University of California San Diego

Geisel Library

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Essay 1 - Introduction

Overview

In April 2014, through the chancellor's Strategic Plan, UC San Diego defined its vision as follows (appendix 1):

> *We will align our efforts to be a student-centered, research-focused, service-oriented public university.* (CFR 1.1)

In the 58 years since it was founded, UC San Diego has become one of the top research universities in the world. The faculty has included 16 Nobel laureates (and 2 alumni have won Nobel Prizes), the campus boasts 57 National Academy of Sciences members, and the university regularly receives more than $1 billion in annual research funding (appendix 2, appendix 3). (CFR 3.1) While the research-focused nature of the institution is indisputable, UC San Diego prides itself on both the student experience and its contributions to the community. Indeed, the unique undergraduate college system is in the service of the undergraduate student experience and *Washington Monthly* has repeatedly named UC San Diego the number one public university for contributions to social mobility, research, and public service. The institution continues to challenge itself and enhance elements of the student experience; its emphasis and focus on student success; a commitment to equity, diversity, and inclusion; and continued community outreach. These efforts are particularly important as the institution responds to rapid enrollment growth and stagnant state funding. This report examines several ways in which UC San Diego works to realize its student-centered and service-oriented goals.

Background

With its origin in the Scripps Institution of Oceanography, UC San Diego was established in 1960. Major academic units grew up over the next decade, including departments in sciences and humanities, the School of Medicine, and two of the now six undergraduate colleges. Currently, the institution consists of the General Campus (with seven academic divisions), Health Sciences (including the School of Medicine and the Skaggs School of Pharmacy and Pharmaceutical Sciences), and The Scripps Institution of Oceanography. All of these areas offer undergraduate and graduate degrees; in addition, the School of Medicine offers medical degrees. Several programs receive specialized accreditation (appendix 4). All UC San Diego undergraduate students and all General Campus faculty are affiliated with one of the six undergraduate colleges. These colleges are not discipline specific—students from any major and faculty from any discipline can belong to any of the colleges. Rather, these bring together aspects of academic and student affairs, including residential life. Led by a faculty provost and advised by a faculty executive committee, each college defines its own set of general education requirements (aligned with senate-approved guidelines; see appendix 5), leading to a division of academic responsibility: academic departments and programs define major requirements, while general education is the domain of the colleges (CFRs 2.1, 2.2, 2.2a).

UC San Diego's educational strengths have been based in a traditional educational approach, with curricular excellence delivered through a classroom experience with rigorously vetted faculty, including scholar-teachers from all disciplines. While the university has begun to offer online courses, there are currently no online degrees. The Department of Structural Engineering offers a Master of Science degree

in Structural Engineering with a specialization in Structural Health Monitoring and Non-Destructive Evaluation for students located in Los Alamos National Laboratory and Lawrence Livermore National Laboratory (appendix 6). The Jacobs School of Engineering offers a Master of Advanced Studies in Architecture-based Enterprise Systems Engineering with a distance component (appendix 7).

This report will focus primarily on the undergraduate educational mission, but will also discuss graduate study. To the extent that Health Sciences offers undergraduate and graduate degrees, they will be included in these discussions, but we will not discuss the medical degrees, as they are accredited by the Liaison Committee on Medical Education.

Growth, Diversity, and Student Success

Since 2012, undergraduate population has increased by 33% and graduate numbers have increased by 35%. The institution's long-range plan is to reach a steady state of 32,000 undergraduates and 8,000 graduate students by 2035. As figure 1 illustrates, this plan is over a decade ahead of schedule. The institution plans for supporting its enrolled students are discussed elsewhere in this report (e.g., essays 5 and 9), which include high-touch student support services, two additional undergraduate colleges, expanded faculty, and a large-scale plan for developing upper-division and graduate housing.

Figure 1

Total UC San Diego Campus Fall Enrollment Headcount (2012-2018)
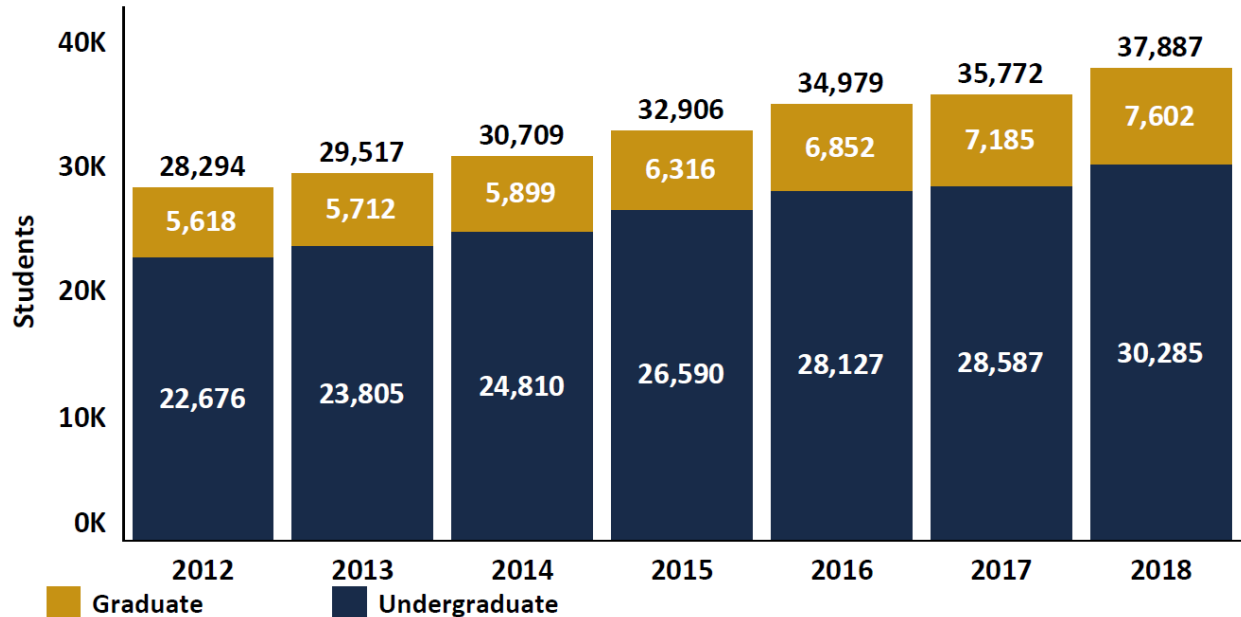
Note: The number of graduate students excludes medical and pharmacy residents
Source: UC San Diego Campus Office of the Registrar
http://ir.ucsd.edu/third-week/index.html

Along with the increase in undergraduate enrollments, over the past decade the institution has seen an increase in non-resident students, the majority of whom are international students. The percentage of

non-resident students has leveled off in the past few years due, in part, to a cap of 22.7% set by the University of California Office of the President (figure 2).[1]

Figure 2
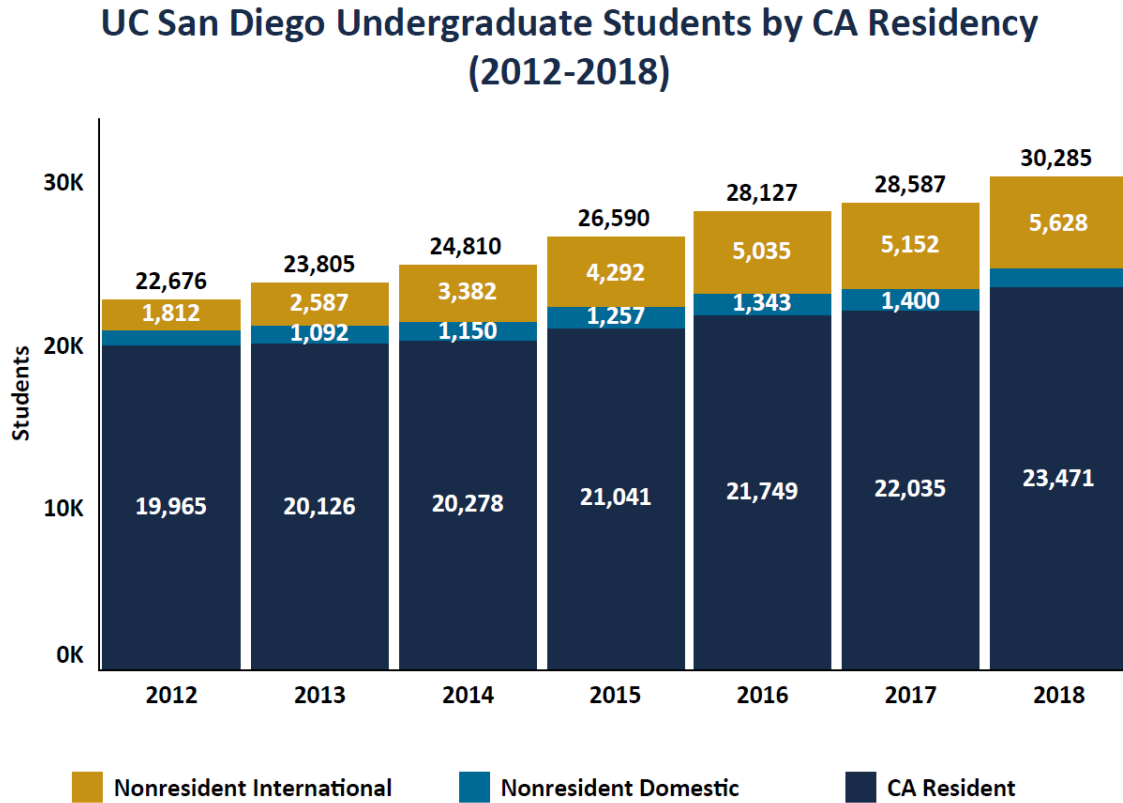
UC San Diego Undergraduate Students by CA Residency (2012-2018)

Source: University of California Office of the President Information Center
https://www.universityofcalifornia.edu/infocenter/fall-enrollment-glance

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[1] Bar charts and data tables draw from the UC San Diego Office of the Registrar and the UC Office of the President Information Center, respectively. There may be slight rounding differences in the data reported from these two sources.

UC San Diego Undergraduate Students by CA Residency (2012-2018)

	CA Resident		Nonresident Domestic		Nonresident International		Total	
	Students	%	Students	%	Students	%	Students	%
2018	23,471	77.5%	1,186	3.9%	5,628	18.6%	30,285	100.0%
2017	22,035	77.1%	1,400	4.9%	5,152	18.0%	28,587	100.0%
2016	21,749	77.3%	1,343	4.8%	5,035	17.9%	28,127	100.0%
2015	21,041	79.1%	1,257	4.7%	4,292	16.1%	26,590	100.0%
2014	20,278	81.7%	1,150	4.6%	3,382	13.6%	24,810	100.0%
2013	20,126	84.5%	1,092	4.6%	2,587	10.9%	23,805	100.0%
2012	19,965	88.0%	899	4.0%	1,812	8.0%	22,676	100.0%

Note: 2018 data is provisional
Source: University of California Office of the President Information Center
https://www.universityofcalifornia.edu/infocenter/fall-enrollment-glance

Finally, our institution has been successful in meeting the system-wide goal of achieving a 2:1 ratio of resident first-time full-time to resident transfer students (CFR 2.14).

As a public university, UC San Diego is committed to serving all of California's communities. (CFR 1.4) This means that our student population should mirror the state's college-age demographics and educate students from all backgrounds. We have made progress in increasing student diversity, particularly with an increased percentage of Chicanx/Latinx students (our institution is an emerging Hispanic-Serving Institution). While the overall percentage of African-American enrollments remains low, the actual numbers are strong and have increased by nearly 83% since 2012. Indeed, the number of underrepresented undergraduate students has increased by 68%, which compares favorably with an overall undergraduate growth of 33% during the same period (figure 3). Furthermore, if we disaggregate by residency, we see that California resident underrepresented students make up 28% of 2018 overall resident enrollments (as compared to 22.5% of all undergraduates).

Figure 3

Fall Enrollment by Race/Ethnicity 2012-2018
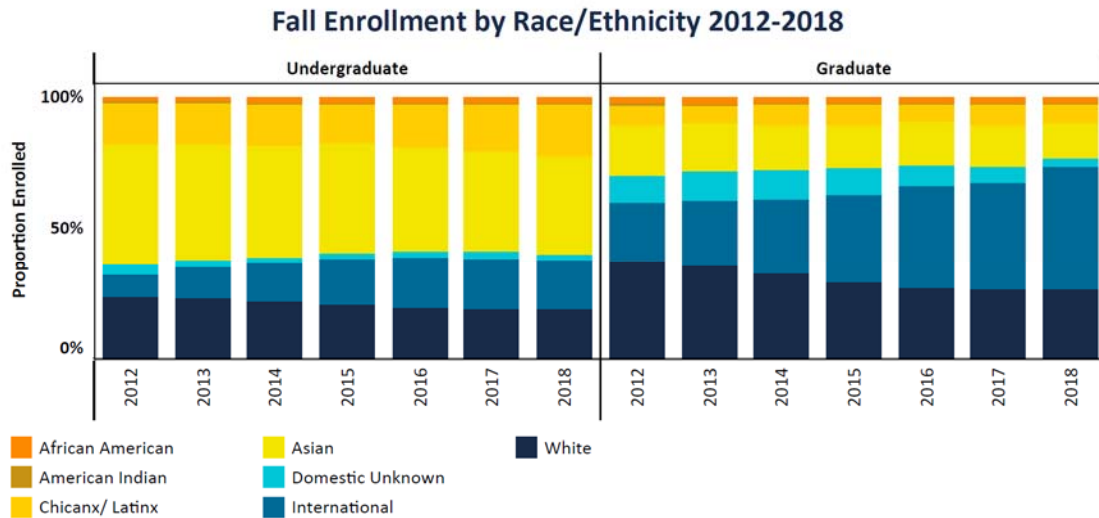
Fall Enrollment for Under-Represented Groups 2012-2018

		2012		2013		2014		2015		2016		2017		2018	
Undergraduate	African American	427	1.9%	478	2.0%	511	2.1%	552	2.1%	663	2.4%	714	2.5%	780	2.6%
	American Indian	104	0.5%	106	0.4%	110	0.4%	112	0.4%	120	0.4%	125	0.4%	121	0.4%
	Hispanic/Latino(a)	3,537	15.6%	3,717	15.6%	3,956	15.9%	4,053	15.2%	4,564	16.2%	5,111	17.9%	5,919	19.5%
	URM Total	4,068	17.9%	4,301	18.1%	4,577	18.4%	4,717	17.7%	5,347	19.0%	5,950	20.8%	6,820	22.5%
	Total	22,676	100.0%	23,805	100.0%	24,810	100.0%	26,590	100.0%	28,127	100.0%	28,587	100.0%	30,285	100.0%
Graduate	African American	146	2.6%	150	2.6%	142	2.4%	156	2.5%	163	2.4%	184	2.6%	167	2.4%
	American Indian	41	0.7%	41	0.7%	36	0.6%	42	0.7%	32	0.5%	32	0.4%	36	0.5%
	Hispanic/Latino(a)	405	7.2%	399	7.0%	445	7.5%	470	7.4%	477	7.0%	552	7.7%	493	7.2%
	URM Total	592	10.5%	590	10.3%	623	10.6%	668	10.6%	672	9.8%	768	10.7%	696	10.2%
	Total	5,618	100.0%	5,712	100.0%	5,899	100.0%	6,316	100.0%	6,852	100.0%	7,185	100.0%	6,844	100.0%

Excludes Health Science professional programs (Note: ethnicity data are available for SOM, but not PHARM)
Source 2014-2017 undergraduate: UC Information Center Fall enrollment at a glance
Source: 2018 undergraduate: IR Third Week reports
Source 2014-2018 graduate: Graduate division

As our institution becomes more selective and competitive, we continue to attract talent from around the world, which is reflected in a significant increase in international graduate students.

The institution continues efforts to create an equitable, diverse, and inclusive campus. Initiatives related to student recruitment are discussed in essay 8. In addition, the institution works actively with local high schools, community colleges, and community organizations to provide access to our institution and to higher education generally for historically underrepresented populations. These include the Chancellor's Associates Scholars Program, Early Academic Outreach and CREATE-supported programs in local K-12 schools, The Preuss School UC San Diego (a charter school for low-income students), several community and community college based programs sponsored by UC San Diego Extension, summer programs, and various departmental outreach programs. Several of these are discussed in subsequent essays.

Looking beyond ethnicity data, figure 4 shows that percentages of both first-generation and Pell Grant recipient undergraduates declined until around 2015-2016 and are now increasing. Nevertheless,

between 2012 and 2018 there was a 60% increase in new undergraduate Pell recipients and a 71% increase in new first-generation students.

If we limit the scope to California residents, we see more consistency, with a slight decline in Pell recipients in 2015-2016, followed by gains (figure 5). Interestingly, UC San Diego has increased the percentage of resident Pell recipients over the past two years, while the UC system overall has seen declines. Additionally, UC San Diego is outperforming other public institutions within the American Talent Initiative in terms of the percentage of Pell recipients in the undergraduate population: our rate of 36% Pell recipients is significantly higher than the average rate for other public institutions (22%).[2] Between 2012 and 2018 there was a 60% increase in new undergraduate Pell recipients and a 71% increase in new first-generation students. Again, we see significant gains tempered by overall enrollment increases and larger numbers of non-resident students.

Figure 4

Proportion of First-Generation Students and Pell Grant Recipients (2012-2018)
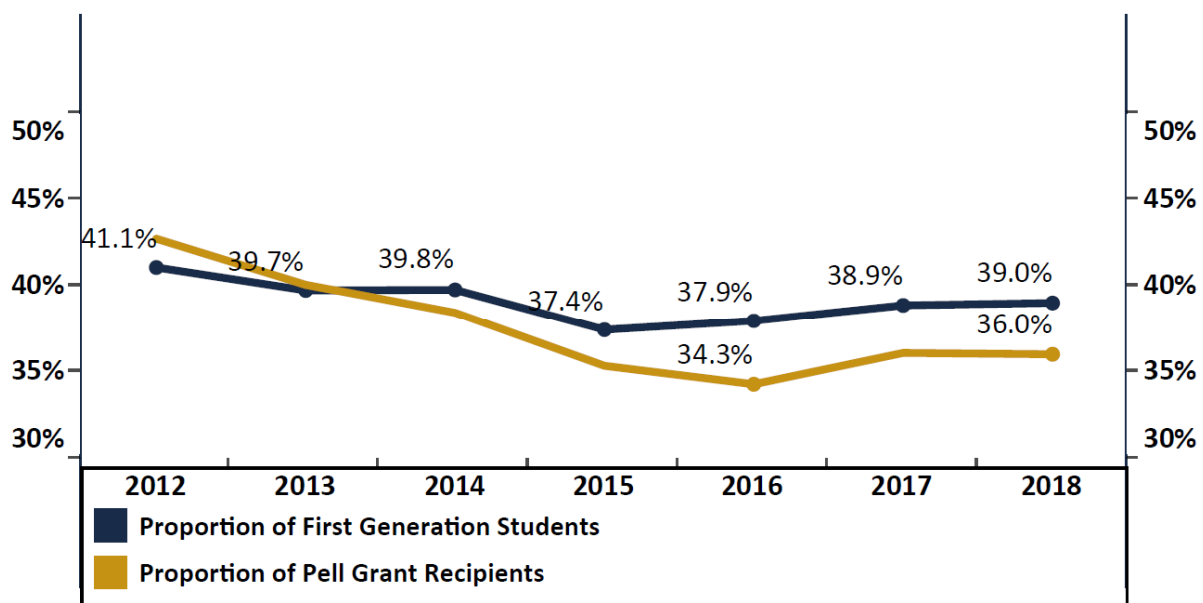
Note: The proportion is calculated on the basis of UC San Diego undergraduate fall enrollment headcount
Source: University of California Office of the President Information Center
https://www.universityofcalifornia.edu/infocenter/fall-enrollment-glance

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[2] American Talent Initiative member institutions are selected based upon their 6 year graduate rate being 70% or higher and are charged with collectively increasing the number of talented lower income students who complete a college degree (https://americantalentinitiative.org/wp-content/uploads/2018/12/ATI-Aggregate-Report-2018-FINAL.pdf).

Figure 5

Proportion of Pell Grant Recipients among UC San Diego Students - CA Residents (2012-2018)
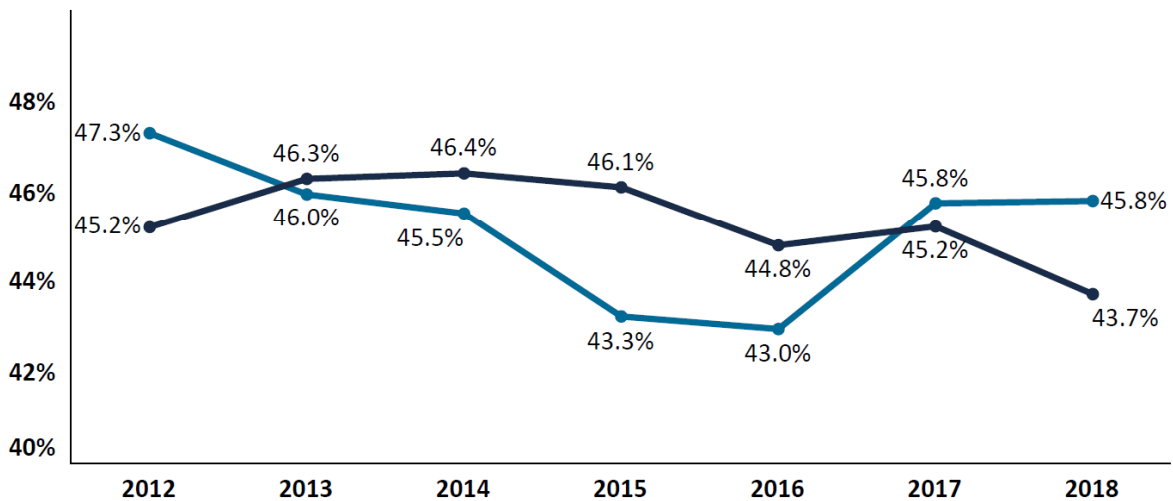
Source: University of California Office of the President Information Center
https://www.universityofcalifornia.edu/infocenter/fall-enrollment-glance

■ UC System   ■ San Diego

To foster greater accountability and provide direction, in 2012 our institution established a cabinet-level vice chancellor for Equity, Diversity, and Inclusion. This office is charged with leading our efforts to achieve the second goal of the institution's Strategic Plan: "Cultivate an inclusive and diverse community." The office oversees several campus community centers. The vice chancellor's office has launched a number of initiatives to promote diversity in student, faculty, and staff populations and is currently undertaking a strategic planning process. It is also developing Black Academic Excellence and Chicanx/Latinx Educational Excellence Initiatives, the latter tied to efforts to achieve Hispanic-Serving Institution status.

Student Affairs and the undergraduate colleges have a wide variety of diversity initiatives, including Summer Bridge, Equity-Minded Education training for resident assistants, TRiO Student Support Services and McNair programs, and several identity-based living-learning communities (e.g., LGBTQIA+, Raza, and African Black Diaspora).

Our institution is also committed to the recruitment and retention of a diverse faculty. This has been a major focus of the Office for Equity, Diversity, and Inclusion, leading to a number of recruitment practices, including divisional Equity Advisors and required diversity statements for all faculty searches. Furthermore, faculty review files include feature statements and program reviews are asked to address faculty diversity. Thus, there are institutional processes that focus on diversity in recruitment and promotions, and departments and divisions are held accountable to these processes. (CFRs 1.7, 3.6)

While there have been gains in this area—a 30% increase in under-represented ladder-rank faculty since 2012—it remains an area for improvement. The Office for Equity, Diversity, and Inclusion is working closely with the divisional deans to tailor approaches to faculty recruitment to each area and maintains an Academic Personnel Diversity Dashboard.

These and other diversity-related initiatives are addressed in more detail in essay 8.

When we consider these trends together—increased enrollments, greater diversity, significant first-generation, and large transfer and international numbers—it becomes important to marshal multiple resources to ensure student success and to create a student-centered climate. In addition to the work of the Office of Undergraduate Education (including the undergraduate colleges) and the Office for Equity, Diversity, and Inclusion, two other units play important roles.

In 2015, the vice chancellor of Student Affairs established the Office of Student Retention and Success. Several initiatives from this office have worked to address opportunity gaps through culturally engaging programs and services that are comprehensive and provide holistic support to students; they include the Office of Academic Support & Instructional Services and its Summer Bridge Program, the Chancellor's Associates Scholars Program, the Student Success Coaching Program, the Student Veterans Resource Center, the Undocumented Student Services Center, and the Triton Firsts campus initiative, among others. (CFRs 1.4, 2.10, 2.11, 2.13, 4.7)

In 2016 the Teaching + Learning Commons opened its facilities in the main library. This faculty-directed unit, which emerged from the Education Initiative, reports to Academic Affairs and is charged with instructional development and student academic support. This multi-dimensional operation is informed by education and learning research; all of its services are data-driven and assessed. Specifically, the Commons advances teaching excellence and student academic success, analyzes and tracks students' academic success and assesses student and instructional success initiatives, increases access to education on campus and beyond, and actively promotes equity and inclusion within the organization and through its programs and services. (CFRs 2.13, 4.3, 4.4, 4.7)

Becoming a truly student-centered institution requires strong coordination among many domains, including community outreach, student recruitment, academic support services, student success initiatives, faculty recruitment and retention, pedagogical initiatives, campus climate, and physical, technological, and administrative infrastructure. This is especially true given the continuing growth of the institution and the increasing diversity of our undergraduate population across multiple dimensions. Over the past few years, we have built multi-dimensional collaborations among the units that focus on different facets of the issues mentioned above. While much remains to be done to ensure that we fully serve the needs of all of our students, these collaborations are already making a difference. The remainder of this institutional report will detail several areas in which the institution is approaching this foundational work.

Accreditation History and Self-Study Process

UC San Diego was first accredited in 1964. Our last review took place in 2009, and the most recent Statement of Accreditation is dated February 19, 2010. In its action letter (March 3, 2010), the Commission asked for a 2012 Interim Report. This was submitted on November 30, 2012 and responded to on April 16, 2013. The Commission action letter emphasized two recommendations (appendix 8):

i. Continue efforts to engage faculty in the assessment of program learning outcomes
ii. Strategic planning and financial management to ensure continued quality of education

Recommendation (i) will be the focus of much of this report (particularly essays 3, 4, and 6). From the establishment of the Education Initiative in 2012 (discussed in the 2012 Interim Report), through the founding of the Teaching + Learning Commons, to the emerging systematic assessment procedures, we have made considerable progress towards a culture of faculty-led assessment. Recommendation (ii) was made during an economic downturn; since then, the institution has embarked on strategic initiatives and large-scale capital campaigns to ensure fiscal soundness. This is addressed in essay 7.

We have engaged the broad campus community in our self-study and the institutional report. The report has been drafted by the WSCUC Reaccreditation Workgroup, which includes faculty, administrators, and staff. A draft report was sent to the Academic Senate for review by an ad-hoc senate committee. The draft was also reviewed by members of the chancellor's cabinet, the Council of Provosts, divisional deans, and a senate-administration WSCUC Accreditation Advisory Committee. The final report incorporates feedback from all of these institutional constituents and has been made available to the campus community. (CFR 4.6)

Essay 2 - Compliance with Standards

In this essay, we address the four standards and their associated review criteria. Evidence for compliance with the standards and criteria are summarized here and many criteria are discussed in greater detail in other essays, where specific criteria for review are cross-referenced. Several student surveys also provide evidence that bears on the four standards. These include the University of California Undergraduate Experience Survey (UCUES; see essay 4 for UCUES evidence for the five core competencies) and several Higher Education Research Institute (HERI) surveys (e.g., the CIRP Freshmen Survey, Your First College Year, and the College Senior Survey). Indeed, HERI's Cooperative Institutional Research Program (CIRP) has a publication that describes using survey data as evidence for compliance with the standards, including a categorization of survey questions according to criteria for review. We have created three documents according to this classification:

- A multi-year (2010-2017) summary of Your First College Year surveys, arranged by criteria for review, which shows how first-year students answer questions at the end of their first year at UC San Diego; this allows a view of how our first year students have changed over this period (appendix 9).
- The 2015 Senior College Survey, arranged by criteria for review (appendix 10).
- A longitudinal report that tracks matched respondents from the 2009-2011 CIRP Freshmen Survey and the 2015 College Senior Survey (also arranged by criteria for review). This allows for a longitudinal view of how the same students change in these categories over the course of their college careers (appendix 11).

This essay elaborates on the information presented in the review under WSCUC Standards and Compliance with Federal Requirements Worksheet.

Standard 1: Defining Institutional Purposes and Ensuring Educational Objectives

Through the strategic planning process, carried out between 2012 and 2014, UC San Diego defined five goals that guide its work in student experience, diversity, research, regional and global economic development, financial stewardship, and service. While these goals are ambitious, many aspects of them have been largely realized. Similarly, the educational goals are clear: the institution offers rigorous programs of study—both at the undergraduate and graduate levels—and has made significant progress in defining and assessing program learning outcomes. Evidence associated with the criteria for review is offered in the paragraphs that follow.

CFR 1.1: As a consequence of the strategic planning process, UC San Diego has a clear articulation of its purpose as a selective, research institution. As a public university, we take seriously our role in educating California students and serving the state, as well as our global community. This is encapsulated in both our Mission and Vision statements:

Our Mission: UC San Diego will transform California and a diverse global society by educating, generating and disseminating knowledge and creative works, and engaging in public service.

Our Vision: We will align our efforts to be a student-centered, research-focused, service-oriented public university.

CFR 1.2: All of our undergraduate majors have defined program learning outcomes and have identified means of assessment (see [Inventory of Educational Effectiveness Indicators](#)). Essays 4 and 6 detail efforts and developments in program learning outcome assessment. We compile and analyze student data from a variety of angles, as can be found on the [Institutional Research](#) site, which includes admission, enrollment, retention and graduation rates, and other data. Further evidence of student achievement and satisfaction is found in the [CIRP and other student surveys](#) (appendix 12).

CFR 1.3: Free speech and academic freedom are fundamental principles that guide both our educational and research activities. Discussion of free speech issues, including Frequently Asked Questions, can be found [at this website](#). This same site includes information on the campus' academic freedom policy, which is overseen by an Academic Senate standing committee ([Committee on Academic Freedom](#)) and is aligned with the American Association of University Professors' [Statement of Principles on Academic Freedom and Tenure](#). In recent years, universities have been faced with difficult questions around topics including protected speech, hate speech, and civil disobedience. Our institution has faced these head-on with a variety of public discussions and panels. Several CIRP survey questions relate to attitudes towards divergent beliefs ([CIRP Freshman Profile 2018 - Who's Coming to College?](#)). (CFR 1.3)

CFR 1.4: UC San Diego is committed to creating an equitable, diverse, and inclusive community. We take this as a moral imperative; our role as a major public university demands no less. Our determination to maintain a campus climate grounded in justice, respect, and professionalism is expressed through the UC San Diego [Principles of Community](#).

As discussed in essay 1, the numbers of underrepresented and first-generation students have increased dramatically since the last review, particularly with regard to Chicanx/Latinx students (the institution is an emerging [Hispanic-Serving Institution](#) and is intentionally working to reach HSI status). Nevertheless, more progress is needed for other demographics; in particular, in attracting admitted African-American students and in recruiting Native American students. There also exist opportunity gaps between the institution's average and underrepresented students in terms of retention, time-to-degree, and graduation rates (see essay 5). Initiatives aimed at resolving these issues and making our institution more welcoming and equitable for all are discussed in essay 8.

CFR 1.5: A number of policies and units ensure that the educational mission is free from inappropriate influence. These include policies regarding [academic freedom](#), [transfer of technology](#), contracts and grants, and [conflict of interest](#). In addition, [training in conflict of interest](#) is mandatory for faculty, researchers, and staff.

CFR 1.6–1.7: Academic programs are clearly presented on the [Degrees and Programs website](#). Every program has well-defined four-year pathways to completing a degree; many have plans showing how students can finish in three years. Likewise, two-year plans are laid out for our growing population of transfer students. Because the details differ for each undergraduate college, a [dashboard](#) tool is available.

The costs of UC San Diego degrees are presented on the [Costs of Attendance webpage](#).

The Academic Senate makes grading and other educational polices available on its website. The Student Complaint Policy specifies procedures for a variety of complaint types. The unit handling each type of complaint is responsible for keeping records.

Integrity and transparency are interwoven into the employee performance evaluation process. In addition, all employees—including student employees—are required to complete an online ethics briefing and sexual harassment prevention training. The institution has several offices dedicated to prevention, education, and investigation of various concerns, including ethics and compliance (chief ethics and compliance officer), harassment and discrimination (Office for the Prevention of Harassment & Discrimination), research integrity (Office of Research Affairs, Office of Research Compliance and Integrity), and misuse of resources (Audit and Management Advisory Services). A confidential whistleblower hotline is available for reporting any and all concerns.

Audit and Management Advisory Services also acts as the institution's liaison for audits performed by external parties. In light of the size of the institution's operations, and especially its research portfolio, UC San Diego is audited regularly by a number of outside organizations. These include the Department of Health and Human Services Office of Inspector General, the National Science Foundation Office of Inspector General, the California State Auditor, the California Department of Public Health, the County of San Diego, and other federal, state, and local agencies.

In general, the objective of most external audits is to evaluate whether UC San Diego has sound internal controls, and to validate that expenses are charged to funding sources in accordance with relevant criteria, including the Federal Office of Management and Budget Circulars, contract terms and conditions, and university policy. The institution has fared very well in external audits over the last several years, consistently demonstrating a very strong internal control environment and support that expenses charged to fund sources generally conform to the requirements of the funding agency.

CFR 1.8: The institution, primarily through the Accreditation Liaison Officer (ALO), maintains regular contact with WSCUC through annual reports and substantive change screenings. The ALO, along with several staff, participate regularly in the WASC ARC meetings. Previous accreditation reports are publicly available and referenced on a regular basis.

The strategic planning process has facilitated discussions surrounding the mission of the university and has added a student-centered dimension to this major research institution. This strategic planning has been and continues to be replicated in other units (e.g., Equity, Diversity, and Inclusion; the colleges; Student Affairs), creating a culture of self-reflection and improvement.

Most of the criteria for review are supported in publicly available websites; this includes a significant amount of student data.

Equity, diversity, and inclusion has become a clear institutional priority, under the university's Strategic Plan. Work in this area is now undertaken across all divisions.

Finally, significant progress has been made with respect to establishing and evaluating program learning outcomes and we continue to work to establish a true campus-wide culture of robust outcomes assessment.

Standard 2: Achieving Educational Objectives through Core Functions

The institution offers quality instruction in a wide range of disciplines with clearly defined educational objectives. Academic departments are critically involved in refining their teaching missions. Over the past years, a host of programs supporting student success have emerged; more recently, the institution has developed the infrastructure to evaluate and curate these programs. Analytical tools are deployed to identify students who require specific kinds of support. Originally developed as an advising tool to increase four-year (and two-year for transfer students) graduation rates, these tools have also proven useful for identifying student needs and aiding success programs. As mentioned under Standard 1 (and detailed in essays 4 and 6), there is widespread assessment of program learning outcomes, with significant development underway in this area.

CFR 2.1: The institution's educational programs are rigorous and conform to disciplinary standards. Courses are taught by qualified instructors with appropriate terminal degrees (appendix 13), including ladder-rank professors, teaching professors (Lecturers with [Potential] Security of Employment), and non-senate faculty (Unit 18 lecturers). Advanced graduate students may also teach courses under the Associate-In title (appendix 14). All courses and degree requirements are vetted by the appropriate Academic Senate committees (Undergraduate Council and Graduate Council). All undergraduate and graduate programs are periodically reviewed by the appropriate senate committee (see essay 6). Furthermore, many programs (e.g., engineering, chemistry and biochemistry) are accredited by discipline-specific external accrediting agencies (Exhibit: Concurrent Accreditation Agencies). The institution's credit hour policy is responsive to WASC standards and is governed by senate policy.

CFR 2.2: All degrees achieve a balance between breadth and depth in their disciplines. Undergraduate degrees also achieve a liberal arts education through college general education requirements, governed by senate-approved guidelines (appendix 15). These vary according to the six undergraduate colleges, but all provide at least two writing-intensive quarters and all achieve interdisciplinary depth. The institution is in the process of developing a new college, Seventh College, and its curriculum (an Eighth College will follow; see essay 9). The process of developing requirements for new colleges is taken as an opportunity to implement new approaches to general education. Finally, all undergraduates complete a course that considers topics in diversity, equity, and inclusion.

The Academic Senate determines and posts degree requirements. Each degree has defined learning outcomes, categorized by five core competencies. In addition, the Education Initiative identified 12 competencies that it promotes to faculty and students. Underlying all degrees is the institution's definition of student success: maintaining or exceeding good academic standing; making steady progress toward degree completion; actively engaging in research, co-curricular opportunities, and the campus and local community; and utilizing resources to intentionally develop the competencies to lead in a global society. The Co-Curricular Record—a pioneering formal transcript that allows students to document their work outside of the classroom—is discussed in essay 3.

Graduate degrees—both at the master's and doctoral levels—are characterized by advanced, graduate-level instruction and research. As an R-1 research university, UC San Diego provides graduate students the opportunity to study with and be mentored by leading researchers in a wide range of disciplines. The rigor of these programs is ensured by senate oversight and the efforts of the Graduate Division (see essay 3).

CFRs 2.3–2.6: All degree programs—both undergraduate and graduate—have defined learning outcomes that have been developed by faculty. These are posted centrally as part of the [Inventory of Educational Effectiveness Indicators](). Because these were developed by faculty based on program curricula, they are reflected in courses and degree programs. Support services (e.g., library and advising) are devoted to student success, and hence, to the achievement of these outcomes. Systematic assessment of program learning outcomes, as discussed in more detail in essays 4 and 6, is variable. In some departments—particularly engineering programs accredited by Accreditation Board for Engineering and Technology, Inc. (ABET)—regular assessment is institutionalized (appendix 16). In other departments, assessment is developing. While the Inventory of Educational Effectiveness Indicators shows assessment mechanisms for all learning outcomes, faculty awareness is variable. This was apparent from a series of interviews conducted by the WASC workgroup with departmental vice chairs. These interviews revealed a general departmental awareness of program learning outcomes but variable engagement with them. Nevertheless, 90% of faculty surveyed (see below) report including learning outcomes on their syllabi. As discussed in essays 4 and 6, an assessment infrastructure has been developed through faculty discussions associated with the Education Initiative, the creation of the [Teaching + Learning Commons](), the recent launch of the Commons' [Educational Research + Assessment Hub](), and emerging consultations between departments and the Commons. The institution is in the process of deploying these new infrastructures to allow for more consistent and sustained assessment of program learning outcomes.

Standards of performance in individual courses are determined by individual instructors, subject to senate regulations (e.g., [final exam/project requirement]()). A survey was conducted of faculty teaching the largest courses in each academic division. Thirty faculty responded to the survey, answering a variety of questions about learning outcomes, assessment, grading, and feedback (appendix 17). The survey shows active engagement in course-level learning outcomes, providing feedback through a variety of assessment vehicles (exams, homework, labs, etc.). The survey also suggests a need for more consistent coordination among faculty teaching in course sequences.

CFR 2.7: Essay 6 details the senate program review process. Both undergraduate and graduate programs are reviewed on a regular basis. Student Affairs is currently developing a program review process for its programming, based on the senate model. Essays 4 and 6 discuss academic program learning outcome assessment. In addition, the institution tracks student post-graduation achievement through various surveys (appendix 18). In addition, dashboard data are available for the Graduate Division's [exit surveys]() and the University of California Office of the President's [doctoral program data]().

CFRs 2.8–2.9: Faculty research, teaching, and service are reviewed through the academic file review process and regulated by the system-wide Academic Personnel Manual ([APM]()) and the campus-specific Procedures and Policies Manual ([PPM]()), which define broad criteria for promotion. Discipline-specific standards play an important role and are articulated in promotion and merit files. Career milestones (e.g., tenure, promotion to full professor, etc.) are reviewed by the Committee on Academic Personnel, a senate standing committee, with the final decision made by the executive vice chancellor and chancellor. Objective evaluation of teaching effectiveness has proven challenging. The PPM asks that departments use two forms of evaluation; however, most commonly, departments rely on student course evaluations. While informative, such instruments are also known to have severe limitations. The institution has, therefore, charged a senate-administration workgroup with studying best practices and moving to more holistic evaluation of teaching. This workgroup is currently convened and will make

recommendations in spring 2019. Service expectations—university service, service to the field, and community service—increase along with faculty seniority. See also below under CFR 3.2. UC San Diego offers a variety of research compliance training opportunities for researchers to understand and comply with applicable federal, state, local, and university regulations.

Graduate student research is directed by faculty mentors who provide formal instruction on research standards.

Faculty also mentor undergraduate research through independent study courses and through the support provided by the professional staff in the Academic Enrichment Program (AEP). AEP works with UC San Diego undergraduates to identify opportunities to obtain valuable research-oriented academic or professional preparation in many academic majors, including science, math, engineering, social sciences, arts, and humanities (all majors offer undergraduate research courses). In 2018-2019, the undergraduate colleges launched a pilot program, Triton Research and Experiential Learning Scholars (TRELS), which offers research training and awards scholarship stipends to undergraduates for research, study abroad, and other high-impact experiences. While the pilot offers 120 awards in 2018-2019, the program is slated to grow to eventually support several hundred students each year. Additional research funding is available through Undergraduate Research Scholarships. Several science, technology, engineering, and mathematics (STEM) departments have created inquiry-driven laboratory classes (e.g., BILD 4) and all departments offer a range of research-based individual instruction courses. There are several student research showcases each year, including research conferences, poster sessions, and student publications (see essay 3).

CFR 2.10: Graduation and retention rates are analyzed through Institutional Research and are available on its dashboard. These are disaggregated along many dimensions including gender, ethnicity, first-generation status, major, and college for both undergraduate and graduate students. UC San Diego compares favorably with respect to retention and six-year graduation rates with other UC Campuses, and very favorably in terms of four-year graduation with other public universities. While the institution's four-year graduation rate has grown by 9% over the last three cohorts, it lags behind that of other UCs and we are targeting it for improvement. The intersection of large numbers of Pell-eligible and STEM students likely contributes to our lower four-year graduation rate. Indeed, attainment gaps appear when data is disaggregated by ethnicity and other demographic dimensions. Nevertheless, the institution's four-year graduation rates have, until recently, closely tracked those predicted by the Higher Education Research Institute (HERI) and, more recently, have outpaced those predictions (see essay 5).

CFR 2.11: Co-curricular programming and opportunities are available in multiple areas. The six undergraduate colleges offer student leadership opportunities, including college-level student government and a wide variety of student organizations and co-curricular programs. Student Life, which advises the Associated Students (the campus-wide student government), also oversees a wide variety of student organizations and programs.

In recent years, the institution has intensified efforts aimed at engaging large numbers of students in a variety of high-impact co-curricular educational experiences, including research, community engagement, internships, study abroad, and others. These experiential learning opportunities enable powerful connections and create collaborative opportunities between academic courses/programs and associated opportunities to apply classroom learning to real world problems. Several years ago, the

REAL Portal was developed to allow faculty, researchers, and internship providers to promote opportunities and to automate student applications. Essay 3 describes the 12 competencies that have been developed though the Education Initiative and that have led to the Co-Curricular Record. Not only does this allow students to document their co-curricular activities, it allows the university to vet and evaluate activities included on the record. According to the CIRP College Senior Survey, 59% of UC San Diego 2015 seniors report having participated in an internship program, 23% in study abroad, and 40.3% in an undergraduate research program.

Many of these programs undergo assessment (e.g., those falling under Student Affairs are summarized at the Student Affairs Assessment Reports webpage).

CFR 2.12–13: Academic requirements for majors are available through the UC San Diego General Catalog. College general education requirements are available on the college websites. Because the intersection between major and college requirements can be complex, there are four-year (and some cases, three-year) plans for completing every undergraduate degree in any of the six colleges. Academic advising begins in the colleges through drop-ins, appointments, and virtual advising. Major-specific advising questions are handled by departmental and program advisors. Because advising is distributed between colleges and departments, the Virtual Advising Center—an online communication tool—allows students to address routine advising questions and facilitates communication between advisors from different areas and with students, creating an electronic record of advising discussions.

The campus' strategic vison for student success has led to the development of multiple academic support services (appendix 19, appendix 20). The Office of Student Success and Retention oversees the Office of Academic Support & Instructional Services (OASIS), which directs the Summer Bridge program, the OASIS Living/Learning Communities, the first-year transition program, and peer facilitated tutoring workshops, among others. The Teaching + Learning Commons employs a data-driven approach to academic support program development, which has resulted in targeted tutoring and supplemental instruction programs. Two recent reports have begun to catalog and evaluate various aspects of student success support: one by a subset of the Education Initiative Group (*Reaching Time to Degree and Student Success Goals: Closing Opportunity and Equity Gaps for Historically Underserved Undergraduate Students and Enhancing the Student Experience for All*, appendix 21) and the other a progress report by the Student Success Collaborative (appendix 22).

The Office for Students with Disabilities works with students to determine appropriate academic accommodations based on functional limitations.

CFR 2.14: UC San Diego is committed to transfer student success. The UC system has a goal of a 2:1 ratio for California resident first-time full-time to California resident transfer new students, which our institution has been successful in achieving. The Universitylink program guarantees admission to qualified low-income students from local community colleges. In 2017-2018, the institution began requiring major preparation for transfers in many majors (UC San Diego had been the only UC campus that did not require this; we hope that this will improve transfer time-to-degree). These requirements are aligned with the system-wide Transfer Pathways. Most of the undergraduate colleges allow transfer students who have completed the Intersegmental General Education Transfer Curriculum (IGETC) requirements to waive most, if not all, general education requirements. College counselors have two-year completion plans for the majority of majors. Three years ago, the undergraduate colleges began offering a Transfer Year Experience course for incoming transfer students. One of UC San Diego's

housing complexes (The Village) specifically offers apartment-style living for about 2,000 transfer students. We are presently developing modified dining plans and new housing options more closely tailored to transfer students' needs.

The institution provides a host of services to support students in their academic and co-curricular programs. Degree programs are rigorous and have clearly defined learning outcomes. UC San Diego assesses its programs—both academic and co-curricular—in a number of ways and is in the process of developing a more systematic program of assessment. As discussed in essay 4, this program is an organic development from the Education Initiative that began before the 2013 Interim Report.

Standard 3: Developing and Applying Resources and Organizational Structures to Ensure Quality and Sustainability

UC San Diego, as a public research university, is largely financed through a combination of tuition and state and research funding. Despite stagnant state funding, lack of tuition increases, and capped non-resident enrollments, the university is financially stable. University governance is distributed between several units, including central administration, academic divisions and departments, undergraduate colleges, and the Academic Senate. As an R1 research institution, it attracts highly-qualified faculty who are afforded professional development opportunities and are rigorously reviewed through the academic personnel process.

CFR 3.1: Support for faculty full-time equivalent (FTE) positions is funded by the executive vice chancellor for Academic Affairs but determined at the divisional levels. Divisional deans oversee the distribution of FTEs within their divisions. Senate faculty consist of ladder-rank and teaching professor series (Lecturers with [Potential] Security of Employment), as well as those in the professor of clinical and professor in residence series (see Board of Regents Standing order 105.1). In addition, non-senate faculty (Unit-18 lecturers) contribute to instructional needs (appendix 23). Given the reputation of the

university, searches are highly competitive and attract highly qualified candidates, the vast majority of whom have doctorate or other appropriate terminal degrees. Senate faculty appointments are evaluated by the academic department, the divisional dean, and, under certain circumstances (e.g., appointment to a senior position), the Academic Senate Committee on Academic Personnel and the executive vice chancellor. Due to recent increases in student enrollment, the student-to-faculty ratio is higher than other UCs, but hiring plans are in place to address this (see essay 9). With the appointment of the vice chancellor for Equity, Diversity, and Inclusion, there has been progress in diversifying the faculty and divisional deans are now held accountable for progress in this area. This has led to institutional practices that address implicit bias in hiring and provide for accountability and transparency through an academic personnel diversity dashboard (see essay 8).

Staff recruitment and hiring is overseen by both campus-level and system-wide human resources units. A recent Career Tracks initiative has brought greater consistency to staff classifications.

CFR 3.2: As discussed above under CFRs 2.8–9, a rigorous and systematic academic personnel review process, governed by both the system-wide Academic Personnel Manual (APM) and the local Procedures and Policies Manual (PPM), regulates faculty promotions and merit increases, and ensures regular evaluation. Faculty undergo review every two years at the assistant professor level, every three years at the associate and full levels, and every four years at the above-scale (distinguished professor) level. These reviews evaluate research or creative work productivity and impact, teaching effectiveness, and service (to university, field, and community). All reviews engage the department and divisional dean; milestone promotions and accelerated merit reviews also involve the Committee on Academic Personnel and the executive vice chancellor. Milestone promotions to associate professor (with tenure), full professor, and above scale (distinguished professor) require independent external letters.

All staff are reviewed annually in accordance with the Human Resources Performance Appraisal procedure.

CFR 3.3: Academic Personnel Services offers regular faculty orientation and faculty development workshops. All faculty complete online training on sexual violence and sexual harassment prevention, UC ethical values and conduct, and research ethics (appendix 24). The executive vice chancellor has recently hired a faculty director of faculty and leadership development to coordinate training opportunities across the university, leading to greater consistency and access. The Office of Research Affairs offers training related to starting an independent research program and obtaining external funding. The Teaching + Learning Commons, through the Engaged Teaching Hub, offers many programs and services for educators (for both senate and non-senate faculty), including teaching consultation, classroom observation, and workshops.

CFR 3.4: The institution is financially stable and has unqualified independent financial audits and resources sufficient to ensure long-term viability. On a cash basis, the operating budget continues to be in surplus position. Cash reserves were over $2 billion at the end of the 2018 fiscal year (see Annual Financial Reports).

Resource planning and development include realistic budgeting and enrollment management as well as detailed quarterly management and deficit reporting. Resource development includes tight expense control through optimization initiatives and diversification of revenue sources (academic program

development, real estate, investment income, clinical revenues). Resource planning is integrated with all other institutional planning. Resources are aligned with educational purposes and objectives.

CFR 3.5: The library at UC San Diego provides a comprehensive set of resources, services, and facilities to support the academic offerings, research, and scholarship of the university's faculty, staff, and students. With a permanent recurring allocation of $37.9 million, including gifts and endowment revenue, the library employs 60 librarians and 180 staff who procure and manage resources, design, and deliver instruction, and provide support for research, learning, and teaching for students and faculty at the university. The library maintains two facilities that support individual and collaborative academic work and study, offer access to productivity tools and course-related services, and enable access to unique content not in digital form.

The library works in concert with other departments, including Educational Technology Services, Research IT Services, and the Teaching + Learning Commons, to deliver training and support for faculty members in the use of technology in instruction. The library's unique contributions include design of online instructional modules in support of information literacy; provision of services and resources for technology-supported research; and learning including specific investments in research data management, Geographic Information System tools, data science, 3D modeling and printing, and Virtual/Augmented Reality.

The library procures and manages collections and electronic resources that support the content needs of faculty and students in their coursework and research. The library maximizes the impact of collections funding by engaging in shared negotiation and acquisition for resources. This approach is part of a multi-pronged collaborative approach to serving the resource and information service needs of our students and faculty.

Educational Technology Services provides a wide range of instructional support. These include the TritonEd learning management system (although the campus is now piloting Canvas) and classroom support (e.g., podcasting, clicker support, and video production, among many other services). Nearly all classrooms are equipped with projectors and other instructional equipment.

CFRs 3.6–3.9: The university is administered at both the system-wide and institution level. The system-wide administration includes the Board of Regents and the Office of the President, led by the system-wide president. The UC San Diego chancellor heads the institution (appendix 25, appendix 26); his cabinet consists of several vice chancellors, including the executive vice chancellor for Academic Affairs, who is the chief academic officer for the general campus and has academic personnel oversight for Scripps Institution of Oceanography and Health Sciences. Scripps Institution of Oceanography and Health Sciences are led by their own vice chancellors. A chief financial officer, also at the vice chancellor level, oversees the campus' finances (appendix 27). The institution's organizational chart defines the reporting structures. The chancellor, reporting to the system-wide president, has annual performance evaluations and is reviewed by a system-wide committee on a five-year cycle. Other administrators also undergo yearly performance evaluations and five-year reviews by a campus committee (appendix 28).

CFR 3.10: The UC system has a robust and engaged Academic Senate—again, both at the system and campus levels. UC San Diego's Academic Senate partners with the administration on a wide range of academic questions. All faculty from the ladder-rank (professor), teaching professors (Lecturers with [Potential] Security of Employment), and professor in residence series are senate members. The senate

is responsible for vetting curricular recommendations, setting academic and admissions policies, approving UC Press recommendations, and advising on budget and other topics of university business. The senate has several standing committees (e.g., Educational Policy, Admissions, Graduate Council, Undergraduate Council, and Academic Personnel). The senate, through its Committee on Committees, identifies faculty to serve on various workgroups and committees, many of which include administrative, staff, and student members. These bodies study a variety of issues and often make policy recommendations that the senate and administration jointly act upon. Each department and college elects representatives to the senate Representative Assembly, which meets regularly over the academic year and votes on proposals before the senate.

UC San Diego has an excellent and qualified faculty increasingly devoted to enhancing the student experience. The institution is strategically investing in increased faculty development opportunities (e.g., the faculty director of faculty and leadership development, mentioned above). As discussed in essay 8, we are committed to expanding and diversifying the faculty as student demand increases.

In addition, a number of UC San Diego emeriti faculty remain tightly associated with the university. A substantial number of these faculty continue to teach (through a recall mechanism), do active research that involves undergraduate research assistants, and volunteer to provide mentoring opportunities—such as the Emeriti Mentoring Program for our Chancellor's Associates Scholars. Currently, emeriti faculty make up approximately 25% of the senate faculty.

Standard 4: Creating an Organization Committed to Quality Assurance, Institutional Learning, and Improvement

As a public research university, UC San Diego is committed to student success—our Strategic Plan begins with student-centeredness, which underscores this core value. Our distributed organizational structure provides multiple avenues to assuring quality in instruction, learning, and improvement.

CFR 4.1: As described above under Standard 2 and in essays 4 and 6, UC San Diego submits both new and existing programs to rigorous Academic Senate review, leading to continuous improvement and refinement. Student data from several sources, including a variety of surveys, allows comparison with other UC Campuses and peer institutions. While there is variability in assessment practices across academic units, additional institutional review is provided by robust assessment protocols in a variety of academic departments, Student Affairs, and various success programs.

CFR 4.2: Institutional Research was reorganized and its staffing was increased in response to the previous review and has been consolidated under the direction of Academic Affairs (reporting to the executive vice chancellor). This office collects and analyzes student data in multiple areas (e.g., admissions, retention, graduation), and manages several system-wide surveys. Institutional Research also plays a crucial role in the institution's long-range development plans.

CFR 4.3: As discussed above in Standard 2, in CFR 4.1, and in essays 4 and 6, the institution engages in evidence-based assessment at multiple levels, involving faculty, staff, and administration. For example, the program review process relies on the partnership of administration and the Academic Senate (see essay 6). Program learning outcome assessment has developed from the faculty-led Education Initiative, leading to development of the Teaching + Learning Commons and the Education Research + Assessment Hub, which now partners with academic departments. Student Affairs assessment is conducted by staff

in that unit, while success program assessment engages both Student Affairs and the Teaching + Learning Commons. Much of this is supported by Institutional Research, which manages data based on clear data stewardship policies.

CFR 4.4: Faculty are supported by the Engaged Teaching Hub (Teaching + Learning Commons). Faculty are regularly evaluated by peers, including for teaching effectiveness. A workgroup on Holistic Teaching is currently developing recommendations for improved measures of teaching effectiveness (appendix 29). Many academic programs meet regularly to synchronize grading practices. Again, program reviews lead to curricular improvements.

CFR 4.5: Community members and alumni are engaged in various ways. The Chancellor's Associates—a community board—advises the chancellor and supports the Chancellor's Associates Scholarship Program. The Chancellor's Community Advisory Board connects the campus to diverse local communities in greater San Diego. The Career Center reports to Alumni Affairs to foster connections between alumni, community members, and students. Alumni are regularly recruited to serve on campus committees (e.g., college provost search committees). Academic divisions have advisory or relations boards (e.g., the Jacobs School of Engineering's Corporate Affiliates Program). The Education Initiative developed 12 core competencies, partly based on employer input.

CFR 4.6: The Strategic Plan, completed in 2014, engaged the university community in multiple venues. Subsequently, numerous units have completed their own strategic plans to guide their work within the university's overarching strategy. The administration and Academic Senate collaborate closely on long-range plans for budget and finance, projected growth, new colleges, etc., which is further discussed in essay 9. All of this is in the service of fulfilling the university's mission of being a "student-centered, research-focused, service-oriented public university."

CFR 4.7: Essays 7 and 9 discuss the ways in which UC San Diego plans to address the numerous changes anticipated in the coming years. These include increased enrollment, increased diversity, and declining or stagnant state support. Included therein is a description of plans for new colleges, large-scale capital projects, and new revenue sources.

As a major university, UC San Diego has the capacity to be reflective, evaluate its accomplishments, and adapt to new challenges. The administrative and governance structures are distributed, leading to numerous checks and balances and diversity of approaches, which the institution views as a strength. The landscape of public universities has changed considerably over the life of the institution; nevertheless, UC San Diego is well poised to meet the associated challenges.

Essay 3 - Degree Programs: Meaning, Quality, and Integrity of Degrees

UC San Diego offers a wide range of quality degree programs at both the undergraduate and graduate levels. This essay discusses UC San Diego's degree programs and the development of program learning outcomes. In addition, it discusses a number of ways the institution has integrated co-curricular and engaged learning into the student experience. These opportunities are part of the institution's core educational mission; they complement and intersect with academic degrees and provide an additional dimension to the meaning and quality of those degrees.

Undergraduate Degree Programs

Every undergraduate degree program at UC San Diego combines discipline-specific instruction—emphasizing both depth and breadth in the subject matter—with a liberal arts general education program. Students are expected to master WASC's five core competencies in the course of their studies: written communication, quantitative reasoning, oral communication, information literacy, and critical thinking. The combined learning outcomes for the general education and discipline-specific programs span the core competencies, making them the backbone of a UC San Diego education. The requirements for a given major are aligned with discipline-specific program learning outcomes and are developed by a committee of faculty members who are experts in their fields. The general education requirements, which are structured differently in each of the residential colleges, provide instruction in writing and breadth in a range of areas outside a student's major coursework, ensuring a liberal arts education. (CFRs 2.1, 2.2, 2.2a, 2.2b, 2.3)

Graduation Requirements

UC San Diego's undergraduate degrees include major, university, and college requirements (appendix 30, pages 114–129).

Major requirements are determined by departments or programs (the latter are often inter-disciplinary). The bulk of the major requirements are upper-division, although many majors require significant lower-division coursework. All majors have a minimum of 48 upper-division (quarter) units, but some majors have more (e.g., aerospace engineering requires 88 upper-division units). All undergraduate programs have defined program learning outcomes and have identified means of assessment. Furthermore, the institution has, since 2012, been developing both infrastructure and mechanisms to enable faculty-led assessment of learning outcomes (see essays 4 and 6). All of our majors offer high-impact practices such as undergraduate research opportunities, student internships, and service learning. (CFR 2.2a)

General education requirements are established and overseen by the six colleges. Although each individual college's general education curriculum ranges from a very structured liberal arts program to a program with a broad range of electives, the design of each program fulfills the UC system-wide requirement to "… give UC undergraduates a broad background in all major academic disciplines—natural sciences, physical sciences, social sciences, humanities, and fine arts." Most colleges define a unifying intellectual theme that is aligned with parts of the general education program. Detailed descriptions are found in the Senate Manual (appendix 30, pages 120–129). As mentioned above, general education frameworks vary from college to college, making different use of required course and alternatives models. For example, four colleges have required core sequences, introducing aspects of humanities and/or social science, with an embedded writing component. These colleges round out their general education with alternatives taken in academic departments. Two of the colleges employ more of an alternatives model, where the bulk of general education is chosen from departmental offerings, with a required stand-alone writing program. Because of time-to-degree considerations, most of the colleges reduced their general education requirements several years ago. These changes were developed by the college's faculty executive committee, voted on by the college faculty, vetted by senate committees, and finally ratified by the Academic Senate. All college general education programs have defined program learning outcomes and assessment, and all provide training in the five core competencies. (CFRs 2.2a, 2.3)

With increased undergraduate enrollments, the university is in the process of developing two new colleges (see essay 9). There is an articulated vetting process, outlined in a system-wide compendium (appendix 31), which requires both pre- and full proposals, divisional and system-wide senate approval, Office of the President approval, and eventual approval by the Board of Regents. This process presents an opportunity to consider alternative models of general education, incorporating recent literature with an emphasis on integrated study, high-impact practices, and capstone projects. The details of this can be found in the full proposal for Seventh College, which has been transmitted to the divisional senate (appendix 32). The proposal for Eighth College will be developed in the next few years. The institution is in the unusual position of being able to design general education from the ground up in these new colleges. (CFRs 2.1, 2.7, 4.4)

Learning Outcomes and Core Competencies

Faculty in each undergraduate program develop program learning outcomes, which are expected to ensure that students master the core competencies as well as achieve depth in a particular field of study. These efforts are often led by the faculty vice chair for undergraduate education in consultation with other faculty or sometimes by faculty undergraduate education committees. Learning outcomes

have been in place since the 2009 review and are published in the Inventories of Educational Effectiveness Indicators ([IEEI](#)). Many programs also publish these on their departmental websites (e.g., [Biological Sciences](#)). (CFR 2.4)

The Division of Biological Sciences provides an example of this faculty-led process. The division captured the programmatic learning outcomes for each of their eight majors by applying three general dimensions of learning: knowledge outcomes, skills outcomes, and attitudes and values outcomes. The [Programmatic Learning Goals](#) table shows how these core knowledge and skill categories are developed throughout a major's curriculum. The curriculum map visualizes how, progressively, individual courses contribute to the acquisition of increasingly sophisticated learning and thinking within the discipline. Although there are no formal national standards guiding the education of biology undergraduates, three highly influential publications have outlined the following fundamental norms and principles:[3]

- Understanding the unity and diversity of life requires mastery of a set of core concepts (evolution; structure and function; information flow, exchange, and storage; pathways and transformations of energy and matter; and systems).
- Conceptual understanding of biology is built on foundational mathematics, physics, and chemistry concepts (e.g., biological systems obey the laws of chemistry and physics).
- Meaningful comprehension of biological phenomena requires modeling and quantitative analysis (i.e., a foundation in computational and analytical thinking).

While the division developed its own wording, the goals are well aligned with the modern biological concepts undergraduate biology majors should master, as cited above.

Similarly, the curriculum for the public health major has been built on core competencies in public health, epidemiology, biostatistics, environmental and occupational health, social and behavioral aspects of health, and health policy and management. The specific program goals and outcomes are aligned with these [competencies for public health professionals](#), as developed by the Council on Linkages between Academia and Public Health.

In 2013, WASC added the requirement that institutions describe how the program learning outcomes address each of five core competencies:

- Written communication
- Quantitative reasoning
- Oral communication
- Information literacy
- Critical thinking

Essay 4 describes how these competencies are achieved and assessed; here is described how programs have interfaced their learning outcomes with the competencies. The institution achieved this through a

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[3] The National Academies 2002. [BIO 2010: Transforming Undergraduate Education for Future Research Biologists](#); Association of American Medical Colleges-Howard Hughes Medical Institute Committee 2009. [Scientific Foundations for Future Physicists](#); American Association for the Advancement of Science 2011. [Vision and Change in Undergraduate Biology Education: A Call to Action](#).

series of interactions between the Office of Undergraduate Education and academic programs: (CFRs 4.3, 4.4, 4.6)

- During the summer of 2016, the Office of Undergraduate Education conducted a preliminary analysis of every college, department, and program IEEI to identify where these core competencies were already addressed in the written materials and where there might be gaps. As a first step, when a core competency was mentioned it was color-coded in the original IEEI.
- In fall quarter 2016, the dean of undergraduate education sent a memo to colleges, departments, and programs asking them to review their color-coded inventories and reorganize the information into a new template that was created for this purpose. This step required adding more descriptive language in those cases when these core competencies were already part of the majors or programs but were not explicitly mentioned or thoroughly described in the inventories.
- In winter and spring quarters 2017, the Office of Undergraduate Education conducted a second analysis of the inventories (in the new format) for every college, department, and program and reviewed where the core competencies were added in the written materials and where there were still gaps. By the end of October 2018, all 6 colleges, 24 out of 26 departments, and 10 out of 19 programs had submitted revised IEEIs that include the five core competencies.
- All programs undergoing program reviews have been asked to review and revise their IEEIs.
- As of fall quarter 2018, all programs have been asked to review and revise their IEEIs, with an aim of identifying program learning outcomes with core competencies. This work is published in the Learning Objectives and Core Competencies website.

Co-Curricular, Engaged Learning

More than 20 years ago, the late Ernest Boyer, then president of the Carnegie Foundation for the Advancement of Teaching, called on higher education to practice the scholarship of engagement—to become a "vigorous partner" in addressing the most challenging issues of the day.[4] He encouraged institutions to create ecosystems in which scholars, students, practitioners, and community members listen and learn from each other, co-create knowledge, and apply it toward humane ends.

UC San Diego has a rich history in the scholarship of engagement. It is embedded in the first goal of our Strategic Plan, which calls for the development of "students who are capable of solving problems, leading, and innovating in a diverse and interconnected world." Indeed, for each of the past six years, *Washington Monthly* has ranked UC San Diego the number one public university in the country for contributions to the public good. (CFR 1.1) The university has nationally recognized programs in public service, community engagement, humanitarian engineering, and social innovation. Thus, UC San Diego is growing a campus ecosystem of opportunities for engaged scholarship for students at all levels (e.g., UC San Diego – Ashoka U Changemaker Campus, Clinton Global Initiative University, and Global TIES).

The Education Initiative provided an opportunity for developing a shared educational mission. It led to the development of 12 UC San Diego competencies all students should have when they graduate (also

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[4] Boyer, Ernest L. 1996. The Scholarship of Engagement. Bulletin of the American Academy of Arts and Sciences, 49.7:18-33.

known as success skills or real world competencies). The framework and definitions were created to align with the learning outcomes and competencies of: (CFRs 4.4, 4.6)

- Association of American Colleges & Universities (AAC&U) Value Learning Outcomes
- Council for the Advancement of Standards (CAS) in Higher Education Learning & Development Outcomes
- WSCUC Core Competencies
- National Association of Colleges and Employers (NACE) Career Readiness Competencies

The UC San Diego competencies encompass four of the five WSCUC core competencies, and include several others:

- Oral, Written & Digital Communication
- Critical Thinking & Problem Solving
- Digital Information Fluency
- Research Ability
- Teamwork & Cross-Cultural Collaboration
- Understanding Global Context
- Leadership
- Innovation & Entrepreneurial Thinking
- Self-Reflection
- Civic Engagement & Social Responsibility
- Career Development
- Professionalism & Integrity

These 12 competencies are reviewed on a four-year cycle by the UC San Diego Education Initiative Workgroup. (CFR 2.7)

The 12 competencies inform the institution's approach to engaged learning through high-impact practices. These practices serve to deepen students' connections to their studies, their investment in their university, and their awareness of and commitment to the world around them. They include:

Undergraduate research: Involving undergraduates in research is a primary educational goal of the institution. As a research university, UC San Diego is committed to engaging students in this key activity. Through research, students discover how the discipline creates evidence to contribute to its body of knowledge. They learn critical thinking and problem solving while working as a member of a diverse team. Each major at UC San Diego offers for-credit research courses and independent study courses for individual projects. The Academic Enrichment Program (AEP) assists students in identifying research opportunities, helping pair them with faculty mentors. These mentored research opportunities take place throughout the academic year and the summer, and connect students with nationally competitive scholarships (e.g., Goldwater, Strauss, Rhoades, and Fulbright). In addition, the six undergraduate colleges recently launched their Triton Research and Experiential Learning Scholars program (TRELS), which provides research stipends to undergraduates engaged in faculty-mentored research. The Teaching + Learning Commons supports undergraduate research by offering help in preparing proposals to the NSF, NIH, and other agencies. It also provides support and consultation throughout all stages of a project, from proposal development to implementation and assessment. In addition, the REAL portal offers faculty and researchers an opportunity to communicate such research opportunities broadly to UC San Diego students. Undergraduate research is highlighted in two large annual conferences, the UCSD Undergraduate Research Conference and the Conference for Research in the Arts, Social Sciences and Humanities (CRASSH). Finally, several departments, colleges, and other units publish undergraduate research journals (e.g., Journal of Undergraduate Research, The Equilibrium, Saltman Quarterly, Prospect, and Intuitions). (CFRs 2.8, 2.11)

Study abroad: Through study abroad, students are immersed in markedly different cultures and gain insight into their values, biases, and affective responses. The Office of Global Education and the undergraduate colleges support these opportunities through scholarships. Study abroad programs include the UC Education Abroad Program, Opportunities Abroad, faculty-led Global Seminars, and various campus and department-based exchange programs. (CFR 2.11)

Community-based projects: Through community-based projects, students work with local organizations to conduct studies to understand the needs of a particular community and to find meaningful solutions. They enhance their listening and analytical skills, and they learn to reflect and understand civic and ethical responsibilities. (CFR 2.11)

Co-curricular activities allow students to hone the UC San Diego competencies and add an important dimension to the value and meaning of their degrees. To capture these types of achievements, the Education Initiative created the Co-Curricular Record, unique to UC San Diego, which provides an integrated and expansive way to document the student experience. It is an official, validated record of co-curricular experiences, highlighting student achievements

UC San Diego's Bioregional Center for Sustainability Science, Planning and Design builds university–community partnerships, knowledge, leadership capacity, networks, and livelihood opportunities needed for making "Healthy Places, Healthy People, Healthy Communities." Projects include:

Rogers Community Garden: a student-operated garden located in Revelle College where students learn about sustainable agriculture and food systems

Ocean View Growing Grounds: a community garden and research and learning center in the Mountain View area of San Diego focusing on the issue of food justice; developed in partnership with the Global Action Research Center.

in opportunities beyond the classroom, the name of the opportunity, the student's position, a short description, and up to three competencies developed. It recognizes student involvement in research and academic life, student and campus engagement, community-based and global learning, and professional and career development. By allowing students to demonstrate the value of engaging in opportunities beyond the classroom, this record also helps students reflect on and articulate the competencies and skills they have developed. Signed by the registrar, it forms part of a student's official university transcript, underscoring its value as a component of a UC San Diego degree. Each opportunity has been vetted by a committee to ensure it meets institutional criteria and a staff or faculty member validates each student engagement upon completion. Students can use the record in preparing résumés, applications, or personal statements, and can submit it when applying to jobs or graduate/professional programs. (CFR 2.7, 2.11)

Nationwide, educational leaders have begun the process of helping students define the value and purpose of their degrees. At UC San Diego, we are committed to help students navigate and construct their unique experience by providing innovative ways to help students both reflect on and articulate the range of experiences, knowledge, and competencies that constitute their education. (CFRs 2.5, 2.9)

Graduate Degrees

UC San Diego offers graduate admission to students with the highest potential and who, with the benefit of a graduate education, are most likely to contribute substantially to society and to their academic or professional fields through teaching, research, or professional practice. (CFRs 2.1, 2.2, 2.2b)

The university views diversity in graduate enrollment as a high priority; hence, we work hard to recruit from different social and economic backgrounds, and from different cultural and demographic groups. Successful efforts at overcoming socio-economic, educational, or physical disadvantages are viewed, in combination with other factors, as indicators of future performance. International students constitute a large percentage of UC San Diego's graduate student population, adding an international dimension to its diversity. (CFR 1.4)

> UC San Diego has been designated as a Changemaker Campus by Ashoka U for its role as a leader in social innovation education. Thus, UC San Diego—the only UC campus with this distinction—has joined the Changemaker Campus Network, a dynamic, global network of students, staff, administrators, faculty, and community partners who share inspiration, connections, and a desire to broaden the reach and impact of social innovation around the world.

> Teams in Engineering Service (Global TIES) was founded in 2004, affirming UC San Diego's commitment to engage students in social innovation. Managed and overseen by the Jacobs School of Engineering, this program is an innovative humanitarian engineering program in which faculty-advised and interdisciplinary teams of UC San Diego undergraduate students design and implement solutions for local and global nonprofit organizations. It is one of three programs that has earned UC San Diego a place on President Barack Obama's Honor Roll of Higher Education Community Service for four years. It has also been honored by the Clinton Global Initiative University.

The institution emphasizes the research character of graduate education. Doctoral and most master's degrees are the culmination of creative effort and attest to the ability of the recipient to continue original inquiry. In addition to requiring original research, most of UC San Diego's graduate programs expect students to obtain teaching experience. All graduate programs have defined program learning outcomes. (CFRs 2.1, 2.2, 2.4)

Much of the training that UC San Diego offers takes place outside the classroom—not only in seminars, but in independent research and tutorial work. Students benefit from the many visitors from other universities, there are opportunities to study at other University of California campuses, and many students become involved in the research activities of UC San Diego's research institutes and centers. Not only has UC San Diego attracted many of the world's great scholars, but other research institutions located nearby have enhanced the area's reputation. These include the Salk Institute for Biological Studies, the Sanford Burnham Prebys Medical Discovery Institute, the Sanford Consortium for Regenerative Medicine, the J. Craig Venter Institute, and the Scripps Research Institute. Close partnerships exist between these institutions and UC San Diego, often in the form of joint research projects, shared facilities, affiliated graduate programs, and adjunct faculty appointments. (CFRs 2.5, 2.8)

The nature of graduate instruction demands a capacity for critical analysis and a degree of research interest beyond what is generally expected for undergraduate study. Graduate courses may be conducted in any of several ways: as advanced lecture courses, as seminars in which faculty and students present critical studies of selected problems within the subject field, as independent reading or study under faculty supervision, or as research projects conducted under faculty supervision. (CFR 2.8)

Each of the campus' master's degree programs—both academic and professional—follows a prescribed list of both core and elective courses, followed by a final culminating experience. Minimum requirements include 36 units of coursework and three quarters of academic residency.

UC San Diego doctoral degrees are research oriented and require individual study and specialization within a field or the establishment of connections among fields. Technical requirements alone (e.g., fulfillment of academic residence and course work) are not sufficient for conferral of these degrees. Candidates are recommended for a doctorate in recognition of in-depth mastery of disciplinary subject matter and original contributions to their field of study. More generally, the degree constitutes an affidavit of critical aptitude in scholarship, imaginative enterprise in research, and proficiency in communication, including—in most departments—practice in teaching. The doctoral program of study is determined in consultation with the student's faculty advisor, who supervises the student's activities until the appointment of the doctoral committee. A doctoral program generally involves two stages: (CFRs 2.8, 2.9)

- Residency: At least three quarters of academic residence and when Academic Senate-approved course requirements are fulfilled.
- In candidacy: When the graduate program considers the student ready to take the qualifying examination, it arranges for the appointment of a doctoral committee. Immediately upon passing the qualifying examination administered by the doctoral committee, the student advances to candidacy.

The in-candidacy stage is devoted primarily to independent study and research and to the preparation of the dissertation. A minimum interval of three quarters of academic residence must elapse between advancement to candidacy and the final defense and submission of the dissertation.

Building upon a long tradition of academic excellence in graduate education while also advancing its bold mission to be a student-centered, research-focused, and service-oriented public university, UC San Diego seeks to train graduate students to become tomorrow's leaders in their fields and equip them to solve problems and thereby transform lives and society. The institution has also set a goal of growing our graduate student body and maximizing its quality, successes, and diversity in coming years, while at the same time ensuring all students are well-supported and able to succeed. (CFR 2.9)

For professional degrees, the standards are also consistent with those set by professional areas, while maintaining the same educational backgrounds as our academic master's and doctoral programs. Several programs aim to complement this approach. Grad SLAM is a competitive speaking event that gives graduate students the chance to showcase the impact of their research and master the skill of delivering their academic story in a dynamic way. To prepare graduate students and post-doctoral scholars for success in a range of careers, from industry to academia, the grAdvantage program was developed with input from industry leaders in the San Diego community and provides a suite of resources to help participants develop essential leadership, teamwork, and communication skills to become successful leaders in their field. Finally, humanities and social sciences PhD students and their mentors have long recognized the need for more resources to help bridge the knowledge gap between doctoral education and the realm of career possibilities. ImaginePhD is designed to meet this need by allowing users to: assess their career-related skills, interests, and values; explore career paths appropriate to their disciplines; create self-defined goals; and map next steps for career and professional development success. (CFR 2.9)

Program Approval

All new degree programs—both graduate and undergraduate—are subject to rigorous review by our divisional Academic Senate and, in the case of graduate degrees, system-wide senate vetting as well as approval by the system-wide provost's office. Among other academic matters, the senate evaluates justification, relationship to existing programs, academic rigor, evaluation/assessment plans, and letters of support from interested parties. New programs are also required to define program learning outcomes. (CFRs 2.1, 2.2, 2.7)

Beginning in fall 2018, the university initiated an additional administrative review of all new degree programs (appendix 33). Because the senate committees that vet new programs are not in a position to evaluate resource needs, this administrative review is designed to ensure that new programs are sufficiently resourced. Furthermore, because of the WSCUC requirement that new programs be screened for substantive change review, the Office of Undergraduate Education submits these programs for screening. The workflow includes divisional deans, the Graduate Division (for graduate degrees), the Office of Undergraduate Education (for undergraduate degrees and for WSCUC screening for all degrees), and the executive vice chancellor's office. Overall, this procedure ensures that all new programs have sufficient resources, undergo necessary screening, and do not duplicate existing programs. The senate committees can then evaluate the academic merit of the programs, which is the purview of the Academic Senate. (CFRs 1.8, 3.7)

The Undergraduate and Graduate Councils of the Academic Senate also evaluate any changes to existing programs (appendix 34), including changes to general education requirements. Program reviews are conducted regularly for all majors, minors, college programs, and graduate degrees. Overall, this process is a means of ensuring the quality and integrity of degrees. Essay 6 describes the program review process in greater detail, including a rigorous approval process that ensures the academic rigor and integrity of degrees, including graduate, undergraduate, and general education programs. (CFRs 2.1, 2.2, 2.7)

Finally, there is a rigorous review process for new schools and colleges, requiring both divisional and system-wide senate vetting, approval from the UC Office of the President, and from the Board of Regents (appendix 31). Two such proposed units are currently under review: the School of Public Health, which will house the public health major and several master's programs, and a seventh undergraduate college. In addition, the Academic Senate recently granted academic status to the [Halıcıoğlu Data Science Institute](), bringing together research and teaching to make data science an integral part of the institution and to foster UC San Diego's role as a leader in this field. As an academic unit, the institute will be able to appoint faculty and offer academic degrees (e.g., the inter-disciplinary data science major, currently administered through three divisions and the digital data science master's degree, currently under development).

Digital Learning

Like all institutions of higher learning, UC San Diego has been actively exploring ways to address the changing landscape of education, considering especially how to meet the needs of learners any time and any place through innovative distance learning, professional education, degree completion, certificate, workforce development, and lifelong learning programs. The institution is committed to increasing access to education on the UC San Diego campus and beyond using digital technologies. This has led to the creation of the [Digital Learning Hub]() within the Teaching + Learning Commons. The goals of the Hub are to advance UC San Diego's vision to innovate and enrich education, to provide support to faculty for online course delivery, to leverage digital technology to increase access to UC San Diego's research and scholarship, to contribute to research and assessment to advance knowledge in digital learning and inform new pedagogical approaches, and to support the university's revenue diversification. (CFRs 3.5, 4.7)

Instructional designers—educational technologists and learning specialists—have been collaborating with faculty, instructional assistants, and academic administrators to create massive open online courses (MOOCs), specializations, professional certificate programs, and MicroMasters Programs. Our [online catalog]() describes the courses and programs that have been developed so far. All courses and programs developed on the Coursera and edX platforms by UC San Diego faculty are available at no cost to UC San Diego students, faculty, and staff ([Coursera for UC San Diego]() and [UC San DiegoX]()). Thus, UC San Diego's Digital Learning Hub collaborates with faculty, teaching assistants, and academic administrators to strengthen the quality and breadth of our educational offerings, and provides a variety of academic services, including online teaching workshops, consultations, and instructional technology support. While UC San Diego does not have fully online degree programs, a master's in data science is currently under development.

These efforts align with the goals stated in UC San Diego's Strategic Plan, including the desire to improve the university's degree completion rate, and to develop and nurture public–private partnerships

designed to generate new revenue and ensure institutional financial security. The Digital Learning Hub is committed to contributing to student success, supporting teaching, and advancing the university's reputation for innovation and quality. (CFRs 3.5, 4.7)

Essay 4 - Educational Quality: Student Learning, Core Competencies, and Standards of Performance at Graduation

UC San Diego expects that all students should attain deep subject-specific skills, abilities, and knowledge. In addition, students should develop a critical and inquiring attitude, an appreciation of interdisciplinary subject areas, acceptance of persons of different backgrounds or values, and a deepened sense of self. These goals are articulated in WASC's five core competencies, UC San Diego's twelve competencies, and in individual program learning outcomes. The institution has created a unique, distributed, educational environment for achieving these goals: (CFRs 2.1, 2.2, 2.11)

- Academic departments and programs are responsible for developing academic majors designed to build students' mastery of current subject-matter specific knowledge, skills, and values.
- The undergraduate colleges are responsible for creating a general education curriculum that broadens students' base of knowledge and their appreciation for the modes of inquiry used in diverse academic disciplines.

- The Teaching + Learning Commons administers credit-bearing experiential learning opportunities, and—in collaboration with the Registrar—oversees UC San Diego's 12 competencies and the Co-Curricular Record.
- Campus partners provide non-credit-bearing co-curricular and experiential learning opportunities (e.g., the colleges, Student Affairs, Office of Research Affairs, and the Jacobs School of Engineering).

Essay 3 discusses aspects of the last two bullet points: the 12 competencies and their implementation in the Teaching + Learning Commons and co-curricular and experiential learning opportunities. Below is discussion of the additional aspects of the campus' approach to educational quality.

Academic Departments and Programs

At UC San Diego, every undergraduate program (academic major) has clearly defined program learning outcomes; these include the skills, abilities, and habits of mind students are expected to attain by the time they graduate. In addition, all programs provide opportunities for honing the five WASC core competencies: written communication, quantitative reasoning, oral communication, information literacy, and critical thinking. (CFR 2.3)

Although faculty committees have established learning outcomes for every academic major, these have not been adequately socialized among the faculty at large. In a series of interviews conducted by the WASC Reaccreditation Workgroup with program vice chairs (those overseeing undergraduate education), the workgroup found that there is not yet a deeply rooted appreciation of and knowledge about program learning outcomes. Thus, articulating goals and objectives for student learning is an emerging culture at UC San Diego. Departments that have engaged in this articulation process have found it helpful and rewarding, as it allows them to discuss, debate, and make decisions about areas of deep mutual interest—what they want for their students. Articulating goals is also a necessary first step in assessment. (CFRs 2.4, 2.6, 2.7)

Nevertheless, four independent but synergistic trends are catalyzing rapid change in this area:

- Over the last five-plus years, UC San Diego has hired a significant number of Teaching Professors (Lecturers with [Potential] Security of Employment), faculty who are scholars in teaching and learning and who are engaged in discipline-based educational research. The Teaching Professors are leading curricular and pedagogical reform initiatives in their academic departments' efforts (see essay 3, biological science evidence example). (CFR 3.1)
- The Teaching + Learning Commons was established in fall quarter 2016, an outcome of the Education Initiative. In its first few years it has created an impressive infrastructure that supports both students and faculty. One of its areas of focus is pedagogical and instructional development. Any time a faculty member participates in or requests specific services, the education specialist experts in the Commons engage them in discussing and establishing teaching goals, learning outcomes, and assessment of student learning. (CFRs 2.4, 3.3)
- UC San Diego recently launched the Strategic Academic Program Development initiative with a special emphasis on developing online accredited programs and master's and certificate programs. All programs and courses developed under this initiative undergo rigorous curricular mapping (see essays 3 and 7). Talks with the Academic Senate are underway to use this as a model for all course and program approvals.

- The Office of Undergraduate Education has been collaborating with academic divisions and the Teaching + Learning Commons to encourage department faculty to work with the Commons to refine program learning outcomes and develop assessment protocols. This is discussed in more detail in essay 6. (CFRs 2.7, 4.1)

Undergraduate Colleges

A unique aspect of UC San Diego's undergraduate education experience, and one of the most important for delivering quality education to students, is its undergraduate college system. The six undergraduate colleges provide students with the benefits of a well-rounded liberal arts education within a major research institution. College curricula are designed to provide students with foundational knowledge and skills that will prepare them for the rigors of upper-division coursework in the major. Within the colleges, students are introduced to diverse, general education requirements that develop the core competencies, as well as a range of other knowledge and skills, including civic engagement, community service, and cultural diversity. Each college has its own mission and commitment to learning outcomes, along with an educational philosophy, general education requirements, advising and student life staff, and residential facilities. Indeed, they serve as living and learning communities, bringing students together into socially connected cohorts as they navigate the first two years of their academic careers. (CFRs 2.12, 2.13)

The colleges adopt a theme-based approach to teaching and learning that is reflected in their mission statements and educational philosophies. Mission statements and philosophies are embedded in most aspects of college life, from co-curricular opportunities to first-year writing. For example, the focus of Thurgood Marshall College is the development of the student as "scholar and citizen." This theme permeates the general education requirements, which demand that students develop an awareness and understanding of the diversity of cultures in American life. Moreover, students in Marshall College satisfy their first-year writing requirements by taking three interdisciplinary courses in the Dimensions of Culture Program. The program and its courses are explicitly designed to help students explore the complexities of living in a multicultural society while developing core competencies such as written communication, oral communication, critical thinking, and information literacy. The college also offers co-curricular opportunities to support these outcomes. Each year hundreds of Thurgood Marshall students participate in public service learning programs such as Partners at Learning (PAL). Under the direction of the Education Studies Department, PAL programs were designed to provide undergraduates with a way to give back to the local community. Students interact with young children and adolescents, gaining valuable experience in the context of P-12 education. (CFR 2.11)

Self-Reflection and Assessment

Since the last accreditation, UC San Diego engaged in two campus-wide, comprehensive, and transformational initiatives, demonstrating the university's commitment to quality assurance, institutional learning, and a culture of ongoing improvement through sustained self-reflection.

- The Education Initiative was formally launched in fall quarter 2012 as a complement to UC San Diego's research initiatives. Its purpose is to explore and leverage current best global thinking about teaching and learning, and advancing students' success at the university and beyond. More than 400 faculty and educators took part in discussion and planning for a cultural transformation on campus as members of Education Initiative-related committees and

subcommittees, events, workshops, and conversations. The Education Initiative was then incorporated into UC San Diego's [Strategic Plan](#). (CFRs 2.7, 4.3, 4.4)

- In 2014, UC San Diego released its first ever Strategic Plan, a shared vision and mission that laid out the university's aspirations for the future and a roadmap for how to achieve them. It is noteworthy that the first goal of the Strategic Plan is a commitment to students to create a learning environment and overall experience "…that develops students who are capable of solving problems, leading, and innovating in a diverse and interconnected world." Achieving this aspiration requires a commitment to a student-centered university, where educators advance students' learning and agency and have the skills to create equitable and inclusive learning environments. To achieve this goal, a comprehensive, novel infrastructure was created: the Teaching + Learning Commons, which focuses on enhancing learning and teaching at all levels of the university. It is a campus-wide innovative infrastructure for comprehensive faculty and student support. In addition, the [Office of Student Retention and Success](#) was established to oversee student support services that reach thousands of students, focusing on specific student populations (see essay 5). (CFRs 1.1, 2.10, 2.13, 3.6, 3.7, 4.3, 4.4)

UC San Diego's institutional assessment infrastructure is evolving (see essays 3 and 6). It includes several surveys conducted through Institutional Research. In addition, several programs within Student Affairs (see essay 5) and the Teaching + Learning Commons conduct regular assessment. Finally, partnerships between The Teaching + Learning Commons and academic departments have recently been established (essay 6). (CFRs 2.6, 4.1, 4.2)

Core Competencies

UC San Diego fosters the five core competencies defined by WSCUC, as well as UC San Diego's twelve competencies. Students develop these through a broad range of academic and co-curricular opportunities.

Each undergraduate college has its own dedicated first-year writing program. Required writing courses are specifically designed to help students develop the core competencies of written communication, oral communication, critical thinking, and information literacy. While the overall structure of these programs varies from college to college, they each share a commitment to providing students with at least two writing-intensive courses in cohorts of no more than 16 students. (CFRs 2.1, 2.2a)

The writing programs' unique affiliation with each college also allows them to design courses that enrich students' understanding of college-related themes. This means that although the [program learning outcomes](#) may vary slightly from program to program, they overlap significantly in addressing the core competencies. The college writing program faculty directors are responsible for defining the program learning outcomes, and aligning them with senate-approved general education requirements and also with the nationally recommended learning outcomes for the fields of writing and composition (e.g., [WPA Outcomes Statement for First-Year Composition (3.0)](#)). (CFR 2.4)

Evidence that the college writing programs are designed around engaging with four of the five core competencies can be found on program websites, course syllabi, and assessment rubrics (appendix 35). All of the writing programs have weekly or bi-weekly, 500-level pedagogy seminars throughout the academic year that bring together administrators, faculty, and graduate teaching assistants. These seminars offer an opportunity to implement and assess learning outcomes on a consistent basis.

Administrators and instructors discuss and evaluate outcomes using assessment methods appropriate for the discipline. These include rubrics, student surveys, samples of student writing, and course capstone project evaluation. (CFR2 2.6, 3.3)

All of the writing program directors interviewed indicated procedures and methods for implementing, reviewing, and changing outcomes. Some programs have made curricular and pedagogical changes based on formal assessments, while others have revised curricula based on the ongoing evaluations of learning outcomes and student data that they analyze weekly, quarterly, and annually.

While the college writing programs form the core of each college's general education requirements, the colleges also each have breadth requirements that round out the liberal arts aspect of their students' education. Included in each are quantitative and science requirements that foster growth in quantitative reasoning. (CFR 2.2a)

All academic programs have grouped their program learning outcomes according to the five core competencies. Roughly 50% of these programs foster growth in all five outcomes. Thus, between their college general education requirements and their major coursework, students are guaranteed to receive training in all five competencies.

UC San Diego is committed to increasing the number of students engaged in research, as research helps develop essential core competencies, specifically critical thinking, communication, and teamwork. According to the 2018 University of California Undergraduate Experience Survey, 21% of respondents report having worked with faculty on a research project and 15% report having conducted their own research project under faculty guidance (all academic departments offer credit-based research opportunities via the 99 or 199 courses). The 2015 CIRP College Senior Survey reports 40.3% of UC San Diego seniors participating in an undergraduate research program. The Academic Enrichment Program (AEP) assists students looking for faculty-mentored opportunities. In 2018-2019, the chancellor funded a pilot program, Triton Research and Experiential Learning Scholars (TRELS), through which the undergraduate colleges, in partnership with AEP, match students with faculty mentors and award research stipends. Additional funding is available through the Undergraduate Research Scholarships. The REAL Portal was developed to allow faculty, researchers, and internship providers to promote opportunities and to automate student applications. (CFRs 2.6, 2.8)

Historically, the library has collaborated with college writing programs to provide information literacy instruction. Since the last review, the library undertook a large reorganization that allows it to focus on information literacy instruction within the colleges and with subject-specialist librarians assigned to each department. Librarians teach critical thinking and research skills to lower division undergraduate students through the college writing programs and in the disciplines, reaching nearly all undergraduate students through at least one course. In fact, any course that includes a research methods component likely has information literacy instruction provided through an online guide, online tutorial, or in-person library workshop. Currently the library provides at least one library workshop or tutorial to students enrolled in four of the college writing programs, reaching over 4,200 students per academic year. In addition, the library has aligned the Framework for Information Literacy for Higher Education, adopted by the Association for College & Research Libraries (ACRL), with the Information Literacy VALUE Rubric from the Association of American Colleges & Universities preferred by WASC. This new rubric will provide the foundation for an online database that librarian instructors can use to create appropriate

undergraduate or graduate level information literacy learning outcomes for their workshops or courses, paving the way for designing deep learning and formative and summative assessments. (CFR 3.5)

The biannual UC Undergraduate Experience Survey (UCUES) explicitly measures students' self-rating in core competencies, both when they enter the university and at the time of the survey. This allows for measurement of gains in each competency (based on self-reporting). A summary of these data from 2010-2018 show that students report a gain of about .5 points or more (on a six-point scale) each year. Furthermore, there is a trend of increased gains from 2010 to the present, although increased gains are not linear (appendix 36).

Gains in Five Core Competencies		
	2010 (2016*)	2018
Written Communication	.6171	.6515
Oral Communication*	.8163	.7562
Quantitative Reasoning	.3201	.4450
Information Literacy	.7254	.7918
Critical Thinking	.7314	.7720

(UC Undergraduate Experience Survey, 2010 & 2018; self-ratings on a six-point scale, comparing entry to university and junior/senior year).

*The UCUES question on Oral Communication was introduced in 2016.

Additional Competencies

Moving beyond WASC's five core competencies, Criterion for Review 2a mentions creativity, innovation, an appreciation for diversity, ethical and civic responsibility, civic engagement, and the ability to work with others. These additional competencies are subsumed by the UC San Diego competencies and are embedded in a number of experiential learning programs and cross-referenced in the Co-Curricular Record, some of which are highlighted below.

Civic Engagement

Through community-based projects, students work with local organizations to conduct studies to understand the needs of a particular community and to find meaningful solutions. Among other benefits, students enhance their listening and analytical skills, while learning to reflect and to understand civic and ethical responsibilities. (CFR 2.11)

The Center for Student Involvement (CSI) offers students myriad opportunities to become experienced citizens and leaders. Community Service, a unit within CSI, offers students a variety of service options, including one-time service, local ongoing service, national and international service, social innovation, and student service organizations.

The Community Health Project (CHP) is an example of CSI's programming. This is a long-term, non-credit bearing co-curricular service-learning program for students interested in health as a social justice issue. Students focus on issues around refugee, women's, children's, indigent, and geriatric health via partnerships with community organizations. Students go through an application and matching process, service-learning pre-training, and serve at least four hours per week at a community partner site over multiple quarters. Participants present their learning in the form of a capstone poster at an end-of-year celebration. In 2017-2018, capstone posters were used to assess student learning and over 70% of students reached the "Milestone or Capstone" level for "Connection of Learning."

In addition, the Partners in Learning (PAL) program, discussed above, provides opportunities for civic engagement.

Cultural Competencies

All students must take a course that deals with aspects of diversity, equity, and inclusion in the context of the United States. These courses are vetted by a standing faculty committee. This requirement has been in place for seven years and the program will be reviewed during 2018-2019. Nevertheless, individual departments have conducted their own assessments. For example, Education Studies surveyed roughly 1,300 students from eight of their diversity, equity, and inclusion courses over a period of two years. Survey responses showed that a large percentage of students (>90%) agreed or strongly agreed that the courses increased their awareness of the role of ethnicity in student outcomes (appendix 37). (CFRs 1.4, 2.2, 2.2a, 2.6)

UC San Diego also has strong study abroad offerings. Students can choose from a variety of short- or long-term programs, including the system-wide UC Education Abroad Program and UC San Diego's faculty-led summer Global Seminars. Currently, about 16% of UC San Diego students participate in study abroad sometime during their undergraduate career. Increasing this number is a system-wide priority, as study abroad immerses students in markedly different cultures, allowing students to gain insight into their values, biases, and affective responses. (CFR 2.11)

Entrepreneurial Competencies

To foster entrepreneurial competencies, UC San Diego offers a variety of programs. These include the Entrepreneurship & Innovation Minor (Rady School of Management) and EnVision (Jacobs School of Engineering). Both are examples of the institution's commitment to create out-of-the-classroom opportunities for honing critical thinking, creativity, and innovation, as well as our commitment to educate students in both the under-the-hood-details that make something work and the big picture context that makes something matter. (CFRs 2.9, 2.11)

In 2015, in partnership with alumni, UC San Diego founded The Basement, a campus-wide innovation and entrepreneurial program and maker space, which provides creative innovation space, mentorship, entrepreneurship programming, and resources.

The library provides opportunities for students to learn outside of the typical classroom environment through unique student jobs (e.g., in the Digital Learning Lab and the Data/GIS Lab). In 2016-2017, the library implemented an independent study course for undergraduates, in collaboration with the Institute of Arts and Humanities, in which the students became exhibition curators for the academic year. (CFRs 2.11, 3.5)

Regular Self-Assessments

There are a number of campus units that conduct regular self-assessments in a variety of domains, ranging from large-scale surveys to discipline-specific accreditations.

Institutional Research

Institutional Research oversees surveys that support the institution's goal to assess whether students have developed core competencies. (CFR 4.2) The unit produces and posts several standard reports,

such as information on student enrollments, admissions statistics, student retention and graduation, and faculty workload. Additional surveys include:

- Graduate and Professional Student Experience and Satisfaction Survey
- Graduate Student Well-Being Survey
- University of California Undergraduate Experience Survey (UCUES)
- The Freshmen Survey
- Your First College Year
- Diverse Learning Environments
- College Senior Survey
- Graduate Division Exit Survey

These surveys assess specific competencies as such:

Your First College Year and the College Senior Survey support the assessment of cultural competency; e.g., "My college experience has exposed me to diverse opinions, cultures, and values."

The Freshmen Survey, Your First College Year, the Diverse Learning Environments, and the College Senior Survey support the assessment of information literacy; e.g., "Evaluate the quality or reliability of the information you have received; used the internet for research or homework."

The Freshmen Survey, Your First College Year, the Diverse Learning Environments, and the College Senior Survey support the assessment of critical thinking; e.g., "My courses allowed me to integrate skills and knowledge from different sources."

The College Senior Survey supports the assessment of communication skills; e.g., "I took a class that required 10+ page papers," "I took a class that required multiple short papers," and "I revised my papers to improve my writing."

The Freshmen Survey, Your First College Year, and the College Senior Survey support the assessment of co-curricular, community-based learning; e.g., "I participated in volunteer or community-based service work."

The University of California Undergraduate Experience Survey also addresses several of these areas.

Further evidence of UC San Diego's culture of evidence and improvement is the UC Accountability Report, which is part of Institutional Research's regular reporting efforts and UC San Diego's

> **Higher Education Research Institute (HERI) Survey Data**
>
> - In 2015, 94.9% of UC San Diego seniors report taking classes requiring multiple short papers; 45.9% take such classes frequently (appendix 10).
> - Between 2010 and 2017, the percentage of students reporting revising their papers after their first year increased by 9.8% (appendix 9).
> - Paper revision between the first and senior years (2009-1/2015) increased by 4.3% (appendix 11).

participation in the Association of American Universities data exchange. The Undergraduate Student Experiences and Satisfaction and Graduate and Professional Student Experience and Satisfaction surveys are conducted regularly and have led to significant improvements in the graduate and undergraduate student learning environment. (CFRs 1.6, 1.7, 4.3)

Academic Internship Program

Reporting to the Teaching + Learning Commons, the [Academic Internship Program](#) routinely surveys participating students about their perceived gain in core competencies. (CFR 2.6, 2.11)

Education and Research Hub

To significantly broaden and deepen our culture of assessment and its ability to engage in a continuous cycle of inquiry, UC San Diego established the [Educational Research and Assessment Hub](#) within the Teaching + Learning Commons (see also essay 6). The university has committed the resources for the 2018-2019 budget cycle to fund two additional FTEs in the hub. This unit has begun working with academic departments to develop a more systematic and widespread assessment of program learning outcomes. The Educational Research and Assessment Hub meets with program faculty to develop assessment tools and aids in collating and analyzing assessment data. While still in its pilot stage, there are already several assessment measures in place (as reflected in the Inventory of Educational Effectiveness Indicators). This is discussed further in essay 6. (CFRs 2.6, 4.1)

Program Reviews and Accreditations

As detailed in essay 6, all academic programs are subject to peer review and undergo regular program reviews. Many of UC San Diego's undergraduate and all of its professional degrees are accredited by their respective professional organizations, evidence that they fully adhere to recognized disciplinary or professional standards. For example, most programs offered in the Jacobs School of Engineering undergo regular accreditation by Accreditation Board for Engineering and Technology, Inc. (ABET). The majors offered by the Department of Chemistry and Biochemistry are accredited by the American Chemical Society. (CFR 2.7)

Culture of Institutional Learning and Self-Reflection

Examples of institutional learning and self-reflection come from two fundamental aspects of a university education: communication and quantitative skills. The institution bases the development of strong communication and quantitative skills on appraisal through placement testing and subsequent course placement. These, in turn, feed into curriculum development, teaching objectives, and learning outcomes. This alignment of skills helps to ensure that all students have the foundational critical reading, writing, and mathematics skills necessary for success and are prepared to move to the next level in communication and mathematics sequences. The primary goal is to fully develop these core competencies and facilitate student success and learning in their academic major. To this end, UC San Diego has charged the Analytical Writing Program (housed in the Division of Arts and Humanities) and the Math Testing and Placement Office (housed in the Division of Physical Sciences) with overseeing appropriate course placements.

Both of these areas provide recent examples of significant curricular changes resulting from high-level assessment, and demonstrate the institution's commitment to data-driven self-reflection and the willingness to act on findings. (CFRs 2.1, 2.2a, 2.7, 4.1, 4.3)

Analytical Writing

As discussed above, lower-division writing requirements are part of college writing programs. However, students who have not cleared the system-wide [Entry Level Writing Requirement](#) require additional

instruction before entering their college programs. For over two decades, UC San Diego had outsourced remedial basic writing courses to a local community college. This was not an ideal solution and became unsustainable as the number of international students (many of whom required basic writing courses) grew. In fall quarter 2014, a workgroup was convened to study the problem. This group established that a significant number of students—most international students—were at risk of academic disqualification due to not clearing the Entry Level Writing Requirement. The workgroup also concluded that the program required radical restructuring because some students—who had to pass both a basic writing class and an exit exam—often passed the class several times without passing the exit exam (appendix 38). A subsequent curriculum committee was then convened to design a basic writing program (later re-named Analytical Writing) that was evidence-based and employed best practices. A new director was hired (as senate faculty), the exit exam was eliminated in favor of a portfolio review, and a new innovative and rigorous curriculum was designed (appendix 39). The courses were no longer outsourced.

This program is now thriving, with regular assessments showing significant improvement over the previous program. For example, between 2012 and 2014, the percentage of students in the program who satisfied the requirement was 21–31% for English language learners and 46–53% for native English speakers. Under the new model, initiated in 2015, the rates jumped to 66% and 86%, respectively. Furthermore, since the program instituted a two-quarter stretch course for English language learners in 2016, the pass rates have ranged from 83–91%, outpacing the native English pass rates of 70–94% (appendix 40). (CFRs 2.2, 2.5, 2.6, 2.7, 2.13, 4.1, 4.2, 4.3)

Mathematics Placement and Triton Freshmen Scholars

A review of data from our math diagnostic and placement exams indicated the need for an additional mathematics course for incoming students without sufficient preparation for the pre-calculus course. The development of the new course (Math 2) was based on data from placement testing results that were used as feedback to inform course development and sequencing. Review of placement data indicated that, on average, 15% of incoming first-time full-time students require preparatory courses before enrolling in pre-calculus (appendix 41).

The Department of Mathematic's pre-calculus course (Math 3C) had been identified as a bottleneck course, with a high failure rate (30% and higher). Further analysis revealed that over 45% of the students who failed the course failed it again at their second and third attempt. The Math Diagnostic Test revealed that students who failed the course lacked foundational knowledge in linear relationships, exponents and polynomials, rational expressions and equations, models of quadratic and polynomial functions and radical equations, exponential and logarithmic functions (including geometric sequences), and geometry and trigonometry. In response to this, the Department of Mathematics developed Math 2, which was offered for the first time as part of a pre-matriculation summer program (Math Track). Assessment at the end of the program demonstrated that all students learned and were able to enroll in the subsequent course, Math 3C. Further evaluations conducted by the Commons revealed that students underprepared in mathematics were also insufficiently prepared for college-level writing courses.

Based on these data, the executive vice chancellor charged the Department of Mathematics, the Teaching + Learning Commons, and the Analytical Writing Program to develop a residential eight-week summer program, The Triton Freshmen Scholars Program, a pre-matriculation program for 113 incoming first-time full-time students (which built on a 2017 pilot, the Triton Prep program). Both are outcomes of

a cycle of inquiry that started in the spring quarter 2016 as a collaboration among the Teaching + Learning Commons (Educational Research and Assessment Hub), Institutional Research, the Mathematics Diagnostic Testing Project, Student Retention & Success, the Office of Academic Support & Instructional Services, and the Department of Mathematics (appendix 42). (CFRs 2.2, 2.5, 2.6, 2.7, 2.13, 4.1, 4.3)

Offering developmental mathematics and writing courses as part of a pre-matriculation (residential) summer program addresses time-to-degree issues, persistence in majors, and retention, while providing an opportunity for participating students to acquire the knowledge and skills (especially the writing and quantitative reasoning core competencies) needed for college success. The development of the summer program reflects the university's commitment to a talent-development philosophy. The Triton Freshmen Scholars Program is part of multiple, interconnected learning support networks developed by the Teaching + Learning Commons and the Office of Student Retention & Success that jointly increase students' college readiness and overall academic success. (CFR 2.13)

Finally, the Center for Advancing Multidisciplinary Scholarship for Excellence in Education (CAMSEE) is a diverse group of UC San Diego community members committed to advancing teaching and learning. It includes instructors, researchers, librarians, and educational technologists, and functions as a professional network, social network, and learning community. CAMSEE was largely responsible for the initial advances in math placement, but has since expanded to become a multi-disciplinary, faculty-led body. Their emphasis on assessment and evidence-based pedagogy is an important indicator of an evolving student-centered faculty culture. (CFR 4.1)

Essay 5 - Student Success: Student Learning, Retention, and Graduation

UC San Diego has adopted the following definition of undergraduate student success:

> *Undergraduate student success at UC San Diego is defined as maintaining or exceeding good academic standing; making steady progress toward degree completion; actively engaging in research, co-curricular opportunities and the campus and local community; and utilizing resources to intentionally develop the competencies to lead in a global society.*

As discussed in essays 3 and 4, the institution has developed 12 competencies that describe the skills, abilities, and knowledge we expect all UC San Diego graduates to possess as a result of their specific academic program, as well as co-curricular engagement in experiential learning, research, and leadership opportunities. The above definition, as well as information on several success programs, is available on the Academic Success website.

This essay addresses trends and factors associated with UC San Diego's retention and graduation rates, processes that promote student learning and development, and programs to improve undergraduate student success.

Of critical importance to UC San Diego is the shared belief that achieving student learning outcomes and success should be equitable across all student demographic groups, majors, cultural backgrounds, and income levels. We strive to ensure that our degree completion rates are high for first-time full-time, transfer, and graduate students, and that the time it takes to complete degrees is minimized or at least normative as compared to other UC campuses and peer institutions. We work hard to close any existing gaps in graduation and retention rates across student populations.

Trends in Retention and Graduation Rates

The institution regularly tracks, reviews, and evaluates retention and graduation rates for first-time full-time students and transfer students matriculated to UC San Diego by various student characteristics, including gender, ethnicity, residency status, college, academic discipline, parent income level, first-generation status, Pell eligibility, and high school GPA and SAT scores. (CFR 2.10)

Several student success programs—such as the Summer Bridge Program, Chancellor's Associates Scholars Program, and the Student Success Coaching Program—serve the unique needs of our underrepresented, low-income, and/or first-generation students. These programs all monitor the retention, academic progress, units completed, and graduation rates of participants and compare them against the rates for similar students who do not participate in these programs. These programs also assess learning and development on a regular basis (appendix 43). (CFRs 1.2, 2.10, 2.13) The Teaching + Learning Commons provides an infrastructure for student-centeredness and supports all students. To this end, it develops inclusive pedagogy and provides a number of academic support programs (e.g., the Writing Hub, Academic Achievement Hub, and Supplemental Instruction, among others).

Figures 6 and 7 show retention and graduation rates for both first-time full-time and community college transfer student cohorts. (CFR 1.2)

Figure 6

Retention, Graduation & Time-To-Degree: Total First-Time Full-Time Students

Fall Term	Entering Cohort	1-Year Retention Rate	2-Year Retention Rate	4-Year Graduation Rate	5-Year Graduation Rate	6-Year Graduation Rate	Avg. Time to Degree (Years)	Avg. Time to Degree (Quarters)
2008	4,292	95.1%	90.3%	57.0%	81.7%	86.1%	4.2	12.7
2009	3,749	95.8%	90.6%	58.3%	83.9%	87.3%	4.2	12.7
2010	3,947	95.7%	90.8%	58.9%	83.5%	87.2%	4.2	12.6
2011	3,444	93.8%	88.0%	55.1%	79.6%	84.5%	4.3	12.8
2012	4,573	94.2%	89.0%	61.6%	82.0%	85.9%	4.2	12.5
2013	5,228	94.6%	89.7%	65.0%	83.6%			
2014	4,922	94.6%	90.4%	65.7%				
2015	5,292	95.4%	91.4%					
2016	5,746	94.2%	90.2%					
2017	5,699	94.1%						

Source: UC San Diego Campus Office of Institutional Research

Figure 7

Retention, Graduation & Time-To-Degree: Total Community College Transfer Students

Fall Term	Entering Cohort	1-Year Retention Rate	2-Year Graduation Rate	3-Year Graduation Rate	4-Year Graduation Rate	Avg. Time to Degree (Years)	Avg. Time to Degree (Quarters)
2008	1,703	94.1%	35.3%	72.0%	82.7%	2.7	8.1
2009	1,735	94.7%	42.1%	75.6%	84.9%	2.6	7.8
2010	2,377	94.9%	41.1%	76.8%	86.1%	2.6	7.8
2011	2,550	93.2%	40.4%	75.1%	85.5%	2.6	7.9
2012	1,946	93.6%	41.2%	76.6%	86.0%	2.6	7.8
2013	2,443	94.8%	37.2%	76.9%	87.4%		
2014	2,138	94.8%	40.3%	79.8%	88.1%		
2015	2,360	93.4%	45.2%	78.0%			
2016	2,596	92.3%	40.8%				
2017	2,620	93.9%					

Source: UC San Diego Campus Office of Institutional Research

We routinely benchmark our graduation and retention rates against appropriate comparison schools, both within the UC system and amongst Association of American Universities and Higher Education Research Institute (HERI) peers. UC San Diego's retention rates compare favorably with other public peer institutions and are on par with our UC system-level peers (figures 8 and 9). (CFRs 4.1, 4.2)

Figure 8

Retention: Fall 2016 First-Time Full-Time Entering Cohort

Figure 9

Retention: Fall 2016 Transfer Entering Cohort
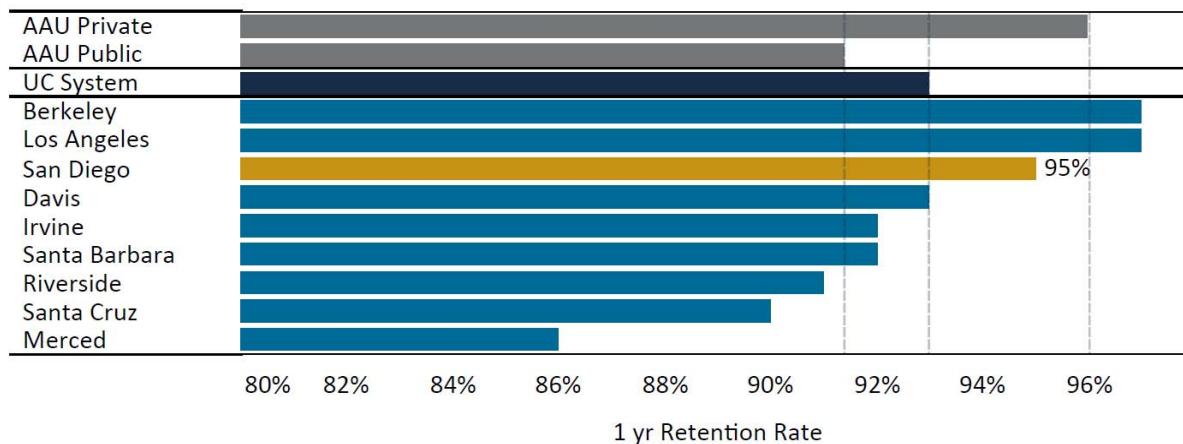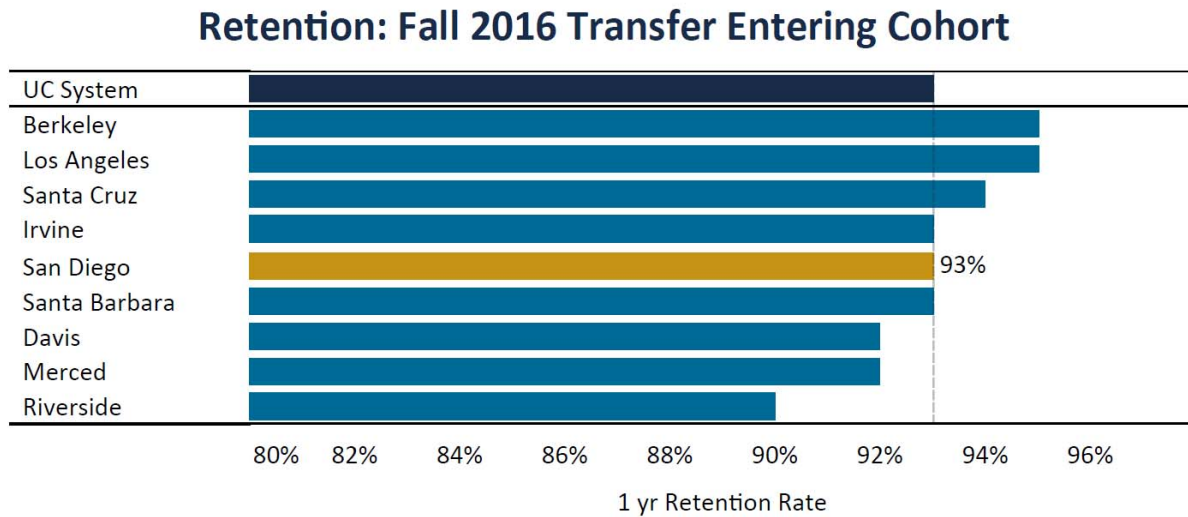
Before the 2012 cohort, our four-year graduation rate lagged that of the UC system. Since then, our four-year graduation rate has been markedly improving and has been on par with or outpaced that of peer public universities. Our six-year graduation rates are better than most other UC campuses (figures 10–12).[5]

Figure 10

Graduation Rates (Four-Year) by Entering Cohort

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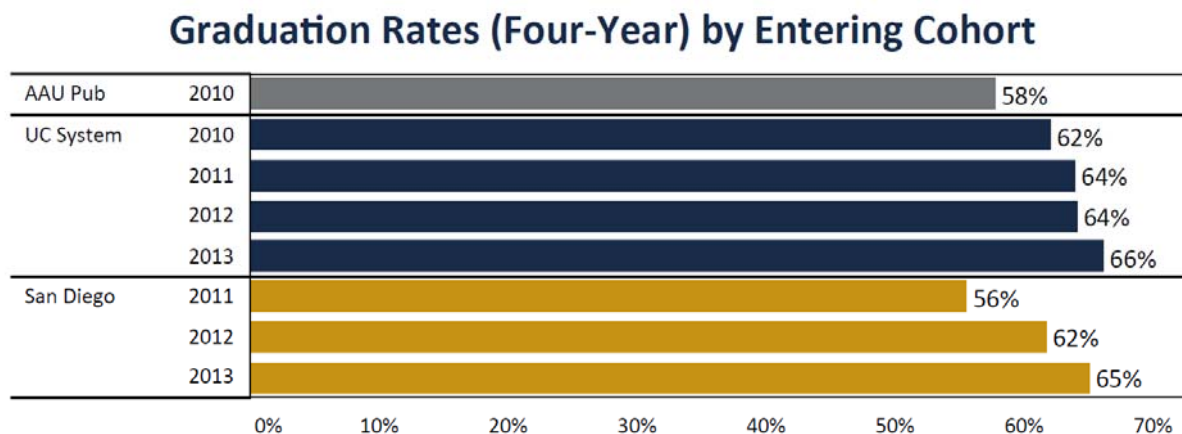
[5] The UC San Diego 2011 percentages in figures 10 and 11 are slightly different from the corresponding data in figure 6 due to different rounding conventions between the two data sources (UC Accountability Profile vs. UC San Diego Office of Institutional Research).

Figure 11

Graduation Rates (Six-Year) by Entering Cohort

	AAU Pub	UC System		Berkeley	Los Angeles	Davis	San Diego	Irvine	Santa Barbara	Santa Cruz	Riverside	Merced
6 yr Graduation Rate	79%	84%	84%	91%	91%	86%	85%	85%	82%	80%	77%	67%
	2010	2010	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011

Source: UC Accountability Profile Chapter 3
https://accountability.universityofcalifornia.edu/2018/chapters/chapter-3.html#3.2.1

Figure 12

First-Time Full-Time Graduation Rates by Entering Cohort

|		Graduate in 4 years	Graduate in 5 years	Graduate in 6 years
AAU Pub	2010	58%	76%	79%
San Diego	2011	56%	80%	85%
	2012	62%	82%	82%
	2013	65%	65%	
UC System	2010	62%	81%	84%
	2011	64%	82%	84%
	2012	64%	81%	81%
	2013	66%	66%	

Source: UC Accountability Profile Chapter 3
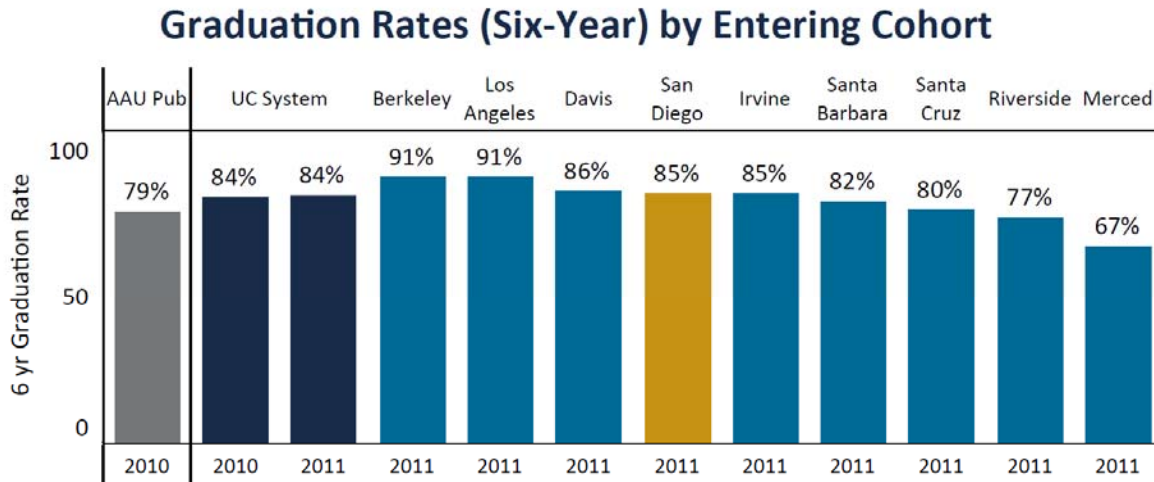https://accountability.universityofcalifornia.edu/2018/chapters/chapter-3.html#3.2.1

■ Graduate in 4 years   ■ Graduate in 5 years   ■ Graduate in 6 years

Interestingly, the percentage of first-time full-time students who graduate in four years plus one quarter has been consistently 7% higher than the four-year rate. This suggests that significant time-to-degree improvement is possible with relatively minor adjustments (figure 13).

Figure 13

First-Time Full-Time Four-Year + One Quarter Graduation Rates by Entering Cohort

FA 2011: 55% | 7% | 62%
FA 2012: 62% | 7% | 68%
FA 2013: 65% | 7% | 72%

Source: UC San Diego Campus Office of Institutional Research
Note: FA11 is off from OP value for UCSD by 1 ppt (55% vs. 56%)

■ Graduated in 4 yrs   ■ Graduated in 4 yrs + 1Q

UC San Diego's four-year graduation rates closely tracked the HERI predictions up until the 2012 cohort. Subsequently, the four-year graduation rate has significantly outpaced the HERI predications. These predictions take into account a number of factors, including student demographics (figure 14). (CFR 4.2)

Figure 14

HERI Predicted and UC San Diego Actual Four-Year Graduation Rates for Freshman Cohorts

Max. Predicted Graduation Rate

UC San Diego Actual Four Year Graduation Rate
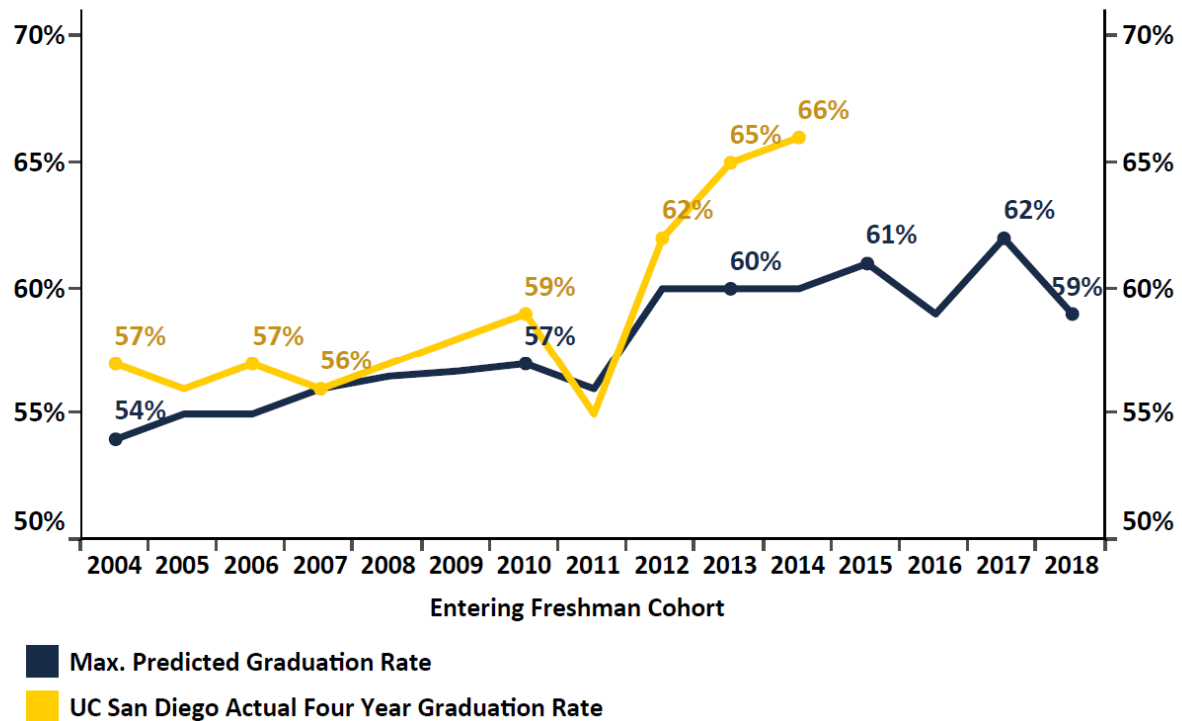
Note: HERI Predicted Graduation Rates are not available for 2005-2009, and the values for these years are imputed

UC San Diego's one-year retention rates are fairly equal across ethnicity categories and first-generation and Pell-eligibility status. However, we find higher rates of attrition after two years for Chicanx/Latinx and African-American students as well as Pell recipients. These disparities across ethnic and demographic groups result in lower four-year graduation rates for these student groups. Nevertheless, we find that many of the gaps in four-year graduation rates that exist among Pell recipients, African-American, and Chicanx/Latinx students are reduced as we look at five- and six-year graduation rates (figures 15–17). Nevertheless, many of the institution's efforts focused on student success are aimed at closing these gaps.

Figure 15

Retention, Graduation & Time-To-Degree: First-Time Full-Time African American Students

Fall Term	Entering Cohort	1-Year Retention Rate	2-Year Retention Rate	4-Year Graduation Rate	5-Year Graduation Rate	6-Year Graduation Rate	Avg. Time to Degree (Years)	Avg. Time to Degree (Quarters)
2008	52	98.1%	96.2%	59.6%	88.5%	96.2%	4.3	13.0
2009	46	91.3%	84.8%	41.3%	73.9%	78.3%	4.3	13.0
2010	61	93.4%	91.8%	63.9%	85.2%	90.2%	4.2	12.5
2011	62	91.9%	83.9%	37.1%	59.7%	69.4%	4.4	13.2
2012	89	94.4%	94.4%	48.3%	83.1%	88.8%	4.4	13.0
2013	115	92.2%	83.5%	53.0%	73.0%			
2014	88	94.3%	88.6%	47.7%				
2015	78	96.2%	88.5%					
2016	147	92.5%	87.8%					
2017	128	92.2%						

Source: UC San Diego Campus Office of Institutional Research

Figure 16

Retention, Graduation & Time-To-Degree: First-Time Full-Time Chicanx/Latinx Students

Fall Term	Entering Cohort	1-Year Retention Rate	2-Year Retention Rate	4-Year Graduation Rate	5-Year Graduation Rate	6-Year Graduation Rate	Avg. Time to Degree (Years)	Avg. Time to Degree (Quarters)
2008	539	92.8%	86.6%	38.8%	70.3%	77.0%	4.5	13.4
2009	551	92.9%	86.0%	39.9%	73.1%	77.9%	4.4	13.3
2010	590	94.2%	88.6%	43.1%	76.6%	81.5%	4.4	13.2
2011	711	91.3%	84.5%	39.9%	69.9%	76.4%	4.4	13.3
2012	614	91.7%	84.7%	48.4%	72.0%	76.4%	4.3	12.9
2013	797	93.6%	87.6%	53.1%	77.3%			
2014	830	91.6%	87.3%	50.5%				
2015	704	92.5%	86.9%					
2016	1,143	90.8%	87.4%					
2017	1,255	90.3%						

Source: UC San Diego Campus Office of Institutional Research

Figure 17

Retention, Graduation & Time-To-Degree: First-Time Full-Time Students & Pell Grant Recipients

Fall Term	Entering Cohort	1-Year Retention Rate	2-Year Retention Rate	4-Year Graduation Rate	5-Year Graduation Rate	6-Year Graduation Rate	Avg. Time to Degree (Years)	Avg. Time to Degree (Quarters)
2008	1,496	94.7%	91.2%	46.5%	78.1%	84.1%	4.4	13.1
2009	1,632	94.9%	90.0%	48.7%	80.2%	84.6%	4.3	13.0
2010	1,844	95.8%	91.3%	52.7%	80.6%	85.5%	4.3	12.9
2011	1,580	93.7%	88.5%	48.2%	77.4%	82.9%	4.4	13.1
2012	1,367	93.6%	89.4%	54.6%	79.7%	83.2%	4.3	12.8
2013	1,687	94.6%	89.8%	57.4%	80.3%			
2014	1,642	94.1%	90.0%	57.7%				
2015	1,371	95.3%	91.9%					
2016	1,750	92.4%	89.3%					
2017	2,051	92.3%						

Source: UC San Diego Campus Office of Institutional Research

Putting this together, UC San Diego's appears to be doing well with respect to retention and eventual graduation. The university could improve with respect to four-year graduation and there remain achievement/opportunity gaps based on ethnicity and Pell grant eligibility.

Student Success Initiatives

Since our last review, the institution has placed considerable emphasis on improving retention, graduation, and time-to-degree rates. A dedicated cross-functional leadership group, consisting of divisional deans, faculty, and senior administrators evaluated various factors contributing to time-to-degree. For example, several majors required more than 72 upper-division units, and some significantly so. In addition, the UC Office of the President's Budget Framework Initiative has allowed UC San Diego to make significant progress in reducing the required courses of many majors while retaining rigor and content required and expected by our faculty and professional associations (appendix 44).

Specifically, in order to increase the four-year graduation rate, the system-wide Provost's Office asked campuses to aim for departments and units to require no more than 45–48 upper-division units (72 for engineering) for majors listed among the top 75% by campus enrollment. At UC San Diego, all such majors (n = 90) reviewed their upper division requirements and streamlined them where possible; if the department was not able to meet the target, a careful academic justification was provided. Of the majors reviewed, 46% (n = 41) had the number of courses and units decreased. Currently, 62% of reviewed majors are at or below the target (appendix 45). (CFRs 1.6, 2.10, 4.2, 4.3, 4.4).

Last year, the Academic Senate approved a significant change that should lead to increased four-year graduation and reduce achievement gaps. Currently, students are held to a maximum unit limit; while 180 units are required for graduation, students must petition to exceed 200 units (240 units for double majors and engineering majors). Beginning in 2019-2020, this will be replaced with a maximum quarter limit: the university will be expected to help students finish in twelve quarters (six for transfer students). A predictive analytics tool (see below) employed by college advisors will flag students not on track for

timely completion. These students will be required to meet with a college advisor and formulate an academic plan. The point of this limit is not to disqualify students who do not finish in the allotted time, but to foster consultation and bring students who are potentially at risk into professional advising. This will prove a valuable tool for increasing four-year graduation rates and addressing achievement gaps (appendix 46). (CFRs 1.6, 2.10, 2.12, 4.3, 4.4).

The high-touch advising described above requires accurate ways of predicting whether students are on track for timely graduation. To this end, the institution developed an innovative predictive analytics tool: the UC San Diego Time-to-Degree application. This tool helps identify complicated trends and patterns impacting progress towards graduation, as well as resources and gaps to support current students towards time-to-degree. Its goal is to centralize academic electronic resources into a visual display, real-time scoring, and a reporting system that tracks student progress at a glance and provides advisors the data to support proactive interventions with a non-punitive approach. The application was developed using machine learning techniques, testing thousands of variables across 10 years of student data, which ultimately resulted in the use of 855 variables in the final algorithm. The variables included course sequences, prerequisites, major changes, cumulative units, and GPA. Other demographic data included test scores, high school GPA, and student commuting status. The development and iterative improvements of the application were the primary focus of a beta group and the campus workgroup which met weekly over a period of two years. The campus workgroup provided invaluable feedback on the validation of the algorithm and the advisor user interface. The workgroup was comprised of Institutional Research's data scientist; representatives from Academic Technology Services; the office of the vice chancellor for Equity, Diversity, and Inclusion; and academic advisors from the undergraduate colleges and the Department of Visual Arts. This approach fostered a cross-campus partnership in creating a tool to assist the advisors help students to achieve the goal of timely progress towards graduation. This application has garnered national attention as an innovative and groundbreaking approach to student success (University of California News, Inside Higher Ed). (CFRs 1.6, 2.10, 2.12, 3.5, 4.1, 4.2, 4.3)

Because these changes—reductions in requirements, senate policy, and predictive analysis—were enacted in the past few years (less than the span of a student's period of study), the institution has not yet seen their full effect in terms of time-to-degree improvement. The results in the coming years should be highly informative.

Student Learning and Development In and Out of the Classroom

While retention and graduation rates are one measure of success, the institution is also interested in the learning and growth that students acquire in order to graduate. Since last review, UC San Diego has been working toward a more systematic way of ensuring that student learning, both in and out of the classroom, is explicitly articulated and documented. Many of these efforts are discussed in previous essays, such as the Co-Curricular Record (essay 3) and advances in Analytical Writing and Math placement (essay 4).

An additional initiative, the First Year Experience Program, was piloted by the six undergraduate colleges in 2015 (appendix 47). Each college offered a First Year Experience course to roughly 100 first-time full-time students, taught by senate faculty (often the college provost led the course) and including expertise from various campus units. The goal was to support these students in their transition into a

large and elite research university. Based on a literature review of first year experience programs, the program addresses first year needs by presenting topics that include study skills, wellness, academic integrity, information literacy, experiential learning, diversity, and choosing a major. Topics such as these have been shown to be critical to student retention and success. In 2017, the colleges hired an assessment specialist to begin systematic assessment of the program; early results found small, but statistically significant positive effects. Students who have participated in the program completed more units (93.2 vs 89.96), were less likely to change majors (43% vs 42%), were retained at higher levels (93% vs 91.8%) and achieved higher cumulative GPAs (3.24 vs 3.20). Subsequent assessments will examine four-year graduation rates (appendix 48). (CFRs 2.5, 2.7, 2.9, 2.10, 2.11, 2.12, 2.13, 4.1, 4.3, 4.4)

Considering the unique needs of transfer students, the colleges created a Transfer Year Experience Program in 2016 (appendix 49), following a design similar to that of the First Year Experience Program. However, initial assessments did not indicate the same positive effects; they seem to indicate that future offerings of the course will need to focus on issues specific to transfer students, including time management, commuter resources, co-curricular activities, and navigating major coursework (appendix 48). (CFR 2.14)

Both the First and Transfer Year Experience courses are overseen by an advisory committee. This committee, working with the program coordinator, has recommended curricular changes based on assessment and feedback. In particular, conversations are currently examining how to better align the transfer course with the needs of transfer students.

The library has been involved with the First Year Experience Program since the beginning, creating a new position, the First Year Experience Librarian. This position works closely with the First Year Experience Program and other campus partners to assist students' transition to the university and increase student awareness of library services, collections, and spaces and programs, and to help acclimate incoming students to the rigors of university-level research. With this position, the library is revitalizing its student outreach to increase information literacy skills and student learning. (CFR 3.5)

Since 2013, aligned with the campus' Strategic Plan, there have been several additional initiatives and groups targeting student success (CFRs 1.4, 2.10, 2.12, 2.13, 2.14):

- Summer Success Programs (Summer Bridge and Triton Freshmen Scholars, among others)
- The Student Success Coaching Program
- Expanded undergraduate research opportunities (Academic Enrichment Program, Triton Research and Experiential Learning Scholars)
- The Student Success Collaborative
- The Chancellor's Associates Scholars Program (CASP)
- The First-Generation Initiative
- Hispanic-Serving Institution Task Force
- Equity, Diversity, and Inclusion initiatives (essay 8)

A student's ability to be successful inside and outside the classroom relies on reliable access to basic needs. The university has directed institutional resources and support to establish the Basic Needs Hub, which includes the Triton Food Pantry. The Hub employs social workers to assist students who require long-term and sustainable support with nutritious meals and affordable housing, and has given emergency aid to help with short-term housing crises. (CFR 1.6)

The institution has gone to great lengths to improve mental health services for undergraduate and graduate students. The wait time for a new intake appointment at Counseling and Psychological Services (CAPS) has been reduced from 3–5 weeks to 10 business days, achieved by increasing the number of clinical mental health providers. In an effort to be more inclusive and responsive to international and multi-cultural students, staff are available to provide counseling in over 10 different languages. It is worth noting that Student Health Services (including CAPS) is housed in Health Sciences, which provides for a close integration with the campus Medical Center.

Often students of concern first come to the attention of the advising and/or student affairs staff in the undergraduate colleges. Each college has a designated case manager who works closely with the college dean of student affairs to ensure that students are provided appropriate resources. The college system facilitates a high-touch approach to students of concern, with each college convening weekly student of concern meetings in which leadership and case managers discuss active cases. Often unique perspectives come from advising, student affairs, residential life, and/or the college writing program.

The Office for Students with Disabilities works with students to determine appropriate academic accommodations based on functional limitation. A senate-administration workgroup was charged with evaluating the disability experience on campus, taking a holistic view of disability services. (CFR 1.6, 2.13)

Promotion of student health and wellbeing through recreation activities is at an all-time high. In 2017-2018, 67% of undergraduate students visited campus recreation facilities an average of 30 times in the academic year, while 49% of graduate and professional students visited on average of 45 times per year. Furthermore, recreation offers 35 leadership development opportunities eligible for inclusion in the co-curricular record.

Commitment to student academic success includes our intercollegiate student athletes. Student athletes have similar time-to-degree numbers as non-student athletes, and as a sub-population they have higher retention and graduation rates. UC San Diego's four-class average (2009-2012) graduation rate for student athletes was 91%, whereas the institution's rate for the same period was 86% (and the national Division II average was 56%) (appendix 50). Commitment to academic excellence will continue to be a priority as the athletic program becomes fully integrated into Division I in 2024. (CFRs 1.6, 2.10)

Finally, The Academic Integrity Office works with students facing allegations of integrity violations in their coursework. This office offers a variety of integrity workshops and educational opportunities and employs peer educators. Guided by the Academic Senate's UCSD Policy on Integrity of Scholarship, the office partners with the undergraduate colleges and the Graduate Division to address academic integrity policy violations. In addition, it reports statistics and works to create a culture of integrity on campus.

By many standards, particularly compared to other large public universities, UC San Diego has been effective in retaining and graduating its students. Nevertheless, there are areas that need improvement, particularly around achievement gaps and four-year graduation rates (and transfer student two-year graduation rates). As the student population grows and continues to become more diverse, it is imperative that the institution continues to marshal its resources to create a student-centered university focused on student success. The institution is also committed to the student experience inside and outside of the classroom. Important synergies have emerged between faculty, administrators, and various campus constituencies to support student success in all areas.

Essay 6 - Use of Data and Evidence
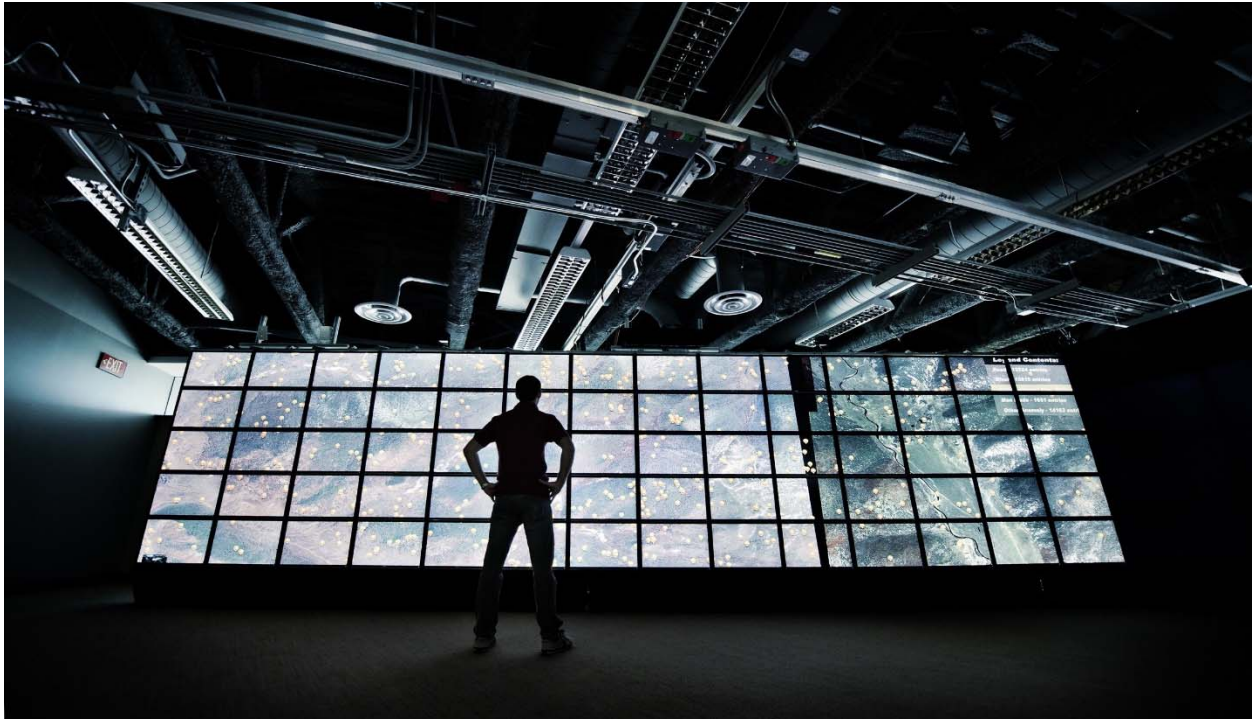
This essay will discuss the use of data and evidence in the assessment of the institution's educational mission. This includes the systematic program reviews (at both the undergraduate and graduate levels) and the assessment of student learning.

Undergraduate Program Reviews

Undergraduate program reviews provide a holistic means of evaluating the educational effectiveness of an undergraduate degree program. In addition to reviewing program learning outcomes, program reviews examine curricula, course availability, staffing, advising, teaching assignments, teaching assistant staffing and effectiveness, and other department activities that impact the undergraduate degree program. The reviews are conducted by the Undergraduate Council, an Academic Senate standing committee. The organization and administration of the review is arranged by the Office of Undergraduate Education. Undergraduate program reviews are conducted on an eight-year cycle and include the following components:

1. Data collection
2. Program self-study
3. Program site visit
4. Program review committee report
5. Departmental comment on report
6. Divisional dean comment on report
7. Undergraduate Council report
8. One-year follow-up review

The program's self-study is informed by data provided to the program by the Office of Undergraduate Education (in collaboration with Institutional Research), which includes historical data on student enrollment growth, demographics, and outcomes, as well as resource data, such as instructional workload metrics. Programs are encouraged to assess their strengths and challenges, update program learning outcomes, and respond to recommendations from previous reviews (and report progress). Instructions for the self-study can be found in (appendix 51). (CFRs 2.1, 2.2a, 2.7, 4.1, 4.2, 4.3, 4.4)

A member of the Undergraduate Council chairs the program review committees, which include two additional members: one UC San Diego faculty from a related discipline and an external member from another UC campus from the reviewed program's discipline. Reviews are conducted over one to two days, where the committee, having read the self-study, meets with the dean of undergraduate education, the program director or department chair and vice chair, program faculty, TAs, undergraduate students, staff, and advisors. The review visit concludes with an exit meeting between the committee, dean of undergraduate education, divisional dean, and department chair or program director. The strengths and challenges are discussed in this exit meeting, as well as any recommendations. These form the basis of the committee's report, which typically arrives shortly after the meeting.

Once both the department and the divisional dean have formally responded to the report, the Undergraduate Council discusses the report and responses and issues formal recommendations. The dean of undergraduate education serves as a consultant on the council and participates in these discussions. (CFRs 2.7, 3.10, 4.3, 4.4)

The committee reports and the Undergraduate Council's recommendations are available on the Undergraduate Program Review website.

One year after the program review, the Undergraduate Council conducts a follow-up review. This consists of a short progress report from the program and the Council's response (appendix 52).

The program review process is an important tool for effecting programmatic and pedagogical change. Because of the holistic nature of the review, multiple facets of the degree program can be addressed simultaneously. Thus, it is not uncommon for a review to address curriculum, teaching assignment, and course content, among other relevant areas. Programs generally take recommendations seriously, resulting in structural and pedagogical changes.

A good example of how a program review and the one-year follow-up can help improve undergraduate education comes from the Department of Chemistry and Biochemistry. Their undergraduate program was reviewed in February 2017 and the department submitted its one-year follow-up in May 2018. The review made several recommendations with respect to curricula, teaching assignments, and data collection. In the one-year follow-up, the department had already convened an Education Council to examine several of these concerns. The department worked with the Teaching + Learning Commons in developing supplemental instruction for its introductory series, obtained instructional improvement funds to create innovative pedagogical practices, and had begun to tackle the issue of teaching equity. This demonstrates that the one-year follow-up report can act as a catalyst for change (appendix 53). (CFRs 2.7, 4.1)

Another example comes from the Urban Studies and Planning Program. As an inter-disciplinary program, Urban Studies and Planning lacks departmental status. Its faculty director has a departmental appointment, but primary responsibility to the program. In its 2013 program review, the committee noted that the program—then in transition due to its director's retirement—was at risk. Although the program did serve students well, it relied heavily on two non-senate faculty (Unit 18 lecturers) for much of its instruction. Furthermore, there was no succession plan for the directorship. Consequently, one of the Unit 18 lecturers was appointed to a senate faculty position and assumed the directorship. The program is now thriving and is one of the premier urban planning programs in the country. In addition to the urban studies and planning major, which continues to provide a quality degree focusing on community service, capstone projects, and other high-impact educational experiences, the program has recently launched a real estate and development major. This innovative major focusses on sustainable development, using the San Diego–Tijuana region as a living laboratory. (CFRs 2.7, 4.1)

The robust program review process did face challenges for a number of years. Due to staffing issues in the Academic Senate, the senate response to reviews became inconsistent. In addition, one-year follow-up reviews were not conducted for several years. Aware that this has been a problem, the Office of Undergraduate Education worked with senate staff in 2012 to complete outstanding reviews, which was only partly successful. Nevertheless, starting two years ago the senate began to catch up with its responses to program reviews and, as of last year, the senate revived one-year follow-up reviews. The senate plans to conduct follow-up reviews this year for program reviews going back a few years. Currently, both senate responses and one-year follow-ups are conducted in a timely fashion.

Graduate Program Reviews

UC San Diego is unusual in that it conducts separate undergraduate and graduate program reviews. All graduate programs are reviewed once every seven years by an external review committee selected by the associate dean of the Graduate Division, in consultation with the program under review, the dean of the division or school, and external consultants in the discipline. The program and the Graduate Division jointly prepare a program profile, which is conveyed to the review committee. This profile includes graduate student and degree recipient surveys. The committee spends two days in on-campus meetings with the graduate deans, the division or school dean, and program faculty, students, and staff. The visit culminates in a meeting with the chancellor, executive vice chancellor, associate vice chancellor for academic affairs, dean and associate dean of the Graduate Division, the division or school dean, and a representative of the Graduate Council. (CFRs 2.1, 2.2b, 2.7, 4.1, 4.2, 4.3, 4.4)

The external review committee's report comments on each of the following points:

- Quality of students admitted to the program
- Quality of curriculum
- Quality of research
- Completion rate and time-to-degree
- Student morale and commitment to the program
- Success with postgraduate employment
- Structural issues that might keep the program from achieving its full potential

The committee report is circulated to all parties involved in the review process and the program is asked for a response to the report, including faculty and student input. The Graduate Council discusses the

report and program response, followed by a letter, which outlines the Council's conclusions and its expectations for action regarding issues that were raised in the review. This, in turn, is followed by a wrap-up meeting that includes the program director or department chair, senior administrators, and the Graduate Council representative. Typically, the wrap-up meeting discussion addresses overall program quality, resource issues, and mid- and long-term program plans. (CFRs 2.7, 3.10, 4.3, 4.4)

One year after completion of the program review process, the Graduate Council conducts a follow-up review to address progress made by the program in addressing issues raised in the review (appendix 54).

Separate undergraduate and graduate reviews have both advantages and disadvantages. The undergraduate review does ensure a focus on the undergraduate mission; one can easily imagine that a single review might pay more attention to research and graduate studies. On the other hand, graduate and undergraduate aspects are often intertwined; addressing issues in one often requires attention to the other. Furthermore, the two reviews, which are on separate cycles (seven years for graduate and eight for undergraduate), require departments to do separate self-studies. For the past two years, the institution has been discussing the possibility of moving to a combined review format. This was piloted with a coordinated graduate/undergraduate review for linguistics in 2018. The department produced a single self-study, but the reviews, while done the same year, were conducted separately by separate committees. Political science will have a similar coordinated review in 2018-2019. Looking beyond to the 2019-2020 academic year, the institution plans to move to a truly combined review, one with a single committee and a single visit. The institution has developed a schedule that synchronizes the timing of undergraduate and graduate reviews to allow this, but the Division of Graduate Studies and the Office of Undergraduate Education need to design review procedures and obtain senate approval. In developing these procedures, it will be of paramount importance that both undergraduate and graduate programs are rigorously reviewed. Nevertheless, we hope this will allow departments to address cases where one program overshadows the other. For example, in a recent undergraduate review it became clear that faculty avoided undergraduate courses in favor of graduate teaching. While an undergraduate program review can point this out, it cannot weigh the competing needs of the graduate program. A combined review could potentially address such situations more effectively.

Assessment of Student Learning

While periodic program assessment provides departments with guidance in making changes at the program level, ongoing assessment of student learning has begun at UC San Diego since its last review. As mentioned earlier (essays 3 and 4), we interviewed leaders in each undergraduate program to get a sense of the role assessment of student learning plays. We found that some departments, in particular those with a separate disciplinary accreditation, have a tighter feedback loop for assessment of student learning, while others are simply integrating assessment more meaningfully into their process. In this section we present examples of departments and programs that are successfully integrating assessment of student learning and present some of the progress toward (and challenges of) continuous assessment of student learning in other areas. (CFRs 2.3, 2.4, 2.5, 2.6, 4.1)

Continuous Assessment of Student Learning

The Jacobs School of Engineering includes six departments, five of which have programs that are accredited by the Accreditation Board for Engineering and Technology, Inc. (ABET). The ABET accreditation process places an emphasis on evidence-based assessment of student learning. Within

these five departments, ten programs are ABET-accredited and have well-established student learning outcomes defined by engineering societies. Direct and indirect assessment of student learning outcomes provide evidence of how well students are meeting these outcomes (appendix 16).

The Department of Bioengineering provides an excellent example of a department that uses student work to directly measure learning and students' achievement of learning outcomes. Bioengineering has generated a matrix that maps each learning outcome to individual core courses in each engineering program. For each outcome, an assessment tool in the form of a rubric, including several performance indicators, evaluates individual traits of an outcome based on four achievement levels. The achievement of student learning is assessed annually by applying these rubrics to relevant homework assignments, selected exam questions, and the Capstone Senior Design Projects. An external evaluator examines the capstone group projects. In addition, feedback from industry is collected during the annual Bioengineering Day, at which students present their capstone work.

Besides this direct assessment tool, indirect assessment measures from stakeholders are collected in annual senior student exit surveys, bi-annual alumni surveys, employer's feedback, and faculty feedback in annual faculty retreat meetings.

Furthermore, information and feedback from co-curricular activities, including industrial internships and participation in student organizations, are collected and used as evidence of learning outcome achievement. The summary is analyzed and regularly reviewed by the Undergraduate Student Affairs committee and the ABET committee. An action item plan is developed and presented to the faculty. If, as a result of the outcome assessment and stakeholder discussion, changes to the curriculum or courses are proposed, these suggestions are evaluated by the Undergraduate Affairs Committee for possible implementation for continuous program improvement. If significant changes to the curriculum are suggested, a proposal for change is submitted to the Academic Senate for final approval.

A repetition of the assessment process in the following academic year will show improved results and closes the loop of continuous program improvement (appendix 52).

The college writing programs provide another example of assessment of student learning feeding back to improvements in the educational program. Each writing program has a clearly defined set of student learning outcomes which are directly assessed by examining student work in these courses. In each program, the director of the program is responsible for this assessment, sometimes in collaboration with the assessment specialist in the Teaching + Learning Commons. Over the past few years, several concrete improvements have resulted from these assessments. In several of the programs, pedagogical approaches to writing projects have been modified, and assessment has led to a change in the way teaching assistants are trained (appendix 35).

Progress Toward (and Challenges of) Continuous Student Learning Assessment in Other Programs

In many undergraduate departments, continuous assessment of student learning is less well-developed. From our interviews, it is clear that faculty take great care in their courses and have meaningful assessments that measure the learning they target in a particular course. However, connecting this assessment to program-level outcomes can be challenging.

In many departments, the biggest barriers we found to faculty participation in higher, program-level assessment were a lack of time, incentive, and understanding of value. Unless it is given priority, and a

chair or committee is tasked with this job (which is significant), individual faculty are typically too overwhelmed by the demands of teaching to consider horizontal and vertical course alignment and assessment.

One step that the university has taken to address these challenges is the establishment of the Education Research and Assessment Hub with the Teaching + Learning Commons. The hub functions to:

- Provide leadership, guidance, and resources to promote a culture of assessment and to support the university's continuous educational improvement efforts.
- Work with key stakeholders to develop a university-wide assessment culture, assessment processes, policies, and infrastructure.
- Support academic departments in developing program learning outcomes and curricular maps, identifying program effectiveness measures, and developing an ongoing assessment plan, implementation process, and a data-informed improvement plan.
- Support faculty in developing course learning outcomes, mapping outcomes to program learning outcomes, assessing student learning and progress, and implementing actions based on assessment results.

In addition, the institution is working to articulate faculty incentives for participation in assessment. University service and evidence of engaged teaching are two criteria considered in academic personnel reviews. Alignment between institutional assessment priorities and these career incentives will be an important factor for faculty buy-in.

Specifically, the academic assessment and accreditation specialist in this hub supports the work of the dean of undergraduate education (the campus accreditation liaison officer), by developing resources that support faculty as they develop and implement meaningful, sustainable assessment initiatives to evaluate educational programs and the university experience more broadly. The specialist provides expertise in assessment methods, tools, and practices and thus contributes to promoting a culture of continuous educational improvement within UC San Diego. At the time of writing this report, conversations between the hub and departments have begun and several units have already submitted materials (appendix 55). In particular, departments are invited to: (CFR 1.8)

- Reflect on how they have assessed program learning outcomes over the past five years;
- Review and revise program learning outcomes (on IEEI); and
- Develop assessment protocols.

Overall, the approach has been to create support structures that allow the institution to educate faculty on the value and effectiveness of assessment, provide high-level articulation of assessment as an institutional priority, and provide incentives for faculty participation. (CFRs 2.3, 2.4, 2.5, 2.6, 4.1, 4.3)

Use of Data

Institutional Research is the primary office for the collection and analysis of statistical information regarding students, faculty, and staff, and provides data to support internal and external reviews of academic programs. In the 2008 accreditation cycle, external reviewers noted the challenges associated with a decentralized Institutional Research function. Starting in 2014, Institutional Research was reorganized and consolidated with a direct reporting line to the executive vice chancellor, bringing together analysts previously embedded in various campus units, such as Academic Affairs; Student

Affairs; Academic Personnel; Equity, Diversity, and Inclusion; and the Graduate Division. This new reporting and accountability structure ensures appropriate focus and prioritization. Additionally, several academic divisions and programs have dedicated analysts to supplement the services provided by Institutional Research by providing localized reporting and analytical support. (CFRs 4.1, 4.2, 4.3)

Graduate Student Assessment

Because of the unique nature of graduate student training, graduate student assessment focuses on a mentor–mentee relationship. While leaving particulars of assessment to each graduate program, the Graduate Division, under the jurisdiction of the Academic Senate, offers graduate programs the specific processes to assist with reviewing the academic progress of their students. (CFRs 2.1, 2.2b)

All doctoral and MFA students are evaluated every spring, according to the following criteria:

- Pre-candidacy students: The spring evaluation describes how students are, overall, progressing in their studies. This includes a discussion of their strengths and weaknesses as students and, where applicable, as teaching and/or research assistants. These evaluations should contain cogent and clear advice to students. This evaluation is to be made available to students who will sign it to indicate that they have read it, whether or not they agree with it.
- In-candidacy students: Each student in doctoral candidacy is to receive an annual substantive progress review. The review should cover the student's progress to date, recommended modifications to the dissertation's scope or methodology, timetable for completion, and recommendation for support in the following year.

The doctoral committee chair writes the results of the review and discusses them with the student. All members of the doctoral committee participate in the review; the student and department chair sign the progress review. Continued enrollment requires a satisfactory current evaluation on file.

"Closing the Loop"

Based on alumni and student surveys conducted since fall quarter 2013, faculty analysis of student skill development in quantitative reasoning and changing expectations of graduate programs, employers, and internship coordinators, the department recognized the need to further develop our undergraduate curriculum in this area. … For these reasons, the department has made faculty hiring in this area a priority, and since fall quarter 2013, we have successfully recruited five additional political methodologists. This, in turn, has allowed us to develop six new undergraduate quantitative methods courses in the past five years. (Reflection Report: Successes and Challenges of Program Learning Outcomes and their Assessment, Department of Political Science fall quarter 2013 – fall quarter 2018; appendix 56)

Essay 7 - Sustainability: Financial Viability; Preparing for the Changing Higher Education Environment

This essay discusses the institution's capacity to monitor, plan for, and adapt to the changing higher education landscape broadly and the evolving needs of the state of California more specifically.

Overview

At the completion of the last reaccreditation review, UC San Diego enrollments totaled approximately 27,000 (undergraduate, graduate, and professional). In the last decade, the university has seen enrollment growth of approximately 38%, the result of a combination of increased demand/popularity of the institution as well as mandated growth to accommodate the University of California's commitment to the state for undergraduate education.

Planning for growth at UC San Diego is grounded in the ideals codified in the institution's 2014 Strategic Plan: to be a student-centered, research-focused, service-oriented public university. More specifically, all budget decisions are directly linked to one of the five goals articulated in the plan, namely:

1. Delivering an educational and overall experience that develops students who are capable of solving problems, leading, and innovating in a diverse and interconnected world. (CFRs 1.1, 1.2, 2.1, 4.7)
2. Cultivating a diverse and inclusive university community that encourages respectful open dialogue and challenges itself to take bold actions that will ensure learning is accessible and affordable for all. (CFR 1.4)
3. Nurturing and supporting a collaborative and interdisciplinary research culture that advances the frontiers of knowledge, shapes new fields, and disseminates discoveries that transform lives. (CFRs 2.8, 2.9)

4. Supporting and promoting just and sustainable forms of economic development, shared prosperity, and social and cultural enrichment, regionally and globally. (CFR 4.7)
5. Creating an agile, sustainable, and supportive infrastructure by ensuring a dedication to service, people, and financial stewardship. (CFR 3.4, 3.6)

The institution's finances are solid. The institution has made a number of organizational shifts to improve alignment of functions and has undertaken key initiatives that make expenditure accounting and fund management of non-restricted core resources easier and more efficient. Moreover, new guidelines and an open university budget allocation process that includes all vice chancellors and the Academic Senate leadership ensure transparency and facilitate long-term planning. These improvements notwithstanding, the institution faces some challenges in that enrollments continue to grow as state support for the university shrinks and tuition increases are constrained. Furthermore, the growing pension liability and deferred maintenance backlog continue to be a drag on the institution's ability to contain costs. To mitigate this, the institution has sought new revenue sources, such as a growth in non-resident enrollments, the implementation of a $2 billion capital campaign, and the launch of the new Strategic Academic Program Development initiative, designed to attract a new population of learners. (CFRs 3.4, 3.6, 3.7)

The higher education landscape is changing, which presents both opportunities and challenges for UC San Diego. At the national level, shifts in demographics, career paths, and societal expectations are reshaping the potential pool of students and their needs. So, too, is an aging population, which in turn leads to growth in the proportion of non-traditional college students. Furthermore, deepening globalization may mean that growing numbers of learners from around the world will seek opportunities for education at our world-class universities. Within California, the Public Policy Institute of California (PPIC) has projected a gap of 1.1 million between bachelor's degrees and expected workforce demand by 2030. PPIC has challenged the University of California to add another 250,000 degrees by 2030. If the UC system accepts the challenge, this will put enormous pressure on undergraduate enrollment growth over the next decade. At the campus level, these trends and challenges are already evident and the institution is engaged in a number of actions and plans in response. (CFR 4.7)

Financial Viability

Maintaining a sound financial footing requires UC San Diego to balance its responsibilities (to the people of California for accessible and affordable educational opportunity, to the state to drive economic development, and to students for a superb educational experience—both inside and outside the classroom) with the need for cost containment, revenue growth, and the effective deployment of scarce resources. This delicate balance begins with sound planning. Figure 18 summarizes the institution's 2018-2019 revenues. (CFR 3.4)

Figure 18

2018-2019 Total Revenues

Revenues	Total $5.3 Billion	Expenditures
Core Operating revenues • **State appropriation** • **Resident tuition** • **Research overhead** • **Non-resident tuition** • **Other core (auxiliary dividends, patent net income, other misc. fees)**	**Operating Budget $1.4 Billion**	**Core Operating expenses** • **Faculty** • **Instructional support** • **Student services** • **Financial aid** • **Buildings & Utilities** • **Administrative infrastructure** • **Public service**
Auxiliary *Housing, Parking, Bookstore*	**$230M**	Auxiliary *Housing, Parking, Bookstore*
Health System + Clinics	**$2.5 Billion**	Patient Care
Private Gifts	**$100M**	Gifts spend
Contracts and Grants	**$870M**	Sponsored projects

Enrollment Planning

In response to the projections in state workforce demands and the institution's goal of growing graduate enrollments to balance the rapid rise in undergraduates, the institution updated its Long Range Development Plan to reflect an overall enrollment envelope of 42,400 FTE students by 2035. It is expected that 25% of these enrollments will be in existing and new graduate programs. This plan was approved by the Board of Regents in November 2018. (CFR 4.7)

Evolving Organizational Structures

Given the phenomenal growth of the university over the last two decades, the institution determined that changes were needed in how business was conducted. In particular, the organizational structure needed to evolve to improve the delivery of academic and student support services and, further, longstanding concerns around diversity and inclusiveness now carried an enhanced sense of urgency.

The institution has taken the following steps to ensure more effective operations, alignment with the institution's Strategic Plan, and long-term sustainability of our efforts:

- The establishment of a cabinet-level vice chancellor for Equity, Diversity, and Inclusion in 2012 to ensure focused attention to these issues and to drive systematic change. The development of an Equity, Diversity, and Inclusion [Strategic Plan for Inclusive Excellence](#) is underway. (CFR 1.4)
- As of 2014, the vice chancellor for Student Affairs reports directly to the executive vice chancellor for Academic Affairs. This allows a more holistic view of students' needs, whether academic, psycho-social, or physical. (CFR 3.7)
- A reorganization of elements within the traditional Student Affairs portfolio to ensure appropriate linkages with other vice chancellor units. (CFR 3.7)
- The Office of Enrollment Management reports directly to the executive vice chancellor to facilitate coordination of admissions and enrollment with academic planning in the divisions, schools, and colleges.
- The 2014 establishment of a vice chancellor/chief financial officer position to develop an integrated finance function across the institution to better support academic and administrative leaders. (CFR 3.8)
- The 2015 establishment of the Teaching + Learning Commons and the Office of Student Retention and Success, with the expansion of/investment in long-standing support structures (pre-matriculation programs, academic advising, peer mentoring, success coaches, etc.) to serve students more effectively. (CFRs 2.12, 2.13)
- The 2016 establishment of a chief information officer position with dual reporting to the chief financial officer and the executive vice chancellor assures a collaborative approach to the development of information technology services that support the academic mission. (CFR 3.5) The integration of the University Extension function into campus operations to enable leveraging of the unit's expertise in reaching non-traditional learner groups. (CFR 3.7)

Moreover, the renewal of the institution's electronic systems (learning management, student information), the introduction of scalable online platforms, and the development of new tools (data analytics to supplement academic advising function, institutional research dashboards to support Equity, Diversity, and Inclusion and academic planning efforts) will be essential to the effective delivery of academic and co-curricular services. (CFR 3.5)

Collectively, these organizational changes position the institution to support growth in faculty and undergraduate student enrollments, expansion of graduate programs and enrollment, and enhancements to student success and the quality of the educational experience.

Challenges Requiring New Investment Strategies

Over the last decade, the state's investment in the University of California has continued to decline, and limited tuition increases have not entirely compensated for decreased state funding. At UC San Diego, specific factors threatening the fiscal landscape include: (CFRs 3.4, 4.7)

- The decline in state general support, including funding per student ($5,000 in 2016-2017, down from $10,000 marginal cost of instruction funding)
- The lack of state support for graduate PhD student growth
- Significant ongoing cost increases in benefits, unfunded pension liability, and retiree health
- Capital improvement needs
- The ongoing cost escalation for research lab renovations
- The cost of labor agreements outpacing revenue growth

- An approximate $820 million deferred maintenance backlog of critical repairs to classrooms, labs spaces, and other deferred maintenance and regular renewal of our facilities

In the past, many of these capital improvements for infrastructure and classrooms to support student growth would have been included in the State Capital Improvement Program and funded by state sale of general obligation bonds. The absence of this option puts pressure on the institution's finances because much of this need is now self-funded; some strategies are summarized in figure 19. (CFR 4.7)

Figure 19

Financial Strategies

| Strategies	Levers
Streamline financial and operational management	• Financial simplification • Lean Six Sigma • Organizational reviews with VCs • Campus synergies
Diversify revenues	• Academic: Strategic Academic Program Development • Other: Auxiliary, Investments, Real Estate
Strengthen capabilities	• People (training, hiring, diversity, performance management) • Systems
Create a **Live/Learn/Play** Community	• Housing, Academic infrastructure • Dining, Retail, Hotel • Off-Campus
Support the Strategic Plan	• Support key strategic initiatives

Despite these challenges, UC San Diego is taking action to build a sustainable future. To that end, the institution has employed the following strategies to more effectively deploy existing resources:

- The chief financial officer has created an integrated multi-year, multi-funds financial framework to ensure that the university's financial and human resources support institutional priorities articulated in the Strategic Plan. (CFR 3.8)
- Institutional budget allocation processes have been restructured to enhance transparency of both revenues and the costs of operating the institution. These new approaches place greater and clearer authority and accountability at the level of academic deans, make allocations more fungible, and incentivize the development of new revenue generation and achievement of cost efficiencies. This approach also allows for a portion of revenue to be retained at the center to enable strategic investments that benefit the university. (CFR 3.4)
- The launch of a $2 billion capital campaign to support the research and education mission. The campaign's priorities include specific projects such as opportunities for new research thrusts

and for capital projects that accommodate growth and enliven the campus, for endowed chairs, and for initiatives that fund student support services, among others (figure 20). (CFR 3.4)

Figure 20

UC San Diego Endowments and Private Support
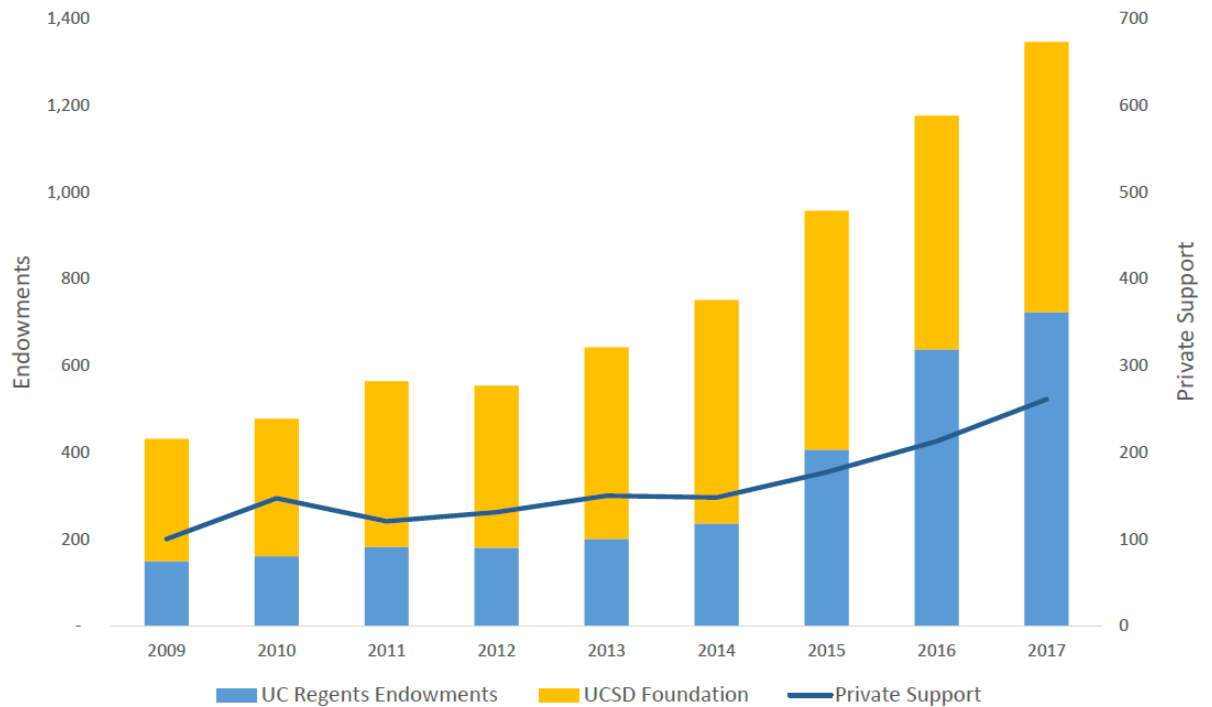
- Maintenance of the approved non-resident undergraduate enrollment cap at just under 23% of total undergraduate enrollments. The enrollment of non-resident domestic and international students is an important source of diversity that enhances the excellence of the academic experience. Moreover, non-resident tuition has become a critical source of revenue that enables the institution to provide services and experiences that serve all students. (CFR 3.4)
- The creation of a supportive environment to ensure sponsored research funding continues to grow. The institution has maintained extramural research funding at approximately $1billon for the last eight years. This provides funding for some academic appointees. Other initiatives provide seed funding and strategic faculty hiring in order to (i) promote an interdisciplinary approach to research, (ii) grow industry partnerships and contracts, (iii) respond to federal funding opportunities in defense and health that diversify research portfolios, and (iv) invest in research infrastructure to grow the research base. (CFRs 2.8, 3.1, 3.4, 4.5)

Cost Containment

A sustained focus on curbing costs is also necessary for financial sustainability. To this end, the institution has a strategy of:
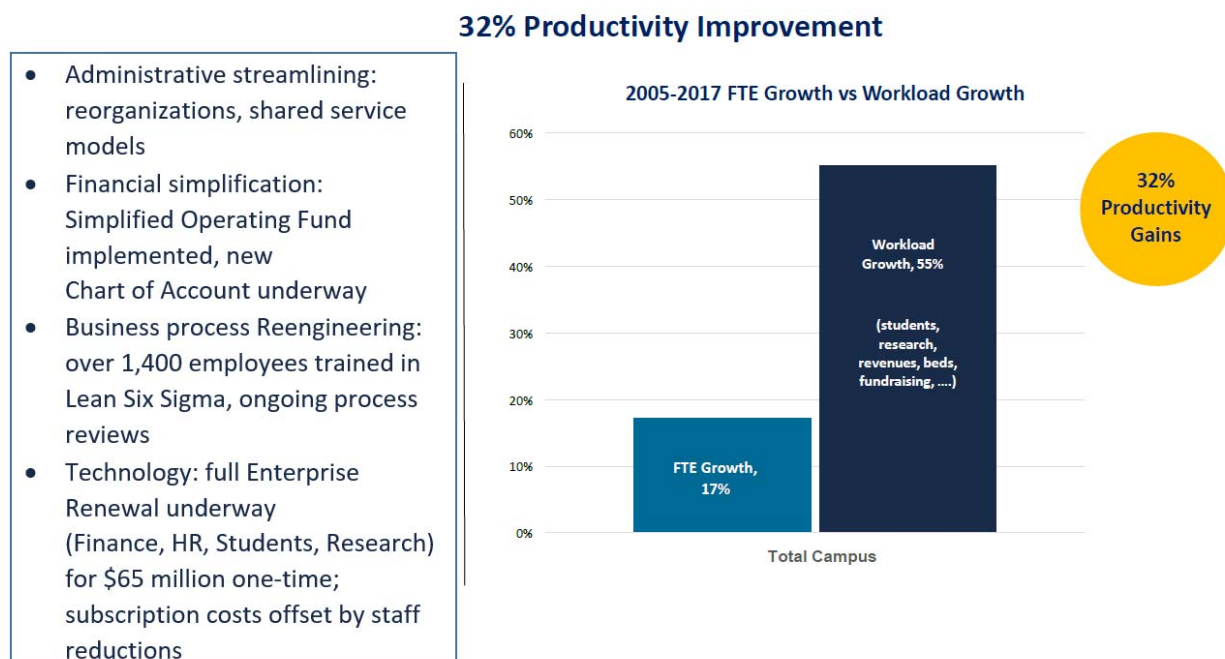
- *Administrative streamlining*: Reorganization of central campus administrative functions to increase administrative productivity and, when appropriate, apply consolidated shared services models, as well as development of a metric-driven administrative support funding model for academic departments. The model, driven largely by enrollment and research metrics, helps

guide staffing decisions to align the allocation of administrative staffing with functional need (figure 21). (CFRs 3.4, 3.6, 3.7)

- *Enterprise Systems Renewal (ESR)*: Several current institutional enterprise systems are many decades old. The Enterprise Systems Renewal initiative will ensure that the university's business systems and infrastructure fully support the institution's mission. By replacing outdated business systems and the inefficient business processes borne of the same, this initiative will transform and streamline institutional IT services, and core business and administrative processes. (CFRs 3.5, 3.6)
- *Business process reengineering*: Over 1,400 employees have been trained in Lean Six Sigma process improvement. Process improvement is not only applied in the context of the ESR, but in non-IT connected processes as well. (CFR 3.6)
- *Improving curricular efficiency and investing in the academic advising function and digital learning*: To improve throughput and allow students to graduate in a timely way. (CFRs 2.10, 2.12, 1.13)

Figure 21

Staff Growth Compared to Workload Drivers

32% Productivity Improvement

- Administrative streamlining: reorganizations, shared service models
- Financial simplification: Simplified Operating Fund implemented, new Chart of Account underway
- Business process Reengineering: over 1,400 employees trained in Lean Six Sigma, ongoing process reviews
- Technology: full Enterprise Renewal underway (Finance, HR, Students, Research) for $65 million one-time; subscription costs offset by staff reductions

2005-2017 FTE Growth vs Workload Growth

Workload Growth, 55% (students, research, revenues, beds, fundraising, ...)

FTE Growth, 17%

32% Productivity Gains

Total Campus

Evidence of the success of the cost containment strategies is seen in administrative staffing levels relative to workload. From 2005 to 2017, the administrative staff FTE have increased only by 17% while the growth of the workload (students, research, faculty, etc.) has increased by 55%.

Revenue Generation

Over the last two decades, the state's investment in the University of California has declined precipitously. The initial response from the university was to increase tuition. In recent years, however, the university has backed away from this approach, which runs counter to its goals of access and

affordability. UC San Diego now receives roughly only 6% of its funding from the state. The institution has sought to close the funding gap by increasing enrollments of non-resident students who pay out-of-state tuition. Fearing displacement of California residents, both the state legislature and the UC Regents have discussed the need to cap non-resident enrollments.

UC San Diego now has a non-resident enrollment cap of approximately 23%, but nevertheless faces some challenges. First, given the popularity of the university (the San Diego campus received over 116,000 applications for the 2018-2019 admission cycle, the second most in the country), there may yet be renewed pressure to lower the cap. Second, the international component of non-resident enrollments is presently dominated by Chinese citizens. Current economic disputes between the United States and China have exposed the vulnerability this presents and the institution is taking steps to diversify its non-resident population, focusing more on non-resident domestic students and diversifying the country source for international non-residents. (CFRs 3.4, 4.7)

To further mitigate the risk of heavy reliance on non-resident funding, the institution is looking toward its real estate holdings to generate additional revenue. For example, the UCSD Science Research Park, launched in 2006 and strategically located on the Mesa, allows the institution to generate income while building lasting partnerships with key partners in industry, research institutes, and government entities that advance our research mission (figure 22). (CFRs 3.4, 4.5, 4.7)

Figure 22

Revenues (Dollars in Millions)
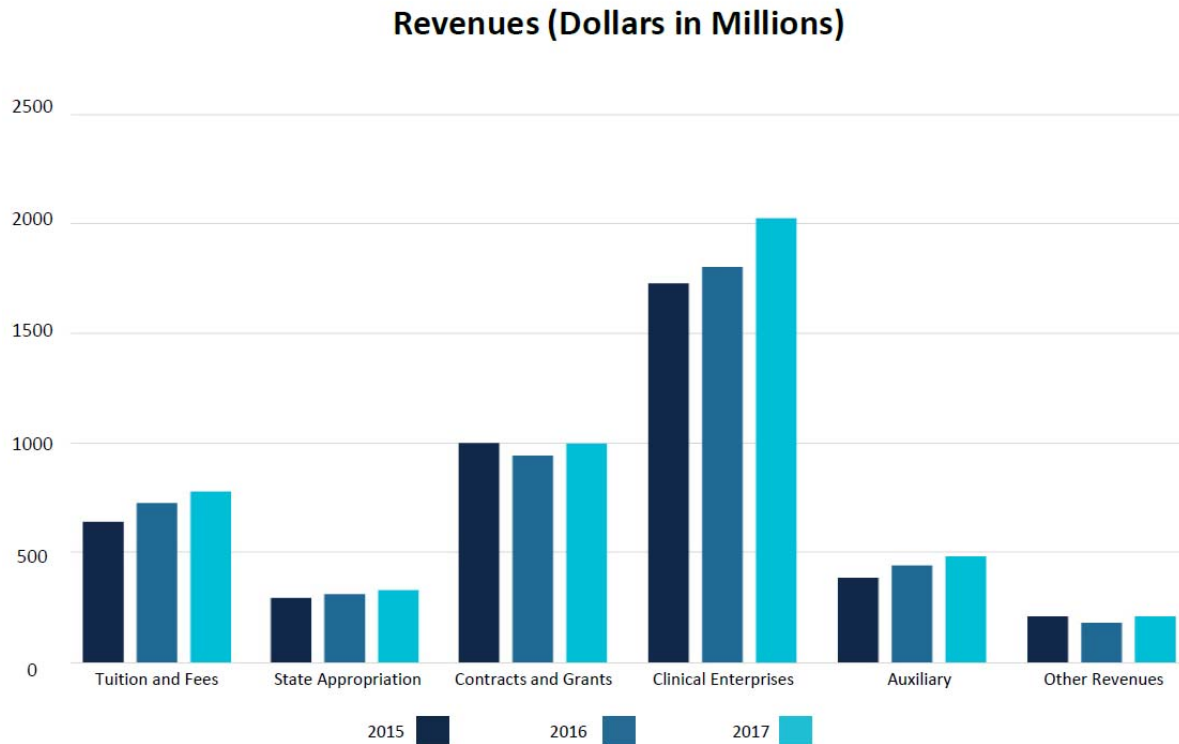
Finally, while UC San Diego expects its traditional educational approach—curriculum excellence anchored by outstanding classroom experience with engaged research scholars—to continue to define its identity, the institution is developing a complementary expanded set of curricular and delivery opportunities, which will have the collateral benefit of revenue diversification, enabling reinvestment in its academic enterprise.

Looking Forward: An Evolving Landscape in Higher Education

Nationally, shifts in demographics, career paths and societal expectations are reshaping the potential pool of students and their needs. Moreover, the population is aging, and the proportion of non-traditional college students is growing. Deepening globalization means that growing numbers of learners from around the world may seek opportunities for education at this world-class university. California's students will benefit from access to international experiences in a world characterized by interdependency and diversity. University graduates are pursuing a highly diverse set of paths, including careers that are increasingly specialized and modular, and often unimagined just years before. Furthermore, as educational content becomes steadily more ubiquitous and accessible, many potential students are looking at the relevance, accessibility, and cost of higher education at major universities. For example, it is quite plausible that a large proportion of incoming undergraduates in future decades will expect wide-ranging programmatic options for an integrated five-year path to a bachelor's and master's degree at UC San Diego. (CFRs 3.4, 3.5, 4.7)

Even as students' needs change, digital technology is redefining how we interact with others and with learning opportunities. Like many other sectors, technology is having a disruptive impact in higher education. After a decade-long period of speculative hype, our leading peers are now integrating

massive open online courses (MOOCs), scalable education platforms (including Coursera and edX), adaptive learning, and automated assessment in their education offerings. These innovations enable private and other providers to compete effectively with universities in some domains; at the same time, they enable universities to supplement the traditional classroom experience and to serve new populations of learners.

As noted earlier, all costs central to maintaining a great university continue to rise despite collective dedication to improving administrative efficiencies. For public research universities, state government funding levels decline progressively and federal research funding faces new challenges, stressing the traditional budget model. Tuition increases attract public scrutiny and there are numerous sensitivities and constraints. In sum, the economics of higher education are being squeezed, and there is no panacea.

The University's Imperative to Recalibrate

In this environment, universities cannot stand still. Public universities have a mandate to respond and to adapt in order to continue to drive both progress and equitable economic prosperity throughout the state, the nation, and the world. They must alter program models as learner, industry, and community demands evolve. They must defend and promote the relevance of the campus as the cornerstone for advanced education in the face of disaggregation. Even the best institutions must become ever more intentional about how their offerings keep pace with the rapidly changing environment. Otherwise, they will not continue to attract the best students, faculty, staff, and partners.

UC San Diego does not have a choice if it wishes to remain in the top ranks. Many of its peers have already made significant strides and these efforts are no longer simple trial balloons. To date, the institution's academic energies have been directed primarily, and highly effectively, at research mentorship; undergraduate enrollment growth, better outcomes, and completion rates; and community engagement. While there is more that must be done in some of these areas, the university has begun to transition its initial targeted efforts in program innovation towards a campus-wide transformation with appropriate flexibility to align with each division's and school's context and objectives. Initial discussions have indicated support for an integrated approach to this exercise, informed by existing success models and core academic values.

The university's approach—the launch of the Strategic Academic Program Development initiative—has four goals: to develop academic offerings that enhance the experience and outcomes of students, to strengthen UC San Diego's reputation in research and education, to grow institutional revenues to sustain investments in the education and research enterprise, and to expand the institution's summer offerings. Work has been initiated in four areas of potential opportunity for UC San Diego: (CFRs 3.4, 3.5, 4.7)

1. *One-year master's programs*, both state-supported and self-supporting.
2. *New master's vehicles* that enable pace, diversity and/or flexibility, particularly sequential and online degrees.
3. *Options that provide modular flexibility in degree programs*, including stackable progression (through which non-credit education obtained pre-admission may count towards degree requirements) and online credit courses.

4. *Non-degree models that target non-matriculated learners* utilizing the excellence and capacity of the university, whether in concurrent education (visiting university students), continuing career education, or (potentially) high school programming.

In parallel with continued assessment of these opportunities, the institution is exploring ways to manage the challenges associated with strategic academic program development. There are policies and practices that will need to evolve as the university's direction evolves. There will be a requirement to enhance capacity and/or capability in some key non-academic functions to enable growth, including market research, online learning, career services, and program operations. The institution will also want to explore mechanisms through which it can facilitate collaboration across departments and divisions, as well as market coherence across its diversifying portfolio of programs. Finally, UC San Diego will need to ensure that the budget model aligns with new program opportunities.

Success will be predicated on the collective passion and commitment of faculty and staff, as well as the willingness of individual academic champions to lead program development across the various opportunity areas—and to encourage learning through strategic innovation. UC San Diego will strive to advance in these new directions while preserving its enduring strengths and character.

Essay 8 - Advancements in Equity, Diversity, and Inclusion

Equity, Diversity, and Inclusion

In the six years since its inception, the Office for Equity, Diversity, and Inclusion, led by a cabinet-level vice chancellor, has worked diligently to create a sustainable campus infrastructure to advance Goal 2 of the university's Strategic Plan: "Cultivating a diverse and inclusive university community that encourages respectful open dialogue, and challenges itself to take bold actions that will ensure learning is accessible and affordable for all." United by this shared commitment, the institution's strategies are both centralized (led by administrative offices) and decentralized (led by individual organizations and departmental units), grounded in an equity-minded philosophy,[6] and focused on remediating institutional practices and mindsets to close equity gaps. Assuming institutional and individual responsibility for success has helped UC San Diego leverage its shared governance processes to guide institution-wide equity, diversity, and inclusion transformation. Faculty, staff, and student governing bodies are now fully engaged in leading change within their spheres of influence.

The Strategic Plan for Inclusive Excellence represents a roadmap for the university's future of equity, diversity, and inclusion. It was created not only for but *by* the university, guided by three core tenets: (CFR 1.1)

> **Access and Success:** Attract, retain, and support a diverse faculty, staff, and student body at UC San Diego with the goal of reflecting California demographics and achieving institutional excellence at UC San Diego. (CFRs 1.4, 3.1)

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[6] Bensimon, E. M., & Lindsey, M. (2012). Confronting Equity Issues on Campus: Implementing the Equity Scorecard in Theory and Practice. Sterling, VA: Stylus.

Climate: Create and foster a positive and welcoming climate where we value, include, and support all at UC San Diego. (CFR 1.4)

Accountability: Ensure institutional accountability through processes and structures that strengthen UC San Diego's clear and continuous commitment to equity, diversity, and inclusion. (CFRs 1.4, 1.7, 3.6, 3.7, 4.3)

The institution has adopted a holistic and integrative approach that promotes shared responsibility and accountability across the entire institution as it works to realize these strategic goals. A distinctive feature will involve annual accountability meetings in which every unit leader will document and address the state of equity, diversity, and inclusion within their organization. This self-assessment will involve a discussion of the past, present, and future. Leaders will respond to questions such as: What is the current state of equity, diversity, and inclusion in the unit? How did the unit come to this point? How does the unit plan to improve? (CFR 4.1)

Additional approaches to strengthening the capacity to achieve inclusive excellence include focused strategies for students, faculty, and staff, as outlined below.

Students

Following a full inventory and assessment of existing equity, diversity, and inclusion initiatives, the institution introduced a collective impact approach to improving its outcomes.[7] Through this approach, university leaders and key organizational units were convened to generate a shared vision for change, a common understanding of opportunities for improvement, a joint approach to addressing these issues through agreed upon actions, and shared indicators of success. (CFR 4.3) One example is the Student Success Collaborative, led by the assistant vice chancellor of Student Retention and Success and a college provost, which involved clarifying the university's definition of student success, an inventory and evaluation of all student success initiatives, a gap analysis, identification of shared metrics, and a commitment to regular assessment. (CFR 4.1) The institution additionally:

- Convened a taskforce to help accelerate progression from an emerging Hispanic-Serving Institution (at least 20% undergraduate Hispanic full-time equivalent student enrollment) to a fully qualified Hispanic-Serving Institution (at least 25%). Crucial to the taskforce's work was developing a Chicanx/Latinx Academic Excellence Initiative to ensure that increasing numbers of Chicanx/Latinx students and their families are included in the campus community and are provided the opportunity to thrive and succeed at UC San Diego.
- Developed and launched Black and Chicanx/Latinx transition programs, the Black Resource Center Student Success Institute, and the Raza Resource Centro *Avazando Juntos*, to support and facilitate smooth campus and academic adjustment for new first-year students. These programs intentionally involve family members, who are among the highest influencers of college choice for these populations.
- Charged the Black Academic Excellence advisory committee to make recommendations to improve the experiences of Black students, staff, and faculty.
- Developed and launched the PATHways to STEM through Enhanced Access and Mentorship (PATHS) program, designed to increase the number, persistence, and success of underrepresented students in STEM and to create STEM workforce pipelines from local

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[7] Kania, J. & Kramer, M. (2011). Collective Impact. Stanford Social Innovation Review 9, no. 1 (Winter): 36–41.

communities. The institution seeks to achieve these goals through the mitigation of historical financial, academic, and cultural barriers which have limited the full participation of underrepresented groups in STEM education and the STEM workforce.

- Strengthened programs and services for Asian, Pacific Islander, Middle Eastern, and Desi American (APIMEDA) students through the hiring of an APIMEDA program manager to develop co-curricular and other support programming.

Faculty

Employing a diverse faculty that is reflective of the student population and demographics of the state of California is a priority for UC San Diego and a key component of academic and institutional excellence. The institution strives to recruit and retain a diverse faculty through the following initiatives: (CFR 3.1)

- Development of the Center For Faculty Diversity and Inclusion to collaboratively guide and coordinate practice, policy, and professional development with the objective of increasing accountability and measurable progress in diversifying our faculty. (CFRs 1.4, 3.3)
- Designation of two associate vice chancellors for Faculty Diversity, Equity, and Inclusion. One provides leadership for faculty recruitment and retention, and the other provides leadership for faculty climate and professional development. These experienced institutional leaders also regularly meet with faculty—in particular underrepresented faculty—who are thinking about leaving the university, have outside offers, or simply want to consult with a faculty member outside of their home department. In this capacity, the associate vice chancellors serve as advocates and have helped to retain several faculty. This model also allows the institution to monitor the overall climate and to understand the key challenges to faculty retention and advancement. (CFRs 1.4, 3.6, 3.7)
- Initiation of a senate-administrative workgroup on Faculty Recruitment Policy to draft a comprehensive faculty recruitment policy for academic appointments that streamlines and improves current practices and supports institutional goals for excellence and diversity. The benefits of a recruitment policy include greater procedural clarity, equity, and transparency, as well as the integration of best practices for inclusive faculty searches. Ultimately, the institution believes this effort will help improve faculty diversity. A draft policy will be delivered in spring 2019. (CFR 3.10)
- Establishment of the Faculty Equity Advisor (FEA) Program. FEAs are tenured faculty who work with deans and department chairs to ensure that diversity and equity are considered in all aspects of a division's functions, including recruitment and advancement. They provide mandatory training to search committees, covering implicit bias and strategies for a broad and inclusive search. They approve search plans—including job advertisements and outreach strategies—candidate shortlists, and selection reports, and they ensure that candidates' statements on their contributions to diversity are considered by search committees. (CFR 4.3)
- Forging partnerships to strengthen professional development for faculty at every stage of their academic career. To generate a leadership pipeline, emphasis is placed on academic leadership development through our new Faculty Leadership Academy, which includes seminars such as "Leading for Excellence & Diversity," "Coaching & Mentoring," and "Building Norms & Collegiality." Additionally, to empower faculty to resolve interpersonal disagreements and to

support a healthy and collegial workplace environment, we developed and now have an active Faculty Peer Mediation program. (CFR 3.3)

- Collaboration with Institutional Research to create and maintain the Faculty Accountability Profile, which provides demographic data and equity measures to all deans, assistant deans, and faculty equity advisors in real time. Unit leaders are encouraged to use their data to chart their progress on faculty diversity and to inform strategic planning, hiring goals, and resource allocation. Each year, the vice chancellor for Equity, Diversity, and Inclusion meets with deans individually to review their unit's profile, discuss strategies for improvement, and share best practices. The Office for Equity, Diversity, and Inclusion also maintains an Academic Personnel Diversity Dashboard for the broader campus community that tracks presence by rank, gender, and ethnicity. (CFR 4.2)

- Launched the Women's Faculty Network and the Faculty of Color Network. Both networks were created to foster equity and scholarship throughout campus, for and by women/faculty of color, and to provide peer mentoring, collaboration, networking, and professional development through formal symposia and informal gatherings.

- Initiation of an incentive program to enhance the effectiveness of the UC President's Postdoctoral Fellowship Program (a pipeline program established by the UC President to encourage outstanding women and minority PhD recipients to pursue academic careers at the University of California) and the Chancellor's Postdoctoral Fellowship Program (a UC San Diego campus-funded extension of the President's Postdoctoral Fellowship Program). A key component of the incentive program is the UC Office of the President's hiring incentive, which provides salary support of up to $85,000 for five years to departments that hire current or former fellows into ladder-rank faculty equivalent positions. To further encourage hiring units to consider hiring current or former fellows, the UC San Diego executive vice chancellor will provide a 0.5 FTE to academic units that propose to hire a fellow and match with their own 0.5 FTE. The executive vice chancellor has committed six FTEs for up to 12 hires in the 2018-2019 hiring season. President's and Chancellor's fellows represent a pipeline of highly competitive and UC-vetted scholars who are committed to educational access and diversity. This is yet another promising strategy to help improve our faculty diversity.

- Provision of support for the Chancellor's Postdoctoral Fellowship Program, which offers postdoctoral research fellowships, faculty mentoring, and eligibility for a hiring incentive to outstanding scholars whose research, teaching, or service will contribute to diversity and equal opportunity at the University of California. A key component of the program is the hiring incentive, which provides salary support to units that hire current or former fellows into ladder-rank equivalent faculty positions and has resulted in the successful recruitment of underrepresented faculty. (CFRs 1.4, 3.1)

- Partnership with the Hispanic Center of Excellence (HCOE). Since 1993, the HCOE has worked to improve the recruitment, retention, and success of URM faculty in academic medicine at UC San Diego. HCOE faculty scholars are encouraged to participate in faculty development programs and workshops to improve skill development and understanding of UC San Diego Health Sciences culture and environment. (CFRs 1.4, 3.1)

Staff

The institution recently appointed an assistant vice chancellor for Equity, Diversity, and Inclusion to serve as a liaison to Human Resources to help further integrate principles of equity, diversity, and inclusion into employee outreach, onboarding, and educational programming. (CFR 3.7) This collaboration created the opportunity to integrate the UC San Diego Principles of Community into the core values of the Staff Performance Appraisal process by incorporating the expectation that all employees should work to achieve a diverse workforce, foster respectful engagement, and build a positive organizational climate. (CFR 1.1) Additionally, the Principles of Community have been further woven into new employee onboarding, emphasizing the expectation that new and existing employees help to create and maintain a welcoming and vibrant campus climate. Finally, staff members are well represented on the campus-wide Equity, Diversity, and Inclusion Advisory Council, which is charged to advise university leadership on diversity issues, with a focus on institutional access and representation, campus climate and intergroup relations, and institutional transformation. The opportunity to regularly bridge traditional organizational boundaries by bringing staff, faculty, and students together to strategize about positive institutional transformation has already produced positive results, such as the newly established Strategic Plan for Inclusive Excellence. All campus constituents had the opportunity to help create the roadmap to achieving shared institutional goals.

Sustainable institutional change takes time, consistent dedication, and the support and participation of all campus constituents. All of these efforts are grounded in data and will be regularly assessed so that the institution holds itself accountable for improvement in all necessary areas. (CFR 4.1)

Essay 9 - Conclusion

Essay 7 described how the institution is approaching a changing higher education landscape, including increased enrollments, from a fiscal perspective. This conclusion revisits the challenge raised in the introduction; namely, as the institution continues to grow and its undergraduate population is increasingly diverse and first-generation, how it ties together several initiatives in the service of a student-centered university that works for all students. More specifically, to achieve student-centeredness, UC San Diego must:

- Ensure an equitable, diverse, and inclusive institution, on all levels.
- Provide students with the tools they need to flourish in a rigorous academic environment.
- Develop the infrastructure necessary to provide an excellent student experience during a period of undergraduate enrollment growth.
- Increase the number of graduate students.
- Expand the faculty to meet this growth.

Institutional efforts to ensure equity, diversity, and inclusion were discussed in essay 8; we address the final four points in the remainder of this report.

Supporting Undergraduate Achievement

The previous essays have discussed the several initiatives that have been developed over the past 10 years with regard to supporting students as they navigate the rigors of a first-class education in an R1 university. The institution's approach to achieving student-centeredness includes several interconnecting initiatives. These include: pre-matriculation programs (e.g., Summer Bridge and Triton Scholars); orientation and first-year experience courses; co-curricular programming; teaching and learning centers (e.g., the Teaching + Learning Commons and the Office of Academic Support & Instructional Services); holistic academic advising (both in the undergraduate colleges and academic departments); and student success coaches, among others. The Strategic Academic Program

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[Development initiative](#), discussed in essay 7, also intersects with these initiatives through expanded summer session and curricular innovations. Finally, student affairs services, both campus-wide and in the colleges, intersect with several units, including [Counseling and Psychological Services](#), the [Basic Needs Hub](#), and others to provide multi-faceted student support. All of this is in the service of a student-centered university that provides tools for academic success. Some of these connections are illustrated in figure 23:

Figure 23
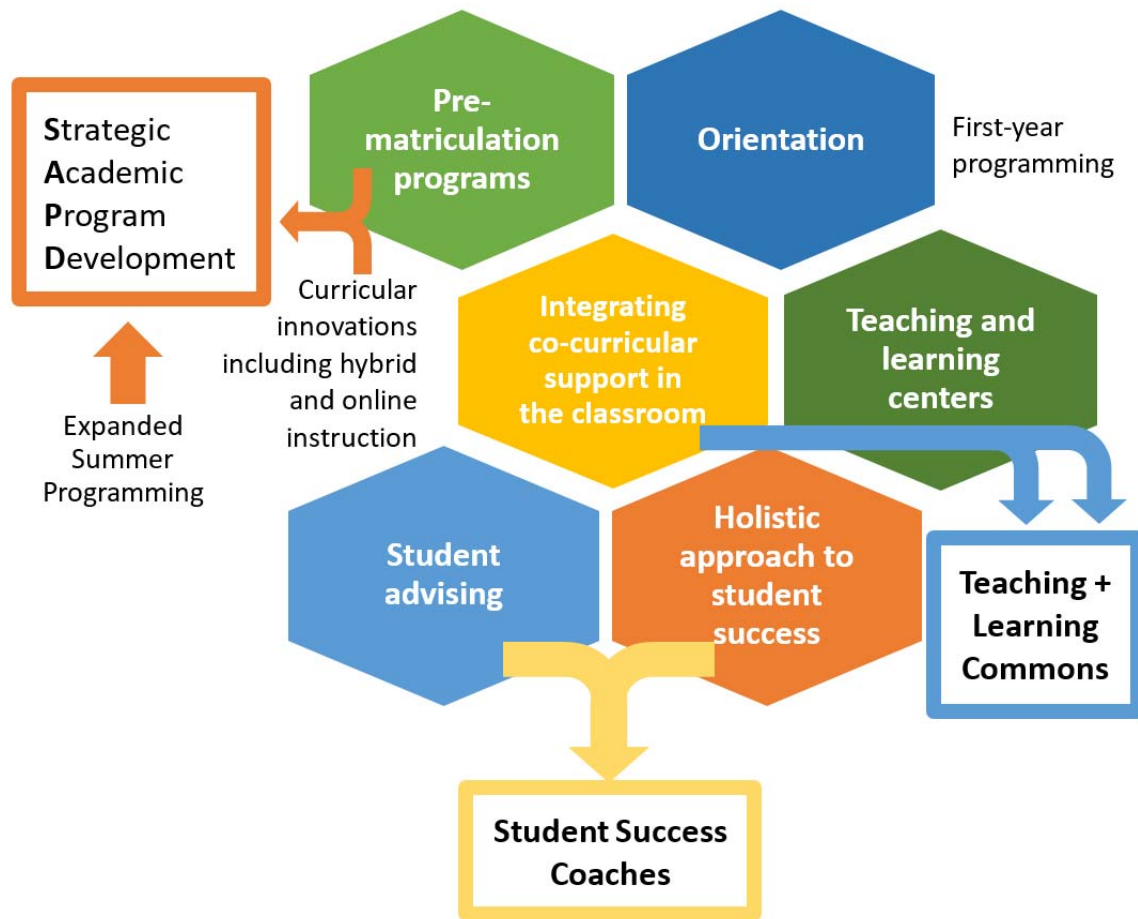
The university has strategically invested in new initiatives devoted to student-centeredness. The Office of Student Retention and Success provides opportunities for personal, academic, and professional growth to foster student success and degree completion. In addition, it coordinates several resources for students with unique strengths and challenges. The Teaching + Learning Commons was also created to advance student-centeredness through two interconnected charges: (i) develop the instructional and pedagogical skills of all educators to advance students' learning and agency and have the skills to create equitable and inclusive learning environments, and (ii) provide data-driven and research-based academic support for all students. (CFRs 2.7, 2.13, 4.1, 4.4, 4.7)

Infrastructure

As mentioned earlier, an important strength of the UC San Diego undergraduate experience comes from its six undergraduate colleges. Bringing together aspects of academics, student affairs, and residential life allows the university to personalize the student experience. However, with the recent growth in undergraduate enrollments, the college resources are strained. The college staffs struggle to keep up with the workload entailed by larger numbers in both total enrollments and in students requiring specialized support. While the long-range enrollment plan had estimated 32,000 undergraduates by 2035, the institution already has more than 30,000—approximately 5,000 per college. (CFR 4.7)

The university currently guarantees housing for two years, but to do so, has had to house 1,714 residents beyond design capacity. Essentially, all double rooms are now triples. Furthermore, there are hundreds of students housed outside of their colleges.

Because the university is committed to supporting the student experience and accommodating this growth in the context of the undergraduate college system, plans are underway to add two new colleges along with appropriate facilities and staff. The conceptual pre-proposal has passed review by the campus and system-wide senate and the system-wide provost. The detailed implementation plan (full proposal) for Seventh College has been submitted to the divisional senate and will be reviewed later this year (appendix 32). A proposal for an eighth college will follow in the next year or two. If approved, these colleges should come on line in 2020 and 2023, respectively. This will bring the number of students to roughly 4,000 per college, which will address both housing and staffing resource issues. In the longer term, the institution will remain attentive to matching resources with undergraduate cohort size.

An integral part of this long-range plan entails an aggressive building regimen, which is already underway. A new college space is being constructed and should be available in 2020. There are plans for accommodating eight, or perhaps nine, colleges over the next decade. In addition, there are plans for increased housing that would serve upper-division students, including transfer students. In total, these plans would add roughly 9,000 new beds, bringing the total to nearly 20,000—allowing the university to house more than 60% of its undergraduates. A complementary program is creating 3,700 beds for graduate student housing. The idea is to offer four-year guarantees for all students—graduates and undergraduates (appendix 57). (CFR 4.7)

Graduate Student Growth

Graduate student enrollment (including medical and pharmacy students) has increased by 33% since 2013 and currently stands at 7,602, about 20% of total enrollments. As an intellectually vigorous university that trains a diverse student cohort for a broad spectrum of careers including the professoriate, the institution aspires to have graduate students comprise 25% of the student population. To achieve this, the university will need between 1,500 and 4,000 additional graduate students over the next decade. Much of the recent increase has been due to new self-supporting master's programs. With the roll-out of the Strategic Academic Program Development initiative (see essay 7), graduate opportunities will have increased. The institution is actively creating infrastructures and incentives to realize a larger graduate student population.
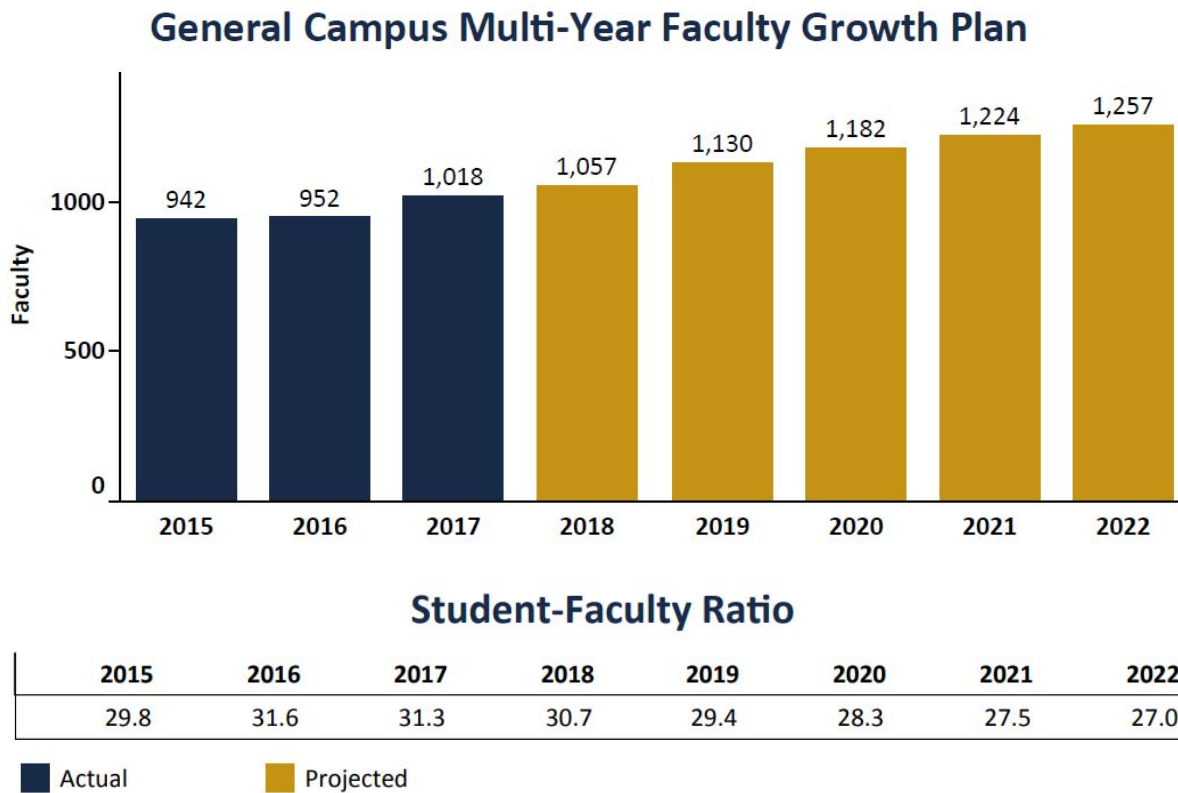
While much of the graduate gains have been in master's programs, the institution also aims for increases in PhD programs. In addition to enhancing the research and intellectual climate, PhD students

constitute the majority of teaching assistants and other graduate student instructor support for undergraduate programs. The institution currently faces a shortage of qualified graduate student instructors in several areas, including the college writing programs. The colleges and several departments (particularly arts and humanities) have been working towards reciprocal teaching assistant guarantees to simultaneously improve graduate support opportunities and graduate student instructors (appendix 58). (CFRs 3.1, 4.7)

Expanding Faculty

Increased graduate and undergraduate enrollments will require expanding the faculty, particularly senate faculty. As figure 24 shows, the Campus Multi-Year Faculty Growth Plan calls for 150–200 new faculty FTEs (ladder-rank and teaching professors) over the next several years. As discussed in essay 7, fiscal challenges stemming from stagnant state funding, frozen tuition, and the non-resident enrollment cap pose challenges to achieving this growth. The diversified revenue sources discussed above are crucial for funding faculty expansion. (CFRs 3.1, 4.7)

Figure 24

General Campus Multi-Year Faculty Growth Plan

	2015	2016	2017	2018	2019	2020	2021	2022
Faculty	942	952	1,018	1,057	1,130	1,182	1,224	1,257

Student-Faculty Ratio

2015	2016	2017	2018	2019	2020	2021	2022
29.8	31.6	31.3	30.7	29.4	28.3	27.5	27.0

Actual | Projected

The projected growth is also important for improving the institution's student-to-faculty ratio. With respect to ladder-rank faculty, the current ratio of 30.7:1 will reduce to 27:1 by 2022. The institution would then compare favorably with the average of three other comparison UC campuses (Berkeley, Los Angeles, and Davis), which currently stands at 29.7.

Coming Together

Like many universities, UC San Diego is a distributed organization. This is a strength in that several perspectives are brought to bear on any question. It is also a challenge because each question is of interest to several stakeholders. Through the strategic planning process there has been a renewed sense of a common purpose. Representatives from a variety of administrative units, academic departments and colleges, the Academic Senate, and others now collaborate regularly to align efforts to create a student-centered university. Examples of this have been outlined in the preceding essays, where student success initiatives and assessment efforts have had multi-lateral participation. With a shifting landscape, increasing enrollments, and changing demographics, the momentum the university is gaining from its renewed spirit of campus-wide collaboration will be more important than ever (appendix 59). All of this is in the service of "a student-centered, research-focused, service-oriented public university."