanie Kalfayan, David Lenox, Bob Reidy, Craig Tanaka, Bob Tatum and Tim Warner. Craig guides the capital planning process with remarkable efficiency, with excellent support from Howard Leung.

REQUESTED APPROVAL AND ORGANIZATION OF THIS DOCUMENT

The Budget Plan provides a university-level perspective on Stanford's programmatic and financial plans for 2019/20. We seek approval of the planning directions, the principal assumptions, and the high-level supporting budgets contained herein. As the year unfolds, we will provide periodic variance reports on the progress of actual expenses against the budget. We will also report on any budgetary implications of initiatives emerging from the LRP process. Finally, we will bring forward individual capital projects for approval under normal Board of Trustees guidelines.

This document begins with an overview of budgeting at Stanford, followed by four chapters and two appendices. Chapter 1 describes the financial elements of the plan, including details of the Consolidated Budget for Operations and the projected Statement of Activities for 2019/20. Chapter 2 addresses programmatic directions in the academic areas of the university. Chapter 3 provides a similar view of the administrative and auxiliary units. Chapter 4 contains details on the Capital Budget for 2019/20 and the Capital Plan for 2019/20-2021/22. The appendices include budgets for the major academic units and supplementary financial and statistical information.



Persis S. Drell

Provost

June 2019

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INTRODUCTION: BUDGETING AT STANFORD

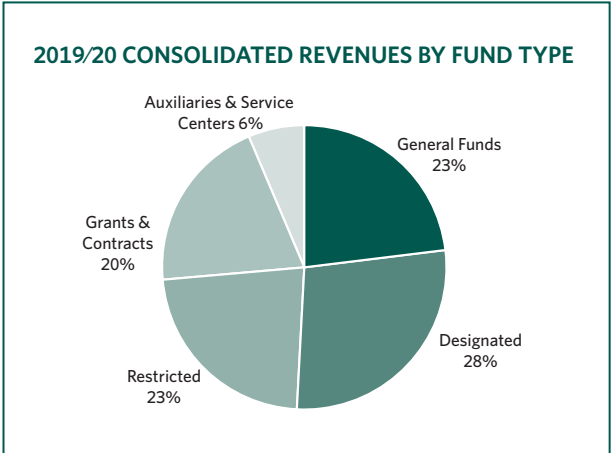
Budgeting at Stanford is a continuous process that takes place throughout the year and occurs at nearly every level within the university. The cycle starts with planning that considers programmatic needs and initiatives, continues with the establishment of cost drivers such as the approved salary program and fringe benefits rates, and is tempered by available funding sources. Stanford’s “budget”—referred to as the Consolidated Budget for Operations—is an amalgamation of thousands of smaller budgets, including everything from an individual faculty member’s budget for a sponsored grant from the National Institutes of Health, to the budget for the Department of Psychology, to the budget for the School of Engineering. These budgets are created and managed by the areas that are governed by them, with oversight by the provost, the chief budget officer of the university. There are general principles and guidelines to which the budgets must adhere, but schools and other units are allowed tremendous freedom in the development and execution of their budgets.

FUND ACCOUNTING

Stanford’s budgets are developed and managed according to the principles of fund accounting. Revenue is segregated into a variety of fund types, and the use of the revenue is governed by the restrictions of the fund. For example, each expendable gift is put into an individual fund, and the recipient must use the funds in accordance with the wishes of the donor. Gifts of endowment are also put into separate funds, but the corpus itself is not usually spent. An annual payout on the endowment fund is spent, and as with gift funds, only in accordance with the restrictions imposed by the donor. The segregation of each gift allows the university to ensure that the funds are spent appropriately and to report to donors on the activities that their funds support. Monies received from government agencies, foundations, or other outside sponsors are also deposited in separate, individual funds to ensure strict adherence to the terms of the grants and/or contracts that govern the use of the funds. Non-gift and non-sponsored research revenue also reside in funds, but this type of revenue may be commingled in a single fund. Departments may choose to combine monies without donor restrictions into separate funds for a particular program, for a capital project, or to create a reserve. Stanford’s consolidated revenues by fund type are shown at the right.

BUDGET MANAGEMENT

At the end of fiscal year 2017/18, Stanford had roughly 23,000 active expendable funds (with balances) and more than 8,500 endowment funds. So how does Stanford budget and manage all these funds? It goes without saying that the university uses a sophisticated financial accounting system to set up the individual funds, to record each financial transaction, and to track fund balances. But nearly all of the decision-making for the use of Stanford’s funds is made at the local level, consistent with the decentralized and entrepre-



neurial spirit of the university. Unlike a corporation, Stanford is closer to a collection of disparate, autonomous businesses with widely varying cost structures and resources. As such, each principal investigator is accountable for the responsible use of his/her grant funding, each gift recipient must ensure that the gift funds are used in accordance with the donor's wishes, and each school must fulfill the expectations for teaching and scholarship within its available resources. Schedule 19 in Appendix B shows expendable fund balances by academic unit and by level of control.

BUDGET CONTROL

The primary control on local unit budgets at Stanford is available funding. Except for general oversight and policies governing the appropriate and prudent use of university funds, the central administration does not place additional limits on spending. For example, if a faculty member needs to hire a postdoctoral fellow to help carry out a particular research project, and if grant funding is secured to cover this expense, the university does not second-guess this decision. Conversely, two important budget matters are controlled centrally: faculty billets and space.

Because the majority of Stanford's funding is under the direct control of a faculty member, a department, or a school, these entities are able to support programs as long as they maintain a positive fund balance. This, however, does not mean that the programs must operate with a surplus during any particular fiscal year. In fact, a "deficit" is usually reflective of a planned use of prior year fund balances. A simple example of this is when a department receives a gift of \$5.0 million to be spent over five years. If the funds are spent evenly over the time period, the program will show a surplus of \$4.0 million in the first year and will generate an ending fund balance of \$4.0 million. In each of the next four years, this program will receive no revenue, will expend \$1.0

million dollars, and will thus generate an annual deficit of \$1.0 million while drawing down the fund balance of the gift.

The Consolidated Budget for Operations, the aggregate of all of Stanford's smaller budgets, is therefore not centrally managed in the corporate sense. Nonetheless, a great deal of planning goes into the development of the individual unit budgets that aggregate into the Consolidated Budget of the university.

DEVELOPMENT OF THE CONSOLIDATED BUDGET AND THE ROLE OF GENERAL FUNDS

Another key element in the development of the units' budgets and the Consolidated Budget are university general funds, which are funds that can be used for any university purpose. General funds play a particularly important role in the overall budget, because they cover many expenses for which it is difficult to raise restricted funds, such as administration and campus maintenance. The main sources of general funds are tuition income, indirect cost recovery, unrestricted endowment income, and income from the expendable funds pool.

Each school and administrative unit receives general funds in support of both academic and administrative functions. The process for allocating general funds is controlled by the provost and aided by the Budget Group, which includes representation from both faculty and administration.

The critical elements of the process are a forecast of available general funds, a thorough review of each unit's programmatic plans and available local funding, and an assessment of central university obligations such as building maintenance and debt service. Balancing the needs and the resources is the ultimate goal of the Budget Group. The general funds allocation process is described in more depth in Chapter 1.

CHAPTER 1

CONSOLIDATED BUDGET FOR OPERATIONS

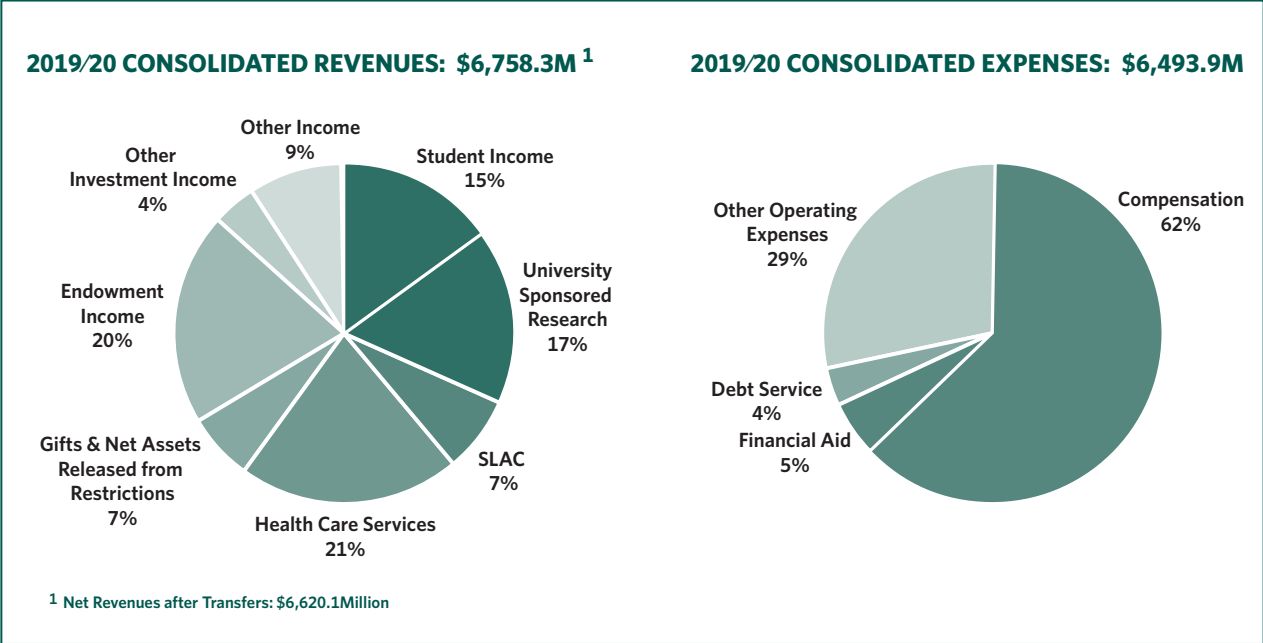
In this chapter we review the details of the 2019/20 Consolidated Budget for Operations, describe the general funds allocation process and results, and present a forecasted Statement of Activities.

CONSOLIDATED BUDGET FOR OPERATIONS

The Consolidated Budget for Operations provides a management-oriented overview of all non-capital revenues and expenditures for Stanford University in the fiscal year. It is based on the budget plans developed by the schools and administrative areas, with adjustments made by the University Budget Office for total expected activity levels not yet associated with a particular budget unit. The Consolidated Budget includes only those revenues and expenses available for current operations. It does not include plant funds, student loan funds, or endowment principal funds, although it does reflect endowment payout. Furthermore, it does not include the budgets of Stanford Health Care or Stanford Children’s Health.

The 2019/20 Consolidated Budget for Operations shows total revenue of \$6,758.3 million and expenses of \$6,493.9 million, resulting in a net operating surplus of \$264.3 million. After projected transfers of \$138.1 million, predominately to plant funds, the Consolidated Budget shows a surplus of \$126.2 million.

Total revenues in 2019/20 are projected to increase \$200.2 million or 3.1% over revenues expected in 2018/19. As has been the case for several years, the total growth belies the variability among the component revenue sources. Health care services revenue will again be the fastest growing revenue category and is budgeted to increase by 7.6%. Student income growth is driven by approved tuition rate increases and continued modest graduate student enrollment growth. Total investment income is expected to see slow growth



CONSOLIDATED BUDGET FOR OPERATIONS, 2019/20

[IN MILLIONS OF DOLLARS]

	2017/18 ACTUALS	2018/19 BUDGET JUNE 2018	2018/19 BUDGET PROJECTED ACTUALS	GENERAL FUNDS	DESIGNATED	RESTRICTED	GRANTS AND CONTRACTS	AUXILIARY & SERVICE CENTER ACTIVITIES	TOTAL	CHANGE FROM PROJECTED ACTUALS
Revenues and Other Additions										
368.4	384.4	383.7	383.7	399.4					399.4	4.1%
374.9	393.0	387.1	387.1	398.2	5.9				404.1	4.4%
195.2	204.7	204.9	204.9					214.1	214.1	4.5%
938.5	982.1	975.7	975.7	797.5	6.0			214.1	1,017.6	4.3%
801.5	844.7	826.4	826.4				857.0		857.0	3.7%
273.7	279.9	280.1	280.1	290.0					290.0	3.5%
1,075.2	1,124.6	1,106.5	1,106.5	290.0			857.0		1,147.0	3.7%
580.3	510.0	520.0	520.0				488.4		488.4	-6.1%
1,231.5	1,311.0	1,323.0	1,323.0	38.9	1,337.7	7.7		39.5	1,423.8	7.6%
460.0	424.9	445.1	445.1	2.0		443.1			445.1	0.0%
1,248.8	1,319.9	1,310.0	1,310.0	293.6		1,068.3			1,361.9	4.0%
272.5	292.5	321.4	321.4	119.4	162.0	12.3	0.6	1.4	295.8	-8.0%
1,521.3	1,612.4	1,631.3	1,631.3	413.0	162.0	1,080.6	0.6	1.4	1,657.6	1.6%
544.0	559.8	556.5	556.5	22.9	386.6	1.3	0.1	167.8	578.7	4.0%
6,350.8	6,524.7	6,558.1	6,558.1	1,564.4	1,892.2	1,532.8	1,346.1	422.7	6,758.3	3.1%
Expenses										
3,571.0	3,853.6	3,818.4	3,818.4	1,072.4	1,252.0	651.3	770.4	311.4	4,057.5	6.3%
303.3	321.1	321.4	321.4	56.5	5.8	261.4	17.3		340.9	6.1%
197.3	222.0	213.4	213.4	94.8	33.6	0.7		112.8	242.0	13.4%
1,819.7	1,816.5	1,825.8	1,825.8	363.4	370.0	315.3	511.5	293.3	1,853.5	1.5%
5,891.3	6,213.3	6,179.1	6,179.1	1,587.1	1,661.4	1,228.7	1,299.1	717.5	6,493.9	5.1%
459.5	311.4	379.1	379.1	(22.7)	230.8	304.1	47.0	(294.8)	264.3	
Transfers										
(99.8)	(45.0)	(64.2)	(64.2)		(39.4)	(5.0)		5.1	(39.2)	
(186.9)	(117.3)	(174.7)	(174.7)	(99.9)	(21.9)	(1.3)	(3.5)	(2.4)	(129.0)	
20.2	21.6	25.8	25.8	131.0	(89.4)	(262.2)	(43.5)	294.2	30.1	
(266.5)	(140.7)	(213.1)	(213.1)	31.1	(150.7)	(268.4)	(47.0)	296.9	(138.1)	
193.0	170.8	166.0	166.0	8.4	80.1	35.6	0.0	2.1	126.2	
3,334.5	3,538.7	3,527.5	3,527.5	472.2	1,661.5	1,539.3		20.4	3,693.4	
3,527.5	3,709.4	3,693.4	3,693.4	480.6	1,741.6	1,575.0		22.5	3,819.7	

of 1.6% in 2019/20, due to a projected decline in payout from the expendable funds pool. Total sponsored research support will increase by 0.5%, with SLAC totals decreasing 6.1%, due to a steep drop in construction activity. University sponsored research, exclusive of SLAC, is budgeted to increase by 3.7%. Excluding SLAC, total revenues in 2019/20 are projected to grow by 3.8%.

Total expenses in 2019/20 are forecast to grow by 5.1% over the projected year-end results for 2018/19, and by 6.1% excluding SLAC. The salary program and continued headcount growth combine to push total compensation expenses up by 6.3%, and by 7.0% excluding SLAC. Growth in general operating expenses is expected to be comparable to that seen in past years.

The table on the facing page shows the budgeted consolidated revenues and expenses for 2019/20. For comparison purposes, it also shows the actual revenues and expenses for 2017/18 and both the budget plan and the year-end projection for the current fiscal year, 2018/19. Definitions of key terms are provided below.

THE CONSOLIDATED BUDGET BY PRINCIPAL REVENUE AND EXPENSE CATEGORIES

Revenues

Student Income

Student income is expected to increase by 4.3% in 2019/20 to \$1,017.6 million. Increases in student charges are approved by the Board of Trustees and are guided by a number of considerations: programmatic needs, the effectiveness of the financial aid program, and Stanford's pricing position relative to peers.

Tuition and Fees—Stanford expects to generate \$803.5 million in tuition and fee revenue in 2019/20, a 4.2% increase over 2018/19. While tuition and fees will contribute only 11.9% of Stanford's total revenue in 2019/20, it will generate 51.0% of all university general funds. As such, it is a vital source of unrestricted revenue. In addition to supporting faculty and staff salaries, student services, financial aid, and other direct academic program needs, tuition plays a crucial role in funding infrastructure, support services, and other operational activities.

KEY TERMS

General Funds: Funds without donor restriction (unrestricted funds) that can be used for any university purpose. The largest sources are tuition, unrestricted endowment income, and indirect cost recovery.

Designated Funds: Funds that come to the university as unrestricted but are directed to particular schools and departments, or for specific purposes by management agreement.

Restricted Funds: Include expendable and endowment income funds that can only be spent in accordance with donor restrictions.

Grants and Contracts: The direct component of sponsored research, both federal and non-federal. Individual principal investigators control these funds.

Auxiliaries: Self-contained entities such as Residential & Dining Enterprises and Athletics that generate income and charge directly for their services. These entities usually pay the university for central services provided.

Service Centers: Entities that provide services primarily for internal clients for which they charge rates to recover expenses.

Net Assets Released from Restrictions: Under U.S. GAAP, gifts and pledges that contain specific donor restrictions preventing their spending in the current fiscal year are not included in the Consolidated Budget for Operations. When the restrictions are released, these funds become available for use and are included in the Consolidated Budget on the line Net Assets Released from Restrictions. These funds include cash payments on prior year pledges and funds transferred from pending funds to gift funds.

Financial Aid: Includes expenses for undergraduate and graduate student aid. Student salaries, stipends, and tuition allowances are not considered to be financial aid and are included in other lines in the Consolidated Budget.

Formula Areas: Budget units whose allocations of general funds are predetermined by a formula agreed to by the provost and the unit. Principal formula units include the Graduate School of Business, the School of Medicine, and Continuing Studies/Summer Session.

Undergraduate program revenue will increase by 4.1%, slightly less than the approved undergraduate tuition rate increase of 4.25%, due to slower growth in fee income. The general tuition rate increase for 2019/20, approved by the Board of Trustees in December, yields a rate of \$52,857 for undergraduate students. The rate increase, which is 75 basis points higher than the increases in recent years, was set after careful consideration of the current economic circumstances, weighed against budgetary needs. In particular, the desire to enhance Stanford's undergraduate financial aid program for middle income families was a strong impetus for the somewhat higher rate increase. Nonetheless, Stanford continues to be, along with its peers Harvard, MIT, Yale, and Princeton, one of the lowest priced universities among the highly selective private universities that comprise the Consortium on Financing Higher Education (COFHE). The median tuition of the COFHE university cohort increased 3.8% (compared to Stanford's increase of 3.5%) for 2018/19, leaving Stanford's tuition rank unchanged at 15th out of 17.

Graduate program revenue is projected to grow by 4.4% in 2019/20, consistent with the approved 3.5% tuition rate increase for most graduate programs, as well as continued modest growth in graduate student enrollment.

Room and Board—Total room and board income is projected to be \$214.1 million in 2019/20, increasing by 4.5% over 2018/19.

In December, the Trustees approved a combined undergraduate room and board rate increase of 4.25% for 2019/20, bringing the undergraduate rate to \$16,433. The undergraduate room rate will increase by 5.4%, and the 19-meal board plan will increase by 2.5%. The graduate housing room rate will increase by 4.95%. Residential and Dining Enterprises (R&DE) plans to use the projected increases in revenue to address inflationary impacts on operating costs, to enhance its preventive maintenance program, increase funding of its asset renewal program to support lifecycle replacement of infrastructure items, and to fund debt service on new and renovated facilities.

Sponsored Research and Indirect Cost Recovery

University

University sponsored research revenue, excluding SLAC, is forecasted to be \$1,147.0 million in 2019/20, a 3.7% increase over the projected level in 2018/19. The amount

includes \$857.0 million in direct research revenue from external grants and contracts, as well as \$290.0 million for reimbursement for indirect costs incurred by the university in support of sponsored activities.

SPONSORED RESEARCH REVENUE

(Excluding SLAC)

[IN MILLIONS OF DOLLARS]

	2018/19	2019/20	PERCENT CHANGE
Federal Directs	537.7	552.0	2.7%
School of Medicine	348.8	360.2	3.3%
Other Schools	188.9	191.8	1.5%
Non-Federal Directs	288.7	305.0	5.6%
School of Medicine	188.1	200.6	6.6%
Other Schools	100.6	104.4	3.8%
Total Directs	826.4	857.0	3.7%
Total Indirects	280.1	290.0	3.5%
Total Research	1,106.5	1,147.0	3.7%

Both federal and non-federal sponsored research are projected to increase in 2019/20, but the growth in non-federal sponsored activity will grow at twice the pace of federal sponsored activity, as indicated in the chart above. This disparity of growth rates continues the trend seen for the past several years. In fact, over the past four years, federal sponsored activity grew an average of 1.7%, whereas non-federal sponsored activity grew 8.5%. Current projections show that the fraction funded by the federal government will decline from 73% five years ago to approximately 68% in 2019/20. Because non-federal sponsors typically reimburse Stanford for the indirect costs incurred to support research at about half the rate of federal sponsors, the university is forced to subsidize an increasing portion of these costs.

Overall federal sponsored research is projected to grow by 2.7% in 2019/20. The School of Medicine budgeted a 3.3% increase, driven primarily by new faculty hires. Support from the National Institutes of Health (NIH) continues to represent over 80% of the school's research volume; NIH-funded research in the school is growing at 4.0% in 2018/19, and the growth trend is expected to continue into next year. Other schools, in aggregate, project a 1.5% increase in federal direct research, although not all of the non-formula schools anticipate growth from federal sponsors. The School of Humanities and Sciences projects a 3.8% increase in federal sponsored research volume due to faculty hiring and large capital equipment expenditures. In contrast, the School

of Earth, Energy & Environmental Sciences and the Graduate School of Education forecast a decline in federal support. The School of Engineering and the Dean of Research expect little change in federal funding in 2019/20.

Non-federal support of research grants and contracts is projected to increase only 4.2% in 2018/19. While this growth is stronger than the increase in federal sponsored support, it is a significant slowdown from the increases seen over the past five years. The high growth in the past five years was stimulated largely by support from domestic foundations and corporations. The slowdown in 2018/19 is due, in part, to reduced activity in the California Institute for Regenerative Medicine (CIRM) in anticipation of its expiration in 2020/21, faculty retirements and departures in the Graduate School of Education, and the end of several large projects and programs. In 2019/20 non-federal funding is expected to grow somewhat faster, at 5.6%. The growth is impacted by the continued wind down of CIRM, as well as a one-year funding gap for the Global Climate and Energy Project (GCEP). On the bright side, the School of Medicine expects sponsored research supporting digital health and non-federal clinical trials to continue to experience strong growth for the foreseeable future.

Indirect cost recovery will reach \$290.0 million in 2019/20, an increase of 3.5%. The on-campus organized research rate, the Facilities & Administration rate, is budgeted at 56.5%, unchanged from the current year.

SLAC

Stanford operates SLAC National Accelerator Laboratory (SLAC), a federally funded research and development center, for the Department of Energy (DOE). SLAC's sponsored research budget in 2019/20 is expected to decline by 6.1% to \$488.4 million. Because DOE owns SLAC's facilities and capital equipment, DOE-funded capital expenditures are treated as operating revenue and expense and are included in SLAC's consolidated budget. In 2019/20, the construction component of SLAC's budget will scale down by nearly half of the projected 2018/19 level to \$98.5 million, as the DOE-funded Linac Coherent Light Source II (LCLS-II) and the Large Synoptic Survey Telescope (LSST) projects wind down. As LCLS-II and LSST move into operation, the facility operation component of SLAC's budget will expand in 2019/20. The research and operations component of SLAC's budget will grow to \$382.9 million, a 14.6% increase from the level

in 2018/19. SLAC research and construction programs are discussed in more detail in Chapter 2.

Health Care Services

Health care services revenue continues to be an area of strong growth and is projected to increase 7.6% to \$1,423.8 million in 2019/20. Health care services revenue is expected to continue to grow over the next few years, as the School of Medicine recruits clinically active faculty and clinician educators in conjunction with the expansion of Stanford Health Care and Stanford Children's Health. The School of Medicine and the hospitals have an integrated clinical strategy that includes the growth essential to maintaining preeminence in a highly competitive health care market and to providing the highly specialized care required for training purposes by a leading academic medical center.

The School of Medicine generates more than 90% of the university's total health care services revenue, the majority of which is paid by Stanford Health Care and Stanford Children's Health through the professional services and inter-entity agreements. These agreements pass a portion of the hospitals' clinical service revenues to the academic departments based on clinician productivity, with additional payments made for department overhead costs, medical direction leadership, programmatic development, and for measures of quality, safety, and value. Hospital payments cover compensation expenses for faculty, clinician educators, and staff who are directly involved in the clinical mission. In addition, the funds flow agreements cover non-compensation expenses of the clinical mission and provide support for the academic and research mission. Clinical revenues in 2019/20 are projected to increase 8.8% to \$1,133.8 million. An additional \$174.2 million of hospital payments to the School of Medicine cover the university's formula assessment on the school's clinical revenue, rent, use of the library, 3-D imaging, and other non-clinical programs and services.

The remaining \$115.8 million in health care services revenue represents payments from the hospitals to other parts of the university: \$29.5 million to Business Affairs, primarily for communications services; \$24.3 million to Land, Buildings and Real Estate for operations and maintenance and utilities, the Marguerite shuttle service, and parking permits; \$14.6 million to the Office of Development for hospital fundraising support; \$12.3 million to the Office of the General Counsel for legal services; and \$9.8 million to the central

administration for parking structure debt service, Stanford Infrastructure Program fees, and general overhead.

Gifts and Net Assets Released from Restrictions

Revenue from expendable gifts and net assets released from restrictions is budgeted to be \$445.1 million in 2019/20, no change from the amount expected in 2018/19. Because there is substantial volatility in the timing of gifts, in particular the designation of pending gifts, a zero-growth assumption is prudent for planning purposes.

Expendable gifts are those immediately available for purposes specified by the donor and do not include gifts to endowment principal, gifts for capital projects, gifts pending designation, or non-government grants. Net assets released from restrictions include cash payments on gift pledges made in prior years, as well as pending gifts whose designation has been determined.

Investment Income

In 2019/20, investment income is projected to increase by only 1.6% to \$1,657.6 million. This total includes endowment payout to operations as well as other investment income described below.

Endowment Income—Endowment payout to operations in 2019/20 is budgeted to be \$1,361.9 million, an increase of 4.0% over 2018/19. Endowment income includes payout from individual funds invested in the merged pool (MP), as well as specifically invested endowments (e.g., oil and mineral rights), and net rental income from the Stanford Research Park and other endowed lands.

The payout to an individual endowment fund invested in the merged pool in 2019/20 will increase by 2.1%, a rate of growth that continues to lag general growth in expenses. However, total merged pool payout is expected to increase by 3.3% due to new gifts to endowment principal during the remainder of the current year and throughout 2019/20. Next year's payout will also be impacted by schools and departments transferring \$64.2 million from expendable balances to endowment principal, as well as an expected \$21.4 million withdrawal from the Tier I Buffer, at the end of the current fiscal year.

The 2019/20 proposed spending rate (payout per share) for the MP is derived from the application of the university's smoothing rule. The smoothing rule is used to dampen the

impact on the budget of annual fluctuations in the market value of the endowment, thereby providing stability to budget planning. Stanford's smoothing rule uses the approved target payout rate of 5.5% to calculate a target payout per share in the current year, 2018/19. Taking a weighted average of the target payout per share and the current year's actual payout per share results in a smoothed payout per share. The payout per share for 2019/20 is derived by increasing the smoothed payout per share by the long-term growth factor of 3.5%. Finally, the 2019/20 proposed payout per share is expected to provide an overall endowment payout rate that is within the range of 4.0% to 6.0%. The spending rate was approved by the Trustees at the February 2019 meeting.

Of the total endowment income, \$293.6 million or 22% is unrestricted and a source of general funds. The unrestricted endowment income includes payout from unrestricted MP funds, income generated from Stanford endowed lands, and a small amount of other specifically invested endowment income. The unrestricted portion of endowment income is expected to increase by 5.1% in 2019/20, driven by very strong growth in income from the Stanford Research Park. Unrestricted income from Stanford lands is projected to be \$117.0 million in 2019/20, providing 40% of unrestricted endowment income.

Other Investment Income—Other investment income is projected to decline 8.0% from \$321.4 million in 2018/19 to \$295.8 million in 2019/20. Other investment income comprises two categories of revenue: \$174.4 million in payout to operations from the expendable funds pool (EFP) and earnings from the endowment income funds pool (EIFP), and \$121.5 million of investment income from several smaller sources as described below. The expected decline in other investment income in 2019/20 is driven by lower MP investment returns anticipated for the current year, which, in turn, drive lower investment returns on the EFP. By policy, the EFP returns in a given year determine the EFP payout in the subsequent year. Hence, lower returns expected in 2018/19 limit the EFP payout in 2019/20.

Most of the EFP balance is invested in the MP, with a small portion invested in cash vehicles for short-term needs. As a result, the returns on the EFP follow closely the returns on the MP. The investment return on the EFP in 2018/19 is projected to be 4.4%, thereby reducing the 2019/20 expected payout to the zero-return portion of the EFP to 4.4%, more than a point lower than the 5.5% to be paid in the current

year. The money-market rate is projected to be 2.5% in 2019/20, yielding a total of \$6.7 million for those funds in the EFP that receive a direct payout. The EIFP is expected to earn \$9.2 million and to have a fund balance of \$367.7 million at the end of 2019/20. For further explanation of the EFP, see the sidebar to the right.

The \$3.8 billion of ending fund balances in the Consolidated Budget for Operations shown on page 4 includes all of the EIFP but only \$3.5 billion of the \$4.3 billion projected EFP. Plant and debt pool fund balances, as well as student loan, pending, and agency funds, are part of the EFP, but these fund balances are not represented in the Consolidated Budget.

The non-EFP portion of other investment income comprises \$45.4 million in investment income distributed to support the operations of the Stanford Management Company and the real estate division of Land, Buildings and Real Estate; \$26.4 million in interest income on the Stanford Housing Assistance Center (SHAC) portfolio; \$20.0 million from Stanford Health Care and Stanford Children's Health; and \$29.7 million miscellaneous other investment income including rents from the Sand Hill Road Offices, securities lending, and other interest income.

Special Program Fees and Other Income

Revenue from special program fees and other income is budgeted at \$578.7 million in 2019/20, an increase of 4.0% over the expected level in 2018/19. This category is a collection of revenue streams that includes executive education, pre-collegiate, and professional certificate fees; technology licensing and patent income; industrial affiliate program membership fees; ticket, admission, and broadcast fees for athletic and other events; conference and symposium revenues; rental income from Stanford West, Colonnade, and Welch Road apartments; and participation fees collected by the travel/study programs. Due to this variety of revenues, the category's overall annual growth can fluctuate significantly and, over the past ten years, has experienced year-over-year changes ranging from an increase of 14% to a decline of 2%. The 2019/20 projection of 4.0% growth, however, aligns with modest results from recent years while also considering anticipated increases. For example, ticket, admission, and broadcast fees are expected to increase due to a more favorable football game home schedule. Executive education, and particularly its online programs, will continue its expansion in the Graduate School of Business, driving

THE EXPENDABLE FUNDS POOL AND THE BUFFERS

Most of Stanford's non-endowed funds are collectively known as the expendable funds pool (EFP). Unspent tuition dollars, unit budget savings, clinical revenues received by the School of Medicine, faculty discretionary accounts, and auxiliary reserves are examples of expendable funds in the EFP, the total of which is projected to be \$4.3 billion at the end of 2019/20. Between \$50 and \$250 million of the EFP is invested in cash vehicles, or the Intermediate Pool, for short-term needs. The remainder is invested in the merged pool (MP). As a result, the returns on the EFP closely follow the returns on the MP.

Ninety-eight percent of the 24,000 funds in the EFP, equaling 89% of the total balance, receive no payout or investment return. Rather, a variable payout of 0% to 5.5% on the balances of these so-called zero-return accounts, based on the actual EFP investment returns during the prior fiscal year, is paid to general funds, both centrally and to the School of Medicine and the Graduate School of Business. The remaining funds, including the debt recycling pool, insurance and benefits reserves, student loan funds, certain plant funds, agency funds, gifts pending designation, and some restricted funds, receive a payout equal to a money-market return. It is important to note that the balances of all of the expendable funds invested in the EFP are guaranteed by the university, regardless of financial market conditions.

How does the university provide this guarantee? In years when the investment returns on the EFP are greater than the payout obligation to the money-market return funds, general funds, the School of Medicine, and the GSB, the excess EFP returns are first directed to the Tier I Buffer, until it reaches a balance equal to 35% of the total EFP value, and then to the Tier II Buffer. In the event that EFP returns are insufficient to cover the stipulated allocations to operations, the shortfall is withdrawn first from the Tier I Buffer, up to 20% of the Tier I balance, and then from the Tier II Buffer. Additionally, if investment returns are negative, causing the balance of individual funds to decline, the buffers are used to restore individual fund balances.

The buffers are funds functioning as endowment, and as such generate an annual payout. The Tier I Buffer is unrestricted, and the payout is a source of base general funds. The Tier II Buffer is restricted for use by the president for strategic initiatives. Furthermore, the buffers serve as a financial reserve in the event of an earthquake or other disaster. At the end of 2019/20 the Tier I and Tier II Buffers are projected to reach \$1.4 billion and \$1.0 billion, respectively.

revenue growth. Retail revenues in Residential & Dining Enterprises will also increase in 2019/20 with Cardinal Café's first full year of operation at Stanford Redwood City. Other revenue streams, such as pre-collegiate and professional certificate fees, are expected to maintain similar levels of growth to past years.

Expenses

Total Compensation

Total Compensation in the Consolidated Budget for Operations includes faculty, staff, bargaining unit, and student assistantship salaries; fringe benefits; tuition benefits for research and teaching assistants; and other non-salary compensation such as bonuses and incentive pay. Total compensation in 2019/20 is budgeted to be \$4,057.5 million, a 6.3% increase over the 2018/19 year-end projection of \$3,818.4 million. The approved merit programs for faculty and staff as well as anticipated headcount growth drive this increase.

Salaries—Total salary expense for faculty and staff, including SLAC, is expected to grow by 6.3% in 2019/20 to \$2,697.4 million. However, due to the decline in SLAC construction activity, total SLAC salaries will decline slightly in 2019/20. Excluding SLAC, total salary expense for university faculty and staff is projected to increase by 7.0%. Overall, projected salary expense in 2019/20 is the result of the university-wide salary program and assumed headcount growth for both faculty and staff. The salary program is designed to recognize individual performance as well as address market, equity, or retention issues. Total combined headcount for faculty and staff is projected to grow by 3.4%. This assumption is based on observations of the 2018/19 actual headcount trend and analysis of historical average growth. Within this aggregate, the university anticipates faculty growth to be 1.9% in 2019/20. In recent years, the number of academic staff has grown significantly across the university in support of expanding academic programs in the schools and independent labs and growth in clinical activities. The headcount for staff, including those supporting expanding academic programs and clinical activities, is projected to rise 3.6%, consistent with recent years' growth.

Similar to past years, the approved salary program takes into consideration the financial condition of the university as well as the status of the current labor market. The annual salary program is guided by the university's compensation

philosophy, which is to set faculty salaries at a level that will maintain Stanford's competitive position both nationally and internationally for the very best faculty, and to set staff salaries competitive within the local employment market in order to attract and retain top talent. Analysis of department level faculty salary data shows that Stanford is achieving a competitive faculty salary position in most areas. The annual review of salary survey data in several local markets indicates that staff salaries are in line with market median salaries as of September 2018.

Each year a minimum salary is set for research assistants and course assistants, although departments and programs may choose to pay more than the minimum. The goal is for graduate students' income to provide sufficient financial support to meet the estimated non-tuition living expenses for a single graduate student living in university housing. Due to the continuing affordability challenges that graduate students face, particularly for housing, the minimum salary for assistantships will be increased by 8.0% in 2019/20, a significant jump over the long-range planning assumption of 4.75%.

Fringe Benefits—Fringe benefits expense is budgeted at \$802.2 million in 2019/20, increasing 6.3%, the same as growth in salary expense. The regular fringe benefits rate applied to most employee salaries will increase somewhat, and the tuition grant program rate will drop significantly, but the two rates together will be largely unchanged going into 2019/20.

The university tracks the benefits costs separately for four distinct employee groups and charges a different rate for each group based on the types of benefits that each is eligible to receive. The federally negotiated rates are calculated as a ratio of total benefits costs to total payroll for each group:

- Regular benefits-eligible employees
- Postdoctoral research affiliates
- Casual/temporary employees
- Graduate research and teaching assistants

In addition, the university applies a fifth rate to eligible salaries to recover the costs of the tuition grant program (TGP), which provides undergraduate college tuition benefits for the dependents of eligible faculty and staff. The federal government does not allow these charges, so the TGP rate is not

applied to faculty and staff salaries that are charged to government sponsored projects or academic service centers. In 2018/19 the university added an additional 0.5 rate points to the TGP rate for pension related expenses disallowed by the federal government. The TGP rate will drop in 2019/20 from 1.75% to 1.35% due to both a small drop in the rate required for the tuition grant program recovery and a reduction in the amount of pension expenses in the supplemental component of the rate. This cost component comprises roughly \$26.0 million of the university's total fringe benefits expense.

The fringe benefits for regular benefits-eligible employees (RBE) comprise ninety-four percent of all fringe benefits expense. The proposed rate for this group in 2019/20 is expected to increase 0.3 rate points over the negotiated rate for 2018/19 to 29.5%. The fringe benefits rates for postdoctoral research affiliates and for casual or temporary employees are projected to decrease, while the rate for graduate research and teaching assistants are projected to increase slightly in 2019/20.

FRINGE BENEFITS RATES

	PROVISIONAL 2018/19	PROPOSED 2019/20
Regular Benefits-Eligible Employees	29.2%	29.5%
Postdoctoral Research Affiliates	25.4%	24.3%
Casual/Temporary Employees	8.4%	7.9%
Graduate RAs and TAs	5.1%	5.2%
Average Blended Rate	27.2%	27.4%

The major cost components contributing to the RBE rate and changes expected in 2019/20 are noted below:

- Insurance programs comprise just over 43% of the RBE fringe benefits pool, 86% of which is for health plans for both active employees and retirees. Other insurance benefits include, but are not limited to, dental, group life, long-term disability, and worker's compensation. Employee health plans comprise 35% of the total RBE fringe pool and are budgeted at \$260.0 million in 2019/20, an increase of 9.5% over the budgeted health plan expense in 2018/19. Continued headcount growth and health plan cost inflation are the drivers of the increased expense and are expected to push up the RBE rate by 0.4 rate points.

- Retirement programs comprise almost 50% of the overall RBE fringe benefits expense and are projected to increase by 6.7% to \$362.4 million in 2019/20. More than half of the retirement program expense is for the Stanford Contributory Program, a program designed to help employees save for retirement through individual investment combined with a generous matching contribution by the university. The other significant retirement program expense is payroll taxes, which include social security and Medicare. The Faculty Retirement Incentive Plan, a small component of total retirement programs, is projected to grow by 47% due to higher average faculty salaries and a sharp increase in completed payouts, resulting in an increase of 0.1 rate points.
- A decrease in the amount contributed to the workers compensation reserve will result in a 0.1 point drop in the RBE rate.
- The over-recovery of fringe benefits costs in previous years will reduce the RBE rate by 0.1 rate points in 2019/20.

The 2019/20 postdoctoral research affiliates fringe rate will decrease 1.1 rate points from the 2018/19 budgeted rate. The rate drop is largely due to the postdoctoral affiliates salary base growth outpacing the medical costs growth, as well as a bigger over-recovery adjustment from the rate in past years.

The fringe benefits rate for casual/temporary employees is projected to decrease by 0.5 rate points, while the rate for graduate research and teaching assistants (RAs and TAs) is expected to increase by 0.1 rate points.

Financial Aid

Stanford expects to spend a total of \$340.9 million on student financial aid for undergraduate and graduate students in 2019/20, a 6.1% increase over the 2018/19 projection of \$321.4 million. Endowment income (\$223.8) provides two-thirds of the funding for student financial aid, and general funds (\$56.5 million) supports a growing fraction of almost 17%. Designated funds, gifts, and grants and contracts will support the remainder.

Undergraduate Aid—In 2019/20 Stanford students will receive \$175.2 million in undergraduate need-based scholarships from Stanford resources. In addition, students will qualify for \$6.7 million in federal grants, mostly Pell and Supplemental Educational Opportunity Grant (SEOG) awards, a small upward trend compared to recent past years.

Cal Grants, which are not reflected in the Consolidated Budget for Operations as they are awarded directly to the students, will provide \$2.7 million.

Undergraduate need-based financial aid expense will increase 7.2% over the projection for 2018/19, a rate that is three points higher than the growth in students' standard costs, due to several factors. The first is that the standard student budget will increase by 5.7%, even though tuition and room and board are only increasing 4.25%. The other expense category included in the student budget is being adjusted to catch up for five years of significant increases in medical insurance. The second factor is the increasing number of applicants qualifying for aid. While this trend is seen across all income categories, it is concentrated among lower income students. Finally, a change in policy to exclude home equity in the determination of eligibility will reduce parent contributions and drive up the need for scholarship support.

Stanford has long been committed to need-blind admissions supported by a financial aid program that meets the demonstrated financial need of all admitted undergraduate students. Since 2008/09 one of the hallmarks of the need-based program has been simple benchmarks that make it easy for prospective students, particularly from low-income backgrounds, to understand likely financial support from Stanford. The benchmarks were increased in 2016/17. For 2019/20 the benchmarks will be unchanged as follows:

- For families with total annual income below \$65,000 and typical assets for this income range, Stanford will not expect a parent contribution toward educational costs. Tuition, room and board, and other expenses will be covered with scholarship or grant funds.
- For families with total annual income below \$125,000 and typical assets for this income range, the expected parent contribution will be low enough to ensure that all tuition charges will be covered with scholarship or grant funds.
- Families at higher income levels continue to qualify for assistance based on their individual circumstances, including family income, assets (other than equity in the primary residence), cost of living, family size, and number of family members in college.

Stanford's financial aid program continues to be one of the most generous in the country, ensuring that a family's economic circumstances will not prevent admitted students from enrolling.

The table below shows the detail of undergraduate need-based scholarship aid. Schedules 6 and 7 in Appendix B provide supplemental information on undergraduate financial aid.

Athletic scholarships, which are not need-based, will be awarded to undergraduate students in the amount of \$28.4 million in 2019/20, a 4.2% increase over the projection for the current year.

UNDERGRADUATE NEED-BASED SCHOLARSHIP AID

[IN MILLIONS OF DOLLARS]

SOURCE OF AID	2015/16 ACTUAL	2016/17 ACTUAL	2017/18 ACTUAL	2018/19 PROJECTION	2019/20 PLAN
Department Funds and Expendable Gifts	4.2	4.0	3.3	3.2	3.1
Endowment Income	95.2	99.9	106.8	110.6	115.5
President's Funds - The Stanford Fund	18.5	18.7	20.4	19.7	19.7
General Funds	17.4	21.0	22.7	29.7	36.9
Subtotal Stanford Funded Scholarship Aid	135.2	143.6	153.1	163.2	175.2
Federal Grants	5.8	5.8	6.3	6.5	6.7
Total Undergraduate Scholarship Aid	141.0	149.4	159.5	169.7	181.9
General Funds as a Share of Stanford Funding	13%	15%	15%	18%	21%
President's Funds as a Share of Stanford Funding	14%	13%	13%	12%	11%
Endowment funds as a Share of Stanford Funding	70%	70%	70%	68%	66%
Number of Students	3,196	3,198	3,242	3,315	3,375

2019/20 FINANCIAL AID AND OTHER GRADUATE STUDENT SUPPORT FROM STANFORD RESOURCES

[IN MILLIONS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION		GENERAL FUNDS	DESIGNATED AND RESTRICTED	GRANTS & CONTRACTS	2019/20 TOTAL
Student Financial Aid						
159.6	170.2	Undergraduate	36.9	138.3	7.2	182.4 ¹
25.4	27.2	UG Athletic		28.4		28.4
118.4	124.0	Graduate	19.6	100.5	10.1	130.2
303.4	321.4	Total	56.5	267.2	17.3	340.9
Other Graduate Support						
88.1	95.2	Stipends & Health Insurance Surcharge	27.3	50.7	26.6	104.6
90.2	92.9	Tuition Allowance	41.5	35.7	20.3	97.5
138.7	144.9	RA/TA Salary and Benefits	36.8	61.2	57.0	155.0
317.0	332.9	Total	105.5	147.6	104.0	357.1
149.5	166.2	Postdoc Support	5.3	51.0	124.2	180.5
769.8	820.6	Total Student Support	167.4	465.7	245.5	878.6

¹ This number is \$500,000 higher than the Stanford Funded Scholarship Aid figure above because it includes federal grants for non-need-based aid recipients.

Graduate Aid—In 2019/20, Stanford estimates \$487.3 million will be provided in total financial support to graduate students. The table above illustrates the primary components of financial support for graduate students. Graduate financial aid, which represents the tuition component of a fellowship, is projected to be \$130.2 million. The university expects financial aid for graduate students to increase 4.9% due to planned increases in tuition rates, some increase in enrollments, and a growing percentage of students receiving support. This is the only portion of graduate student support that is captured in the Financial Aid line of the Consolidated Budget for Operations on page 4.

The other three components of graduate student financial support are stipends, tuition allowance, and salary and benefits for research and teaching assistantships (RA/TA). In aggregate, they will provide an estimated \$357.1 million in support of graduate students in 2019/20, an increase of 7.3% over 2018/19. As discussed in the Compensation section, the minimum rate for RA and TA salaries will increase by 8.0% in 2019/20. Because some RAs and TAs are compensated at levels above the minimum, some compression in the salary distribution is expected. As a result, total RA and TA salary and benefits expense is projected to increase by only 7.0%. Stipends and other fees are expected to grow

by 9.9% as the Knight-Hennessy Scholars program adds its second cohort and departments increase their stipend rates along with the assistantship salary rates. Tuition allowance, which is the tuition benefit for students who hold an assistantship appointment, is projected to increase 5.0%, consistent with expected fellowship tuition growth. To align with the presentation of Stanford's financial statements, the Consolidated Budget table on page 4 includes tuition allowance and assistantship salary and benefits in Compensation, while stipends and other fees are reflected in Other Operating Expenses.

Graduate student support is funded by all of Stanford's various fund types, with the exception of service center funds. Restricted funds (gifts and endowment) contribute the most at 45%, followed by unrestricted general funds at 26%, grants and contracts at 23%, and the remaining 6% by unrestricted designated funds. In aggregate, these proportions have largely stayed consistent in recent years. However, the distribution of funding varies substantially within the schools. Not surprisingly, grants and contracts provide a significantly higher proportion of graduate student funding in the research-intensive schools like Medicine and Engineering. The professional schools, on the other hand, rely almost exclusively on restricted funds.

Stanford also provides support to postdoctoral research affiliates. Sixty percent of these individuals work in the School of Medicine, and 69% of support for all postdocs is provided by sponsored research funding. Postdocs are charged a tuition fee of \$125 per quarter, which is mostly covered by school funds as well as by general funds. Postdocs receive a salary or a stipend, as well as health benefits, in exchange for their work. The total expense for postdocs is expected to be \$180.5 million in 2019/20, an increase of 8.6% over 2018/19.

Schedule 3 in Appendix B details actual graduate student and postdoc expense by source of funds from the past two years.

Internal Debt Service

Stanford issues debt securities in the capital market to finance capital projects and to provide bridge financing for the future receipt of gifts for capital projects. Internal loans are advanced to projects and amortized generally over the useful life of assets in equal installments. These internal loans are assessed the Budgeted Interest Rate (BIR), which is a weighted average rate of the debt issued to finance capital projects and includes bond issuance and administrative costs. The BIR is set at 4.25% for 2019/20, no change from the rate of the past six years.

Internal debt service in the Consolidated Budget is forecast at \$242.0 million in 2019/20, a \$28.5 million increase from the level in 2018/19. It includes debt service incurred on the internal loans used to finance capital projects and bridge finance the receipt of gifts, but excludes \$9.6 million of debt service for the Rosewood Sand Hill Hotel and the Sand Hill Road Office Complex, which are separate financial entities from the Consolidated Budget.

Of the \$28.5 million increase in 2019/20, \$16.0 million is due to Stanford Redwood City beginning its first full year of operation. Another \$6.0 million will come from two major projects nearing completion: the Neuro/ChEM-H Research Complex and the BioMedical Innovations Building 1 and Connective Elements (BMI 1). Other projects that will contribute to increased debt service costs are the District Work Centers, Whole Building Energy Retrofit buildings, storm drainage system improvements, and planned upgrades to critical computing and communications systems in University IT.

Other Operating Expenses

Other operating expenses include all non-salary expenditures in the Consolidated Budget except financial aid and internal debt service, which are detailed separately above. This category, which accounts for nearly 29% of university consolidated expenses, will total \$1,853.5 million in 2019/20, increasing by 1.5% from the projected 2018/19 level. The slow growth is entirely attributable to SLAC's construction program, which will significantly decrease in 2019/20 as described in Chapter 2. Excluding SLAC construction costs, other operating expenses are budgeted to increase by 3.5%.

OTHER OPERATING EXPENSES

[IN MILLIONS OF DOLLARS]

MAJOR COMPONENTS	2018/19	2019/20	PERCENT CHANGE
SLAC Non-Salary	251.3	223.7	-11.0%
Materials and Supplies	319.2	336.5	5.4%
Professional Services	254.0	256.2	0.9%
General Services	174.4	171.3	-1.8%
Stipends and Other Aid	170.2	186.5	9.6%
Repairs and Maintenance	119.5	123.2	3.1%
Other	539.6	556.1	3.1%
Total	1,825.8	1,853.5	1.5%

The largest component of other operating expenses is materials and supplies, totaling \$336.5 million in 2019/20. More than forty percent of these expenses are for the purchase of materials and supplies in laboratories and research settings. Due to its research-intensive nature, the School of Medicine is a significant driver of the activity in this category. Residential & Dining Enterprises is also projecting growth, as it expands its retail offerings at Stanford Redwood City. These increases are partially offset by lower spend forecasted in Student Affairs due to a change in the pharmacy model at Vaden Health Center.

Expenses for professional services are the second largest component. Largely comprising legal, accounting, and consulting services, this expense category is projected to be \$256.2 million in 2019/20, a 0.9% increase. This modest increase is due to lower planned spending by the Office of General Counsel and Public Affairs. General and administrative services will decline slightly to \$171.3 million, which is a result of lower spending in Stanford Alumni Association and Residential & Dining Enterprises. These expenses represent

a diverse range of external payments for non-professional services, including insurance, permits, royalties, marketing, and advertising services.

Also included in other operating expenses are stipends for graduate students and postdoctoral scholars and other non-tuition aid, rising to \$186.5 million in 2019/20. Close to sixty percent of expenses in this category are for graduate student stipends, which are expected to rise by 9.9% as described in the Graduate Aid section above. Stipends for postdocs will also increase significantly at 8.6%, driven by continued growth in the number of these scholars. Overall, stipends and other aid is projected to increase by 9.6%.

The remaining expenses include external payments for repairs and maintenance (\$123.2 million); payments for rentals and leases (\$97.9 million); subcontracts (\$83.4 million); capital equipment expense (\$61.6 million); services purchased from Stanford Health Care and Stanford Children's Health (\$60.7 million); external payments for telecommunications and utilities (\$61.1 million); and library materials (\$35.1 million). An additional \$173.2 million includes travel and food expenses incurred across the university.

Utilities—Total campus utilities expenses include utilities purchased from external providers, as well as the university service center costs for generating and delivering electricity, heating, cooling, water, and sewer to the campus. In 2019/20, the budget for total campus utilities, including commodities and distribution expenses, is \$114.4 million, a modest increase of 1.4%. Nearly ninety percent of the expense is incurred in the service center, which provides utilities to most of the campus and portions of the two hospitals and is operated by Land, Buildings and Real Estate (LBRE).

The service center has three primary components: 1) externally purchased utilities (35%), 2) debt amortization of capital expenditures (39%), and 3) operations and maintenance in support of utility delivery (26%). Based on the relative costs of these components and the expected consumption, a charge-out rate is set for each utility.

The consolidated utility service center budget is expected to increase by only \$1 million, or 1%, to \$98.7 million in 2019/20. While incremental debt service is planned for the Escondido Village Graduate Residences capital utilities project and for infrastructure renewal for the water systems

utilities (domestic water, lake water, and sewage), lower energy systems service center rates hold the overall cost growth to a minimum. Forty percent of the utility service center budget will be funded by general funds on behalf of the non-formula units.

In the past few years, Stanford's energy utilities, including electricity, steam/hot water, and chilled water, have undergone significant changes. The university completed the Stanford Energy System Innovations (SESI) project in 2015, and entered into two 25-year Power Purchase Agreements (PPAs) to buy clean solar power. Together these direct solar power purchases now provide 53% of Stanford's total electricity use. The remaining 47% of purchased electricity comes from the general California grid, which is currently 27% renewable, yielding a total renewable power content in Stanford's electricity portfolio of 65%. In December 2018 Stanford entered into a third 25-year PPA to move its electricity portfolio to 100% carbon free, well ahead of the state law requiring the California grid to be 100% carbon free by 2045. The new solar plant is scheduled to be operational by January 1, 2022 and is projected to save the university \$1.5 million annually.

In addition to the utility service center expense, the consolidated budget includes an additional \$15.7 million for utilities expense that units will purchase from external providers, including the City of Palo Alto, Pacific Gas & Electric, CalPine Energy, and the hospitals. Roughly half will be paid by the School of Medicine for utilities at the Stanford Research Park and Medical Center properties; Residential & Dining Enterprises budgeted \$4.3 million to cover the utility needs at Munger, Escondido Village, and off-campus housing units; and another \$1.1 million is budgeted for utilities in common areas and vacant units of Stanford West, Welch Road, and Colonnade apartments.

Operations & Maintenance—Operations & Maintenance (O&M) includes grounds maintenance, custodial, trash, recycling, elevator repair, gutter maintenance, re-lamping, and other services along with preventive and reactive maintenance on buildings, infrastructure, equipment, and vehicles. The total O&M budget for the university is projected to be \$202.2 million in 2019/20, rising 5.7% from 2018/19. Nearly 75% of O&M expense is incurred in LBRE, Residential & Dining Enterprises, and the School of Medicine.

The largest component in the O&M budget is external payments for repairs and maintenance, which is a subset of Other Operating Expenses discussed above. It will increase 3.1% to \$123.2 million in 2019/20.

The total O&M budget also encompasses significant expenses that are found in other lines of the Consolidated Budget:

1) \$38.0 million of internal O&M services performed by the service centers in LBRE, including most of the grounds services for the campus, approximately 50% of the building maintenance, and 100% of the infrastructure maintenance (e.g., storm drains and roads). These service center expenses are reflected in the Other Internal Transfers line of the Consolidated Budget, described below.

2) \$19.5 million of labor costs for O&M staff hired by individual units. A significant portion, \$13.2 million, resides in Residential & Dining Enterprises (R&DE), which employs bargaining unit staff to perform custodial and maintenance services in support of the residences. The labor costs are captured in the compensation line of the Consolidated Budget.

3) \$12.4 million of other non-salary expenses directly associated with the provision of O&M services. They principally include costs for temporary services, contract administration, and equipment rentals for performing O&M. They are dispersed across a variety of other operating expense items in the Consolidated Budget.

4) \$9.1 million of services charged by Stanford Health Care, mostly incurred by the School of Medicine (SoM).

In addition to LBRE, several other units oversee O&M for large areas of the campus. R&DE provides the operations and maintenance for approximately 33% of the campus; SoM for about 11%; and Athletics for approximately 6%. The Graduate School of Business (GSB) is fiscally responsible for operations and maintenance of the Knight Management Center and Highland Hall.

Transfers

The transfers section of the Consolidated Budget for Operations accounts for the transfers of funds between units, between fund types, and out of the Consolidated Budget altogether, and yields the change in fund balances expected in each fund type and in the Consolidated Budget as a whole. In 2019/20, transfers result in a net reduction from operating results of \$138.1 million.

The schools, administrative departments, and central administration authorize movements of funds out of operations to create other types of assets. These assets include student loan funds, funds functioning as endowment (FFE), capital plant projects or reserves, and funds held in trust for independent agencies such as the Howard Hughes Medical Institute, the Carnegie Institution, and the Associated Students of Stanford University. These transfers to and from assets vary widely from year to year, and a single transaction can greatly affect these numbers and the resulting bottom line of the Consolidated Budget. Using information provided by budget units, and combining that information with central administration commitments, the Consolidated Budget for Operations adds or subtracts these transfers from the operating results (revenues less expenses).

■ **Transfers to Endowment Principal**—This line represents transfers of expendable funds to endowment principal, which create FFE, or withdrawals of FFE to support operations. In 2019/20 Stanford is projecting that a net \$39.2 million will be transferred to FFE from current operating funds. This figure is informed by the units' individual budget plans and is significantly lower than the average of recent years. The slow growth of endowment payout in the past years as well as changes to the policies that govern access to funds voluntarily invested in the endowment contribute to the lower planned transfers to endowment principal. Furthermore, schools and departments often identify excess funds to invest in FFE during the year-end process when their operating results are known, and they may not include these actions in their budget plans.

■ **Transfers to Plant**—The transfers in this category are primarily for capital projects. Total transfers to plant of \$129.0 million are planned for 2019/20. The majority, \$85.2 million of this total, are transfers made from central university funds and include \$68.8 million from the Capital Facilities Fund (see more on the CFF in Chapter 4), and \$11.8 million from the Facilities Reserve to support a variety of smaller projects in the schools. Land, Buildings and Real Estate expects to transfer \$9.5 million from the Planned Maintenance Program for capital renewal projects. The School of Engineering plans to transfer \$12.7 million for locally funded capital projects including the renovation of the basement in Packard to house a shared robotics center. The remainder is made up of smaller amounts transferred from various units to capital projects such as lab fit-ups, equipment fabrication, and renovations.

- **Other Internal Transfers**—Additional financial activity affects the net results of the Consolidated Budget, including internal revenue and internal expense, which are generated from those charges that are made between departments within the university for services provided through charge-out mechanisms. Communication services provided by Business Affairs IT to university departments are one type of internal revenue and expense. Another is the charge that the Department of Project Management (the group that manages construction projects on campus) allocates to capital projects that use their services. These charges contribute to the revenue and expense of individual departments and fund types but, ultimately, are netted against each other in the presentation of the Consolidated Budget to avoid double counting. There is, however, a net \$30.1 million of internal revenue flowing into the Consolidated Budget, primarily from capital plant funds, which are outside the Consolidated Budget, into service centers and other funds within the Consolidated Budget. Additionally, this amount includes transfers of current funds to student loan funds, such as the loan forgiveness programs in the Graduate School of Education and Law. It also includes any transfers from living trusts and pending funds.

GENERAL FUNDS

The general funds budget is an essential part of the Consolidated Budget. General funds are unrestricted, supporting a significant fraction of salaries, as well as the necessary administration and infrastructure for all core university activities. The main sources of general funds are student income, indirect cost recovery from sponsored activity, unrestricted endowment income, and income from the expendable funds pool (EFP). Each school receives an allocation of general funds, in addition to their restricted and designated funds. Administrative units are supported almost entirely by general funds.

General funds revenue in 2019/20 is forecasted to increase by \$50.0 million to \$1,564.4 million, an increase of 3.3% over the expected level for 2018/19. Tuition and fees will make up 51% of total general funds in 2019/20, but will be the source of 65% of the increase in total general funds. Overall, general funds is growing more slowly in 2019/20 than in past years due to slow growth in endowment payout and a decrease expected in income from the EFP.

2019/20 NON-FORMULA GENERAL FUNDS

Based on the formula agreements, \$208.7 million of general funds revenue will be directed to the School of Medicine, the Graduate School of Business, and other smaller formula units. In addition, \$85.8 million is set aside in part for the academic facilities reserve, the housing reserve, and for direct receipt by some units. The remaining \$1,269.9 million of general funds are allocated by the provost to non-formula units.

During the annual general funds budgeting process, each of Stanford's primary budget units (schools, administrative, and academic support units) meets with the Budget Group, the provost's advisory body composed of senior faculty and administrators to 1) review the programmatic goals and priorities of the organization; 2) report on financial status and progress of current initiatives; 3) discuss organizational growth and funding plans; and 4) submit requests for incremental general funds. At the end of the process, the provost makes general funds allocation decisions based on a final forecast of available general funds, the units' presentations, and consultation with the Budget Group.

Over the course of the planning cycle, the outlook for incremental general funds deteriorated. Lower than expected endowment investment returns negatively impacted unrestricted endowment payout as well as EFP payout in 2019/20. Moreover, non-formula indirect cost recovery is expected to decline slightly. The largest source of general funds, tuition, will see slightly higher revenue, but the increment generated by a higher increase in the undergraduate tuition rate will be reinvested in undergraduate financial aid. Each of these revenue items is discussed in more detail in earlier sections. Limited incremental general funds presented a challenge for the Budget Group, as it grappled with high priority, competing requests from the units.

Two important goals of the process were to deliver a competitive salary program for both faculty and staff and to maintain a base general funds surplus going into 2019/20. Both of these objectives were achieved, requiring a substantial portion of the available incremental general funds. In order to free up additional general funds for important objectives, Budget Group decided to hold flat the general funds allocations for non-salary expenses. As a result, funds were made available for the highest priorities.

Student Support—\$12.8 million in general funds will be added to the budget in 2019/20 in support of Stanford students and will benefit both undergraduate and graduate students.

General funds are needed to cover an increasing fraction of the undergraduate financial aid budget, as other sources, like endowment and gifts, cannot meet the budgeted 7.2% increase. In addition, Stanford will no longer consider home equity when determining a student's financial need. Overall, general funds supporting need-based scholarship will increase by 31.1%, or \$8.7 million.

Based on recent student survey results, there is a critical need for incremental mental health and well-being services for Stanford students. Enhanced clinical services are needed to address the increasing demand for mental health services and to decrease waiting times, and additional sub-clinical services are required to meet the increasing number of students registering for federally mandated academic accommodations. \$2.0 million of general funds were allocated to Student Affairs to provide additional staffing Counseling and Psychological Services (CAPS) and the Office of Accessible Education staff in order to improve the mental health and disability services to students in need.

In light of the high cost of living in the Stanford area and the affordability challenges facing our graduate students, the minimum assistantship salary will be increased by 8% in 2019/20, requiring an incremental \$1.8 million in general funds.

Faculty and Research Support—\$7.2 million of general funds are provided to augment the institutional support for academic and faculty programs. Included in this total is \$2.1 million for the Faculty Incentive Fund and Faculty Development Initiative programs, aimed at recruiting and retaining a diverse faculty, as well as targeted faculty salaries in H&S to improve the competitive position in specific disciplines. \$1.5 million is allocated to the Dean of Research to create and enhance shared research platforms in order to promote a state-of-the-art research ecosystem for Stanford researchers. The Wu Tsai Neurosciences Institute received \$210,000 for core administrative operations, and the Dean of Research received general funds to support key personnel in the Dean's office. Because academic units face a shortfall between endowment payout growth and the cost rise in expenses, they were allocated \$2.3 million to mitigate

the impact of the general funds reduction on non-salary expenses described above.

Systems and Administration—\$5.7 million of general funds are focused on strengthening mission-support functions in the administrative units. A significant portion, \$2.0 million, is directed to enterprise systems support including ADAPT (the university's alumni and development system), a degree audit system, and a variety of smaller systems supporting service delivery and management, financial reporting, and enterprise content management. The long-range planning process exposed the imperative to engage more purposefully with our region, nation, and world, and, as a result, \$1.5 million is allocated to the newly organized Office of External Relations. Additional allocations were made to alleviate the growing demand for research administration support and legal services, and business services.

Facilities Costs—\$2.1 million of general funds will support existing and new facilities. \$600,000 is allocated for building operations for the new Neuro/ChEM-H Research Complex, and \$583,000 is allocated to provide security services at the Anderson Collection. Security services and heat abatement for commencement also received support.

Long Range Planning Reserve—\$11.5 million in base funds are reserved to address LRP initiatives, particularly affordability, in future years.

PROJECTED STATEMENT OF ACTIVITIES

Stanford University, as a not-for-profit institution and a recipient of restricted donations, uses a fund accounting approach to manage itself internally, reporting that activity in its Consolidated Budget for Operations. Stanford also presents a Statement of Activities (SoA), prepared in accordance with accounting principles generally recognized in the United States (U.S. GAAP). The SoA summarizes all changes in net assets during the year (both operating and non-operating). The table on page 20 compares the Consolidated Budget for Operations with the projected operating results section of the SoA.

The net impact of the adjustments described below decreases the Consolidated Budget's projected \$126.2 million surplus by \$123.4 million, resulting in a projected surplus

of \$2.8 million in the Statement of Activities. This is a considerably smaller Statement of Activities surplus than that projected for 2018/19 or that the university has experienced in recent years. The main contributing factors of this smaller surplus are:

- A Consolidated Budget surplus that is itself nearly \$115 million lower in 2019/20 than in 2018/19, as expenses are expected to grow 2% faster than revenues in the upcoming year. There are many reasons for the differential growth in expenses versus revenues, and the academic and administrative narratives that follow in Chapters 2 and 3 expound upon those reasons.
- A \$20 million decrease due to much larger depreciation expenses that are only partially offset by the adjustment to remove the principal component of internal debt service payments. Several very large capital projects coming online in late 2018/19 or during 2019/20 contribute to the increased depreciation expenses, including the Stanford Redwood City campus, the Neuro/ChEM-H Research Complex, and the BioMedical Innovations Building 1.
- A \$7 million reduction in internal fringe benefits recovery to compensate for similar over-recoveries in prior fiscal years.
- An offsetting \$15 million increase due to an expected uptick in net assets released to fund types that are not included in the Consolidated Budget but are included in the Statement of Activities, such as endowment principal.

In order to understand the specific adjustments that follow, it is important to understand that at Stanford, financial resources are classified into fund groups, which are subject to different legal and management constraints. There are four different categories of funds:

- 1) Current Funds, which include revenue to be used for operating activities—e.g., tuition revenue, sponsored research support, endowment payout, and other investment income;
- 2) Endowment Principal Funds, which include all of Stanford's endowment funds, both those restricted by the donor and those designated as endowment funds by university management;
- 3) Plant Funds, which include all funds to be used for capital projects, such as construction of new facilities or debt service; and

- 4) Student Loan Funds, which include those funds to be lent to students.

The Consolidated Budget for Operations includes only current funds, and reflects the sources and uses of those funds on a modified cash basis that matches the way the university is managed internally. Within current funds, specific funds are further classified by their purpose and level of restriction. The Consolidated Budget for Operations also reflects the transfer of current funds for investment in other fund groups: endowment principal, student loan, and plant funds. For example, a school may transfer operating revenue to fund a future capital project. Similarly, a department may move unspent current funds to the endowment, to build capital for a particular purpose or to maximize long-term investment return on those funds. In both these instances, these funds are no longer available to support operations, so they decrease the Consolidated Budget for Operations operating results. These transfers, however, have no impact on SoA operating results, as the net assets of the university have not changed (one form of asset has been converted into another type of asset).

Converting the Consolidated Budget into the Statement of Activities

To convert the Consolidated Budget to the SoA under U.S. GAAP, certain revenue and expense reclassifications, transfers, and adjustments are necessary. These are the necessary adjustments:

- a) **Reclassify Financial Aid.** GAAP requires that the tuition portion of student financial aid be shown as a reduction of student revenue. In the Consolidated Budget, financial aid is reported as an operating expense. Accordingly, \$340.9 million of student financial aid expense is reclassified as a reduction of student revenues in the SoA.
- b) **Adjust for Health Care Services.** For GAAP purposes, health care services revenues received from the hospitals are reported net of expenses that the hospitals charge the university. The Consolidated Budget presents these revenues and expenses on a gross basis. This adjustment results in a reduction of \$60.7 million in both Other Operating Expenses and health care services revenues, with no net change to the bottom line.
- c) **Eliminate Hospital Equity Transfers.** Payments received from the hospitals for which no services are required to be provided by the university are considered transfers of

COMPARISON OF CONSOLIDATED BUDGET AND STATEMENT OF ACTIVITIES, 2019/20

Unrestricted Net Assets

[IN MILLIONS OF DOLLARS]

STATEMENT OF ACTIVITIES			FISCAL YEAR 2019/20			
2017/18 ACTUALS	2018/19 JUNE 2018 BUDGET	2018/19 PROJECTED YEAR-END		PROJECTED CONSOLIDATED BUDGET	ADJUSTMENTS	PROJECTED STATEMENT OF ACTIVITIES
			Revenues and Other Additions			
			<i>Student Income:</i>			
368.4	384.4	383.7	Undergraduate Programs	399.4		399.4
374.9	393.0	387.1	Graduate Programs	404.1		404.1
195.2	204.7	204.9	Room and Board	214.1		214.1
(303.4)	(321.1)	(321.4)	Student Financial Aid ^a		(340.9)	(340.9)
635.0	660.9	654.3	Total Student Income	1,017.6	(340.9)	676.7
			<i>Sponsored Research Support:</i>			
801.5	844.7	826.4	Direct Costs—University	857.0		857.0
273.7	279.9	280.1	Indirect Costs	290.0		290.0
1,075.2	1,124.6	1,106.5	Total University Research Support	1,146.9		1,146.9
580.3	510.0	520.0	SLAC Sponsored Research	488.4		488.4
1,089.4	1,216.5	1,214.1	Health Care Services^{b,c}	1,423.8	(105.0)	1,318.9
469.5	449.9	570.9	Gifts & Net Assets Released from Restrictions^d	445.1	140.6	585.7
			<i>Investment Income:</i>			
1,239.7	1,320.1	1,310.2	Endowment Income ^e	1,361.9	0.2	1,362.1
253.6	244.7	258.4	Other Investment Income ^f	295.8	(65.4)	230.4
1,493.4	1,564.8	1,568.6	Total Investment Income	1,657.6	(65.2)	1,592.5
524.7	565.5	564.5	Special Program Fees and Other Income^e	578.7	6.0	584.7
5,867.5	6,092.2	6,198.8	Total Revenues	6,758.3	(364.5)	6,393.7
			Expenses			
3,495.3	3,860.4	3,838.6	Salaries and Benefits ^{e,f,g}	4,057.5	30.7	4,088.2
			Financial Aid ^a	340.9	(340.9)	0.0
149.1	144.4	152.8	Debt Service ^h	242.0	(73.1)	168.9
			Capital Equipment Expense ⁱ	96.7	(96.7)	0.0
380.1	394.6	419.5	Depreciation ^j		452.0	452.0
1,645.5	1,642.0	1,656.0	Other Operating Expenses ^{b,e,f}	1,756.8	(75.0)	1,681.8
5,669.9	6,041.5	6,066.9	Total Expenses	6,493.9	(103.0)	6,390.9
197.5	50.7	131.9	Revenues less Expenses	264.3	(261.5)	2.8
			Transfers			
			Additions to Endowment Principal ^k	(39.2)	39.2	
			Other Transfers to Assets ^k	(137.2)	137.2	
			Net Internal Revenue/Expense ^l	38.3	(38.3)	
0.0	0.0	0.0	Total Transfers	(138.1)	138.1	0.0
197.5	50.7	131.9	Excess of Revenues Over Expenses After Transfers	126.2	(123.4)	2.8

equity between the university and the Hospitals and are not included in operating revenue in the SoA. These include contributions by Hospital construction projects to the Stanford Infrastructure Program and academic grants prescribed by the inter-entity agreements between the university and the hospitals. In the Consolidated Budget, these items show as health care services income. This adjustment removes \$44.2 million of revenue.

d) **Include Net Assets Released to Other Types of Funds.**

The Consolidated Budget includes Net Assets Released to Current Funds, such as payments on gift pledges made in prior fiscal years. The SoA also includes pledge payments to other types of funds such as Plant Funds and Endowment Principal as well as net adjustments to overall pledges as prior pledge promises are fulfilled and future pledge promises are made. Including these Net Assets Released results in a \$140.6 million addition to Gifts and Net Assets Released from Restrictions.

e) **Include Stanford Sierra Camp.** The SoA includes the revenues and expenses of the Sierra Camp that is run as a separate limited liability corporation. \$6.2 million in revenues and \$6.0 million in expenses is added (\$3.2 million in Salaries and Benefits and \$2.8 million in Other Operating Expenses) to the Consolidated Budget for Operations.

f) **Adjust Other Investment Income.** Included in the Consolidated Budget revenues and expenses are \$45.4 million of expenses for the Stanford Management Company and Real Estate Operations within Land, Buildings & Real Estate. For GAAP purposes, these expenses, incurred as part of the generation of investment returns, are netted against investment earnings. This adjustment reduces Other Investment Income, as well as reducing \$28.2 million from compensation and \$17.2 million from non-compensation expenses, with no net change in the bottom line. In addition, the hospitals' contributions toward the operation of the Stanford Redwood City campus are removed, as they represent an equity contribution to the university. This removes \$20.0 million from this line.

g) **Adjust Fringe Benefit expenses.** The Consolidated Budget reports the fringe benefits cost based on the fringe benefits rates charged on salaries; the rates may include over- or under-recovery of actual costs from prior years. The SoA reflects only current year expenses for fringe benefits, so the over- or under-recovery amount has to be removed

from Salaries and Benefits. The SoA also includes accruals for certain benefits, such as pension and post-retirement benefits that are required by GAAP to be shown as expense in the period the employee earns the benefit. For 2019/20, GAAP expenses are expected to be higher than budgeted expenses by \$55.8 million.

h) **Adjust for Debt Service.** The Consolidated Budget includes all internal debt service, reflecting funds used to amortize principal and interest. Per GAAP, interest expense is reported in the SoA but repayment of principal is reported as reductions in Notes and Bonds Payable in the Statement of Financial Position. GAAP amounts also include interest payments for the Rosewood Hotel and Sand Hill Road Offices, which are not included in the Consolidated Budget for Operations. Finally, the SoA includes interest accretion expense to recognize the university's future obligation to repurchase faculty homes that sit on Stanford lands. Debt Service is therefore reduced by the amount of internal principal amortization; increased for Rosewood Hotel and Sand Hill Road Offices interest; increased for repurchase obligation interest accretion; and adjusted to account for the difference between internal and external interest payments—a net reduction of \$73.1 million.

i) **Remove Capital Equipment purchases.** The projected current year's purchases of capital equipment are recorded in the Consolidated Budget as an expense, while they are recorded as assets on the Statement of Financial Position. As a result, \$96.7 million is eliminated from Consolidated Budget expenses.

j) **Record Depreciation expense for current year asset use.** The SoA includes the current year depreciation expense related to capital assets, such as buildings and land improvements. This adjustment adds a \$452.0 million expense to the SoA.

k) **Eliminate Fund Transfers.** The Consolidated Budget includes transfers of \$176.4 million of current funds to other fund groups, including plant, student loans, and funds functioning as endowment. The transfers out are removed for the SoA.

l) **Eliminate Net Internal Revenue/Expense.** The SoA includes the activity of all fund types, while the Consolidated Budget does not include plant funds. Therefore, the net inflow of \$38.3 million from plant funds into the Consolidated Budget for purchases of internal services is eliminated.

CHAPTER 2

ACADEMIC UNITS

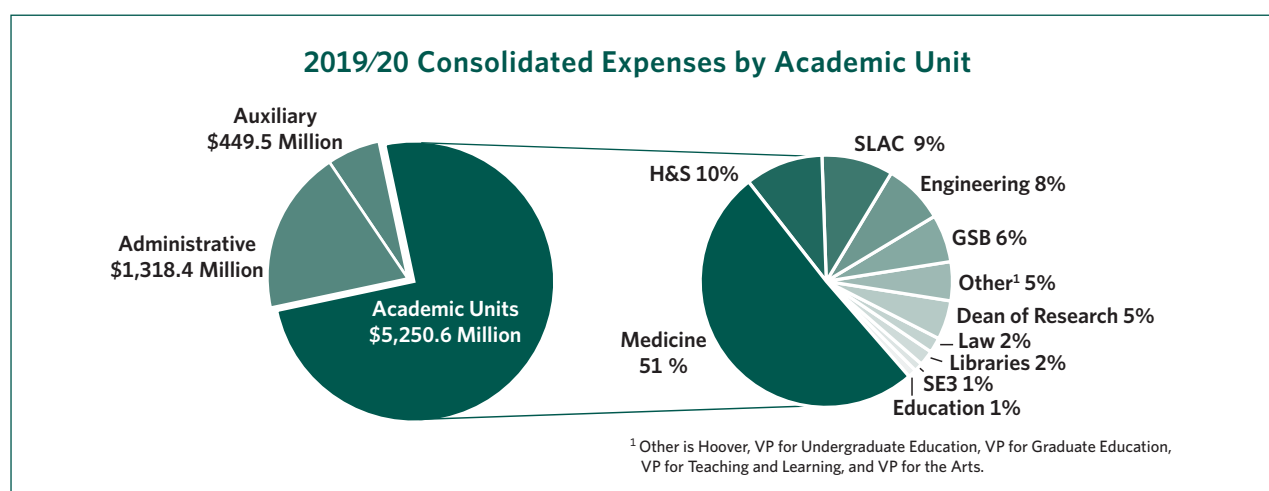
OVERVIEW OF ACADEMIC UNITS

This chapter summarizes programmatic and financial activity for each academic unit. The revenue expectation in 2019/20 for these academic units comprises nearly 75% of the university total revenue. Overall, the academic units project an operating surplus of \$64.3 million. After transfers to facilities and endowment, the unit budgets overall will achieve a \$55.2 million surplus.

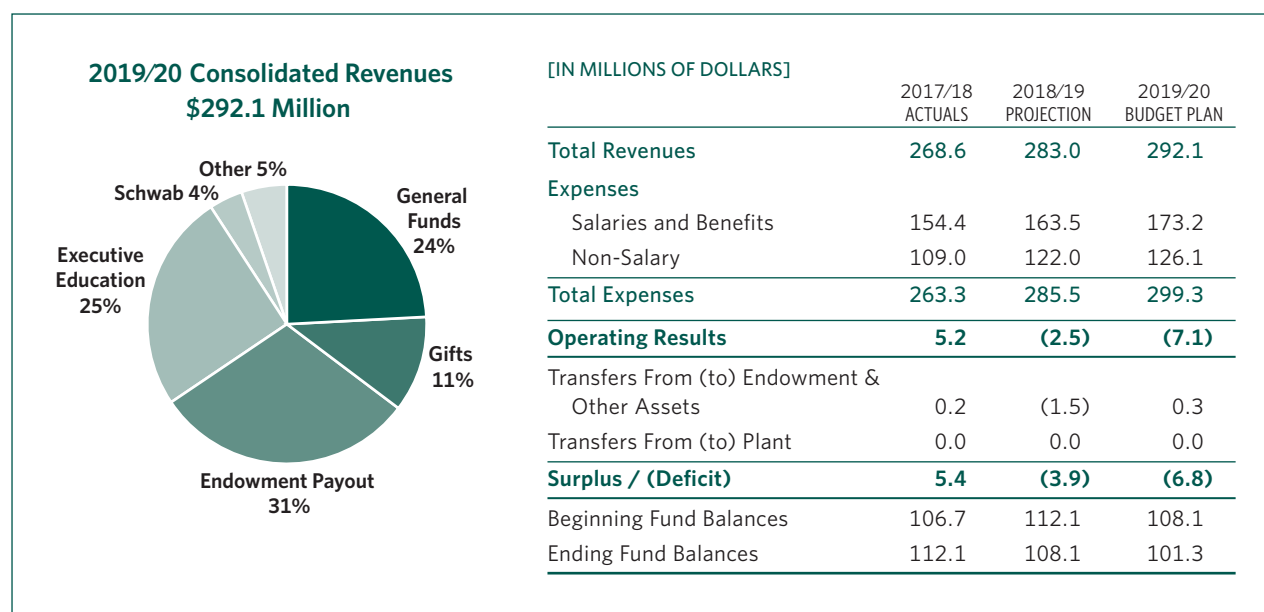
CONSOLIDATED BUDGET FOR OPERATIONS, 2019/20: ACADEMIC UNITS

[IN MILLIONS OF DOLLARS]

	TOTAL REVENUES AND OPERATING TRANSFERS	TOTAL EXPENSES	RESULT OF CURRENT OPERATIONS	TRANSFERS (TO)/FROM ASSETS	CHANGE IN EXPENDABLE FUND BALANCE
Academic Units:					
Graduate School of Business	292.1	299.3	(7.1)	0.3	(6.8)
School of Earth, Energy & Environmental Sciences	74.6	77.1	(2.5)	(0.8)	(3.2)
Graduate School of Education	73.5	77.0	(3.5)	(1.1)	(4.6)
School of Engineering	456.4	428.2	28.2	(12.0)	16.2
School of Humanities and Sciences	537.9	517.6	20.3	(13.3)	7.0
School of Law	105.9	100.2	5.6	(6.5)	(0.9)
School of Medicine	2,692.7	2,660.2	32.5	19.4	51.9
Vice Provost and Dean of Research	258.0	248.6	9.4	3.0	12.4
Vice Provost for Undergraduate Education	62.0	65.6	(3.6)	0.0	(3.6)
Vice Provost for Graduate Education	45.9	50.5	(4.6)	(0.3)	(4.9)
Vice Provost for Teaching and Learning	41.3	43.1	(1.7)	1.2	(0.5)
Vice President for the Arts	22.8	26.2	(3.4)	0.0	(3.4)
Hoover Institution	67.1	71.8	(4.7)	1.0	(3.7)
Stanford University Libraries	91.9	92.8	(0.9)	0.0	(0.9)
SLAC	492.7	492.4	0.3	0.0	0.3
Total Academic Units	5,314.9	5,250.6	64.3	(9.1)	55.2



GRADUATE SCHOOL OF BUSINESS



PROGRAMMATIC DIRECTIONS

The Stanford Graduate School of Business (GSB) delivers transformational experiences to students in the areas of business, management, and leadership education. The school's mission is to create ideas that deepen and advance the understanding of management and, with those ideas, develop innovative, principled, and insightful leaders who will change the world. The GSB offers three degree programs: a two-year full-time MBA, a one-year Master of Science in Management (MSx), and a five-year PhD in seven distinct fields of study. Five years ago, the school established a research fellows program for pre-PhD students to broaden the pipeline of women and underrepresented minorities considering PhD programs. The GSB also delivers more than 60 Executive Education courses, including custom, open-enrollment, and online programs that extend the impact of its faculty in U.S. and global markets. Overall, the GSB seeks to support, engage, and empower students as they endeavor to change the world for the better.

Faculty Research and Teaching

The GSB is growing in many areas, expanding its tenure-line faculty with seven new hires in 2018/19 and several more expected in 2019/20, across discipline areas. The school continues to selectively recruit outstanding new lecturers, often in co-teaching roles, using its distinctive academic-

practitioner model. The GSB offers more than 160 elective courses in management education and maintains relatively small MBA cohorts. For the MBA class of 2020, the GSB received nearly 8,000 applications for about 420 spots.

One of the GSB's top priorities in 2019/20 will be to implement the recommendations of two committees that have examined (1) trends in the future of management education and (2) the changing nature of faculty research. As first steps in implementing the recommendations on the future of management education, the GSB has restructured various programs and appointed a new senior associate dean to strengthen teaching support and work with faculty and students to more effectively integrate ethics and values into the management education curriculum.

In 2019/20, the GSB will be acting upon recommendations made by the committee reviewing the changing nature of faculty research. In particular, the GSB will invest in resources to support junior faculty research and strengthen financial and infrastructure support to facilitate hiring predocs, postdocs, and research assistants. This transition marks the first time the GSB will integrate the work of postdocs into its research environment. The change will strengthen support for faculty research on a range of cutting-edge topics that impact society, including digital business, artificial intelligence, automation, data governance, and ethics.

The Student Experience

The committee examining the future of management education also made recommendations to improve the student experience. The 2019/20 year will bring renewed focus on MSx admissions to increase awareness of the program's unique value and to continue to improve the integration and experience of MSx students at the GSB. Specifically, the GSB will consolidate operations and student services for MSx students with those supporting MBA students.

In addition, the school's redesigned financial aid system now places emphasis on excellence, access, and fairness, applying a 100% need-based approach to allocating fellowships and loans to students offered admission. The GSB deems this policy decision essential to enable students from a wide range of backgrounds and circumstances to attend the GSB.

Global Impact

MBA students must satisfy a global study requirement and have several options for doing so. They may choose to participate in or lead a global study trip, which is a nine-day group experience in country, preceded by three pretrip education sessions (recent study trips included the first such trip to Cuba and travel to Ethiopia and Rwanda). They may attend global study seminars, led by faculty and focused on relevant business topics, or they may enroll in an exchange program with Tsinghua University in Beijing or in a four-week immersion project at a global company.

The Stanford Institute for Innovation in Developing Economies (Seed) continues its mission to enable small- and medium-sized businesses in developing countries to grow, expand, and foster economic growth. In 2019/20, Seed will offer its flagship transformation program in four locations: India, East Africa, Southern Africa, and West Africa. This one-year leadership program provides management training, one-on-one support, and networking opportunities to empower business owners to grow their companies and lead their regions to greater prosperity. Over 40 Stanford student interns will participate in Seed's summer internship program in the developing world in 2019/20.

In 2018/19, the GSB co-sponsored, with the Stanford Institute for Economic Policy Research and the Stanford Center on Global Poverty and Development, the first

Stanford China Economic Forum in Beijing. The forum convened 500 alumni and business and academic leaders from Asia. The participation of faculty from each of Stanford's schools, deans from the schools of Business, Engineering, Medicine, and Law, and the university's president also contributed to the success of this collaborative event. The GSB is planning a follow-up event in 2019/20 at Stanford.

CONSOLIDATED BUDGET OVERVIEW

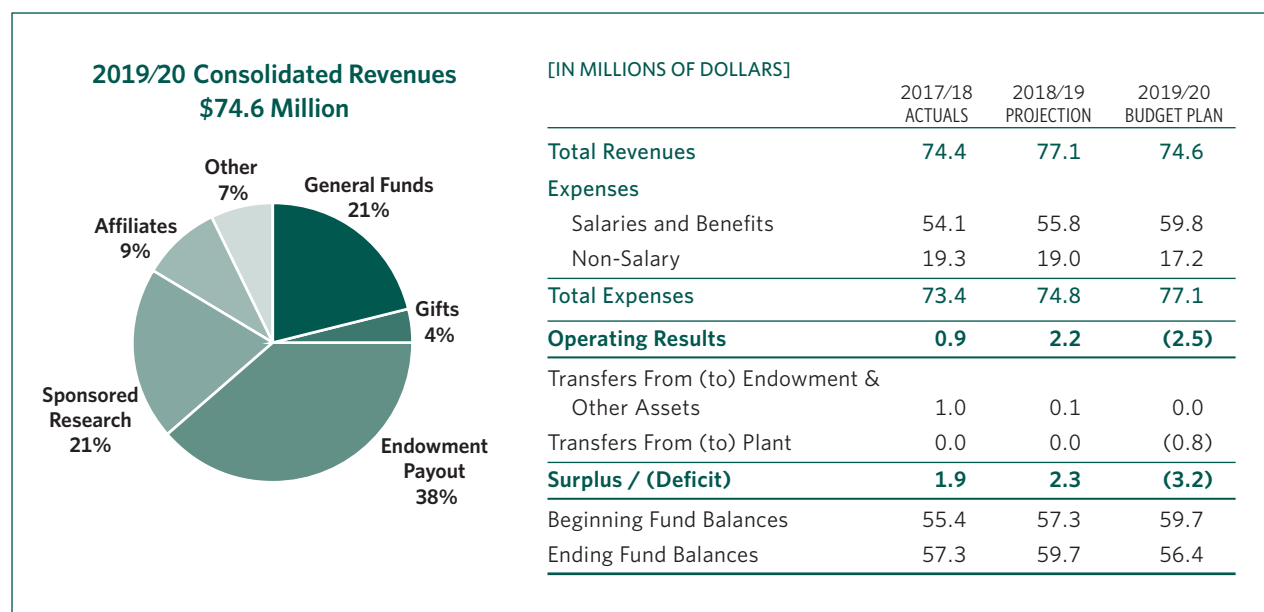
The GSB projects a 2019/20 consolidated budget with total revenues and operating transfers of \$292.1 million, expenses of \$299.3 million, and a resulting operating net deficit of \$6.8 million after \$300,000 in transfers from endowment and other assets. Of this projected deficit, \$4.0 million is part of a plan to use reserve funding, with \$3.0 million going toward a deferred maintenance plan and \$1.0 million to support the aforementioned program expanding junior faculty research.

The GSB projects that revenues and transfers for 2019/20 will increase by \$9.1 million, or 3.2%, from the current projection for 2018/19. Endowment income is expected to increase by \$2.5 million due to investment gains and newly endowed gifts, though this rate of growth is slower than in previous years. Gift revenue is planned to grow by roughly \$1.1 million. The GSB's Executive Education unit is also contributing to revenue growth, with projected revenue for 2019/20 growing by 6%, or \$4.2 million. Moderate revenue growth is expected for Seed and GSB residences.

Overall, the GSB projects a \$13.8 million, or 4.8%, increase in expenses in 2019/20 from the 2018/19 projection. Compensation is projected to increase primarily due to merit increases as well as a plan for some growth in total faculty. Non-compensation expenses are projected to increase above pure inflationary growth rates.

The GSB has been prudent in adding to its reserves as a hedge against market volatility and as part of a deferred maintenance plan. As a result, fund balances increased in 2017/18, and beginning fund balances in 2018/19 totaled \$112.1 million. Following planned asset transfers in 2018/19, as well as the designation of several pending funds, the GSB projects a year-end fund balance of \$108.1 million, which will further decline to \$101.3 million in 2019/20 due to the aforementioned maintenance and faculty research plans.

SCHOOL OF EARTH, ENERGY & ENVIRONMENTAL SCIENCES



PROGRAMMATIC DIRECTIONS

The mission of the School of Earth, Energy & Environmental Sciences (SE3 or Stanford Earth) is to create knowledge to understand Earth and sustain its inhabitants. This mission is of critical importance to the future of our planet.

It is an exciting time at Stanford Earth. The school is top ranked in both earth and environmental sciences, with all of its graduate programs highly competitive and consistently attracting exceptional applicants. During Dean Stephan Graham's second year of leadership, the school has focused, among other things, on recruiting and onboarding a new cohort of assistant professors. The school is fortunate to be welcoming nine new faculty, seven of whom are women, over the next few years. By fall 2019, Stanford Earth's faculty will be 35% women. That is a 75% change over the past decade—a remarkable shift towards gender balance. Furthermore, 27% of the school's tenure-line faculty will be at the assistant professor level, marking a generational shift and providing exceptional opportunities for the school.

In response to these rapid demographic changes in both gender and rank, Stanford Earth is expending considerable effort on developing and implementing programs to serve this community. More robust mentor and advisor training for faculty and more professional development opportunities for postdocs and grad students are two examples. In addition,

Stanford Earth's Respectful Community Program and others that promote diversity and inclusion further its goal of being a collaborative and supportive place to learn and work.

This is also a challenging time for Stanford Earth. While the school's expertise in earth and environmental sciences has never been more urgently needed, its resources are under significant strain, hampering its ability to respond to this need. There are two primary reasons for this strain: recruitment costs and poor revenue growth.

Faculty recruitment expenses represent a significant line item in SE3's budget. Faculty start-up packages can include lab renovations, equipment, housing, graduate aid, and more. The school estimates that \$12-\$15 million will be needed to onboard the incoming cohort, depending on the complexity of facilities needs. Due to financial constraints at the university level, the school will bear the lion's share of these costs at a time when its own coffers are under pressure. The primary funding source for these start-up expenses will be school-held reserves, which will therefore decline rapidly over the next four years, potentially to well below 50% of current levels.

The school's budgetary challenges are not solely caused by rising incremental expenses; they are also caused by its revenue composition. Stanford Earth relies on endowment income to cover about 66% of operating costs. Due to a pro-

longed period of slow growth in endowment payout, SE3 is implementing cost-cutting measures. In addition, the school will fund \$1.1 million less of graduate aid from centrally held resources, forcing local units to either spend reserves or reduce admission numbers. SE3 is also estimating little to no growth in affiliate program income, which, along with sponsored revenue, provides support for research expenses such as graduate students, postdocs, and research staff. The school anticipates that a contraction in these resources will slightly suppress expense growth, although the increased faculty headcount will counteract this trend.

Space is also a very urgent problem for Stanford Earth. The school's overall population has increased some 60% since 2005, yet its footprint has only increased 8%. With no new facilities on the immediate horizon (although these are desperately needed), the school has had to become extremely efficient with what space it has. Efforts have been made to double or triple staff in offices, "rightsized" faculty offices, and give students modest but functional work spaces. At the same time, wherever possible, the school is creating informal meeting and conversation spaces.

Despite these challenges, Stanford Earth is excited about its involvement in the university's long-range planning effort and the great opportunities it presents for the school. SE3 is well positioned to take on a leadership role in Stanford's sustainability research and education efforts. Stanford Earth also plans to be a strong partner in the Data Science, Natural World, and Social X-Change initiatives, and looks forward to helping in their evolution.

CONSOLIDATED BUDGET OVERVIEW

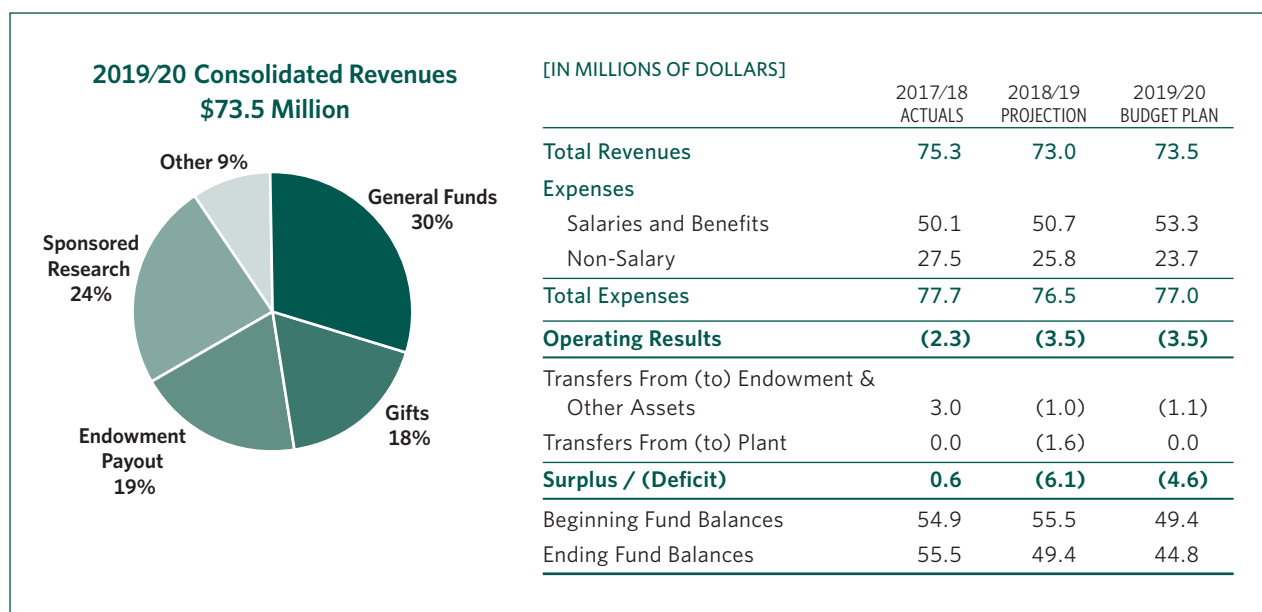
Stanford Earth projects total revenues and transfers of \$74.6 million in 2019/20 and expenses of \$77.1 million, yielding an operating shortfall of \$2.5 million. Anticipated asset transfers to plant of \$750,000 increase that shortfall, leading to a \$3.2 million net reduction in school reserves. The shortfall is attributable to a combination of accelerated growth in spending and a lackluster forecast for the school's major revenue sources.

The school's restricted revenues come from several major sources: sponsored research, expendable gifts, investment income, endowment payout, and industrial affiliate program fees. Compared with 2018/19 year-end projections, total restricted revenues are projected to decrease by \$1.1 million, or 1.9%, in 2019/20. While sponsored revenue and corresponding spending are expected to remain above \$15 million for a third year, bolstered by a large volume of new grants, they are projected to taper off as some grants come to an end. Gift revenue will likely remain close to 2018/19 levels thanks to existing pledges, some of which are strictly for matching and therefore not immediately accessible. The school's investment income is from direct oil and gas investments. While there has been a great deal of investment activity recently, the long-term impact remains uncertain. Endowment payout is projected to be \$28.1 million, up \$690,000, or 2.5%, from 2018/19. Of this increase, \$568,000 will come from 2.1% payout growth of existing endowment principal, and \$122,000 is expected from new gifts. Industrial affiliate program fee income is experiencing an extended contraction and is expected to remain flat at approximately \$7.0 million.

The school will receive \$15.9 million in base and one-time general funds, including incremental funding from the Faculty Incentive Fund for eligible new faculty (women and underrepresented minorities). Other operating transfers will decline by \$2.6 million in 2019/20, in large part reflecting an accounting change related to funding from two graduate fellowship programs: Stanford Graduate Fellowships in Science and Engineering (SGFs) and Stanford Interdisciplinary Graduate Fellowship (SIGFs). This drop has no impact on the bottom line; a corresponding expense reduction is reflected in non-salary outlay.

Total expenses are projected to grow by \$2.2 million, or 3.0%. By far the largest growth will come from costs associated with the incoming cohort of nine new faculty, including salary, graduate student support, and capital spending on laboratory setup and office renovations.

GRADUATE SCHOOL OF EDUCATION



In 2018/19, the Graduate School of Education (GSE) began to implement parts of a new long-range plan that has been in development for the past two years. This effort will accelerate in 2019/20 and will require substantial investments. Many of the GSE's initiatives overlap with the university's emerging long-range priorities, particularly with regard to diversity, the future of learning, data sciences research, and engagement and impact beyond the university. With a number of senior faculty retirements, the GSE has an opportunity to recruit a large number of new faculty who will shape the field of education research.

PROGRAMMATIC DIRECTIONS

While work is being done across all of GSE's initiatives, these areas have already seen some notable achievements:

- Learning differences and the future of special education:** The GSE launched a recruitment effort for five new faculty to lead this initiative, including one who will hold a joint appointment with the School of Medicine. Several incumbent faculty members are also beginning to seek research funding for sponsored projects in this area, and research labs are beginning to form with interdisciplinary faculty and student engagement.

- Developing leaders of education:** The GSE has a long tradition of preparing leaders in various practice fields. The Stanford Teacher Education Program (STEP) produces teacher leaders. The master's program in policy, organization, and leadership studies (POLS) traditionally prepares students for leadership at the policy level. An additional emphasis on entrepreneurial and philanthropic forces in education is being created within POLS. The GSE is also collaborating with the Graduate School of Business to create a new online program, EdLEADers, to provide professional development to 30 school district administrators and superintendents. The GSE hopes to prepare and train teachers, administrators, and industry leaders to continue learning, adapting, and realizing positive change.
- Student initiatives:** The GSE has added substantially to student support programs in recent years, but more needs to be done. Doctoral funding has been extended to five years, including two summers. Among master's programs, a new Dean's Fellowship has been created to provide substantial tuition benefits to highly competitive students, and a program targeting low-income students has been added. Still, GSE students take on proportionally more debt than other Stanford graduate students, and some will enter professions with limited income possibilities.

Progress with the following GSE initiatives is expected in the coming years:

- **Advancing early childhood learning:** The GSE is pursuing strategies to understand and improve young children's learning and development as these influence their opportunity to thrive in school and beyond. The early childhood field offers opportunities for broad-ranging interdisciplinary work within the GSE (policy, learning technologies, developmental sciences) and across the university (neurosciences, engineering, medicine, etc.).
- **Sustained excellence:** As the GSE faces several faculty retirements over the next few years, it undertook a major recruitment effort in 2018/19, yielding over a dozen candidates for faculty positions. Some of these candidates will fill vacant positions and deepen the faculty strength in an existing area of research. Other candidates are focused on new strategic areas of research to help develop new programs for the university.
- **State-of-the-art spaces:** The project to substantially renovate the GSE's historic main building and expand adjacent space is intended to bring all GSE faculty and programs into modern, contiguous spaces and to create model collaborative learning spaces for the school and the university.

CONSOLIDATED BUDGET OVERVIEW

The GSE projects a 2019/20 consolidated budget with total revenues and transfers of \$73.5 million. After asset transfers, including a \$1.6 million endowment income transfer to student loan funds in support of STEP students and a \$500,000 transfer in from pending gifts, revenues and transfers total \$72.4 million. Projected expenses are \$77.0 million, for a deficit of \$3.5 million. This deficit is the result of increased faculty compensation and start-up costs in areas of strategic and planned initiatives and operations, preparation for planning the new building, and a reduction in sponsored research activities. As part of its strategic and long-term planning, the GSE will draw on unrestricted reserves to seed new initiatives and seek additional gifts and grants for longer-term support.

Compared with the 2018/19 year-end projection, 2019/20 total revenues and expenses appear to grow less than 1%. However, an accounting change in 2019/20 will move Stanford Graduate Fellowship activity from the GSE to VPGE. Excluding this geography change, 2019/20 total revenues and expenses will increase by 2.2%. For ongoing and new initiatives, the GSE seeks new sources of funding. For 2019/20, the expected increase in gift revenue is the result of the launch of several strategic initiatives and increased donor interest. Because endowment for faculty and graduate students is a top priority, the GSE expects to see increased endowment revenue as well.

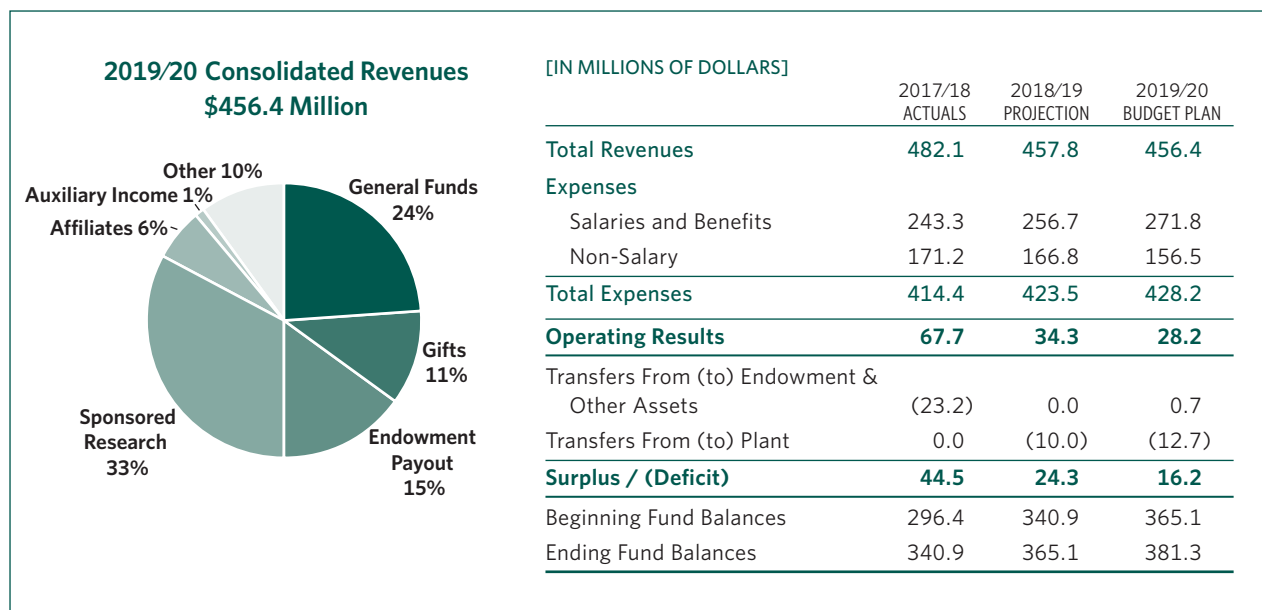
Funding from federal sponsors continues to trend downward, with a \$1.4 million, or 21.1%, decrease projected for year-end 2018/19 and a decrease of 13.9% expected in 2019/20. Non-federal grants and contracts will decrease in 2018/19 by 14.7%, or \$2.5 million, and a decrease of 7.9% is projected in 2019/20. Aside from general funds, sponsored research remains the largest funding source for the GSE, at 24% of revenue. The GSE's planned use of accumulated reserve balances will provide funding for strategic initiatives in 2019/20.

The GSE's long-term financial plan is especially sensitive to three factors: anticipated faculty turnover; the need to invest in new programmatic areas; and ongoing requirements for student support. It is anticipated that sponsored research funding will decline in the short term but rebound as new faculty members build research programs. The school will use reserves to support student aid and new initiatives. Fundraising to supplement these resources will be critical to their success.

CAPITAL PLAN

The GSE will be completing plans for new and renovated facilities, which received concept and site approval from the Board of Trustees in February 2019. This project will provide new teaching and learning spaces, increase collaboration, and provide space for convening scholars and practitioners. The new facilities are essential to achieving the school's programmatic objectives. The schematic design phase will be completed by fall 2019. Pending additional Board of Trustees approvals and a successful fundraising program, construction could begin in 2020.

SCHOOL OF ENGINEERING



PROGRAMMATIC DIRECTIONS

The School of Engineering (SoE) continues to thrive as it executes initiatives that evolved from the school-level SoE-Future planning effort, while also participating actively in university-level long-range planning (LRP). Many school faculty are serving as co-chairs or members of LRP design teams, and the school will be heavily involved in many of the initiatives. In the research domain, the Data Science and Human-Centered Artificial Intelligence (HAI) initiatives have very large footprints in engineering, while sustainability and the two health and medicine initiatives also have substantial SoE involvement. The school's ongoing efforts to improve diversity and inclusion for students and faculty mirror the themes of the presidential IDEAL (Inclusion, Diversity, Equity & Access in a Learning Community) initiative, and the Catalyst for Collaborative Solutions pilot is providing a useful blueprint for Flexible Resources. Shared platforms and infrastructure are critical to the school, and it is helping map the future in this extremely important area. Finally, the many activities in education are highly relevant as Engineering continues to serve an increasing fraction of Stanford's students.

SoE Diversity

Diversity at all academic levels has been and remains a priority for SoE, and the school is beginning to see results in both

the faculty and the graduate student body. With the addition of two new student affairs staff dedicated to diversity, SoE is devoting more attention to programs for improving the sense of inclusion for these increasingly diverse cohorts of incoming graduate students. With continued attention to diversity in both student admissions and faculty recruitment, SoE expects to see further gains as critical mass builds in underrepresented cohorts.

Connections across Stanford

A second priority for SoE is building even stronger bridges to Stanford's six other schools. The Data Science and HAI initiatives will make major contributions here. HAI's three areas of focus will involve all six other schools. Data Science has the objective of democratizing access to data and data analysis techniques across the entire campus, something researchers and students are clamoring for. Additionally, the next phase of the d.school, evolving plans for shared experimental facilities and maker spaces, and new curricular initiatives advance this priority.

Curricular Evolution

Both the SoE-Future process and the LRP process to date have identified the need for evolution in the undergraduate curriculum. Several departments have made changes in

their majors, including creating a brand-new undergraduate major in aero-astro, revamping the undergraduate major in mechanical engineering, and reducing the overall unit requirement for the bioengineering and chemical engineering majors. As many departments modernize their majors, Computer Science (CS) continues to serve a large number of students. There are early discussions on possible alternate paths for CS-inclined students, especially those who might wish to combine computing or data science with other disciplines. Stanford is well positioned to innovate in this area, given its strength in CS (and engineering in general), embedded in a liberal arts university that is equally strong in many other disciplines.

Maker Spaces and Experimental Facilities

Two loosely related areas that remain very important to the school are student maker spaces and shared experimental facilities. The LRP process includes design teams for both, and SoE is quite anxious to move forward with recommendations; Stanford is quickly falling behind its peers in these areas. A significant initiative involving multiple schools (Engineering, Medicine, Stanford Earth, Humanities and Sciences, and SLAC) could yield world-class 21st-century experimental facilities. Maker spaces are in high demand by students and are beginning to pop up in dormitories and other areas around campus; a coordinated effort is likely to yield a more exciting and innovative long-term approach.

The school remains financially sound but is experiencing continued inflationary pressure on many core expenses, without corresponding increases in revenues. Faculty salaries that are on par with those of peers in much cheaper geographical locations, along with modest annual salary increases, contribute to challenges in faculty hiring and retention. Start-up packages and the cost of construction for lab build-outs continue to escalate, and SoE is having increasing difficulty competing with peers in start-ups, particularly in bio-related areas. Endowed professorships and a suite of general-purpose endowments are the revenue sources for many of these expenses, and recent endowment performance challenges the school to keep up with these rising costs. Most importantly, as the school continues to pursue a strategic faculty growth plan initiated several years ago, as well as dealing with increased compensation and other costs for faculty, staff, and students related to affordability initiatives, general funds and other flexible funds are not keeping up with rising expenses.

CONSOLIDATED BUDGET OVERVIEW

SoE projects a 2019/20 consolidated budget with total revenues and transfers of \$456.4 million and expenses of \$428.2 million. Transfers to assets for locally funded capital projects and transfers to other assets will net to \$12.0 million, making the net projected change in current funds \$16.2 million. Discounting the impact of revenue and expenses from Stanford Graduate Fellowships in Science and Engineering (SGFs) and Stanford Interdisciplinary Graduate Fellowships (SIGFs) moving to VPGE, 2019/20 revenues will decrease slightly by 0.3%, and expenses will increase 4.9%. This reflects a stabilization of gift revenue expectations after receipt of \$30 million in one-time gifts in 2017/18.

Sponsored research remains the largest single component of SoE finances, at approximately 33% of revenue; however, this proportion has been shrinking steadily over the last few years. Federal grants are projected to increase slightly due to new faculty applications, though the impact will be offset by a modest slowdown in non-federal awards.

The overall school reserve position is strong and provides a cushion for research funding fluctuations, but the funds are asymmetrically distributed among faculty, departments, and the school. The majority of reserves are earmarked for the research of individual faculty and labs, while the dean-controlled reserves are largely restricted to faculty and student support, limiting financial flexibility for the dean.

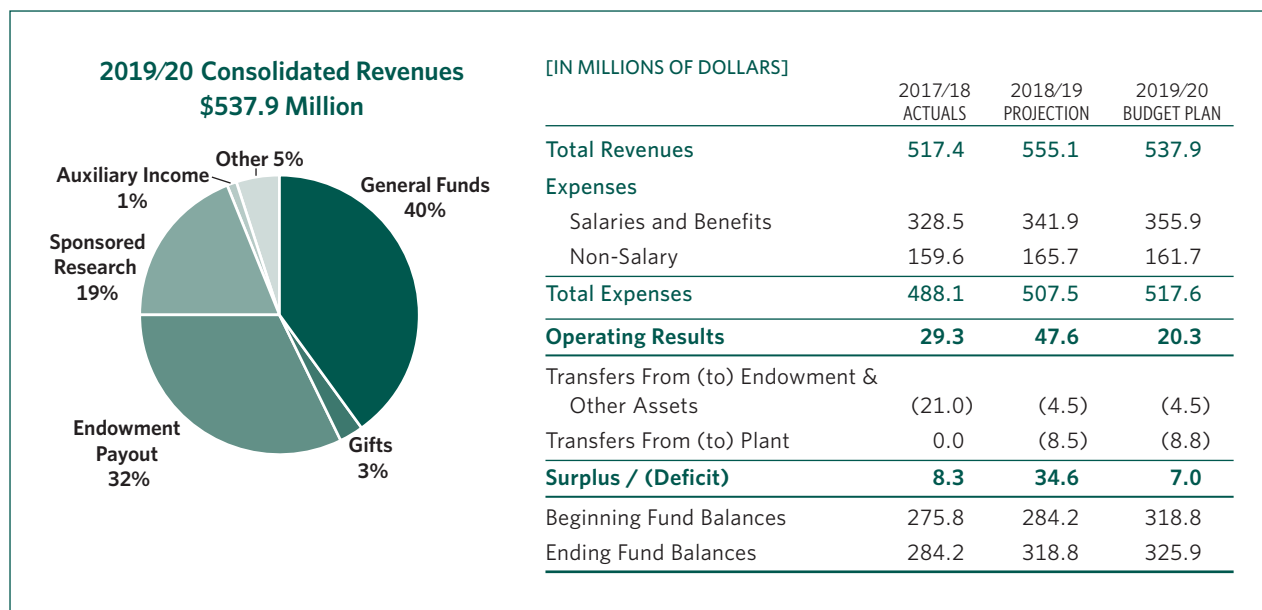
CAPITAL PLAN

For 2019/20, SoE was allocated \$4 million in facilities reserve funding to renovate labs for new faculty housed in several engineering buildings. SoE will also renovate the basement in Packard to accommodate a shared robotics research center.

The Engineering capital plan includes studies that address renovating the Gates Building and exploring options for the Product Realization Lab. However, SoE does not plan any action on the lab until the university LRP is more fully developed, anticipating university-wide action on student maker spaces.

The school's main focus is on the programming study for the Bridge Building for the Digital Future, jointly developed by SoE and the School of Humanities and Sciences. This building will house some faculty from the departments of Computer Science and Statistics, as well as the Data Science and HAI institutes.

SCHOOL OF HUMANITIES AND SCIENCES



PROGRAMMATIC DIRECTIONS

Debra Satz, philosophy professor and former senior associate dean for the humanities and arts, was appointed dean of the School of Humanities and Sciences (H&S) effective September 1, 2018. Under her leadership, new strategic directions for the school are being developed, and several pilot projects have already been launched.

To enhance the consistency and quality of undergraduate teaching, all incoming junior faculty will now attend a three-day Course Design Institute offered by the Office of the Vice Provost for Teaching and Learning. Departments will assign faculty mentors to provide coaching and observe classroom teaching. The school is also establishing a senior associate dean for curriculum position that will provide faculty leadership in efforts to improve undergraduate teaching and overall student experience.

Starting in 2019/20, H&S will begin conducting external departmental reviews to assess areas for programmatic and intellectual focus and identify opportunities for teaching innovation and improvement.

An effort to enhance the school's intellectual community has been launched with a series of forums that convene groups of faculty from different departments and disciplines to discuss specific issues of broad interest. Discussion topics

include freedom of speech, conflict of interest, open science, and reproducibility of research.

Though the overall state of H&S is very strong, the school continues to have concerns about faculty recruitment and retention, affordability for graduate students, and inefficiencies stemming from its highly decentralized administrative structure.

Over the past decade, the Dean's Office has worked closely with the provost to ensure H&S is able to attract and retain outstanding faculty. Nonetheless, the frequency and cost of retentions have grown significantly in recent years. This cost escalation has further strained an already tight operating budget.

Graduate enrollment has remained relatively flat over the past five years, fluctuating marginally with changes in external funding and admission yield rates. Attracting top students has become more challenging as peer institutions have increased summer-quarter support and added sixth-year funding in some disciplines. The extremely high cost of living in the Bay Area further exacerbates this problem.

H&S's highly decentralized structure provides a fertile academic and intellectual environment for both discipline-focused and interdisciplinary work, but also creates many administrative inefficiencies. The Dean's Office is exploring

opportunities for improving support and oversight for the school's 24 departments and approximately 75 interdepartmental programs, centers, and institutes.

CONSOLIDATED BUDGET OVERVIEW

For 2019/20, H&S projects revenues and operating transfers of \$537.9 million and expenses of \$517.6 million, resulting in an operating surplus of \$20.3 million. After \$13.3 million of net transfers to assets, the school projects an increase in consolidated fund balances of \$7.0 million, with an ending fund balance of \$325.9 million. While the financial environment has been constrained for several years, the school's overall health is good.

One-third of the school's funding comes from endowment, and for the past three years, payout growth has been less than expense rate inflation. For the period 2016/17 through 2018/19, this gap totaled \$5.9 million and was managed through funding reductions allocated to departments and programs, provostial mitigation, and short-term use of Dean's Office reserves. Projections for 2019/20 through 2021/22 indicate an additional \$7.3 million gap between endowment payout growth and expense rate inflation. For 2019/20 only, most of this gap will be funded by Dean's Office reserves. This short-term strategy will provide time to better assess the severity and duration of this financial issue and develop strategic approaches to what may be substantial financial reductions in 2020/21.

Despite the poor endowment payout growth, consolidated fund balances have continued to grow in recent years. Department- and program-controlled reserves are spread across 103 units, but a dozen units hold 50% of the total. While most departments and programs are in relative equilibrium with modest reserves, a small number have received large expendable gifts that will be spent down across multiple years.

Faculty-controlled balances have grown in aggregate but, like department and program reserves, are very unevenly spread. Growth is primarily related to new start-up packages, while a few individuals have received large expendable gifts. These increases obscure the fact that most faculty have relatively modest research balances.

Dean's Office-controlled unrestricted reserves have decreased from a high of \$74 million in 2010/11 to about \$30 million in 2013/14 after significant investments in construc-

tion projects for the arts, the sciences, and new university initiatives such as Chemistry, Engineering & Medicine for Human Health (ChEM-H). Reserves have remained fairly constant across the past five years.

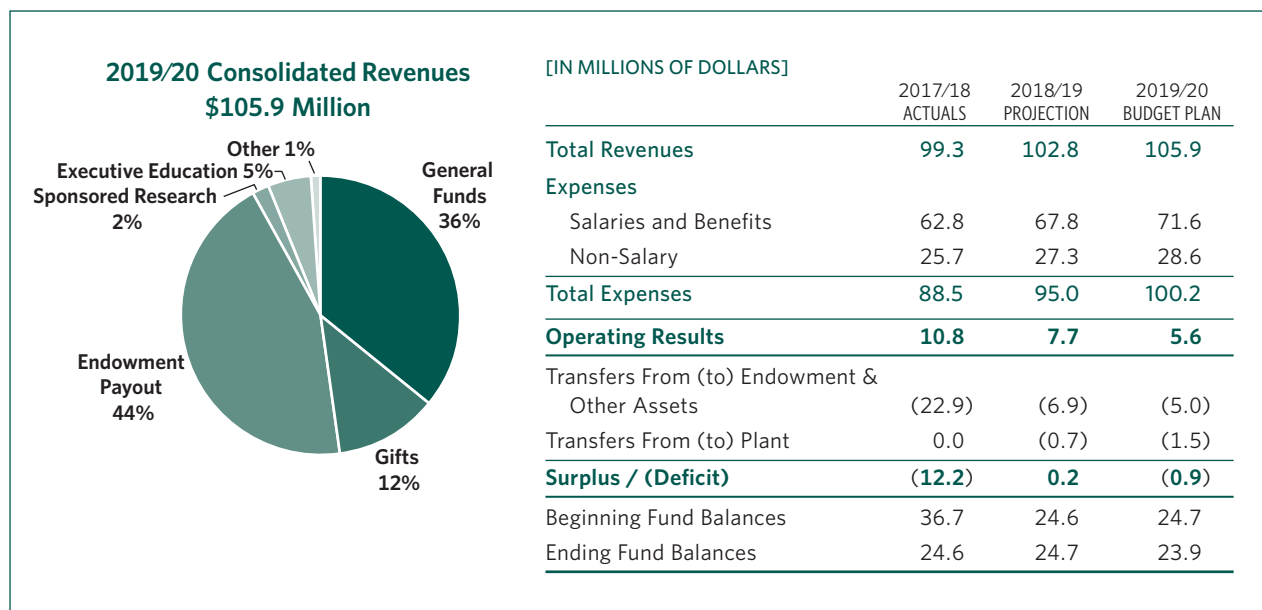
A reserve balance of \$30 million is precariously low for a school of this size and complexity. For a number of years, faculty searches have been authorized at a replacement rate, but actual hires have occurred more slowly, and there is a substantial number of authorizations in the pipeline. The timing of these future hires is difficult to project or control; surges in acceptances could adversely impact Dean's Office reserves. The increased frequency and cost of faculty retentions are projected to continue and could also impact the school's tenuous financial equilibrium. The Dean's Office also recognizes that current reserve levels may not allow the school to continue making significant investments in infrastructure or adequately participate in new initiatives. Therefore, the school will continue to explore strategies to move to a stronger financial position in order to generate reserves for these purposes.

Sponsored research volume has fluctuated over the past five years, with recent increases driven by faculty hiring and large capital equipment expenditures. While directly impacting research activity levels, grant volume fluctuations indirectly impact faculty- and department-controlled balances as graduate student support and faculty research expenditures shift between funding sources.

CAPITAL PLAN

The H&S capital plan's focus on the new Science Precinct was celebrated with the spring opening of the Bass Biology Building. In preparation for the decanting of the Mudd Chemistry Building, programming began within the Lorry Lokey Lab, Keck Science, and Stauffer 1 buildings. The Stock Farm Greenhouse Replacement project is slated to begin construction this spring, while the Gilbert Biology Building lab modification project is under way, with completion scheduled for the fall. These two projects are in preparation for the demolition of Herrin Hall. The audiovisual upgrades in Dinkelspiel Auditorium will be completed this summer. H&S's capital plan commitments extend to the Wu Tsai Neurosciences Institute and ChEM-H building, as well as partnership with the School of Engineering in the programming of the Bridge Building for the Digital Future.

SCHOOL OF LAW



PROGRAMMATIC DIRECTIONS

Stanford Law School (SLS) has maintained its perch at the top of the national rankings—along with Harvard and Yale. Much of this success has to do with the ability to attract accomplished students and top-notch faculty. The school continues to compete with its peers for the best talent across all ranks, and that means maintaining a competitive compensation program. Over the past six and a half years, SLS has welcomed nineteen new Academic Council faculty members: nine tenured faculty, seven tenure-track faculty, and three clinical faculty. These individuals have revitalized the faculty and transformed research, teaching, and the collegiality of the institution. In addition, SLS continues to attract exceptional students; for example, seven of the first cohort of Knight-Hennessy Scholars were Law School students.

Providing SLS students with an exceptional educational experience is always a top priority. In the past few years, the school has renewed focus on the student climate, both inside and outside the classroom. Faculty and staff have devoted substantial time to thinking about issues of diversity and inclusion and of student mental health. The school has implemented a range of new programs to foster a positive educational experience for all students, with their different backgrounds, experiences, identities, and viewpoints. Among other things, the Law School faculty recently voted to imple-

ment changes to the first-year curriculum, moving one of the required fall courses to spring and adding small discussion seminars, which will address a variety of topics and meet in professors' homes. Additional initiatives relate to student affairs programming and student recruitment and admissions.

In addition to the emphases on recruiting and retaining faculty and improving the experience of law students, SLS has dedicated considerable attention to strengthening its already stellar educational program. It has made important strides in expanding the curriculum to meet the demands of a rapidly changing legal profession as well as changes in the spheres of business, civil society, and government in which Law School graduates will serve as counselors and leaders. These curricular initiatives are focused on public policy analysis, globalization, and technology, and all involve an emphasis on interdisciplinary problem-solving and teamwork.

One hallmark of Stanford Law School is the faculty's willingness to innovate in not only the subject matter taught, but also the modes of instruction used. This effort has resulted in a best-in-class clinical education model, in which students are immersed in legal practice for real clients. More recently, the school launched its cutting-edge policy lab program, in which students receive training in public policy analysis as well as the chance to work on real-world public policy problems, often in interdisciplinary teams. Lawyers have an

important role to play in addressing complex social problems like the global refugee situation or the opioid addiction crisis, but legal analysis alone is insufficient to address these issues. In the coming years, the school plans to continue this emphasis on training students to rigorously analyze policy problems and to support faculty research with the potential for real-world policy impacts.

Over the past several years, faculty, in consultation with alumni, have been intent on building and launching a global initiative. They developed an innovative foundational course on global legal practice that includes in-depth case studies of international business transactions and litigation, as well as intensive overseas study trips to countries such as Brazil, India, and China. They also improved the integration of comparative law and international issues into existing core courses. Building on this program, and relying on funding from a \$25 million gift it received earlier this year, the Law School will launch a full-time, immersive global quarter in winter 2020 with a group of 24 students. If successful, this will be the only program of its kind in legal education, and the school hopes it will be a transformational educational experience for all involved.

A third major area of innovation relates to the numerous impacts technology will have not only on the legal profession, but also on the ways law and government operate across countless substantive domains. The Law School already is engaged in work in this area through the program on Law, Science and Technology, including the CodeX project on legal informatics, and the Center on Internet and Society. The school is also launching a new technology initiative. This will expand research and teaching on topics involving the intersection of technology and law, including democracy and elections, privacy, online speech, Internet architecture, intellectual property, artificial intelligence, machine learning, and big data.

CONSOLIDATED BUDGET OVERVIEW

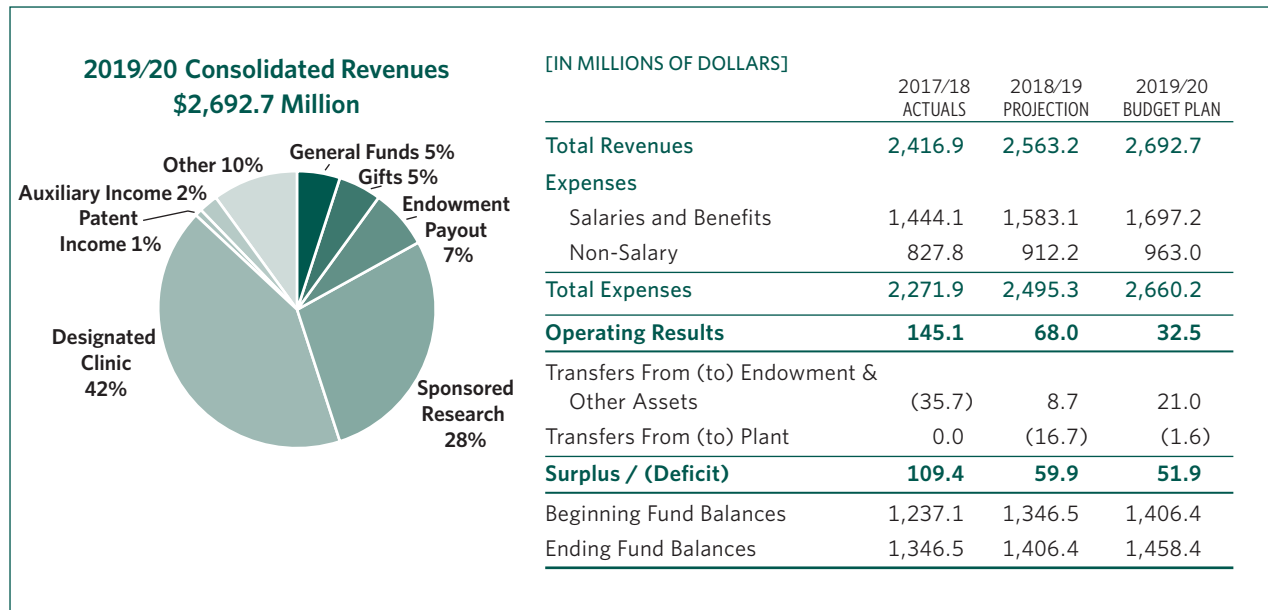
The 2019/20 consolidated budget comprises total revenues and operating transfers of \$105.9 million, expenses of \$100.2 million, and transfers to assets of \$6.5 million. SLS projects a decrease in expendable fund balances of \$881,000. The transfers to assets include \$4 million to student loan to fund the Loan Repayment Assistance Program; \$1.5 million to plant for the Crown Quadrangle renovation project; and \$1 million of endowment income reinvested into endowment principal.

Consolidated revenue, exclusive of general funds and operating transfers, is estimated to rise 3% to \$69.2 million. Executive education programs (Corporate Governance; Law, Science and Technology) and royalty income remain strong, with \$5.5 million of designated income producing 4% more revenue. The Law School's 125th anniversary will help lift expendable gifts 4% to \$13.4 million. Endowment income will increase 2% to \$47.6 million. Sponsored research is steady and will generate \$2.3 million; half of this represents the U.S. Department of State grant to support the Afghanistan Legal Education Project.

Total consolidated expenses are anticipated to grow more than 5% to \$100.2 million. A considerable amount of this growth is due to the importance of addressing the programmatic issues described herein. Compensation will rise 6% to \$71.6 million, primarily as a result of faculty-related cost commitments, as well as academic and regular staff for the technology initiative, the global quarter, and diversity/inclusion. Non-compensation expenses will increase 5% to \$28.6 million. Principal factors in this growth are community diversity and inclusion programs, travel costs associated with the global quarter, and graduate student financial aid.

SLS consolidated expendable fund balances will decrease by \$881,000 to \$23.9 million. Of this balance, \$12.4 million is in noncash investments in the Law School Venture Fund and faculty housing loans. The remaining \$11.5 million consists of \$9 million for restricted purposes, such as academic programs and centers and financial aid, and \$2.5 million for unrestricted purposes.

SCHOOL OF MEDICINE



PROGRAMMATIC DIRECTIONS

The School of Medicine is one of three entities, along with Stanford Health Care and Stanford Children’s Health, that make up Stanford Medicine. Its mission is to improve human health locally and globally through innovative discovery and the translation of new knowledge; to serve the community by providing outstanding and compassionate care; and to inspire and prepare the future leaders of science and medicine. Stanford Medicine’s vision is to lead the biomedical revolution in precision health. A fundamental shift from reactive medicine to proactive and personalized health care, precision health aims to predict, prevent, and cure disease—precisely.

Last year, Stanford Medicine completed its integrated strategic planning process, which resulted in an overarching plan inclusive of research, education, and patient care missions. From this planning, three integrated strategic priorities emerged: Value Focused, Digitally Driven, and Uniquely Stanford. These strategic priorities indicate that Stanford Medicine is focused on excelling in quality while driving down cost, leveraging its unparalleled position to lead health care in the digital age, and continuing to partner with the university at every opportunity—embracing Stanford’s distinctive culture, which emphasizes collaboration across disciplines and schools.

This planning process, which has been complementary to the university’s own long-range planning process, has helped

create a better-aligned and more collaborative organization. Currently, Stanford Medicine leaders are working to launch initiatives identified as having both high impact and high feasibility over the next one to three years.

For example, last fall, the School of Medicine launched a new MD program curriculum that strengthens educational experiences in the basic sciences and gives students more opportunities for in-depth scholarship. Next year, Stanford will launch a new track for an innovative six-year MD/MS degree program. Ongoing efforts to sustain funding for PhD students received a boost with a generous gift that has allowed the school to establish five endowed fellowships. These will enhance the flexibility of students in pursuing research in areas of interest.

In research, the school has successfully increased its funding, maintaining the number three spot in terms of total National Institutes of Health (NIH) funding to schools of medicine, even though effective levels of NIH funding have decreased over the last decade. In February, Stanford Medicine announced the launch of a new biospecimen management system that is streamlining the process by which researchers track, share, and protect biological samples. Additionally, a cancer biologist was named to lead the Stanford Cancer Institute, which aims to improve patient outcomes and conduct basic and translational research to predict and prevent cancer.

The School of Medicine plans to establish itself as a market leader and innovator in digital health education through Digital MEdIC (Digital Medical Education International Collaborative) and other platforms. Another initiative is to build out the school's efforts to apply the science of risk assessment, customized disease monitoring, disease prevention, and early detection under the umbrella of the Precision Health & Integrated Diagnostics Center.

Diversity continues to be a key priority. Stanford hosted an inaugural LGBTQ+ visibility event last fall and established a Sexual and Gender Health research program. With the help of expanded programming, outreach, and scholarships, the 2018/19 PhD and MD entering classes each included 23% underrepresented minorities. The biosciences PhD entering class was a record 61% female. Further, through the work of its chief wellness officer and WellMD Center, Stanford remains at the forefront of the national effort to address physician burnout.

CONSOLIDATED BUDGET OVERVIEW

The school projects total revenues and operating transfers of \$2,692.7 million in 2019/20 and expenses of \$2,660.2 million, yielding an operating surplus of \$32.5 million. After a net positive transfer from assets of \$19.4 million, the school anticipates a net change in current funds of \$51.9 million. The growth areas are healthcare services, tuition, and sponsored research. Offsetting this growth is the projected shortfall in expendable funds pool payout.

Total revenues and operating transfers are projected to increase 5.1%, or \$129.5 million, to \$2,692.7 million in 2019/20. Key drivers include the following:

- Investment revenue is projected to drop by \$8.6 million due to a shortfall in the expendable funds pool payout.
- Expenses are projected to increase by 6.6%, or \$164.9 million, to \$2,660.2 million in 2019/20. Major areas of increase include the following:
- The school projects net recruitment of 39 faculty, 21 in the Medical Center line, 15 in the university tenure line, and 3 in the non-tenure line. In addition, it anticipates adding 80 clinician educators for 2019/20.
 - Total compensation expenses for faculty, clinicians, and staff are expected to increase 7.2% in 2019/20. The main drivers are increase in clinical activities, incremental faculty and staff, and the annual salary program.
 - Non-compensation expenses are projected to rise faster in 2019/20 due to growth in sponsored research and healthcare services revenues. Rent expenses are projected to increase with the move of administrative functions to Redwood City and new Research Park leases.

Asset transfers include \$26.0 million in new gifts, offset by \$5.0 million of transfers to quasi endowment by departments and a transfer to plant of \$1.6 million.

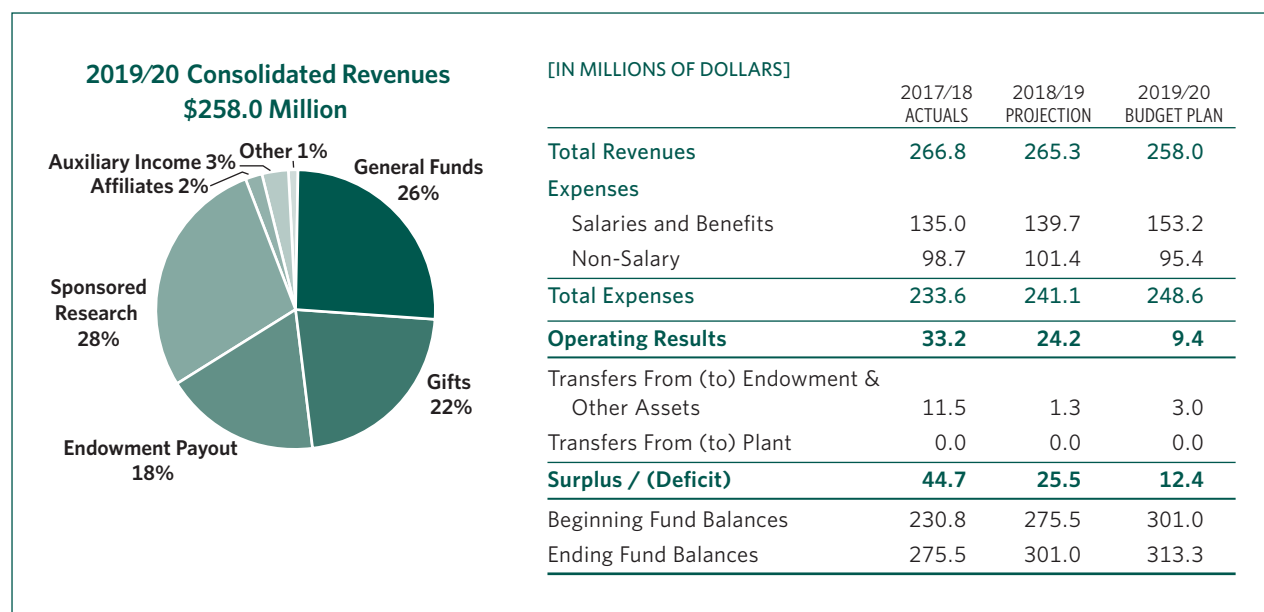
CAPITAL PLAN

The school's capital plan for 2019/20 includes the completion of BioMedical Innovation Building I, which is on budget at \$210 million, with occupancy anticipated in fall 2019. The Center for Academic Medicine I building, with its associated underground garage, began construction in 2017/18 and is on budget at \$222 million, with occupancy planned in 2021.

In 2018/19 the school leased 1701 Page Mill to be renovated into a 116,000-square-foot office and wet-lab space. The total project cost is estimated to be \$17 million, with occupancy anticipated in 2021.

In 2019/20 the school will begin the design phase for two new projects: the Laboratory for Cell and Gene Medicine (LCGM) Expansion and the Grant Building Decommission. Construction for the LCGM Expansion is planned for 2020, with occupancy in 2022. The total project cost is estimated to be \$15 million. The Grant decommission involves phased move-outs from the Grant and Boswell buildings to other school properties over 2020/21 and is projected to cost \$15 million.

VICE PROVOST AND DEAN OF RESEARCH



The Office of the Vice Provost and Dean of Research (VPDoR) oversees and supports the research enterprise throughout Stanford's seven schools. VPDoR oversees five shared research platforms and 17 institutes, centers, and independent labs. The office also develops research policy and manages the compliance and administrative offices that support research. Guided by Stanford's Long-Range Plan (LRP), VPDoR plans to support discovery, accelerate impact, increase flexible funding opportunities, and provide state-of-the-art facilities for all Stanford researchers.

PROGRAMMATIC DIRECTIONS

Stanford's research ecosystem must enable scholars and students to explore to the limits of their talents and imaginations and thereby contribute to the human quest for understanding and innovation. The goals of the VPDoR enterprise flow from the purposes of research at Stanford, which are to understand nature and humans, to accelerate transformational impact, to educate students, and thereby to benefit society. In 2019/20, VPDoR will pursue four primary goals:

1. Implement the LRP design teams' recommendations on flexible resources and shared platforms. VPDoR seeks to support Stanford researchers and encourage high-risk, high-payoff research in a conservative funding environment through the following activities:

- Foster flexible resources, funding programs that support researchers, award seed grants, and facilitate new collaborations.
- Enhance Stanford's shared platforms and create new ones. Many new instruments cost so much and require such specialized expertise that investigators cannot afford to install them in their individual laboratories. The optimal way to give Stanford researchers access to a full suite of new tools is to install those tools in shared facilities with skilled scientific staff.
- Evaluate research computation and data services. Faculty and students need research computation facilities on campus and in the cloud. A research computation and data services design team will evaluate the best ways to support the digital future by providing computation facilities; hosting, cataloging, and archiving data; purchasing, licensing, and contracting for data services and data; and providing training and consultation.

2. Address the growing complexity of compliance requirements. To conduct research effectively, Stanford faculty members, staff members, and students require clear and appropriate research policies. It is critically important to continually review, update, and improve the university's policies, practices, and systems. Three critical areas of regulatory compliance have emerged:

- **Foreign influence:** Stanford's research policies derive from federal laws and regulations designed to protect research integrity and from cherished principles on openness in research policy, academic freedom, and nondiscrimination. Federal agencies are taking steps to protect sensitive technology and intellectual property developed on U.S. campuses. VPDoR is convening panels of faculty and staff experts in research, law, political science, and government to help identify policies that will enable the university simultaneously to protect its own research integrity, exchange people and ideas with domestic and foreign collaborators, and support national goals related to economic strength and military security.
- **Accelerated impact:** During the LRP process, voices are calling for Stanford researchers to accelerate their beneficial impact on society. The most effective way for investigators in STEM fields to accelerate the impact of new technology is to intensify interactions with companies. Such interactions create policy issues surrounding intellectual property, conflicts of interest, and management of graduate students.
- **Personal data:** Scholars in every field face unprecedented and thrilling quantities of medical, social, and physical data that will transform their scholarship and accelerate its benefits. What data may Stanford researchers collect? How should Stanford negotiate data use agreements with companies and government agencies that are collecting similar troves of data? How does Stanford store personal data to balance the demands of security with the benefits of science? Research data policies and training are key to assure that personal and social data are treated responsibly and respectfully.

3. Review the institutes, centers, and independent labs.

The 17 institutes, centers, and independent labs span the life sciences, physical sciences, social sciences, and humanities; engineering; and medicine. VPDoR will establish a regular review cycle to revisit their missions and structures; assess their relationships to the schools and departments; search for ways to enhance their activities; improve their support for researchers; and create a research environment even more conducive to success. This year, the physical science institutes and their directors will undertake a self-assessment and convene an external review board.

4. Launch the Digital Future initiatives:

- **Stanford Human-Centered Artificial Intelligence (HAI) Initiative:** In March 2019, Stanford launched a new institute designed to advance AI research, education, policy, and practice. HAI leverages Stanford's strengths in business, economics, education, genomics, law, literature, medicine, neuroscience, and philosophy. These strengths complement Stanford's leadership in AI, computer science, engineering, and robotics. Stanford HAI will serve as a global interdisciplinary hub for researchers, students, developers, and users who want to leverage AI's impact and potential.
- **Stanford Data Science Initiative (DSI):** The ability to advance discovery, create new knowledge, and solve the world's most pressing global problems will increasingly rely on the ability to learn from data. DSI will weave data science research and methods into the fabric of the university. DSI will foster collaborations among the world's best data scientists and scholars from other fields who require accurate, dependable, large data sets and data sciences techniques.

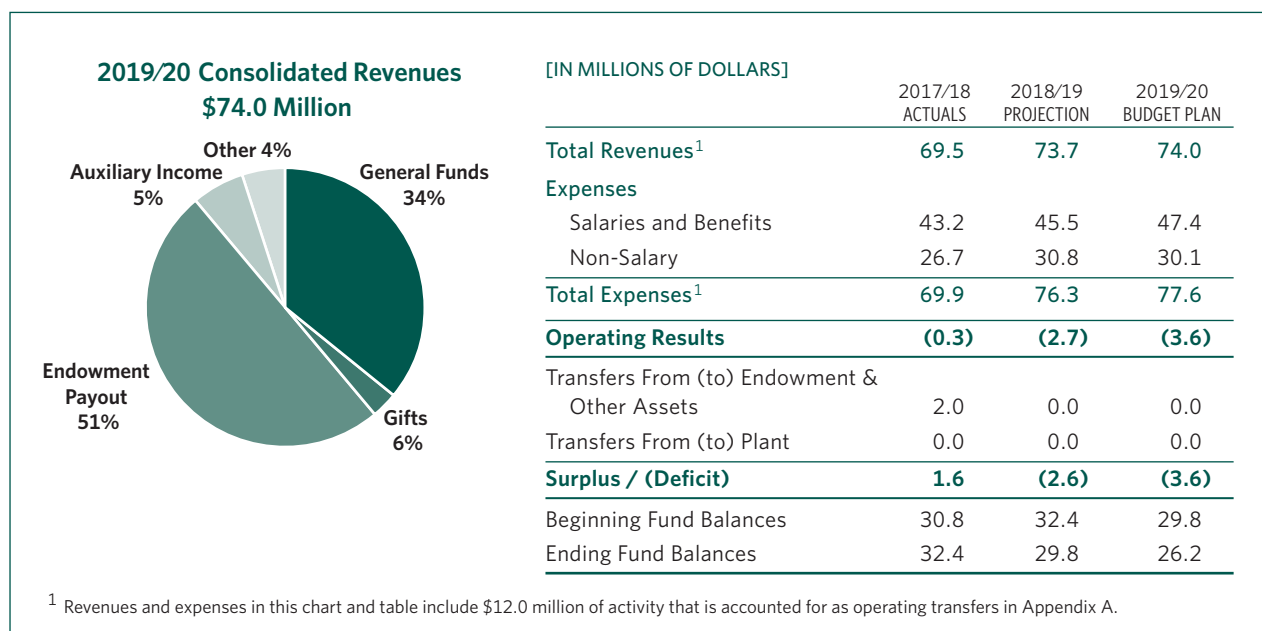
CONSOLIDATED BUDGET OVERVIEW

VPDoR projects a 2019/20 consolidated budget with total revenues and transfers of \$258.0 million and expenses of \$248.6 million, resulting in an operating surplus of \$9.4 million. After transfers to assets of \$3 million, the net change in current funds is a net surplus of \$12.4 million. Compared with 2018/19 year-end projections, 2019/20 revenues will decrease by 2.8% and expenses will increase by 3.1%.

The largest factor in the drop in total revenues and transfers is a decrease of 16%, or \$4.7 million, in non-federal sponsored funding. The primary reasons for this reduction are that a variety of programs and projects are coming to an end in 2018/19 and a specific large program receives its funding in alternate years. Gift revenue will remain at a high level as new initiatives from the LRP are launched, such as HAI and DSI.

The overall VPDoR reserve position is strong; however, funds are restricted to the control of faculty and departments. Of the total reserves, faculty and department programs control 78% (\$185 million), and all of these funds are earmarked for research.

VICE PROVOST FOR UNDERGRADUATE EDUCATION



PROGRAMMATIC DIRECTIONS

The Office of the Vice Provost for Undergraduate Education (VPUE) serves as the nexus for key programs and initiatives to facilitate students' acclimation to college-level work and to help them define and achieve their intellectual ambitions. VPUE meaningfully engages all 7,000 undergraduates during their time at Stanford and aims to provide all students with strong foundations, individualized support, opportunities for exploration, tailored advice and guidance, carefully structured experiences, and meaningful connections with faculty.

In late 2018, the Haas Center for Public Service shifted from the Office of the Vice Provost for Student Affairs (VPSA) to the new Office of the Senior Vice Provost for Education (SVPE). While the SVPE office takes shape, VPUE has assumed financial and administrative management of Haas and has included Haas in its budget plan.

VPUE expects continued focus in 2019/20 on five priorities established in 2018/19:

- **Working at one's best:** Explore enhancements and process improvements that will enable better collaboration and coordination across all units within VPUE.
- **Articulating and advancing VPUE's mission:** Explain more concretely, both internally and externally, what VPUE is and what it does to undergird and contribute to the undergraduate experience.

- **Ensuring capacity and preparedness for Long-Range Plan (LRP) outcomes:** Remain engaged in Stanford's LRP opportunities and move nimbly when necessary to prepare for and implement initiatives.
- **Demonstrating and enhancing inclusive policies:** Amplify understanding of and commitment to programs and processes that support inclusion and belonging and provide equity and access.
- **Managing faculty leadership transitions:** Ensure smooth transitions of key faculty leadership positions within three VPUE units: Bing Overseas Studies Program (BOSP), Stanford Introductory Studies, and the Vice Provost's Office with the transition of a new senior associate vice provost.

Programmatically, the expansion and enhancement of undergraduate academic advising remains one of the organization's key areas of focus and ties directly to the university vision that emerged from the first phase of the LRP. Housed within Undergraduate Advising and Research, academic advising directors (AADs) currently face an unsustainable student-to-AAD ratio of 525:1. As part of the 2019/20 budget process, VPUE laid forth a plan to add 12 AADs over the next three years. While there was general support for this plan, staffing will have to ramp up over a longer period, given the current budget climate. VPUE plans to add two incremental AADs in 2019/20 and will return to the Budget

Group next year with a revised request to add the remaining positions and additional support staff for the program.

Other programs that will undergo significant transitions in 2019/20 include Stanford in New York (SiNY), an off-campus, quarter-length offering that immerses students in a blend of coursework and internships in one of the world's most vibrant cities. In 2019/20, SiNY will officially move out of its pilot phase and find a continuing home within BOSP.

BOSP will also introduce its newest overseas program in Hong Kong in autumn quarter 2019/20. Approximately 25 students will live in dormitories on the campus of the Chinese University of Hong Kong (CUHK), take courses taught by both CUHK and Stanford faculty, and engage in cultural activities exploring the importance and diversity of the Sinophone world. In addition, BOSP is taking advantage of the opportunity to lease additional academic space at its Florence campus, enabling the program to expand enrollment capacity and add classroom space to better accommodate students' needs.

Serving as the hub of Cardinal Service, a campus-wide effort to make service a more essential element of a Stanford education, Haas will engage in the following four priority areas that emerged as part of the LRP process:

- Expanding graduate student engagement
- Engaging locally: Stanford as an anchor institution
- Expanding Stanford engagement with domestic rural areas
- Rethinking time and space: Cardinal Courses on the Road, gap year support, Cardinal Quarters during the academic year, and service terms

CONSOLIDATED BUDGET OVERVIEW

The following overview describes VPUE's and the Haas Center's consolidated budgets separately. However, the two are combined in the dashboard on the facing page.

Excluding Haas, VPUE expects 2019/20 total revenues and operating transfers of \$66.3 million and total expenses of \$68.6 million, yielding a \$2.3 million deficit and an anticipated ending fund balance of \$20.0 million. Compared with 2018/19 year-end projections, this represents a 1% increase in revenues and operating transfers and a 1% increase in expenses. The organization does not expect any significant asset transfers in 2019/20.

Overall, no significant changes are expected in VPUE's major streams of annual revenue, which continue to consist predominantly of endowment payout and general funds. VPUE will receive \$118,000 in incremental base general funds in 2019/20 to support the hire of one additional AAD. VPUE will match this support by funding a second incremental AAD in 2019/20 through its reallocation efforts and gift support.

In 2019/20, currency exchange rate fluctuations are projected to yield a budgetary advantage of approximately \$890,000, offsetting a significant portion of VPUE's standard expense cost rise.

VPUE's financial position remains strong, and its short-term fiscal strategy has been to sustain excellence in academic programs by using its fund balances. Historically, the organization has had great success with fundraising, and as themes and initiatives emerge from Stanford's LRP, VPUE is confident its vision for undergraduate education will support a larger, campus-wide fundraising effort.

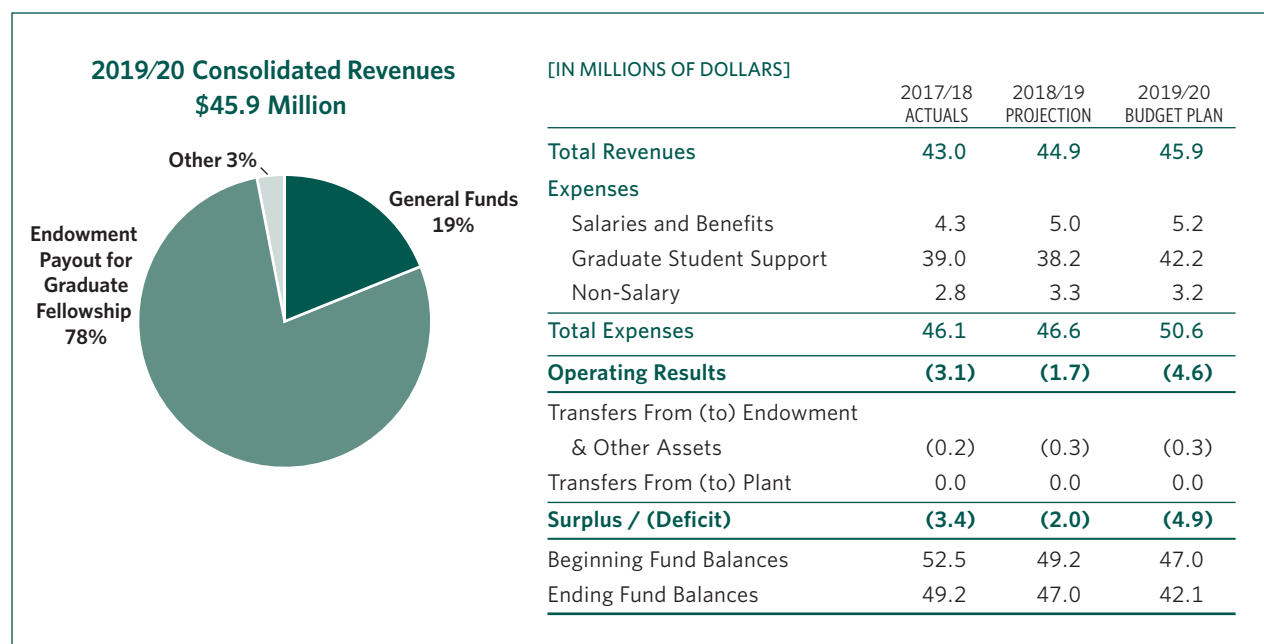
Haas Center for Public Service

In 2019/20, Haas expects total revenues and operating transfers of \$7.6 million, total expenses of \$9.0 million, and a resulting deficit of \$1.4 million. Compared with 2018/19 year-end projections, revenues and operating transfers are expected to decrease by 5%, or \$367,000, driven primarily by the ending of two sizable gifts, one dedicated to Cardinal Quarter and the other in support of Haas's Emerson Peace and Justice Fellowship. Overall expenses will increase by \$339,000, or 4%, from 2018/19 year-end projections, largely in line with the university's 2019/20 salary program. An ending fund balance of \$6.2 million is projected.

CAPITAL PLAN

Four modest capital projects are planned for 2019/20. As referenced above, VPUE plans to lease additional space in Florence. Renovation costs, estimated to be about \$500,000, will be covered by gift revenue. In Berlin, minor renovations, estimated to cost \$50,000, are needed in the faculty apartment, and reserves will be used. In support of the Haas Center, the \$125,000 kitchen remodel discussed above will be funded jointly by department reserves and central university funding. Finally, exterior improvements will be made on Salvatierra Walk as a joint project with VPSA to create useful program space.

VICE PROVOST FOR GRADUATE EDUCATION



PROGRAMMATIC DIRECTIONS

The Office of the Vice Provost for Graduate Education (VPGE) plays a key leadership role in enriching the educational experiences of Stanford graduate students. VPGE works collaboratively to expand what's possible in graduate education. It does so by facilitating academic innovation and creative problem-solving on systemic issues within a highly decentralized university, where over 9,400 graduate students pursue 14 distinct types of degrees in 200 degree programs across seven schools. Students are encouraged to be bold in their ambition and prepare themselves to have impact in an increasingly diverse and complex world. To these ends, VPGE provides opportunities that complement school programs and resources by promoting leadership and professional development, interdisciplinary learning, and diversity programming within Stanford's inclusive community. VPGE's programs and fellowships reach over 5,100 graduate students annually, including 866 students currently supported by one or more of VPGE's seven fellowship programs.

VPGE initiatives address university priorities in four areas: (1) resources to strengthen faculty advising and academic innovation within and across degree programs; (2) support to increase student diversity by giving departments leverage in recruitment and by fostering inclusion of enrolled students

through professional development and community building; (3) interdisciplinary learning and networking to spur innovation in research and teaching; and (4) professional development resources, which students and faculty value, especially if employment prospects are uncertain. VPGE's university-wide fellowship programs serve many of these objectives concurrently. Providing graduate student funding—about 10% of the university's annual total—remains a high priority.

Fellowships

VPGE fellowship funding overall will increase 10.3%, from \$38.2 million in 2018/19 to \$42.2 million in 2019/20, despite flat growth in endowment payout and general funds income. Stipend amounts will increase 6.1% next year, while tuition will increase 3.5%. Fund balances will cover this increase in graduate student support.

Innovative Programs

VPGE continues to provide innovative programs, in collaboration with Stanford's seven schools, to recruit and retain students from diverse backgrounds and enhance their educational experiences at Stanford. Among several initiatives, two are noteworthy for their impact and national visibility. VPGE has scaled the Enhancing Diversity in Graduate Education (EDGE) Doctoral Fellowship Program from 57 to

100 new awards annually, with a total of almost 600 EDGE fellowships awarded. EDGE supports incoming PhD students who bring diversity, broadly defined, in the context of their academic fields. EDGE provides mentoring, professional development, and research funds. The Diversifying Academia, Recruiting Excellence (DARE) Doctoral Fellowship Program, now in its eleventh year, supports advanced PhD students who bring diversity to their fields as they prepare for academic careers. With 210 fellowships awarded thus far, over 152 DARE Fellows have graduated, and 75% are employed in the academic sector.

Through VPGE's "What's Possible" portal as well as submissions to long-range planning, students have identified many distinctive strengths of graduate education at Stanford as well as some factors that may impede academic progress and, as such, are opportunities for change. Academic advising and student family support have been highlighted as action items this past year. With a new policy from the Faculty Senate requiring departments and programs to make advising expectations explicit, VPGE has been expanding and disseminating effective practices in graduate advising. VPGE also led the university's response to recommendations from the Student Family Working Advisory Group to assist graduate students with children. The provost approved a new pilot program, the Graduate Family Grant, a need-based grant of up to \$10,000 annually. In its first six months, the program has distributed over \$1 million to 125 student parents. VPGE has also expanded Childbirth Accommodation funding to a full quarter, and Academic Accommodations have been extended to non-birth parents. The Graduate Life Office has developed online information for students with children to facilitate access to support services and planning resources as well as connections among student parents within the community. The Student Family Working Advisory Group is working alongside the Affordability Task Force and a childcare working group to review the impact of these new initiatives and identify priorities for next steps.

CONSOLIDATED BUDGET OVERVIEW

Since January 2007, VPGE has used resources strategically, taking a conservative approach to growth in operations. VPGE was fortunate to begin with a highly restricted en-

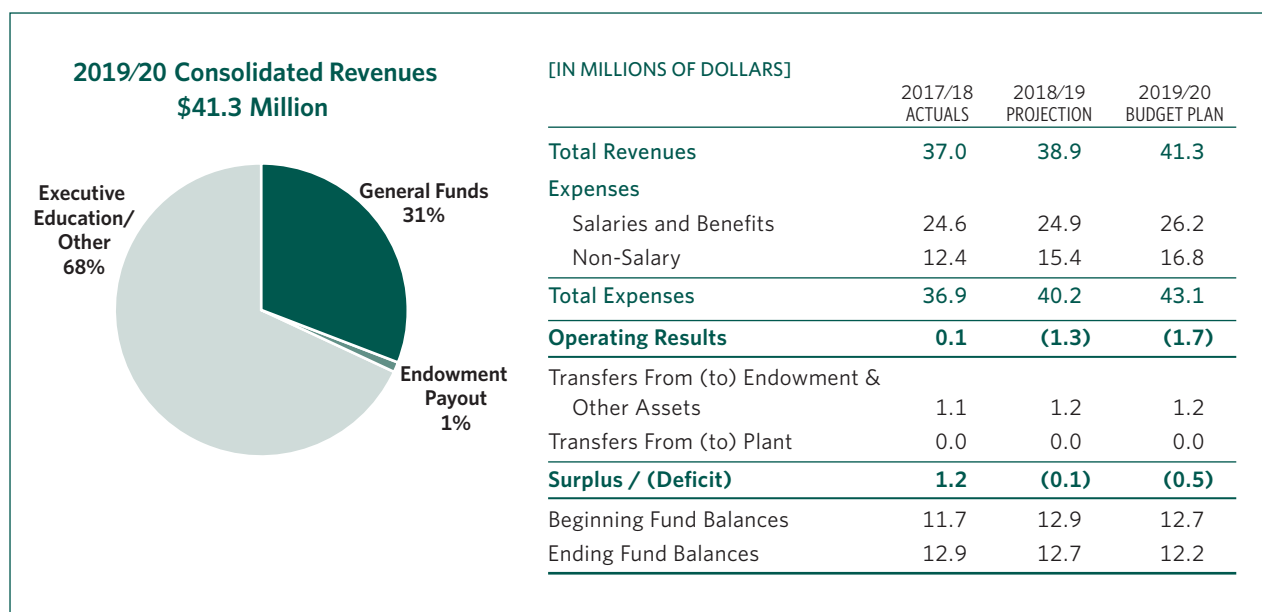
dowed fund balance for the Stanford Graduate Fellowships in Science and Engineering (SGF) Program. Over the next several years, growth was more gradual than envisioned, resulting in a designated fund balance from general funds. The fiscal strategy has been to sustain an annual deficit in the consolidated budget to be covered by designated and endowed fund balances. The reserves cover increased expenses for graduate student funding and programs as well as anticipated declines in endowment income for multiyear fellowships.

VPGE projects a 2019/20 consolidated budget with total revenues and transfers of \$45.9 million and expenses of \$50.6 million, resulting in an operating deficit of \$4.6 million. After asset transfers of \$292,000, a deficit of \$4.9 million in fund balances is expected. This will reduce the consolidated fund balance to \$42.1 million at year-end, as planned.

The 2019/20 consolidated expenses comprise 83% direct graduate student support, 10% compensation and benefits, and 7% programmatic non-compensation expenses. VPGE will provide \$42.2 million in direct graduate student funding for fellowship programs in 2019/20. Growth in the tuition and salaries/stipend rate for fellowships and programs drives this increase. Compensation and non-compensation expenses are expected to increase slightly to \$5.1 million and \$3.2 million, respectively.

VPGE's current budget plan will provide stability and flexibility over the next two years. Planned deficits in endowed fellowships and the operating budget will continue annually, bringing the consolidated fund balance to \$26.8 million by 2021/22. Retaining a reasonable consolidated fund balance supports multiyear fellowship commitments and provides flexibility for VPGE to align with priorities in long-range planning. There is excitement about potentially emerging initiatives that at present have unknown budgetary implications. Next steps will entail some difficult decisions, as there are always more good ideas and compelling needs than resources to support them. VPGE will continue to work collaboratively with university leaders within and across the schools to identify what matters most and where there is the greatest leverage for change in this large, decentralized enterprise.

VICE PROVOST FOR TEACHING AND LEARNING



PROGRAMMATIC DIRECTIONS

Stanford's commitment to making important contributions to society and to human well-being requires world-class research, outstanding teaching, and effective learning. The Office of the Vice Provost for Teaching and Learning (VPTL) supports faculty, instructors, students, schools, and the Stanford community in advancing educational experiences for undergraduate, graduate, professional, and lifelong learners. VPTL delivers services through two main programmatic areas: campus-based learning, and global and extended education.

Campus-Based Learning

VPTL serves as a nexus of teaching and learning support for instructors and students across campus through the following branches:

- **Center for Teaching and Learning (CTL):** CTL, in close collaboration with schools, departments, and other offices, works to ensure the quality of educational experiences for all Stanford students by vigorously supporting the development and widespread use of inclusive learning practices, learner-centered approaches in teaching, and the integration of evidence-based practices in teaching. As part of this effort, VPTL supports rigorous and thoughtful ongoing assessment and feedback to improve learning outcomes. In addition, VPTL supports the academic suc-

cess of diverse learners and develops and inspires the next generation of educators (current graduate students and postdocs) to be excellent teachers, communicators, and leaders through educational programs and training. In 2019/20, CTL will focus on six service areas:

- Expanding learning services for students
 - Boosting faculty support programs, including developing new formats for the Course Design Institute so that more faculty and instructors may take advantage of the program
 - Increasing support for assessment
 - Expanding graduate student and postdoc teaching support programs
 - Increasing resources for use of academic technology tools
 - Supporting Stanford's long-range planning initiative Inclusion, Diversity, Equity & Access in Learning (IDEAL)
- **Learning Technologies and Classrooms:** VPTL develops and optimizes the use of classrooms, informal learning spaces, and technologies to enhance education for all students. In 2019/20, VPTL will focus on four major priorities:
 - Facilitate a master plan for classrooms and informal learning spaces with new guiding principles for campus learning spaces; a 10-year roadmap and capital

plan for updating, retrofitting, and constructing learning spaces; and a plan for ongoing technology and furnishing provisions.

- Continuously improve the learning management system serving all Stanford undergraduate students.
- Enable students and instructors to leverage online learning by expanding an integrated technology capable of recording and streaming classroom lectures (synchronously or asynchronously) to general-use classrooms.
- Continue developing a robust learning analytics plan by assessing and improving current infrastructure.

Global and Extended Education Programs

VPTL provides platforms, infrastructure, policies, and oversight to support Stanford's vision of engaging remote learners, including alumni and professionals, regionally, nationally, and globally.

■ **Stanford Center for Professional Development (SCPD):**

SCPD supports the development and delivery of Stanford educational offerings to learners around the world. SCPD records, produces, and delivers faculty teaching to a global community via a portfolio of online credit-bearing courses, executive and professional education programs, and free or low-cost courses. In 2017/18, SCPD supported 1.5 million enrollments in over 190 countries. These programs create valuable research and teaching connections between faculty and industry worldwide, support professionals who seek to remain educated during their careers as well as lifelong learners, and provide financial support to participating faculty and departments. In 2019/20, SCPD will focus on collaborating with schools and departments to increase the number of online and hybrid part-time graduate degree programs and increase programming for students taking Stanford online credit-based certificate offerings and courses. SCPD will also grow its portfolio of executive education and professional credential offerings.

- #### ■ **Stanford Center for Health Education (SCHE):** Co-sponsored by the School of Medicine and VPTL, SCHE accelerates global access to both education and quality health care by creating and disseminating relevant, engaging, accessible, and scalable digital content. In 2018/19, SCHE launched its first online professional course in nutrition science and a graduate certificate program in epidemiology and clinical research. In 2019/20, SCHE will launch three new online certificate programs and one to two in-person targeted training opportunities.

The Digital Medical Education International Collaborative (Digital MEdIC), a program that improves global health outcomes by extending access to health education, will continue expanding its work in Africa and Asia. Digital MEdIC has reached over 300,000 learners worldwide and is growing its library of education content, with a focus on maternal and child health and critical care. SCHE also partners with underresourced medical schools worldwide to extend Stanford Medicine's core curriculum and expertise in order to train more qualified health professionals.

CONSOLIDATED BUDGET OVERVIEW

VPTL's 2019/20 consolidated budget projects total revenues and operating transfers of \$41.3 million and expenses of \$43.1 million, resulting in a planned net operating deficit of \$1.7 million. After a \$1.2 million transfer from external endowment assets in support of SCHE, VPTL projects an overall deficit of \$543,000.

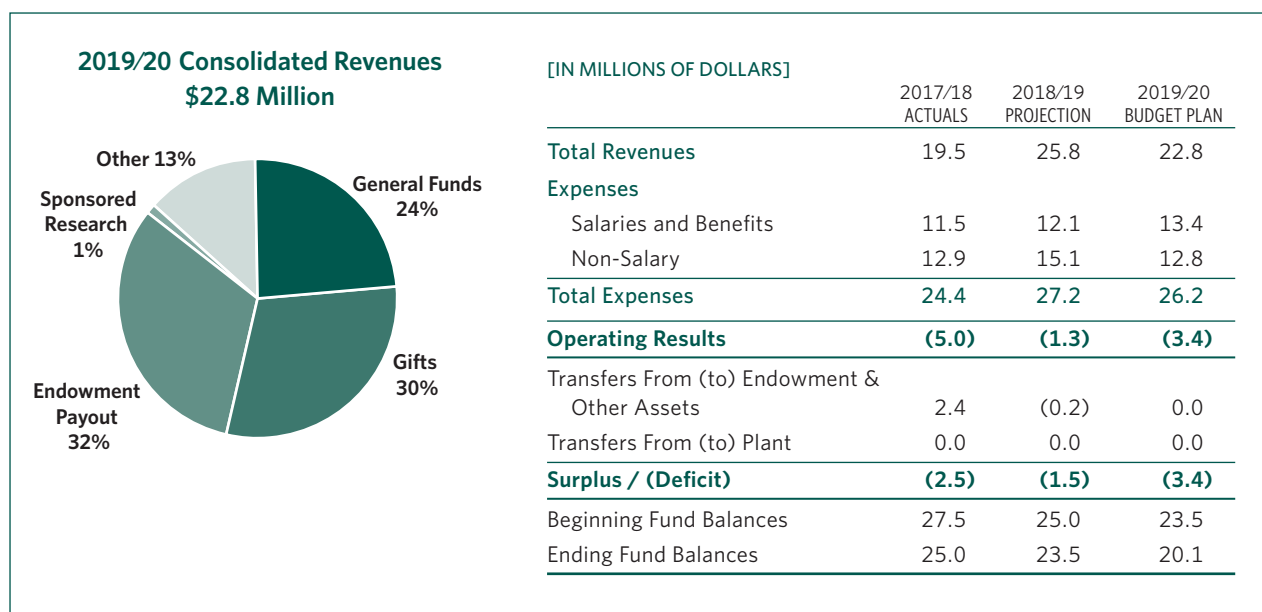
Total revenues are projected to increase by \$2.4 million, or 6.2%, from 2018/19. This is primarily due to increased enrollment in online academic courses. However, online program revenue can fluctuate 10%-20% from year to year.

Total expenses are projected to increase by \$2.8 million, or 7%, from 2018/19. Compensation expenses are projected to increase by \$1.4 million, or 5.6%, primarily due to addition of staff to support expanding programs. Non-compensation expenses are projected to increase by \$1.4 million, or 9.4%, due to several infrastructure projects.

VPTL expects to have a \$12.2 million fund balance. It plans to utilize some of these funds to support additional program development for residential and online students; create new technologies, tools, and platforms; pilot new modes of course delivery; and establish technology reserves to refresh technology-rich spaces throughout campus over the next several years.

VPTL's fiscal strategy is to use accrued funds from start-up backing to cover planned deficits as it transitions to a sustainable funding plan. VPTL's path to long-term sustainable funding includes raising gift funds, increasing efficiency, reducing expenditures, and increasing SCPD revenue-generating programs. SCPD will also refocus its portfolio of free, low-cost courses and programs to ensure alignment with school and department priorities and to ensure this activity has a sustainable funding source in future years.

VICE PRESIDENT FOR THE ARTS



PROGRAMMATIC DIRECTIONS

The Vice Presidency for the Arts (VPA) was created in 2017 with the stated desire of elevating the arts at Stanford. As a new university organization, it has a mandate to amplify the impact of the arts at Stanford through senior university leadership, ambitious arts programs, and collective activity that is greater than the sum of its parts. VPA consists of the Cantor Arts Center, the Anderson Collection at Stanford University, Stanford Live and Bing Concert Hall, the Institute for Diversity in the Arts (IDA), and the Stanford Arts Institute. A central office coordinates programming, develops and executes university-wide initiatives, and supports student arts practice and extracurricular arts activity.

In 2017/18, the first full year of its existence, VPA conducted a strategic planning process, working with faculty, students, staff, and alumni to identify and articulate priorities for the organization. Two overarching themes emerged out of this process: (1) investing more deeply in talent, collections, and programs to make Stanford a vibrant home for art and artists, and (2) leveraging Stanford's strength across disciplines to make a productive impact on the future of the arts. At the same time, VPA has been working operationally to identify opportunities for collaboration, efficiencies, and synergies across the different units that make us stronger together.

Significant progress can be reported on these fronts. In 2018/19, VPA launched two new signature programs that speak to both of its programmatic themes:

- The Presidential Residencies on the Future of the Arts is a pilot program that brings renowned artists to campus for a substantial engagement with students and faculty. Artists are asked to contribute to the creative life of campus; crucially, however, they are also given the opportunity to work with faculty across disciplines to move their own work forward. For instance, the visual artist and videographer Kahlil Joseph is workshopping his new project BLKNWS on campus all year long. The project, which is at once both a work of visual art and a news broadcast, reimagines a CNN-style constant news feed from an African American perspective. It is being shown in three locations on campus (the Cantor, Harmony House, and Lagunita Dining), and Joseph is conducting focus groups and input sessions with faculty and students from the arts, engineering, law, and business. After Stanford, the project will go to the Venice Biennale, and the version there will reflect input from Joseph's residency here.
- A new conversation series, Artists on the Future, pairs world-renowned artists with thought leaders from other fields to discuss issues of importance to our collective

future. These open public discussions will allow students and faculty to have exposure to significant artists, while at the same time highlighting the contribution that artists, with their unique perspective, can make to questions about social justice, human connection, and a meaningful existence, to name just a few. The series launched in March 2019.

In addition to these two new programs VPA has been able to establish a new endowed fund, the Stanford Visiting Artist Fund, in honor of Roberta Bowman Denning. This new resource will support significant artists deeply embedded in academic departments and programs. Funding is offered on a competitive basis; the first round of departmental proposals has been submitted, and the first artists supported by this fund will be on campus in 2019/20.

CONSOLIDATED BUDGET OVERVIEW

The finances of the VPA units vary greatly; each unit has its own dedicated funds, with differing levels of restrictions. Most operate more like nonprofit businesses than academic departments. Programmatic and one-time spending are often driven by availability of donor funding, so expenses can vary greatly from year to year. Often, units receive gifts with the intention of spending them in future years, so reserves are used over multiple years.

VPA projects a 2019/20 consolidated budget with total revenues and operating transfers of \$22.8 million and expenses of \$26.2 million, resulting in an operating deficit of \$3.4 million that reflects the strategic use of reserves, primarily for one-time programs and art acquisitions.

Revenues and transfers are expected to decline from 2018/19. Gift revenue is expected to be \$700,000 lower, mainly due to receipt of a couple of high one-time gifts in 2018/19. Additionally, transfers are expected to decline by \$3.3 million, primarily because there were two large one-time transfers in 2018/19 to support the public art program for the next five years and the Frost Amphitheater launch. VPA will start transferring funds to other departments to support the new Denning Visiting Artist and public art programs in 2019/20. These declines are slightly offset by an expected \$700,000 increase in earned income due to anticipated revenue from Frost as the number of shows ramps up

in 2019/20, as well as from the Cantor with the introduction of a new events program.

Expenses are expected to decline by \$900,000, primarily because there were one-time start-up equipment purchases for the Frost launch in 2018/19. Compensation will increase in 2019/20, as there was significant staff attrition in recent years, and VPA is planning to fill critical vacant positions at the Cantor and Live to support the strategic priorities of their executive directors. There will also be one-time spending of reserves for the Public Art Plinth project, a presidential residency, and art acquisitions by the Cantor.

VPA's financial priorities in 2019/20 are to:

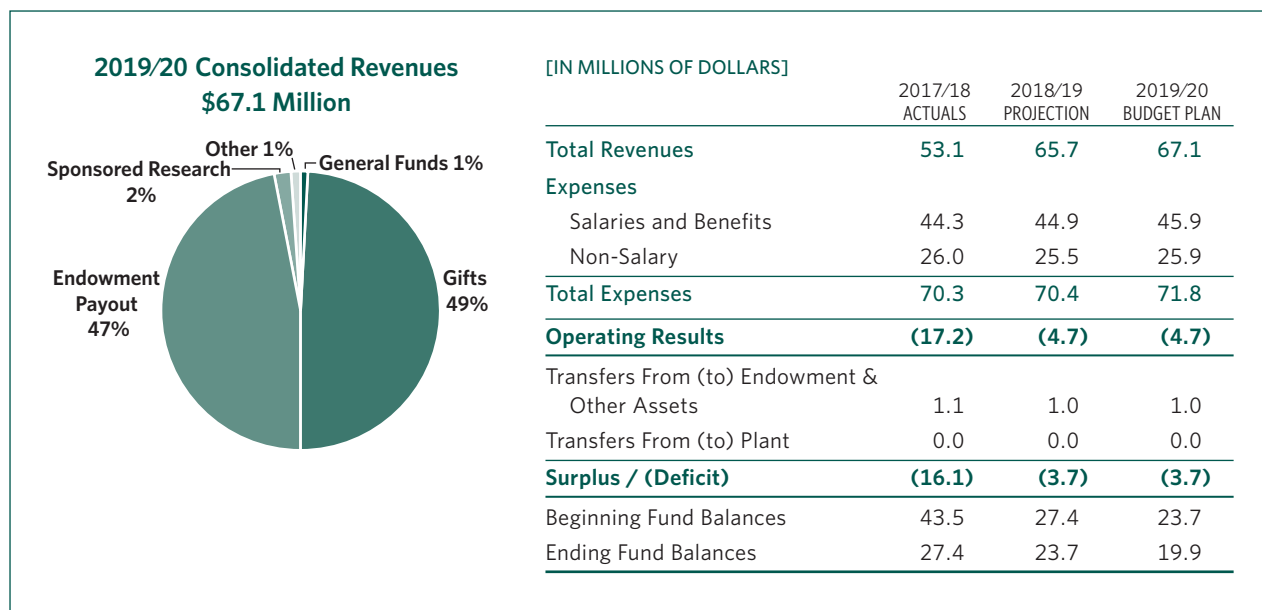
- Seek new revenue opportunities at the Cantor to support its growth to become a 21st-century art museum.
- Evaluate and seek funding opportunities for Live, Anderson, and IDA to sustain ongoing operations and programs as well as new initiatives.
- Create a robust financial infrastructure and processes to support the new Frost Amphitheater business.
- Continue to develop and pilot new initiatives, including enhanced student professional development programs in the arts, public art, and visiting artist programs.

VPA's overall reserve position is strong, with an expected fund balance of \$23.5 million at the beginning of 2019/20. However, the reserves are unevenly distributed among the VPA organizations and narrowly restricted to use by those organizations. The Cantor controls 59% of the total fund balance, Live controls 10%, and Anderson and IDA control less than 5%. The majority of the remaining reserves are restricted for visiting artists, public art, and student extracurricular arts program support.

CAPITAL PLAN

VPA is moving forward with phase 2 of the Cantor space utilization study, evaluating storage, operations, and exhibition areas. In the future, VPA, in coordination with the President's Office's Town Center Study, intends to perform an architectural and infrastructure upgrade study to evaluate recommendations in the Memorial Auditorium Renovation Feasibility Task Force report.

HOOVER INSTITUTION



PROGRAMMATIC DIRECTIONS

With its eminent scholars and world-renowned archives, the Hoover Institution seeks to improve the human condition by advancing ideas that promote economic opportunity and prosperity, while securing and safeguarding peace. The Hoover Institution generates ideas from its fellowship, collects knowledge in its Library & Archives, and communicates such knowledge and ideas to a broad audience.

Now in its centennial year, Hoover will reinforce its strengths in research and education and accelerate its pace of innovation to extend its reach and impact in the next one hundred years. Hoover will achieve these objectives by investing significantly in the vitality of the fellowship and the collections and digital capabilities of the Library & Archives and disseminating its core scholarship to key constituents via quality education and communication programs.

Hoover's hallmark is independent policy scholarship, distinguished by empirical and intellectual rigor. Therefore, revitalizing the fellowship remains a key priority as the institution enters its next century. Under the leadership of Hoover Senior Fellow Joshua Rauh, director of research, Hoover developed a human capital plan to grow its most indispensable intellectual asset, the senior fellowship, while also creating a pipeline for the next generation of scholars. In the short

term, Hoover will continue its appointment of adjunct senior fellows, courtesy senior fellows, and visiting fellows, seeking to expand its senior fellowship by identifying scholars from other institutions at the pinnacle of their careers. The transition to full-time senior fellow from these ranks can be rapid, and Hoover hopes to add one new full-time senior fellow per year from this group of distinguished scholars. In the long term, Hoover seeks to revitalize the fellowship via the new Hoover Fellows Program, a fellowship track that will attract younger scholars to Hoover for five-year terms at the age when they have proven their scholarly potential and have their best work still before them. The 2019/20 budget plan includes expenses for limited-term appointments, one new full-time senior fellow, and three Hoover Fellows.

The Library & Archives has developed a vision for how it will enter its next hundred years as a simultaneously virtual and physical space, while continuing to increase its collection of physical and born-digital media. It will expand remote access to digital objects and facilitate on-site access to virtualized objects with virtual walls technology. Continuing to develop technological capabilities is vital to achieving this commitment. In the next year, Hoover will hire skilled staff with the technical competency to carry out the digital vision and sustain partnerships with peer institutions and vendors for mass digitization.

The Library & Archives will enhance its collections by growing specific collecting areas in support of the mission, building on core strengths and expanding into new areas of strategic interest to scholars and policy makers. Hoover will continue to support a significant output of scholarship and education derived from its archival holdings through conferences, workshops, and fellowship programs.

Hoover has a unique opportunity to educate and inform policy leaders and the broader public through its educational platforms and facilities. Collaborative research provides Hoover with a tremendous advantage, as participating scholars increase Hoover's impact by partnering with core fellows. Therefore, the institution will use its physical space to convene gatherings of scholars to tackle changes in public policy. The physical spaces at Stanford also provide opportunities to engage with the Stanford community and beyond. The recently launched Hoover Centennial Lecture Series is a useful example. This series of public talks will showcase Hoover's scholarly talent and achievements in a way that highlights the overall mission of the institution and its values: individual, economic, and political freedom; private enterprise; and limited, effective, representative government. The program will continue in 2019/20 and will be matched with other public conferences, seminars, and events. In the digital space, Hoover created the Educating Americans in Public Policy initiative to translate its work into accessible, shareable content. The initiative provides a broad offering of online programs on its Web platform, PolicyEd.org, and will continue to do so in the coming year.

CONSOLIDATED BUDGET OVERVIEW

For 2019/20, Hoover projects revenues of \$67.1 million and expenses of \$71.8 million. In prior years, Hoover received restricted gifts for specific projects and scholars in advance of associated expenditures. Hoover will use \$3.7 million of these accumulated restricted reserves plus \$1 million in asset transfers from gifts released from restriction to balance the budget in 2019/20, as planned. Net of these results, end-of-year fund balances will total \$19.9 million.

Hoover projects revenues to increase by \$1.4 million, or 2.1%, over 2018/19. Endowment income will grow 2.4%, with the variation from the growth to a typical fund due to new en-

dowment gifts. Hoover expects the increase in expendable gifts to be modest in 2019/20, at 2.7%, or \$850,000.

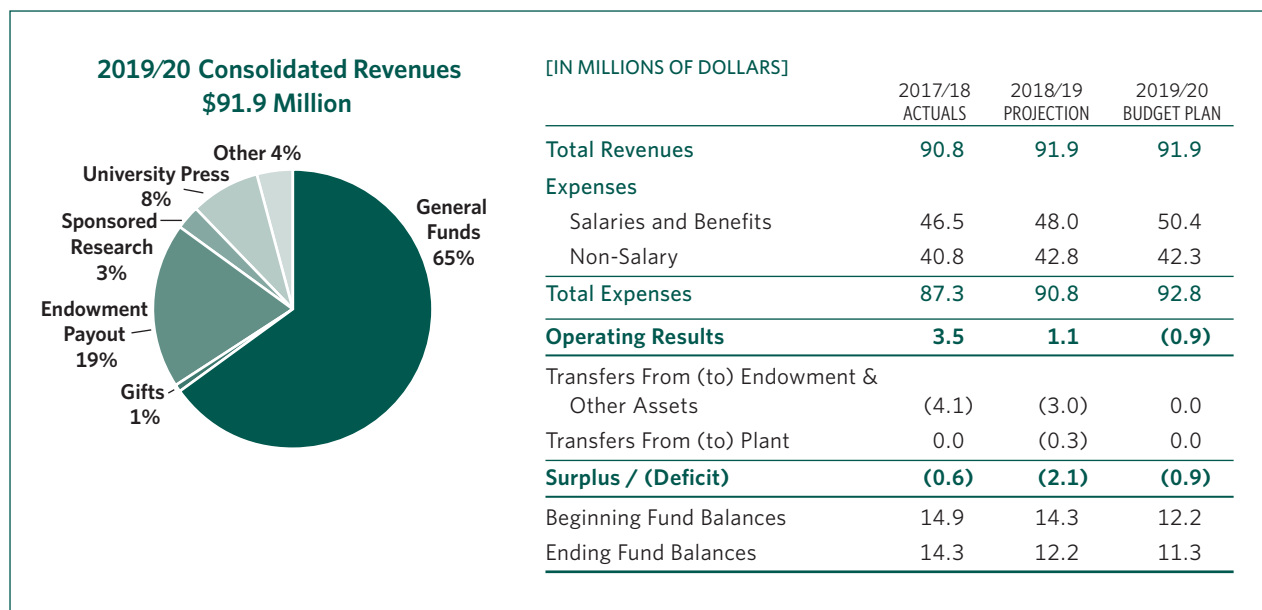
Hoover's plans are ambitious, but modest growth in endowment income and expendable gifts is limiting. In 2019/20, expense growth will be moderate, aligned to revenue growth. Expenses will be just \$1.4 million more than in 2018/19. Hoover will accommodate growth in strategic areas by reductions in others. For 2019/20, fellow retirements and departures, an organizational restructuring, and several fellow sabbaticals allow for growth in the budget, but additional development effort will be necessary to fund growth in the long term. For 2019/20, growth will occur primarily in the following areas:

- Expenses for one new senior fellow, the Hoover Fellows Program, and limited-term adjunct fellow appointments.
- Library & Archives expenses around new digital efforts, staff hires, and collecting activities.
- Enhanced programming, including collaborative research groups, public-facing programs, and continued online educational outreach.

CAPITAL PLAN

After a comprehensive master plan study to evaluate its overall facilities and space needs, the Hoover Institution proceeded with plans to construct the new George P. Shultz Building, a 58,200-gross-square-foot building for Hoover fellows on the site of the current Lou Henry Hoover Building (LHH). The Board of Trustees granted concept and site approval in October 2018, with design approval expected in June 2019 and construction approval in October 2019. The project will be fully funded with gifts, and the Hoover Institution has received signed pledges in excess of the preliminary construction budget. In 2019/20, Hoover anticipates concluding several make-ready projects, demolishing LHH, and breaking ground on the new building. Hoover is also collaborating with the Stanford Libraries to fund construction of the Stanford Auxiliary Library 3, Phase 3, facility in Livermore to address archival storage needs. Hoover will contribute funding to the construction and operating costs of this new facility at a rate relative to its storage allocation.

STANFORD UNIVERSITY LIBRARIES



PROGRAMMATIC DIRECTIONS

Jane Stanford’s visionary 1900 plan to create a “grand library” for the university was based on her determination to serve the intellectual pursuits of existing faculty and to attract a future community with more diverse academic interests. The value of Mrs. Stanford’s determination is seen in today’s library: a platform that is both physical and virtual in support of the dynamic research and teaching environment at Stanford. Contemplating Green Library’s first centennial this year and its theme of Beyond100, the Stanford Libraries are reflecting on the past, but also looking forward for new ways to spark curiosity, elevate knowledge, and transform scholarship.

To guide planning and program development, the Stanford Libraries have established three programmatic goals for the next few years. They are:

- **Access:** Accelerate knowledge dissemination by making curated collections, people, and space accessible and discoverable.
- **Community:** Build connections and foster a supportive, stimulating, and inclusive environment within the Libraries and with the research and teaching communities.

- **Stewardship:** Preserve and steward cultural and scholarly heritage in a digital age in support of research, teaching, learning, and cultural enrichment.

The Libraries made several strategic choices to further these goals in 2018/19. They reallocated funds to hire term staff to improve access to unprocessed bulk collections; continued to invest in data catalogs in the SearchWorks discovery platform to make digital materials more easily available for research use; and funded an additional conservator position to care for fragile materials such as the photographic teaching and research collection, which is growing as a result of donations.

In 2019/20, while continuing to focus on access, community, and stewardship, the Libraries will face and address several significant budgetary and programmatic challenges. The imminent challenge is the end of term university funding that supported the development of the digital library programs. Other major challenges include the increasing cost and diversity of academic information resources and the burgeoning demand for the library IT system to adapt to those new resources, particularly Web-based information and data sets. For 2019/20, the strategic priority is simple: maintain the core, including core services, core collections, core staff, and core facilities.

Digitization services and the Stanford Digital Repository are examples of core library programs where investments will be made to retain and expand functionality. The Libraries will sustain services that have brought the Stanford community a broad variety of digitized resources, including government documents, maps, manuscripts, newspapers, piano rolls, and lately anthropological specimens in 3D. Attentive to the call for a collaborative solution on research data platforms emerging from the university long-range planning process, the Libraries will enhance the infrastructure of the Digital Repository and, in partnership with campus stakeholders, contribute to a shared platform for data acquisition, storage, and discovery.

Collections also remain core to the Libraries' mission. Over 53% of the Library Information Budget is now allocated to e-resources. As that percentage increases, the Libraries face heightened cost escalation, as most e-resources are licensed in a market dominated by monopolistic providers. Inflationary trends require the Libraries to engage in thoughtful rebalancing of purchasing activity, especially given the 2019/20 funding shortfall, to ensure the Library Information Budget continues to meet the immediate needs of Stanford scholars.

CONSOLIDATED BUDGET OVERVIEW

The Stanford Libraries forecast revenues and transfers of \$91.9 million and expenses of \$92.8 million for 2019/20. The estimated operating deficit of \$904,000 will reduce the consolidated fund balance to \$11.3 million. Compared to the 2018/19 projected year-end actuals, expenses will increase modestly, by 2.2%, and total revenues will stay flat.

The Libraries will face an operating shortfall of about \$2 million as a multiyear subvention from the university to build out the digital library programs sunsets in 2019/20. Although it will receive \$150,000 of base general funds to continue operating the digital imaging lab, the funding gap is too great to support the remaining digital library staff. The Libraries will carry out a number of deliberate actions to recalibrate internal resources, rebalance the existing budget, and restrain incremental costs to shore up core programmatic priorities. The 2019/20 budget strategy manifests those tactics.

On the revenue side, reinvesting \$3 million of balances into endowment principal at the end of 2018/19 will allow for a higher increase in endowment payout than the growth rate

for a typical fund. The level of expendable gifts will remain steady at \$900,000, but a higher fraction will support existing programs instead of new initiatives or capital needs. The incremental payout and unrestricted gifts will partially offset the loss of digital library funding in 2019/20.

On the expense side, the Libraries will reduce overall nonsalary expense 1.2% by keeping the nonsalary budget, including the Library Information Budget, flat and eliminating some one-time expenses. Careful rebalancing of resources across acquisition areas will address material inflation and respond to critical needs of the research community. The Libraries also eliminated seven digital library positions this year in anticipation of the fiscal cliff, and it will use base salary savings to fill key vacant positions in 2019/20. With a lower vacancy rate expected than in previous years, the projected salary budget will increase 5.1%.

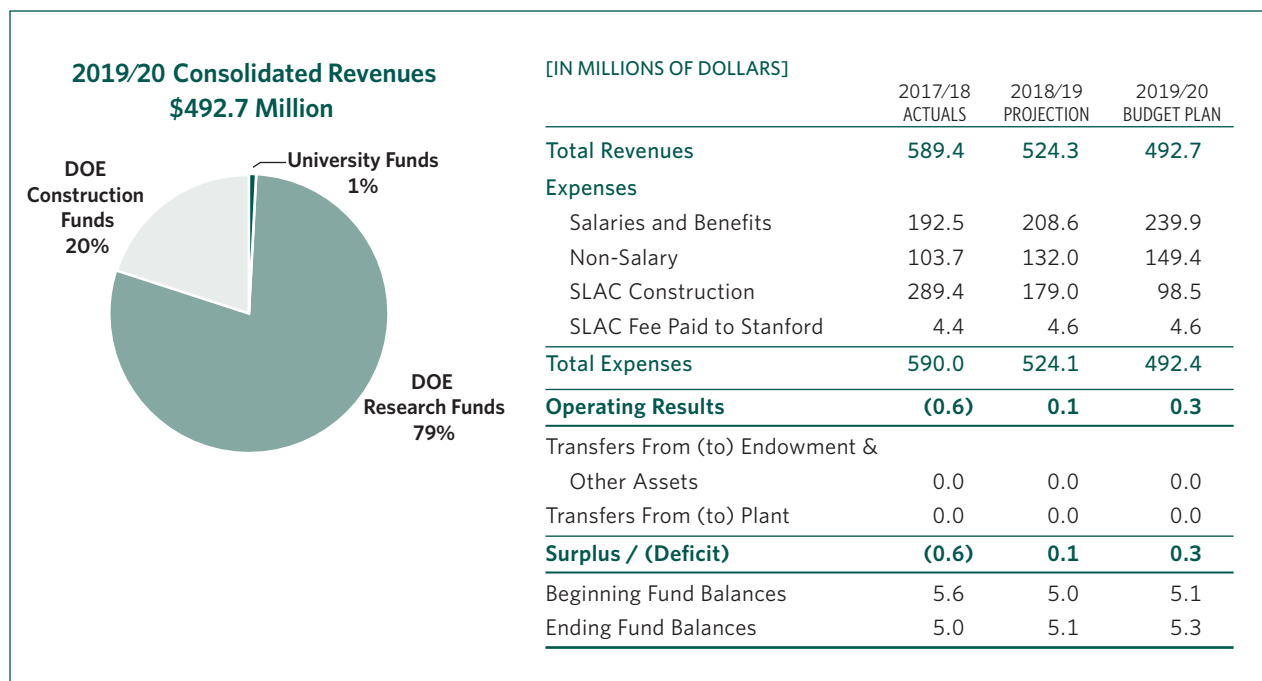
The consolidated fund balance will amount to \$11.3 million at the end of 2019/20. Of this, \$3.2 million is controlled by LOCKSS, an open-source digital preservation auxiliary. The fund balance will decrease almost 25% from its level three years ago, partially due to two years of strategic reinvestment of endowment balances. The Libraries aim to maintain a reserve of no less than 10% of consolidated expense.

CAPITAL PLAN

The Stanford Libraries are embarking on two major capital projects in 2019/20. The first is the third phase of Stanford Auxiliary Library 3, the university's high-density cold-storage preservation facility in Livermore, with a construction start date of April 2019. The \$27.3 million project will be funded by central university funding and a \$7.9 million contribution from the Hoover Institution. The facility will provide 44,355 square feet of additional storage space to hold overflow collections from libraries across Stanford; patrons can request those items for use on campus.

In addition, the Libraries received a generous philanthropic gift to renovate the first floor of the East Wing of Cecil H. Green Library. The Hohbach Hall project is in the schematic design phase and is expected to commence construction in winter 2019/20. The gift will support the transformation of Green's main entrance floor into a welcoming, versatile, and inclusive environment for Stanford communities. It will include new spaces for archives-based teaching, exhibitions, collaborative group study, and presentation of programmatic events and lectures.

SLAC NATIONAL ACCELERATOR LABORATORY



PROGRAMMATIC DIRECTIONS

Stanford University operates SLAC for the Department of Energy (DOE) through a management and operating contract. DOE has identified Stanford's corporate stewardship of SLAC as best in class. SLAC's success depends on a robust partnership with Stanford University to attract and support some of the world's best scientists, engineers, and staff.

Scientific User Facilities

SLAC hosts numerous user facilities, drawing more than 2,900 researchers from around the world annually, with Stanford users representing roughly 12%.

The Linac Coherent Light Source (LCLS) hard X-ray free-electron laser (XFEL) has transformed the field of X-ray science. To maintain world pre-eminence, SLAC and DOE are pursuing a series of developments (LCLS-II and LCLS-II High Energy) that will expand the accelerator's range of X-ray energies. The LCLS-II Instruments (L2SI) project will provide transformative tools for energy science, qualitatively changing the way that X-ray imaging, scattering, and spectroscopy can be used.

The Ultrafast Electron Diffraction (UED) instrument enables broad capabilities in ultrafast material science and chemical

dynamics. SLAC is currently designing options to incorporate a state-of-the-art petawatt laser facility at LCLS. Once operational, the laser will allow researchers to create extreme states of matter with one of the highest peak power lasers in the world, and then probe these states with LCLS X-rays.

The Stanford Synchrotron Radiation Lightsource (SSRL) provides X-ray beams and advanced instrumentation for research ranging from energy storage to drug discovery. SSRL facilitates tremendous scientific synergy between SLAC and Stanford. A large number of faculty groups from Stanford pursue research enabled by SSRL.

A joint initiative between Stanford and DOE laid the groundwork for Stanford and SLAC to host a world-leading center, supported by the National Institutes of Health, for cryo-electron microscopy (cryo-EM). Cryo-EM is a transformative scientific tool of the future for atomic-resolution structural biology.

SLAC has several facilities enabling the pursuit of experimental approaches in accelerator development. The Facility for Advanced Accelerator Experimental Tests upgrade project (FACET-II) is currently under construction. Once complete, FACET-II will be a test bed for the development of innovative accelerator technologies.

Science Programs

In addition to large-scale user facilities, SLAC's core capabilities include advanced instrumentation, condensed matter physics and materials science, chemical and molecular science, accelerator science and technology, fusion energy science, and particle physics.

SLAC is a major partner in the ATLAS experiment at the Large Hadron Collider at the European Organization for Nuclear Research (CERN), which probes for fundamental particles. SLAC's cosmic frontier program includes the Fermi Gamma-ray Space Telescope, research and development efforts for the next generation of dark matter experiments, and construction of the Large Synoptic Survey Telescope (LSST) camera. SLAC has responsibility for the detector payload and offline computing for the Super Cryogenic Dark Matter Search (SuperCDMS) project that will allow researchers to better understand the nature of dark matter.

Joint Stanford-SLAC institutes and research centers create a competitive advantage by offering sponsors the combined capabilities of SLAC and Stanford. Joint institutes include the Stanford PULSE Institute, the Stanford Institute for Materials and Energy Sciences (SIMES), the SUNCAT Center for Interface Science and Catalysis, and the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC). New is the Joint Initiative for Metrology in Biology (JIMB) center, which creates foundational measurement science tools and standards for biosciences and biomedicine, with funding from the National Institute of Standards and Technology.

As a result of Stanford's long-range planning process, Stanford and SLAC launched the Quantum Fundamentals Architecture and Machines (Q-FARM) initiative in 2019 to leverage and expand on strengths in quantum science and engineering and to train the field's next generation of scientists.

SLAC has successfully built new programs in applied energy that leverage capabilities and expertise at SLAC as well as Stanford, nearly doubling the number of applied science programs at SLAC.

CONSOLIDATED BUDGET OVERVIEW

The 2019/20 consolidated budget shows total expenditures of \$492.4 million. DOE provides substantially all (97%) of SLAC's funding. In 2019/20, the DOE contract is projected to fund \$488.4 million: \$382.9 million for operations and research, \$98.5 million for construction of new facilities

and instruments, a \$4.6 million performance fee, and fees for space at Stanford. SLAC's strategy to diversify funding sources to include other federal and non-federal agencies besides DOE is showing results. Research program awards reflect growth of over \$49.0 million for 2019/20 compared to 2018/19, resulting from diversification of the sponsor base. This growth includes the cryo-EM center, as well as the continued transition to operation costs for LCLS-II and LSST projects.

Construction project costs are expected to decline in 2019/20 by more than \$80.0 million from 2018/19 as the DOE-funded LCLS-II and LSST projects wind down. The LCLS-II project in particular has a total project cost exceeding \$1.0 billion over its lifetime that includes \$993 million for construction. Planning for the new LCLS-II High Energy project began in 2018/19 with a total estimated project cost nearing \$368 million (\$348 million for construction) and completion expected in 2025/26.

CAPITAL PLAN

SLAC has developed a long-range campus strategy to support future scientific programs by revitalizing utilities, providing collaboration spaces to exploit new science opportunities, and modernizing existing facilities to support its goals. The long-range development plan serves as a working document and resource guide beyond the immediate future of planned capital projects.

SLAC's building projects provide the laboratory and office spaces necessary for scientists, engineers, and staff. The new Arrillaga Science Center was completed in 2019; the university funded the shell and DOE provided \$57.0 million to outfit the first two floors with labs, cleanroom spaces, offices, and collaboration space. SLAC and DOE are currently discussing funding for a large-scale collaboration center, which would add much-needed office and collaboration spaces to further the multidisciplinary nature of SLAC's strategic programs. LCLS-II will have significant impacts when it opens in 2021, including increased numbers of users and significant increases in data generated from research activity. The Stanford Guest House at SLAC has been operating at full capacity, and SLAC has been pursuing options for the projected increase in housing demand when the new facilities transition to operations in 2021. SLAC and Stanford are also discussing a second scientific research computing facility to address the significant data expected from scientific computing at both SLAC and Stanford.

CHAPTER 3

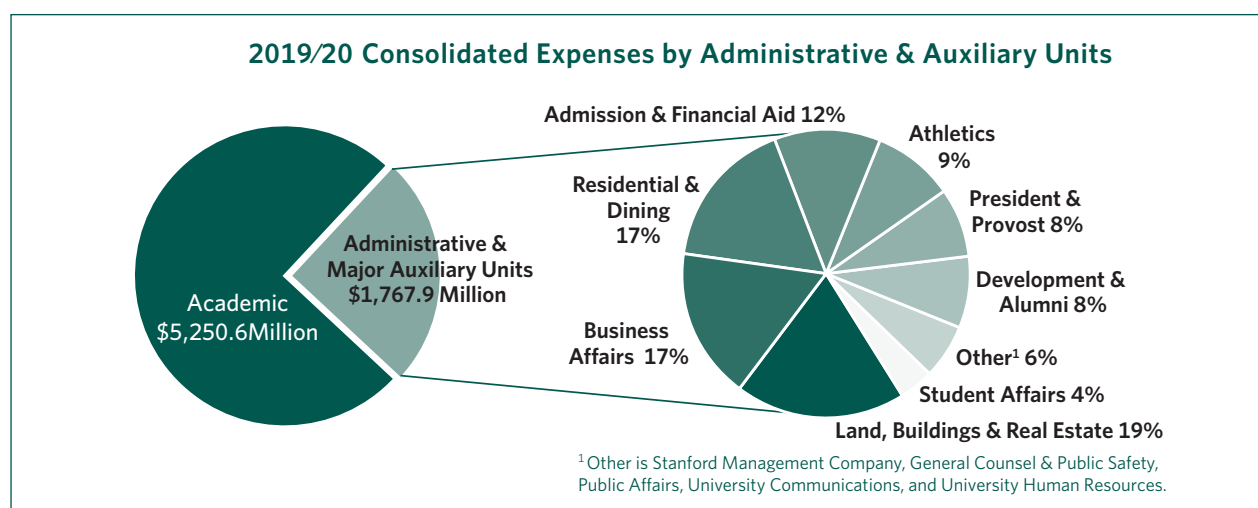
ADMINISTRATIVE & AUXILIARY UNITS

This chapter focuses on initiatives and priorities in the administrative and auxiliary units of the university.

CONSOLIDATED BUDGET FOR OPERATIONS, 2019/20: ADMINISTRATIVE & MAJOR AUXILIARY UNITS

[IN MILLIONS OF DOLLARS]

	TOTAL REVENUES AND OPERATING TRANSFERS	TOTAL EXPENSES	RESULT OF CURRENT OPERATIONS	TRANSFERS (TO)/FROM ASSETS	CHANGE IN EXPENDABLE FUND BALANCE
Administrative Units					
Business Affairs	290.9	295.4	(4.5)	2.0	(2.5)
Office of Development	84.6	85.9	(1.3)	(0.0)	(1.3)
General Counsel & Public Safety	48.4	47.9	0.5	0.0	0.5
Land, Buildings and Real Estate	345.4	333.2	12.2	(9.5)	2.7
Offices of the President and Provost	146.7	144.6	2.1	0.7	2.8
Office of Public Affairs	3.7	4.2	(0.4)	0.0	(0.4)
Stanford Alumni Association	49.2	49.8	(0.6)	0.0	(0.6)
Stanford Management Company	37.0	37.0	(0.0)	0.0	(0.0)
Student Affairs	76.1	78.1	(2.0)	0.0	(2.0)
Undergraduate Admission and Financial Aid	218.8	219.4	(0.6)	0.0	(0.6)
University Communications	9.2	9.5	(0.3)	0.0	(0.3)
University Human Resources	15.5	15.8	(0.3)	0.0	(0.3)
Major Auxiliary Units					
Athletics	149.0	154.1	(5.1)	5.1	(0.0)
Residential & Dining Enterprises	293.6	292.9	0.8	(2.4)	(1.6)
Total Administrative & Auxiliary Units	1,768.3	1,767.9	0.4	(4.1)	(3.7)



BUSINESS AFFAIRS

The Business Affairs organization provides administrative services, infrastructure, systems, and support to the university community. Business Affairs' vision is "Together we will make administration seamless and efficient to enable and support teaching, learning and research." Business Affairs units include Financial Management Services (FMS); University IT; Office of Research Administration (ORA); Office of the Chief Risk Officer; Improvement, Analytics, and Innovation Services (IAIS); and Business Development.

IAIS was established as a new organization reporting to the VP of Business Affairs at the beginning of 2018/19. IAIS's mission is to identify, prioritize, and launch projects that measurably improve business processes and services by looking broadly across the institution and collaborating with university partners. It supports the Operational Excellence initiative within the university's Long-Range Plan.

The 2019/20 consolidated budget for Business Affairs shows revenues and transfers of \$290.9 million and expenses of \$295.4 million, resulting in an operating deficit of \$4.5 million. The deficit is offset by \$2 million of asset-related transfers, leaving a \$2.5 million use of reserves. As a result, total fund balances are projected to decline to approximately \$31 million at the end of 2019/20. The \$2.5 million of reserves will fund strategic priorities, including the Business Affairs talent development program, IAIS, and one-time information security and IT priorities.

Revenues and transfers are projected to increase \$20.2 million, or 7%, from the 2018/19 forecast. Business Affairs will receive an incremental \$8.0 million in one-time funding for the Alumni and Development Applications Platform Transition (ADAPT) project to replace the university's development system. Base general funds will increase by \$5.6 million, or 3.4%, including \$2.7 million of cost rise, \$1.0 million for centrally funding some communications services in lieu of charging individual units, \$1.1 million of base additions for ADAPT, and \$800,000 for additional staffing in ORA and University IT. Revenues are projected to increase by 4%, or \$3.7 million, for University IT service center rate increases, procurement rebates, and other FMS services.

Total expenses are projected to be 6%, or \$18.3 million, higher than in 2018/19. The increase is driven by the filling of many of the 60 currently open positions, salary growth, and additional spending on the ADAPT IT project (\$9.1 million base and one-time funding).

Each year Business Affairs focuses on a specific group of principal initiatives, many of which span multiple years, with annual milestones and deliverables. These initiatives are focused on continuous improvement in delivering excellent client service, making administrative processes and systems more efficient, and mitigating enterprise risk.

Business Affairs principal initiatives include the following:

- **Business Affairs in Redwood City:** Beginning in March 2019, over 80% of Business Affairs is relocating to the new Stanford in Redwood City campus. The design, change management, and IT infrastructure implementation have spanned several years. Stanford Redwood City provides an excellent opportunity to create the office's own workplace culture, including new ways of working and collaborating, while continuing to provide seamless and exceptional service to customers.
- **Talent development:** Business Affairs is continuing a multiyear program for staff development that includes exposure, experience, and education. It is supporting the APEX Talent Development initiatives through the Development for All program, including Mentoring for All and a Management Learning Series program titled "Developing Your Staff and Yourself". The office is also continuing a pilot program in which three employees participate in yearlong rotational assignments.
- **Information security—file storage security:** Information security has been a top-five Business Affairs initiative for several years. The current focus is mitigating risks associated with on-premises and cloud-based document storage. The office is implementing automated systems to identify shared files containing sensitive data and then lock down permissions or notify the document owners to delete the files.
- **ADAPT:** Business Affairs is partnering with the Stanford Alumni Association (SAA) and the Office of Development (OOD) to implement a new Salesforce-based platform for alumni and donor relations, replacing the existing POSTGRADS system, which is at the end of its life. ADAPT will manage \$1 billion of annual gift transactions and the university's connections to donors and alumni. The ADAPT and POSTGRADS staff transitioned from OOD/SAA into University IT in April 2018. Phase 1 is scheduled to go live in spring 2019. Additional phases will go live in 2020 and 2021.

- **Cloud adoption:** As IT moves from on-premises to the cloud, Business Affairs is developing expertise to support cloud-based systems (software as a service) and infrastructure (e.g., Amazon Web Services). University IT is redeploying existing resources and hiring to meet the university demand for support.
- **Business continuity/disaster recovery:** Business Affairs is aiming to improve the resiliency of its applications and services, including response plans in the event of major incidents or disasters, and the capability of its staff to maintain continuity of operations for critical functions.

OFFICE OF DEVELOPMENT

The Office of Development (OOD) projects revenues and transfers of \$84.6 million and total expenses of \$85.9 million in 2019/20, resulting in the planned use of \$1.3 million in reserves. OOD fund balances are anticipated to decline due to short-term investments in the Engineering development team; facilities and equipment expenses associated with upgrading the unit's teleconferencing capabilities to support an organization that will now be spread across two campuses, and significant long-term investment in a comprehensive talent management program for development staff.

OOD's main funding sources remain general funds and support from the School of Medicine and Stanford Health Care for Medical Center development costs.

Total expenses for 2019/20 are anticipated to be 7.5% higher than the 2018/19 year-end projection and 5.1% higher than the 2018/19 budget. Unanticipated personnel vacancies have contributed to unusually low costs in 2018/19; these salary savings are not expected to persist into 2019/20. Other cost growth is being driven primarily by the addition of new staff in the Medical Center development area. The expense and income amounts quoted here do not include spending related to OOD's ongoing project to replace its IT infrastructure (ADAPT, the Alumni and Development Applications Platform Transition); the project has been transitioned to the central University IT group.

In 2017/18, philanthropic support for Stanford University, including both of its affiliated hospitals, reached \$1,097.1 million. Over half of all gifts made in 2017/18 were \$100 or less, which is a testament to the dedication of alumni and friends to the breadth of disciplines and activities at Stanford.

OOD is excited to welcome a new vice president, Jon Denney. Under Jon's leadership, OOD will remain actively engaged with existing and prospective donors to support key university and hospital priorities, particularly graduate student housing in Escondido Village; the Wu Tsai Neurosciences Institute; the Chemistry, Engineering & Medicine for Human Health Institute (ChEM-H); and the Haas Center for Public Service. Initiatives emerging from the university's comprehensive long-range planning (LRP) process include Human-Centered AI, Data Science, and the Innovative Medicines Accelerator, among others. OOD will invest general funds and reserves in critical areas consistent with its strategic goals:

- **Create an environment that attracts top candidates and provides employees with opportunities for growth and development:** OOD has hired an executive director for strategic talent management, who has built a talent acquisition team focused on establishing a pipeline of qualified staff for all positions. Beyond recruitment, this group will devote its attention and energy to supporting development staff during their full life cycle at Stanford, with a near-term focus on retention, professional development, and succession planning. With growth in the number of staff who telecommute or work remotely and the move of many development staff to Redwood City, the executive director will also lead OOD's efforts to become more effective in working across distributed campuses and teams.
- **Support the university's LRP process:** With all units focused on the future, development staff are being thoughtful about how best to organize and ready OOD for what will follow the planning process. A component of this preparation is the comprehensive review of existing field staff portfolios and prospective donors who are not currently staffed by gift officers.
- **Engage volunteer leaders:** OOD has launched a program called LEAD (Lifelong Engagement and Advocacy for Development), which is aimed at identifying and inspiring future leadership volunteers and will continue to focus on creatively engaging volunteers in university life.
- **Develop systems and business processes that maximize Stanford's ability to engage donors and prospects in timely, meaningful, and personalized ways:** OOD is in active partnership with the Stanford Alumni Association

and University IT to retire its 20-year-old IT infrastructure and move to Salesforce and other technologies. The ADAPT project covers all aspects of OOD's system needs, including constituent management, communications, events, marketing automation, gift processing, reporting and business intelligence, and stewardship.

GENERAL COUNSEL AND PUBLIC SAFETY

Office of General Counsel

The 2019/20 consolidated budget for the Office of the General Counsel (OGC) projects \$23.6 million in consolidated revenues and transfers. Expenses are budgeted at \$23.3 million, leaving an estimated surplus of \$378,000.

With planned attorney hires in 2018/19 (two fellows, one attorney replacement, and an additional general attorney) and 2019/20 (tax, privacy, and transactional experts), and expected salary increases resulting from an external salary review being undertaken by Willis Towers Watson (WTW), OGC forecasts a significant increase in interdepartment transfers for retainer clients, while outside counsel fees should remain relatively flat. Incremental general funds should cover OGC hours that are not charged out. Given the significant increase expected in salary and benefits expenses due to the new hires, it will be a challenge to meet OGC's expense budget in 2019/20 with no general funds base budget increase for non-compensation expenses. Roughly 50% of OGC's total expense budget is for outside counsel costs, and law firms' average annual rate increases are normally in the 3.0%-4.0% range.

The major unknowns for OGC in 2019/20 are the attorney hire dates, the results of the WTW salary review, the amount of charge-out versus general funds work that the new attorneys will perform, and, as always, the types of new matters that come up. Outside counsel costs can vary widely year to year based on the amount of litigation.

OGC goals in 2019/20 include reviewing the cost-effectiveness of outside counsel and developing more options for outside counsel expertise in specific areas in order to give the office more negotiating leverage in rate setting, particularly in the health care/transactional/regulatory, labor and employment, and real estate areas.

Department of Public Safety

The 2019/20 Department of Public Safety (DPS) consolidated budget projects \$24.7 million in consolidated revenues and transfers. Expenses are budgeted at \$24.6 million, leaving an estimated surplus of \$136,000. General funds support approximately 85.5% of DPS's budget, transfers from Parking & Transportation Services for parking enforcement and related activities constitute 9.8%, and special event security operations generate the remaining 4.7%.

Near the end of August 2018, Stanford and Palo Alto finalized the terms of a new five-year contract for fire services, effective retroactively to July 1, 2018. The new agreement more accurately reflects the expenses (both direct and shared) for the fire-related services Stanford receives, and includes provisions that will assist Stanford in making more reasonable budget projections for fire service costs. Although the new cost model has moved away from a percentage-based calculation, for comparison purposes, Stanford's 2018/19 costs represent approximately 19% of the Palo Alto Fire Department's total fire budget (compared to approximately 30% under the prior model).

Despite ongoing challenges in hiring and retaining personnel—challenges facing many police agencies in the Bay Area—DPS continues to focus on programs that will improve the services provided to the Stanford community. DPS intends to hire a security manager in 2019/20 to develop a security operations center to serve as a central information point for security and related concerns. The long-term goal is to create a global security operations center to enhance situational awareness of security issues facing Stanford community members wherever they are conducting university business. DPS will also focus on implementing a county-mandated emergency communications system and establishing the new Public Safety facility. Unanticipated delays have pushed both of these projects into 2019/20.

LAND, BUILDINGS AND REAL ESTATE

Land, Buildings and Real Estate (LBRE) is responsible for the university's Capital Plan; commercial real estate on endowed lands; campus utilities, grounds, and parking and transportation; operational management of the Stanford in Redwood City campus; and stewardship for 8,180 acres of campus and contiguous land. LBRE also manages operations and maintenance (O&M) for over 310 academic buildings and 6 parking structures totaling over 10 million square feet.

During 2019/20, LBRE estimates revenues and transfers of \$345.4 million and expenses of \$333.2 million, yielding an operating surplus of \$2.7 million following an expected transfer of \$9.5 million for capital renewal projects.

Total expenses are expected to decrease by \$4.3 million, or 1.3%, from 2018/19 as a result of:

- Incremental O&M costs of \$1.1 million for new campus structures, primarily for Chemistry, Engineering & Medicine for Human Health (ChEM-H) and the Wu Tsai Neurosciences Institute; the Environmental Health & Safety Expansion; the Children's Center of the Stanford Community Replacement; and District Work Centers;
- Compensation cost rise and filling of vacant positions from the prior year;
- General increases in O&M and materials; and
- Reduction of expenses due to the vacating of 3145 and 3160 Porter Drive (-\$10.5 million) and savings from the new District Work Centers (-\$2.3 million).

In addition to the responsibilities listed above, LBRE leads numerous initiatives that typically span years from concept to completion. These initiatives are described in detail in Chapter 4, Capital Plan and Capital Budget, and include:

- Escondido Village Graduate Residences
- General Use Permit
- Growth and transportation
- Parking and circulation
- Infrastructure projects

Additionally, LBRE is currently implementing the following operational initiatives.

District Work Centers

In 2019/20, LBRE will complete its transition from a "central shops" organization to a hybrid "district" organization. Moving technicians and groundskeepers into new, efficient buildings closer to their customers reduces travel time, space requirements, and vehicle numbers, while improving response time and service efficiency. This initiative will enable LBRE to return \$2.3 million in base general funds.

Long-Range Plan Initiatives

Stanford leadership has announced Long-Range Plan (LRP) goals of becoming an 80% carbon-free campus by 2025 and

a zero-waste campus by 2030. The following initiatives are under way to meet these goals.

80% Carbon Free by 2025

In December 2018, the university signed a new 25-year power purchase agreement (PPA) for additional solar photovoltaic power generation commencing January 1, 2022. The new PPA, together with two existing solar PPAs, will make the university's power supply entirely carbon free starting in 2022. The new PPA is expected to reduce university power costs over the first few years by \$1.5 million annually.

Parking & Transportation Services (P&TS) will continue a multiyear effort started in 2013 to electrify the Marguerite bus fleet. The fleet is now more than half electric, with 41 electric buses, and will be entirely electric by 2022. Existing P&TS reserves as well as state energy grants will finance the new electric buses.

Zero Waste by 2030

Stanford increased its landfill diversion rate from 30% in 1994 to 64% in 2018. LBRE has been engaged in a long-range campus waste management plan since 2017 to dramatically improve the waste diversion rate to 90% or higher ("zero waste" by industry definition). Waste sources are being analyzed by category along with long-term and comprehensive solution pathways. Findings thus far demonstrate that the university can reach "zero waste" by maintaining the best practices of today and introducing new solutions. LBRE has been internally funding additional studies on detailed waste characterization, along with waste stream efficiency and technology. A detailed business plan to achieve this LRP goal is under development.

OFFICES OF THE PRESIDENT AND PROVOST

The budget of the Offices of the President and Provost (PPO) for 2019/20 projects revenues and operating transfers of \$146.7 million and expenses of \$144.6 million, resulting in a net change of \$2.8 million in the consolidated fund balance after a \$688,000 transfer from plant funds. The primary contributor to this increase in fund balance is unspent endowment payout that supports the Knight-Hennessy Scholars (KHS) program.

PPO is a diverse collection of units that share a reporting relationship to the president or provost. At present there

are 16 such units, but PPO's composition changes each year, and it can vary not only in size but in requirements for support. In addition to the President's Office and the Provost's Office, PPO presently includes the Academic Secretary's Office, Continuing Studies, the Distinguished Careers Institute, Faculty and Staff Housing, Institutional Research & Decision Support (IR&DS), the KHS program, the Office for Institutional Equity and Access, the Office for Religious Life (ORL), the University Budget Office, the Secretary of the Board of Trustees, Stanford Pre-Collegiate Studies, and several other small units that support university-wide services.

For 2019/20, PPO will continue using reserves to assist with staffing needs and cover unanticipated expenses throughout its organization and enhancements to website redesigns. A small increment of funds will support additional staff in IR&DS and Community Engagement to allow work on university initiatives associated with the Inclusion, Diversity, Equity & Access in a Learning Community (IDEAL) presidential initiative.

In fall 2019/20, the KHS program will welcome its second cohort of 70 graduate students to Stanford. Over the next few years, the number of scholars will be expanded to 100. These high-achieving students with demonstrated leadership and civic commitment will receive full funding to pursue a graduate education at Stanford. In addition to their core Stanford degree programs, these scholars will have additional opportunities for leadership training, mentorship, and cohort-based experiential learning across multiple disciplines.

In the program's first year, the KHS cohort of 51 scholars participated in a variety of offerings, including a global study trip, interdisciplinary hackathon weekends, weekly meals with a storytelling skill development component, core seminars, distinguished speaker series, and their own community-building activities. In the coming years, KHS anticipates that it will continue to develop programming for the total group of more than 120 that captures the experience and skill-building opportunities successful with the first cohort.

This year, PPO hired a new dean for religious life. PPO is working with her and ORL to develop new initiatives and programs that build an inclusive and supportive environment. ORL has several highly restricted endowments with reserve balances, and PPO and ORL are reviewing these to see which funds might support additional uses related to programming.

OFFICE OF PUBLIC AFFAIRS

The Office of Public Affairs (OPA) projects total 2019/20 revenues and transfers of \$3.7 million and expenses of \$4.2 million, resulting in the use of some operating reserves. This comes after a balanced 2018/19 projection of revenues and transfers of \$5.1 million with expenses of \$5.1 million. Incremental base general funds allocated to OPA include funding to support its mission of monitoring the public policy and political environment for Stanford.

OPA forecasts an ending balance of \$1 million, of which it will use approximately \$550,000, or 55%, to maintain a very modest reserve to support internal and external strategic programs.

In consultation with university leadership, OPA's Government and Community Relations Office (GCR) leads Stanford's engagement with federal, state, and local governments, as well as fostering Stanford's relationship with neighboring communities. GCR promotes the university's research and education mission through contact with public officials, tracking of pertinent legislation and regulatory proposals, and, when appropriate, lobbying on behalf of the university on a wide variety of issues, ranging from land use policies to funding for the basic sciences. Stanford's strategic and thoughtful use of its land and infrastructure systems to serve its mission is controlled by several local government entities, most significantly Santa Clara County and the City of Palo Alto.

The current federal policy environment requires support for a significantly increased effort to defend and advance the university's mission of research, education, and clinical care. There may be some opportunities to advance some priorities. However, OPA will continue to confront the most complex policy environment it has faced in many years, with ongoing challenges related to research support and related policy, the intersection of research and national security, college costs, endowments and tax policy, health care, and immigration, among other areas.

Other key topics of importance to the university include admission and financial aid policies, student services and rights, campus sexual assault and campus safety, student-athlete rights, privacy protection of research involving human samples, treatment of animals used in research, state research funding, transportation, land use/zoning policies, affordable housing, tax policies, and resources for nonprofit organizations.

The application for a new General Use Permit from Santa Clara County, submitted in November 2016, has proceeded through informal and formal processes, most importantly the release of a draft environmental impact report (EIR) in October 2017. After receiving extensive public comments, Santa Clara County released a final EIR in December 2018. In 2019, public engagement will continue, and community reactions to Stanford's proposed development will influence mitigation measures and other policy areas of importance to local governments. In an extension of the previous estimate, a final decision by the Santa Clara County Board of Supervisors is now expected in fall 2019.

Stanford participates in regional efforts among public and private sector entities to address regional transportation and housing challenges. Locally, the City of Palo Alto has begun consideration of local employer-based tax schemes to generate funds for local housing and transportation programs. These fees could affect businesses located in the Stanford Research Park and the Stanford Shopping Center, and GCR will monitor them closely.

STANFORD ALUMNI ASSOCIATION

The Stanford Alumni Association (SAA) projects \$49.2 million in gross revenues and operating transfers and \$49.8 million in total expenses in 2019/20, resulting in a reduction of \$641,600 in its consolidated fund balance. Reserve balances are projected to be \$2.7 million at the end of 2019/20.

Business and program revenues, coupled with income from lifetime membership and other endowment fund payouts, will generate over 76% of SAA's gross revenues. The remaining revenues will come from base and one-time general funds and presidential funds. Gross revenues and gross expenses will increase 4% from 2018/19 projected levels. These increases reflect the inclusion of special one-time programming for the president's Asia tour, funded by presidential funds.

SAA continues to spend from reserves to support alumni engagement initiatives, with a particular focus on graduate student, graduate-only alumni, and young alumni needs. The majority of the one-time general funds SAA receives in 2019/20 will support programs designed for these constituencies. Specifically, SAA is applying additional funds to enhance the Reunion Homecoming experience of recent graduates (one to four years out). SAA will also use these funds to support a reprise of the highly successful reunion-

style Grad-Only Alumni Day piloted in 2017/18, a program SAA plans to offer biannually.

SAA also remains highly focused on the transformation of its digital presence and offerings afforded by the overhaul of the underlying alumni and donor database to a Salesforce platform. Virtually every offering in SAA's portfolio will be enhanced and modernized as a result of this significant technology transition. This critical work is supported by general funds allocated to the ADAPT (Alumni and Development Application Platform Transition) program managed by University IT. The balance of SAA's 2019/20 one-time general funds will fund freelance resources supporting parallel and complementary digital efforts within SAA. In addition, SAA is investing over \$300,000 of internal reserves to build a digital-first editorial platform creating truly modern and robust online access to Stanford magazine and other editorial content.

SAA's strategic directives—activate community, ignite curiosity, and amplify impact—are closely aligned with the values and community initiatives of the university Long-Range Plan. An ever-growing array of non-Stanford alternatives offering community, content, and services to its constituents intensifies the challenge SAA faces to attract and retain student and alumni mind share and remain relevant and value-adding. The technology transformation under way with ADAPT is one critical means by which SAA will continue to connect and engage with an increasingly diverse student and alumni body.

Affordability initiatives for both SAA staff and constituents, coupled with operating cost pressures, are driving a need for ongoing strategic financial management within SAA. Examples of SAA's affordability investments include:

- The robust 2018/19 staff salary plan, largely funded through internal revenue streams, and
- A strategic redesign of the long-standing SAA membership program, which will ensure that all future alumni feel welcome and included by making available to all graduating students, at no cost, the subset of alumni benefits currently provided only to SAA members.

To address these current and future financial needs, SAA remains highly focused on strategic subsidy management and new revenue generation, and continues to seek out and realize opportunities for cost savings and process improvements that deliver both higher effectiveness and efficiency.

Throughout, SAA's mission is unchanged: to reach, serve, and engage all alumni and students; to foster a lifelong intellectual and emotional connection between the university and its graduates; and to provide the university with goodwill and support. SAA is confident the investments discussed above will deliver a significant return to the university in heightened connection, increased engagement, and a stronger community of alumni and students.

STUDENT AFFAIRS

Student Affairs comprises 29 offices that provide undergraduate and graduate students with a range of services, opportunities, and resources. In the second year of Vice Provost Susie Brubaker-Cole's leadership, the division is focused on equity and inclusion, community and belonging, mental health and well-being, integrative learning, and keeping its house in order.

In 2019/20, Student Affairs projects total revenues and transfers of \$76.1 million and expenses of \$78.1 million, resulting in an operating deficit of \$2 million. Total revenues and transfers increased by 3.55%, or \$2.6 million, from 2018/19 year-end projections of \$73.5 million. Total expenses increased by less than 1%, or \$547,877, from 2018/19 year-end projections of \$77.5 million. The operating deficit of \$2 million will draw fund balances down from \$19.7 million to \$17.7 million. Of this, \$1.5 million will be drawn from designated funds and the rest from expendable gifts.

Student Affairs' increase in transfers comes from a \$2.4 million increase in base general funds to support student mental health resources by adding to the counseling staff in Counseling and Psychological Services (CAPS), increasing support to meet higher demand for federally mandated services in the Office of Accessible Education (OAE), and supporting degree audit staff in Student and Academic Services. In addition, Student Affairs received generous gifts and one-time general funds to support students' nonclinical, emerging mental health needs.

The 2019/20 budget reflects Student Affairs' central priority of advancing student mental health and well-being at Stanford. As emphasized last year, Student Affairs has embarked on a strategic change process to ensure that resources are prioritized to meet the most pressing needs of the Stanford student population. Focus on mental health and well-being supports the essential environment for students to become powerful learners: ready to fully engage with fac-

ulty, staff, and peers and with the tremendous educational and personal development opportunities Stanford offers.

Student mental health and well-being is also at the forefront of preparation for the opening of the Escondido Village Graduate Residences (EVGR). When EVGR opens in fall 2021, the total number of graduate students residing on campus will increase 50% from 4,837 to 7,271. Student Affairs is engaged with university partners across campus to ensure that the planning, design, and operation of EVGR support a healthy and vibrant graduate student community.

One of the first initiatives to evolve from the university long-range planning process is a new vision for the undergraduate residential experience developed by the ResX task force. This new vision also focuses on student mental health and well-being by examining the arc of the four years of students' undergraduate experience and realizing the ideal relationship between learning inside and outside of the classroom. The ResX task force has released its findings and recommendations, and Student Affairs, along with multiple university partners, will begin to implement recommendations in 2019/20.

Student Affairs expects to fill two vacant and pivotal leadership positions in 2019/20, those of the associate vice provost for inclusion, community, and integrative learning and the senior associate vice provost for student care and residential experience. Student Affairs' 29 offices will be realigned into five areas, each led by an associate vice provost and designed to reinforce student care, support, and learning; amplify programmatic alignment and synergies across the division; and ensure organizational effectiveness through clear performance objectives, consistent policies, and measurable outcomes.

UNIVERSITY COMMUNICATIONS

The Office of University Communications projects total 2019/20 consolidated revenues and transfers to increase 2% to \$9.2 million and total expenses to increase 4% to \$9.5 million. The resulting deficit of \$300,000 reflects a use of \$555,000 in ending fund balances forecasted for the current year to mitigate higher expense. Of this ending balance, approximately \$346,000, or 62%, is in auxiliary operations, designated, and endowment-related funds.

Funds allocated include base funding for a media database, as well as one-time funding for a strategic position for stu-

dent communications and for strategic institutional messaging through digital media.

University Communications is at the intersection of many activities that take place at the university. It oversees all central internal and external communication programs for the university, including institutional media relations; primary Web, digital, and social platforms; executive communications; visual identity and brand management; crisis response; the Stanford News Service; Stanford Report; and Stanford Video. University Communications shares management oversight of Stanford Web Services with University IT. The unit also manages university-wide communications policies, including those on filming and photography, Web accessibility, social media, visual identity, and use of the Stanford name. The office provides leadership, tools, guidelines, training, and resources to many decentralized communications professionals within campus units and the seven schools.

With the arrival of a new vice president for University Communications, the time is ideal for a re-evaluation of communications priorities and an alignment of resources to those priorities. A new strategic plan will detail short- and long-term objectives and clarify the role of University Communications relative to unit communications offices. The structure and function of University Communications will be evaluated against this plan and resources properly aligned to best serve the communications needs of the entire Stanford community.

UNIVERSITY HUMAN RESOURCES

University Human Resources (UHR) facilitates Stanford's mission of excellence in teaching, learning, and research by:

- Creating a work environment where people feel valued, supported, and respected, and have the opportunity to make meaningful contributions;
- Delivering programs that foster employee engagement and performance; and
- Improving human resources processes.

UHR units include Talent Management & Workforce Strategy, Employee & Labor Relations, Client Services, Compensation, Benefits, and HR Communications. BeWell and the Health Improvement Program will become part of UHR in September 2019.

The 2019/20 consolidated budget shows revenues and operating transfers of \$15.5 million and expenses of \$15.8 million. The operating budget plan utilizes \$153,000 of prior years' savings and \$150,000 of childcare reserves.

Considering the 2018/19 year-end projection, the current progress of initiatives, and the 2019/20 budget plan, the projected fund balance at the end of 2019/20 is \$2.8 million (83% operating reserves and 17% childcare centers reserves).

In 2019/20, UHR is updating its strategic plan to focus on five areas: talent attraction, talent management and development, employee experience, continuous improvement and analytics, and long-range planning (LRP) and university-wide initiatives. Its efforts will include the following:

- **Talent attraction:** Attract, recruit, and deploy a diverse workforce of individuals who are highly qualified and motivated to perform to their full potential and to contribute at the highest levels. In 2019/20, UHR will improve the recruitment process to ensure candidates have a positive impression of Stanford; optimize systems; and take a more strategic approach to recruitment marketing.
- **Talent management and development:** Build superior organizational capability by developing and retaining staff. The outcomes for this area are pending the LRP process. UHR is leading a team to assess professional development for staff and recommend enhancements to create a learning and development environment that encourages employees to grow and to try new things through their experience, exposure, and training at Stanford.
- **Employee experience:** Align, engage, and reward staff, ensuring employees feel connected to and involved with Stanford's mission and community as well as valued for their contributions and respected as individuals. The focus in 2019/20 is on engaging and retaining employees. Affordability issues, competition for talent due to the strong labor market, and the transition of work and people to Stanford Redwood City present significant challenges. UHR's efforts will focus on enhancing the employee experience, spotlighting Stanford's differentiating factors and unique benefits, as well as the strong connection of employees' work with Stanford's mission.
- **Continuous improvement and analytics:** Enhance HR capability and service excellence while building Stanford's HR community. A new Protection of Minors information system solution is being initiated to provide reliable

compliance tracking. The Workflow Simplification and Manager Center Solution is in progress, with phase I scheduled for implementation in late spring 2019 and ongoing work in this area in 2019/20. This initiative will reduce the effort required by schools and units to initiate, approve, and finalize HR workforce actions. A new childcare enrollment system will support the increased demand for managing this enrollment function.

- **LRP and university-wide initiatives:** Lead and/or support university-wide initiatives. UHR is involved with several LRP initiatives. Its roles include leading the Affordability Task Force, Professional Development and Well-being, and Community Engagement initiatives, as well as providing significant support for the president's IDEAL (Inclusion, Diversity, Equity, & Access in a Learning Community).

MAJOR AUXILIARY UNITS

The major independent auxiliaries are Athletics and Residential & Dining Enterprises (R&DE). In addition, the School of Medicine, the Graduate School of Business (GSB), Humanities & Sciences (H&S), the Vice Provost for Undergraduate Education (VPUE), and Stanford University Libraries (SUL) include auxiliary revenues and expenses. These auxiliary operations include the Schwab Center of the GSB, Stanford University Press in SUL, Bing Overseas Studies in VPUE, and Stanford in Washington and Bing Nursery School in H&S. These items are separately identified in the schools' consolidated forecasts in Appendix A.

ATHLETICS

For the Department of Athletics, PE, and Recreation (DAPER), 2019/20 will be the second of several consecutive challenging years. DAPER projects a deficit of approximately \$5.1 million based on projected revenues of \$149.0 million and expenses of \$154.1 million. Revenues from 2018/19 are expected to grow by \$6.8 million based on growth in football ticket sales, broadcast revenue, and Pac-12 payouts. DAPER's consolidated budget covers two distinct sets of activities: auxiliary operations (\$142.0 million) and designated activities (\$7.0 million).

Auxiliary Operations

Auxiliary operations comprise intercollegiate activities (\$2.9 million deficit), financial aid (\$3.9 million deficit), and ancillary activities (\$1.7 million surplus), with the surplus from the third helping to support the first two.

Intercollegiate Activities

Revenues and transfers from intercollegiate activities in 2019/20 are projected to be \$91.2 million, while expenses are projected to be \$94.1 million. The \$2.9 million deficit is partly funded through net income from ancillary operations, specifically the golf course and camp operations. Intercollegiate revenues and transfers are projected to be up from 2018/19, largely due to an increase in football ticket sales due to a more favorable, seven-game home schedule and increases in broadcast revenue, Pac-12 Conference payouts, and other areas. Expenses related to intercollegiate activities are expected to increase 4.7% due to a few key items. Compensation expenses are increasing due to contractual obligations and a planned generous salary program to match the overall university program. Facility expenses continue

to rise due to expected utility rate increases and lack of a deferred maintenance program. Finally, travel expenses for varsity teams continue to rise, with one factor being an increased need to provide charter travel for select programs.

Financial Aid

DAPER's financial aid endowment remains a major asset to the department. However, financial aid expenses continue to exceed endowment payouts. In 2019/20, projected endowment revenues are \$24.8 million while financial aid expenses are \$28.7 million. This compares to projected 2018/19 endowment revenues of \$24.2 million and financial aid expenses of \$27.2 million. The \$3.9 million gap in 2019/20 will be filled by expendable gifts. This budget provides approximately 340 scholarships that benefit over 500 student-athletes. The increase in expenses is due primarily to general growth in the tuition, room and board rates, with no planned changes to total scholarships awarded.

Ancillary Activities

Revenues and transfers from ancillary activities in 2019/20 are projected to be \$26.0 million. These revenues are composed of general funds (primarily to support the Recreation and Wellness area of the department); a contribution from the university benefits pool (to support facilities open to all students, faculty, and staff); and income from the golf course, the equestrian center, the Stanford Campus Recreation Association, and camp operations. Expenses related to these activities are projected to be \$24.3 million in 2019/20. The golf course and camp operations produce a surplus of approximately \$1.7 million that supports intercollegiate activities. All areas of ancillary activities are projected to have inflationary growth in revenues and expenses over 2018/19 projections.

Designated Activities

DAPER's designated activities consist primarily of camps, which are mainly pass-through operations not actively managed by the department. The remaining activities produce revenues that are transferred to support auxiliary operations. Significant changes are not expected in any designated activities in 2019/20. In total, revenues and expenses from designated activities are projected to be \$7.0 million in 2019/20, equal to the projected amount in 2018/19.

RESIDENTIAL & DINING ENTERPRISES

Residential & Dining Enterprises (R&DE) is a university auxiliary generating revenues primarily through room and board, conferences, cafés, catering, a guest house, concessions, and other enterprises. R&DE houses about 14,000 undergraduate and graduate students and their dependents and serves approximately 6 million meals annually, while providing stewardship for 5 million square feet of physical plant and an asset portfolio of over \$2 billion. R&DE supports the university's academic mission by providing high-quality services to students and the Stanford community in a sustainable and fiscally responsible manner. R&DE ensures critical facility needs for life safety and code compliance are met while maintaining safe, comfortable, and contemporary living and dining spaces.

The 2019/20 budget plan projects a break-even auxiliary budget with total revenues and net transfers of \$292.9 million to offset related expenses. The consolidated budget includes planned use of \$1.0 million of reserves to fund debt service on the Escondido Village Kennedy Residences; \$800,000 of reserves to fund the start-up costs of opening the new Escondido Village graduate housing in 2020/21; and a deferral in endowment payout spending of \$200,000.

The 2019/20 combined undergraduate room and board rate increase is 4.25% (5.38% room and 2.50% board), while the graduate housing room rate increase is 4.95%. Overall room and board revenues are projected to increase by \$8.2 mil-

lion. When these are combined with other revenues, R&DE total auxiliary revenues (excluding transfers) for 2019/20 are projected to increase by \$13.0 million (5.1%) over the prior-year projection.

R&DE plans to use the projected increases in revenue along with continued efficiencies in operations to address inflationary impacts on operating costs, enhance its preventive maintenance program, increase the funding of its asset renewal program to support life cycle replacement of infrastructure items, and fund debt service on new and renovated facilities.

The 2019/20 budget plan reflects transfers in to fund certain debt service related to the capital plan and to help maintain room rental rates at reasonable levels vis-à-vis the local community. The plan also includes revenues, expenses, and additional offsetting transfers in to provide more housing for students at campus rates in the local community. It includes strategic funding to support residential living and learning; R&DE plans to transfer out approximately \$11.7 million to Residential Education, Residential Computing, the Graduate Life Office, and Summer Sessions, among others.

R&DE is actively engaged in the opening of the Redwood City campus, operating the Cardinal Café as well as relocating 75 of its staff members. The campus will be fully operational by 2019/20.

R&DE continues to make significant investments in its physical plant. Its capital plan and planned maintenance program address health and safety upgrades, code compliance, energy conservation and sustainability, a deferred maintenance backlog, and the major programmatic improvements in the student housing and dining physical plant, with planned expenditures of \$26.4 million in 2019/20 and additional investments in future years on a variety of renovation projects.

Additional graduate housing in Escondido Village is in the final construction phase. This housing is expected to be completed in 2019/20. It will include approximately 2,400 new bed spaces, replacing approximately 400 that were demolished, for a net increase of approximately 2,000 bed spaces.

CHAPTER 4

CAPITAL PLAN AND CAPITAL BUDGET

Stanford's 2019/20–2021/22 Capital Plan and 2019/20 Capital Budget are based on projections of the major capital projects that the university plans to pursue in support of its academic mission. The rolling Capital Plan includes projects that are in progress or are expected to commence during the next three years. The Capital Budget represents the anticipated capital expenditures in the first year of the three-year plan. Both the Capital Plan and the Capital Budget are subject to change based on funding availability, budget affordability, and university priorities.

At over \$3.7 billion, the Capital Plan reflects one of the largest capital programs in Stanford's history. It demonstrates the significant investment Stanford continues to make in its facilities, driven by the academic priorities for teaching, research, and related activities, described in Chapter 2, and the initiatives of the administrative and auxiliary units that support the academic mission, described in Chapter 3. It also demonstrates Stanford's commitment to student and faculty housing, with 51% of the plan allocated to building, acquiring, or renovating new and existing housing inventory. Significant examples of this commitment are the \$1.2 billion Escondido Village (EV) Graduate Residences, which will increase the graduate student housing stock by 2,020 net new beds, the new Undergraduate Housing and Dining Complex comprised of 750 beds in six buildings, and both Middle Plaza (215 rental units) and the Off-Campus Housing Initiative for faculty and staff.

With the 2018/19 project completions, Stanford will have invested over \$7 billion in its facilities, infrastructure, and commercial real estate since 2000. Across the campus, aging facilities have been replaced with new and renovated buildings capable of supporting cutting-edge science, engineering, medicine, and collaborative research, joined by new facilities for business, athletics, law, and the arts. Off-campus commercial development projects provide additional income to the university.

In addition to the many projects currently under way and previously forecasted, the Capital Plan now includes the following new projects: major renovation and expansion of Graduate School of Education (GSE) buildings (\$140

million), a new replacement building for the Hoover Institution (\$59.2 million), a new Bridge Building for the Digital Future that will serve as a catalyst for interdisciplinary collaboration (\$202 million), second phase of development at Stanford in Redwood City (\$132.4 million), a new building to replace current dilapidated Bonair maintenance facilities (\$80 million), a new specialty lab building for School of Medicine (\$60 million), infrastructure improvements for Searsville Dam and Felt Reservoir, Lake Water Heat Exchange energy system enhancement (\$113.5 million total), Off-Campus Housing Developments (\$55 million), and the addition of the second module at the Stanford Research Computing Facility (SRCF M2) at SLAC (\$37.5 million).

The following nine significant projects make up 72% of Stanford's Capital Plan: the EV Graduate Residences (\$1,160.6 million), a new Undergraduate Housing and Dining Complex (\$280 million), Center for Academic Medicine 1 (CAM 1) (\$222 million), BioMedical Innovations Building 1 and Connective Elements (BMI 1) (\$210 million), Bridge Building for the Digital Future (\$202 million), the Off-Campus Housing Initiative (\$172.7 million), Middle Plaza-Residential (\$154.6 million), GSE Renovation and New Building (\$140 million), and Stanford Redwood City Phase 2 (\$132.4 million). The remaining 28% of the Capital Plan comprises 18 projects and 6 infrastructure programs. For a detailed listing of all Capital Plan projects and programs, see the tables on pages 82–84.

The Capital Budget for 2019/20 is \$907.7 million and includes anticipated expenditures with a principal focus on housing and academic buildings.

The Capital Plan accounts for long-term budget impacts on operations, maintenance and utilities (O&M), and debt service. These obligations are included in the university's long-range budget planning.

This chapter first provides an overview of the capital planning process, then describes current strategic initiatives, which give context to the subsequent report on the 2019/20-2021/22 Capital Plan and its related constraints, and finally concludes with a discussion on the 2019/20 Capital Budget and its impact on 2019/20 operations.

CAPITAL PLANNING OVERVIEW

CAPITAL PLANNING AT STANFORD

Stanford's Capital Plan is a three-year rolling plan with commitments made for projects with identified and approved funding. Cash flow expenditure forecasts for these projects extend beyond the three-year period, and budget impacts on O&M and debt service will commence at project completion. The plan includes forecasts of both cash flow and budget impacts by year, as well as the impacts of projects beyond the three-year period (see tables on page 76).

The Capital Plan is set in the context of a longer-term capital forecast. The details of this forecast, particularly funding sources and schedules, are less clear than those of the three-year plan, as the needs and funding sources that may emerge over the long-term horizon are difficult to anticipate. Plans tend to evolve as some projects prove more feasible than others based upon shifting funding realities and academic priorities.

The capital planning process included a category of focused project studies, through which program priorities and associated scope, schedule, and funding strategies will be evaluated and proposed. The outcomes of these studies could determine future capital projects that support the academic and research needs of the university. Schools and units that have significant project studies identified include the School of Engineering, the Graduate School of Business, the School of Earth, Energy & Environmental Sciences, the School of Humanities and Sciences, the School of Medicine, the Vice Provost and Dean of Research, and the Department of Athletics, Physical Education, and Recreation. Concurrently, university leadership is in the process of a comprehensive

long-range planning (LRP) effort. The broad vision resulting from the LRP may include innovations in research, teaching, campus life, and community outreach that may influence these studies and other facility needs. The university is in the process of negotiating a new General Use Permit with Santa Clara County to obtain entitlements to facilitate future initiatives to be planned and implemented.

The outcomes of the various studies will enable university leadership to prioritize future capital projects based on program need, square footage allocation requests, availability of funding, and alignment with the LRP effort.

STRATEGIC INITIATIVES

The following university strategic initiatives are integral to this year's Capital Plan:

- EV Graduate Residences
- General Use Permit
- Growth and transportation
- Campus circulation and parking
- Infrastructure projects

EV Graduate Residences

Stanford's bold commitment to build a 1.8-million-square-foot (sf) residential complex with 2,434 new graduate beds (2,020 net of demolitions) addresses a critical need to provide additional graduate student housing on campus in an undersupplied and escalating housing market.

The new complex will primarily house single graduate students, although units will be available for couples without children. The apartments will be similar to the premium studios, two-bedroom suites, and junior studio suites offered in the neighboring Kennedy Graduate Residences. The four new residence halls will each provide lounges, huddle rooms, laundry rooms, exercise areas, and music practice spaces.

In addition to housing students, a primary objective of this project is to provide opportunities to build a vibrant sense of community among the graduate students and to encourage strong connections to the campus. The two-story market pavilion, entry tower, and associated arcaded court will face the campus and define an inviting gateway into Escondido Village from the terminus of Serra Mall. These community gateway components, which will include a café/bar, a grand lounge, and a mini-market for online shopping and pickup,

will also provide a relaxed architectural scale that tempers the height of the residential wings. The arcaded court and hardscape, as well as the more casual commons space, will support programs that will serve as the hub for graduate life. The central commons will face and engage the existing EV greenway and include a number of features to engage the community (outdoor seating for socializing and eating, event space, coffee cart, art, etc.).

This project includes two new underground parking structures (adding 750 net new parking spaces) to support the graduate students and community. Manzanita Garage, located across Campus Drive from the EV Graduate Residences, will house 860 parking spaces, with passive and active recreation space above. The EV parking structure, to be constructed along Serra Street, will house 315 parking spaces, with additional spaces above to accommodate Americans with Disabilities Act requirements, loading, and service.

The construction of the EV Graduate Residences and parking garages is under way, with occupancy targeted for fall 2020.

General Use Permit

Stanford has submitted an application to Santa Clara County for an updated General Use Permit to guide campus planning over the next two decades. This permit is known as the “2018 General Use Permit” because approval was expected in 2018. Approval is now anticipated by the end of 2019.

Stanford has been operating under two key Santa Clara County entitlement documents: a Community Plan and a 2000 General Use Permit. The Community Plan provides a set of rules and policies to guide the university’s land use planning over an extended period of time. The General Use Permit implements those policies and includes specific conditions to minimize the impacts of Stanford’s development.

The Community Plan and 2000 General Use Permit were intended to provide Stanford with flexibility in its land use within an agreed-upon framework, with accountability to the county, neighbors, and the campus communities. Stanford’s application for the 2018 General Use Permit includes a development request for 2.275 million sf of academic facilities and 3,150 housing units/student beds, with construction expected to be completed by 2035. This next General Use Permit will help Stanford address emerging teaching, research, and housing needs over this time period.

Growth and Transportation

Reduction of single-occupancy-vehicle trips to the campus and other Stanford lands is likely the most difficult challenge to overcome. Though Stanford has a tremendous track record with its award-winning Transportation Demand Management (TDM) programs, it must do more, not only for the core campus but also for other Stanford lands as the university and the surrounding areas continue to grow. Informed by extensive studies conducted in consultation with multiple transportation experts as well as an innovative transportation mode choice model, Stanford has developed a list of feasible actions and initiatives to reduce travel by single-occupancy vehicles. The regional services and infrastructure are at peak time capacity, and no “silver bullet” exists to solve this regional problem. Stanford will continue to focus on TDM efforts for the Stanford population, working collaboratively with large private employers, neighbors, local agencies, and transportation specialists to identify and implement incremental programs that mitigate traffic impacts and improve the regional network. Stanford will also continue recent efforts to support and facilitate development of regional solutions, such as the Caltrain Business Plan and the US 101 Managed Lanes project, as well as local solutions, such as the Peninsula Bikeway. The University is now engaged in a number of land use planning efforts focused on future growth. The studies include strong emphases on major circulation patterns and transit system options as well as on identifying how land use choices can optimize transportation and TDM options.

Campus Circulation and Parking

As Stanford continues to expand its core campus footprint as well as increase its density, campus planners have identified alternatives for improving circulation, reducing congestion, and promoting safety. The measures that the university has prioritized will have positive impacts on campus circulation and service, vehicular traffic, and the safety of bicyclists and pedestrians.

East Campus Circulation

Circulation and parking will be reconfigured on the east campus to accommodate significant capital projects including the EV Graduate Residences, the Public Safety Building, and the future redevelopment of the Bonair Siding site. The components of the work in this area include the following:

- **Campus Drive/Serra Street Roundabout**—The roundabout will replace two separate existing intersections, improve pedestrian crossings, and reconfigure the barrels of Campus Drive with dedicated bike lanes and a uniform landscaped median.
- **Serra Mall Closure**—The plan to close Serra Mall from Galvez Street to Campus Drive for pedestrians, bikes, and shuttles requires the completion of “enabling” projects including reconfigured service areas and parking at Encina Hall, service improvements at Burnham Pavilion, and a new drop-off at Schwab Graduate Residences. These projects are important because Serra Mall is the primary path for infrastructure improvements for the major capital projects on the east side of campus.
- **Serra Street Reconfiguration**—Enhancements planned on Serra Street from Campus Drive to El Camino Real include improving vehicular lanes, reconfiguring intersections and pedestrian crossings, upgrading bike lanes, and adding transit and drop-off areas.
- **Manzanita Garage**—This facility will build on the best practices of the Wilbur and Roble parking structures, with parking below grade and a recreation field above. The 860 new spaces will support, in part, the needs of the EV Graduate Residences.
- **EV Parking Structure**—This below-grade facility along Serra Street will include 315 spaces, with additional parking above. Together, the Manzanita and EV underground parking structures and surface parking will provide 750 net new parking spaces.
- **Bonair Siding Road**—To provide safe access to the new Public Safety Building and future development, Bonair Siding Road will be reconfigured to include appropriate vehicular lanes, bike lanes, sidewalks, and lighting.

West Campus Circulation

Modifications to circulation on the west side of campus will accommodate the Neuro/ChEM-H Research Complex, CAM 1, and the Bass Biology Building. The components of this work include the following:

- **Serra Mall Extension**—To promote connections, improve pedestrian safety, and facilitate Marguerite shuttle circulation, Serra Mall will be extended to an improved intersection at Foundations Way and Campus Drive.

- **Via Pueblo Extension**—To facilitate service, Via Pueblo will be extended from Via Ortega to Panama Street.
- **New Parking Structure**—827 new parking spaces (585 net new) will be constructed below the CAM 1 building.

Roundabouts

The roundabouts constructed at the intersections of Campus Drive/Escondido Road, Campus Drive/Bowdoin Street, Campus Drive/Santa Teresa Street, and Campus Drive/Galvez Street are evidence of how vehicular circulation, as well as bicycle and pedestrian safety, can be improved. In addition to the ongoing construction of the Campus Drive/Serra Street and Galvez Street/Arboretum Road roundabouts, which are key components of the east campus improvements, the design of additional roundabouts at Campus Drive/Mayfield Avenue and Campus Drive/Roth Way will be studied.

Infrastructure Projects

Three new infrastructure projects in this year’s capital plan will help address Stanford’s future water supply and energy needs.

Searsville Dam and Felt Reservoir Modification Projects

Two major water-related infrastructure projects are being initiated to preserve Stanford’s surface water supply system.

Searsville Dam has been operated as an irrigation water supply facility for over a century, impounding water from four inflowing creeks. Searsville Dam is in good structural condition, but the reservoir has largely filled in with sediment, reducing the water storage capacity to 10 percent of the original amount. A Steering Committee of faculty and senior administrators developed a recommendation for the dam and reservoir in 2015 that responded to the goals of maintaining water supply and storage, providing fish passage past the dam to the upper watershed area, and not increasing flood potential downstream of the dam once the natural sediment process is restored. The recommendation is to construct a tunnel through the base of the dam and flush the sediment that has accumulated behind the dam downstream through the tunnel. The tunnel through the dam and the restored valley upstream of the dam will provide detention of incoming flow during major storms, which will help alleviate

downstream flooding. For the last several years, Stanford has been working closely with the resource agencies that will grant approval of the project in order to further develop the 2015 recommendation into a project which can be permitted. Construction is anticipated in 2021/22, but is dependent on when permits are received.

Felt Reservoir is an off-stream water storage facility, filled by diversions from Los Trancos Creek above the reservoir and from a pump station on San Francisquito Creek near the golf course. Felt Dam is structurally sound, but is in need of repairs and replacement of worn components. One of the Searsville recommendations made in 2015 was to replace the water supply that would be lost at Searsville. The San Francisquito Creek Pump Station would be expanded to divert water that would have previously been diverted at Searsville, thereby retaining this valuable and sustainable surface water resource. In addition, an increase in storage capacity at Felt Reservoir is needed to compensate for lost storage capacity at Searsville Reservoir. Construction of a new replacement dam downstream of the existing dam will provide a cost-effective increase in storage capacity, and the new dam will meet current seismic standards. Construction is anticipated in 2020/21, but is dependent on when permits are received.

Lake Water Heat Exchange

Stanford is currently exploring enhancements to our energy system, one of which is the Lake Water Heat Exchange (LWHE). The LWHE could provide a heat source in winter for the existing large central plant heat pumps to use to make heat for the campus which can't be met with normal heat recovery when total campus heating needs exceed cooling needs. Currently, natural gas-fueled hot water generators supply this excess winter heating demand which is about ten percent of the annual campus total. Using the heat pumps to extract this heat from lake water could not only reduce costs but could also eliminate the last greenhouse gas emissions from the central energy facility as the heat pumps are powered by clean electricity.

THE CAPITAL PLAN, 2019/20-2021/22

Stanford's academic campus, excluding the hospitals, has nearly 700 facilities providing over 18.7 million sf of space, including approximately 4.9 million sf for student housing units and 2.4 million sf for parking structures. These facilities have a historical cost of \$6.6 billion and an estimated replacement cost of \$13.2 billion.

The Capital Plan includes a forecast of Stanford's annual programs to restore, maintain, and improve campus facilities for teaching, research, housing, and related activities and outlines Stanford's needs for new facilities. The Capital Plan is compiled, reviewed, and approved in a coordinated manner across the university. The plan carefully balances institutional needs for new and renovated facilities with the challenging constraints of limited development entitlements, available funding, and budget affordability.

Projects listed in the Capital Plan are those approved by the provost. In addition, the Board of Trustees oversees projects meeting the following criteria:

- Projects with a total cost of \$25 million and above,
- New building construction (including faculty housing), or
- Changes in land use.

Projected expenditures under the 2019/20-2021/22 Capital Plan, which includes major construction projects in various stages of development, numerous infrastructure projects and programs, and a housing program, total \$3.7 billion. The table below provides a comparison of the current Capital Plan with the last two.

COMPARATIVE CAPITAL PLANS

[IN MILLIONS OF DOLLARS]

	CURRENT PLAN		
	2019/20	2018/19	2017/18
Design/Construction	2,087.9	2,931.7	2,890.7
Forecasted	1,126.4	340.1	608.5
Infrastructure and Other	521.4	840.4	779.7
Total	3,735.7	4,112.2	4,278.9

This year's plan is \$376.5 million (9%) lower than last year's. Projects no longer included in the current plan—due to their 2018/19 completion—more than offset projects added to the plan.

PROJECTS IN DESIGN AND CONSTRUCTION

Projects in design and construction total \$2.1 billion (56% of the plan). Construction of these projects is contingent upon fundraising of \$165 million (8%). This category comprises 12 projects, as shown in the table on page 82.

The cost of projects in design and construction decreased by \$843.8 million from 2018/19 as a result of the scheduled completions of certain projects, partially offset by the addition of three new projects, the advancement of one project from the forecasted category, and budget increases. Projects scheduled to be completed in 2018/19 and thus excluded from the plan include Stanford In Redwood City Phase 1 (\$568.8 million), Neuro/ChEM-H Research Complex (\$257 million), University Terrace Faculty Homes (\$180 million), Frost Amphitheater Improvements (\$33.5 million), Encina Complex Upgrades (\$25.8 million), District Work Centers (\$17 million), Environmental Health and Safety Facility Expansion (\$16.1 million), and Children's Center of the Stanford Community (\$12.2 million). New projects added to the Capital Plan include the GSE Renovation and New Building (\$140 million), George P. Shultz Building (\$59.2 million), and Stock Farm Greenhouse Replacement (\$12.2 million). The Stanford Auxiliary Library III, Phase 3 (SAL 3.3) project (\$27.3 million) advanced from the forecasted to the design and construction stage.

FORECASTED CONSTRUCTION PROJECTS

Forecasted projects are those anticipated to receive Board of Trustees approval over the next three years. These projects total \$1,126.4 million (30% of the plan) and are listed on page 83. Like those in design and construction, these projects are contingent upon funding and other university approvals. For this group, \$130 million (12%) remains to be fundraised, and \$317 million (28%) of funding has yet to be identified.

Project costs within this category have increased by \$786.3 million from 2018/19 as a number of new projects have been added to the Capital Plan along with budget increases for projects previously on the Plan. The new projects include

the Bridge Building for the Digital Future (\$202 million), Stanford in Redwood City Phase 2 (\$132.4 million), three infrastructure projects (\$113.5 million), Bonair Replacement Building (\$80 million), SoM lab building (\$60 million), Off-Campus Housing Developments (\$55 million), and SRCF M2 (\$37.5 million).

INFRASTRUCTURE PROGRAMS

Stanford's ongoing efforts to renew its infrastructure are reflected in a budget of \$348.7 million (9% of the plan) and are listed on page 84. Costs for infrastructure programs have increased by \$8.3 million from last year.

Infrastructure programs include the Investment in Plant (Planned Maintenance) Program, the Capital Utilities Program (CUP), the Stanford Infrastructure Program (SIP), the Residential & Dining Enterprises (R&DE) Major Renovation Plan, upgrades to information technology and communications systems, and redevelopment of networking and communications infrastructure in the east campus. SIP projects are funded through construction project surcharges. The other projects are funded by central funds, debt, and/or service center charge-out rates.

Investment in Plant (Planned Maintenance) Program

Annual Investment in Plant assets represent the maintenance funds planned to be invested to preserve and optimize Stanford's existing facilities and infrastructure (e.g., pathways, outdoor structures, and grounds). These projects are based on life cycle planning, the key concept being that life expectancies of facility subsystems are known and, as a result, maintenance schedules can be predicted. The three-year estimated program cost is \$184.5 million.

Capital Utilities Program

The \$56.3 million, three-year CUP plan will improve the Central Energy Facility as well as the heating, cooling, electricity, domestic water, lake water, and sewer systems. The CUP covers expansion of systems as required by campus growth (\$18.8 million) and renewal of systems that are near the end of their useful life (\$37.5 million).

Stanford Infrastructure Program

SIP consists of campus and transportation projects and programs for the improvement and general support of the university's academic community, hospitals, and physical plant. SIP expenditures are expected to total \$52.9 million over the next three years (excluding funding for replacement parking spaces). This year's plan includes roundabouts, the Serra Mall closure, and infrastructure projects related to EV Graduate Residences, in addition to annual SIP program elements.

R&DE Major Renovation Plan

This R&DE program addresses health and safety issues, seismic upgrades, code compliance, energy conservation and sustainability, and major programmatic improvements in the student housing and dining physical plant. Projects anticipated over the next three years total \$21.1 million and include phased installation of new sprinklers and fire alarm systems in Escondido Village high-rise and low-rise housing. Completed projects will be maintained through the Stanford Housing, Dining, and Hospitality Asset Renewal Programs.

Information Technology and Communications Systems

The university's computing and communications systems provide comprehensive data, voice, and video services to the campus community. Over time, these systems must be improved and/or replaced to maintain a consistently high level of service. Additionally, new technologies provide more efficient, faster, and/or more cost-effective solutions. Planned upgrades to these critical university systems total \$18.9 million, including \$2.4 million to replace systems at two electronic communications hubs (ECH).

East Campus Networking and Communications Redevelopment

Significant portions of the university's networking and communications systems, including two ECHs, underground conduits and cabling, and networking equipment, will have to be replaced, relocated, and/or substantially upgraded to support the EV Graduate Residences and other planned development in the east campus. The total cost of \$15 million for this project is in addition to the annual upgrades to information technology and communications systems above.

OFF-CAMPUS HOUSING INITIATIVE

Established in 2014, the Off-Campus Housing Initiative reflects the high priority that Stanford places on its ability to provide affordable housing options for existing and prospective faculty and staff. In recognition of this critical need, the Board of Trustees approved \$500 million in funding for this program. The Off-Campus Housing Initiative has \$172.7 million remaining to complete this important program.

OTHER STANFORD ENTITIES

In an effort to present a comprehensive view of university-planned construction, the capital planning process has included Stanford's commercial real estate investments, Stanford Health Care (SHC), Lucile Packard Children's Hospital (LPCH), and SLAC National Accelerator Laboratory. Although the tables at the end of this chapter do not include these capital projects, brief descriptions of the real estate, SHC, and LPCH capital programs follow. The SLAC capital programs are addressed in Chapter 2.

Real Estate

The Real Estate department, part of Stanford's Land, Buildings & Real Estate (LBRE) unit, is actively managing eight projects totaling approximately \$478 million in various stages of planning and development on Stanford lands. Three of these projects—3380 Coyote Hill Road, 2131 Sand Hill Road, and the office component of Middle Plaza—will provide the university with income. Academic projects managed by Real Estate include three housing developments: the faculty/staff apartments at Middle Plaza in Menlo Park; off-campus faculty homes; and the Cabrillo-Dolores residences in the faculty subdivision on campus. In addition, Stanford Real Estate oversees the Off-Campus Housing Initiative. Finally, after a successful opening of Phase 1 of the new Stanford Redwood City campus, Stanford Real Estate is also leading the entitlement process for the second phase of this new campus in Redwood City.

Stanford Health Care and Lucile Packard Children's Hospital

When the New Stanford Hospital opens for patient care in late 2019, a series of projects (totaling \$505.3 million) will incrementally modernize the existing hospital facility to provide an enhanced level of patient care, technology, and interior environment. In 2018/19, the 300P Renewal

STANFORD'S COMMITMENT TO HOUSING

From its earliest days, Stanford has focused on supporting a residential academic environment. Currently, Stanford provides on-campus housing for almost all undergraduate students, over 50% of graduate students, and about 40% of Stanford faculty members. Stanford prioritizes use of its core academic lands to house students and faculty in close proximity, fostering collaboration and learning. Staff and other affiliated housing has been provided outside of the academic campus lands, in nearby jurisdictions.

Stanford's commitment to housing of all types is evident in the current capital plan. Housing projects comprise a total of \$1.9 billion, or over half of the entire 2019/2020-2021/22 Capital Plan. It should be noted that the university recently completed University Terrace, a new \$180 million housing community. While not included in the current Capital Plan, University Terrace offers 180 brand new faculty ownership units that have greatly addressed current faculty housing demand.

Detailed description of the individual projects are listed below along with a summary table of these projects.

EV Graduate Residences represents the largest capital project in Stanford history. The project will increase the net new graduate beds by 2,020 in Escondido Village, raising the percentage of graduate students housed to approximately 75%, from just over 50% today. The project includes construction of approximately 1,175 parking spaces (750 net new) in two underground structures.

Undergraduate Housing & Dining Complex is in the early stages of development and is planned to house 750 students in 6 buildings.

Off-Campus Housing Developments & Initiative recognizes that Stanford's housing strategies are necessarily multi-pronged. The Board of Trustees has approved various initiatives to expand Stanford's housing supply by building on Stanford's off-campus lands or acquiring land or residential units proximate to, or within easy transit of, the core academic campus. It is anticipated the program will yield mostly single-family housing for purchase by faculty on the affordable restricted ground lease.

Middle Plaza-Residential is a new mixed-use development at 500 El Camino Real recently approved by the City of Menlo Park. The project will add 215 multi-family rental units available to both faculty and staff. Unit types are expected to consist of both one- and two-bedroom apartments.

Cabrillo-Dolores Faculty Homes was recently approved by Santa Clara County's Board of Supervisors. The project includes the construction of 7 homes in the faculty subdivision. Two university-owned homes located along Dolores will be demolished to make way for this project. In total a net new 5 much-needed affordable homes will be added to this important faculty community.

Renovations of Rains Houses support and maintain Stanford's existing student housing stock.

Description	Resident Type	Net New Number of Beds/Units	2019/20-2021/22 Capital Plan Project [in millions of dollars]
New Housing Additions			
EV Graduate Residences	Graduate Students	2,020 beds	1,160.6
Undergraduate Housing & Dining Complex	Undergraduate Students	750 beds	280.0
Off-Campus Housing Developments & Initiative	Faculty and Staff	76 units	227.7
Middle Plaza - Residential	Faculty and Staff	215 units	154.6
Cabrillo-Dolores Faculty Homes	Faculty	5 units	23.0
Renovations of Existing Housing			
Renovations of Rains Houses (Phases 2A - 2F)	Graduate Students	n/a	71.5
Total		3,066	1,917.4

Program will be submitting designs for state approvals on several significant projects, including: 1) renovations of patient nursing units in the D-E-F pavilions and the addition of new bed extension buildings, 2) modernization of the existing Operating Rooms and Post Anesthesia Care Unit (PACU) suites, 3) Interior Public Spaces Initiative, 4) continuation of the seismic safety compliance program throughout the hospital, and 5) renovation of the 300P Emergency Department for a Pediatric Emergency Department. Construction will commence on all these initiatives in early 2020.

After careful deliberation and in coordination with LBRE, leadership for both hospitals and the School of Medicine have agreed that the prevailing exit strategy for the Boswell building is development of a medical office building and parking structure (\$579 million) on the Block E site in Redwood City (RWC). To vacate the seismically deficient Boswell building, SHC will also need to shift programs to and within existing Welch Road Properties, specifically 825 Welch Road (Advanced Medicine Center) and 875 Welch Road (Blake Wilbur) in addition to 750, 770, 900 and 1000 Welch Road.

Lucile Packard Children's Hospital is focused on the buildout of Levels 1 and 5 of the new hospital. These spaces, which were shelled in the initial build-out, are being addressed to accommodate programmatic needs. Both projects are expected to complete in late 2019. LPCH is also working to modernize existing facilities with a dual approach. Efforts for the West Building, formerly known as the existing children's hospital, will focus on an Infrastructure Master Plan for the building, which will be integrated with a group of projects collectively referred to as Packard 3.0. A high-level schedule is being developed and rough order of magnitude projected for costs. Leadership will continue to prioritize with a select focus on balancing capital resources, strategic priorities and constructability.

OVERALL SUMMARY

A table summarizing the 2019/20-2021/22 Capital Plan appears on the next page. The expenditures necessary to complete the three-year Capital Plan are anticipated to extend beyond 2021/22. To differentiate between the estimated costs of the plan and the forecasted spending to complete projects and programs, an additional table (Capital Plan Cash Flows) forecasts the Capital Plan expenditure cash flow based on project and program schedules.

O&M and debt service costs for projects will impact the university's budget once construction is substantially complete. Although the Capital Plan Summary shows the full budget impacts of all completed projects, it is important to note that these impacts align with the project completion schedule and will therefore be absorbed by the university budget over a period beyond the three-year plan. The Capital Plan Impact on Budget table forecasts these budget impacts by area of fiscal responsibility (e.g., general funds, formula schools).

The tables at the end of this chapter provide a detailed list of the projects included in the Capital Plan.

The following sections address Capital Plan funding sources and uses, along with resource constraints.

Capital Plan Funding Sources

As the pie chart on page 77 shows, Stanford's Capital Plan relies on several funding sources, including current funds, gifts, and debt. Depending upon fundraising realities and time frames, some projects will prove more difficult than others to undertake. As a result, it is possible that projects in the Capital Plan will have to be canceled, delayed, or scaled back in scope.

For any projects relying on gifts to be raised, the Office of Development has determined that fundraising plans are feasible, although the time frames for the receipt of gifts are subject to change. "Resources to be identified" are expected to come from a combination of school, department, and university reserves, as well as other sources.

Uses of Funds by Program Category and Project Type

The middle chart on page 77 divides Capital Plan activity into program categories. The largest is Housing, at 51% of the plan with Academic/Research second largest at 25%. The bottom chart on page 77 breaks out the same activity into project types, including New Construction, Renovations, and Infrastructure.

CAPITAL PLAN CONSTRAINTS

Affordability

The incremental internal debt service expected at the completion of all projects commencing in the three-year plan period (completion dates range from 2019/20 to 2023/24)

SUMMARY OF THREE-YEAR CAPITAL PLAN 2019/20–2021/22

[IN MILLIONS OF DOLLARS]

	ESTIMATED PROJECT COST	CAPITAL BUDGET 2019/20	PROJECT FUNDING SOURCE							ANNUAL CONTINUING COSTS	
			CURRENT FUNDS ¹	GIFTS		UNIVERSITY DEBT		RESOURCES TO BE IDENTIFIED ²		DEBT SERVICE	OPERATIONS & MAINTENANCE ³
				IN HAND OR PLEDGED	TO BE RAISED	SERVICE CENTER/AUXILIARY DEBT	ACADEMIC DEBT	OTHER			
Projects in Design & Construction	2,087.9	650.6	598.0	365.9	165.0	709.0	115.8	134.2		37.2	26.1
Forecasted Projects	1,126.4	92.4	105.2	15.1	130.0	328.0	216.1	15.0	317.0	29.2	8.3
Total Construction Plan	3,214.3	743.0	703.2	381.0	295.0	1,037.0	331.9	149.2	317.0	66.4	34.4
Infrastructure and Other Programs	521.4	164.7	411.9			87.3	22.2			10.1	
Total Three-Year Capital Plan 2019/20–2021/22	3,735.7	907.7	1,115.1	381.0	295.0	1,124.3	354.1	149.2	317.0	76.5	34.4

¹ Includes funds from university and school reserves and the GUP and SIP programs.

² Anticipated funding for this category is through a combination of school, department, and university reserves and other sources.

³ Operations & Maintenance includes planned and reactive/preventive maintenance, utilities, contracts, grounds, and outdoor lighting.

CAPITAL PLAN CASH FLOWS

[IN MILLIONS OF DOLLARS]

	2018/19 & PRIOR	2019/20	2020/21	2021/22	2022/23 & THEREAFTER	TOTAL
Projects in Design & Construction	1,071.3	650.6	212.7	98.4	55.0	2,087.9
Forecasted Projects	11.9	92.4	296.5	376.1	349.5	1,126.4
Total Construction Plan	1,083.2	743.0	509.2	474.4	404.5	3,214.3
Infrastructure and Other Programs	25.6	164.7	141.7	143.2	46.2	521.4
Total Three-Year Capital Plan 2019/20–2021/22	1,108.8	907.7	650.9	617.6	450.7	3,735.7

CAPITAL PLAN IMPACT ON BUDGET

[IN MILLIONS OF DOLLARS]

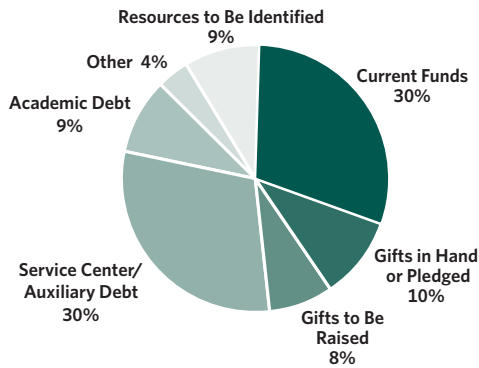
	2020/21	2021/22	2022/23 & THEREAFTER	TOTAL
Debt Service				
General Funds	2.5	1.0	11.9	15.4
Formula and Other Schools	4.6	0.3	5.8	10.6
Auxiliary	30.9	0.9	16.4	48.1
Other ¹	1.2	0.3	0.7	2.3
Total Debt Service	39.3	2.4	34.8	76.5
Operations and Maintenance				
General Funds	3.9	(5.1) ²	2.9	1.7
Formula and Other Schools	4.6		2.8	7.4
Auxiliary	14.9		10.4	25.3
Total Operations and Maintenance	23.4	(5.1)	16.1	34.4

¹ Primarily the hospitals, along with the Forsythe facility, Faculty Staff Housing, and outside entities.

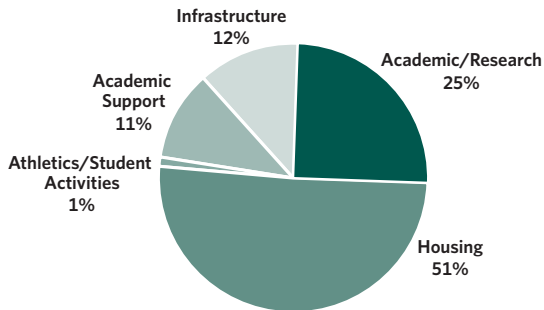
² Include credits due to demolitions.

THE CAPITAL PLAN 2019/20–2021/22
\$3.7 BILLION

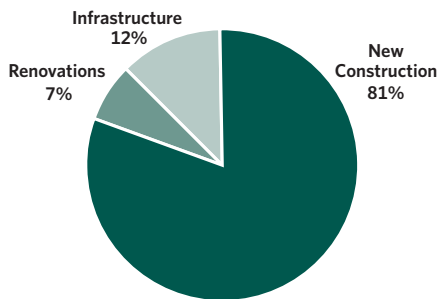
Sources of Funds



Uses of Funds by Program Category



Uses of Funds by Project Type



totals \$76.5 million annually (excluding debt service for bridge financing the receipt of gifts and operating lease payments). Of this amount, \$15.4 million will be serviced by general funds, \$10.6 million by the formula schools, and \$50.5 million by auxiliary and other operations. Service center debt is funded through rates paid by customers and has been allocated and included in the totals for general funds, formula schools, auxiliary operations, and other operations.

The additional O&M costs expected at the completion of all projects commencing in the three-year period total \$34.4 million per year. Of this amount, \$1.7 million will be serviced by general funds, \$7.4 million by the formula schools, and \$25.3 million by auxiliary operations. O&M and debt service on capital projects compete directly with other academic program initiatives for funding allocations.

Debt Capacity

As of May 1, 2019, \$512 million of bond proceeds are available to finance capital projects and faculty mortgages, including \$222 million of unexpended tax-exempt bond proceeds, and \$290 million of unexpended taxable bond proceeds. Interim financing facilities including \$500 million of taxable commercial paper, \$300 million of tax-exempt commercial paper, and \$383 million of undrawn lines of credit are also available. In addition, during the remaining months of fiscal year 2018/19 through the end of 2019/20, \$99 million in internal amortization proceeds on debt-funded projects will become available to lend to projects, and \$71 million in forecasted pledge and other payments will retire debt issued to bridge finance the receipt of gifts and cost of construction.

The three-year Capital Plan will require a total of \$1.3 billion of debt for projects under construction or for projects to be approved before or in 2019/20:

- \$540 million to complete projects already approved or under construction;
- \$525 million for projects to be approved in 2019/20; and
- \$255 million to bridge finance the receipt of gift pledges for projects approved or under construction.

Fiscal year to May 1, 2019, the portfolio of debt-subsidized mortgages had increased by \$50.8 million over the prior year to \$680 million.

Projects identified in the three-year Capital Plan and to be approved after 2019/20 will require an additional \$252 million in debt. Debt for these projects has not been committed, and allocations will be evaluated in the context of debt capacity, affordability, viability of the funding plan, and GUP limitations.

Entitlements

The main Stanford campus encompasses 8,180 acres in six jurisdictions. Of this total, 4,017 acres, including most of the central campus, are within unincorporated Santa Clara County.

In December 2000, Santa Clara County approved a General Use Permit that allows Stanford to construct up to 2,035,000 additional gross sf of academic-related buildings on the core campus and up to 3,018 new housing units. An additional 1,450 housing units were approved on March 24, 2016, pursuant to General Use Permit Condition F.7, raising the housing allocation to 4,468 housing units. This additional approval accommodates the EV Graduate Residences.

Conditions of approval included the following:

- Creation of an academic growth boundary to limit the buildable area to the core campus for a minimum of 25 years;
- Approval of a sustainable development study (SDS) before new construction exceeds 1 million gross sf (Santa Clara County approved the SDS in April 2009); and
- Construction of 605 units of housing for each 500,000 gross sf of new academic building.

The Stanford University General Use Permit 2000 Annual Report summarizes the development at Stanford University along with the required environmental mitigation activity. The report documents both new projects approved during the reporting period and the status of ongoing projects. The Annual Report is available on the County of Santa Clara Department of Planning and Development website.

As discussed on page 69, Stanford has submitted an application to Santa Clara County for an updated General Use Permit. This permit is expected to be approved in 2019.

THE CAPITAL BUDGET, 2019/20

At \$907.7 million, the 2019/20 Capital Budget reflects only a portion of the costs of the projects in the Capital Plan, as most span more than one year. The table below highlights the major capital projects for which expenditures under the 2019/20 Capital Budget will be significant, as well as the percentage of each project expected to be complete by the end of 2019/20. The map on page 81 shows the locations of these projects.

In 2019/20, LBRE anticipates substantial completion of four major projects with total budgets of \$1.6 billion and estimated 2019/20 expenditures of \$523.5 million. When completed, the EV Graduate Residences will add over 2,000 net new beds and address a critical need to provide additional graduate student housing on campus; CAM 1 will provide space for SoM faculty and staff currently dispersed in the seismically deficient E.D. Stone Complex; BMI 1 will enable SoM to create leading edge research laboratory space and decant from the E.D. Stone Complex; and SAL 3.3 will add additional capacity to the off-campus library storage facility.

SELECTED MAJOR CAPITAL PROJECTS Percent of Completion 2019/20¹

[IN MILLIONS OF DOLLARS]

	CAPITAL BUDGET 2019/20	ESTIMATED PROJECT COST	ESTIMATED PERCENT COMPLETE BY 2019/20
Escondido Village Graduate Residences	368.5	1,160.6	100%
Center for Academic Medicine 1 (CAM 1)	95.6	222.0	100%
BioMedical Innovations Building 1 and Connective Elements (BMI 1)	44.4	210.0	100%
Middle Plaza at 500 El Camino Real - Residential (215 units)	38.1	154.6	33%
Graduate School of Education Renovation and New Building	29.9	140.0	11%
George P. Shultz Building	20.2	59.2	41%
Public Safety Building	16.5	33.5	89%
Stanford Auxiliary Library III, Phase 3 (SAL 3.3)	15.0	27.3	100%
Total	628.2	2,007.2	

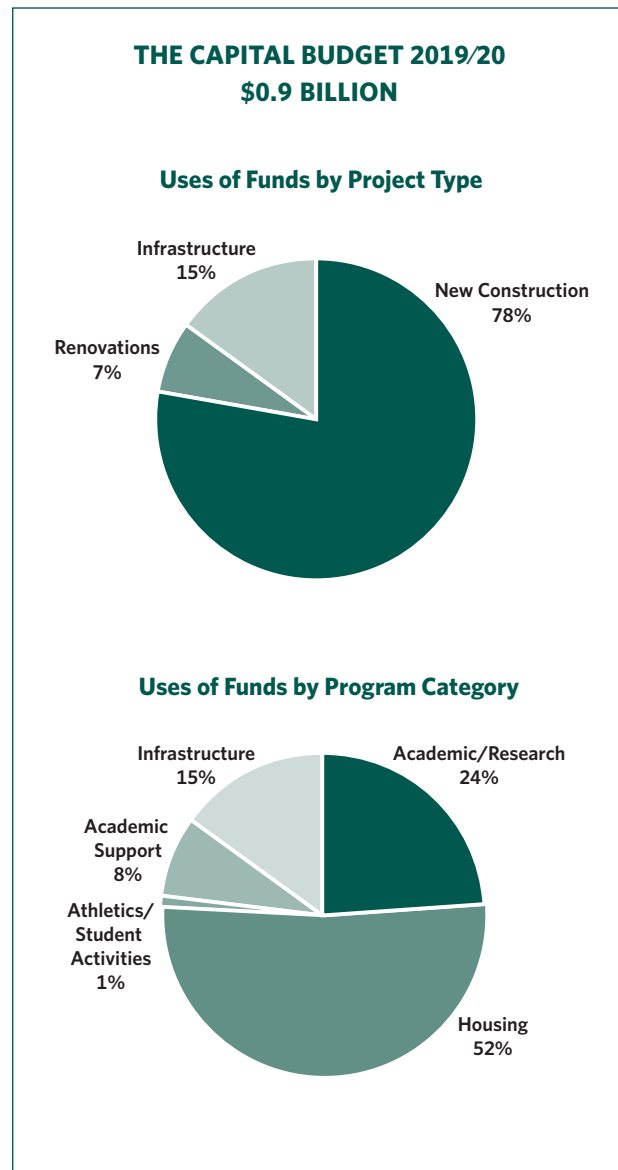
¹ Board-approved projects scheduled to be in construction and with forecasted expenditures greater than \$10 million in 2019/20.

SOURCES AND USES

The Capital Budget is supported by multiple funding sources: current funds (which include the Capital Facilities Fund [CFF], funds from university and school reserves, and General Use Permit and SIP fees), gifts, and debt. The university typically allocates CFF or debt funding to projects in the absence of other available funding. The timing of gift receipts, which may be bridge financed, will affect the mix of project funding.

The following pie charts show the uses of funds under the \$907.7 million Capital Budget by project type and program category. Expenditures of \$468 million (52%) are anticipated for Housing projects, including the EV Graduate Residences, Middle Plaza-Residential, and the Off-Campus Housing Initiative. Academic/Research projects, forecasted at \$217.2 million (24%), include CAM 1, BMI 1, GSE Renovation and New Building, and the George P. Shultz Building. Academic Support projects are projected at \$77.2 million (8%), primarily for the Public Safety Building and SAL 3.3. Infrastructure expenditures of \$139.1 million (15%) include Investment in Plant (Planned Maintenance), CUP, and SIP. Lastly, expenditures for Athletics/Student Activities projects are forecasted at \$6.2 million (1%).

Annual transfers to the CFF are projected to be \$119.8 million in 2018/19 and \$79.7 million in 2019/20, with corresponding commitments of \$143.2 million and \$89.8 million for these two years (also accessing unused balances from previous years). The table on the next page lists projects anticipated to receive CFF funding in 2018/19 and 2019/20.



CAPITAL FACILITIES FUND (CFF)

Funding Sources and Committed Uses of Funding

[IN MILLIONS OF DOLLARS]

	2018/19	2019/20
Sources of Funding		
Formula Units		
School of Medicine	20.8	4.4
Hoover Institution	4.6	4.7
Non-Formula	94.4	70.6
Total Funding	119.8	79.7
Committed Uses of Funding		
1701 Page Mill Tenant Improvements	4.3	
Neuro/ChEM-H Research Complex	3.3	
3145 Porter Drive Tenant Improvements	2.5	
Grant Decommission	1.5	
3172 Porter Drive Tenant Improvements	1.1	
HRP/Redwood Renovation	1.0	1.5
LKSC Renovation	1.0	
Other School of Medicine Projects	6.2	2.9
SAL 3.3 (Hoover Portion)	4.6	3.3
Other Hoover Institution Projects		1.4
Formula Units Project Subtotal	25.4	9.1
Public Safety Building	20.3	
Stanford Auxiliary Library III, Phase 3	19.1	
Bonair Replacement Building	12.0	4.0
Stanford in Redwood City Phase 1	9.9	
Livermore Land Acquisition	7.0	
Mudd Decant - Lokey, Keck, Stauffer Renovations	6.4	
General Use Permit	6.1	(21.9)
Newark Work and Logistics Center	5.5	
Heritage House Improvements	4.5	
Stock Farm Greenhouse Replacement	4.0	
LBRE Surge to Bonair	3.0	
Felt Reservoir Modifications	2.6	
Campus Conference Rooms Video Conferencing Improvements	2.5	2.5
Quarry Road Housing	2.5	
School of Humanities and Sciences Lab Renovation	2.3	
Searsville Dam and Reservoir Project	1.8	2.0
Arrillaga Hall	1.7	
Dams Renewal	1.5	
Bridges Renewal	1.0	
Escondido Village Graduate Residences		39.4
ADAPT Systems		18.9
Stanford Research Computing Facility Module 2		9.4
Demolition of Herrin Lab/Herrin Hall/Mudd		8.4
Emergency Operations Center		7.2
Stanford in Redwood City Phase 2		6.6
Campus Video Safety System		2.3
Other Non-Formula Units Projects	4.1	1.9
Total Commitments	143.2	89.8
Annual Funding less Commitments	(23.4)	(10.1)
Balance at Beginning of Year	49.8	26.4
Uncommitted Balance	26.4	16.3

CAPITAL BUDGET IMPACT ON 2019/20 OPERATIONS

The 2019/20 Consolidated Budget for Operations includes incremental debt service and O&M expenses for projects to be completed in either 2018/19 or 2019/20, but operational for less than 12 months in the year completed.

Capital projects requiring debt are funded from internal loans that are amortized over the asset life in equal installments (principal and interest). The budgeted interest rate (BIR) used to calculate the internal debt service is a blended rate of interest expense on debt issued for capital projects, bond issuance, and administrative costs. The BIR will remain at 4.25% for 2019/20.

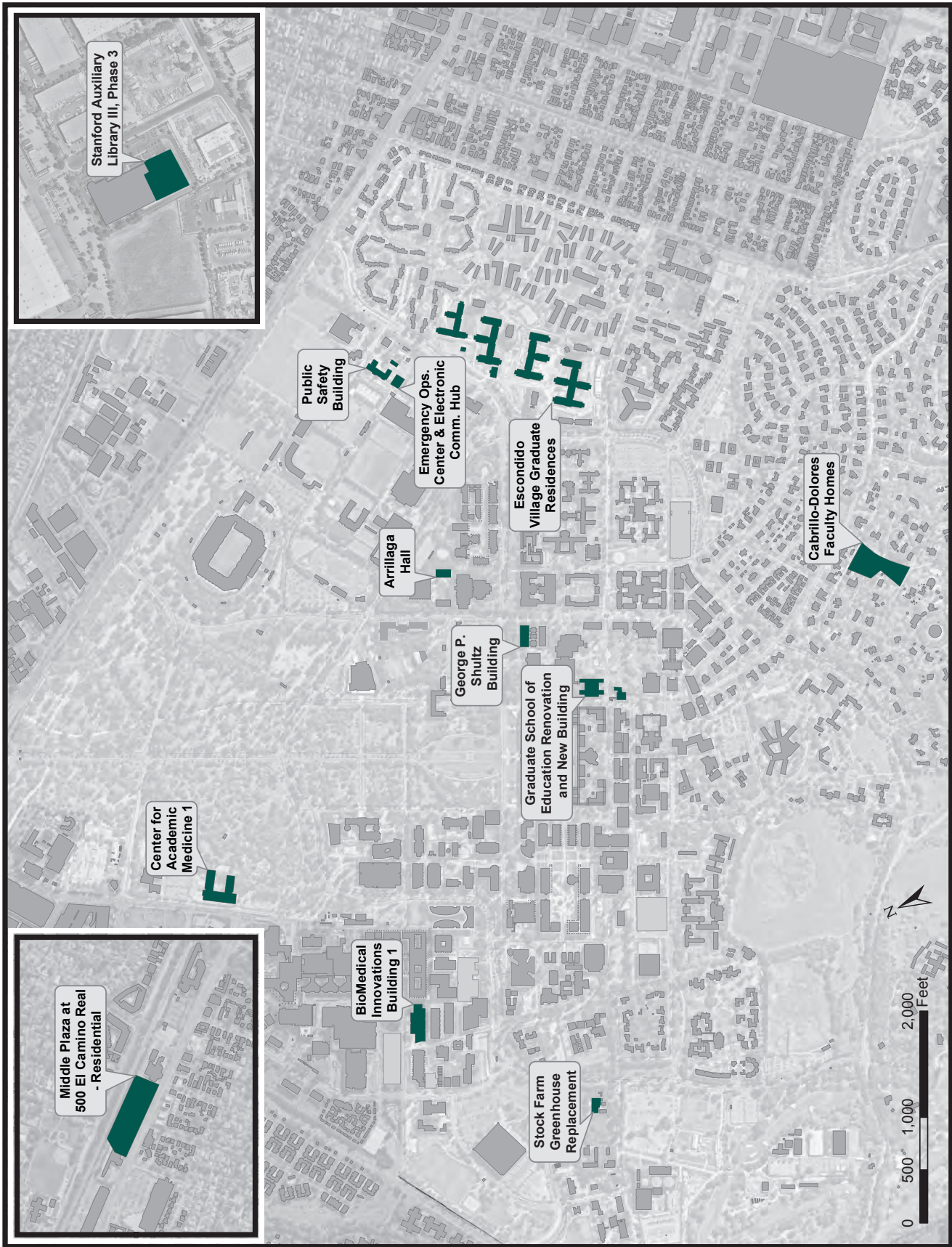
Consolidated internal debt service, including that borne by formula units, auxiliaries, service centers, Faculty Staff Housing, and real estate investment, is projected to increase from \$213.7 million to \$242.2 million. Additional debt service related to the Rosewood Hotel and the Sand Hill Road Office Complex is not included in the Consolidated Budget for Operations. In addition, annual lease payments for rental properties occupied by the SoM are projected to be \$64.4 million in 2019/20.

The projected internal debt service funded by unrestricted funds, including general funds and schools' designated funds, will increase by \$27.7 million in 2019/20. The net change in debt service brings the total annual internal debt service borne by unrestricted funds to \$100.8 million.

In 2019/20, approximately \$0.6 million of incremental O&M costs will be borne by general funds. Increase to O&M costs from the completion of the Neuro/ChEM-H Research Complex and other projects will be partially offset by a number of scheduled building demolitions.

CAPITAL PLAN PROJECT DETAIL

In addition to a map identifying some key project locations, the following pages provide tables that list capital projects in three categories: projects in design and construction, forecasted construction projects, and infrastructure projects and programs.



2019/20-2021/22 CAPITAL PLAN PROJECTS IN DESIGN & CONSTRUCTION

[IN MILLIONS OF DOLLARS]

	SCHOOL/ DEPARTMENT	FISCAL YEAR PROJECT SCHEDULE	ESTIMATED PROJECT COST	CAPITAL BUDGET 2019/20	CURRENT FUNDS ¹	PROJECT FUNDING SOURCE				ANNUAL CONTINUING COSTS			
						GIFTS		UNIVERSITY DEBT		DEBT SERVICE	OPERATIONS & MAINTENANCE ³		
						IN HAND OR PLEGDED	TO BE RAISED	SERVICE CENTER/ AUXILIARY DEBT	ACADEMIC DEBT			OTHER	RESOURCES TO BE IDENTIFIED ²
Escondido Village Graduate Residences													
Residence Buildings (2,020 net new beds)	R&DE	2016-20	1,078.1	346.4	262.2	165.9	50.0	600.0				30.1	14.5
Underground Parking Structures (750 net new spaces)	R&DE	2016-20	82.5	22.1	82.5								1.9
Center for Academic Medicine 1 (CAM 1) ⁴													
Building	SOM	2017-20	167.0	71.9	51.9				32.8			1.9	2.2
Underground Parking Structures (585 net new spaces)	SOM	2017-20	55.0	23.7					3.1	134.2		0.2	1.4
BioMedical Innovations Building 1 and Connective Elements (BMI 1)	SOM	2017-20	210.0	44.4	20.0	125.0	25.0		40.0			2.3	2.4
Middle Plaza at 500 El Camino Real - Residential (215 units)	LBRE	2017-22	154.6	38.1	68.6			86.0					
Graduate School of Education Renovation and New Building	GSE	2019-23	140.0	29.9	20.0		90.0		30.0			2.2	1.2
George P. Shultz Building	HOOVER	2019-22	59.2	20.2		59.2							0.2
Public Safety Building	PRES./PROV	2017-21	33.5	16.5	33.5								0.8
Stanford Auxiliary Library III, Phase 3	SUL	2019-20	27.3	15.0	27.3								0.6
Arrillaga Hall	DAPER	2017-20	25.4	6.2	9.6	15.8							0.4
Cabrillo-Dolores Faculty Homes (7 units)	LBRE	2017-21	23.0	9.3				23.0					
Emergency Operations Center & Electronic Communications Hub	PRES./PROV	2017-22	20.1	0.8	10.2				9.9			0.6	0.5
Stock Farm Greenhouse Replacement	H&S	2019-20	12.2	6.0	12.2								
Subtotal - Projects in Design & Construction			2,087.9	650.6	598.0	365.9	165.0	709.0	115.8	134.2	-	37.2	26.1

¹ Includes funds from university and school reserves and the GUP and SIP programs.

² Anticipated funding for this category is through a combination of school, department, and university reserves and other sources.

³ Operations & Maintenance includes planned and reactive/preventive maintenance, utilities, contracts, grounds, and outdoor lighting.

⁴ Other funding is from SHC and LPCH.

**2019/20-2021/22 CAPITAL PLAN
FORECASTED CONSTRUCTION PROJECTS**

[IN MILLIONS OF DOLLARS]

	SCHOOL/ DEPARTMENT	FISCAL YEAR PROJECT SCHEDULE	ESTIMATED PROJECT COST	CAPITAL BUDGET 2019/20	CURRENT FUNDS ¹	PROJECT FUNDING SOURCE				ANNUAL CONTINUING COSTS		
						GIFTS		UNIVERSITY DEBT		RESOURCES TO BE IDENTIFIED ²	DEBT SERVICE	OPERATIONS & MAINTENANCE ³
						IN HAND OR PLEGGED	TO BE RAISED	SERVICE CENTER/ AUXILIARY DEBT	ACADEMIC DEBT			
Undergraduate Housing & Dining Complex (6 Buildings - 750 beds)	R&DE	2020-23	280.0	14.4	1.0	130.0	34.0	115.0	1.9	4.0		
Bridge Building for the Digital Future	SOE	2020-23	202.0	10.7				202.0				
Stanford in Redwood City Phase 2	PRES/PROV	2020-24	132.4	6.6	10.0		122.4		7.0	5.2		
Bonair Replacement New Building	LBRE	2019-22	80.0	5.6	37.7				2.4	2.2		
Bonair Demolitions	LBRE	2022-23	8.1		8.1					(1.1)		
Rains Houses Renovations (Phases 2A - 2F)	R&DE	2021-23	71.5				71.5		5.2			
School of Medicine Renovation Projects (5 Buildings)	SOM	2019-22	61.5	29.4	11.6			34.9	2.5	2.2		
School of Medicine Specialty Lab Building (Decant Boswell)	SOM	2021-24	60.0	1.2	15.0			45.0	2.6	0.4		
Searsville Dam & Reservoir Project ⁴	LBRE	2022-23	60.0					60.0	3.0	0.1		
Off-Campus Housing Developments (27 faculty and 8 community units)	LBRE	2019-23	55.0	2.8			55.0					
Stanford Research Computing Facility Module 2 (SRCF M2)	DOR	2020-22	37.5	3.3	9.4		28.1		1.6	1.2		
Felt Reservoir Modification	LBRE	2019-22	36.5	6.3	2.6			33.9	1.7			
Lake Water Heat Exchange	LBRE	2019-22	17.0	3.0			17.0		1.2			
Demolition of Herrin Lab/Herrin Hall/Mudd	H&S	2019-21	14.9	8.4	9.8		5.1			(5.9)		
Hohbach Hall - Green Library East	SUL	2019-21	10.0	0.8			10.0					
Subtotal - Forecasted Projects			1,126.4	92.4	105.2	15.1	130.0	328.0	216.1	15.0	29.2	8.3
SUBTOTAL - CONSTRUCTION PLAN			3,214.3	743.0	703.2	381.0	295.0	1,037.0	331.9	149.2	66.4	34.4

¹ Includes funds from university and school reserves and the GUP and SIP programs.

² Anticipated funding for this category is through a combination of school, department, and university reserves and other sources.

³ Operations & Maintenance includes planned and reactive/preventive maintenance, utilities, contracts, grounds, and outdoor lighting.

⁴ Early conceptual estimate.

2019/20-2021/22 CAPITAL PLAN INFRASTRUCTURE AND OTHER PROGRAMS

[IN MILLIONS OF DOLLARS]

	SCHOOL/ DEPARTMENT	FISCAL YEAR PROJECT SCHEDULE	ESTIMATED PROJECT COST	CAPITAL BUDGET 2019/20	CURRENT FUNDS ¹	PROJECT FUNDING SOURCE				ANNUAL CONTINUING COSTS			
						IN HAND OR PLEGGED	GIFTS OR TO BE RAISED	SERVICE CENTER/ AUXILIARY DEBT	UNIVERSITY DEBT	OTHER	RESOURCES TO BE IDENTIFIED ²	DEBT SERVICE	OPERATIONS & MAINTENANCE ³
Investment in Plant (Planned Maintenance)													
Non-Formula/Admin Formula	LBRE SOM	2020-22 2020-22	80.7 22.2	27.7 7.2	80.7 22.2								
R&DE (SHARP/DARP/HARP)	R&DE	2020-22	70.6	23.0	70.6								
DAPER	DAPER	2020	11.0	11.0	11.0								
Subtotal-Investment in Plant (Planned Maintenance)			184.5	68.9	184.5								
Capital Utilities Program (CUP)													
System Expansion	LBRE	2020-22	18.8	8.1			18.8					1.2	
System Renewal	LBRE	2020-22	37.5	9.4			37.5					2.4	
Subtotal-CUP			56.3	17.5			56.3					3.6	
Stanford Infrastructure Program (SIP)													
R&DE Major Renovation Plan ⁴	LBRE	2020-22	52.9	19.1	52.9								
Information Technology and Communications Systems	R&DE	2020-22	21.1	8.2			21.1					1.6	
East Campus Networking & Communications Redevelopment	BA	2020-22	18.9	8.1	1.8		3.0	14.1				3.2	
	BA	2018-20	15.0	8.0			6.9	8.1				1.7	
Subtotal - Infrastructure Projects & Programs			348.7	129.8	239.2		87.3	22.2				10.1	
Off-Campus Housing Initiative	LBRE	2019-24	172.7	34.9	172.7								
Subtotal - Other Programs			172.7	34.9	172.7								
TOTAL CAPITAL PLAN			3,735.7	907.7	1,115.1		381.0	295.0	1,124.3	354.1	149.2	317.0	76.5
													34.4

¹ Includes funds from university and school reserves and the GUP and SIP programs. Also includes Tier II contribution for the Off-Campus Housing Initiative.

² Anticipated funding for this category is through a combination of school, department, and university reserves and other sources.

³ Operations & Maintenance includes planned and reactive/preventive maintenance, utilities, contracts, grounds, and outdoor lighting.

⁴ R&DE Major Renovation Plan projects generally include program and code upgrades, whereas Planned Maintenance includes subsystem replacement.

APPENDIX A

CONSOLIDATED BUDGETS FOR SELECTED UNITS

- Consolidated Budget for Operations by Unit, 2019/20
- Summary of 2019/20 General Funds Allocations (Excludes Formula Units)

Consolidated Budget for Operations for Selected Units, 2019/20

Academic Units

- Graduate School of Business
- School of Earth, Energy & Environmental Sciences
- Graduate School of Education
- School of Engineering
- School of Humanities and Sciences
- School of Law
- School of Medicine
- Vice Provost and Dean of Research
- Vice Provost for Undergraduate Education
- Vice Provost for Graduate Education
- Vice Provost for Teaching and Learning
- Vice President for the Arts
- Hoover Institution
- Stanford University Libraries

Auxiliary Units

- Athletics
- Residential & Dining Enterprises

CONSOLIDATED BUDGET FOR OPERATIONS BY UNIT, 2019/20

[IN MILLIONS OF DOLLARS]

	TOTAL REVENUES AND OPERATING TRANSFERS	TOTAL EXPENSES	RESULT OF CURRENT OPERATIONS	TRANSFERS (TO)/FROM ASSETS	CHANGE IN EXPENDABLE FUND BALANCE
Academic Units					
Graduate School of Business ¹	292.1	299.3	(7.1)	0.3	(6.8)
School of Earth, Energy & Environmental Sciences	74.6	77.1	(2.5)	(0.8)	(3.2)
Graduate School of Education	73.5	77.0	(3.5)	(1.1)	(4.6)
School of Engineering	456.4	428.2	28.2	(12.0)	16.2
School of Humanities and Sciences ¹	537.9	517.6	20.3	(13.3)	7.0
School of Law	105.9	100.2	5.6	(6.5)	(0.9)
School of Medicine ¹	2,692.7	2,660.2	32.5	19.4	51.9
Vice Provost and Dean of Research	258.0	248.6	9.4	3.0	12.4
Vice Provost for Undergraduate Education ¹	62.0	65.6	(3.6)	(0.0)	(3.6)
Vice Provost for Graduate Education	45.9	50.5	(4.6)	(0.3)	(4.9)
Vice Provost for Teaching and Learning	41.3	43.1	(1.7)	1.2	(0.5)
Vice President for the Arts	22.8	26.2	(3.4)	0.0	(3.4)
Hoover Institution	67.1	71.8	(4.7)	1.0	(3.7)
Stanford University Libraries ¹	91.9	92.8	(0.9)	0.0	(0.9)
SLAC	492.7	492.4	0.3	0.0	0.3
Total Academic Units	5,314.9	5,250.6	64.3	(9.1)	55.2
Administrative Units					
Business Affairs	290.9	295.4	(4.5)	2.0	(2.5)
Office of Development	84.6	85.9	(1.3)	(0.0)	(1.3)
General Counsel & Public Safety	48.4	47.9	0.5	0.0	0.5
Land, Buildings and Real Estate	345.4	333.2	12.2	(9.5)	2.7
Offices of the President and Provost	146.7	144.6	2.1	0.7	2.8
Office of Public Affairs	3.7	4.2	(0.4)	0.0	(0.4)
Stanford Alumni Association	49.2	49.8	(0.6)	0.0	(0.6)
Stanford Management Company	37.0	37.0	(0.0)	0.0	(0.0)
Student Affairs ¹	76.1	78.1	(2.0)	0.0	(2.0)
Undergraduate Admission and Financial Aid	218.8	219.4	(0.6)	0.0	(0.6)
University Communications	9.2	9.5	(0.3)	0.0	(0.3)
University Human Resources	15.5	15.8	(0.3)	0.0	(0.3)
Major Auxiliary Units					
Athletics	149.0	154.1	(5.1)	5.1	(0.0)
Residential & Dining Enterprises	293.6	292.9	0.8	(2.4)	(1.6)
Total Administrative & Auxiliary Units	1,768.3	1,767.9	0.4	(4.1)	(3.7)
Internal Transaction Adjustment ²	(43.6)	(133.2)	89.5	9.8	99.4
Indirect Cost Adjustment ³	(290.0)	(290.0)	0.0	0.0	0.0
Grand Total from Units	6,749.5	6,595.3	154.2	(3.4)	150.9
Central Accounts ⁴	6.0	(60.3)	66.3	(137.7)	(71.4)
Central Adjustment ⁵	2.8	(41.1)	43.9	2.9	46.8
Total Consolidated Budget	6,758.3	6,493.9	264.3	(138.1)	126.2

Notes:

¹ The budgets for these units include auxiliary operations, which are separately identified in the units' consolidated forecast in Appendix A.

² Internal revenues and expenses are included in the unit budgets. This adjustment backs out these internal activities from the Consolidated Budget to avoid double counting them.

³ The academic unit budgets include both direct and indirect sponsored income and expenditures. Indirect cost funding passes through the schools and is allocated to the budget units as general funds. At that point, indirect cost recovery becomes part of unrestricted income for the university. In order not to double count, indirect cost recovery of \$290.0 million received by the schools is taken out in the "Indirect Cost Adjustment" line.

⁴ Central Accounts encompass funds not belonging to any particular budget unit that are used for university-wide activities, such as academic debt service payments, centrally funded tuition allowance, miscellaneous university expenses, Presidential and Provostial discretionary funds, and the general funds surplus.

⁵ Additional central adjustments for revenues, expenses and asset transfers are made to bring the sum of the unit projections in line with the overall consolidated budget plan. \$2.8 million has been added to total revenue and transfers and reflects the expectation that the university will receive a level of expendable gifts and gifts to endowment principal not yet anticipated by the individual budget units. There was also a central adjustment made to incorporate late amendments to the fringe rates.

SUMMARY OF 2019/20 BASE GENERAL FUNDS ALLOCATIONS (EXCLUDES FORMULA UNITS)

[IN THOUSANDS OF DOLLARS]

	2018/19 GF ALLOCATION	SALARY & NON-SALARY INFLATION	PROGRAMMATIC ADDITIONS/ (ADJUSTMENTS)	2019/20 GF ALLOCATION	2018/19 TO 2019/20 CHANGE	PERCENT CHANGE
School of Earth, Energy, & Environmental Sciences	13,176	493	552	14,221	1,045	7.9%
Graduate School of Education	20,190	636	148	20,974	784	3.9%
School of Engineering	86,557	3,106	909	90,572	4,015	4.6%
School of Humanities & Sciences	196,174	6,575	1,543	204,291	8,118	4.1%
School of Law	36,200	1,090	126	37,415	1,216	3.4%
Vice Provost and Dean of Research	50,884	1,248	4,402	56,534	5,650	11.1%
Vice Provost for Undergraduate Education	23,218	528	1,158	24,904	1,686	7.3%
Vice Provost for Graduate Education	8,498	446	14	8,958	460	5.4%
Vice Provost for Teaching and Learning	11,922	248	58	12,227	305	2.6%
Vice President for Arts	4,258	70	638	4,966	708	16.6%
Stanford University Libraries	55,495	1,486	336	57,317	1,822	3.3%
Total - Academic¹	506,571	15,925	9,883	532,380	25,808	5.1%
Admission and Financial Aid Operations	12,584	333	168	13,085	501	4.0%
Business Affairs ²	150,088	3,598	2,881	156,567	6,479	4.3%
Office of Development	46,869	1,322	610	48,802	1,932	4.1%
Offices of External Relations, Communications, and Public Affairs	9,195	253	1,512	10,960	1,765	19.2%
Land, Buildings and Real Estate ³	18,750	360		19,109	360	1.9%
Offices of the President & Provost	22,186	599	335	23,120	934	4.2%
Stanford Alumni Association	11,723	135		11,858	135	1.1%
Student Affairs	41,542	1,200	1,616	44,357	2,816	6.8%
University Human Resources	13,909	338		14,248	338	2.4%
Other Units ⁴	31,752	701	97	32,550	798	2.5%
Central Obligations ⁵	47,883	(2,621)	4,080	49,342	1,459	3.0%
Total - Administrative	406,481	6,218	11,297	423,996	17,515	4.3%
Undergraduate Financial Aid	28,109	7,242	1,500	36,851	8,742	31.1%
O&M and Utilities	124,685	(1,944)	(303)	122,438	(2,247)	-1.8%
Debt Service	32,693	2,820		35,513	2,820	8.6%
Capital Facilities Fund ⁶	91,997		(23,155)	68,842	(23,155)	-25.2%
University Reserves ⁷	45,000		(3,475)	41,525	(3,475)	-7.7%
Total - Other Allocations	322,484	8,118	(25,433)	305,169	(17,315)	-5.4%
Total Non-Formula Allocations	1,235,537	30,261	(4,253)	1,261,545	26,008	2.1%
Unallocated Surplus	4,605			8,356	3,751	81.5%
Total Non-Formula General Funds	1,240,142	30,261	(4,253)	1,269,901	29,759	2.4%

Notes:

¹ For this table, the TA tuition allowance expense budgeted centrally and distributed annually on a one-time basis is redistributed to the academic units according to their individual allocations.

² Property and general insurance allocations are moved from Business Affairs to Central Obligations.

³ Operations and Maintenance (O&M) and Utilities allocations are moved from Land, Buildings and Real Estate to Other Allocations.

⁴ Other Units include general funds allocations for General Counsel, Public Safety, Hoover, SLAC, Athletics, Stanford University Press, and the Stanford Faculty Club.

⁵ Central Obligations include RA tuition allowance and miscellaneous university expenses, property insurance, general insurance, fire contract, Stanford Redwood City and Stanford Research Computing Center allocations.

⁶ Allocation to the Capital Facilities Fund is reduced in 2019/20 to offset the shortfall in the Expendable Funds payout.

⁷ Includes Long Range Planning Contingency Reserve.

GRADUATE SCHOOL OF BUSINESS
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
66,934	66,797	68,981	79					69,060
195,361	209,096		84,270	33,776	89,578	677	7,667	215,968
8,351	6,726		1,844				5,034	6,878
(2,085)	411	(50)	551	(25)	(258)			218
268,561	283,031	68,931	86,743	33,751	89,320	677	12,702	292,124
Expenses								
58,836	61,671	55,714	9,447			67		65,228
48,648	53,236	44,895	8,413			13	2,147	55,468
46,880	48,623	44,885	6,144	651		116	690	52,485
83,940	98,168	75,614	21,650	1,036	388	480	2,916	102,083
25,017	23,802	9,694	9,612	714		2	3,978	23,999
263,321	285,500	230,802	55,266	2,401	388	677	9,731	299,264
5,241	(2,469)	(161,871)	31,477	31,350	88,932	0	2,971	(7,140)
160	(1,462)	Transfers From (to) Endowment & Other Assets		318				318
		Transfers From (to) Plant						0
5,401	(3,932)	(161,871)	31,477	31,350	89,250	0	2,971	(6,822)
106,656	112,059	(155,584)	95,245	74,606	91,153		2,706	108,127
112,059	108,127	(317,454)	126,723	105,956	180,403		5,677	101,306

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.
- This schedule includes an allocation of tuition revenue and central administrative costs, consistent with Stanford's policy for units operating under a formula agreement.

SCHOOL OF EARTH, ENERGY & ENVIRONMENTAL SCIENCES
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
14,894	14,684	15,888						15,888
55,520	57,697		7,350	2,900	31,141	15,213		56,605
(64)	(117)		(113)					(113)
4,042	4,795	29,309	1,816	1,417	(30,421)	86		2,207
74,391	77,059	45,197	9,053	4,317	720	15,299	0	74,587
Expenses								
16,784	17,283	12,040	3,189	562		3,229		19,021
8,630	9,295	9,072	381	64		104		9,621
28,711	29,216	18,322	4,669	1,720	1,127	5,355		31,193
16,165	16,008	3,796	2,485	1,216	190	6,438		14,125
3,156	3,028	1,966	430	412	110	174		3,091
73,446	74,830	45,197	11,153	3,974	1,427	15,299	0	77,050
946	2,230	1	(2,101)	343	(706)	0	0	(2,463)
1,002	90							0
								(750)
1,947	2,320	1	(2,851)	343	(706)	0	0	(3,213)
55,391	57,340	526	26,182	17,072	15,881			59,660
57,340	59,660	526	23,331	17,415	15,174			56,447

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations (including tuition allowance) and therefore will not match the base figure shown in the table on page 87.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.

GRADUATE SCHOOL OF EDUCATION
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
20,279	20,839	22,099						22,099
53,179	51,497		6,607	12,780	14,390	17,806		51,583
(150)	(204)		(205)					(205)
2,024	905	19,595	(609)	(5,150)	(13,808)			28
75,332	73,036	41,693	5,794	7,630	582	17,806	0	73,505
Expenses								
14,099	13,334	12,831	1,009	471		1,427		15,738
16,954	18,023	9,616	2,208	1,848	771	3,348		17,792
19,092	19,323	11,473	2,148	1,907	398	3,817		19,742
24,372	23,336	7,079	2,286	2,578	61	9,205		21,210
3,159	2,483	695	524	1,167	124	10		2,519
77,675	76,499	41,693	8,175	7,971	1,355	17,806	0	77,000
(2,343)	(3,463)	0	(2,382)	(341)	(773)	0	0	(3,495)
2,991	(1,045)			500	(1,631)			(1,131)
0	(1,600)							0
648	(6,108)	0	(2,382)	159	(2,403)	0	0	(4,626)
54,851	55,499	43	30,590	15,625	3,132			49,391
55,499	49,391	43	28,208	15,785	729			44,765

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations (including tuition allowance) and therefore will not match the base figure shown in the table on page 87.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.

SCHOOL OF ENGINEERING
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
96,295	101,591	107,179						107,179
General Funds Allocation								
337,024	311,438	1	44,518	50,274	70,210	151,620		316,623
4,670	4,547		(1,667)				6,215	4,547
Internal Revenue								
44,116	40,222	72,135	7,320	(22,766)	(32,994)	4,353		28,048
Operating Transfers								
482,105	457,799	179,315	50,170	27,508	37,216	155,973	6,215	456,398
Total Revenues								
Expenses								
69,479	72,937	51,209	5,003	3,287	317	15,947	1,517	77,280
Academic Salaries								
34,610	36,331	32,928	(939)	1,100	176	3,334	1,559	38,158
Staff Salaries								
139,182	147,416	67,774	17,089	12,059	3,695	54,716	997	156,329
Benefits & Other Compensation								
154,817	149,841	20,606	9,699	8,961	18,515	79,104	2,036	138,921
Non-Salary Expenses								
16,349	16,996	6,799	2,484	3,429	1,858	2,872	88	17,530
Internal Expenses								
414,436	423,521	179,315	33,336	28,835	24,561	155,973	6,197	428,218
Total Expenses								
67,669	34,278	0	16,834	(1,328)	12,655	0	18	28,179
Operating Results								
(23,198)					664			664
Transfers From (to) Endowment & Other Assets								
			(12,664)					(12,664)
Transfers From (to) Plant								
44,470	24,278	0	4,170	(1,328)	13,319	0	18	16,179
Surplus / (Deficit)								
296,392	340,863		154,064	151,738	59,357		(18)	365,141
Beginning Fund Balances								
340,863	365,141		158,234	150,410	72,676			381,321
Ending Fund Balances								

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations (including tuition allowance) and therefore will not match the base figure shown in the table on page 87.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.

SCHOOL OF HUMANITIES AND SCIENCES
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

	2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues									
General Funds Allocation	203,368	230,701	214,057	2,500					216,557
Restricted Revenues	281,299	288,015	48	6,586	15,925	172,371	99,049	5,753	299,732
Internal Revenue	1,936	1,963	61	529	16			1,424	2,029
Operating Transfers	30,781	34,440	126,952	39,592	(1,384)	(148,310)	2,422	290	19,562
Total Revenues	517,384	555,119	341,118	49,206	14,556	24,061	101,472	7,467	537,880
Expenses									
Academic Salaries	134,756	139,392	111,171	16,829	1,425	1,907	12,719	220	144,270
Staff Salaries	50,617	53,747	43,031	1,660	1,444	115	4,932	4,447	55,629
Benefits & Other Compensation	143,083	148,731	106,555	14,215	6,073	1,371	26,124	1,626	155,964
Non-Salary Expenses	140,000	146,775	65,913	15,491	5,478	2,121	51,865	1,452	142,320
Internal Expenses	19,604	18,904	12,779	1,757	1,787	459	2,331	274	19,388
Total Expenses	488,059	507,549	339,450	49,952	16,207	5,972	97,972	8,018	517,571
Operating Results	29,325	47,571	1,669	(746)	(1,651)	18,089	3,500	(551)	20,309
Transfers From (to) Endowment & Other Assets	(21,026)	(4,500)				(4,500)			(4,500)
Transfers From (to) Plant		(8,463)	(5,270)				(3,500)		(8,770)
Surplus / (Deficit)	8,299	34,608	(3,601)	(746)	(1,651)	13,589	0	(551)	7,039
Beginning Fund Balances	275,789	284,213	2,436	166,725	78,937	71,166		(443)	318,820
Ending Fund Balances	284,213	318,820	(1,166)	165,979	77,285	84,755		(994)	325,860

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations (including tuition allowance) and therefore will not match the base figure shown in the table on page 87.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.

SCHOOL OF LAW
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
36,181	36,899	38,501						38,501
63,613	67,804		6,030	13,462	47,719	2,292		69,503
(52)	(300)		(288)					(288)
(455)	(1,619)	57,287	(4,250)	(11,880)	(43,011)			(1,853)
99,286	102,784	95,788	1,492	1,582	4,708	2,292	0	105,862
Expenses								
31,568	34,366	35,941	183	64	6	352		36,546
13,672	14,778	15,164	30			224		15,418
17,572	18,637	19,218	115	88	7	231		19,659
22,079	23,587	22,189	702	150	399	1,479		24,920
3,635	3,667	3,276	198	105	116	6		3,700
88,526	95,036	95,788	1,228	407	528	2,292	0	100,243
10,760	7,748	0	264	1,175	4,180	0	0	5,619
(22,912)	(6,900)			(800)	(4,200)			(5,000)
(650)			(250)	(1,250)				(1,500)
(12,152)	198	0	14	(875)	(20)	0	0	(881)
36,704	24,551	149	1,233	23,037	331			24,749
24,551	24,749	149	1,247	22,162	311			23,868

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations (including tuition allowance) and therefore will not match the base figure shown in the table on page 87.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.

SCHOOL OF MEDICINE
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

	2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	DESIGNATED CLINIC	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues										
General Funds Allocation	114,677	125,015	126,741							126,741
Restricted Revenues	2,208,453	2,348,825		259,080	1,134,063	138,422	196,214	750,966	1,973	2,480,717
Internal Revenue	85,611	94,623		108,757	(57,734)	50			48,323	99,395
Operating Transfers	8,206	(5,223)	265,367	(21,264)	(176,092)	(14,651)	(58,574)	(8,925)		(14,138)
Total Revenues	2,416,946	2,563,240	392,108	346,572	900,237	123,821	137,641	742,041	50,296	2,692,715
Expenses										
Academic Salaries	602,303	654,344	31,313	57,141	429,686	24,365	31,716	131,738	5,318	711,278
Staff Salaries	246,795	282,194	90,634	51,101	47,209	17,120	16,492	57,578	16,219	296,353
Benefits & Other Compensation	594,966	646,579	51,676	73,220	374,057	28,069	25,144	129,255	8,102	689,523
Non-Salary Expenses	673,094	743,842	133,401	103,944	31,875	55,861	38,196	390,039	19,922	773,238
Internal Expenses	154,731	168,312	85,069	21,923	17,410	21,113	9,603	33,431	1,231	189,778
Total Expenses	2,471,888	2,495,272	392,093	307,329	900,237	146,527	121,151	742,041	50,792	2,660,170
Operating Results	145,058	67,968	15	39,243	0	(22,707)	16,490	0	(496)	32,545
Transfers From (to) Endowment & Other Assets	(35,652)	8,694		(5,000)		26,000				21,000
Transfers From (to) Plant		(16,715)		(1,626)						(1,626)
Surplus / (Deficit)	109,406	59,947	15	32,617	0	3,293	16,490	0	(496)	51,919
Beginning Fund Balances	1,237,115	1,346,496	925	835,533	(1)	374,830	193,672		1,484	1,406,443
Ending Fund Balances	1,346,496	1,406,443	940	868,150	(1)	378,123	210,162		988	1,458,362

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.
- This schedule includes an allocation of tuition revenue and central administrative costs, consistent with Stanford's policy for units operating under a formula agreement.

VICE PROVOST AND DEAN OF RESEARCH
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

	2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues									
General Funds Allocation	55,392	61,901	63,268	5,000					68,268
Restricted Revenues	190,571	189,075	1,649	10,477	56,362	46,995	72,416	182	188,081
Internal Revenue	9,603	9,653	2,338	463				6,421	9,222
Operating Transfers	11,239	4,720	45,601	806	(28,883)	(23,960)	(1,125)		(7,561)
Total Revenues	266,804	265,349	112,856	16,746	27,479	23,035	71,291	6,603	258,011
Expenses									
Academic Salaries	33,166	37,392	13,191	1,866	3,551	3,761	10,941	2,249	35,559
Staff Salaries	49,220	52,444	47,636	2,543	4,410	1,888	3,088	554	60,119
Benefits & Other Compensation	52,591	49,910	21,715	4,354	8,120	3,273	19,040	1,022	57,524
Non-Salary Expenses	84,894	88,323	22,691	4,375	10,861	5,971	36,074	2,473	82,445
Internal Expenses	13,772	13,047	4,321	562	4,291	1,562	2,149	74	12,959
Total Expenses	233,642	241,116	109,554	13,700	31,234	16,455	71,291	6,372	248,607
Operating Results	33,162	24,233	3,301	3,046	(3,754)	6,580	0	231	9,404
Transfers From (to) Endowment & Other Assets	11,491	1,288		1,750	1,203				2,953
Transfers From (to) Plant									0
Surplus / (Deficit)	44,653	25,521	3,301	3,046	(2,004)	7,783	0	231	12,357
Beginning Fund Balances	230,798	275,452	1,915	100,015	139,122	60,030		(109)	300,973
Ending Fund Balances	275,452	300,973	5,216	103,061	137,118	67,814		121	313,330

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations (including tuition allowance) and therefore will not match the base figure shown in the table on page 87.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.

VICE PROVOST FOR UNDERGRADUATE EDUCATION
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
17,484	19,228	20,771						20,771
42,407	47,410	671	948	4,352	37,554		4,094	47,620
(52)	(57)		7					7
(6,664)	(4,387)	34,123	(187)	(4,026)	(36,102)		(207)	(6,398)
53,176	62,194	55,566	769	327	1,452	0	3,887	62,000
Expenses								
7,837	7,947	8,221			224			8,444
15,865	17,459	16,599		1,188	414			18,200
11,034	11,749	11,189	14	617	206			12,027
16,408	25,511	17,384	47	1,625	1,496		3,887	24,438
2,366	2,183	2,175	6	204	123			2,507
53,511	64,849	55,567	67	3,634	2,462	0	3,887	65,617
(334)	(2,655)	(2)	702	(3,308)	(1,010)	0	0	(3,617)
1,965	28			28				28
					(41)			(41)
1,631	(2,628)	(2)	702	(3,279)	(1,052)	0	0	(3,630)
30,799	32,430	(159)	5,254	7,336	17,371			29,802
32,430	29,802	(160)	5,957	4,057	16,319			26,172

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations (including tuition allowance) and therefore will not match the base figure shown in the table on page 87.

VICE PROVOST FOR GRADUATE EDUCATION

2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

	2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues									
General Funds Allocation	8,766	8,160	8,719						8,719
Restricted Revenues	34,243	35,693		10	143	36,321			36,473
Internal Revenue	14	3	3						3
Operating Transfers	(33,847)	(31,777)	39,522	(1,595)		(37,178)			749
Total Revenues	9,176	12,079	48,244	(1,585)	143	(858)	0	0	45,944
Expenses									
Academic Salaries	558	767	794						794
Staff Salaries	2,267	2,446	2,510	(6)	29				2,532
Benefits & Other Compensation	1,478	1,739	1,800	(3)	12				1,809
Non-Salary Expenses	7,242	8,140	42,392	1,175	367	691			44,626
Internal Expenses	746	789	426	4	31	328			789
Total Expenses	12,291	13,882	47,921	1,171	439	1,019	0	0	50,550
Operating Results	(3,115)	(1,802)	323	(2,756)	(296)	(1,877)	0	0	(4,606)
Transfers From (to) Endowment & Other Assets	(243)	(310)				(292)			(292)
Transfers From (to) Plant									0
Surplus / (Deficit)	(3,358)	(2,112)	323	(2,756)	(296)	(2,169)	0	0	(4,898)
Beginning Fund Balances	52,511	49,154	(324)	20,424	2,197	24,743			47,041
Ending Fund Balances	49,154	47,041	(1)	17,669	1,901	22,574			0

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations and therefore will not match the base figure shown in the table on page 87.

VICE PROVOST FOR TEACHING AND LEARNING
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
11,486	12,446	12,832						12,832
29,525	32,943	1,093	33,061		206			34,361
(1,131)	(1,945)	756	(2,434)					(1,678)
(2,835)	(4,543)	13,146	(17,211)		(138)			(4,203)
37,045	38,901	27,827	13,416	0	69	0	0	41,313
Expenses								
1,438	1,465	238	1,160	144				1,542
15,171	15,351	13,678	2,025	485				16,188
7,941	8,047	6,204	1,981	328	1			8,515
10,858	13,832	6,988	7,880	305	63			15,235
1,523	1,537	719	621	229	6			1,576
36,932	40,232	27,827	13,667	1,492	69	0	0	43,055
113	(1,331)	0	(251)	(1,491)	(1)	0	0	(1,743)
1,053	1,200			1,200				1,200
								0
1,166	(131)	0	(251)	(291)	(1)	0	0	(543)
11,708	12,876		12,106	638	1			12,745
12,876	12,745		11,855	346				12,202

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations and therefore will not match the base figure shown in the table on page 87.

VICE PRESIDENT FOR THE ARTS
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

	2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues									
	4,640	5,210	5,348						5,348
General Funds Allocation									
Restricted Revenues	13,707	18,225		3,882	6,880	7,349	225		18,337
Internal Revenue	96	(254)		(310)					(310)
Operating Transfers	1,008	2,658	20,241	(2,939)	(10,543)	(7,306)			(547)
Total Revenues	19,452	25,839	25,589	633	(3,663)	44	225	0	22,828
Expenses									
Academic Salaries	263	175					65		65
Staff Salaries	7,551	8,854	9,853	79					9,932
Benefits & Other Compensation	3,717	3,067	3,368	25			40		3,433
Non-Salary Expenses	11,542	14,810	12,080	256	97		120		12,553
Internal Expenses	1,364	258	229		12				242
Total Expenses	24,437	27,164	25,530	360	109	0	225	0	26,225
(4,985)	(1,324)		59	273	(3,772)	44	0	0	(3,397)
Operating Results									
	2,444	(177)							0
Transfers From (to) Endowment & Other Assets		(13)							0
Transfers From (to) Plant									
(2,541)	(1,515)		59	273	(3,772)	44	0	0	(3,397)
Surplus / (Deficit)									
	27,537	24,980	257	2,676	12,948	7,584			23,466
Beginning Fund Balances	24,980	23,466	316	2,948	9,176	7,628			20,069
Ending Fund Balances									

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- The general funds allocation shown in this schedule includes one-time allocations and therefore will not match the base figure shown in the table on page 87.

HOOVER INSTITUTION
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
853	1,081	1,017						1,017
			General Funds Allocation					
62,225	64,258	25	326	33,105	31,257	1,162		65,876
177	51		189					189
			Internal Revenue					
(10,182)	300	67,330	(710)	(35,375)	(31,244)			0
			Operating Transfers					
53,074	65,690	68,372	(195)	(2,270)	13	1,162	0	67,082
Total Revenues								
Expenses								
21,529	21,754	21,526	32	309		373		22,240
			Academic Salaries					
10,519	10,628	10,622	11	187		181		11,000
			Staff Salaries					
12,215	12,506	12,242	13	183		228		12,667
			Benefits & Other Compensation					
23,628	23,442	21,533	48	1,312	150	380		23,423
			Non-Salary Expenses					
2,412	2,071	2,447	(200)	226	12			2,485
			Internal Expenses					
70,303	70,400	68,369	(96)	2,217	162	1,162	0	71,815
Total Expenses								
(17,229)	(4,711)	3	(98)	(4,488)	(150)	0	0	(4,733)
Operating Results								
1,086	1,000			1,000				1,000
			Transfers From (to) Endowment & Other Assets					
			Transfers From (to) Plant					0
(16,143)	(3,711)	3	(98)	(3,488)	(150)	0	0	(3,733)
Surplus / (Deficit)								
43,518	27,375		624	21,822	1,218			23,664
			Beginning Fund Balances					
27,375	23,664	3	525	18,334	1,069			19,931
			Ending Fund Balances					

Notes

- This schedule does not include endowment principal, student loan funds, or plant funds.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.

STANFORD UNIVERSITY LIBRARIES
2019/20 Consolidated Budget Plan

[IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	OPERATING BUDGET	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	RESTRICTED ENDOWMENT	GRANTS & CONTRACTS	AUXILIARY & SERVICE CENTER	2019/20 TOTAL
Revenues								
58,674	57,686	58,709					586	59,294
General Funds Allocation								
27,825	28,205	83	239	910	17,779	2,900	7,000	28,911
Restricted Revenues								
705	728	600	95				50	745
Internal Revenue								
3,642	5,330	13,504			(12,385)		1,800	2,919
Operating Transfers								
90,846	91,949	72,896	334	910	5,394	2,900	9,436	91,869
Total Revenues								
Expenses								
11,053	11,838	12,535			82			12,617
Academic Salaries								
22,644	23,025	18,570				1,147	4,360	24,077
Staff Salaries								
12,832	13,112	11,880		17	77	357	1,420	13,751
Benefits & Other Compensation								
36,882	39,128	28,224		81	5,438	1,396	3,863	39,001
Non-Salary Expenses								
3,895	3,705	1,966		22	448		891	3,327
Internal Expenses								
87,307	90,807	73,174	0	120	6,045	2,900	10,535	92,774
Total Expenses								
3,538	1,141	(278)	334	790	(650)	0	(1,100)	(904)
Operating Results								
(4,115)	(3,000)							0
Transfers From (to) Endowment & Other Assets								
	(259)							0
Transfers From (to) Plant								
(577)	(2,117)	(278)	334	790	(650)	0	(1,100)	(904)
Surplus / (Deficit)								
14,896	14,319	330	5,427	2,475	1,825		2,145	12,202
Beginning Fund Balances								
14,319	12,202	52	5,762	3,265	1,174		1,045	11,298
Ending Fund Balances								

Notes:

- This schedule does not include endowment principal, student loan funds, or plant funds.
- Grants and Contracts revenue includes Indirect Cost Recovery; this same amount is charged as a Non-Salary Expense for infrastructure and general administrative costs of research.
- The general funds allocation shown in this schedule includes one-time allocations and therefore will not match the base figure shown in the table on page 87.

AUXILIARY ACTIVITIES

ATHLETICS 2019/20 Consolidated Budget Plan [IN THOUSANDS OF DOLLARS]

2017/18 ACTUALS	2018/19 PROJECTION	AUXILIARY	DESIGNATED FUNDS	RESTRICTED EXPENDABLE	ENDOWMENT SCHOLARSHIP	ENDOWMENT OTHER	2019/20 TOTAL
Revenues							
54,452	50,455	56,657					56,657
22,806	24,230				24,759		24,759
27,141	24,930			15,857		9,587	25,444
20,256	16,420	15,550					15,550
8,846	9,467	9,703					9,703
7,320	8,404	7,304	1,819				9,123
8,415	7,711	728	7,000				7,728
2,473	300	23,367	(1,819)	(11,961)		(9,587)	0
151,710	141,917	113,309	7,000	3,896	24,759	0	148,964
Expenses							
68,023	72,400	69,073	2,500				71,573
25,843	27,210			3,896	24,759		28,655
18,176	16,124	16,573	50				16,623
11,020	10,704	10,800	200				11,000
12,410	11,509	10,905	4,250				15,155
11,821	12,221	10,610					10,610
420	328	300					300
986	173	175					175
148,699	150,670	118,435	7,000	3,896	24,759	0	154,090
(4,665)	8,753	5,126					5,126
(1,655)	0	0	0	0	0	0	0
20,705	19,050	41	5,452	13,156		402	19,050
19,050	19,050	41	5,452	13,156		402	19,050

RESIDENTIAL & DINING ENTERPRISES
2019/20 Auxiliary Budget Plan*

[IN THOUSANDS OF DOLLARS]

	2017/18 ACTUALS	2018/19 PROJECTION	2019/20 PLAN
Revenues			
Revenues			
Student Payments - Room & Board	165,696	173,760	181,144
Student Payments - R&B Off Campus	15,840	17,455	18,314
Conference Income	17,496	18,399	19,234
Catering and Executive Dining	20,130	19,599	21,417
Retail, Concessions, and Vending	11,489	10,957	13,160
Stanford Guest House	5,411	5,679	5,770
Other Operating Income	6,919	6,939	6,613
Interest Income	735	629	772
Total Revenues	243,716	253,417	266,424
Transfers			
Grad Housing Subsidy: Off Campus	19,059	21,035	24,091
Debt Service & Rate Containment Subsidies	13,754	14,476	14,734
Transfers (Net) related to Project Funds, and from Reserves	(6,324)	(19)	(615)
Transfers to ResEd, ResComp and GLO	(11,006)	(11,386)	(11,748)
Total Transfers	15,483	24,106	26,462
Total Revenue and Transfers	259,199	277,523	292,886
Expenses			
Salaries and Benefits	75,296	82,996	90,190
Food Cost	17,796	19,105	19,782
EM&S, Services, Commissions and Other	29,912	29,562	30,861
Rental and Leases Off Campus	31,576	33,705	37,131
Utilities and Telecommunication	15,254	16,371	17,090
Maintenance and Asset Renewal	26,978	32,536	36,071
Debt Service	53,451	52,752	50,984
G&A, Insurance and Taxes	8,936	10,496	10,777
Total Expenses	259,199	277,523	292,886
Auxiliary Operating Results	0	0	0
Change in Reserve and Endowment Funds	4,863	(2,325)	(1,782)
Consolidated Results and Net Fund Transfers	4,863	(2,325)	(1,782)
Beginning Fund Balance	23,562	28,425	26,100
Projected Ending Fund Balance	28,425	26,100	24,318

Notes:

- The revenue, transfer, and expense amounts in this table represent the auxiliary operation of R&DE only
- Fund Balance does not include endowment principal - \$4 million Funds Functioning as Endowment (FFE)

APPENDIX B

SUPPLEMENTARY INFORMATION

The tables and graphs in this Appendix provide historical and statistical data on enrollment, tuition and room and board rates, financial aid, faculty, staff, selected expenditures, the endowment, and fund balances. The short summaries below serve as an introduction to the schedules and highlight interesting trends or historical occurrences.

Schedule 1—Student Enrollment for Autumn Quarter

Total enrollment for undergraduate and graduate students grew slightly more in 2018/19 compared to the growth seen in the prior year. Overall enrollment grew 0.6% over the prior year, comparable to last year's 0.5% growth and a five-year median of 0.8% for year-over-year growth. Broken out, undergraduate enrollment was 7,083 and total graduate enrollment was 8,021, per autumn quarter figures. The graduate student body continues to grow at a faster pace than the undergraduate, growing 0.7% over last year's enrollment versus 0.4% growth in undergraduate enrollment.

Schedule 2—Postdoctoral Scholars by School and by Gender

According to fall quarter enrollment figures, the postdoctoral scholar population decreased 1.3% in 2018/19. Lower enrollments were reported in four schools with little growth in the School of Medicine, where almost 60% of the total population reside. The distribution of postdoctoral scholars by gender has remained roughly 40% female and 60% male over the past ten years.

Schedule 3—Graduate Student and Postdoc Support

At Stanford, teaching assistants and research assistants earn salaries as part of their compensation, and most receive an allowance toward their tuition charges. Graduate fellows receive financial aid that covers some or all of their tuition charges, and most receive stipends that help cover living and research-related expenses. Postdoctoral students receive

salaries and benefits as part of their appointment, and many also receive tuition allowance and living expense stipends.

Grants and contracts cover roughly a quarter of graduate student expenses and about 70% of postdoctoral scholar expenses. University and school unrestricted (or general use) funds, designated funds, and endowment income funds restricted specifically to graduate student aid cover the remaining expenses. In 2017/18, the total support to graduate students and postdoctoral scholars at Stanford reached \$586 million as graduate support increased 3.8% and postdoctoral support increased 7.7% over the prior year. There are three main factors that drive the university's growth in graduate and postdoctoral support: 1) enrollment growth, 2) tuition and salary growth, and 3) an increasingly larger share of the student body receiving support as units expand their programs and funding support.

Schedule 4—Graduate Enrollment by School and Degree

This table shows the trend of graduate student enrollment within each school and across degree programs. The majority of graduate student enrollments are in H&S and Engineering, with approximately 61% of the total in 2018/19. The enrollment has increased university-wide over the ten-year span at a compounded annual growth rate of 1.3%. During this period, the School of Engineering added the most students (274) while the School of Medicine's population grew the fastest, increasing 2.8% on a compound annual basis. In 2018/19, the largest enrollment shifts were in Engineering where doctoral students increased by 101

students and Master's students decreased by 40. This shift was primarily the result of the Mechanical Engineering department changing its admissions policy to allow applicants to enroll directly into the PhD program rather than entering the Master's program first. In spite of these shifts, the makeup of graduate students has stayed relatively consistent over this period: 52% doctorate, 28% masters, and 20% professional.

Schedule 5—Undergraduate Tuition and Room & Board Rates

In 2019/20, the total cost of undergraduate tuition, mandatory fees, and room and board are projected to increase to \$69,962, an increase of 4.2% versus the prior year's 3.7%. Driving this change is the undergraduate tuition rate increase of 4.25%, which is the highest in more than a decade. The Board of Trustees approved this tuition rate increase to address budgetary needs in light of the current economy, to enhance Stanford's undergraduate financial aid program, and to maintain Stanford's competitive placement among its peer institutions. The room and board increase of 4.25% remains the same as the prior year and continues to provide additional funding needed to address inflationary impacts on operating costs, as well as enhancing a preventive maintenance program, increasing support of an asset renewal program, and funding debt service on new and renovated facilities.

Schedule 6—Undergraduate Financial Aid by Type of Aid and Source of Funds

Reported in this schedule are the various types of financial aid awarded to undergraduate students, including non-need based scholarships. In 2017/18, total undergraduate financial aid was \$204.8 million, a 5.3% increase over the previous year. Funding from federal and state grants continued their decreasing trend in recent years, collectively dropping from \$10.6 million in 2014/15 to \$9.7 million in 2017/18, which would be even more drastic if factoring in inflation. As a result, scholarships awarded by Stanford have increased over this period to cover rising costs and a greater number of students on aid, rising from \$150.6 million to \$177.3 million in 2017/18 (a compound annual growth rate of 5.6%). This growth has largely been supported by increased restricted gift and endowment income, which has grown at a compound annual rate of 5.8% between 2014/15 and 2017/18.

Schedule 7—Undergraduate Need-Based Financial Aid

This schedule pertains only to undergraduate students who receive need-based financial aid from Stanford. It shows historical and projected levels of expense from student needs and the support they receive from all sources (including the family contribution). Total student expense is driven by the growth in the student budget and by the number of students on aid. For 2019/20, the budget for need-based aid will increase by 5.9%. This increase is higher than the 4.2% overall increase in tuition and room and board rates mostly due to Stanford's commitment to and success in building the capacity of the university to provide more opportunities to first-generation and low-income students. While endowment income has played a progressively larger role toward this aim, its growth has not kept pace with student needs. As a result, funding from unrestricted funds will increase \$7.1 million, or 23.9%, in 2019/20 to support the expected growth of total student expense.

Schedule 8—Majors with the Largest Number of Baccalaureate Degrees Conferred

The twenty undergraduate majors with the most degrees conferred in 2017/18 are shown in this schedule. Human Biology used to be the most popular degree. However, it has experienced the most significant decline in degrees over the 10-year period, decreasing annually at a compound annual rate of 5.9%. Starting in 2013/14, Computer Science (CS) took the top spot, posting a 60% increase of degrees compared to 2012/13. CS degrees continue to be the most popular as nearly all undergraduate students and a growing number of graduate students take the introductory Computer Science course. In 2017/18, CS degrees increased 17% over the prior year. The other two degrees with significant changes in degree numbers are Management Science and Engineering, which increased by 13, or 24%, and the interdisciplinary major Science, Technology, and Society, which decreased by 23 or 27%.

Schedule 9—Students Housed on Campus

The percentage of undergraduate students housed on campus has stayed relatively flat around 90% for the twenty years shown in this table. However, the graduate housing program has expanded, growing from 52.4% in 1999/00 to 66.2% in 2018/19. In the past five years, the number

of graduate students housed in off-campus subsidized apartments has grown rapidly from 440 students in 2014/15 to 1,225 students in 2018/19, due to a displacement caused by the construction of the new Escondido Village Graduate Residences. These residences are expected to open in Fall 2020, at which point the percentage of graduate students housed by Stanford will increase significantly.

Schedule 10—Total Professorial Faculty

Total professoriate increased by 21 (0.9%) to 2,240 in 2018/19, slightly under the average from the last ten years of 1.8%. The overall growth is driven by increases among three faculty groups: senior faculty positions, junior faculty positions, and non-tenure line positions. Non-tenure line professors have increased mostly due to Medical Center Line faculty growth in the School of Medicine.

Schedule 11—Distribution of Tenured, Non-Tenured, and Non-Tenure Line Faculty

This schedule provides a disaggregated view of the data in Schedule 10 by school for the last three academic years. Over this time, the total number of tenured faculty expanded by 14 (about 1%), the number of non-tenured faculty increased by 10 (about 3%), and the number of non-tenure line faculty increased by 36 (about 5%). While the School of Medicine and School of Humanities and Sciences hold roughly 70% of all faculty appointments across the university, Medicine has mainly driven faculty growth. During this three-year period, its faculty have increased by 6.5%, primarily due to growth in tenured professors (19, or 6.3%) and non-tenure line professors (40, or 6.8%).

Schedule 12—Number of Non-Teaching Employees

This schedule shows the number of regular non-teaching employees by academic, administrative, and auxiliary units. The number of employees increased by 624 (4.5% growth) in 2018. The School of Medicine continues to drive the majority of growth, expanding 7.9% over the prior year by adding 380 employees. This expansion is largely due to continued growth with clinical and research activity. Business Affairs and Residential & Dining Enterprises also drove overall growth in 2018, expanding 4.9% and 6.9% respectively and adding 101 employees compared to the prior year. The majority of their growth was due to vacancies being filled, though Residential & Dining Enterprises

also added employees as a result of the expanding High Performance and Education (HPE) dinner program. Other than these particular growth areas, Stanford has experienced a continuous annual growth of around 3% since 2008/09 when the university was forced to right-size because of the recession.

Schedule 13—Fringe Benefits Detail

Fringe benefits rates provide a mechanism to support the various components of non-salary compensation for employees. Stanford has four distinct fringe benefits rates for (1) regular benefits-eligible employees, which include most faculty and staff; (2) postdoctoral research affiliates; (3) casual/temporary employees; and (4) graduate research and teaching assistants. This schedule shows the programs and costs that contribute to the weighted average of the four individual benefits rates, which was 27.5% in 2017/18. Compared to the prior year, the total fringe benefits program costs increased by 5.6% in 2017/18, which is below the compound annual growth of 6.9% over the seven-year period shown in the table. Retirement and insurance program benefits, which account for 91% of fringe benefits, grew by 5.5% and 6.2%, respectively. In addition, transportation benefits including the Caltrain Go Pass and the VTA Eco Pass were added to the fringe pool in 2017/18. These benefits contributed an additional \$4.3 million (reflected as “Other” Miscellaneous Program costs).

Schedule 14—Sponsored Research Expense by Agency and Fund Source

In 2017/18, the volume of federally sponsored research expense continued its trend of slower growth, increasing only 0.2% or \$1.6 million to a total of \$697.7 million. This downward trend is now in its third straight year, after the 5.5% increase experienced in 2014/15. Contrastingly, the volume of non-federally sponsored research expenses maintained a high rate of growth, achieving a growth peak of 11.7% and increasing to a total of \$325.2 million. As a result of these diverging trends, the mix of funding has slowly shifted from federal to non-federal. Ten years earlier in 2008/09, federal direct research comprised 71.9% of direct funding, but that figure fell to 64.8% in 2016/17. Overall, the total research expense volume sponsored by federal and non-federal sources (excluding SLAC) grew 3.6% in 2017/18 to \$1.02 billion.

Schedule 15—Sponsored Research Expense by School

This table presents the sponsored research expense for the schools and the Dean of Research over seven years. The School of Medicine holds the majority share at 66%, though its annual increase has slowed to 4.3% since the large 11.4% growth in 2014/15. The other two units with the largest share of sponsored research are the School of Engineering, which increased its 2017/18 volume by 6.7%, and the School of Humanities and Sciences, whose volume decreased by 4.6%. The School of Earth, Energy and Environmental Sciences recorded the largest percent increase, growing 34.0%, or \$3.9 million, over the prior year.

Schedule 16—Plant Expenditures by Unit

This schedule shows historical expenses from reserves or borrowed funds for building or infrastructure projects related to various units. Expenditures for equipment are excluded from these figures. Total plant expenditures in 2017/18 were \$364.4 million. This figure has declined over the past four years at a compound annual rate of 12.1%. In particular, R&DE deferred capital projects in 2017/18 to preserve future capacity for debt service related to the Escondido Village Graduate Residences. Besides this decrease, the following project completions contributed to plant expenditures in 2017/18: the Anne T. and Robert M. Bass Biology Research Building, the Denning House, the Durand Building Phase 4 renovations, and the Home of Champions. In addition, SLAC's Arrillaga Science Center (formerly Photon Sciences Laboratory Building), a 2017/18 project in design and construction, contributed to plant expense that year.

Schedule 17—Endowment Market Value and Merged Pool Rate of Return

The annual nominal rate of return for the merged pool in 2017/18 was 11.3% for the 12 months ending June 30, 2018. This positive performance exceeded the 9.0% median return for U.S. colleges and universities, and outperformed the 7.6% return for a traditional "70/30" portfolio of equities and bonds. The endowment market value grew to \$26.5 billion, a 6.8% increase over 2016/17. The target payout rate remains 5.5%.

Schedule 18—Expendable Fund Balances at Year-End

This schedule shows total expendable fund balances (excluding sponsored research) by academic unit (excluding SLAC) over the past decade. Aided by continuous growth in its health care services revenue, the School of Medicine will have nearly tripled its fund balance in 2019/20 since 2009/10. In the same time frame, it will go from representing 37% of the total academic unit fund balances to 51%. Other units with fast expendable fund balance growth are Dean of Research and Engineering.

Schedule 19—Academic Unit Expendable Fund Balances at Year-End by Level of Control

This schedule shows total expendable fund balances (excluding sponsored research) by level of control within the academic units over the last three years along with the compound annual growth. "Level of control" indicates the authority of funds within each school. Overall, approximately 75% of the fund balances comprise the combination of school/institution and department/program levels in the past three years. The dynamics of fund balance growth have also varied by level of control among the schools. The fund balances at the department/program and faculty levels had significant annual growth at 12.5% and 10.4%, respectively, while fund balances show a small 2.1% increase at the school/institution level.

Schedule 20—Consolidated Budget for Operations History

This schedule shows actual results from 2012/13 through 2017/18, including the 2018/19 year-end projection and the 2019/20 budget plan for the Consolidated Budget for Operations. While expense growth has outpaced revenue growth for the period shown (6.6% versus 5.7%, respectively), the net operating results each year continue to provide additions to fund balances, even after transfers to assets such as endowment principal and plant. On average, the university nets an operating income of roughly 8% of revenue over the displayed period.

**STUDENT ENROLLMENT FOR AUTUMN QUARTER¹
2009/10 through 2018/19**

YEAR	UNDERGRADUATE			GRADUATE			TGR ²			TOTAL	TOTAL
	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL	GRADUATE	ALL
2009/10	3,405	3,473	6,878	2,507	4,529	7,036	558	847	1,405	8,441	15,319
2010/11	3,334	3,553	6,887	2,635	4,678	7,313	597	869	1,466	8,779	15,666
2011/12	3,342	3,585	6,927	2,651	4,675	7,326	571	899	1,470	8,796	15,723
2012/13	3,346	3,653	6,999	2,697	4,690	7,387	600	884	1,484	8,871	15,870
2013/14	3,274	3,706	6,980	2,773	4,724	7,497	574	826	1,400	8,897	15,877
2014/15	3,314	3,704	7,018	2,887	4,809	7,696	596	826	1,422	9,118	16,136
2015/16	3,331	3,663	6,994	2,966	4,776	7,742	584	870	1,454	9,196	16,190
2016/17	3,412	3,620	7,032	3,030	4,901	7,931	557	816	1,373	9,304	16,336
2017/18	3,546	3,510	7,056	3,159	4,797	7,956	567	845	1,412	9,368	16,424
2018/19	3,548	3,535	7,083	3,385	4,636	8,021	564	522	1,416	9,437	16,520

Source: IR&DS Office, fall quarter third week enrollment figures.

¹ Student enrollment figures are only for degree-seeking students.

² Terminal Graduate Registration (TGR) allows students to register at a reduced tuition rate while they work on a dissertation, thesis, or department project.

SCHEDULE 2

POSTDOCTORAL SCHOLARS BY SCHOOL AND BY GENDER¹ 2009/10 through 2018/19

BY SCHOOL	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Graduate School of Business	2	0	0	0	0	0	0	0	0	1
School of Earth, Energy & Environmental Sciences	40	44	50	59	72	76	75	67	72	66
Graduate School of Education	11	9	9	12	19	20	22	19	23	15
School of Engineering	202	212	228	259	274	308	341	364	407	378
School of Humanities and Sciences	315	392	401	413	427	416	437	435	431	413
School of Law	1	0	2	1	2	0	0	0	0	0
School of Medicine	1,090	1,231	1,247	1,252	1,258	1,312	1,341	1,355	1,389	1,398
SLAC	0	0	0	0	8	21	48	57	53	73
Total	1,661	1,888	1,937	1,996	2,060	2,153	2,264	2,297	2,375	2,344

By Gender

Female	673	754	795	828	834	828	878	905	933	965
Male	988	1,134	1,142	1,168	1,226	1,325	1,386	1,392	1,442	1,379

Source: IR&DS Office, fall quarter third week enrollment figures.

¹ The postdoctoral scholar population includes medical fellows in the School of Medicine.

GRADUATE STUDENT AND POSTDOC SUPPORT

[IN MILLIONS OF DOLLARS]

	2016/17				2017/18				2016/17 TO 2017/18			
	GENERAL/SCHOOL FUNDS ¹	DESIGNATED FUNDS	RESTRICTED STUDENT AID FUNDS	GRANTS & CONTRACTS	TOTAL	GENERAL/SCHOOL FUNDS ¹	DESIGNATED FUNDS	RESTRICTED STUDENT AID FUNDS	GRANTS & CONTRACTS	TOTAL	AMOUNT	PERCENT CHANGE
Graduate Student Support												
Salaries												
Teaching Assistants	17.2	0.4	12	0.1	29.6	17.5	0.4	13.5	0.1	31.5	1.9	6.4%
Research Assistants	8.7	8.8	18.0	44.5	80.0	9.3	6.0	20.0	49.2	84.5	4.6	5.7%
Other Salaries	0.4	0.5	0.6	0.3	1.8	0.4	0.4	0.5	0.3	1.7	(0.1)	-6.0%
Benefits	5.6	5.2	6.8	3.0	20.6	5.5	5.2	7.2	3.1	20.9	0.3	1.6%
Total Salaries & Benefits	31.9	14.9	37.4	47.9	132.0	32.7	12.0	41.2	52.8	138.7	6.7	5.1%
Tuition Allowance	51.1	4.3	11.0	20.8	87.3	53.5	2.8	12.6	22.9	91.8	4.5	5.2%
Fellowship Tuition	34.8	2.8	65.6	10.7	113.9	35.5	1.7	69.9	10.6	117.7	3.8	3.3%
Stipends	23.8	3.8	37.5	21.9	87.0	24.9	(0.1)	40.8	22.4	88.0	1.0	1.1%
Total Graduate Student Support	141.7	25.8	151.4	101.3	420.2	146.5	16.4	164.6	108.7	436.2	16.0	3.8%
Percent of Total	33.7%	6.1%	36.0%	24.1%	100.0%	33.6%	3.7%	37.7%	24.9%	100.0%		
Postdocs												
Salaries	2.7	14.0	13.7	63.4	93.7	2.6	11.6	15.1	71.7	101.0	7.3	7.8%
Benefits	1.0	3.7	4.3	15.7	24.7	1.0	4.0	4.8	18.2	28.0	3.2	13.1%
Tuition	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.2	0.0	25.0%
Stipends	0.7	1.5	2.9	15.1	20.2	0.7	1.2	3.3	15.1	20.3	0.1	0.4%
Total Postdoc Support	4.6	19.2	20.9	94.1	138.8	4.5	16.8	23.2	104.9	149.5	10.6	7.7%
Percent of Total	3.3%	13.9%	15.0%	67.8%	100.0%	3.0%	11.3%	15.5%	70.2%	100.0%		

¹ General/School fungible funds are general funds and some Gift and Endowed funds that can be used for any purpose within a school.

SCHEDULE 4

GRADUATE ENROLLMENT BY SCHOOL AND DEGREE¹

2009/10 through 2018/19

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Graduate School of Business	895	928	940	961	971	1,002	1,007	1,012	1,048	1,039
Doctoral	97	101	105	103	110	121	130	131	126	125
Master's	57	56	67	82	83	89	91	93	105	82
Professional	741	771	768	776	778	792	786	788	817	832
School of Earth, Energy & Environmental Sciences	286	309	338	350	349	361	365	356	374	354
Doctoral	219	233	270	277	267	283	293	287	298	278
Master's	67	76	68	73	82	78	72	69	76	76
Graduate School of Education	335	365	355	343	355	334	341	312	313	313
Doctoral	166	181	171	178	181	171	158	151	153	154
Master's	169	184	184	165	174	163	183	161	160	159
School of Engineering	3,289	3,452	3,452	3,418	3,381	3,419	3,458	3,523	3,502	3,563
Doctoral	1,593	1,604	1,694	1,716	1,707	1,671	1,721	1,760	1,825	1,926
Master's	1,696	1,848	1,758	1,702	1,674	1,748	1,737	1,763	1,677	1,637
School of Humanities and Sciences	2,092	2,162	2,159	2,224	2,261	2,300	2,296	2,286	2,213	2,215
Doctoral	1,748	1,799	1,794	1,845	1,871	1,907	1,922	1,901	1,890	1,881
Master's	344	363	365	379	390	393	374	385	323	334
School of Law	590	636	631	641	631	650	649	668	669	647
Doctoral	17	17	20	23	23	21	20	21	21	21
Master's ²	35	63	59	63	55	70	68	83	89	78
Professional	538	556	552	555	553	559	561	564	559	548
School of Medicine	954	927	921	934	949	985	1,012	1,074	1,172	1,224
Doctoral	434	427	428	431	443	471	483	511	526	529
Master's	62	59	64	61	60	64	74	106	164	201
Professional	458	441	429	442	446	450	455	457	482	494
Continuing Studies						67	68	73	77	82
Master's ³						67	67	73	77	82
University-wide	8,441	8,779	8,796	8,871	8,897	9,118	9,196	9,304	9,368	9,437
Doctoral	4,274	4,362	4,482	4,573	4,602	4,645	4,727	4,762	4,839	4,914
Master's	2,430	2,649	2,565	2,525	2,518	2,672	2,666	2,733	2,671	2,649
Professional	1,737	1,768	1,749	1,773	1,777	1,801	1,802	1,809	1,858	1,874

Source: IR&DS Office fall quarter third week enrollment figures.

¹ Includes doctoral (including Terminal Graduate Registration), master's, and professional students (JDs, MDs, MBAs). Beginning 2014/15, includes MLA degrees.

² LLMs and JSMs are re-classified to Master's in this table from 2012/13.

³ Beginning 2014/15, MLA students from Continuing Studies are included.

UNDERGRADUATE TUITION, MANDATORY FEES, AND ROOM & BOARD RATES

1989/90 through 2019/20

[IN DOLLARS]

YEAR	UNDERGRADUATE TUITION	PERCENT CHANGE FROM PREVIOUS YEAR	MANDATORY FEES ¹	ROOM & BOARD	PERCENT CHANGE FROM PREVIOUS YEAR	TOTAL COST	PERCENT CHANGE FROM PREVIOUS YEAR
1989/90	13,569	8.0%		5,595	6.4%	19,164	7.5%
1990/91	14,280	5.2%		5,930	6.0%	20,210	5.5%
1991/92	15,102	5.8%		6,160	3.9%	21,262	5.2%
1992/93	16,536	9.5%		6,314	2.5%	22,850	7.5%
1993/94	17,775	7.5%		6,535	3.5%	24,310	6.4%
1994/95	18,669	5.0%		6,796	4.0%	25,465	4.8%
1995/96	19,695	5.5%		7,054	3.8%	26,749	5.0%
1996/97	20,490	4.0%		7,337	4.0%	27,827	4.0%
1997/98	21,300	4.0%		7,557	3.0%	28,857	3.7%
1998/99	22,110	3.8%		7,768	2.8%	29,878	3.5%
1999/00	23,058	4.3%		7,881	1.5%	30,939	3.6%
2000/01	24,441	6.0%		8,030	1.9%	32,471	5.0%
2001/02	25,917	6.0%		8,304	3.4%	34,221	5.4%
2002/03	27,204	5.0%		8,680	4.5%	35,884	4.9%
2003/04	28,563	5.0%		9,073	4.5%	37,636	4.9%
2004/05	29,847	4.5%		9,500	4.7%	39,347	4.5%
2005/06	31,200	4.5%		9,932	4.5%	41,132	4.5%
2006/07	32,994	5.8%		10,367	4.4%	43,361	5.4%
2007/08	34,800	5.5%		10,808	4.3%	45,608	5.2%
2008/09	36,030	3.5%		11,182	3.5%	47,212	3.5%
2009/10	37,380	3.7%	501	11,463	2.5%	49,344	4.5%
2010/11	38,700	3.5%	501	11,876	3.6%	51,077	3.5%
2011/12	40,050	3.5%	519	12,291	3.5%	52,860	3.5%
2012/13	41,252	3.0%	537	12,721	3.5%	54,510	3.1%
2013/14	42,690	3.5%	555	13,166	3.5%	56,411	3.5%
2014/15	44,184	3.5%	573	13,631	3.5%	58,388	3.5%
2015/16	45,729	3.5%	591	14,107	3.5%	60,427	3.5%
2016/17	47,331	3.5%	609	14,601	3.5%	62,541	3.5%
2017/18	48,987	3.5%	630	15,112	3.5%	64,729	3.5%
2018/19	50,703	3.5%	651	15,763	4.3%	67,117	3.7%
2019/20	52,857	4.25%	672	16,433	4.25%	69,962	4.2%
				UNDERGRADUATE TUITION	ROOM & BOARD	TOTAL COST	
Compound Annual Increase, 1989/90 - 2019/20 (30 years):				4.6%	3.7%	4.4%	
Compound Annual Increase, 2009/10 - 2019/20 (10 years):				3.5%	3.7%	3.6%	

¹ Campus health service fee.

UNDERGRADUATE FINANCIAL AID BY TYPE OF AID AND SOURCE OF FUNDS¹

2008/09 through 2017/18
[IN THOUSANDS OF DOLLARS]

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Stanford Scholarships										
Need-based Awards ²										
Stanford Unrestricted Funds	9,933	32,803	36,266	34,586	34,073	24,658	21,877	18,030	22,116	23,952
Gifts and Endowment Income ³	99,682	89,180	83,352	92,260	93,058	101,568	108,816	116,923	121,412	129,002
Athletic Awards	15,942	16,756	17,381	18,018	18,787	20,141	19,952	22,727	23,688	24,359
Total Stanford Scholarships	125,557	138,739	136,999	144,864	145,919	146,367	150,645	157,680	167,216	171,313
External Grants										
Federal	5,627	7,495	7,581	7,474	7,211	6,872	7,283	6,923	6,946	7,306
State	3,117	3,548	3,811	3,666	3,474	3,344	3,275	2,687	2,503	2,432
Other	10,216	10,304	10,085	9,904	9,459	9,475	9,656	10,177	10,422	10,514
Total External Grants	18,961	21,348	21,477	21,043	20,143	19,691	20,214	19,786	19,871	20,251
Loans										
Federal	4,447	5,396	5,083	5,786	5,796	5,345	5,405	4,402	4,018	3,393
Other	3,194	1,610	1,874	2,097	1,807	2,049	2,413	2,500	2,424	2,784
Total Loans	7,641	7,006	6,957	7,883	7,603	7,394	7,818	6,902	6,442	6,178
Federal Work-Study Earnings	1,078	1,227	1,212	1,336	1,168	1,193	1,053	1,603	991	1,037
Grand Total	153,236	168,319	166,644	175,126	174,833	174,645	179,730	185,971	194,520	204,779

Source: Financial Aid Office

¹ Figures are actual expenses and are in thousands of dollars. The data include all funds awarded to undergraduate students administered through the Financial Aid Office, including aid that is not need-based.

² Included are endowed funds that are not need-based per donors' wishes. The amount is \$123,967 in 2017/18. Thus, the figures in this schedule will not equal the sum of the amounts for Stanford funded need-based awards in Schedule 7.

³ Includes support from the Stanford Fund.

UNDERGRADUATE NEED-BASED FINANCIAL AID
2019/20 Student Budget Needs and Sources,
Including Parental and Student Contributions¹
 [IN THOUSANDS OF DOLLARS]

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2018/19 TO 2019/20	
	ACTUALS	ACTUALS	ACTUALS	ACTUALS	PROJECTED	BUDGET	AMOUNT	PERCENT CHANGE
Needs								
Tuition, Room & Board	184,179	186,455	195,085	201,917	214,042	226,389	12,347	5.8%
Books and Personal Expenses	18,134	18,061	18,695	22,046	23,605	25,304	1,699	7.2%
Travel	2,635	2,662	2,755	2,923	3,026	3,116	90	3.0%
Total Student Expenses	204,948	207,178	216,534	226,886	240,673	254,808	14,135	5.9%
Sources								
Total Family Contribution (Includes parent contribution for aided students, self-help, summer savings, assets, etc.)	59,861	57,777	59,136	58,994	62,188	63,808	1,620	2.6%
Endowment Income ²	86,921	95,173	99,860	106,781	110,607	115,526	4,919	4.4%
Expendable Gifts	2,550	2,798	2,786	1,717	2,050	1,650	(400)	-19.5%
The Stanford Fund	18,460	18,498	18,673	20,363	19,704	19,684	(20)	-0.1%
Federal Grants	5,765	5,777	5,809	6,349	6,492	6,708	216	3.3%
California State Scholarships	3,238	2,665	2,484	2,426	2,600	2,667	67	2.6%
Outside Awards	5,206	5,725	5,534	6,005	6,200	6,470	270	4.4%
Department Sources	1,081	1,396	1,216	1,559	1,100	1,443	343	31.2%
General Funds	21,866	17,368	21,035	22,694	29,733	36,853	7,120	23.9%
Total Sources	204,948	207,178	216,534	226,886	240,673	254,808	14,135	5.9%
Number of Students on Need-Based Aid	3,254	3,196	3,198	3,242	3,315	3,375	60	1.8%

¹ In this table, sources of aid other than the family contribution include only aid awarded to students who are receiving scholarship aid from Stanford. Thus, the sum of the amounts for scholarships and grants will not equal the figures in Schedule 6.

² Endowment income includes reserve funds and specifically invested funds.

SCHEDULE 8

MAJORS WITH THE LARGEST NUMBER OF BACCALAUREATE DEGREES CONFERRED¹ 2008/09 through 2017/18

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Computer Science	65	85	87	143	132	211	217	265	273	320
Human Biology	229	219	191	177	177	165	185	157	130	132
Engineering	93	82	99	99	98	123	125	103	100	110
Mechanical Engineering	48	54	56	50	60	53	79	94	86	75
Economics	162	141	120	103	97	86	98	107	83	69
Management Science and Engineering	51	59	64	69	55	63	63	60	54	67
Symbolic Systems	29	18	21	21	37	44	38	55	63	65
Science, Technology, and Society	35	40	60	53	65	105	99	96	86	63
Biology ²	121	123	124	106	108	99	97	107	79	62
Political Science	71	74	72	72	55	61	44	54	53	57
Psychology	73	79	72	94	84	56	68	54	62	56
Electrical Engineering	47	36	43	39	36	33	42	50	61	51
International Relations	102	108	103	96	88	63	63	59	61	50
Mathematical and Computational Science	25	22	20	17	25	23	31	27	42	47
English	75	69	58	68	67	55	51	56	40	46
Mathematics	48	35	37	43	37	43	36	37	32	41
History	59	63	56	67	67	48	36	45	41	33
Earth Systems	24	32	40	53	33	44	30	21	29	33
Bioengineering								22	27	33
Physics	25	32	25	21	22	18	21	22	25	29

Source: SIRIS Student Analytics, IR&DS Office

¹ This table includes the 20 degrees in which the most undergraduate degrees were awarded in 2017/18.

² In previous years, "Biological Sciences" degrees were not reported in the Budget Book under the "Biology" section. This report counts Biological Sciences degrees conferred as Biology degrees. Any discrepancies between prior years' numbers of Biology majors arises from this name change.

STUDENTS HOUSED ON CAMPUS
1999/00 through 2018/19

YEAR	UNDERGRADUATES HOUSED ON CAMPUS ¹	PERCENT OF UNDERGRADUATES HOUSED ON CAMPUS	GRADUATE STUDENTS HOUSED ON CAMPUS	GRADUATE STUDENTS HOUSED IN OFF-CAMPUS SUBSIDIZED APARTMENTS ²	PERCENT OF GRADUATE STUDENTS HOUSED BY STANFORD
1999/00	5,955	90%	3,408	584	52.4%
2000/01	5,969	91%	3,887	687	59.4%
2001/02	6,199	93%	3,748	932	62.1%
2002/03	6,138	91%	3,828	932	62.6%
2003/04	6,067	91%	4,013	632	59.6%
2004/05	6,046	90%	4,391	553	61.1%
2005/06	6,116	91%	4,218	430	56.8%
2006/07	6,050	90%	4,255	356	56.2%
2007/08	6,087	90%	4,421	130	55.6%
2008/09	6,160	90%	4,319	138	53.5%
2009/10	6,300	92%	4,650		55.1%
2010/11	6,257	91%	4,695	71	54.3%
2011/12	6,302	91%	4,700	68	54.2%
2012/13	6,371	91%	4,776	198	56.1%
2013/14	6,448	92%	4,645	362	56.3%
2014/15	6,503	93%	5,037	440	60.1%
2015/16	6,401	92%	5,001	708	62.1%
2016/17	6,538	93%	4,840	1,125	64.1%
2017/18	6,559	93%	4,847	1,146	64.0%
2018/19	6,555	93%	4,895	1,225	66.2%

Source: Residential & Dining Enterprises

¹ Students who are in overseas programs are not included.

² Students in other off-campus programs are not included.

SCHEDULE 10

TOTAL PROFESSORIAL FACULTY 1984/85 through 2018/19

	PROFESSORS	ASSOCIATE PROFESSORS	ASSISTANT PROFESSORS ¹	TENURE LINE TOTAL	NON-TENURE LINE PROFESSORS	GRAND TOTAL
1984/85	691	194	272	1,157	135	1,292
1985/86	708	191	261	1,160	135	1,295
1986/87	711	192	262	1,165	150	1,315
1987/88	719	193	274	1,186	149	1,335
1988/89	709	200	268	1,177	147	1,324
1989/90	715	198	265	1,178	146	1,324
1990/91	742	195	278	1,215	161	1,376
1991/92 ²	756	205	263	1,224	182	1,406
1992/93	740	209	245	1,194	214	1,408
1993/94	729	203	241	1,173	225	1,398
1994/95	724	198	252	1,174	256	1,430
1995/96	723	205	241	1,169	287	1,456
1996/97	731	205	239	1,175	313	1,488
1997/98	750	213	231	1,194	341	1,535
1998/99	758	217	237	1,212	383	1,595
1999/00	771	204	255	1,230	411	1,641
2000/01	764	198	268	1,230	440	1,670
2001/02	768	204	274	1,246	455	1,701
2002/03	771	202	259	1,232	481	1,713
2003/04	783	196	269	1,248	498	1,746
2004/05	792	193	280	1,265	514	1,779
2005/06	789	210	263	1,262	511	1,773
2006/07	807	210	261	1,278	529	1,807
2007/08	813	217	261	1,291	538	1,829
2008/09	821	224	267	1,312	564	1,876
2009/10	836	233	270	1,339	571	1,910
2010/11	826	237	261	1,324	579	1,903
2011/12	839	246	265	1,350	584	1,934
2012/13	865	252	281	1,398	597	1,995
2013/14	887	252	290	1,429	614	2,043
2014/15	912	257	306	1,475	643	2,118
2015/16	948	243	314	1,505	648	2,153
2016/17	956	253	305	1,514	666	2,180
2017/18	965	254	305	1,524	695	2,219
2018/19	971	255	312	1,538	702	2,240

Source: IR&DS Office, September 1st figures.

¹ Assistant Professors "Subject to Ph.D." are included.

² Beginning in 1991/92, Medical Center Line and Senior Fellows in policy centers and institutes are included in non-tenure line professors.

**DISTRIBUTION OF TENURED, NON-TENURED, AND NON-TENURE LINE PROFESSORIAL FACULTY¹
2016/17 through 2018/19**

SCHOOL UNIT OR PROGRAM	2016/17				2017/18				2018/19			
	TENURED	NON-TENURED	NON-TENURE LINE	TOTAL	TENURED	NON-TENURED	NON-TENURE LINE	TOTAL	TENURED	NON-TENURED	NON-TENURE LINE	TOTAL
School of Earth, Energy & Environmental Sciences	43	11	4	58	43	12	4	59	41	15	3	59
Graduate School of Education	39	11	9	59	39	11	9	59	34	8	9	51
School of Engineering	188	55	14	257	194	57	10	261	194	60	9	263
School of Humanities and Sciences	442	121	18	581	437	122	19	578	436	121	18	575
<i>Humanities</i>	177	46	11	234	174	51	11	236	174	51	9	234
<i>Natural Sciences</i>	143	38	3	184	145	35	5	185	145	34	6	185
<i>Social Sciences</i>	122	37	4	163	118	36	3	157	117	36	3	156
School of Law	46	8	10	64	46	7	10	63	48	8	10	66
Other	0	0	17	17	0	0	19	19	0	0	19	19
Subtotal	758	206	72	1,036	759	209	71	1,039	753	212	68	1,033
Graduate School of Business	79	44	0	123	80	44	0	124	81	42	0	123
School of Medicine	304	89	591	984	310	89	621	1,020	323	94	631	1,048
SLAC	34	0	3	37	32	1	3	36	32	1	3	36
TOTAL	1,175	339	666	2,180	1,181	343	695	2,219	1,189	349	702	2,240

Source: IR&DS Office September 1st figures.

¹ Population includes appointments made part-time, "Subject to Ph.D.," and coterminous with the availability of funds.

SCHEDULE 12

NUMBER OF NON-TEACHING EMPLOYEES¹

As of December 15 Each Year

2010 through 2018

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2017 TO 2018 CHANGE	
										AMOUNT	PERCENT
Academic Units											
Graduate School of Business	338	341	373	402	424	456	477	491	501	10	2.0%
School of Earth, Energy & Environmental Sciences	85	98	101	100	107	115	129	127	130	3	2.3%
Graduate School of Education	120	156	166	167	186	199	198	202	206	4	2.0%
School of Engineering	432	455	479	495	520	505	468	485	497	12	2.6%
School of Humanities and Sciences	705	705	730	760	764	804	801	756	754	(2)	-0.2%
School of Law	154	155	158	162	155	158	159	157	168	11	6.9%
School of Medicine	3,609	3,725	3,902	3,998	4,248	4,393	4,840	5,053	5,433	380	7.9%
Vice Provost & Dean of Research	537	569	612	630	642	672	684	716	709	(7)	-1.0%
University Libraries	572	569	582	579	442	400	406	401	403	2	0.5%
SLAC	1,539	1,572	1,552	1,443	1,402	1,400	1,430	1,464	1,511	47	3.3%
Other Academic (Hoover Institution, VPUE, VPGE, VPTL, VPA) ²	270	290	340	344	368	457	532	632	648	16	3.0%
Academic Unit Total	8,361	8,635	8,995	9,080	9,258	9,559	10,124	10,484	10,960	476	4.7%
Administrative Units											
Business Affairs	854	867	912	932	961	962	1,023	1,070	1,120	50	4.9%
Land, Buildings & Real Estate	452	475	513	531	533	545	537	530	539	9	1.7%
Office of Development	251	314	329	352	369	377	386	408	411	3	0.8%
Offices of the President & Provost	191	195	214	212	243	222	247	274	292	18	7.3%
Student Affairs, Admission & Financial Aid	282	320	331	340	350	345	368	373	388	15	4.1%
Stanford Alumni Association	114	107	114	121	123	123	115	121	115	(6)	-5.2%
Stanford Management Company	64	72	70	75	79	64	54	50	51	1	1.9%
Other Administrative (Public Affairs, University Communications, General Counsel and Public Safety)	128	125	134	148	154	162	167	159	158	(1)	-0.6%
Administrative Units Total	2,336	2,475	2,617	2,711	2,812	2,800	2,897	2,985	3,074	89	3.1%
Auxiliary Units											
Athletics	158	175	173	185	205	212	229	245	253	8	3.5%
Residential & Dining Enterprises	556	550	589	623	660	735	742	734	785	51	6.9%
Auxiliary Unit Total	714	725	762	808	865	947	971	979	1,038	59	6.1%
Total	11,411	11,835	12,374	12,599	12,935	13,306	13,992	14,448	15,072	624	4.5%
Annual Percentage Change	3.2%	3.7%	4.6%	1.8%	2.7%	2.9%	5.2%	3.3%	4.3%		

Source: IR&DS Office

¹ Includes benefits-eligible employees only. Does not include students, or employees working less than 50% time or hired for less than 6 months.

² VPTL was established in 2015. VPA was established in 2017

FRINGE BENEFITS DETAIL¹
2010/11 through 2017/18
 [IN THOUSANDS OF DOLLARS]

FRINGE BENEFIT PROGRAM	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Retirement Programs								
University Retirement	104,407	110,754	118,045	129,246	137,726	146,085	156,726	168,562
Social Security	97,920	105,094	112,378	119,458	125,968	134,538	143,989	153,858
Faculty Early Retirement	1,301	3,322	4,048	3,749	4,836	6,098	8,064	7,268
Stanford Retirement Annuity Plan/Other ²	332	10,613	4,994	219	291	391	5,314	1,539
Total Retirement Programs	203,960	229,783	239,466	252,672	268,822	287,112	314,094	331,228
Insurance Programs								
Medical Insurance	110,018	130,424	135,834	154,665	177,837	185,068	207,517	215,505
Retirement Medical	22,710	26,284	19,748	18,664	16,986	18,120	8,730	15,782
Worker's Comp/LTD/Unemployment Insurance	15,740	19,499	23,556	27,529	25,869	22,810	22,165	20,447
Dental Insurance	12,817	13,552	13,214	12,976	12,427	12,784	12,177	12,634
Group Life Insurance/Other	15,431	20,829	17,772	20,716	22,355	22,840	25,206	28,634
Total Insurance Programs	176,716	210,588	210,124	234,550	255,475	261,623	275,796	293,002
Miscellaneous Programs								
Severance Pay	6,096	7,387	7,910	14,461	8,018	13,162	7,719	5,880
Sabbatical Leave	14,360	14,810	17,915	20,052	19,622	21,412	22,197	22,069
Other ³	12,489	13,637	15,556	17,294	18,722	19,523	19,778	25,666
Total Miscellaneous Programs	32,945	35,834	41,381	51,807	46,361	54,097	49,694	53,615
Total Fringe Benefits Programs	413,621	476,205	490,971	539,029	570,657	602,832	639,583	677,845
Carry-forward/Adjustment from Prior Year(s)	14,096	(4,220)	(8,160)	(2,654)	(2,849)	13,214	7,473	5,570
Total With Carry-forward/Adjustment	427,717	471,985	482,811	536,375	567,808	616,046	647,056	683,415
Weighted Average Fringe Benefits Rate	7.2%	28.2%	27.1%	28.4%	28.3%	28.5%	27.9%	27.5%

Note:

- The fringe rate at the bottom of the table is the weighted average of the four distinct fringe rates that are charged to (1) regular benefits-eligible employees, which includes all faculty and staff with continuing appointments of half-time or more; (2) postdoctoral scholars; (3) casual or temporary employees; and (4) graduate teaching and research assistants.
- The Stanford Retirement Annuity Plan had a \$10.5 million reserve contribution in 2011/12 due to underfunded pension obligations.
- Other miscellaneous benefit programs include staff development, benefits counseling, faculty-staff recreation, and child care. Transportation benefits, such as the Caltrain Go Pass and VTA Eco Pass, were added in 2017/18.

SCHEDULE 14

SPONSORED RESEARCH EXPENSE BY AGENCY AND FUND SOURCE¹

2011/12 through 2017/18

[IN THOUSANDS OF DOLLARS]

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
U.S. Government²							
Health & Human Services	413,713	412,511	409,312	444,746	469,355	492,347	509,718
Department of Defense	84,048	89,598	86,630	83,078	82,956	85,493	72,020
National Science Foundation	67,828	69,846	66,492	67,211	66,794	61,300	61,023
Department of Energy (excluding SLAC)	22,810	24,069	27,041	26,853	26,609	25,936	22,853
National Aeronautics and Space Administration	20,963	22,113	17,905	17,881	18,113	17,645	17,413
Other U.S. Sponsors	8,551	7,699	8,477	10,382	9,534	9,089	11,494
Department of Education	4,872	5,675	5,174	5,075	5,258	4,255	3,134
Sub-Total for U.S. Government Agencies	622,784	631,512	621,031	655,227	678,619	696,066	697,653
Direct Expense-U.S.	443,430	450,993	441,726	465,581	482,386	490,572	490,788
Indirect Expense-U.S. ³	179,355	180,519	179,305	189,645	196,233	205,493	206,865
Non-U.S. Government							
Subtotal for Non-U.S. Government	186,416	202,620	220,557	243,120	265,970	291,060	325,218
Direct Expense-Non-U.S.	150,566	163,903	179,775	198,407	218,401	239,563	266,600
Indirect Expense-Non-U.S.	35,849	38,717	40,782	44,713	47,569	51,497	58,617
Grand Totals-U.S. plus Non-U.S.							
Grand Total	809,200	834,132	841,588	898,346	944,589	987,126	1,022,871
Grand Total Direct	593,996	614,896	621,501	663,988	700,787	730,136	757,388
Grand Total Indirect	215,204	219,236	220,087	234,358	243,802	256,990	265,483
Percent of Total from U.S. Government	77.0%	75.7%	73.8%	72.9%	71.8%	70.5%	68.2%

Source: Office of Research Administration; Sponsored Projects Report for the Year Ended August 31, 2018.

¹ Figures are only for sponsored research; sponsored instruction and other non-research sponsored activity is not included. In addition, SLAC expense is not included in this table.

² Agency figures include both direct and indirect expense.

³ Veterinary Service Center indirects are included in this figure.

SPONSORED RESEARCH EXPENSE BY SCHOOL¹**2011/12 through 2017/18**

[IN THOUSANDS OF DOLLARS]

SCHOOL/UNIT	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Graduate School of Business	1,273	1,402	380	341	383	661	442
School of Earth, Energy & Environmental Sciences	14,795	15,060	14,717	15,431	12,841	11,596	15,540
Graduate School of Education	16,974	17,306	18,027	19,902	21,467	21,060	19,408
School of Engineering	144,847	149,235	148,717	143,484	135,975	141,057	150,510
School of Humanities and Sciences	74,436	80,063	72,089	73,890	86,285	89,160	85,028
School of Law	410	932	300	1,018	651	581	397
School of Medicine	475,100	484,162	505,405	563,225	602,615	643,202	671,160
Vice Provost & Dean of Research	77,391	81,367	76,714	74,600	79,269	74,416	73,392
Other ²	3,974	4,422	5,467	6,456	5,102	5,393	6,992
Total	809,200	833,948	841,816	898,346	944,589	987,126	1,022,871

Source: Office of Research Administration; Sponsored Projects Report for the Year Ended August 31, 2018, page 10.

¹ Figures are only for sponsored research including both direct and indirect costs; sponsored instruction or other non-research sponsored activity is not included. In addition, SLAC expense is not included in this table.

² "Other" includes Hoover Institution, Stanford University Libraries, Undergraduate Admissions and Financial Aid, Vice Provost for Student Affairs, Vice President for the Arts, President and Provost's Office, Business Affairs, Public Affairs, and Continuing Studies and Summer Session.

SCHEDULE 16

PLANT EXPENDITURES BY UNIT¹

2010/11 through 2017/18

[IN THOUSANDS OF DOLLARS]

SCHOOL/UNIT	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Graduate School of Business	295,433	25,577	2,961	1,455	781	54,692	11,651	12,541
School of Earth, Energy & Environmental Sciences	5,117	2,118	730	192	3,384	1,034	2,047	3,132
Graduate School of Education	843		1,423		769			863
School of Engineering	19,198	9,968	4,165	170,713	10,637	35,228	13,623	27,394
School of Humanities and Sciences	7,930	7,136	107,202	10,089	75,930	46,120	64,607	136,286
School of Law	50,185	4,168	66	11,774	192	895	15	3,740
School of Medicine	31,731	32,820	76,588	15,317	45,380	67,525	13,607	16,121
University Libraries				41,676	4,651	2,216	970	574
Athletics	16,639	9,116	29,955	49,001	6,286	44,292	7,090	16,102
Residential & Dining Enterprises	14,288	47,750	27,788	134,083	35,046	111,465	41,737	5,839
All Other ²	46,668	49,130	123,850	175,837	377,341	105,569	244,253	141,812
TOTAL	488,032	187,784	374,728	610,138	560,397	469,036	399,599	364,405

Source: Schedule G-5, Capital Accounting.

¹ Expenditures are from either plant or borrowed funds and are for building construction or improvements, or infrastructure.

² Includes General Plant Improvements expense.

ENDOWMENT MARKET VALUE AND MERGED POOL RATE OF RETURN**2003/04 through 2017/18**

YEAR	MARKET VALUE OF THE ENDOWMENT (IN THOUSANDS) ¹	MERGED POOL (FOR 12 MONTHS ENDING JUNE 30)	
		ANNUAL NOMINAL RATE OF RETURN	ANNUAL REAL RATE OF RETURN ²
2003/04	9,922,041	18.0%	15.4%
2004/05	12,205,035	19.5%	17.0%
2005/06 ³	14,084,676	19.5%	16.2%
2006/07	17,164,836	23.4%	20.7%
2007/08	17,214,373	6.2%	4.0%
2008/09	12,619,094	-25.9%	-27.1%
2009/10	13,851,115	14.4%	13.4%
2010/11	16,502,606	22.4%	20.0%
2011/12	17,035,804	1.0%	-0.7%
2012/13	18,688,868	12.2%	10.8%
2013/14	21,446,006	16.8%	15.2%
2014/15	22,222,957	7.0%	6.0%
2015/16	22,398,130	-0.4%	-1.6%
2016/17	24,784,943	13.1%	11.5%
2017/18	26,464,912	11.3%	8.8%

Source: Stanford University Annual Financial Report and Stanford University Investment Report

¹ In addition to market value changes generated by investment returns, annual market value changes are affected by the transfer of payout to support operations, new gifts, and transfers to other assets such as plant funds.

² The real rate of return is the nominal rate less the rate of price increases, as measured by the Gross Domestic Product price deflator.

³ Beginning in 2005/06, living trusts are no longer included in the reported value of the endowment. The effect is to lower the market value for 2005-06 and beyond. For comparison, the restated value for 2005-06 would have been about \$14.7 billion.

SCHEDULE 18

EXPENDABLE FUND BALANCES AT YEAR-END

2009/10 through 2019/20

[IN MILLIONS OF DOLLARS]

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	PLAN 2019/20	2009/10 TO 2019/20 COMPOUND GROWTH
Academic Units												
Graduate School of Business	82.2	65.7	79.0	95.0	91.4	76.1	68.1	106.7	112.1	108.1	101.3	2.1%
School of Earth, Energy & Environmental Sciences	42.3	46.8	48.2	50.0	54.2	59.4	57.9	55.4	57.3	59.7	56.4	2.9%
Graduate School of Education	35.5	38.5	38.1	37.4	42.0	45.0	53.6	54.9	55.5	49.4	44.8	2.3%
School of Engineering	202.5	219.5	232.8	250.4	261.7	255.3	275.2	295.6	340.9	365.1	381.3	6.5%
School of Humanities and Sciences	264.3	284.3	285.1	278.8	255.3	266.4	295.5	276.3	284.1	318.8	325.9	2.1%
School of Law	20.1	21.6	21.9	21.6	24.1	24.2	34.7	36.7	24.6	24.7	23.9	1.7%
School of Medicine	523.1	572.5	612.9	769.4	846.7	999.2	1,119.1	1,237.1	1,346.5	1,406.4	1,458.4	10.8%
Vice Provost and Dean of Research	111.2	118.6	133.3	141.4	163.6	186.2	195.2	230.1	275.5	301.0	313.3	10.9%
Vice Provost for Undergraduate Education	22.0	22.1	22.8	20.3	20.2	20.3	21.5	22.9	32.4	29.8	26.2	1.8%
Vice Provost for Graduate Education	45.1	46.2	49.8	49.7	56.3	56.4	54.8	52.5	49.2	47.0	42.1	-0.7%
Vice Provost for Teaching and Learning ¹					13.3	15.4	9.3	11.7	12.9	12.7	12.2	
Vice President for the Arts ²								28.0	25.0	23.5	20.1	
Hoover Institution	38.7	40.2	38.6	34.7	41.5	66.8	45.9	43.5	27.4	23.7	19.9	-6.4%
University Libraries	21.6	18.4	14.6	14.2	7.0	8.7	12.1	14.9	14.3	12.2	11.3	-6.3%
Total Academic Units (excluding SLAC)	1,408.6	1,494.4	1,577.1	1,762.9	1,877.3	2,079.2	2,243.1	2,466.1	2,657.5	2,782.2	2,837.1	7.3%

¹ Vice Provost for Teaching and Learning was created in 2012/13. Prior to its inception, all activity was captured within the President and Provost's Office.

² Vice President for the Arts was created in 2016/17. Prior to its inception, all activity was captured within the School of Humanities & Sciences.

ACADEMIC UNIT EXPENDABLE FUND BALANCES AT YEAR-END

By Level of Control

2015/16 through 2017/18

[IN MILLIONS OF DOLLARS]

	2015/16	2016/17	2017/18	COMPOUND ANNUAL GROWTH
School of Earth, Energy & Environmental Sciences	57.9	55.4	57.3	-0.5%
School	26.8	25.8	27.8	2.0%
Department/Program	17.9	16.0	15.1	-8.1%
Faculty/PI	13.3	13.6	14.4	4.1%
Graduate School of Education	53.6	54.9	55.5	1.7%
School	23.7	23.1	22.6	-2.4%
Department/Program	19.7	21.0	19.1	-1.5%
Faculty/PI	10.2	10.8	13.8	16.3%
School of Engineering	275.3	296.2	340.9	11.3%
School	64.1	60.3	56.9	-5.8%
Department/Program	103.1	114.0	142.8	17.7%
Faculty/PI	108.1	121.8	141.2	14.3%
School of Humanities and Sciences	273.2	275.4	284.1	2.0%
School	88.8	79.2	78.9	-5.7%
Department/Program	95.5	101.2	101.8	3.2%
Faculty/PI	89.0	95.0	103.5	7.8%
School of Law	34.7	36.7	24.6	-15.8
School	30.2	32.1	20.7	-17.1%
Department/Program	4.4	4.6	3.7	-8.9%
Faculty/PI	0.1	0.0	0.1	39.1%
School of Medicine	1,119.2	1,237.1	1,346.6	9.7%
School	322.4	336.8	351.6	4.4%
Department/Program	482.1	551.2	623.3	13.7%
Faculty/PI	314.7	349.1	371.7	8.7%
Vice Provost and Dean of Research	195.7	230.7	275.4	18.6%
VP/Dean	16.3	8.6	8.3	-28.8%
Lab/Center/Institute	159.2	199.2	234.3	21.3%
Faculty/PI	20.2	22.9	32.8	27.6%
Graduate School of Business¹	68.1	106.7	112.1	28.3%
Hoover Institution¹	45.9	43.5	27.4	-22.8%
Vice Provost for Undergraduate Education¹	29.1	30.8	32.4	5.5%
Vice Provost for Graduate Education¹	54.8	52.5	49.2	-5.3%
Vice Provost for Teaching and Learning¹	9.3	11.7	12.9	17.4%
Vice President for the Arts¹	21.6	27.5	25.0	7.6%
University Libraries¹	12.1	14.9	14.3	8.9%
All Academic Units (excluding SLAC)				
School/Institution/VP	737.0	766.4	768.1	2.1%
Dept/Prog/Lab/Ctr/Institute	956.7	1,093.4	1,211.1	12.5%
Faculty/PI	557.0	614.1	678.4	10.4%
Total All Academic Units (excluding SLAC)	2,250.6	2,474.0	2,657.6	8.7%

Source: Fund level of restriction as coded in financial system.

¹ Fund balances in these units are largely under the control of the Dean/Director/Vice Provost or Program/Department.

SCHEDULE 20

CONSOLIDATED BUDGET FOR OPERATIONS HISTORY

[IN MILLIONS OF DOLLARS]

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2012/13 TO 2019/20
	ACTUALS	ACTUALS	ACTUALS	ACTUALS	ACTUALS	ACTUALS	PROJECTION	PLAN	COMPOUND ANNUAL GROWTH
Revenues									
Undergraduate Programs	311.0	317.4	330.9	342.3	356.9	368.4	383.7	399.4	3.6%
Graduate Programs	297.0	313.8	329.0	340.5	361.2	374.9	387.1	404.1	4.5%
Room and Board	144.8	151.3	164.3	174.1	186.6	195.2	204.9	214.1	5.7%
Student Income	752.9	782.5	824.2	857.0	904.7	938.5	975.7	1,017.6	4.4%
Direct Costs - University	656.8	669.7	716.7	753.6	786.9	801.5	826.4	857.0	3.9%
Indirect Costs	225.5	227.7	242.6	251.4	264.6	273.7	280.1	290.0	3.7%
University Sponsored Research	882.3	897.3	959.2	1,005.0	1,051.5	1,075.2	1,106.5	1,146.9	3.8%
SLAC Sponsored Research	350.9	369.3	430.4	447.8	584.6	580.3	520.0	488.4	4.8%
Health Care Services	714.8	778.2	957.9	1,033.9	1,126.5	1,231.5	1,323.0	1,423.8	10.3%
Gifts In Support of Operations	180.7	211.8	233.3	250.8	324.3	277.9	270.0	270.0	5.9%
Net Assets Released From Restrictions	177.7	130.2	156.9	140.3	159.0	182.1	175.1	175.1	-0.2%
Endowment Income	921.7	984.7	1,065.5	1,147.5	1,174.8	1,248.8	1,310.0	1,361.9	5.7%
Other Investment Income	118.3	232.1	222.6	258.0	176.2	272.5	321.4	295.8	14.0%
Investment Income	1,040.0	1,216.8	1,288.1	1,405.6	1,351.0	1,521.3	1,631.3	1,657.6	6.9%
Special Program Fees and Other Income	473.6	507.1	516.0	540.0	531.3	544.0	556.5	578.7	2.9%
Total Revenues	4,572.9	4,893.5	5,366.0	5,680.4	6,032.8	6,350.8	6,558.1	6,758.3	5.7%
Expenses									
Compensation	2,516.5	2,665.3	2,881.5	3,122.8	3,368.0	3,571.0	3,818.4	4,057.5	7.1%
Financial Aid	242.5	248.8	260.5	269.5	286.7	303.3	321.4	340.9	5.0%
Internal Debt Service	161.8	172.7	198.6	185.2	198.9	197.3	213.4	242.0	5.9%
Other Operating Expense	1,238.8	1,381.6	1,525.0	1,541.0	1,761.7	1,819.7	1,825.8	1,853.5	5.9%
Total Expenses	4,159.6	4,468.3	4,865.6	5,118.5	5,615.3	5,891.3	6,179.1	6,493.9	6.6%
Operating Results	413.2	425.1	500.4	561.9	417.5	459.5	379.1	264.3	-6.2%
Transfers									
Transfers from (to) Endowment Principal	(117.4)	(112.5)	(110.7)	(125.6)	(90.4)	(99.8)	(64.2)	(39.2)	
Transfers from (to) Plant	(154.3)	(235.5)	(165.2)	(254.6)	(208.7)	(186.9)	(174.7)	(129.0)	
Other Internal Transfers	42.2	40.1	34.3	33.9	24.5	20.2	25.8	30.1	
Total Transfers	(229.5)	(307.8)	(241.6)	(346.2)	(274.5)	(266.5)	(213.1)	(138.1)	
Change in Fund Balances	183.8	117.3	258.8	215.7	143.0	193.0	166.0	126.2	
Beginning Fund Balance	2,416.0	2,599.8	2,717.1	2,975.8	3,191.5	3,334.5	3,527.5	3,693.4	6.3%
Ending Fund Balance	2,599.8	2,717.1	2,975.8	3,191.5	3,334.5	3,527.5	3,693.4	3,819.7	5.7%

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